



6 March 2024

# SCOPING STUDY FOR NUEVA SABANA MINE PROGRESSING AFTER RECEIPT OF INITIAL MRE

Antilles Gold Limited ("Antilles Gold" or the "Company") (ASX: AAU, OTCQB: ANTMF) advises that the Company has received the attached Initial Mineral Resource Estimate ("MRE") to a depth of approximately 150m from the surface for the Nueva Sabana gold-copper deposit, from consultants, Mining Associates Pty Ltd, and the 50:50 joint venture in Cuba can now complete the Scoping Study for the proposed mine.

- The Nueva Sabana deposit is located within a 760 ha Exploration Concession in central Cuba which includes numerous oxide gold and copper targets, and the El Pilar copper-gold porphyry system.
- It is anticipated that an Exploitation Concession will be issued in the near future to replace the Exploration Concession which will allow construction and mining to commence at Nueva Sabana.
- The Exploitation Concession will not limit the depth of mining to 100m from surface, as does the current Exploration Concession, and will allow the Nueva Sabana project to be expanded to mine copper below this depth that has been identified by recent drilling into both the oxide zone, and the underlying El Pilar porphyry deposit.
- The deposit has three mineralised zones; a gold zone, a copper-gold zone, and a copper zone which appears to transition at depth to the offset El Pilar porphyry copper deposit.
- Early next week, Mining Associates are expected to provide the mining schedule and grades for an optimised pit to 100m depth as is permitted by the current Exploration Concession which will enable financial modelling of planned mining activities to proceed.
- Parameters for the Nueva Sabana Scoping Study will be advised when the mine schedule is published.
- It is expected the Scoping Study will be completed by the end of next month.



- With the Study results expected to demonstrate the project's robust viability even for the short initial mine life that can currently be planned, and particularly in the first two years while primarily producing gold concentrates, the joint venture will be able to finalise negotiations for concentrate off-take and project financing.
- In order to shorten the mine construction period to around 10 months from its planned commencement in July 2024, site works and a short access road from the central highway will be carried out by a local contractor, and ProMiner will undertake preliminary engineering for the concentrator, between April and June 2024.
- The joint venture expects the unrestricted mining depth, and additional exploration will increase the gold inventory, and expand the copper resources both laterally and vertically.
- The extent of historic artisanal gold mining within the Nueva Sabana concession outside the initial pit outline indicates the occurrence of widespread shallow oxide gold similar to that in the delineated gold cap overlying what will effectively be a copper mine with gold credits.
- Antilles Gold also holds an Exploration Agreement in Cuba which includes a 17,000ha Reconaissance Permit surrounding the Nueva Sabana concession that can be explored in the future for copper, and gold.

Mr Brian Johnson, Chairman of Antilles Gold said that "the Company was confident that with the permitted increased mining depth, and further exploration, both the mine life, and the project value would increase considerably."

**END** 

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

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## **Nueva Sabana Gold - Copper Mine**

### **Extract from Report by Mining Associates Pty Ltd**

**Initial Mineral Resource Estimate to RL-100m (approximately 150m from surface)** 

### Above a 0.25% copper cut-off, and gold mineralisation of 0.3g/t

Material Type	Resource Category	Tonnes	Gold (g/t)	Gold (koz)	Copper (%)	Copper (Mlb)
Gold	Indicated	470,000	2.83	42.7	-	-
Domain	Inferred	276 000	2.51	30.4		
	inierreu	376,000	2.51	30.4	-	-
<b>Sub Total</b>		846,000	2.69	73.1	_	-
Copper	Indicated	531,000	1.54	26.3	0.57	6.73
Gold						
Domain						
	Inferred	90,000	1.95	5.7	0.50	0.99
<b>Sub Total</b>		621,000	1.60	31.9	0.56	7.72
Copper	Indicated	304,000	0.11	1.1	1.36	9.11
Domain						
	Inferred	2,084,000	0.06	4.3	0.77	35.15
Sub Total		2,388,000	0.07	5.4	0.84	44.26
Total		3,855,000	-	110.5	-	51.98

#### **Notes**

- Due to rounding to appropriate significant figures, minor discrepancies may occur, tonnages are dry metric tonnes
- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability
- Gold in the copper-gold domain, and copper domain are expected to report to the copper concentrate
- Inferred resources have less geological confidence than indicated resources and should not have modifying factors applied to them
- It is reasonable to expect that with further exploration most of the inferred resources could be upgraded to indicated resources



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**Antilles Gold Ltd** 

Mineral Resource Estimate of the El Pilar Deposit. Nueva-Sabana Project, Central Cuba

Document No. MA2332-2-2
Mining Associates
05/03/24

#### **Caveat Lector**

This Resource Report (Report) has been prepared for Antilles Gold Limited by Mining Associates Propriety Limited (MA), based on upon information and data supplied by others, MA has formed opinions based on supplied data and made assumptions as identified throughout the text.

The Report is to be read in the context of the methodology, procedures and techniques used, MA's assumptions, and the circumstances and constraints under which the Report was written. The Report is to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context.

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#### 1 SUMMARY

The El Pilar Deposit lies within the Nueva-Sabana Project area, located 25 km east-southeast of the city of Ciego de Avila, central Cuba. The project is owned by Minera La Victoria, which is a Joint Venture between subsidiaries of Antilles Gold Limited and the Cuban state-owned mining company Geominera SA.

The Nueva-Sabana Project comprises a cluster of dioritic porphyritic intrusions along an extensive trend including the El Pilar – Gaspar – Camilo prospects. At El Pilar the oxide gold zone is associated with the deeply eroded roots of a gold-rich high-sulphidation lithocap that partly over prints the upper zone of a porphyry copper system and associated copper-rich diatreme breccias. Widespread porphyry style veining is also present, both within diorite intrusives and the hostrocks, as quartz pyrite chalcopyrite veins (B-type, quartz with a centre line of sulphides) and chlorite - pyrite (C-Type) veins.

The resource is reported above a depth of -100 m RL and above a cut-off grade of 0.25 % Cu including gold mineralisation, or greater than 0.3 g/t gold where mineralisation is outside the copper mineralisation. (-100 m RL is approximately 150 m below the surface). The resource is divided into three metallurgical domains based on mineralisation, namely, a gold domain, a coper and gold domain, and a copper domain mineralisation.

Material Type	Resource Category	Tonnes	Gold (g/t)	Gold (koz)	Copper (%)	Copper (Mlb)
Gold Domain	Indicated	470,000	2.83	42.7	-	-
Gold Domain	Inferred	376,000	2.51	30.4	-	-
Sub Total		846,000	2.69	73.1	-	-
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Total		3,855,000		110.5	-	51.98

Table 1-1. El Pilar Mineral Resource Estimate 2024

Due to rounding to appropriate significant figures, minor discrepancies may occur, tonnages are dry metric tonnes.

Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.

Gold in the copper gold domain and copper domain are expected to report to the copper concentrate, gold in concentrate above 1 g/t is commonly payable.

Inferred resource have less geological confidence than Indicated resources and should not have modifying factors applied to them. It is reasonable to expect that with further exploration most of the inferred resources could be upgraded to indicated resources.

#### 1.1 GEOLOGY AND GEOLOGY INTERPRETATION

The El Pilar deposit is hosted within the volcanic island arc rocks of the Caobilla Formation (Coniacian – Lower Campanian, 89-72 Ma, (Iturralde-Vinent, Tchounev, & Cabrera, 1981), which is a bimodal volcanic sequence of predominantly lavas and tuffs of basic composition and minor acidic equivalents. During the Cretaceous, the Caobilla Fm was intruded by diorites and granodiorites which now occupy the central part of the Camagüey province. These intrusives are genetically linked to the formation of magmatic-hydrothermal systems associated with the porphyry, diatreme breccia and high-sulphidation mineralisation within the belt.

Rock types on a local scale are predominantly andesitic tuffs (lapilli, lithic and lesser ash) interbedded with andesitic and basaltic flows. These rocks have been intruded by diorite, quartz-diorite porphyries and hydrothermal and magmatic breccias. The area is extensively altered, and vein and disseminated mineralisation (Chalcopyrite + pyrite + primary chalcocite ± magnetite) is predominantly associated with the diorite and quartz-diorite porphyries. Some secondary copper oxides are found at the transition from advanced argillic alteration to intermediate argillic alteration.

#### 1.2 DRILLING TECHNIQUES

Historic drilling comprises 35 NQ holes (1996) for 3,475.5 m and 163 RC holes (1997) for 21,751 m, of which 14,821 m were carried out by a truck mounted drill rig, and 6,900 m by a smaller track mounted drill rig.

Antilles Gold has drilled 76 HQ and NQ diamond holes for 11,760.2 m. Samples were collected at 2 m intervals in 2022 and 1m intervals from April 2023. Drill holes across the deposit are spaced at nominal 20 m x 20 m centres.

The historical drill holes have been verified by Antilles Gold with an initial twin drill hole program. The twin hole drill program showed the historic truck mounted gold results required factoring down. A linear regression was sufficient to align the histogram of the truck mounted gold results with the sample histogram of the current diamond drilling. Historic copper and the track mounted drill rig gold samples were shown to have similar distributions (statistically and graphically) and were suitable for the use in a mineral resource without adjustment.

#### 1.3 SAMPLING AND SUB-SAMPLING TECHNIQUES

Historic sample intervals were variable based on geological features however the majority range from 1m to 2m in length. RC samples were riffle split to 3.0 kg. Antilles Gold drilling has been completed using diamond drilling at HQ and NQ core size. Samples were collected at 2 m intervals in 2022 and 1 m intervals from April 2023 although adjusted for geological features as required.

#### 1.4 SAMPLE ANALYSIS

Historic drill samples were sent to XRAL laboratory in Vancouver for fire assay (Au) and ICP (Cu). Antilles Gold sample were sent to SGS Peru for analysis of Au and 49 elements by a 2-acid digest. Quarter-core duplicates are collected at an average rate of 1 in every 20 samples. Certified Reference Material (CRM) is inserted at a rate of one every 25 samples, and a blank inserted every 40 samples.

#### 1.5 ESTIMATION METHODOLOGY

The geological interpretations are based on drill hole data: as there is limited sub-crop and most of the deposit is under cover. Drill core has been used to define the main geological units and weathering profile boundaries.

Mineralisation is divided into copper and gold domains independently, with some overlap of domains. Gold sits higher in the deposit compared to the copper mineralisation. The gold resource has oxidised and sulphur content is low, (< 0.5% S), where copper occurs the sulphur content increases (> 1.5% S).

Six mineralised domains were interpreted, three are based on continuity of grade at a lower cut-off of 0.30 g/t Au and three copper domains with a lower cut off 0.25% Cu.

The mineralised domains were grouped into geostatistical domains based on grade similarities and structural orientation. El Pilar strikes north-east and dip steeply southeast. The deposits host rocks are strongly argillic altered, tending to moderate chlorite alteration away from mineralisation.

The Mineral Resource statement reported herein is a reasonable representation of the El Pilar deposits based on current sampling data. Grade estimation was undertaken using Geovia's Surpac<sup> $\mathsf{TM}$ </sup> software package (v7.7). Ordinary Kriging ("OK") was selected for grade estimation of copper and gold. Sulphur and iron were estimated with Inverse Distance Squared (ID²).

The block model utilises parent blocks measuring 5 m x 10 m x 5 m with sub-blocking to 1.25 m x 2.5 m x 1.25 m (XYZ) to better define the volumes. Blocks above topography are flagged as air blocks. Estimation resolution was set at the parent block size.

Informing samples were composited down hole to 1 m intervals. Grade capping was applied to outlier composites. Experimental variograms were generated and modelled in Surpac. For domains where experimental variograms could not be created, variogram models were borrowed from similar domains. A two-pass estimation process was employed, the first pass (60 m search) required a minimum of 6 or 8 samples and a maximum of 12 to 16 composites depending on the size of the estimation domain, the second pass (120 m search) required a minimum of 4 or 5 composites and a maximum of 8 or 10 composites. Density values are assigned to blocks based on depth, near surface (above 50 mRL) was assigned 2.13 t/m³, material below -50 mRL is assigned 2.6 t/m³, the remainder of the blocks are assigned a density from a regression formula based on the RL of the block. The average density of the mineralisation is 2.50 t/m³.

Block model validation comprised visual checks in plan and section, global comparisons between input and output means, and alternative estimation techniques.

#### 1.6 CUT-OFF GRADES

The resource is reported above a 0.25 % Cu and material outside the copper mineralisation above 0.30 g/t gold grade and within 150 m of the surface (-100 mRL).

The following assumptions were considered when assessing the reasonable prospects of eventual economic extraction (RP3E),

Parameter	Metric	Unit
Mining	3.40	\$/tonne
Process	11.70	\$/tonne
General/Admin	2.00	\$/tonne
Gold Recovery	83%	
Copper Recovery	82%	
Mining Dilution	5%	
Gold Price	2000	\$/oz
Copper Price	4.00	\$/lb
Gold Cut Off	0.34	g/t
Copper Cut Off	0.25	%

Table 1-2. RP3E Assumptions (USD)

#### 1.7 CRITERIA USED FOR CLASSIFICATION

The Resource Estimates were classified in accordance with the JORC 2012 code. The El Pilar resources are classified based on data quality, drill density, number of informing samples, kriging efficiency, average distance to informing samples and vein consistency (geological continuity). Geological continuity has been

demonstrated at 20 m grid spacing over the entire strike of the deposits. Areas of high grade or geological complexity have been infilled to 10 m centres. Areas drill on 20 m sections may be classified as indicated, predicated on geological confidence and grade continuity. Areas less densely drilled have been classified as inferred. Areas of limited geological confidence or at a depth beyond a reasonable open pit depth remains unclassified. A mineral resource is not an ore reserve and does not have demonstrated economic viability.

## 1.8 MINING AND METALLURGICAL METHODS AND PARAMETERS AND OTHER MATERIAL MODIFYING FACTORS CONSIDERED TO DATA.

Antilles Gold foresees mining via open pit and conventional grinding and flotation, with metallurgical testwork undertaken on a range of composites for both the gold domain, and the copper/copper gold domain at Blue Coast Research in British Columbia, Canada. The El Pilar mineralisation sampled has been shown to be amenable to floatation for copper and gold. 82% of the copper reports to the float concentrates. The low-grade gold associated with the copper domains will provide gold credits in the copper concentrate (gold in concentrates is commonly payable above 1g/t). Low Sulphur gold mineralisation (gold domains) show 83 % recovery to the float concentrates. MA notes that this is a reasonable assumption but should not be regarded as rigorous at this stage of the project. The current Mineral Resource does not include any dilution or ore loss associated with practical mining constraints.

Mr I. Taylor

BSc Hons (Geology), G.Cert.(Geostats), FAusIMM (CP), MAIG.

Brisbane, Australia

Date: 05/03/24

#### 2 DATA VERIFICATION

The Competent Person, Mr Ian Taylor, has worked as an Independent Principal Geologist since 2009 with Mining Associates. The CP has gained good familiarity and confidence in the available diamond drilled data, the geology models and understanding of the prevailing mineralisation. Mr Taylor believes the geological understanding and data available for the El Pilar resource estimate is of good quality and is representative of the prevailing mineralisation relevant to the deposit.

Several verifications are hereby confirmed by Mr Taylor.

- 1. Diamond drillhole collar coordinates were checked against the latest topographic survey data and were verified through visual observation and digital checks against database data. Spot checks were completed using a hand held GPS.
- 2. Sampling methods and data correspond to visual inspection stored core and sample tags and are correctly represented against the original sample sheet records and the stored database data.
- 3. Database validations were performed to:
  - a) Ensure assay results reflect original assay certificates.
  - b) Investigate outlier values for assays data fields.
  - c) Checked for and addressed errors related to overlapping or duplicate logging and sampling records (x3 found)
  - d) Check orientations and relative magnitudes of downhole survey data.
  - e) Confirmed that relevant metadata was recorded consistently and accurately.
- 4. QAQC data reports were provided by Antilles together with the process used for analysis and were verified as robust methods for assuring assay accuracy, precision and controlled contamination.
- 5. Drill core observations served to verify the prevailing geology model and its association with the different styles of alteration as per the logged data and 3D geology models.

#### 2.1 SITE VISIT

A site visit to the Project was carried out April 8 to April 10, 2021, by Ian Taylor, FAusIMM(CP)., QP for Mineral Resources. Activities during the site visit included:

- Review of the geological and geographical setting of the Project.
- Review and inspection of the site geology, mineralisation, and structural controls on mineralisation.
- Review of the drilling, logging, sampling, analytical and QA/QC procedures.
- Review of the drill logs, drill core, storage facilities.
- Confirmation of 6 drill hole collar locations. (Average ±3.03 m as expected with a hand held GPS)
- Assessment of logistical aspects, potential OP locations, potential waste dumps and other surface infrastructure practicalities relating to the Property.
- Review of the structural measurements recorded within the drill logs and how these measurements are utilized within the 3D structural model; and
- Validation of a portion of the drill hole database

#### 2.2 HISTORIC ASSAYS

An extensive twin hole programme was undertaken by Antilles Gold. Antilles Gold has twinned 30 RC holes originally drilled either the truck or the track mounted rig. QQ plots are the main validation tool to compare grade distributions of two sample sets, along with statistical approaches. The findings of the review are summarised by Taylor (2023).

The historic assays obtained from the truck mounted drill rig were shown to be over reporting the gold concentration (Figure 2-1). An MS Access™ database query was written with the following regression formula to create a new table with corrected truck mounted assays, for the other drill methods, priority was given to

the au\_ppm\_best result (most appropriate historic assay result) or the Antilles Gold sample data sent to SGS. The new assay table was called Assay\_Res and stored in the MS Access™ database (240128\_el\_pilar\_1996\_2023.accdb).

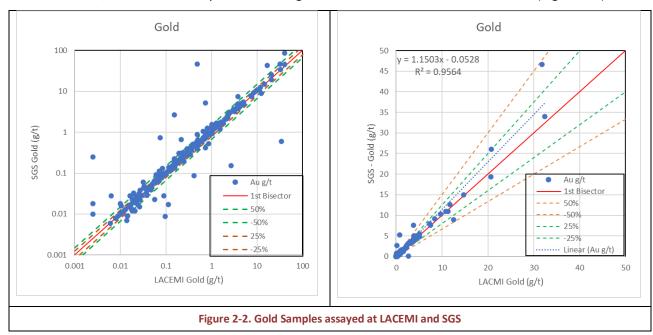
 $Au\_ppm: = IIf([C].[Hole\_Type] = "RC", (IIf([au\_ppm\_best] < 0.09, [au\_ppm\_best] * 0.1, [au\_ppm\_best] * 0.8838 - 0.0788)), Nz([au\_ppm\_best], [Au\_g\_t\_SGS])).$ 

Simplified the regression is  $Y = 0.8838 \times X - 0.0788$  where X gold grade of the truck mounted RC sample. The Track mounted RC drill rig showed similar gold distributions to the diamond twin holes, no factor was applied to the track mounted rig (Taylor, 2023). No factors were required for the copper assays.



Figure 2-1. Histogram of Raw RC (orange) vs Diamond (Blue) and corrected RC results (grey)

Initially the company sent samples to LACEMI (local laboratory) for faster turn-around times, the pulps were also sent to SGS, the LACEMI assays are returning about 15% lower than the SGS results. (Figure 2-2)



#### 2.3 REJECTED DRILL HOLES

The initial Antillies drill program set about to twin a proportion of the historic drilling, this twin program was used to determine the suitability of the historic drilling. All twined historic holes were not used in the resource estimate. Holes that were dubious were also removed from the estimate. A list of holes and the justification is provided in Table 2-1.

Table 2-1. Rejected Holes - not used in the resource estimate

Hole id	replaced	Reason
PDH-001A		3 m sample at 194 g/t Au is not reflected in the earlier LACEMI assays, or the two redrills, 001A or 001B
PZ-002		Water monitoring holes
PZ-003		Water monitoring holes
RC-001	PDH-019	Poor correlation of high-grade mineralisation between original and new hole – potential smearing
RC-002	KGP-29	twinned by a diamond hole
RC-004	PDH-010	replaced with an Antilles Hole
RC-005	PHD-002	New hole PDH-002 reports typically better grades than the original hole
RC-006	PDH-013	replaced with an Antilles Hole
RC-008	PDH-012	replaced with an Antilles Hole
RC-012	PDH-008	replaced with an Antilles Hole
RC-025	PDH-003	replaced with an Antilles Hole
RC-029	PDH-027	replaced with an Antilles Hole
RC-044	PDH-014	replaced with an Antilles Hole
RC-045	PDH-020	replaced with an Antilles Hole
RC-052	PDH-040	replaced with an Antilles Hole
RC-088	PDH-023	replaced with an Antilles Hole
RC-092	PDH-018	Some alignment in upper portions of RC-092 against PDH-018 however evidence of smearing in lower portions, with scissor hole (PDH-001B) showing no mineralisation
RC-094	PHD-006	replaced with an Antilles Hole
RC-096	PDH-017	replaced with an Antilles Hole
RC-105	PDH-011	replaced with an Antilles Hole
RC-107	PDH-030	replaced with an Antilles Hole
RC-108	PDH-007	replaced with an Antilles Hole
RC-114	PDH-009	replaced with an Antilles Hole
TRC-251	PDH-038	replaced with an Antilles Hole
TRC-254	PDH-037	replaced with an Antilles Hole
TRC-263	PDH-060	replaced with an Antilles Hole
TRC-264	PDH-034	replaced with an Antilles Hole
TRC-267	PDH-033	replaced with an Antilles Hole
TRC-268	PDH-032	replaced with an Antilles Hole
TRC-269	PDH-029	replaced with an Antilles Hole
TRC-270	PDH-036	replaced with an Antilles Hole
TRC-271	PDH-001B	very high grade assays not seen in PDH-001B
TRC-272		no down hole survey
TRC-274	PDH-035	replaced with an Antilles Hole
TRC-277	PDH-004A	Scissor hole (PDH-025) an new hole PDH-004A show no mineralisation at bottom of TRC-277
TRC-278	PDH-028	replaced with an Antilles Hole
TRC-291	PDH-022	Mineralisation shown in TRC holes not reflected in new DD hole (PDH-022)
TRC-294	PDH-039	replaced with an Antilles Hole
TRC-304	PDH-003A	replaced with an Antilles Hole
l	1	1 •

Hole id	replaced	Reason
TRC-305	PDH-031	replaced with an Antilles Hole

#### 2.4 QAQC

Onix Geological Services reviewed the QAQC data (Sierra, 2024). Antilles Gold has an acceptable insertion rate for CRM's, field duplicates and blanks. Antilles Gold procedures require 3 blanks, 3 duplicates and 5 CRM's per 100 samples submitted. To date Antilles gold has submitted 3% blanks, 5% core duplicates and 4% CRM's, sufficient to judge the quality of sampling and assaying.

A blank failure is considered as 10 x the lower detection limit. The copper blanks returned 12 fails (4%) and three gold blanks 3 failed (1%). No action was deemed necessary.

Field duplicates returned an average coefficient of variation (CVavg) of 13% for gold duplicates. Acceptable sampling practice in a coarse to medium grained gold deposit is 30% CVavg and best practice is 20% CVavg (Abzalov, 2008). Antilles Golds copper duplicates returned a 14% CVavg, Absolov lists copper deposits (Australia and Canada) as having average CV ranging from 13.5 to 15.3, confirming Antilles sample practices are acceptable.

OGS reviewed the certified reference material results and associated graphs and expresses satisfaction that they generally demonstrate a high degree of accuracy at the assaying SGS laboratory. Standard deviations were used as control gates for submitted CRM's (3x and 2x).

MA collated the certified reference material (CRM) results (Table 2-2) and noted the bias of each CRM, CRM 21F is a certified blank and returned at or below the detection limit. CRM 254B is the worst performing CRM with a 3.41% bias, note this bias calculation does not include sample PEL-4148, 90 ppm Cu), the worst gold standard was 907, both CRM's expected values are within 10 x the detection limit, thus the bias is not material. All standards with expected values above 10x detection limits performed well (negligible bias, within ± 1%).

OREAS			Cu (%)		Au (ppm)					
CRM	Count	EV	Avg	Fail	Bais	Count	EV	Avg	Fail	Bais
21F	4	0.0001	BDL	0	NA	9	0.0049	0.0047	0	NA
258	23	0.010	0.0101	0	0.00%	21	11.15	11.05	0	0.9%
254B	56	0.004	0.0044	1	3.41%	57	2.53	2.53	0	0.0%
503d	26	0.524	0.52	2	-0.48%	22	0.666	0.668	1	-0.3%
503e	111	0.531	0.529	0	-0.37%	85	0.709	0.70	4	-0.96%
506	88	0.44	0.444	0	0.90%	85	0.364	0.36	0	-0.35%
907	58	0.638	0.632	0	-0.86%	54	0.1	0.10	0	1.80%
908	74	1.26	1.272	0	0.99%	74	0.0187	0.0188	0	0.88%

Table 2-2. Summary of CRM results

Antilles QA-QC procedures state jobs with fails should be rejected, however no jobs were removed from the dataset. One copper CRM (PEL-4148 – OREAS254B) failed dramatically, (90 ppm compared to 42.9 ppm) but did not fail on the gold assay, the detection limit for copper is 5 ppm, the expected value of the CRM is less than 10x the detection limit and therefore is not a suitable copper CRM. CRM 254B shows no bias in the gold results confirming the CRM has too low an expected copper value to be reliable.

One 503d CRM (PEL-0560) reported low for both copper (0.483 %) and gold (0.617ppm) assays. CRM 503d is of sufficient grade and is a suitable CRM. No follow up was reported, MA checked the sample certificate, the laboratory repeated PEL-0560, at the time and the second analysis returned 0.691 (EV

0.666 ppm), no further follow up was deemed necessary. Copper results are not included on the laboratory assay certificate.

CRM 503e (Figure 2-3) has four fails and several below the warning level (2xSD), although the fails are just below the control line (3xSD) they represent the beginning of a time when gold assays are reported low (1.5% under-call), highlighting the importance of early identification of fails and action. Overall CRM 503e reports a -0.3% under call. There is also an under call in CRM 506, but it is negligible (-0.35%).

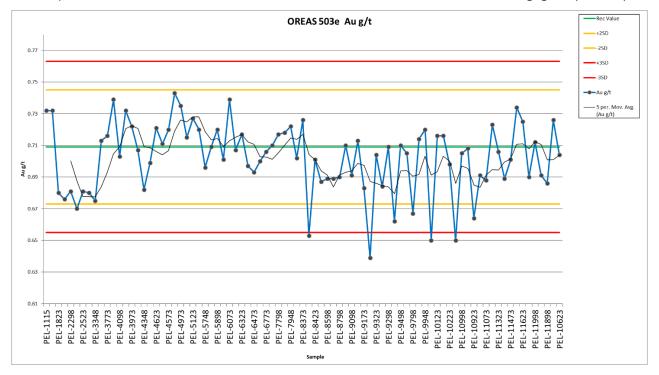


Figure 2-3. OREAS CRM 503e gold

Copper standard 907 (Figure 2-4) does not trigger any fails but does show an under-call (-1.5%) in copper in the first half, early action would have lessened this impact. The second half shows a fair distribution around the expected value. Note 506 (Figure 2-5) and 908 (Figure 2-6) shows a constant copper overcall  $(\sim0.9\%)$  positive bias).

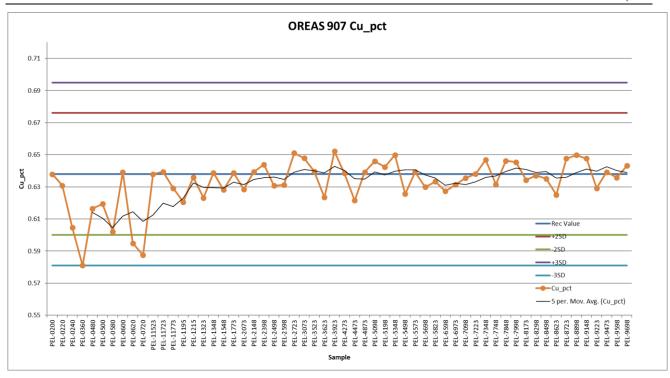


Figure 2-4. Copper CRM OREAS 907

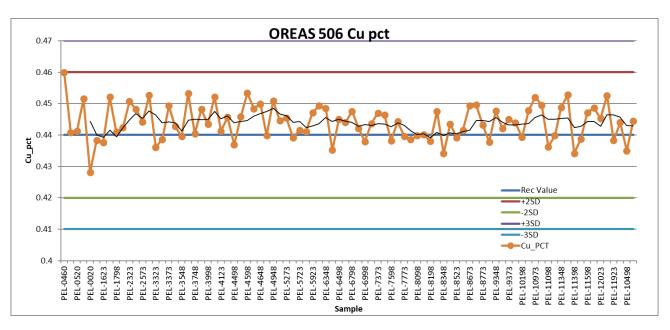


Figure 2-5. Copper CRM OREAS 506

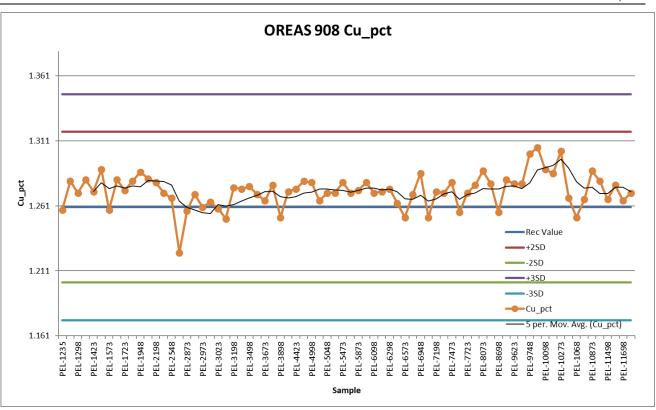


Figure 2-6. Copper CRM OREAS 908

#### 2.5 RECOVERY AND ROCK QUALITY DESIGNATION

In areas of poor rock quality, the core runs are kept short (1.5 m) and the entire run is sampled. Competent core is half sawn, moderately broken or highly altered core is wrapped in sticky tape before cutting, highly broken core is grab sampled collecting approximately ½ the rubble. 80.6% of core is recorded as 100% recovery. This includes shorts runs where broken core can be compiled (not reconstructed) to the drill rod advancement. A better measure of sample quality at this project is RQD, Figure 2-7 shows RQD is relatively variable, very little rock is of good quality, (above 80% RQD).

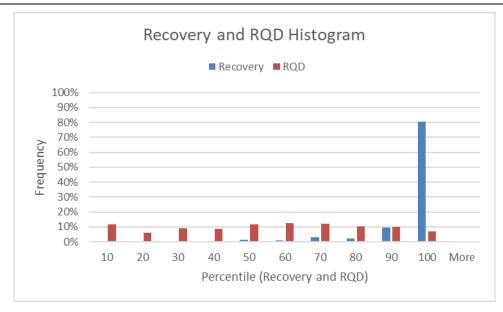
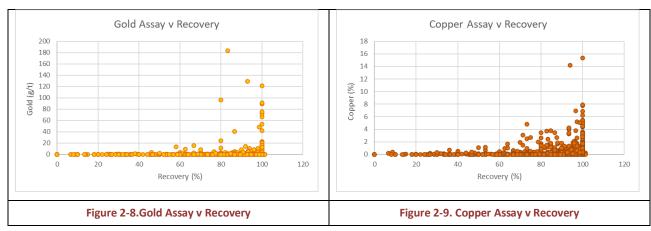
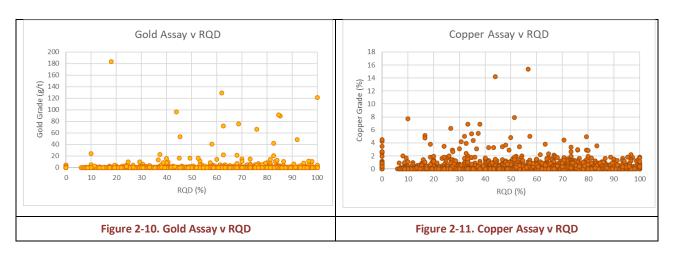


Figure 2-7. Histogram of Core Recovery and RQD

Comparing recovery and RQD to assay grades, show that a similar proportion of gold outliers are from poor recovery core (Figure 2-8) as good recovery areas. A similar observation applies to the copper assays (Figure 2-9). Most of the mineralisation has low RQD's, Figure 2-10 showing gold assays and Figure 2-11 showing copper assays against RQD.





#### 2.6 CONCLUSION

Review of drilling and logging procedures, sample preparation, analytical methods, database security and management, supports the assessment that data is a fair quality and is likely to be representative of in-situ mineralisation.

Of the 8 CRM's 3 are at or near the detection limit, one is near the cut off value (0.3 g/t) two are near 0.7 g/t and two are high grade 2.53 and 11.05 g/t. The general observation is that low grade gold samples are under-called (0.35% to 0.9%), ore grade samples show no bias and very high-grade samples are overcalled by 0.9%. MA predicts the under call at the cut off will provide marginally (<1%) fewer tonnes, the overcall at the top end will not be material as most of these assays will be top cut during the exploratory data analysis.

The same 8 CRMs were analysed for copper. Three CRM's are below the detection limit, four are considered mineralised ( $\sim$ 0.5%) and one high grade copper CRM. Copper CRM's perform variably, with all bias less within  $\pm$ 0.9%, the strongest bias is seen in the high grade copper result (bias  $\pm$ 0.99%), these values are likely to be considered outliers during the EDA and will be capped, thus having minimal effect on the mineral resource estimate.

Commonly the core shows advanced argillic alteration and is highly broken, the company countered this by drilling short runs and sampling the entire run length, commonly recording the highly broken rock as 100% recovery. When considering core quality and coincidentally sample quality, the rock quality designation (RQD) shows that samples with poor RQD have the best gold and copper grades. There are significant gold outliers associated with low core recovery, but not all outliers are associated with low core recovery. The host rock is highly altered and commonly highly broken, there is no guarantee that the lost core has the same grade as the recovered core.

The CP is confident that the information available is of a good standard for use in estimating the EL Pilar mineralisation.

#### 3 GEOLOGICAL INTERPRETATION

Wireframes representing oxide gold and copper zones were provided by Antilles, the wireframes represent alteration phases and the respective enrichment in economic elements. The alteration wireframes were used as guide to the mineralisation wireframes.

The gold oxide zone is associated with the presence of hematite (20% to 50% disseminated and in veinlets). Hematite is associated with advanced argillic alteration from surface. The presence of vuggy silica alteration is interpreted to be part of the lithocap above the advanced argillic alteration. Gold is found preferentially in the argillic alteration commonly associated with hydrothermal breccias (Figure 3-1). Below the gold in oxide is a zone of copper mineralisation with decreasing hematite and increasing secondary chalcocite at the transition between advanced argillic to intermediate argillic (Figure 3-2). The copper sulphide zone appears below the intermediate argillic alteration down to the base of argillic alteration zone where primary chalcocite, chalcopyrite and pyrite occur (Figure 3-3). The sulphides occur in the thickest zones of argillic alteration associated with identified early and inter-mineral porphyries. The periphery of the deposit is chlorite altered with pyrite chlorite veins (Figure 3-4).

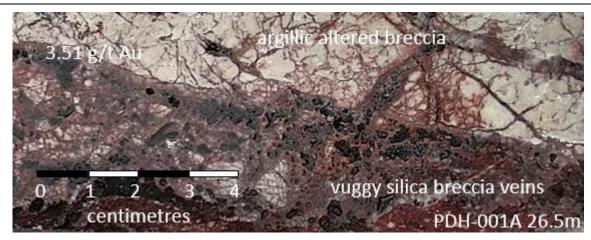


Figure 3-1. Argillic altered breccia and vuggy silica boxwork breccia veins (MA 2024)



Figure 3-2. Advanced Argillic Alteration, veinlets of chalcocite and fine sulphides. (MA 2024)

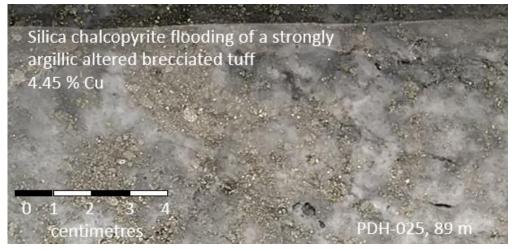


Figure 3-3. Silica chalcopyrite flooding of an argillic altered brecciated tuff. (MA 2024)

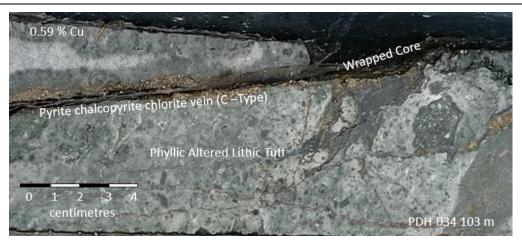


Figure 3-4. Phyllic Altered Lithic tuff with a pyrite chalcopyrite chlorite vein. (MA 2024)

#### 4 EXPLORATORY DATA ANALYSIS

Exploratory Data Analysis (EDA) is a crucial practice in geoscience, employed by scientists to analyse and investigate data sets. EDA helps determine the best ways to manipulate data sources, making it easier to discover patterns, spot anomalies, test hypotheses, and check assumptions. Originally developed by mathematician John Tukey in the 1970s, and continues to be widely used in the data discovery process today.

EDA provides a deeper understanding of data set variables and their relationships which are critical to our understanding of a deposit. It is used to identify errors, understand patterns, detect outliers, and validate results, thus improving the estimates based on the data. EDA tools include techniques such as visualisation methods, clustering, dimension reduction, univariate and bivariate visualisations, and variograms.

#### 4.1 DATA LOCATION (SURVEY)

Drill collars are surveyed using World Geodetic System 1984 (WGS84) UTM Zone 17 N (EPSG 32617).

The collar coordinates are measured with a Nikon XF total station (serial number E053548), based on the national support network, converted to UTM using the Datum NAD 27 to WGS84. The final depth of the borehole and the inclination are not measured by the surface surveyors, but by the drillers; the inclusion of hole and final depth are stored in the collar survey report ensuring all spatial location data of the boreholes are in one place within the company. The angular values of the azimuths and the angles of inclination are expressed in decimal degrees (degrees and tenths of degrees).

The historical data does not specify how historical drill collars are surveyed, the collar coordinates were originally located in a local grid and converted to Cuba Norte (GPS99) this was corrected to Cuba Norte (3795), a shift of approximately 30.41 m west and 3.35 m north. The Cuba Norte gird was then transformed to UTM Z17N (WGS84). Two documents record the historic data, Smith 1997 and Paltser 1997.

Smith provides surface plots (local Grid) and Palster provided the hole azimuth, though no record if the azimuths are true or magnetic. Plotting collars and down hole surveys confirmed the grid is correct and the azimuths recorded were magnetic. The magnetic declination in 1996 was 4° 48' W (-4.8°) (IGRF model, 15/06/1996, 21° 44′ 36" N 78° 32′ 28" W.) The current magnetic declination is -7.57°. Antilles drill contractors used an Reflex EZ-trac for DH survey and the Reflex ACT III is used for core orientation. The EZ-Trac provides readings in Magnetic (original azimuth) and a corrected true north azimuth using a magnetic declination of -7.57 degrees. The compasses used for sighting drill rigs have been adjusted to true north.

Hole RC-093 and RC-100 both had the same collar location (Paltser, 1997), a validation check against (Smith, 1997) and the spreadsheet, Base de Datos El Pilar proyecciones oct 2022.xls, showing Cuba Norte (GPS99 &

3795) latitude and longitude and WGS84 Z17N coordinates for the historic holes confirm the database collar table in is likely wrong. RC-100 was given the Smith 1997 collar coordinates and subsequently used in the resource estimate.

The provided database had duplicate survey records for holes PDH-053 to DPH-070 (identical records). The identical records were removed, and input data checked against the Topographic certificates provided by the surveyors.

#### 4.2 DRILL HOLE SPACING

Drill holes across the deposit are spaced at nominal 20 m x 20 m centres, the northern portion of the deposit is drilled on 25 m lines. (Figure 4-1). Antilles gold twinned 30 historic RC holes and significantly added to the deposit knowledge expanding the copper mineralisation to the south west.

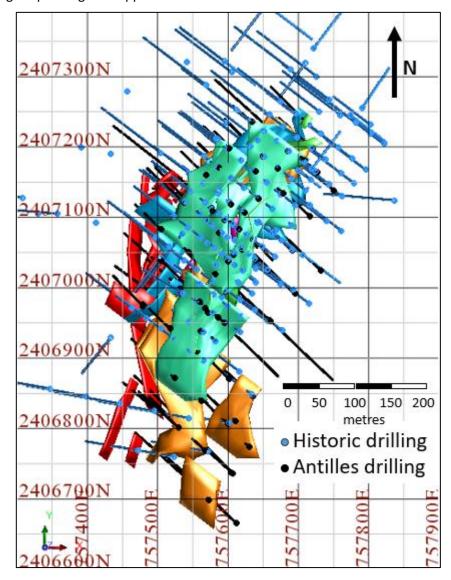


Figure 4-1. Plan View - drill location plan

#### 4.3 GEOSTATISTICAL DOMAINS

Mineralised boundaries were assessed with log probability plots of raw sample data to determine natural breaks in the assay distributions. A lower natural break occurs at 0.25 % copper and 0.3 g/t gold.

Geological interpretation involved defining the broad oxide zone (the presence of hematite and advanced argillic alteration). Within this halo confirming flat lying gold zones above 0.3 g/t were defined. Three estimation domains lie within the oxide zone (Figure 4-2), a broad flat domain (13), thin sub parallel to bedding lodes (12) and vertical breccia vein domains (14). The vertical breccia veins appear to wrap around a barren intrusion, with the highest gold grades on the contacts.

Separate domains were defined for copper at a 0.25% cut off. The broadest domain (18) lies below the interpreted boundary of advanced argillic alteration, where the sulphides remain preserved. A subvertical domain (19), associated with elevated copper mineralisation due to an increase in primary chalcocite and chalcopyrite is interpreted to be associated with the porphyry intrusions. Deep copper mineralisation (17) has been identified and interpreted to be associated with the deeper proportions of the porphyry system, although interpreted and estimated this domain largely remains outside the classification of a resource.

Mineralisation outlines were interpreted on serial cross sections oriented at 307° and spaced at 20 m intervals to the south and 25 m to the north, the sections were digitised in Surpac™, Cross-section interpretations were checked in 3 dimensions to ensure continuity. These cross sections provided the framework for triangulations (Figure 4-3), providing the three-dimensional interpretation to constrain resource estimation.

Assay intervals enclosed by interpreted mineralisation wireframes were flagged with the domain name and stored in a database table containing drill hole ID, start and end downhole depths of the interval and the domain name. These intervals were used to select sample assays for the creation of informing sample composites.

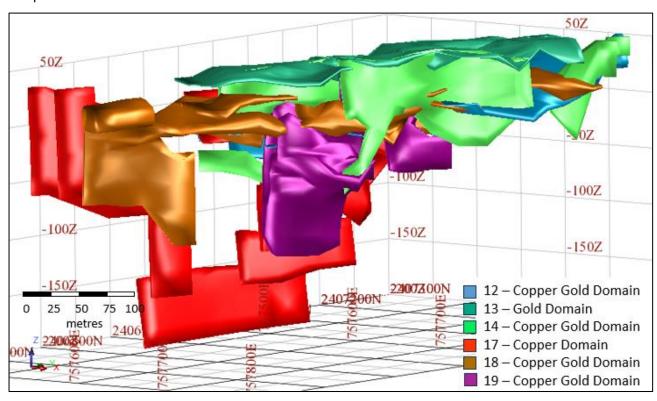


Figure 4-2. Copper and gold estimation domains.

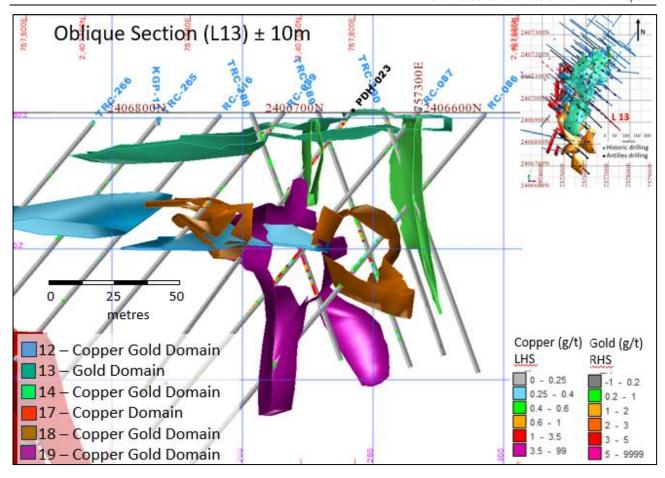


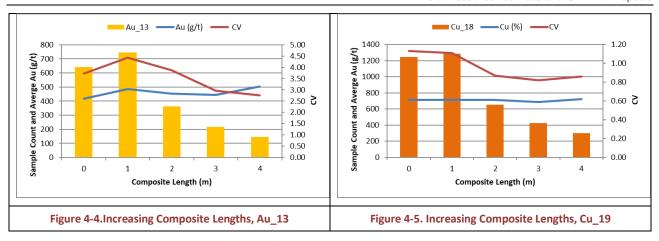
Figure 4-3. Oblique Section looking NE ±10m

#### 4.4 COMPOSITING

Samples are composited to minimise volume variance issues. Commonly short samples of geologically interesting features are often mineralised, but these short samples are then considered outliers in the selected domain. Rather than capping the raw data of unequal sample support, samples are composited to a consistent length before outliers are considered. Lengths of the samples were statistically assessed prior to selecting an appropriate composite length. Most (92%) of the samples within the mineralised domains are 1 m intervals. Only 8% of samples longer than 1 m with the 2022 Antilles gold drill program was sampled on 2 m intervals. Very few short samples (0.25%) occur in the database, due to the entire core run (1.5 m) being sampled in zones of poor recovery.

Composite lengths were tested, considering the change in mean and the coefficient of variation for the primary element of each domain. An example of compositing lengths affecting the mean and coefficient of variation (CV) of copper grades are presented in Figure 4-4 and Figure 4-5.

MA selected one metre composites. The Surpac Function "Best Fit" was used to composite samples downhole. The best fit method reduces the number of rejected short samples by varying the composite length to best fit the interval while ensuring the composite length is as close as possible to the nominated composite length. allowing minimum composite length of 0.60 m.



#### 4.5 COMPOSITE STATISTICS

A domain is a defined volume that delineates the spatial limits of a single grade population. Domains have a single orientation of grade continuity, are geologically homogeneous and have geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Summary statistics for gold domains are shown in Table 4-1, copper domains in Table 4-2 and sulphur and iron statistics are shown in Table 4-3.

Domain Au\_12 Au 13 Au\_14 Cu (%) Statistic Au (g/t) Cu (%) Au (g/t) Cu (%) Au (g/t) Count 350 350 724 724 436 436 Mean 2.40 0.31 3.00 0.01 6.60 0.23 Median 0.43 0.04 0.58 0.01 1.21 0.02 4.54 2.74 4.02 2.09 2.09 4.21 CV SD 13.67 9.65 0.65 0.02 18.22 0.98 97.50% 12.15 1.80 17.11 48.40 1.79 0.05 Max 112.95 7.59 194.00 0.27 170.24 11.90

Table 4-1. Gold Domains

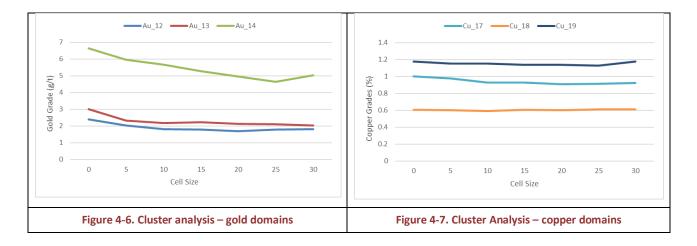
**Table 4-2. Copper Domains** 

Domain	Cu_17		Cu_18		Cu_19		
Statistic	Cu (%)	Au (g/t)	Cu (%)	Au (g/t)	Cu (%)	Au (g/t)	
Count	309	309	1358	1358	861	861	
Mean	1.00	0.12	0.60	0.87	1.20	0.09	
Median	0.53	0.02	0.45	0.03	0.70	0.02	
CV	1.52	9.21	1.12	7.77	1.37	4.34	
SD	1.52	1.07	0.67	6.76	1.61	0.41	
0.98	5.89	0.11	1.76	4.34	5.40	0.56	
Max	13.67	13.40	11.90	123.00	17.14	5.90	

Table 4-3. Sulphur and iron all domains

Statistic	Sulphur (%)						Iron (%)					
	Au_12	Au_13	Au_14	Cu_17	Cu_18	Cu_19	Au_12	Au_13	Au_14	Cu_17	Cu_18	Cu_19
Count	40	179	86	114	370	219	40	179	86	114	370	219
Mean	1.70	0.00	0.40	2.60	1.20	2.10	4.05	3.25	3.81	6.12	4.00	3.30
Median	1.39	0.02	0.03	2.03	0.94	1.68	3.88	3.07	3.3	5.82	3.575	2.71
CV	0.93	1.96	2.52	0.78	0.94	0.75	0.38	0.55	0.6	0.3	0.57	0.61
SD	1.57	0.04	1	2.03	1.14	1.56	1.55	1.78	2.27	1.81	2.28	2.02
0.975	5.51	0.04	3.94	7.37	3.82	6.15	8.32	8.52	10.94	11.04	9.74	8.21
0.99	6.79	0.19	5.72	8.92	5.25	7.90	10.37	9.93	12.53	13.26	10.16	10.27
Maximum	6.79	0.43	6.45	9.53	7.10	8.89	10.37	10.35	13.98	13.37	12.81	11.22

Clustering analysis showed gold domains have a level of clustering affecting the overall average grade of the composites with Domain 14, the high-grade domain having the greatest clustering issues. In gold domains 12 and 13 the clustered data smoothed with a relatively small cell size, finding a stable mean.



#### 4.6 **GRADE CAPPING**

Capping is the process of reducing the grade of an outlier sample to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of that value. The datasets (raw samples) were assessed for extreme outliers, values beyond the expected, that are not part of the sample distribution. No extreme outliers were found in the raw sample data set. Composite statistics were analysed to determine if grade capping was necessary to reduce the influence of expected outliers on the estimation. Histograms, log probability plots, interquartile ranges (Tukey Fences (Tukey, 1977)), standard deviations and metal loss are assessed when selecting a grade cap. Selected grade caps and summary statistics of domains before and after capping for gold are shown in Table 4-4 and copper statistics are shown in Table 4-5.

**Uncapped Composite Data** Capped Composite Data **Grade** Count Mean # Capped Domain Maximum Au 12 350 2.40 112.95 4.03 6 1.55 14.4 1.84 -0.350.02 Au\_13 721 2.22 72.92 2.68 | 8 2.03 31.7 2.17 0.01 -0.08

**Table 4-4. Grade Capping - Gold Domains** 

453 **92.6** 2.48 Au\_14 6.53 170.24 2.76 6.09 0.02 -0.07

**Table 4-5. Grade Capping - Copper Domains** 

	Uncapped Composite Data			Capped Composite Data				Grade		
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
Cu_W	309	1.00	13.67	1.52	4	0.97	7.0	1.38	0.01	-0.03
Cu_S	1364	0.60	11.90	1.12	7	0.58	3.6	0.82	0.01	-0.03
Cu_D	861	1.17	17.14	1.37	1	1.17	15.6	1.36	0.00	0.00

No grade capping was required for sulphur and iron.

#### 4.7 VARIOGRAPHY

The most important bivariate statistic used in geostatistics is the semi-variogram. The experimental semi-variogram is estimated as half the average of squared differences between data separated exactly by a distance vector (lag). Semi-variograms models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

Variogram maps were produced in Supac using samples in the plane of mineralisation to determine if any directional anisotropy was present. Generally, the experimental variograms were moderately formed, short lag (sample spacing) omni directional variograms were used in lieu of down hole variograms to determine and appropriate nugget effect. Modelled gold variogram parameters are shown in Table 4-6. Nugget effects range from 0.104 to 0.34 for gold deposits and 0.25 to 0.31 for the copper domains. Maximum ranges are 50 m to 100 m.

	Rotation			Variogram					Anisotropy		
Domain	bearing	plunge	dip	Со	C1	A1	C2	C2	Major/Semi- Major	Major minor	
12	214.7	-0.11	20.66	0.34	0.66	71.25			1.680	1.839	
13	60.00	0.00	-10.42	0.10	0.33	33.00	0.56	98.0	1.245	1.603	
14	206.4	-19.68	-80.56	0.27	0.730	100.00			1.428	2.491	
17	5.62	0.00	-19.24	0.25	0.75	49.46			1.117	1.281	
18	200.54	-3.24	8.81	0.31	0.69	70.00			1.290	1.810	
19	211.52	-19.63	69.41	0.25	0.72	55.46			1.697	2.220	

Table 4-6: Variogram model parameters – Gold

#### 5 MINERAL RESOURCE ESTIMATE

The El Pilar deposit is contained withing the 752 Ha Geological Investigation Concession (GIC), which is held by the Minera La Victoria JV (MLV). The GIC is surrounded by +17,000 Ha El Pilar Reconnaissance Permit that is held by the Los Llanos IEA. MLV is currently in the process of converting the GIC to an Exploitation Concession which will allow mining to occur. The company commonly refers to this as the "oxide" zone but does include material below the depth of weathering.

#### 5.1 DIMENSIONS

The El Pilar deposit is defined over a 600 m strike and is dominantly flat lying. Some lodes are interpreted to have a vertical aspect, steeply dipping. The flat lying mineralisation is commonly thicker, up to 20 m, with minor distal mineralisation along lithological contacts quite thin, modelled to down to 2 m. The deposit strikes NE (UTM) and dips shallowly to the SE  $^{\sim}10\text{-}20^{\circ}$ , with and has a shallow plunge to the SW. The steep central proportion of the deposit with elevated copper is expected to propagate to depth. Deep drilling is limited, thus not all mineralisation is reported as a resource. The reported resource lies within 150 m of the surface. (-100 m RL).

#### 5.2 GRADE ESTIMATION

Kriging techniques were used to estimate grade into large parent blocks. These parent blocks were subsequently sub-blocked to give accurate volumes. The sub-blocks reflect a reasonable smallest mining unit (SMU). The estimation has been tightly constrained by the wireframes.

Ordinary Kriging ("OK") is a robust grade estimation technique and is the main algorithm used in geostatistics. The most common use of OK is to estimate the average grades into parent blocks at the scale of the available drill hole spacing. OK is a globally unbiased estimator which produces the least error variance for grade estimates. It uses the grade continuity information from the variogram to estimate grades into parent blocks. It is also able to accommodate anisotropy within the data and is able to replicate this in the panel estimates.

Another important feature of kriging is that it automatically deals with clustering of data which is important in areas where the data density is not uniform.

#### 5.2.1 Block Model

The El pilar block model uses regular shaped blocks measuring 5 m by 10 m by 5 m (XYZ). Choice of block size and rotation was aligned with the trend and continuity of mineralisation, taking into account the dominant drill pattern. The orientation of the block model is parallel to the direction of dominant strike (bearing 035 degrees). Block model parameters (El\_Pilar\_4.mdl) are shown in Table 5-1 and block model attributes are shown in Table 5-2. Blocks above topography were tagged and excluded from the model estimation.

Drill sections at El Pilar are 20 m to 25 m along strike with drill centres spaced 20 m across strike. Sub-blocking is permitted to represent the volumes of the interpreted wireframes more precisely. The minimum block size (sub-block) is  $1.25 \times 1.25 \times$ 

	_		
Туре	Y	Х	Z
Minimum Coordinates	2406820	757160	-200
Maximum Coordinates	2407560	757680	100
User Block Size	10	5	5
Min. Block Size	1.25	1.25	1.25
Rotation	35	0	0

Table 5-1. Block Model Origins, rotation extents and block size

Table 5-2.	<b>Block</b>	model	attri	butes
------------	--------------	-------	-------	-------

Attribute	Type	Decimal	Backgroun	Description
Name	1	S	d	
au_id	Float	3	0	gold inverse distance estimate capped
au_nn	Float	3	0	gold nearest neighbour estimate capped
au_ok	Float	3	0	gold ordinary krige estimate capped
au_okr	Float	3	0	gold ordinary krige estimate un-capped
cu_id	Float	2	0	copper inverse distance estimate capped
cu_nn	Float	2	0	copper nearest neighbour estimate capped
cu_ok	Float	3	0	copper ordinary krige estimate capped
cu_okr	Float	2	0	copper ordinary krige estimate un-capped
density	Float	2	2.5	Density
deposit	Charact er	-	CU	Deposit Region - Cuba
fe_id	Float	3	0	iron inverse distance estimate capped
fe_nn	Float	3	0	iron nearest neighbour estimate capped
lid_au	Integer	-	-99	lode number gold
lid_cu	Integer	-	-99	lode number copper
lode_au	Charact er	-	WS	Mineralisation Gold Domain
lode_cu	Charact er	-	WS	Mineralisation Copper Domain
rescat	Integer	-	6	Resource classification (1 measured 2 indicated 3 inferred 4 unclassified 5 mined out 6 rock
rock	Integer	-	1	Air=0 Rock=1 Basalt = 2 Tertiary Sediments = 3
s_id	Float	3	0	sulphur inverse distance estimate capped
s_nn	Float	3	0	sulphur nearest neighbour estimate capped
wth	Charact er	-	FR	weathering and Alteration codes
Z	Float	2	0	block centroid
z_ads	Float	2	0	average distance to samples
z_brg	Float	2	0	bearing of the lode
z_cbs	Float	2	0	Conditional bias slope
z dh	Integer	-	0	number of informing drillholes

Attribute Name	Type	Decimal s	Backgroun d	Description
z_dhid	Charact er	-	0	hole_id
z_dip	Float	2	0	dip of the load
z_dns	Float	2	0	distance to nearest sample
z_ke	Float	2	0	krige efficiency
z_kv	Float	2	0	krige variance
z_ns	Integer	-	0	number of informing samples
z_ps	Integer	-	0	1 First Pass; 2 Second Pass Estimate
zs_ads	Float	2	0	average distance to samples
zs_dh	Integer	-	0	number of informing drillholes
zs_ns	Integer	-	0	number of informing samples
zs_ps	Integer	-	0	1 First Pass; 2 Second Pass Estimate

#### **5.2.2** Informing Samples and Search Parameters

The domains are treated as having hard boundaries; this restricts sample data from one lode influencing the grade of a lower lodes. The search ellipse was found to be optimal at or near the distance that the variogram reached the sill. A 60 m search ellipse was selected with anisotropic ratios of 1.4 and 1.8 as factors for the major-semi-minor and major-minor axis. The informing sample search ellipse was constant for all domains and elements.

Selection of the informing sample is via a moving neighbourhood, moving with respect to the centroid of the block. The orientation of the search ellipse utilised a fixed search orientation as defined by variogram analysis. A two-pass strategy was employed to estimate blocks, the first pass allowed a minimum of six (6) and maximum of 12 for domains 12,14 and 17 and a minimum of eight (8) and maximum of 16 for domains 13,18 and 19. A kriging neighbourhood analysis and the number of samples within a domain determined the minimum and maximum number of samples to use. The maximum number of samples per drill hole was set at 5. The second pass the search distance was doubled, the minimum required samples was reduced to 4 or 5, and the maximum number of permitted samples restricted to 8 or 10.

#### 5.3 DENSITY ESTIMATION

Antilles have collected 63 density measurements; the most common logged lithology is Tuff, and this is reflected in the proportion of density measurements in tuff (56%). Density measurements collected from hydrothermal breccia and diorite represent approximately 20% each (Table 5-3).

Lithology Count | Min SG (g/cc) | Max SG (g/cc) | Avg SG (g/cc) | 95th Confidence Andesite 4 2.19 2.78 2.54  $\pm 0.40$ Hydrothermal Breccia 10 2.13 2.7 2.49  $\pm 0.11$ Tectonic Breccia 2 2.48 2.78 2.63 ± 1.98 Diorite 11 1.79 2.79 2.46  $\pm 0.18$ <u>2.4</u>7 Massive Sulphide 1 2.47 2.47 2.48 Tuff 35 2.06 3.45  $\pm 0.08$ 

Table 5-3. Density by logged lithology.

Density readings range from 1.79 to 3.45  $t/m^3$ , with most falling in the 2.4 to 2.6  $t/m^3$  bins (Figure 5-1).

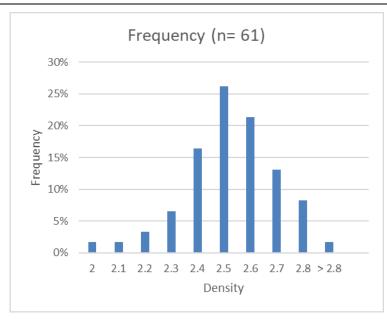


Figure 5-1. Density histogram

Weathering at El Pilar is quite shallow (few metres) and has limited effect on the density. The greater influence on density is alteration. Alteration assemblages at El Pilar progress from advance argillic (inner) to propylitic (outer). There is a relationship between density and depth, down hole depths were converted to vertical depth assuming all drillholes dipped 50° (Figure 5-2). Two outliers were removed from the regression the lowest and highest samples; sample from PDH-001A (52 to 52.8 m) in tuff with a density of 3.45 t/m³ and a sample from PDH-047 (92 to 93 m) in diorite with a light density of 1.79 t/m³.

Material above 50 m RL was assigned a density of  $2.13 \text{ t/m}^3$ , and material below -50 m RL was assigned a density of  $2.60 \text{ t/m}^3$ . The remainder of the blocks were assigned a density based on their RL, using the regression formula shown in Figure 5-2.

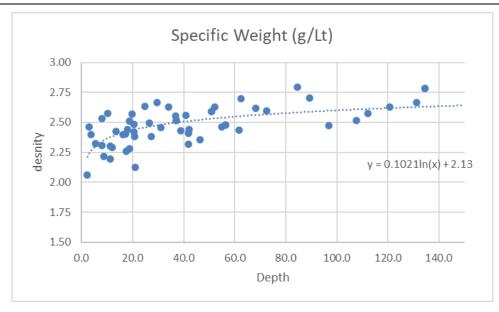


Figure 5-2. Logarithmic regression with depth

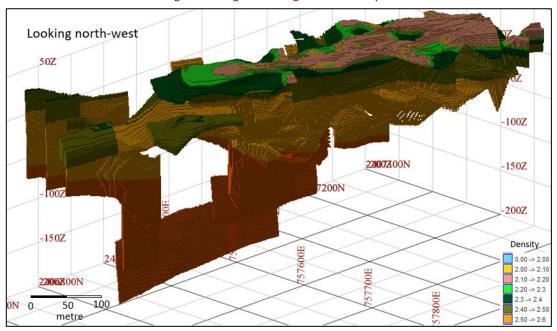


Figure 5-3. Mineralised Domains coloured by density.

#### 5.4 VALIDATION

The block model was validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis. Initial comparisons occurred visually on screen, using extracted composite samples and the block model. Further validation used swath plots to compare block estimates with informing sample statistics along parallel sections through the deposits.

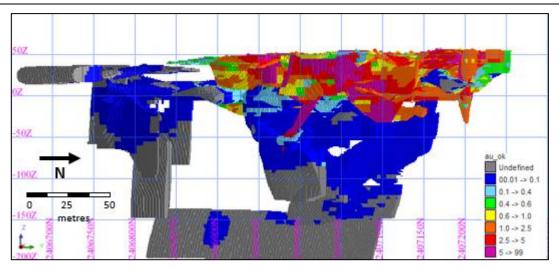


Figure 5-4. El Pilar block model, looking west, gold grades.

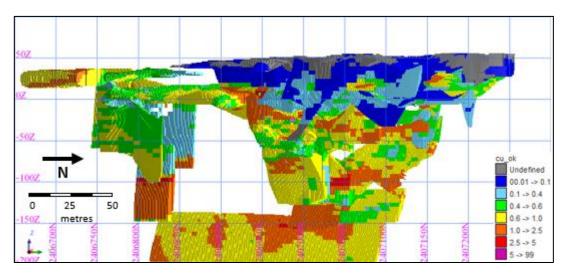
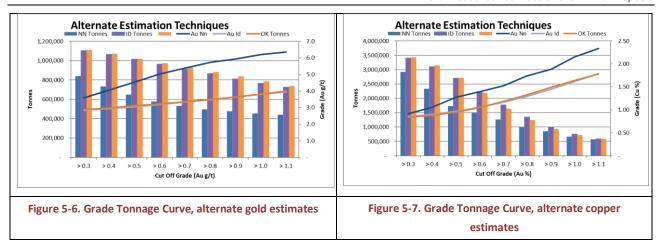


Figure 5-5. El Pilar block model, looking West, copper grades.

#### 5.4.1 Alternate Estimation Methods

Kriged copper and gold estimates were validated against nearest neighbour (NN) and inverse distance squared (ID<sup>2</sup>) estimates (Error! Reference source not found.). Comparing the three methods showed expected results:

- NN gives the highest grades and lowest tonnes above cut-off due to the absence of averaging and the tendency for any higher grades at the limits of drilling to be spread out into too many blocks. This outcome can be predicted from the clustered data charts (Figure 4-6) as evidenced by the rapidly changing mean grade with increasing cell size. The copper NN is closer to the ID and OK due to being less impacted by clustered data.
- ID<sup>2</sup> gives higher tonnes and lower grade compared with NN due to the introduction of distance weighted averaging.
- OK gives slightly lower tonnes and lower grades than ID<sup>2</sup> due to the ability to account for anisotropy and sample variance related to distance (variography) and the ability of the kriging matrix to decluster samples.



#### 5.4.2 Comparison with past estimates

The current resource has increased the tonnes and grade, largely due to the confirmation drilling undertaken by Antilles and their extension drilling has pushed the copper resource farther south. The 1997 density assigned to the resource was inferred, Antilles have collected 63 samples showing the assigned density is higher than that used in 1997.

Table 5-4. Historic Resource (Smith 1997)

Historic*	Tonnes	Cu %	Au g/t	M lb	k Oz	Density
Gold	1,574,000		2.08		105.23	2.40
Copper	2,123,000	0.74		34.50		2.40
Total tonnes	3,697,000	Not ap	plicable	34.50	105.23	2.40

<sup>\*</sup>the 1997 historic resource is superseded by the current resource reported here-in.

Table 5-5, Current Resource (2024)

	Tonnes	Cu %	Au g/t	M lb	k Oz	Density
Gold (> 0.3 g/t, < 0.25 % Cu)	845,000		2.69		73.03	2.35
Copper (>0.25%)	3,009,000	0.78	0.39	37.36	51.97	2.53
	3,854,000	Not applicable		37.36	125.00	2.49

#### 5.4.3 Global Bias Check

The modelled block volumes have been compared against the mineralisation wireframe volumes for each domain, to ensure the chosen sub-blocks are sufficient to define the volumes. The block model volumes and wireframe volumes reconcile well, except for the oxide domain where some of the shapes cross into the transported material and were not assigned a grade.

A comparison of global mean values within the grade domains shows a reasonably close relationship between composites and block model values (Figure 5-8). The comparison of composite and block grade means would normally be expected to show the composite mean being slightly higher than the block grade mean. The estimates reflect the mean sample grades well, lying on or near (within 10% deviation) except for the SHW, the southern hanging wall domain. The southern hanging wall domain has high grade gold in the shallow southern portion of the lode, the grade tenor drops off rapidly to depth.

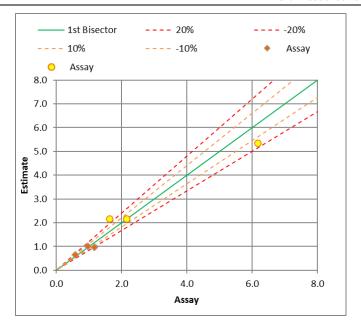


Figure 5-8. Global Validation by Domains Comparing OK and Average Sample Data (gold)

#### 5.4.4 Local Bias Check

Swath plots were generated on vertical E-W 20 m wide swaths, to assess local bias along strike by comparing the OK estimate with informing composite means for gold and copper. Results show no significant bias between OK estimates and informing samples and the smoothing effects of kriging is suitably contained.

The broad trend demonstrated by the raw data is honoured by the block model (Figure 5-9 and Figure 5-10), and the interpolated grades are, as expected, smoothed compared to the average composite grades. Raw data is length weighted and the blocks are volume weighted, increasing the probability that composite grades will average higher. The estimated grades generally closely follow the trends shown by the composite mean grades except for areas of variably spaced or limited sampling,

The high spike in seen in the composite data (Figure 5-9; 140 mN local grid) is caused by the high-grade drill hole PDH-002, in the block model this data is constrained to a interpreted high grade shoot restricting the spatial influence, however does present a risk as the holes below PDH-002, RC-115 and PDH-010, confirm the limited extent of mineralisation in hole PDH-002. Figure 5-10 shows copper mineralisation does kick around -140 mN (local grid) associated with several high copper values from hole PDH-031, these outliers are tempered with the high number of copper samples on the next section (-120 mN). The southern extent of the copper mineralisation is strongly influenced by hole PDH-167 which returned high grade near surface copper mineralisation, this hole has not been sufficiently followed up and may represent copper mineralisation associated with east north-east faulting (NE local grid).

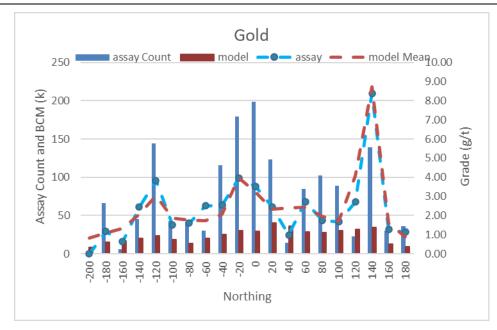


Figure 5-9. Northing Swath Plot – El Pilar Gold Mineralisation

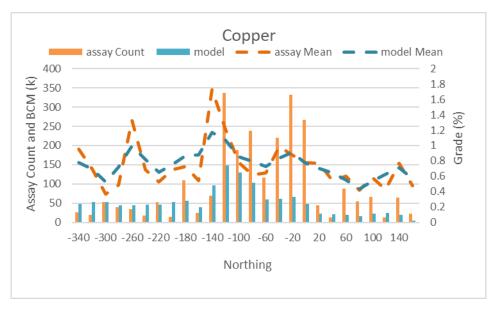


Figure 5-10.Northing Swath Plot – El Pilar Copper Mineralisation

#### 5.5 REASONABLE PROSPECTS OF EVENTUAL ECONOMIC EXTRACTION

The resource is reported above a 0.25 % Cu and material outside the copper mineralisation above 0.30 g/t gold grade and within 150 m of the surface (-100 mRL).

The following assumptions listed in Figure 5-4 were considered in determining a reasonable prospect of economic extraction, these assumptions should not be considered exhaustive. Mineral resources are not ore reserves and do not have demonstrated economic viability. Portions of a deposit that do not have reasonable prospects for eventual economic extraction have not been included in the Mineral Resource Statement.

Table 5-6. Cost Assumptions (USD)

		- (/
Parameter	Metric	Unit

Mining	3.40	\$/tonne
Process	11.70	\$/tonne
General/Admin	2.00	\$/tonne
Gold Recovery	83%	
Copper Recovery	82%	
Mining Dilution	5%	
Gold Price	2000	\$/oz
Copper Price	4.00	\$/lb
Gold Cut Off	0.34	g/t
Copper Cut Off	0.25	%

Metallurgical testing has shown that copper will float to a concentrate of saleable quality. The tests have also shown that low sulphur gold will float to the concentrate, upgrading to a few grams per tonne. Gold credits will be payable, starting at 1g/t, with 90% payable from 1 to 3g/t and 92% for 3 to 5g/t.

The grade tonnage chart (Figure 5-11) indicates mineralised tonnes increase with decreasing cut-off. The gold only material adds an additional.

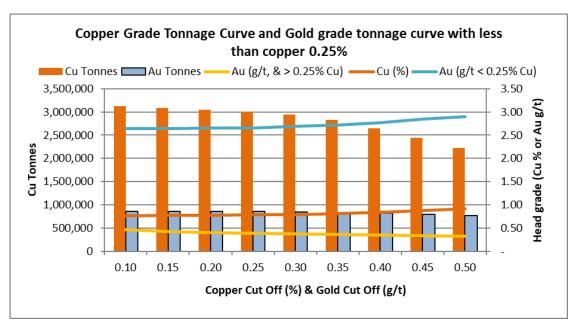


Figure 5-11. Grade Tonnage Curve, copper-gold, and gold only mineralisation.

#### 5.6 RESOURCE CLASSIFICATION

Resource classification is based on data quality, drill density, number of informing samples, kriging efficiency, conditional bias slope, average distance to informing samples and geological continuity (deposit consistency). The confidence in the quality of the data justified the classification of Indicated and Inferred Resources (Figure 5-12).

Indicated Resources are the portions of the deposit with a drill spacing of 20 m x 20 m or tighter, particularly where Antilles Gold have infilled key locations and have demonstrated a reasonable level of confidence in the geological continuity of the mineralisation. Indicated blocks are more intensely sampled than inferred blocks, with most blocks having a drill hole within 20 m and an average distance to informing composites generally less than 40 m, and are informed by the maximum number of composites (12 or 16 domain dependent) and have a conditional bias slope above 0.8.

Inferred Resources are the portions of the deposit covered by drill spacing greater than 20 m, or those portions of the deposit with a smaller number of intercepts but demonstrating an acceptable level of geological confidence. Inferred block can be informed by as few as 5 composites. Portions of the resource that do not meet these requirements remain unclassified resources and are not reported.

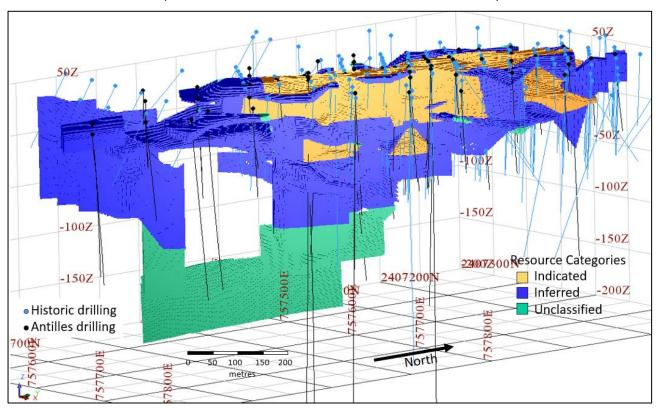


Figure 5-12. MRE Block Models by Resource Classification

#### 5.7 MINERAL RESOURCE STATEMENT.

The resource is reported above a depth of -100 m RL and above a cut-off grade of 0.25 % Cu including gold mineralisation, or greater than 0.3 g/t gold where mineralisation is outside the copper mineralisation. (-100 m RL is approximately 150 m below the surface). No significant artisanal mining and no mechanised mining has occurred on the property. The resource is divided into three metallurgical domains based on mineralisation, namely a gold domain, a coper and gold domain, and a copper domain mineralisation.

Material Type	Resource Category	Tonnes	Gold (g/t)	Gold (koz)	Copper (%)	Copper (Mlb)
Gold Domain	Indicated	470,000	2.83	42.7	-	-
Gold Domain	Inferred	376,000	2.51	30.4	-	-
Sub Total		846,000	2.69	73.1	-	-
Copper Gold Domain	Indicated	531,000	1.54	26.3	0.57	6.73
Domain	Inferred	90,000	1.95	5.7	0.50	0.99
Sub Total		621,000	1.60	31.9	0.56	7.72
Copper Domain	Indicated	304,000	0.11	1.1	1.36	9.11
Domain	Inferred	2,084,000	0.06	4.3	0.77	35.15
Sub Total		2,388,000	0.07	5.4	0.84	44.26
Total		3,855,000	•	110.5	•	51.98

#### Table 5-7. Reward Mineral Resource Estimate 2021

Due to rounding to appropriate significant figures, minor discrepancies may occur, tonnages are dry metric tonnes.

Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.

Gold in the copper gold domain and copper domain are expected to report to the copper concentrate, gold in concentrate above 1 g/t is commonly payable.

Inferred resource have less geological confidence than Indicated resources and should not have modifying factors applied to them. It is reasonable to expect that with further exploration most of the inferred resources could be upgraded to indicated resources.

The mineral resource contains 110.5 koz Au of shallow gold, and 90% of the MRE tonnes and ounces are within 50 m of the surface. Of the 51.98 Mlb of copper, 46% lies between 20 and 50 m of the surface.

## 5.8 MINING AND METALLURGICAL METHODS AND PARAMETERS AND OTHER MATERIAL MODIFYING FACTORS CONSIDERED

Antilles Gold foresees mining via open pit and conventional grinding and flotation, with metallurgical testwork undertaken on a range of composites for both the gold domain, and the copper/copper gold domain at Blue Coast Research in British Columbia, Canada. The El Pilar mineralisation sampled has been shown to be amenable to floatation for copper and gold. 82% of the copper reports to the float concentrates. The low-grade gold associated with the copper domains will provide gold credits in the copper concentrate (gold in concentrates is commonly payable above 1g/t). Low Sulphur gold mineralisation (gold domains) show 83 % recovery to the float concentrates. MA notes that this is a reasonable assumption but should not be regarded as rigorous at this stage of the project. The current Mineral Resource does not include any dilution or ore loss associated with practical mining constraints.

#### 6 REFERENCES

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#### 7 JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE 1

#### JORC Table 1 – El Pilar Gold Project

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

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut 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>	Historic Drilling (pre-2021) Historic drilling (pre-2021) was completed using open hole (reverse circulation) and diamond core. Sample intervals were variable based on geological features however the majority range from 1m to 2m in length.  Recent Drilling (2022 onwards) Recent drilling has been completed using diamond drilling at HQ and NQ core size. Samples were collected at 2m intervals in 2022 and are collected at 1m intervals from April 2023 although adjusted for geological features as required.
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by</li> </ul>	<ul> <li>Historic Drilling (pre 2022)</li> <li>Historical drilling was undertaken utilising both reverse circulation and diamond drilling. Historic diamond holes are NQ. Historic RC drilling utilised a truck mounted drill rig and a smaller track mounted drill rig. The RC hole size is not known.</li> </ul>

	what method, etc).	
	what method, etc).	Recent Drilling (2022 onwards)
		<ul> <li>Recent drilling was completed exclusively using diamond drilling methods using HQ triple tube techniques (HQ3) with a core diameter of ~61mm, and NQ3 with a core diameter of 45mm.</li> </ul>
Drill sample		Historic Drilling (pre 2022)
recovery	<ul><li>sample recoveries and results assessed.</li><li>Measures taken to maximise sample recovery and</li></ul>	Detailed records on drill core and chip recovery are not available.
	ensure representative nature of the samples.	Recent Drilling (2022 onwards)
	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.	<ul> <li>Core recoveries were measured after each drill run, comparing length of core recovered vs. drill depth. Core recoveries were generally better than 96% however core recoveries as low as 80% have been recorded in some vein zones. Short runs were undertaken to counter the poor rock quality (low RQD), in zones of highly broken rock the whole run (~1.5m) was the sample interval. There is no relationship between core recovery and grade. *Diamond drill core was not oriented due to technological limitations in-country for holes PDH-001 to 006, but all subsequent holes have been orientated Reflex ACTIII.</li> </ul>
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> </ul>	<ul> <li>Historic Drilling (pre 2022)</li> <li>No drill logs (hard copies) have been seen for the historical drilling. The drill hole database has basic geology codes for the historic holes.</li> <li>Recent Drilling (2022 onwards)</li> <li>All core has been geologically logged by qualified geologists under the direct supervision of a consulting geologist to a level to support reporting of Mineral Resources.</li> <li>Core logging is qualitative and all core trays have been digitally photographed and will be stored on a</li> </ul>
	<ul> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	server.
Sub-sampling	If core, whether cut or sawn and whether quarter,     If or all core takes.	Historic Drilling (pre 2022)
techniques and sample preparation	and sample  If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	<ul> <li>Records on the nature of sub-sampling techniques associated with the historical diamond drilling are not available for review. The Historic RC returns were collected in buckets and passed through riffle splitter to produce approximately a 3 kg sample. Wet samples were run through a separator and after drying approximately 0.5 to 1.5 kg was retained as the sample.</li> <li>Information available from historic reports regarding the sample preparation techniques are that 1m core intervals were course ground, homogenised and screened at 1 mm. Cuttings from RC drilling were similarly homogenised, pulverised and screened at 1 mm.</li> </ul>
		Recent Drilling (2022 onwards)     Core is cut using diamond saw, with half core selected for sample analysis. Samples too broken to cut
	representative of the in situ material collected,	were split and half the rubble was submitted.

- including for instance results for field duplicate/second-half sampling.
- Whether sample sizes are appropriate to the grain size of the material being sampled.
- Samples submitted for preparation at LACEMI in Havana are dried at a temperature between 80 and 100 °C for a minimum 24 hrs. Sample is then crushed to 75% passing 2 mm, with two 250 g subsamples collected through a riffle splitter.
- Subsample is pulverised to 104 microns.
- One 250 g sample is sent to SGS Peru for analysis of Au and 49 elements by a 2 acid digest.
- 1/4 core duplicates are collected at an average rate of 1 in every 20 samples.
- pXRF results from drill core are averaged from spot readings taken at 20 cm intervals per each meter of
  core. The pXRF readings have been taken from above the commencement of the Cu mineralisation
  zone, until the termination of the hole. pXRF readings are not used in the determination of the mineral
  resource.

#### Quality of assay data and laboratory

tests

- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
- 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 levels of accuracy (ie lack of bias) and precision have been established.

#### Historic Drilling (pre 2022)

Soil samples were sent to Chemex Labs Ltd. in Vancouver through CIMTEC, where they were analyzed by means of Fire Assay with AA finish for gold, determining another 32 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sc, Sr, Ti, Tl, U, V, W, Zn) via ICP. The trench and drill samples were sent to the XRAL laboratory in Canada where the determination of the gold was carried out via fire assay with instrumental finish (ppb), the results higher than 1000 ppb were verified with Fire Assay (ppm). The rest of the elements (Be, Na, Mg, Al, P, K, Ca, Sc, Tl, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Sr, Y, Zr, Mo, Ag, Cd, Sn, Sb, Ba, La, W, Pb and Bi), were determined by ICP.

#### Recent Drilling (2022)

Preliminary analysis was undertaken at LACEMI in Havana Cuba, which is not a certified laboratory for the purposes of JORC. The LACEMI facilities have however been inspected by Competent Persons and it is the intention to work through the process of having the laboratory certified.

Analysis for gold is via 30g fire assay with AA finish. Over range gold assays (+30g/t) are repeated with Fire Assay and a gravimetric finish.

Cu is analysed by 2 acids HNO3 -HCL, and measurement by ICP

Both Fire Assay and 2 acid digest are considered total assay methods for the elements of interest. There are no observed copper silicates or oxides.

Certified reference materials from OREAS (21f, 907, 506, 503d, 254b and 258) are inserted at a rate of one every 20 samples, with a blank inserted every 40 samples. Coarse field duplicates are submitted at a rate of 1 in every 33 samples.

Corresponding duplicate pulp samples (from the 2022 drill program) were analysed at the SGS laboratory in Burnaby Vancouver, utilising 30g Fire Assay AAS for Au, with 30g Fire Assay gravimetric for overrange analysis and 4 acid digest ICP-AAs/ICP-MS (49 element) including Cu

SGS results were prioritised over the LACEMI results for the estimation of the mineral resource.

#### Recent Drilling (2023)

Analysis is being undertaken at SGS laboratories in Lima Peru.

		Analysis for gold is via 30g fire assay with AA finish. Over range gold assays (+30g/t) are repeated with Fire Assay and a gravimetric finish.
		<ul> <li>with Fire Assay and a gravimetric finish.</li> <li>Cu is analysed by 2 acids HNO3 -HCL, and measurement by ICP</li> </ul>
		Both Fire Assay and 2 acid digest are considered total assay methods for the elements of interest (no observed copper silicates or oxides).
		• Certified reference materials from OREAS (908, 907, 506, 503e, 254b and 258) are inserted at a rate of one every 25 samples, with a blank inserted every 40 samples. Coarse field duplicates are submitted at a rate of 1 in every 20 samples.
		• pXRF results on drill core were reported using a Thermo Scientific Portable XRF Analyzer, Model Niton XL2, with a shot every 20 cm, shot duration 30 seconds. A mix of standards are utilised every 50 samples and blanks every 60 samples. No pXRF readings were used in the delineation of the mineral resource.
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 company and contractor personnel.</li> <li>Part of the 2023 drilling has been designed to twin historic drilling as part of a sample verification process as well as extend further into the mineralisation at depth.</li> <li>The twin hole drill program showed the historic truck mounted gold results required factoring down. A linear regression was sufficient to align the histogram of the truck mounted gold results with the sample histogram of the current diamond drilling. Historic copper and the track mounted drill rig gold samples were shown to have similar distributions (statistically and graphically) and were suitable for the use in a mineral resource without adjustment.</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 (differential GPS).</li> <li>All completed drill collars were surveyed by total station utilizing the local survey datum, on the WGS 84 UTM 17N grid.</li> <li>A LiDAR survey undertaken in September 2022 defines the natural surface topography. 1 m contours across the project area were extracted and is used to delineate the upper surface of the Mineral Resource</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 holes drilled were aimed at verifying data from historical drilling, rather than being on a specific spacing.</li> <li>Approximately 25,000m of historical drilling exists in a database, and the 6 holes drilled in 2022 were aimed at verifying historical intercepts.</li> <li>Additional holes are being drilled to twin historic holes for validation of the historical drilling, as well as develop a Mineral Resource Estimate for the El Pilar oxide zone.</li> </ul>

Orientation of data in relation to geological structure	•	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  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.	•	Given the oxide zones are sub-horizontal and elongated, based on the level of oxidation, the drilling has been oriented to cut both the oxide gold and copper zones at optimal angles from previous drilling. However, given there are multiple subvertical structures, along with the oxidation boundaries, this has to be taken in mind also in the optimum orientation of drillholes. The underlying sulphide mineralisation has been shown to be largely sub-vertical in nature and drilling has cut these zones at more optimal angles.
Sample security	•	The measures taken to ensure sample security.	•	All core is securely stored in a warehouse in Ciego de Avila where it is logged and sampled. Samples are transported to the sample preparation laboratory in Havana in a company vehicle with Company driver.  For transport of pulp samples to SGS Peru, 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 Cubana. The samples are flown to Lima via Cubana airfreight for customs clearance prior to transport to the SGS Lima laboratory.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	•	98 sample pulps were sent from SGS to Bureau Veritas in Lima, with all Au and Cu assays showing high repeatability.

#### **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  Exploration done	<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> <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> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The El Pilar Reconnaissance Permit is registered to the Los Llanos International Economic Association, which is an agreement 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 mining company Geominera SA. The Reconnaissance Permit encompasses 17,839 Ha and is located in the topographic sheets at scale 1: 50 000 Ceballos (4481-I), Gaspar (4481-II), Corojo (4581-III) and Primero de Enero (4581-IV), 25 km east-southeast of the city of Ciego de Ávila, central Cuba.</li> <li>Within the Reconnaissance Permit is a separate752.3Ha El Pilar Geological Investigation Concession (GIC), covering the El Pilar oxide gold and copper mineralisation to a mining depth of 100m below surface. The GIC has been transferred from Gold Caribbean Mining to the 50:50 Minera la Victoria JV.</li> <li>The El Pilar prospect was explored most recently by Canadian company KWG, who undertook airborne geophysics, trenching (22 trenches totalling 4640m) and RC and Diamond drilling.</li> </ul>
by other parties	by outer parties.	<ul> <li>Drilling was undertaken between 1994 and 1997, with 159 RC holes drilled for a total of 20,799m and 29 diamond holes drilled for a total of 3,611m.</li> <li>Chemical analysis for Au, Cu and other elements undertaken at Chemex laboratories in Canada. No core samples remain.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The El Pilar copper-gold porphyry system is hosted within a Cretaceous age volcanic island arc setting that is composed of mafic to intermediate composition tuffs, ash and volcanoclastic rocks that are intruded by similar age granodiorite and diorite intrusive stocks.</li> <li>The geological setting is very similar to the many prospective volcanic island arc geological environments that are related to porphyry style mineralisation, and associated vein systems.</li> <li>The El Pilar system has shown to date both overlapping hydrothermal alteration styles, and complex multiple veining events that is common with the emplacement of a mineralised porphyry copper-gold system.</li> </ul>
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</li> </ul> </li> </ul>	This report relates to a mineral resource estimate, no new drill results are reported here in.

	•	collar o dip and azimuth of the hole o down hole length and interception depth o hole length.  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.			
Data aggregation methods	•	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.  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.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	•	No	new exploration drill results are reported here in
Relationship between mineralisation widths and intercept lengths	•	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').	•		new exploration drill results are reported here in.
Diagrams	•	Appropriate maps and sections (with scales) and tabulations of intercepts should be included	•		e Figures included the body of this Announcement. Relevant commentary relating to diagrams is ovided in the resource report.

Balanced reporting	•	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.  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.	•		lo new exploration results are reported here in. Il exploration data was considered during the interpretation and estimation of the mineral resource.
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.	•		Refer memo: El Pilar – Gold Concentrate Produced from a Gold Oxide Sample, dated 17 August 2023, y Antilles Gold Limited Technical Director Dr Jinxing Ji, JJ Metallurgical Services inc
Further work	•	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	•	Т	he resource has been classified as indicated and inferred, the model is suitable for a scoping study.

#### **Section 3 Estimation and Reporting of Mineral Resources**

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

Criteria	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>Mining Associates (MA) has undertaken limited independent first principal checks using hard copies of results from current and historic sources and sectional interpretations.</li> <li>Historical Independent Technical Reports were relied upon to validate the historic drill hole database. The reports included plans and cross sections.</li> <li>The database is currently managed by Antilles Gold staff.</li> <li>Basic database validation checks were run, including collar locations, drill holes plot on topography, checks for missing intervals, overlapping intervals and hole depth mismatches</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 (Mr I.Taylor, BSc(Hons), FAusIMM(CP)) visited site on the 25th and 26th of January 2024 to review the geology, drill core, field and drill practices as part of the 2024 Mineral Resource Estimate Update.</li> <li>Selected drill holes were laid out and reviewed by the CP, several drill collars were verified with a handheld GPS.</li> <li>Data collection and discussions with the site geologists were the primary focus of the visits, a greater understanding of the geological setting and appreciation of Antilles Gold Procedures.</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 Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Confidence in the geological interpretation is considered moderate to high, dependent on the differing drill hole spacing in parts of the deposit.</li> <li>Interpretations are based solely on drill hole data: there is only sub-crop in the area covering the deposit.</li> <li>Drill core logging has been used to define the main geological (alteration) units and shallow weathering profile boundaries.</li> <li>Observations from diamond drill core show strong argillic alteration grading to phyllic and out to propylitic alteration.</li> <li>Alternative interpretations of mineralised domain boundaries would affect tonnage and grade, although the CP is confident that the current model is a fair representation of the deposit based on available data.</li> <li>Six highly altered mineralised domains were interpreted, based on continuity of gold and copper grade. Mineralised domain grade cut-offs were based on examination of probability plots. Domains strike northeast and are relatively flat dipping to the south-east. Few domains show a shallow south westerly plunge.</li> <li>Gold domains are defined by a 0.3 g/t boundary and the copper domains are defined by a 0.25% Cu boundary.</li> <li>Faulting does exist at the project and significantly affects the rock quality (low RQD). Major faults have been identified at the project; the offsets help define the resource extents. The northern end of the mineralisation lies under a shallow hill (~15 m above the surrounds).</li> </ul>

#### **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.

- The El Pilar deposit is defined over a 600 m strike and is dominantly flat lying. Some lodes are interpreted to have a vertical aspect, steeply dipping. Mineralisation is commonly thick, up to 20 m, with minor distal mineralisation along lithological contacts guite thin, modelled to down to 2 m.
- The resource shows depth potential, though drilling at depth is limited, the resource is reported to approximately 150 m below the surface. (-100 m RL).
- Mineralisation strikes NE (UTM) and dips shallowly to the SE ~10-20°, with a perceived plunge to the SW, ~5°.
- The steep central proportion of the deposit with elevated copper is expected to propagate to depth and is still open.

# Estimation and • modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key 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

- The southern portion of the deposit is drilled on 20 m and the northern portion of the deposit is drilled on 25 m sections. Critical areas of the historic drilling has been twinned with diamond core holes. One section is infilled on 10 m centres. Down dip pierce points are commonly 20 m
- A KNA analysis showed the optimal block size was 10 x 10 x 10 m. MA chose a smaller parent block size of 5 x 10 x 5 m to add detail in the Z direction and better match the likely finial mining scenario, (open pit benches). The sub blocking was chosen to reflect a likely SMU of and open pit operation, (1.25 x 2.5 x 1.25 m (XYZ))
- Search ellipses were based on a combination of drill density and variogram ranges, variogram ranges ranged between 50 and 100 m, 60 m was selected as the long axis of the search ellipse.
- A two-pass estimation process was employed, the first pass (60m) required a minimum of 6 or 8 samples and a maximum of 12 or 16 composites, the second pass (120m) required a minimum of 4 or 5 composites and a maximum of 8 or 10 composites, depending on the number of composites in the domain.
- The deposit is best suited to open pit mining methods, the sub block size chosen (1.25, 3.25, 1.25m (XYZ) was chosen to reflect a reasonable smallest mining unit assuming 5 m blasts and 2.5 flitches. The smallest mining unit also was considered when selecting appropriate composite lengths.
- Gold and copper mineralisation are not correlated and are estimated independently. Fe and S are correlated are estimated into the model.
- The geological model included weathering/alteration profiles. Mineralisation is assumed to be affected by meteorological and or hydrothermal fluids and is interpreted as dominantly horizontal lenses.
- Composite lengths of 1 to 4 m were considered, mean and CV assessed, and 1 m composites assays were selected. Extreme outliers were checked against primary assay results and in relation to the remainder of the domain.
- Global drill hole and sample means were compared. Localised Swath plots were checked, both at the
  deposit scale and domains scale.
- Grade tonnage curves from a Nearest neighbour and ID<sup>2</sup> estimate were compared to the OK grade tonnage curve.
- No mining has occurred at the project.

	<ul> <li>interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul> <li>No moisture readings were collected, samples were air dried before weighing, for use in the density determinations.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	• The deposit is reported at a 0.25 % copper cutoff, the gold only material is reported at a 0.3 g/t gold cut off.
Mining factors or assumptions	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.	<ul> <li>No mining factors or assumptions have been applied to the resource.</li> <li>MA considers the Nueva-Sabana deposit amenable to open pit mining methods and assumes the likely mining scenario will have 5 m benches and 2.5 m flitches. These assumptions have influenced, composite length, block size and resource cut off parameters.</li> </ul>
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	<ul> <li>Four composite samples of Cu (high grade 1.1% Cu, high/medium grade 0.69% Cu, Medium grade 0.5% Cu and low grade 0.29% Cu) were tested in a 3 stage open circuit and then 2 stage locked cycle to determine recoveries and concentrate specifications.</li> <li>Two composite samples of Au (2.2 g/t Au and 17.3 g/t) were subjected to froth flotation testing, with the 2.2 g/t sample produced a combined rougher 1 to 4 concentrate of 55.8 g/t gold at a recovery of 83.6% with few penalty elements present based on a detailed chemical analyses. The same test was conducted on the high grade sample which produced a concentrate with a grade of 240 g/t gold at a recovery of 93.8%.</li> <li>The gold to concentrate recovery is 84% and the copper to concentrate recovery is 82%</li> </ul>

Environmental factors or assumptions	Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.  • 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.	<ul> <li>The Nueva Sabana Project area is situated in a largely anthropized territory where much of the original flora has given way to invasive and opportunistic plant species such as marabou, several specimens of pine, and eucalyptus. The terrain is mostly flat with no important features such as rivers, lakes, or protected zones.</li> <li>An Environmental Impact Study (EIS) is currently underway by State Agency Empresa Geocuba Camagüey-Ciego de Ávila (AEMA-GEOCUBA). This study is due to be completed by June 2024.</li> </ul>
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>	<ul> <li>63 density measurements have been collected from diamond core.</li> <li>Density is determined using Archimedes principal.</li> <li>Density readings range from 1.79 to 3.45 t/m3, with most falling in the 2.4 to 2.6 t/m³.</li> <li>Density increases with depth. Material above 50 m RL was assigned 2.13 t/m³, and material below -50 m RL was assigned a density of 2.6 t/m³. The remainder of the blocks were assigned a density based a regression formula from the RL of the block.</li> </ul>
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	<ul> <li>Mineralisation has been classified in accordance with the JORC 2012 guidelines.</li> <li>The interpretation is informed by reliable input data, tested geological continuity and a demonstrated grade</li> </ul>

- 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).
- Whether the result appropriately reflects the Competent Person's view of the deposit.

distribution.

- The mineral resource estimate has been classified as indicated, inferred or unclassified based on drill hole spacing, geological continuity and estimation quality parameters.
- Indicated resources are defined as mineralisation of is drilled on a 20 x 20 m, blocks are informed by 12 to 16 composites with most of the informing samples within 40 m of the block. Indicated resources have a low krige variance (< 0.3) and high conditional bias slope (> 0.8).
- Inferred mineralisation is dominantly informed by a 20 x 20 m drill pattern but does include extrapolations through lower drill densities. Geological continuity is assumed but not verified. The average distance to informing samples is dominantly less than 80 m. Krige variances are higher (~0.6) and conditional bias slopes are low (~0.2).
- The above criteria were used to determine areas of implied and assumed geological and grade continuity.
   Classification was assessed on a per domain basis and resource categories were stamped onto the individual domains.
- Unclassified mineralisation has not been included in this Mineral Resource. Unclassified material is either contained in isolated blocks above cut off, too thin or in deep proportions of the deposit associated unlikely to be extracted in an open pit scenario.
  - The classification reflects the competent person's view of the Bellbird deposit.

#### Audits reviews

- The results of any audits or reviews of Mineral Resource estimates.
- There has been no independent audit of the data or mineral resource.

# Discussion relative accuracy/confidence

- 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.
  - 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

- No geostatistical confidence limits have been estimated. The relative accuracy and confidence in the
  Mineral Resource Estimate is reflected in the Resource Categories. It should be highlighted that some of
  the historic gold assays were factored down to reflect the distribution seen in the current diamond drill
  campaign.
- The ordinary kriging result, due to the high level of smoothing, should only be regarded as a global estimate, and is suitable as a life of mine planning tool.
- Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve.
- Should local estimates be required for detailed mine scheduling techniques such as Uniform conditioning or conditional simulation should be considered, ultimately grade control drilling is required.
- Comparison with the previous estimates indicates that the changes implemented in the current Mineral Resource Estimate produced results that are in line with expectations. (reduced tonnes and increased copper and gold grades)
- · No mining has occurred at the deposit.

assumptions made and the procedures used.
These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.



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#### **Written Consent Statement**

I<del>/We</del>,

### lan Taylor

(Insert full name(s))

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years
  experience that is relevant to the style of mineralisation and type of deposit described in the Report,
  and to the activity for which I am accepting responsibility.
- I am a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy
- I have reviewed the Report to which this Consent Statement applies.

I am a consultant working for Mining Associates Pty Ltd and have been engaged by Antilles Gold Ltd to prepare the documentation for El Pilar Deposit of the Nueva-Sabana Project on which the Report is based, for the period ended 09th February 2024

I have disclosed to the reporting company the full nature of the relationship between myself and the company, there are no issues that could be perceived by investors as a conflict of interest.

I verify that the News Release (dated 06<sup>th</sup> March 2024) is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources and/or Ore Reserves (select as appropriate).

#### Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Antilles Gold Ltd		
(Insert reporting company name)		
Signed 05/03/24 - Do Not Copy	5 <sup>th</sup> March 2024	
Signature of Competent Person:	Date:	
FAusIMM (CP)	110090	
Professional Membership: (insert organisation name)	Membership Number:	
Signed 05/03/24 - Do Not Copy	The Gap	
Signature of Witness:	Print Witness Name and Residence: (eg town/suburb)	



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

Antilles Gold's strategy is to participate in the successive development of previously explored gold, silver, and copper deposits in mineral rich Cuba.

- The Company is at the forefront of the emerging mining sector in Cuba and expects to be involved in the development of several projects through its joint venture with the Cuban Government's mining company, GeoMinera SA.
- The first project expected to be developed by the 50:50 joint venture company, Minera La Victoria SA, is the proposed Nueva Sabana mine based on the El Pilar gold-copper oxide deposit which overlays a large 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 gold arsenopyrite, and gold antimony concentrates. It is planned to process the high arsenic concentrate at a plant incorporating a 200tpd two stage fluid bed roaster, and a 275tpd CIL circuit to produce gold doré.
- The joint venture partners intend to invest part of the expected surplus cash flow from early mine developments to fund exploration of major copper targets, including the El Pilar copper-gold porphyry system, and three highly prospective properties within the Sierra Maestra copper belt in south east Cuba.



- o 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.
- o 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