# **ASX Announcement**



8 October 2024

### ANTIMONY PRODUCTION TARGET OF ~4,500tpa FOR LA DEMAJAGUA MINE

Antilles Gold Limited ("Antilles Gold" or the "Company") (ASX: AAU, OTCQB: ANTMF) advises that subsequent to the ASX announcement on 13 September 2024 which reported potential antimony production from the proposed La Demajagua gold-silver-antimony mine in Cuba, additional metallurgical test work data has been received from Chinese engineers, BGRIMM Technology Group (http://english.bgrimm.com/).

The Technical Consultant for the project, Vancouver based JJ Metallurgical Services Inc, has revised production targets for the two concentrate products expected to be produced by the La Demajagua mine. (refer attached Memorandum and JORC Edition 2012 Table 1)

- The production targets have been based on the Pitshell 49 resource modelling incorporated in the initial Scoping Study for the project reported to ASX on 30 March 2023, and the antimony content derived from the metallurgical samples.
- ▶ Based on a mill throughput of 815,000 tonnes per annum ('tpa'), and reverse flotation of the bulk flotation concentrate at a mass pull of 10%, it is expected that ~50,000tpa of a gold-arsenopyrite concentrate will be produced with a grade of ~31.9g/t Au and ~4.9% Sb (antimony), together with ~5,560tpa of a gold-silver-antimony concentrate grading ~49.1g/t Au, ~2,000g/t Ag, and ~46.2%Sb.
  - The gold-arsenopyrite concentrate will be subjected to alkaline leaching to selectively dissolve antimony. After solid/liquid separation, the dissolved antimony will be precipitated to produce ~3,980tpa of an antimony precipitate with an estimated ~48% Sb content.
- The antimony precipitate will be blended with the gold-silver-antimony concentrate to produce a final concentrate product of ~9,540tpa grading ~29.9g/t Au (~9,170oz Au per year), ~1,200g/t Ag (~368,000oz Ag per year), and ~47% Sb (~4,480t Sb per year).
- The gold-arsenopyrite concentrate produced after alkaline leach is expected to be ~45,670 tpa grading ~34.6g/t Au (~50,800oz Au per year).



- The 50% owned joint venture which is developing the project plans to oxidise the refractory gold-arsenopyrite concentrate followed by cyanide leaching to produce a higher value gold doré.
  - BGRIMM has recently completed 9 months of metallurgical test work on the La Demajagua concentrate which demonstrated the technical viability of constructing a two-stage fluidised-bed roaster and cyanide leach circuit, and established a ~92% gold recovery from the gold-arsenopyrite concentrate.
- The methodology and cost of stabilising arsenic which is generated during roasting, also needs to be established through test work currently being undertaken by specialists in Canada.
- Based on the production targets advised by consultants, and at current prices for gold (US\$2,600/oz), silver (US\$30/oz), and antimony (US\$25,000/t), and payables for contained metal in the gold-silver-antimony concentrate offered by potential buyers (55%, 65%, and 57% respectively), revenue for this concentrate could be in the order of US\$84 million per year for the 9 year mine life for the first stage, open pit operation.
- The potential sales value of contained antimony in the gold-silver-antimony concentrate could now be over US\$40 million per year more than assessed in March 2023, demonstrating its growing importance to the La Demajagua project.
- The income for this antimony-rich concentrate will be in addition to that received for ~47,000oz Au per year forecast to be contained in the gold doré.
  - A new Scoping Study for the expanded project incorporating the processing facility and the production of a gold doré and an antimony-rich concentrate will be completed after the estimated construction and operating costs have been received from BGRIMM, and is expected to demonstrate robust returns at conservative metal prices.

### **COMMENT:**

Antilles Chairman, Brian Johnson said: "with improved supply-demand dynamics for antimony and a strengthening price environment, we are now rapidly advancing project development studies with the assistance of BGRIMM Technology Group and our Technical Consultants. The initial production targets defined for La Demajagua is a good starting point and we look forward to delivering the Scoping Study for an expanded operation. We are also engaging with a wider cohort of potential antimony buyers given the stronger demand and price environment for the strategic metal."

**END** 



This announcement has been authorised by the Board of Antilles Gold Limited. For further information, please contact:

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## Memorandum

To:	James Tyers, Brian Johnson	cc:
	Antilles Gold Limited	
From:	Jinxing Ji, Ph.D, P.Eng	
	JJ Metallurgical Services Inc	
Date:	October 2, 2024	
Dou	La Domaiagua Braiagt Estimated Antin	nony Droduction
Re:	La Demajaqua Project – Estimated Antin	nony Production

The La Demajaqua deposit contains gold, silver, antimony, arsenopyrite and pyrite. During bulk flotation, they are floated together into a single concentrate, referred to as the bulk concentrate. After being conditioned, the bulk concentrate is then subjected to reverse flotation where antimony is preferentially floated while gold stays behind. During reverse flotation, silver and lead (galena) are floated together with antimony, while arsenopyrite and pyrite stay with gold.

Based on the testwork data generated by Blue Coast Research in Canada, antimony recovery during reverse flotation is expected to be in the order of 51.2% when the concentrate mass pull is controlled at 10%. The remaining antimony will stay with the gold-arsenopyrite concentrate.

A gold-arsenopyrite concentrate sample was shipped to BGRIMM Technology in Beijing, China in late 2023 for metallurgical testing in relation to its amenability to roasting. This gold-arsenopyrite concentrate sample contained 24.1 g/t gold, 276 g/t silver, 5.65% antimony, 22.1% arsenic, 2.08% carbon, 20.6% sulphur, 22.7% iron, 1.66% lead and 2.96% zinc.

BGRIMM also investigated the metallurgical options for reducing the contained antimony in the gold-arsenopyrite concentrate to less than 1.0%, along with the subsequent recovery of the antimony as a precipitate so as to capture its value.

BGRIMM's testwork demonstrated that antimony (stibnite) was leachable in the sulphide solution under alkaline condition. After one-hour leach at  $80^{\circ}$ C, 86.9% antimony and 1.1% arsenic were dissolved along with 8.7% loss of solid mass. After cooling and solid/liquid separation, the antimony pregnant leach solution was acidified at room temperature for one hour to pH 6.0 by adding sulphuric acid, 89.6% of the dissolved antimony and 19.3% of the dissolved arsenic were precipitated. Thus, the net antimony recovery was  $86.9\% \times 89.6\% = 77.9\%$ . For the future commercial operations, the antimony precipitate needs to be thickened before it is combined with the gold-silver-antimony concentrate as the final product for sales. A conceptual flowsheet for antimony production is shown in **Figure 1**.

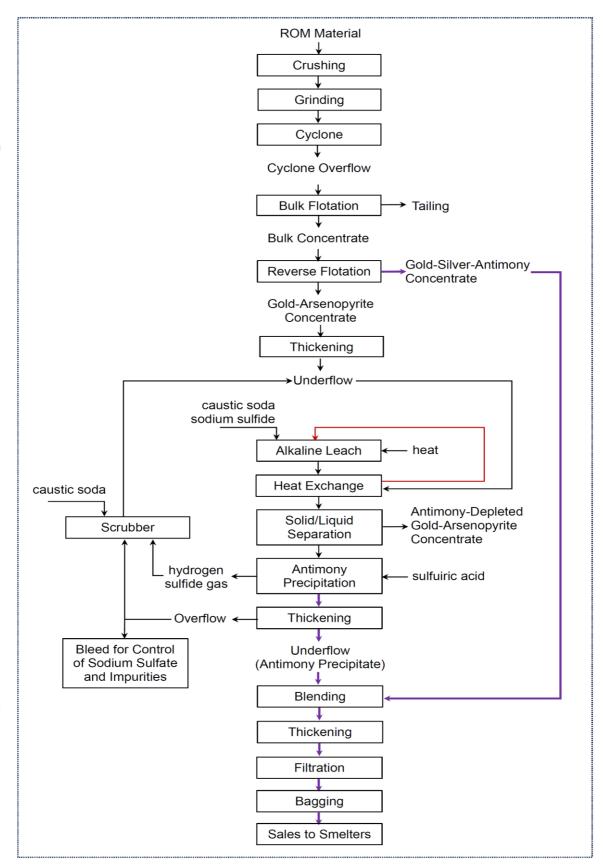


Figure 1 Conceptual Flowsheet for Antimony Leaching and Precipitation

The resource modelling carried out on July 23, 2023 for Pitshell 49 indicated that the life-of-mine average mill feed grades were 2.47 g/t gold, 26.2 g/t silver and 1.58% sulphur. Antimony assay data for exploration samples were limited and thus the resource modelling for antimony had not been fully executed at that time. Based on metallurgical samples tested since 2021, the presence of high-level antimony in the deposit was evident. Here are a few examples.

- The global composite sample tested in 2021 contained 1.06% antimony.
- Three zoned composite samples tested in 2022 contained 1.06% antimony for a composite sample from the upper one-third deposit, 1.05% antimony for a composite sample from the middle one-third deposit and 1.02% antimony for a composite sample from the lower one-third deposit.
- One high-grade composite sample tested in 2022 contained 1.94% antimony.

When all metallurgical samples were examined, there was a positive correlation between antimony content and sulphur content. The derived regression equation was  $0.0354 \, x$  (sulphur content %)<sup>2</sup> +  $0.2543 \, x$  (sulphur content %) + 0.1444 with a regression coefficient R<sup>2</sup> being 0.902. At sulphur content of 1.58% (average from Pitshell 49), the derived antimony content would be  $0.0354 \, x \, 1.58 \, x \, 1.58 \, + \, 0.2543 \, x \, 1.58 \, + \, 0.1444 \, = \, 0.635\%$ .

Recoveries for the bulk flotation were based on the testwork results generated by SGS Lakefield in Canada during 2021 and 2022. These recoveries were 92.7% for gold, 97.7% for silver and 97.1% for antimony. The bulk concentrate mass pull was determined when the combined amount of sulphide minerals and carbonaceous material in the concentrate reached 90%. For Pitshell 49, the bulk concentrate mass pull was 6.82%. Based on these parameters, the bulk concentrate statistics at 815,000 tpa mill throughput are as follows:

- Concentrate tonnage = 815,000 x 6.82% = 55,583 tonne/year
- Gold grade in the bulk concentrate =  $2.47 \times 92.7\% / 6.82\% = 33.6 \text{ g/t}$
- Silver grade in the bulk concentrate = 26.2 x 97.7% / 6.82% = 375 g/t
- Antimony content in the bulk concentrate =  $0.635\% \times 97.1\% / 6.82\% = 9.03\%$

When the bulk concentrate is subjected to reverse flotation, antimony and silver will be floated and gold will stay behind. Based on the testwork results generated by Blue Coast Research in Canada during 2022 and 2023, at 10% concentrate mass pull, the expected recoveries are 51.2% for antimony, 53.9% for silver and 14.6% for gold. Based on these parameters, the statistics for the gold-silver-antimony concentrate are as follows:

- Concentrate tonnage = 55,583 x 10% = 5,558 tonne/year
- Antimony content in the concentrate =  $9.03\% \times 51.2\% / 10\% = 46.2\%$
- Silver grade in the concentrate = 375 x 53.9% / 10% = 2,022 g/t
- Gold grade in the concentrate = 33.6 x 14.6% / 10% = 49.1 g/t

The statistics for the corresponding gold-arsenopyrite concentrate are as follows:

- Concentrate tonnage =  $55,583 \times (1 10\%) = 50,025 \times (1 10\%) = 50,0$
- Gold grade in the concentrate =  $33.6 \times (1 14.6\%) / (1 10\%) = 31.9 \text{ g/t}$
- Silver grade in the concentrate =  $375 \times (1 53.9\%) / (1 10\%) = 192 g/t$
- Antimony content in the concentrate =  $9.03\% \times (1 51.2\%) / (1 10\%) = 4.90\%$ .

Based on the testwork data generated by BGRIMM Technology in China, 0.776% gold, 2.24% silver and 86.9% antimony were dissolved when the gold-arsenopyrite concentrate was subjected to alkaline leach and the corresponding loss of solid mass was 8.7%. Under the assumption that these parameters remain constant, the statistics for the gold-arsenopyrite concentrate after alkaline leach are as follows:

- Concentrate tonnage =  $50,025 \times (1 8.7\%) = 45,673 \text{ tonne/year}$
- Gold grade in the concentrate =  $31.9 \times (1 0.776\%) / (1 8.7\%) = 34.6 \text{ g/t}$
- Silver grade in the concentrate =  $192 \times (1 2.24\%) / (1 8.7\%) = 206 g/t$
- Antimony content in the concentrate =  $4.90\% \times (1 86.9\%) / (1 8.7\%) = 0.70\%$

BGRIMM's testwork data showed that 89.6% of the dissolved antimony from alkaline leach could be precipitated upon acidification, and the precipitate contained 48.0% antimony. Under the assumption of 100% precipitation for the dissolved gold and silver, the statistics for the antimony precipitate are as follows:

- Antimony precipitate tonnage =  $50,025 \times 4.90\% \times 86.9\% \times 89.6\% / 48.0\% = 3,982$  tonne/year
- Gold grade in the antimony precipitate =  $50,025 \times 31.9 \times 0.776\% / 3,982 = 3.1 \text{ g/t}$
- Silver grade in the antimony precipitate =  $50,025 \times 192 \times 2.24\% / 3,982 = 54 \text{ g/t}$

The statistics for the combined gold-silver-antimony concentrate and antimony precipitate are as follows:

- The combined product tonnage = 5,558 + 3,982 = 9,540 tonne/year
- Gold grade in the combined product =  $(5,558 \times 49.1 + 3,982 \times 3.1) / 9,540 = 29.9 \text{ g/t}$
- Silver grade in the combined product =  $(5,558 \times 2,022 + 3,982 \times 54) / 9,540 = 1,201 \text{ g/t}$
- Antimony in the combined product =  $(5,558 \times 46.2\% + 3,982 \times 48.0\%) / 9,540 = 47.0\%$

Jinxing Ji, Ph.D, P.Eng

Director, JJ Metallurgical Services Inc

October 2, 2024

### **JORC Code, 2012 Edition – Table 1**

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling	Nature and quality of sampling (eg cut	Historic Drilling (pre 2021)
techniques	<ul> <li>channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Historic drilling (pre-2021) was completed using open hole techniques prior to switching to diamond core at various sizes depending on hole depth, although typically HQ, prior to mineralised intervals.</li> <li>Sample intervals were variable based on geological features however the majority range from 1m to 2m in length</li> <li>Recent Drilling (2021 onwards)</li> <li>Recent drilling has been completed using diamond drilling at HQ core size. Samples are typically collected at 1m intervals although adjusted for geological features as required.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Historic Drilling (pre 2021)</li> <li>Specific details on drilling techniques employed in historic programs is not available.</li> <li>Recent Drilling (2021 onwards)</li> <li>Recent drilling was completed exclusively using diamond drilling methods using HQ triple tube techniques (HQ3) with a core diameter of ~61mm.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Historic Drilling (pre 2021)</li> <li>Detailed records on drill core recovery are not available. Review of selected hard copy logs suggest core recoveries in mineralised zones range from 17% to 93%, averaging approximately ~67%.</li> <li>Recent Drilling (2021 onwards)</li> <li>Sample recovery is monitored by the Geologists and calculated per meter. Drilling is undertaken at a pace to maximise core recovery, but a softer oxide/transitional cap that extends to ~20m results in reduced sample recovery near surface, which is typically unmineralized.</li> <li>The mineralized zone is hosted within a shear, and this sometimes also results in</li> </ul>

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Criteria	JORC Code explanation	Commentary
		significant broken material occurring within the core and some core losses.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Historic Drilling (pre 2021)</li> <li>Hard copy drill logs are available only for a small number of historical drill holes, and include detailed lithological and alteration information</li> <li>Recent Drilling (2021 onwards)</li> <li>All core has been geologically logged by qualified geologists under the direct daily supervision of a consulting geologist engaged through DJS Consulting in Canada to a level to support reporting of Mineral Resources.</li> <li>Core logging is qualitative and all core trays have been digitally photographed and stored to a server.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Historic Drilling (pre 2021)  Records on the nature of sub-sampling techniques associated with the historical drilling are not available for review.  Information available regarding the sample preparation techniques are dependent on the various drilling phases.  1973-1980  Sample batches of 9-18kg were coarse ground, weighed and screened at 3mm, before homogenisation, finer crushing and screening to 1mm. They then are passed through three stages of homogenisation and quartering before fine grinding to pass through a final 70 micron screen, before one final homogenisation, quartering, and splitting into duplicate samples.  Smaller batch sizes crushed to 1mm passing before various stages of homogenisation and quartering respectively prior to the same final stage of fine grinding, homogenisation, quartering and duplication that occurs with large batches.  Excess material from the

Criteria	JORC Code explanation	Commentary
	JORC Code explanation	not stored.  1980-1988 Initial crushing of all sample batch sizes was facilitated by a jaw crusher before a 10mm screening process. The coarse product was then finely crushed to 0.8mm before 4-5 stages of homogenisation and quartering (depending on batch size). This product was then subjected to a fine grind, designed to pass a 70 micron screening process, prior to one final homogenisation and splitting into duplicates.  1992 No details available 1995-1997 Little information regarding the sample preparation of samples from these campaigns is available, however it is understood that all sample preparation was undertaken on site in Cuba and resulting pulp samples were sent for analysis at ALS Chemex (Vancouver) laboratory.
		<ul> <li>Recent Drilling (2021 onwards)</li> <li>Core is cut using diamond saw, with half core selected for sample analysis.</li> <li>Samples submitted for preparation at LACEMI in Havana are dried at a temperature between 80 and 100 deg C for a minimum 24hrs. Sample is then crushed to 75% passing 2mm, with a 400g sample collected through a Jones riffle splitter for submission at Activation Laboratories in Canada.</li> <li>Field duplicates are being collected from drill core at a rate of 2 in every 37 samples. The remaining half drill core is collected and submitted for separate analysis.</li> </ul>
Quality of assay data	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or</li> </ul>	Historic Drilling (pre 2021)  • Details relating to the analytical methods

and laboratory tests

- whether the technique is considered partial or
- For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.
- Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable

employed for the historic drilling are not available. Review of assay results suggests detection limits for Au and Ag in the earlier programs are relatively high compared to modern techniques and demonstrate limited precision in reported results. Detection limits for the more recent historical drilling are much improved and demonstrate higher

Criteria	JORC Code explanation	Commentary
	levels of accuracy (ie lack of bias) and precision have been established.	precision reflecting what is assumed to be more appropriate analysis methods.
		Recent Drilling (2021 onwards)
		<ul> <li>On receipt of the prepared coarse crush material at Activation Laboratories in Canada from LACEMI in Havana, the sample is dried again at 60 deg C for 24 hrs, pulverized to 95% passing 75 microns.</li> <li>Analysis for gold is via 30g fire assay with ICP finish. Over range gold assays (+30g/t) are repeated with Fire Assay and a gravimetric finish.</li> <li>35 element suite analysis is via 4 acid digest with ICP-OES finish. Over-range silver (+100g/t) is repeated using Fire Assay with gravimetric finish</li> <li>Both Fire Assay and 4 acid digest are considered total assay methods for the elements of interest.</li> <li>Certified reference materials are inserted at a rate of two per batch, with a reference blank inserted within each batch. Coarse field duplicates are submitted at a rate of two per batch.</li> <li>A selection of pulp residues have been selected for submission to a umpire laboratory however results are not yet available.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intersections are reviewed by multiple personnel.</li> <li>Recent drilling has been designed in part to twin historic drilling as part of a sample verification process in generation of the Mineral Resource. In general, the new drilling has reflected the results presented in the historical holes, however individual examples with poor alignment are observed.</li> <li>Assay values below detection are replaced with half the detection limit, while values above the upper limit of detection, where not reanalysed, are assigned the upper detection value.</li> <li>Assay data is provided digitally and merged with applicable sample intervals. An Access database is being developed for ongoing storage of drill hole data, with Excel spreadsheets being employed in the interim.</li> <li>A selection of original assay certificates was reviewed against the compiled assay data with no transcription errors identified.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Two datum points have been established on the site using high precision GPS.</li> <li>All drill collars were surveyed by total station utilizing the local survey datum, on the NAD27 Cuba Norte grid.</li> <li>All drill holes picked up using total station.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Natural surface topography is developed from 1m contours across the project area and is sufficient for use in Mineral Resources.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The drill spacing varies from 40m spacing along strike and 20m across strike in the main mineralised zone, out to 50m by 50m at the limits of the defined structure.</li> <li>Approximately 50,000m of historical drilling exists in a database, together with detailed surface and underground mapping, providing guidance as to the boundaries of the La Demajagua mineralisation.</li> <li>The drilling data and geological information is sufficient to support reporting of Mineral Resources at the specified categories.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The orientation of structures controlling grade distribution are generally understood from historical drilling information, and holes have been planned to intersect as close as possible in a perpendicular orientation.</li> <li>The drilling orientation is not considered to have introduced a sampling bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>All core is securely stored on the La Demajagua site until it has been logged and sampled, after which the core is transported by company personnel to a secure warehouse in Nueva Gerona. Samples are transported to the sample preparation laboratory in Havana in a company vehicle with Company driver.</li> <li>The prepared samples are collected by company personnel in a company vehicle, and driven directly to the Jose Marti International airport, where the waybill is prepared by Air Canada. The samples are flown to Toronto via Air Canada airfreight, where they are delivered by Air Canada to Thompson Company, Ahearn and Co, who carry out customs clearance and deliver to the analytical laboratory.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No audits have been conducted to date

### Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> </ul>	<ul> <li>The La Demajagua concession #5655-0 is registered to Minera La Victoria SA, which is a 49:51 JV between Antilles Gold Inc (a 100% subsidiary of Antilles Gold Limited) and Gold Caribbean Mining SA, which is a subsidiary of the Cuban State owned</li> </ul>

Criteria	JORC Code explanation	Co	mmontory			
Criteria	•	C	mmentary		<b>2. -</b>	
	<ul> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>		concession of situated on I	pany Geomine comprises 900 sla de la Juve ne southern co	)ha and is ntud (the Isl	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	•	operating un produced go concentrate, There are a developed w mineralisation shafts. There have exploration/r campaigns to with the most exploration of Corporation as Delita), but	ajagua projectiderground go old bearing ars ceasing oper number of sulvithin the zone on, which were been numerous esource deve undertaken at at recent being company Mirin from 1995-19 ut no historica lling is as per	Id mine, whisenopyrite ations in 199 olevels of accessed by as lopment La Demajagg by Canadia nar Mining 197 (then known of the exists	ch 59. py Jua, an
			Year	No. Holes	Meters	
			1973-75	26	3,817	
			1977-80	89	13,635	
$(\mathcal{O})$			1980-88	76	15,692	
			1992	22	3,177	
			1995-97	150	14,364	
0		•	but the low grefractory na	363 ducted a pre for gold price at the attraction of the mitroject wasn't continue.	ne time and neralisation	dy
Geology	Deposit type, geological setting and style of mineralisation.		La Demajagua has the characteristics of a low sulphidation epithermal gold deposit. The geology of the deposit area is dominated by schistose units (quartz-graphite schists, quartz-sericite schists, and quartzites, rich in gold-bearing arsenopyrite, typically metamorphosed to greenschist facies.  The lithologies alternate between packages of graphite rich and relatively graphite poor, with package thickness of 20-200m, though increased graphite content occurs in almost all cases of fault brecciation, and so in turn mineralisation is almost always found with areas of elevated graphite content.  The gold is primarily held within arsenopyrite and associated with boulangerite. Ore texture is disseminated, laminated, massive, brecciated or forms as a sulphide cement, while its structure is cataclastic, hypidomorphic, grainy or allotriomorphic.		sit. s, d to y of ault on ted, ns	

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No additional drilling results are being reported.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Length weighted averaging for Au has been used to determine intercepts. A lograde cut-off of 1 g/t has been utilised with no top cut.
Relationship between mineralisati on widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	All intercept lengths are down the hole intercepts.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>No additional drilling data is being reported</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	No drilling data is being reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>No other significant unreported exploration data for La Demajagua are available at this time.</li> </ul>

Criteria	JORC Code explanation	Commentary
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Reported drill data is part of a two stage, 25,000 drilling program aimed at defining a resource at La Demajagua. Drill hole locations and depths have been determined utilising historical drilling data generated up until the late 1990's.</li> </ul>

	commercially sensitive.					
	Section 3 Estimation and Reporting of Mineral Resources					
Criteria listed in	section 1, and where relevant in section 2, also app JORC Code explanation	Commentary				
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Drill hole data is captured in MS Excel templates in the field. Sampling sheets and dispatches are developed from the logging. Analytical results are provided by the external laboratory in CSV format and merged with the sample dispatch information in MS Excel spreadsheets.</li> <li>The data used in the Mineral Resource was provided as a series of MS Excel sheets. A Vulcan database was constructed from these input files and various validation checks completed including; mismatches between sample and drill end of hole depths; sample number gaps, sample overlaps, and missing samples; replacement of negative values with half detection values; missing collar, geology, or assay data; and visual validation by section for obvious trace errors. Any identified issues were communicated to field staff who provided corrected information. If the correct details were not able to be determined the holes were excluded.</li> </ul>				
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for Mineral Resources has completed a site visit in the period 15 September 2022 to 27 September 2022 which reviewed field procedures and sample preparation laboratory.</li> <li>The Competent Person has as far as practicable taken steps to validate the data collection via review of drill core, verification of external data against database records, and through review of historical information.</li> </ul>				
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Page uses estimation.</li> </ul>	Confidence in the geological interpretation is good. This is supported by the presence of extensive geological mapping based on historical drilling and supported by mapping of underground level developments.				

on Mineral Resource estimation.

- and geology.
- developments.
- Factors affecting the continuity of grade and geology relate to structural controls associated with transverse (mineralisation parallel) faulting and shear zones associated with increased graphite

Criteria	JORC Code explanation	Commentary
		content
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>The mineralisation strikes approximately 45 degrees and dips ~70 degrees towards the northwest. The main zone of identified mineralisation extends for ~2.2km along strike and extends from surface to ~400m down dip, though the thickness varies from 3-35m. The mineralisation within this zone is veiny, discontinuous and high grade, with lower grade disseminated mineralisation evident in the surrounding brecciated region.</li> <li>In addition to the main mineralised zone, additional hanging wall and footwall zones have been modelled over a portion of the mineralised zone, although represent relatively minor additional contributions to the overall mineralisation.</li> </ul>
Estimation and	The nature and appropriateness of the estimation technique(s) applied and key	<ul> <li>Estimates were completed for gold (g/t) and silver (g/t).</li> </ul>
modelling techniques	assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.  The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.  The assumptions made regarding recovery of by-products.  Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).  In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.  Any assumptions behind modelling of selective mining units.  Any assumptions about correlation between variables.  Description of how the geological interpretation was used to control the resource estimates.  Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul> <li>Three-dimensional mineralisation domains were generated using Leapfrog™ software for use in subsequent estimation, with the interpreted shapes used to generate coded mineralised intervals.</li> <li>Drill hole sample data was flagged using domain codes generated from the modelled domains as applicable. Sample data was composited to one-metre downhole lengths using a best fit-method.</li> <li>Outlier analysis of the composite data using histograms and log-probability plots indicated application of top-cut values for Au and Ag were required for all estimation domains. Top-cut values varied between 7g/t and 40g/t for Au and between 35g/t and 650g/t for Ag.</li> <li>Assessments of spatial continuity were performed for the major mineralised domain using Snowden Supervisor software. Data was transformed to normal scores prior to calculation of directional fans. Initial directions selected considered the dominant mineralisation trend as defined by the graphical review of the composite data and was refined as underlying trends were identified. The back transformed models reported relative nugget values in the order of 15% to 20%, with model ranges within the main mineralised domains varying from 70 to 85 metres.</li> <li>The grade estimation process was completed using Vulcan™ software. Interpolation of grades was via Ordinary</li> </ul>
		completed using Vulcan™ software.

Criteria	JORC Code explanation	Commentary
		<ul> <li>Interpolation parameters were selected based on kriging neighbourhood analysis with a minimum number of 8 composites and a maximum number of composites between 20 and 22 depending on the variable. An octant-based search using a maximum of four samples was employed. Blocks were estimated in a two-pass strategy with the first pass search set to approximately twice the modelled variogram range (~140m). The second pass doubled this distance and removed the octant restriction, with all other parameters remaining the same.</li> <li>The block model is rotated to a bearing of 045 to align with the strike of the mineralisation with a block size of 10 m (X) × 20 m (Y) × 10 m (Z) with sub-celling of 1.25 m (X) × 5 m (Y) × 2.5 m (Z). Grades were estimated into the parent cells. Hard boundary techniques were employed between domains</li> <li>The block model was validated using a combination of visual and statistical techniques including global statistics comparisons, and trend plots.</li> </ul>
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>The Mineral Resource is reported on a dry basis.</li> </ul>
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>Selection of the reporting cut-off for Mineral Resources is supported by revenue and cost parameters used to inform the resource limiting optimisation shell applied. The reporting cut-off is considered appropriate for the style and nature of mineralisation at La Demajagua.</li> </ul>
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	The Mineral Resource is being reported assuming extraction via open pit methods using conventional drill and blast and load and haul methods. The cost and related cut-off grade parameters have been developed based on these criteria, with the reported Mineral Resource constrained within a Whittle optimisation shell employing these assumptions, and therefore has demonstrated reasonable prospects for eventual economic extraction.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical	<ul> <li>Preliminary metallurgical test work on mineralisation at the Project (see ASX release on 27 January 2022) has reported the ability to generate a concentrate product from the La Demajagua project using flotation. These results are considered adequate to achieve reasonable expectations of economic metallurgical processing of the project mineralisation.</li> <li>Additional metallurgical testwork reported</li> </ul>

Criteria	JORC Code explanation	Commentary
	assumptions made.	in a memo by Dr Jinxing Ji, as part of the La Demajagua Scoping Study dated 30 March 2023 further evidenced reasonable expectations of economic metallurgical processing of the project mineralisation.  • A comprehensive roasting testing program was started by BGRIMM Technology in China in December 2023 and finished in August 2024 using a gold arsenopyrite concentrate sample generated after reverse flotation. The scope of work included (1) alkaline leach of antimony and then recovery of the dissolved antimony by precipitation, (2) two-stage roasting to oxidize sulfide minerals, (3) acid leach of the roaster calcine to liberate the encapsulated gold by hematite, (4) carbonate leach of the acid-leached roaster calcine to liberate the encapsulated gold. Further details are included in a memo by Dr Jinxing Ji, dated 12 September 2024
Environmen-tal factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Specific investigations into relevant environmental factors have not occurred at this time. The area has been subject to historic mining operations with existing tailings and waste rock landforms existing on site.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	Bulk density is applied via direct assignment using average values from 343 measurements using Archimedes method, and differentiated by weathering state, and mineralisation.
Classification	The basis for the classification of the Mineral	Classification of the Mineral Resource

Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	confidence in the interpretation boundaries and related mineralisation volumes related to the number, spacing, and orientation of the available drilling; the spatial continuity of respective domains based on variogram analysis; the assessment of key estimation output statistics including slope of regression and average distance to samples; and consideration of how well the underlying domain data is reflected in the estimated blocks as assessed by statistics globally and trend plots locally.  The resource has been classified into the Indicated and Inferred categories.  The Competent Person is satisfied that the stated Mineral Resource classification reflects the relevant factors of the deposit.
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	There have been no audits or reviews of the Mineral Resource estimate
Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> <li>A total of 72% of the Mineral Resource is reported in the Indicated category, with 28% in the Inferred category.</li> <li>The statement relates to a global estimation of tonnes and grade.</li> <li>Historical mining and associated documentation has confirmed the presence and nature of mineralisation at La Demajagua.</li> </ul>

#### Competent Person - Dale Schultz MSc. P.Geo.

The information in this report that relates to Exploration Results is based on information reviewed by Mr. Dale Schultz, a Competent Person who is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan ("APEGS"), which is accepted for the purpose of reporting in accordance with ASX listing rules. Mr. Schultz is a Consultant to the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, 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. Schultz consents to the inclusion of the Exploration Results based on the information and in the form and context in which it appears.

#### Competent Person - Dr Jinxing Ji, PhD. P.Eng.

The estimates of concentrate production for the La Demajagua project, and the overview of metallurgical test work undertaken by BGRIMM on the gold-arsenopyrite concentrate, were carried out by Dr Jinxing Ji, an independent metallurgical consultant and Principal of JJ Metallurgical Services Inc. Dr Ji is a registered Professional Engineerwith

Engineers and Geoscientists British Columbia in accordance with the Professional Governance Act, Canada, with a Ph.D. degree in Metallurg from the University of British Columbia, Canada.

Dr Ji worked as Metallurgist and Director of Metallurgical Services for two major international mining companies from 1995 to 2021 focussed on mining and processing refractory gold deposits, prior to establishing his own consultancy.

Dr Ji has been involved in a number of projects from metallurgical test work, PFS and DFS to plant commissioning and operations in Turkey, China, Greece, Canada, Romania, Brazil and Papua New Guinea. He is a co-inventor of over 20 patents in Canada, USA and Australia involving copper, gold, silver, arsenic, pressure oxidation and thiosulfate leach of gold.

Dr Ji has sufficient experience that is relevant to the test work on the La Demajagua gold-arsenopyrite concentrate undertaken by BGRIMM Technology, and in the design and operation of two-stage fluidised-bed roasters and flotation circuits to qualify as a Competent Person as defined in 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.'

Dr Ji consents to the inclusion in this document of the matters based on the information and in the form and context in which it appears, and to the content of the associated ASX release.

### Competent Person – Daniel Saunders BSc (Geology)

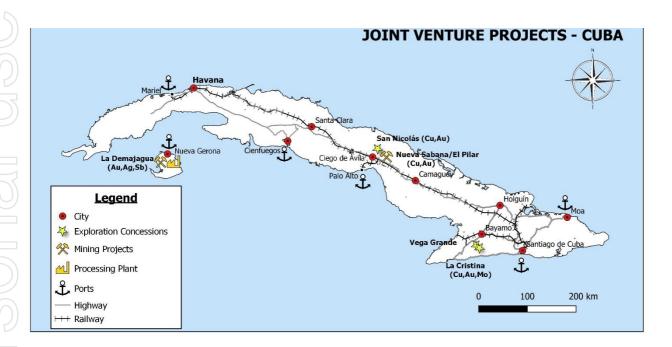
The information in this document that relates to Mineral Resources is based on information complied by Mr Daniel Saunders, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Saunders was a full-time employee of Cube Consulting Pty Ltd, acting as independent consultants to Antilles Gold Inc. Mr Saunders has sufficient experience relevant to the style of mineralization and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in 2012 Edition of the 'Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Saunders consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.



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

Antilles Gold is participating in the development of two previously explored mineral deposits in Cuba to produce gold, silver, antimony and copper, and the exploration of potentially large porphyry copper deposits through its 50:50 joint venture with the Cuban Government's mining company, GeoMinera SA.

The first project expected to be developed by the joint venture company, Minera La Victoria SA, is the small first stage of the Nueva Sabana mine based on a gold-copper oxide deposit which overlays the large El Pilar copper-gold porphyry system in central Cuba.



The second project is expected to be the development of the La Demajagua open pit mine on the Isle of Youth in south-west Cuba to produce a gold-arsenopyrite concentrate, and a silver-gold-antimony concentrate. The joint venture's current intention is for the gold-arsenopyrite concentrate to be processed at a plant incorporating a two-stage fluidised-bed roaster and CIL circuit to produce higher valued gold doré. A separate antimony recovery circuit will maximise antimony production as an in-demand strategic metal.

- The joint venture partners intend to invest part of the expected surplus cash flow from the Nueva Sabana mine to fund exploration of major copper targets, including the El Pilar coppergold porphyry system, and two highly prospective properties within the Sierra Maestra copper belt in south east Cuba.
- Antilles Gold is comfortable operating under the applicable law on Foreign Investment in Cuba, and the realistic Mining and Environmental regulations, and has been granted a generous fiscal regime by the Government which is supportive of its objectives.



 The existing joint venture agreement includes the requirement for all funds to be held in a foreign Bank account with the only transfers to Cuba being for local expenses, which will obviate Country credit risk for foreign lenders and suppliers.



Drilling - El Pilar

