

14 November 2024

## RESULTS OF UPDATED SCOPING STUDY FOR NUEVA SABANA MINE, CUBA

Antilles Gold Limited ("Antilles Gold" or the "Company") (ASX: AAU, OTCQB: ANTMF) is pleased to advise the results of the Updated Scoping Study for the first stage of the proposed Nueva Sabana gold-copper mine in Cuba. The Study has been prepared by the 50% owned Cuban joint venture company, Minera La Victoria SA ("MLV"), which is undertaking the project.

- The Updated Scoping Study is based on a pit limited to 100m depth which, at a mining rate of 500,000tpa of ore, will result in an initial mine life of 4.8 years.
- With additional exploration, and a greater mining depth, the project life and NPV could be increased.
- Metallurgical testwork set out in ATTACHMENT C indicates the mine will initially produce a gold concentrate grading ~57.5g/t Au for around 18 months, followed by a blended copper-gold concentrate with an average grade of ~28.3% Cu, and ~29.8g/t Au.
- Payables for these concentrates have been received from a major international commodity trader that the joint venture is negotiating with to establish an off-take agreement.
- The off-take agreement is expected to include a provision for advanced payments for concentrates to assist in the funding of construction costs.
- The 752ha concession covering the Nueva Sabana oxide deposit also hosts the El Pilar, Gaspar, and Camilo porphyry copper intrusives, and numerous shallow gold targets identified by artisanal mining.
- The Nueva Sabana deposit has a small gold cap, an underlying copper-gold zone, and a deeper sulphide copper zone with mineralisation open at depth at 150m which could potentially transition into the El Pilar porphyry copper deposit offset to the south.

## HIGHLIGHTS OF FINANCIAL ANALYSIS FOR STAGE ONE OF THE NUEVA SABANA MINE:

	US\$M	A\$M
<b>Concession Acquisition Cost</b>	<b>1.5</b>	<b>2.3</b>
<b>Pre-development Costs</b>	<b>5.0</b>	<b>7.6</b>
<b>Mine Development Costs including engineering, construction, spares, first fills, commissioning, and capitalised interest</b>	<b>28.5</b>	<b>43.2</b>
<b>LoM Operating Costs including shipping, royalties, and other Government charges</b>	<b>110.1</b>	<b>166.8</b>
<b>LoM Sales</b>	<b>237.2</b>	<b>359.4</b>
<b>LoM Net Profit (taxation waived)</b>	<b>105.5</b>	<b>159.8</b>
<b>LoM Surplus Cash</b>	<b>96.6</b>	<b>146.3</b>
<b>NPV<sup>8</sup> 1 January 2025</b>	<b>72.3</b>	<b>109.5</b>
<b>(US\$2,250/Oz Au, US\$9,000/t Cu)</b>		
	<i>A\$1.00 = US\$0.66</i>	
<b>IRR</b>	<b>63.2%</b>	

**Planned Construction Completion - December 2025**

**Planned First Shipment of Gold Concentrate – Q1 2026**

- **Estimated Operating Profit of ~US\$60M from the first 22 months of concentrate production will comfortably permit repayment of the ~US\$28.5M project debt before the end of this period.**
- **MLV intends to drill the copper mineralisation that continues below the stage one mining depth of 100m with the aim of deepening the Nueva Sabana mine and extending its life.**
- **The Revised MRE for Nueva Sabana which is incorporated as ATTACHMENT A in the Study, established approximately 25M lb of 0.75% copper in Inferred Resources within the 50m below the initial mine depth, which is a positive indication of the potential to extend its life.**

- **MLV also intends to drill identified oxide gold-copper targets overlying the nearby Gaspar and Camilo porphyry copper deposits to potentially increase resources.**
- **Subject to the results of additional drilling, consideration will be given to doubling the mining rate in the copper domain to 1.0Mtpa of ore to increase annual profitability and cash flow.**
- **It is possible that the Nueva Sabana mine could be significantly expanded and extended in the future to mine the three porphyry copper deposits located within the mining concession.**

**Antilles Gold Chairman, Mr Brian Johnson, commented:** "The first stage of Nueva Sabana, while relatively small, has an excellent IRR and will deliver significant free cash within a short timeframe.

MLV's priority at this time is to finalise current negotiations on a concentrate off-take agreement for the project, and to arrange financing for the mine construction.

Antilles Gold's share of the estimated NPV<sup>8</sup> for the first stage of Nueva Sabana is ~A\$70M at current metal prices of US\$2,600 per oz Au, and US\$9,300/t Cu, and an exchange rate of A\$1.00 = US\$0.66, which is significantly higher than the Company's current market capitalisation of A\$7.5M.

The opportunity to unlock further value for Antilles Gold will occur with the proposed development of the joint venture's flagship project, the La Demajagua gold-silver-antimony mine, where the Company's share of NPV<sup>8</sup> reported to ASX on 30 March 2023 was ~A\$150M, prior to the joint venture's decision to expand the project to produce gold doré from the mine's gold arsenopyrite concentrate, and to increase antimony production.

Before the end of 2024, Antilles Gold will contribute the final US\$0.4M of the US\$15.0M earn-in for its 50% shareholding in the joint venture company, Minera La Victoria ("MLV"), after which the Company's cash burn will be substantially reduced."

END

This announcement has been approved by the Board of Antilles Gold Limited.  
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**ANTILLES  
GOLD** LIMITED

**UPDATED SCOPING STUDY**

**NUEVA SABANA OPEN PIT MINE, CUBA**

**STAGE ONE**

14 November 2024

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## FINANCIAL RESULTS FROM UPDATED SCOPING STUDY FOR STAGE ONE NUEVA SABANA OPEN PIT GOLD-COPPER MINE, CUBA

**Antilles Gold Inc ("AGI")**, a Cayman Islands registered subsidiary of **Antilles Gold Limited**, formalised an Agreement in August 2020 with **Gold Caribbean Mining SA ("GCM")**, a subsidiary of the Cuban Government's mining company, **GeoMinera SA ("GMSA")**, to incorporate **Minera La Victoria SA ("MLV")** as a foreign joint venture company to undertake mining projects in Cuba.

The objective of the 50:50 joint venture company, MLV, is to achieve organic growth through the successive development of a series of mines based on previously explored gold, and copper-gold deposits made available to MLV by GMSA, with the aim of ultimately establishing MLV as a substantial mining company in Cuba.

The first project expected to be developed by MLV is the low cost **Nueva Sabana gold-copper open pit mine** in central Cuba, which is the subject of this Updated Scoping Study.

The Nueva Sabana deposit hosts an outcropping oxide gold zone, an underlying copper-gold zone, and a lower sulphide copper zone which is open at depth at 150m, and potentially transitions into the El Pilar porphyry copper deposit which is offset to the south.

GMSA provided MLV with results from 24,000m of historic drilling of the Nueva Sabana deposit by Canadian exploration companies, and a total of 14,000m of cored drilling was undertaken by MLV in 2022, 2023 and 2024.

Assays received from MLV's exploration program plus selected data from the historic drilling were utilised by Brisbane based mining consultants, Mining Associates Pty Ltd, when establishing the Revised Mineral Resource Estimate ("MRE") for the proposed open pit mine which is included as ATTACHMENT A (Author – Ian Taylor).

The 752ha Concession that covers the proposed Nueva Sabana mine also includes a cluster of three porphyry copper intrusives (El Pilar, Gaspar, and Camila), and numerous shallow gold targets identified by artisanal workings.

Following commencement of mining operations, and a positive cash flow, MLV will undertake the exploration of a number of gold and copper targets within the concession hosting the Nueva Sabana deposit, with the aim of increasing the resources, and extending the mine life.

The Updated Scoping Study is based on an optimised Life of Mine Plan ("LoMP") using factored Indicated and Inferred resource categories prepared by Mining Associates Pty Ltd (Author – Anthony Stepcich) which is included as ATTACHMENT B.

The first stage of the mine is planned for a depth of 100m with the prospect of the 4.8 year mine life being extended with deeper mining, after additional exploration.

The Revised MRE established approximately 25M lb of 0.7% copper in Inferred Resources between 100m and 150m which is a positive indicator of the potential to extend the mine life.

Metallurgical testwork on core obtained from the gold and copper domains has been undertaken by Blue Coast Research in Canada, under the supervision of Antilles Gold's Technical Director, Dr Jinxing Ji, to provide flotation recoveries for use in resource estimation, pit optimisation and economic modelling with results shown in ATTACHMENT C.

Forecast Concentrate Production is set out in ATTACHMENT D.

**The production parameters, and data inputs to the Financial Analysis and their source, and various assumptions for the development concept, are recorded in the following:**

### PROPOSED PROJECT TIMETABLE

Construction of Mine and Infrastructure (subject to finalisation of project funding)	January 2025 to December 2025
First Shipment of Concentrate	Q1 2026
Initial Operating Period – LoM	4.8 years

### REVISED MINERAL RESOURCE ESTIMATE FOR NUEVA SABANA OPEN PIT Mining Associates Pty Ltd

Revised Mineral Resource Estimate to RL-100m (approximately 150m from surface) above a cut off of 0.25% copper, and 0.3g/t gold reported to ASX 2 October 2024

Material Type	Resource Category	Tonnes	Gold (g/t)	Gold (koz)	Copper (%)	Copper (Mlb)	S%
Gold Domain	Indicated	654,000	2.81	59.0	-	-	0.08
	Inferred	196,000	1.75	11.0	-	-	0.82
<b>Sub Total</b>		<b>850,000</b>	<b>2.56</b>	<b>70.1</b>	<b>-</b>	<b>-</b>	<b>0.25</b>
Copper Gold Domain	Indicated	1,071,000	0.79	27.3	0.65	15.34	1.22
	Inferred	74,000	1.50	3.6	0.50	0.82	1.98
<b>Sub Total</b>		<b>1,145,000</b>	<b>0.84</b>	<b>30.9</b>	<b>0.64</b>	<b>16.16</b>	<b>1.27</b>
Copper Domain	Indicated	398,000	0.15	1.9	1.25	10.96	1.86
	Inferred	1,644,000	0.07	3.5	0.70	25.32	1.94
<b>Sub Total</b>		<b>2,042,000</b>	<b>0.08</b>	<b>5.4</b>	<b>0.81</b>	<b>36.28</b>	<b>1.92</b>
<b>Totals</b>		<b>4,037,000</b>	<b>-</b>	<b>106.4</b>	<b>-</b>	<b>52.44</b>	<b>-</b>

#### 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

## LOM PRODUCTION TARGET

The deposit at Nueva Sabana consists of a gold zone at surface with an underlying copper-gold zone, and a deeper copper zone.

The gold zone will produce a clean gold concentrate with minimal, or zero copper content, and ore from the copper-gold and copper zones will be blended to produce a copper-gold concentrate.

Mining production targets have been established by the Life of Mine Plan included as ATTACHMENT B;

- i) gold zone – 860,958t at 2.30g/t Au
- ii) copper-gold zone – 381,382t at 0.76% Cu, and 2.27g/t Au
- iii) copper zone – 1,034,593t at 0.85% Cu, and 0.06g/t Au

Of the total 2,276,933t mining target included in the Updated Scoping Study, 85.4% is an Indicated Resource, and 14.6% is Inferred.

*"There is a low level of geological confidence associated with Inferred mineral resources, and there is no certainty that further exploration work will result in the determination of additional Indicated mineral resources or that the production target itself will be realised."*

## FLOTATION RECOVERIES \*

	Gold Concentrate	Copper-Gold Concentrate
Gold	84.5 %	79.6 %
Copper	NIL	81.7 %

## ESTIMATED CONCENTRATE PRODUCTION \*

	Gold Domain			Copper/Gold Domain					Total	
	Concentrate Tonnage & Composition			Concentrate Tonnage & Composition						
	Quantity	Gold Grade	Contained Gold	Quantity	Copper Content	Gold Grade	Contained Copper	Contained Gold	Contained Gold	Contained Copper
	tonne	g/t	Oz	tonne	%	g/t	tonne	Oz	Oz	tonne
Year 1	13,761	53.5	23,658						23,658	
Year 2	10,321	62.9	20,885	3,419	27.0	76.9	924	8,454	29,339	924
Year 3				10,291	28.5	45.2	2,934	14,962	14,962	2,934
Year 4				12,455	28.5	13.1	3,555	5,264	5,264	3,555
Year 5				7,705	28.3	15.2	2,178	3,775	3,775	2,178
Total/Avg	<b>24,082</b>	<b>57.5</b>	<b>44,543</b>	<b>33,870</b>	<b>28.3</b>	<b>29.8</b>	<b>9,591</b>	<b>32,455</b>	<b>76,998</b>	<b>9,591</b>

\* Note - Established from metallurgical testwork set out in ATTACHMENT C

<b>PROJECT DEVELOPMENT COST</b>	<b>US\$M</b>	<b>SOURCE OF DATA</b>	<b>RANGE</b>
<b>CONCESSION ACQUISITION</b>	<b>1.5</b>	Actual	<b>+0%</b> <b>-0%</b>
<b>PRE-DEVELOPMENT COSTS</b>	<b>5.0</b>	Actual	
<b>MINE DEVELOPMENT COSTS</b>			
Earthworks, Roadworks & Waste Dump	0.8	MLV design/estimate	
Mine Buildings	1.7	MLV design/estimate	
Mining Fleet	-	Hired	
Mobile Equipment	2.9	Supplier quotation	
Concentrator (500,000 tpa) including commissioning	15.2	Supplier quotation	
Power Connection & Electrical Reticulation	3.1	Power Authority	
Reimbursement of Power Connection Costs	(2.4)	Power Authority	
Tailings Storage Facility	1.5	MLV estimate	
Water Management	0.3	MLV estimate	
Spares, & First Fill	1.6	MLV estimate	
Construction Management	2.0	MLV estimate	
Government Charges	0.3	Regulations	
Capitalised Interest during Construction	1.5	MLV estimate	
<b>TOTAL MINE DEVELOPMENT COSTS</b>	<b>28.5</b>		<b>+10%</b> <b>-0%</b>
<b>TOTAL PROJECT DEVELOPMENT COST</b>	<b>35.0</b>		
<b>PROPOSED PROJECT FINANCING</b>			
MLV Equity	6.5		
Advance by Concentrate Buyer	27.0		
plus capitalised interest (7.5%pa) (repaid within 18 months)	1.5		
<b>TOTAL PROPOSED PROJECT FINANCING</b>	<b>35.0</b>		

The Project will be required to advance US\$2.4M to the Power Authority to pay for imported transformers, etc which will be reimbursed within 9 months. This amount is expected to be provided by a Spanish Bank operating in Cuba.

Additionally, the project will require a working capital facility of up to US\$3.0M for a period of 3 to 6 months.

	US\$M	SOURCE OF DATA	RANGE
<b>LoM OPERATING COSTS</b>			
<b>Production</b>			
<b>Mining</b>	32.7	MLV estimate	+20%
– US\$3.72/t total tonnes mined			-0%
<b>Concentrate Processing</b>	28.2	MLV estimate based on	+20%
– US\$12.37/t plant feed		metallurgical testwork	-0%
<b>Power Supply</b>	14.0	MLV estimate based on	+10%
– US\$6.17/t plant feed		concentrate power load	-0%
<b>Concentrate Transport</b>	6.8	Shipping quotation	+20%
– US\$117.26/t			-0%
<hr/>			
<b>Total LOM Production Costs</b>	<b>81.7</b>		
<b>Indirect Costs</b>			
Project Management, Administration & Site Costs	11.7	MLV estimate	
Havana Office Expenses	4.1	MLV estimate	
Rehabilitation	1.2	MLV estimate	
<hr/>			
<b>Total LOM Indirect Costs</b>	<b>17.0</b>		+10%
			-0%
<b>Government Charges</b>			
Royalty 3%	7.1	Mining Regulation	
Surface Rights	0.3	Mining Regulation	
Territorial Contribution	1.8	Mining Regulation	
Compensation - Geology	2.2	Mining Regulation	
<hr/>			
<b>Total LOM Government Charges</b>	<b>11.4</b>		+0%
			-0%
<b>TOTAL LOM OPERATING COSTS</b>	<b>110.1</b>		+15%
			-0%

## LoM SALES at US\$2250/oz Au, and US\$9,000/t Cu

Year	Gold Domain USD(M)	Copper Domain USD(M)	Total USD(M)
1 (10 mths)	45.2	-	45.2
2	40.0	26.2	66.2
3	-	57.4	57.4
4	-	41.6	41.6
5 (9 mths)	-	26.8	26.8
			<b>TOTAL 237.2</b>

NOTE: The selling price for the gold, and copper-gold concentrates delivered in TEU shipping containers to the destination port in China and treatment charges for copper have been advised by the preferred buyer.

This aspect of the financial modelling will remain uncertain until a concentrate off-take and financing agreement has been established.

	USD(M)	AUD(M)	
<b>LoM OPERATING PROFIT</b>	<b>127.1</b>	<b>192.5</b>	<b>+0%</b> <b>-15%</b>
LESS INTEREST	(2.9)	(4.4)	
LESS DEPRECIATION & SUSTAINING CAPITAL	(18.7)	(28.3)	
LESS TAXATION	-	-	
<b>LoM NET PROFIT</b>	<b>105.5</b>	<b>159.8</b>	<b>+0%</b> <b>-15%</b>
<b>LoM CASH SURPLUS</b>	<b>96.6</b>	<b>146.3</b>	
<b>NPV<sup>8</sup></b>	<b>72.3</b>	<b>109.5</b>	
	<i>A\$1.00 = US\$0.66</i>		
<b>IRR %</b>	<b>63.2%</b>		

SENSITIVITY TO METAL PRICES	-15%	Base Case	+15%	Current metal price
<b>GOLD PRICE US\$/Oz</b>	<b>1,913</b>	<b>2,250</b>	<b>2,588</b>	<b>2,600</b>
<b>COPPER PRICE US\$/tonne</b>	<b>7,650</b>	<b>9,000</b>	<b>10,350</b>	<b>9,300</b>
<b>LoM CASH SURPLUS US\$M</b>	<b>62.5</b>	<b>96.6</b>	<b>130.7</b>	<b>122.3</b>
<b>NPV<sub>8</sub> US\$M</b>	<b>46.2</b>	<b>72.3</b>	<b>98.4</b>	<b>92.5</b>
<b>IRR%</b>	<b>43.6</b>	<b>63.2</b>	<b>80.8</b>	<b>79.0</b>

The order of accuracy of the Updated Scoping Study is estimated to be  $\pm 25\%$



## **ADDITIONAL NOTES**

### **CAUTIONARY STATEMENTS**

The Updated Scoping Study referred to in this announcement is a preliminary technical and economic study of the potential viability of the proposed Nueva Sabana open pit mine gold-copper in Cuba. It is based on an optimised mine plan incorporating Indicated and Inferred Resources established in the Life of Mine Plan in ATTACHMENT C.

The Updated Scoping Study is also based on the material assumptions previously noted. These include assumptions about the availability of funding. While Antilles Gold considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the outcomes indicated in the Updated Scoping Study, project finance for the mine construction of approximately US\$27 Million will be required, as will a short term (estimated 3 to 6 months) US\$3.0M working capital loan. Investors should note that there is no certainty that the joint venture company which is developing the mine, Minera La Victoria SA, will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Antilles Gold's existing shares.

It is also possible that Antilles Gold may pursue other value realisation strategies such as a sale, partial sale, or joint venture of the foreign component (50%) of the project. If it does, this could materially reduce Antilles Gold's proportionate ownership of the project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Updated Scoping Study.

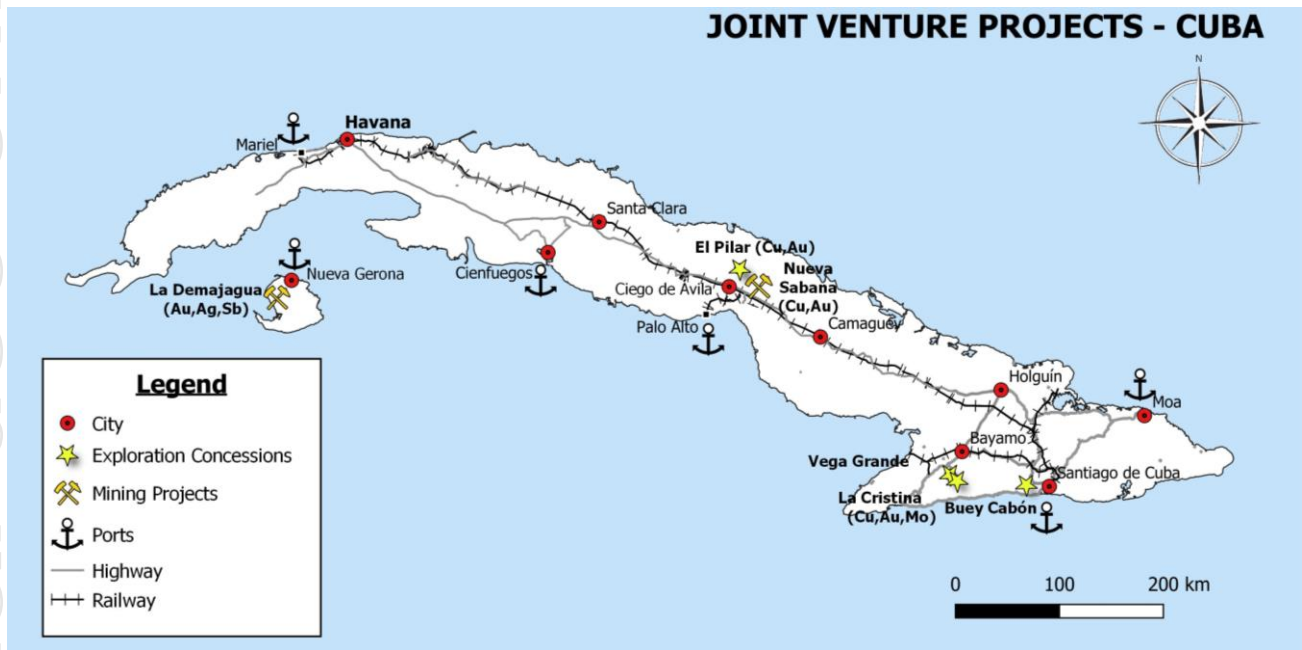
### **Production Target**

All material assumptions underpinning the Production Targets continue to apply and are not expected to materially change.

## Location

The 752ha El Pilar Mining Concession which covers the Nueva Sabana mine, and the El Pilar copper porphyry system is located 27.5km by paved highway to the Provincial city of Ciego de Avila in central Cuba.

The site is flat, uninhabited, and devoid of structures and vegetation, with HP power and the highway, and rail system to the Mariel container port, within 1.5km.



Map showing location of Nueva Sabana mine in central Cuba

## Fiscal Regime

Foreign Investment Law 118 was adopted in March 2014 and provides basic investment protection and other general rules relevant to foreign investors.

The fiscal regime applying to Minera La Victoria and the Nueva Sabana mine include;

- Senior management, and consultants nominated by Antilles Gold.
- An account at an International Bank will receive project loans, and concentrate sales proceeds, from which repayment of loans, foreign suppliers, and dividends will be met. Funds remitted to Cuba will be limited to those required to service local costs.
- The corporate tax rate (15%) has been waived for 8 years.
- Import duties have been waived for the project development.
- Disputes to be resolved at the International Court of Arbitration ("CCI") in Paris.

## FORWARD LOOKING STATEMENT

Some of the statements contained in this document are forward-looking statements, such as statements that describe Antilles Gold Limited's ("AGL") or Minera La Victoria SA's ("MLV") future plans, intentions, objectives or goals, and specifically include but are not limited to statements regarding MLV's properties, resource estimates, potential mineralization, future financial or operating performance, gold and silver prices, estimated future production, future costs, timing of production start and economic analysis.

Actual results and developments may differ materially from those contemplated by such forward-looking statements depending on, among others, such key factors as the possibility that actual circumstances will differ from estimates and assumptions used in assessing the potential of the proposed Nueva Sabana gold-copper open pit mine, the environmental and social cost of proceeding with the project, uncertainty relating to the availability and costs of financing needed in the future, economic sanctions, general business and economic conditions, inflation, changes in exchange rates, fluctuations in commodity prices, delays in the development of the project, and the impact of future legislation and regulations on expenses, capital expenditures and taxation, changes in project parameters, variation in ore grade or recovery rates, delays in obtaining government approvals and necessary permitting, impurities in products and other risks involved in the mineral exploration and development industry.

The forward-looking statements represent AGL's and MLV's current views and subsequent events and developments may cause these views to change. AAU disclaims any obligation to update forward-looking information except as required by law. Readers should not place undue reliance on any forward-looking statements.

## ATTACHMENTS

- A. REVISED MINERAL RESOURCE ESTIMATE (& JORC CODE 2012 EDITION TABLE 1)  
– Ian Taylor, Mining Associates Pty Ltd
- B. LIFE OF MINE PLAN – Anthony Stepcich, Mining Associates Pty Ltd
- C. METALLURGICAL TESTWORK – Dr Jinxing Ji, JJ Metallurgical Services Inc
- D. FORECAST CONCENTRATE PRODUCTION – Dr Jinxing Ji, JJ Metallurgical Services Inc

## ANNEXURES

- 1. PLANT & EQUIPMENT LIST
- 2. MINE GENERAL ARRANGEMENT
- 3. PROCESS FLOW SHEET FOR CONCENTRATOR (JJ Metallurgical Services Inc)



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**Antilles Gold Ltd**

**Revised Mineral Resource Estimate,  
Nueva-Sabana Copper Gold Deposit, Central Cuba**

**Document No. MA2416-2-1**

**Mining Associates**

30/09/24

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## Caveat Lector

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## 1 SUMMARY

The Nueva Sabana Deposit lies within the 752ha El Pilar Concession, located 25 km east-southeast of the city of Ciego de Avila, central Cuba. The project is owned by Minera La Victoria SA ("MLV"), which is a Joint Venture between subsidiaries of Antilles Gold Limited and the Cuban state-owned mining company Geominera SA.

Mining Associates Pty Ltd ("MA") was commissioned by Antilles Gold Limited to prepare a Mineral Resource Estimate ("MRE") and Technical Report on the Nueva Sabana deposit.

The El Pilar concession comprises a cluster of dioritic porphyritic intrusions along an extensive trend including the El Pilar (Nueva Sabana deposit)– Gaspar – Camilo prospects. The overlying Nueva Sabana 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 intrusive and the hostrocks, as quartz pyrite chalcopyrite veins (B-type, quartz with a centre line of sulphides) and chlorite - pyrite (C-Type) veins.

MLV have added 25 diamond holes for 1972 m since the initial resource announcement (ASX:AAU 6<sup>th</sup> March 2024), all available information to the end of August 2024 has been considered in the preparation of this mineral resource update. The holes were designed to infill the interpreted geology model to improve the resource confidence, as such inferred areas were targeted. Despite a 4.7% increase in tonnes there is a 3.7% decrease in gold ounces and a 0.9% increase in copper pounds compared to the previous mineral resource estimate.

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 gold mineralisation occurs outside the copper mineralisation. (-100 m RL is approximately 150 m below the surface). The resource is divided into three material types, gold domain, copper and gold domain, and a copper domain mineralisation.

Material Type	Resource Category	Tonnes	Gold (g/t)	Gold (koz)	Copper (%)	Copper (Mlb)	S%
Gold Domain	Indicated	654,000	2.81	59.0	-	-	0.08
	Inferred	196,000	1.75	11.0	-	-	0.82
<b>Sub Total</b>		<b>850,000</b>	<b>2.56</b>	<b>70.1</b>	<b>-</b>	<b>-</b>	<b>0.25</b>
Copper Gold Domain	Indicated	1,071,000	0.79	27.3	0.65	15.34	1.22
	Inferred	74,000	1.50	3.6	0.50	0.82	1.98
<b>Sub Total</b>		<b>1,145,000</b>	<b>0.84</b>	<b>30.9</b>	<b>0.64</b>	<b>16.16</b>	<b>1.27</b>
Copper Domain	Indicated	398,000	0.15	1.9	1.25	10.96	1.86
	Inferred	1,644,000	0.07	3.5	0.70	25.32	1.94
<b>Sub Total</b>		<b>2,042,000</b>	<b>0.08</b>	<b>5.4</b>	<b>0.81</b>	<b>36.28</b>	<b>1.92</b>
<b>Totals</b>		<b>4,037,000</b>	<b>-</b>	<b>106.4</b>	<b>-</b>	<b>52.44</b>	<b>-</b>

**Table 1-1. Revised Nueva Sabana Mineral Resource Estimate October 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,

Inferred resource have less geological confidence than Indicated resources and should not have modifying factors applied to them.

## 1.1 GEOLOGY AND GEOLOGY INTERPRETATION

The Nueva Sabana deposit is hosted within the volcanic island arc rocks of the Caobilla Formation (Coniacian – Lower Campanian, 89-72 Ma, M. Iturralde-Vinent, 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 metallic 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 within the concession 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.

MLV has drilled 105 HQ and NQ diamond holes for 13,846.2 m (includes 4 shallow holes for water monitoring). 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 MLV 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 MLV 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 1 m to 2 m in length. RC samples were riffle split to 3.0 kg. MLV 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). MLV 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: there is limited sub-crop in the area covering the deposit. 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 domains were grouped into geostatistical domains based on grade similarities and structural orientation. Nueva Sabana strikes north-east and dip steeply southeast. Host rocks show strong argillic alteration, rocks outside the resource show moderate chlorite alteration.

The Mineral Resource statement reported herein is a reasonable representation of the Nueva Sabana deposits based on current sampling data. Grade estimation was undertaken using Geovia's Surpac™ software package (v7.7.2). Ordinary Kriging ("OK") was selected for grade estimation of sulphur, copper and gold. Iron was estimated with Inverse Distance Squared (ID<sup>2</sup>).

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/m<sup>3</sup>, material below -50 mRL is assigned 2.6 t/m<sup>3</sup>, the remainder of the blocks are assigned a density from a regression formula based on the RL of the block. The density of the mineralisation ranges from 2.36 t/m<sup>3</sup> (indicated gold mineralisation) to 2.55 t/m<sup>3</sup> (inferred copper mineralisation) culminating in a global average of 2.50 t/m<sup>3</sup>.

Block model validation comprised visual checks in plan and section, global comparisons between input and output means, and a review of 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,

**Table 1-2. Cost Assumptions (USD)**

Parameter	Metric	Unit
Mining	3.40	\$/tonne
Process	13.75	\$/tonne
General/Admin	2.00	\$/tonne
Gold Recovery	83%	
Copper Recovery	82%	
Mining Dilution	5%	
Gold Price	2400	\$/oz
Copper Price	4.50	\$/lb
Gold Cut Off	0.31	g/t
Copper Cut Off	0.25	%

The cut off is calculated using the following formulas

Copper cut off = (mining + processing + admin cost)/(selling price [\$/lb]\*1- dilution)\*recovery\*2204.623)

Gold cut off = (mining + processing + admin cost)/(selling price [\$/oz]\*1- dilution)\*recovery/31.1035)

## 1.7 CRITERIA USED FOR CLASSIFICATION

The Resource Estimates were classified in accordance with the JORC 2012 code. The Nueva Sabana 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

MLV 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 Nueva Sabana mineralisation sampled has been shown to be amenable to flotation 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. 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: 30<sup>th</sup> September 2024

## 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 Nueva Sabana 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 collar locations, RC-100 relocated to the original location as per Smith, 1997 plan
  - 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 MLV 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  $\pm 3.03$  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 DRILL HOLE DATABASE

#### 2.2.1 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 grid 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°. MLV 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.

### 2.2.2 Rejected Drill holes

The initial MLV 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 twinned historic holes were not used in the resource estimate. Holes that were dubious were also removed from the estimate, no additional holes were removed for this MRE update. 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	Reason	replaced
PDH-001A	3 m sample at 194 g/t Au is not reflected in the earlier LACEMI assays, or the two redrills, 001 or 001B	PDH-001B
PZ-002 to 5	Water monitoring holes	
RC-001	Poor correlation of high-grade mineralisation between original and new hole – potential smearing	PDH-019
RC-002	twinned by a diamond hole	KGP-29
RC-004	replaced with an MLV Hole	PDH-010
RC-005	New hole PDH-002 reports typically better grades than the original hole	PHD-002
RC-006	replaced with an MLV Hole	PDH-013
RC-008	replaced with an MLV Hole	PDH-012
RC-012	replaced with an MLV Hole	PDH-008
RC-025	replaced with an MLV Hole	PDH-003
RC-029	replaced with an MLV Hole	PDH-027
RC-044	replaced with an MLV Hole	PDH-014
RC-045	replaced with an MLV Hole	PDH-020
RC-052	replaced with an MLV Hole	PDH-040
RC-088	replaced with an MLV Hole	PDH-023
RC-092	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	PDH-018
RC-094	replaced with an MLV Hole	PHD-006
RC-096	replaced with an MLV Hole	PDH-017
RC-105	replaced with an MLV Hole	PDH-011
RC-107	replaced with an MLV Hole	PDH-030
RC-108	replaced with an MLV Hole	PDH-007
RC-114	replaced with an MLV Hole	PDH-009
TRC-251	replaced with an MLV Hole	PDH-038
TRC-254	replaced with an MLV Hole	PDH-037
TRC-263	replaced with an MLV Hole	PDH-060
TRC-264	replaced with an MLV Hole	PDH-034
TRC-267	replaced with an MLV Hole	PDH-033
TRC-268	replaced with an MLV Hole	PDH-032
TRC-269	replaced with an MLV Hole	PDH-029



hole_id	Reason	replaced
TRC-270	replaced with an MLV Hole	PDH-036
TRC-271	very high grade assays not seen in PDH-001B	PDH-001B
TRC-272	no down hole survey	
TRC-274	replaced with an MLV Hole	PDH-035
TRC-277	Scissor hole (PDH-025) an new hole PDH-004A show no mineralisation at bottom of TRC-277	PDH-004A
TRC-278	replaced with an MLV Hole	PDH-028
TRC-291	Mineralisation shown in TRC holes not reflected in new DD hole (PDH-022)	PDH-022
TRC-294	replaced with an MLV Hole	PDH-039
TRC-304	replaced with an MLV Hole	PDH-003A
TRC-305	replaced with an MLV Hole	PDH-031

In total one diamond hole (105 m), 19 RC (2699.5m) and 18 TRC (1956 m) have been either twinned by MLV drilling or precluded from the mineral resource estimate.

### 2.2.3 2024 Drill Program

MA was included in the daily drilling report email chain during the 2024 drill program. The program was undertaken in a timely and efficient manner.

MLV have added 25 diamond holes (Figure 1) for 1972 m since the initial resource announcement (ASX:AAU 6<sup>th</sup> March 2024), all available information to the end of August 2024 has been considered in the preparation of this mineral resource update. The holes were designed to infill the interpreted geology model to improve the resource confidence, as such inferred areas were targeted.

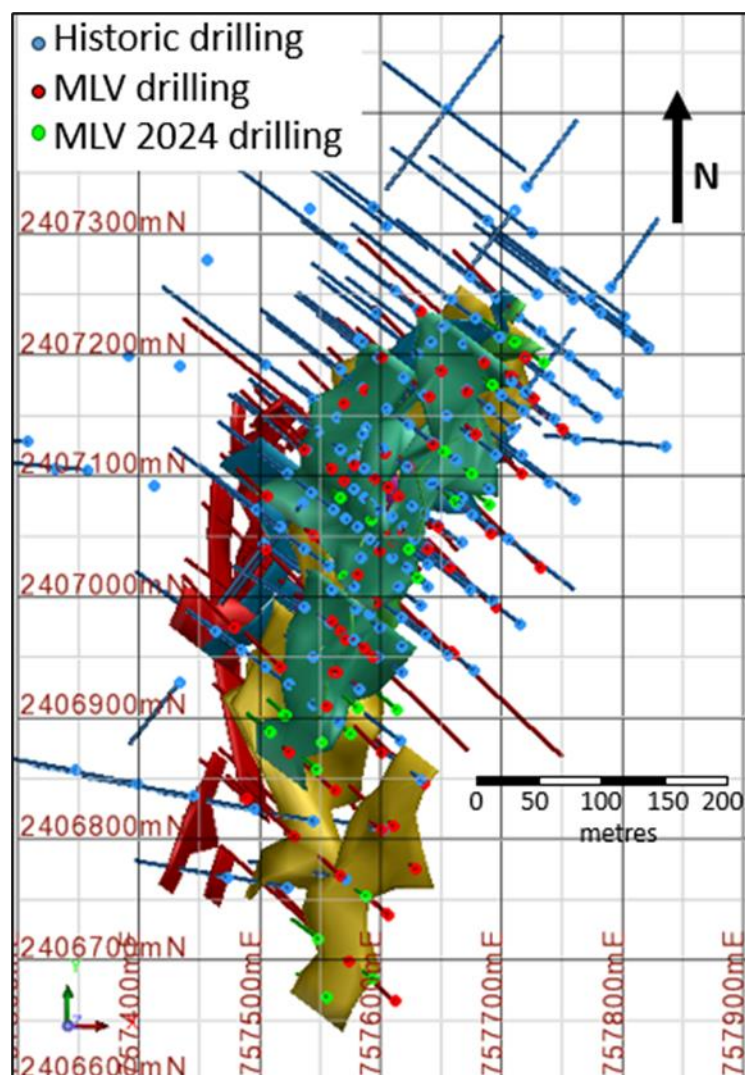


Figure 1. Plan View – drill hole location plan

#### 2.2.4 Summary of Validated Holes

Two hundred and sixty-two holes (Table 2-2) were valid and used to define the mineral resource estimate at the Nueva-Sabana deposit. Holes considered included the historic RC and diamond (NQ) drilling not twinned by MLV drilling and all MLV drill holes.

Table 2-2. Validated Holes

Hole Type	Count	Metres	start date	end date
NQ	27	3,370.5	28-Jan-96	17-Sep-96
RC	159	20,799	10-May-96	21-May-97
Diamond holes (HQ and NQ)	76	11,760.2	12-Oct-22	09-Jul-24
Total Used	262	35,929.7		

### 2.3 HISTORIC ASSAYS

An extensive twin hole programme was undertaken by MLV. MLV 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 2-2). 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 MLV 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).

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

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.

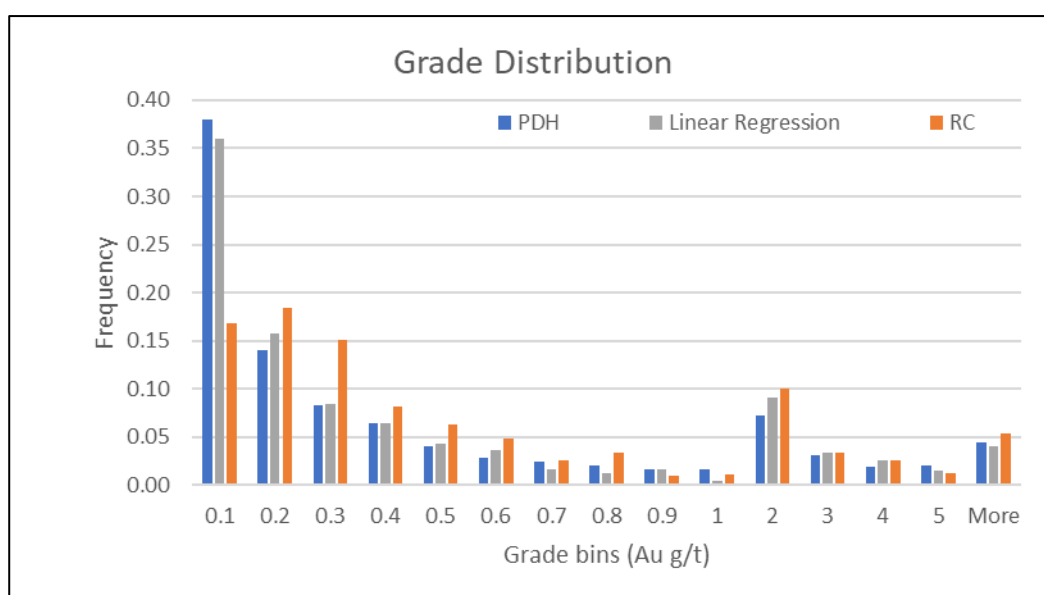


Figure 2-2. Histogram of Raw RC (orange) vs Diamond (Blue) and corrected RC results (grey)

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 2-3)

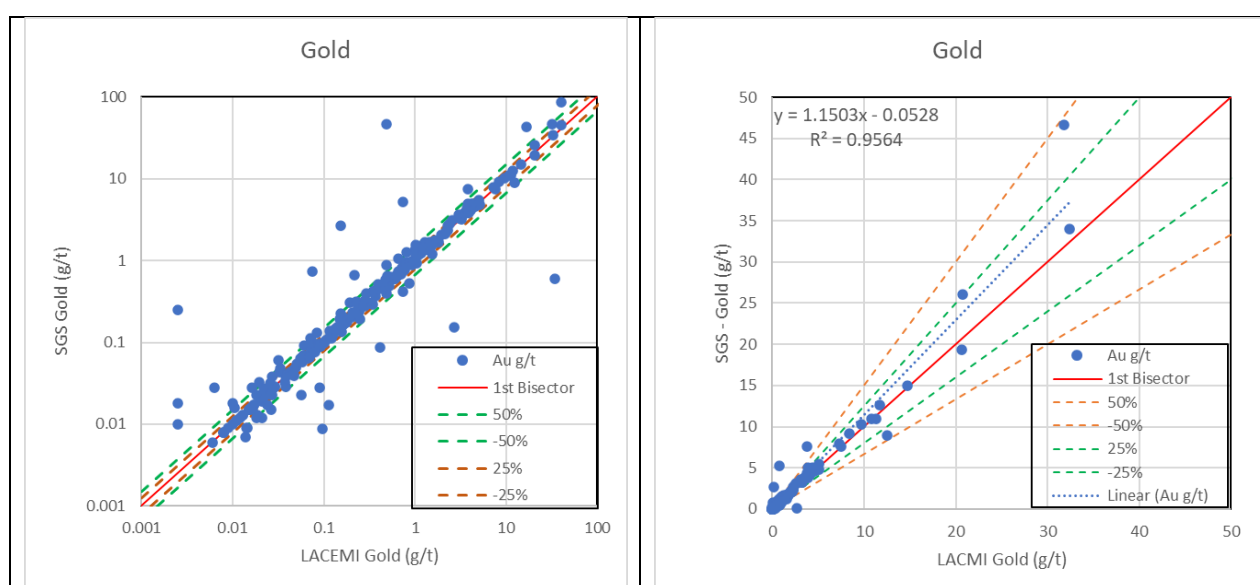


Figure 2-3. Gold Samples assayed at LACEMI and SGS

## 2.4 QAQC

Onix Geological Services (OGS) reviewed the QAQC data (Sierra 2024a and Sierra 2024b). MLV Gold has an acceptable insertion rate for CRM's, field duplicates and blanks. MLV procedures require 3 blanks, 3 duplicates and 5 CRM's per 100 samples submitted. To date MLV 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.

## 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 2-4. Figure 2-4 shows RQD is relatively variable, very little rock is of good quality, (above 80% RQD).

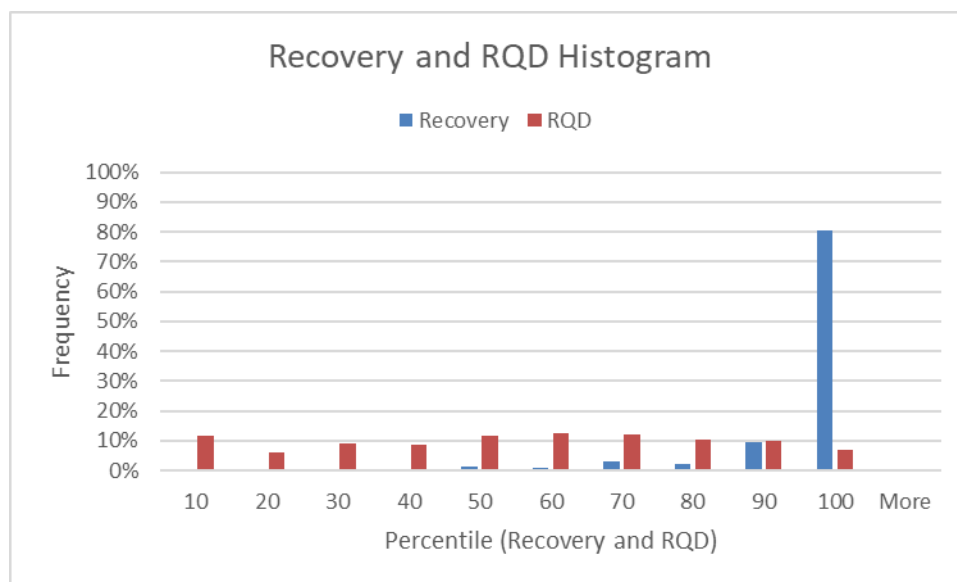


Figure 2-4. Histogram of Core Recovery and RQD

## 2.6 CONCLUSION

MA Reviewed the 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.

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 has undertaken a site visit, reviewed the OGS reports, analysed historic drilling and agrees the information available is of a good standard for use in estimating the Nueva Sabana mineralisation.

### 3 GEOLOGICAL INTERPRETATION

Wireframes representing oxide gold and copper zones were provided by MLV, 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).

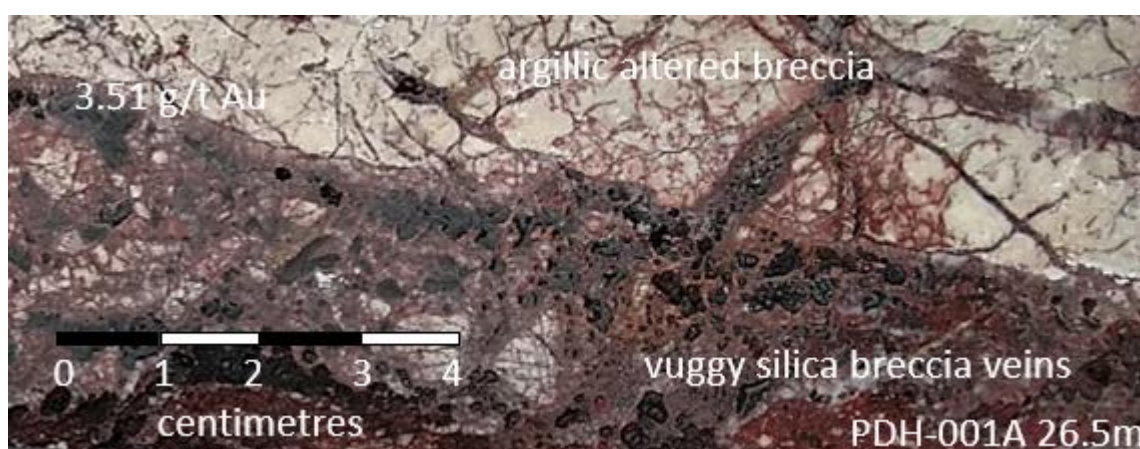


Figure 3-1. Argillic altered breccia and vuggy silica boxwork breccia veins (MA 2024)



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 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. MLV twinned 30 historic RC holes and significantly added to the deposit knowledge expanding the copper mineralisation to the south west. In June–July 2024 MLV added 25 diamond holes for 1972 m targeting inferred areas near surface.

### 4.2 GEOSTATISTICAL DOMAINS

Mineralised deposits 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 the broad oxide zone gold zones above 0.3 g/t were defined. Three gold domains lie within the oxide zone (Figure 4-1), a broad flat domain (13), thin sub parallel to bedding lodes (12) and a vertical breccia vein domain (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, the sections were digitised in Surpac™, Cross-section interpretations were checked in three dimensions to ensure continuity. These cross sections (Figure 4-2 and Figure 4-3) provided the framework for triangulations, providing the three-dimensional interpretation to constrain resource estimation.

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

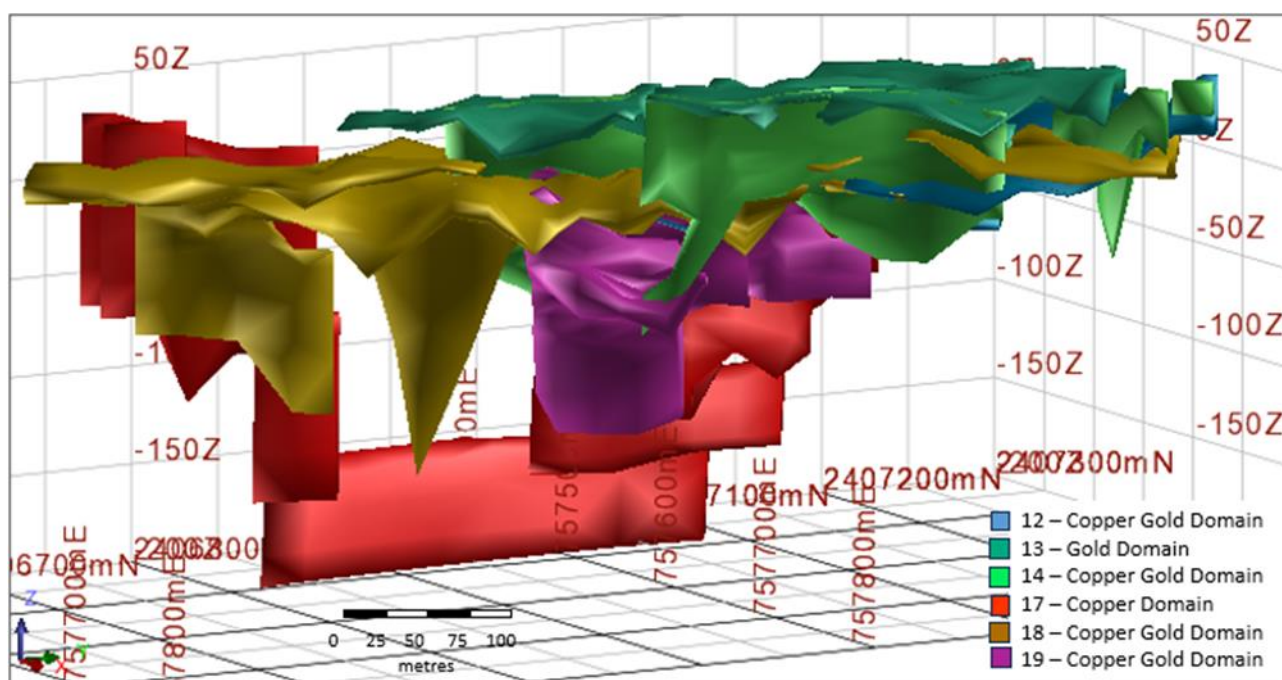


Figure 4-1. Copper and gold estimation domains.



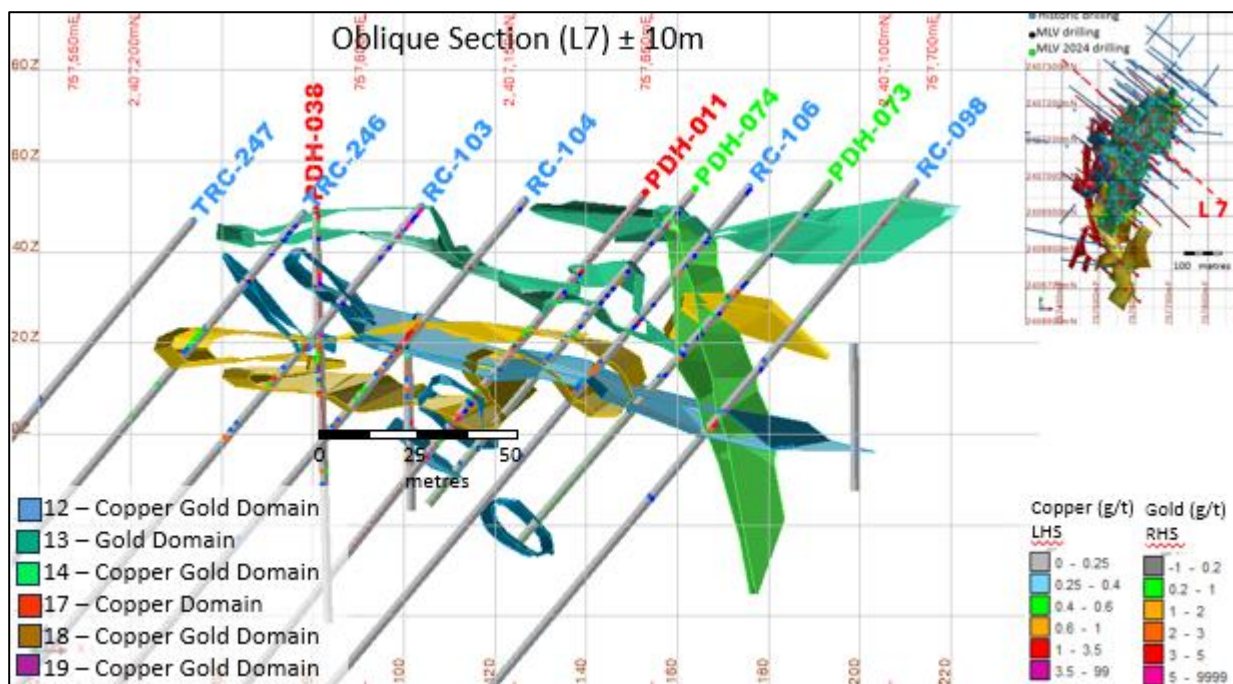


Figure 4-2. Oblique Section looking NE ±10m (L7)

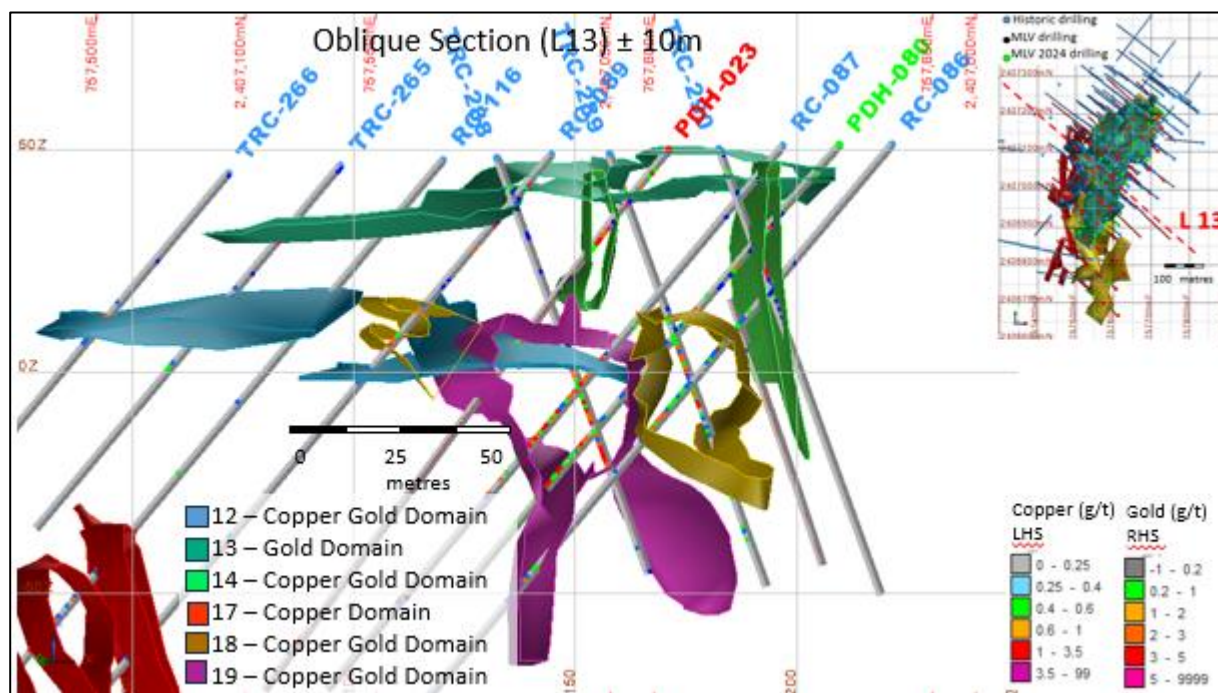


Figure 4-3. Oblique Section looking NE ±10m (L13)

### 4.3 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 are 1 m intervals, 8% of samples are longer than 1 m. Very few short samples (0.4%) occur in the database, due to the entire core runs 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 down-hole. 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.

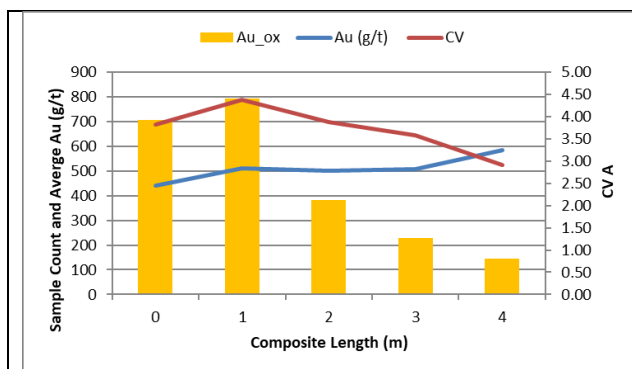


Figure 4-4. Increasing Composite Lengths, Au\_13 (Au\_ox)

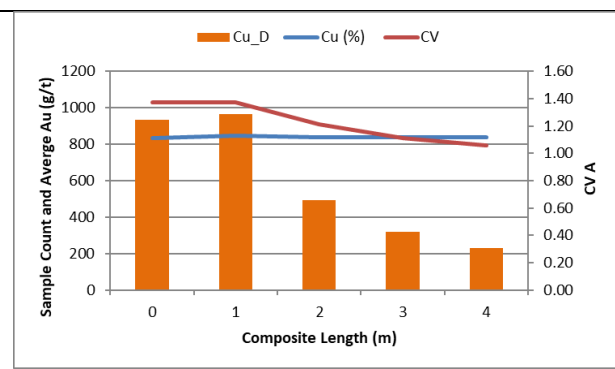


Figure 4-5. Increasing Composite Lengths, Cu\_19 (Cu\_D)

#### 4.4 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.

Table 4-1. Gold Domains

Domain	Au_12		Au_13		Au_14	
	Au (g/t)	Cu (%)	Au (g/t)	Cu (%)	Au (g/t)	Cu (%)
Count	384	384	794	794	523	523
Mean	2.36	1.58	2.83	1.99	6.29	5.95
Median	0.47	0.47	0.57	0.57	1.16	1.16
CV	3.92	1.77	4.39	2.02	2.72	2.47
SD	9.24	2.8	12.43	4.02	17.08	14.71
97.50%	0.67	0.67	0.77	0.77	1.61	1.61
Max	112.95	14.10	194.00	23.80	170.24	95.60

Table 4-2. Copper Domains

Domain	Cu_17		Cu_18		Cu_19	
	Cu (%)	Au (g/t)	Cu (%)	Au (g/t)	Cu (%)	Au (g/t)
Count	341	341	1692	1692	964	964
Mean	0.94	0.91	0.63	0.61	1.13	1.12
Median	0.47	0.47	0.45	0.45	0.67	0.67
CV	1.56	1.41	1.19	0.97	1.37	1.36
SD	1.47	1.29	0.75	0.59	1.55	1.53
0.98	0.54	0.54	0.49	0.49	0.74	0.74
Max	13.67	7.00	11.90	4.90	17.14	15.40

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	218	515	377	171	967	655	218	515	377	171	967	655
Mean	1.14	0.02	0.44	3.02	1.33	1.85	3.55	2.90	3.18	6.33	3.91	2.93
Median	0.84	0.01	0.02	2.19	1.09	1.42	3.50	2.58	3.09	5.84	3.54	2.55
CV	1.07	1.56	2.1	0.83	0.9	0.92	0.48	0.63	0.58	0.31	0.55	0.66
SD	1.22	0.03	0.93	2.52	1.2	1.71	1.7	1.83	1.86	1.98	2.14	1.92
0.975	3.76	0.04	2.62	9.83	4.00	6.72	8.01	7.96	7.31	11.30	9.99	7.40
0.99	4.49	0.07	4.60	11.29	5.71	8.30	10.06	9.93	9.91	13.02	10.49	8.98
Maximum	6.79	0.43	8.16	12.29	10.00	12.63	10.92	10.49	13.98	13.37	12.81	15.00

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.

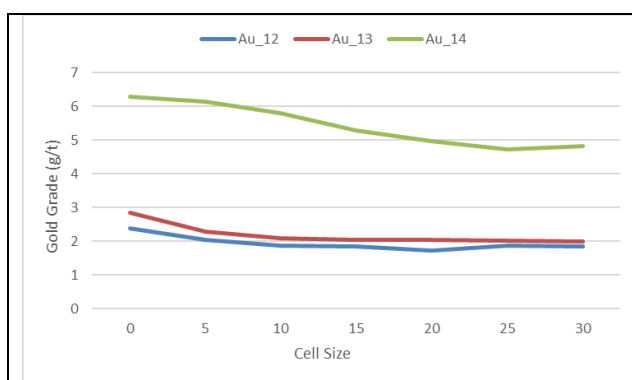


Figure 4-6. Cluster analysis – gold domains

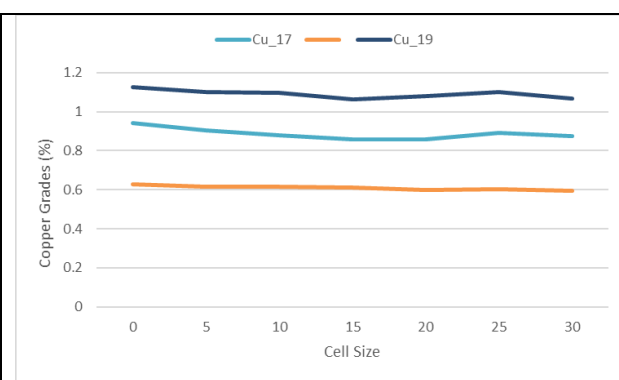


Figure 4-7. Cluster Analysis – copper domains

#### 4.5 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.

Table 4-4. Grade Capping - Gold Domains

Domain	Uncapped Composite Data				Capped Composite Data				Grade	
	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
Au_12	376	2.37	112.95	3.95	6	1.58	14.1	1.79	0.02	-0.33
Au_13	791	2.16	72.92	2.66	8	1.91	23.8	1.99	0.01	-0.12
Au_14	523	6.29	170.24	2.72	6	5.95	95.6	2.47	0.01	-0.05

Table 4-5. Grade Capping - Copper Domains

Domain	Uncapped Composite Data				Capped Composite Data				Grade	
	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
Cu_W	341	0.94	13.67	1.56	4	0.91	7.0	1.41	0.01	-0.03
Cu_S	1685	0.63	11.90	1.19	9	0.61	4.9	0.97	0.01	-0.02
Cu_D	964	1.13	17.14	1.37	1	1.12	15.4	1.36	0.00	0.00

No grade capping was required for sulphur and iron.

#### 4.6 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. Specific downhole variograms were reviewed to determine the nugget effect. Nugget effects range from 0.09 to 0.20 for gold deposits and 0.12 to 0.18 for the copper domains. Maximum ranges are 70 m to 119 m. Down hole and experimental sulphur variograms (Table 4-7) were created for each domain, modelled variograms and modelled nuggets ranging from 0.07 (very low sulphur domains [Au-13]) to 0.29 in the deep copper domain (Cu-19).

**Table 4-6: Variogram model parameters (Au and Cu)**

Domain	Rotation			Variogram					Anisotropy	
	bearing	plunge	dip	Co	C1	A1	C2	C2	Major/Semi-Major	Major minor
Au - 12	211.51	-5.90	10.01	0.20	0.35	27.66	0.45	104.82	1.50	4.57
Au - 13	59.11	0.00	-9.23	0.09	0.41	38.00	0.50	82.00	1.37	2.74
Au - 14	200.07	0.85	-88.57	0.09	0.33	25.53	0.58	119.08	1.90	3.57
Cu - 17	196.40	-19.60	74.40	0.17	0.83	150.00	0.00	0.00	1.45	2.51
Cu - 18	200.38	-3.48	10.38	0.18	0.83	70.00	0.00	0.00	2.00	3.34
Cu - 19	204.27	-29.50	59.27	0.12	0.27	44.00	0.61	100.00	2.00	3.50

**Table 4-7. Variogram model parameters for sulphur.**

Domain	Rotation			Variogram					Anisotropy	
	bearing	plunge	dip	Co	C1	A1	C2	C2	Major/Semi-Major	Major minor
Au - 12	203.88	-11.00	-0.44	0.24	0.27	0.49	37.50	90.15	1.18	2.66
Au - 13	70.21	0.00	-9.93	0.07	0.93		51.01		1.27	2.57
Au - 14	197.21	-29.13	-70.05	0.24	0.40	0.36	18.59	50.74	2.05	3.00
Cu - 17	196.40	-19.60	74.40	0.17	0.83		150.00		1.45	2.51
Cu - 18	120.00	-20.00	10.00	0.11	0.27	0.62	15.49	116.07	1.66	3.83
Cu - 19	203.90	-25.66	-89.37	0.29	0.20	0.52	18.33	106.74	1.79	3.05

#### 4.7 MINERAL RESOURCE ESTIMATE

The Nueva-Sabana deposit (formerly El-Pilar oxide deposit) is contained within the 752 Ha Nueva-Sebana Exploitation Concession, which is held by the Minera La Victoria JV (MLV). The concession is surrounded by 17,087 Ha San Nicholas Reconnaissance Permit (formerly known as the El Pilar Reconnaissance permit). The company commonly refers to this as the “oxide” zone but does include material below the depth of weathering.

#### 4.8 DIMENSIONS

The Nueva-Sabana 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 ~10-20°, 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).

#### 4.9 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.

##### 4.9.1 Block Model

The Nueva Sebana 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\_6.mdl) are shown in Table 4-8 and block model attributes are shown in Table 4-9. Blocks above topography were tagged and excluded from the model estimation.

Drill sections at Nueva Sebana 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 x 1.25 x 1.25 m (XYZ) representing a reasonable SMU (smallest mining unit) in an open pit production environment.

**Table 4-8. Block Model Origins, rotation extents and block size**

Type	Y	X	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 4-9. Block model attributes.

Attribute Name	Type	Decimals	Background	Description
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 kriging estimate capped
au_okr	Float	3	0	gold ordinary kriging 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 kriging estimate capped
cu_okr	Float	2	0	copper ordinary kriging estimate un-capped
density	Float	2	2.5	Density
deposit	Character	-	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	Character	-	WS	Mineralisation Gold Domain
lode_cu	Character	-	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
s_ok	Float	3	0	Sulphur ordinary kriging estimate
wth	Character	-	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
z_dhid	Character	-	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	kriging efficiency
z_kv	Float	2	0	kriging 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 for the sulphur estimate
zs_cbs	Float	2	0	Conditional bias slope for the sulphur estimate
zs_dh	Integer	-	0	number of informing drillholes for the sulphur estimate
zs_ns	Integer	-	0	number of informing samples for the sulphur estimate
zs_ps	Integer	-	0	1 First Pass; 2 Second Pass Estimate for the sulphur estimate

#### 4.9.2 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.

#### 4.10 DENSITY ESTIMATION

MLV have collected 63 density measurements; no new density measurements were collected from the 2024 drill program. 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 4-10).

Table 4-10. Density by logged lithology.

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

Density readings range from 1.79 to 3.45 t/m<sup>3</sup>, with most falling in the 2.4 to 2.6 t/m<sup>3</sup> bins (Figure 4-8).

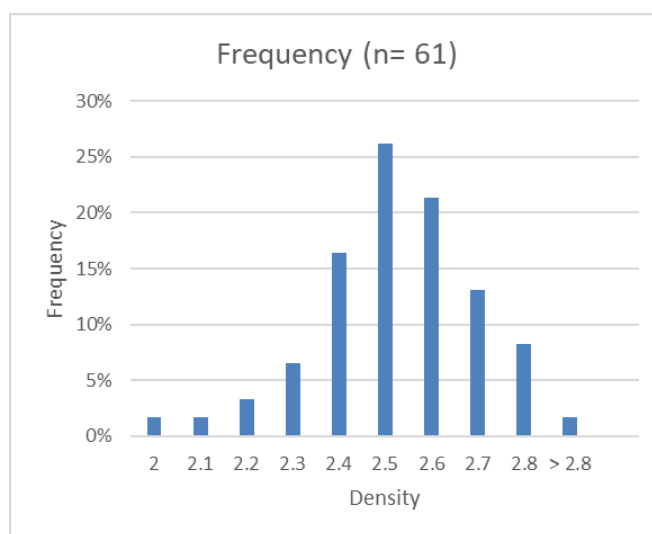


Figure 4-8. Density histogram

Weathering at Nueva Sabana is quite shallow (few metres) and has limited effect on the density. The greater influence on density is alteration. Alteration assemblages at Nueva Sabana 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 4-9). 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/m<sup>3</sup> and a sample from PDH-047 (92 to 93 m) in diorite with a light density of 1.79 t/m<sup>3</sup>.

Material above 50 m RL was assigned a density of 2.13 t/m<sup>3</sup>, and material below -50 m RL was assigned a density of 2.60 t/m<sup>3</sup>. The remainder of the blocks were assigned a density based on their RL, using the regression formula shown in Figure 4-9.

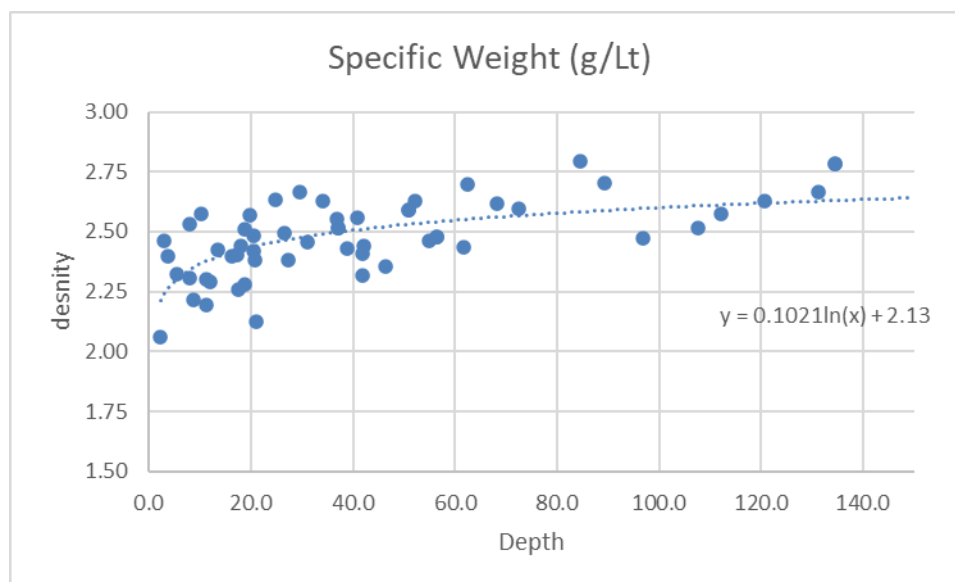


Figure 4-9. Logarithmic regression with depth

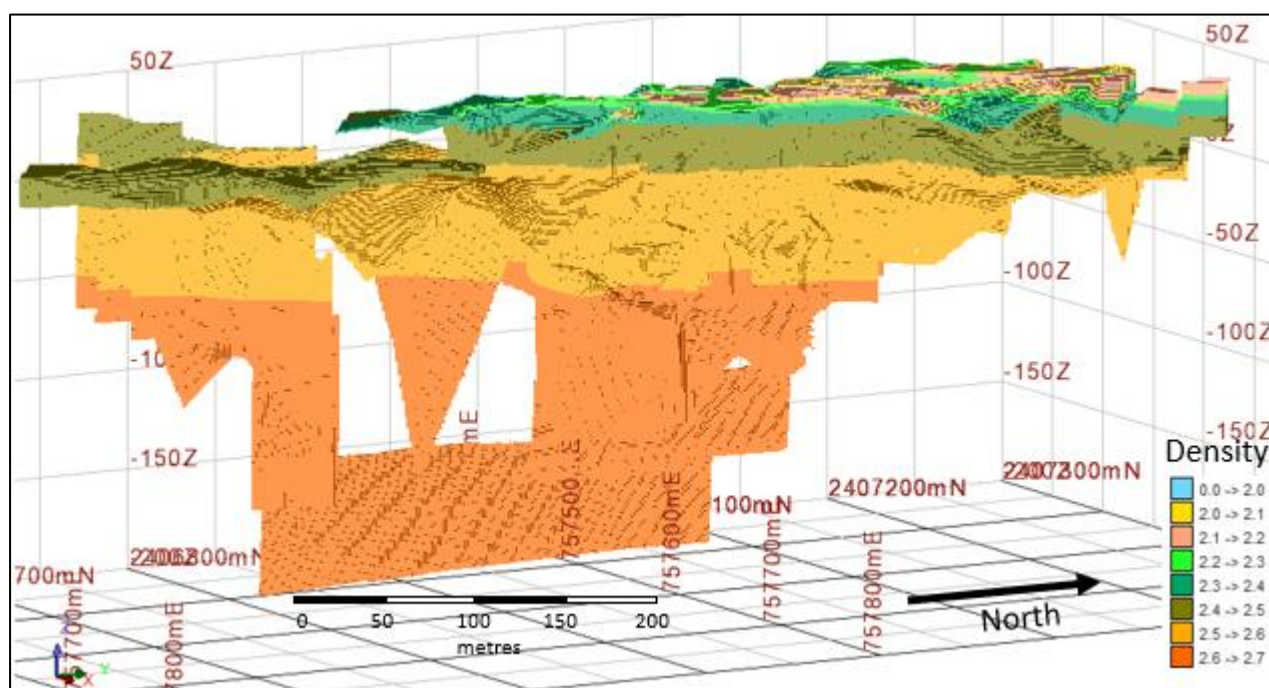


Figure 4-10. Mineralised Domains coloured by density.

#### 4.11 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.

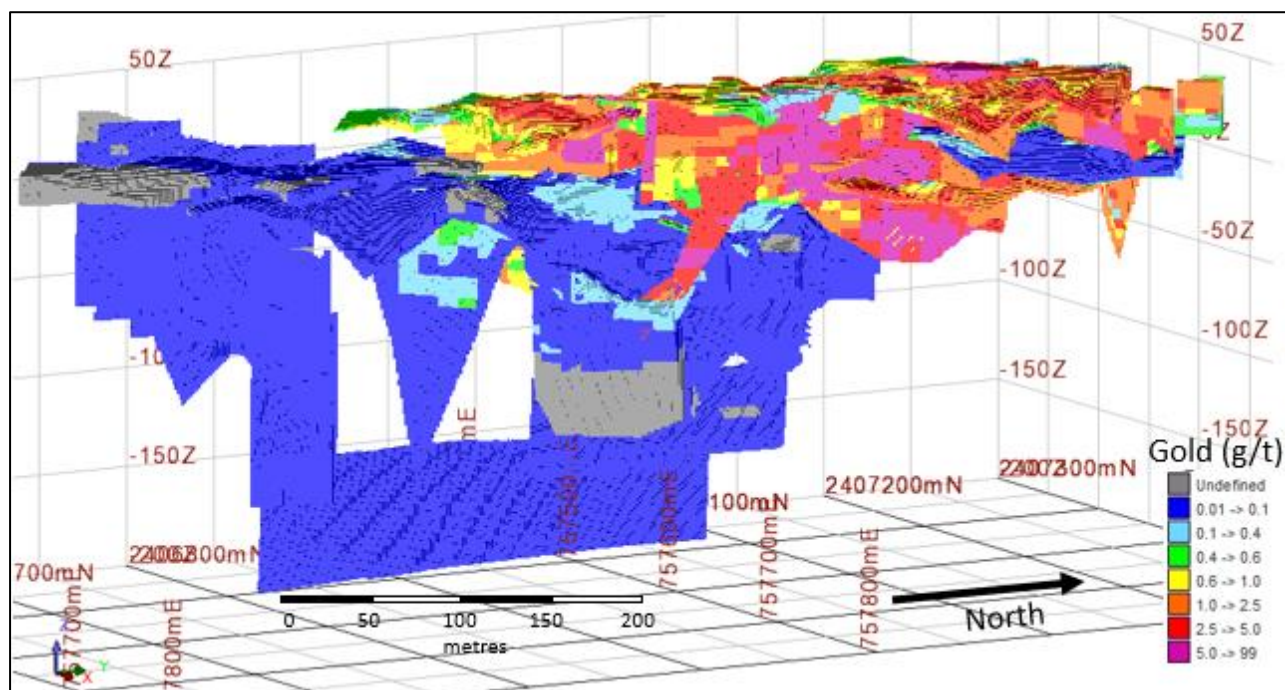


Figure 4-11. Nueva Sabana block model, looking west, gold grades (looking 300°N, tilt -10°).

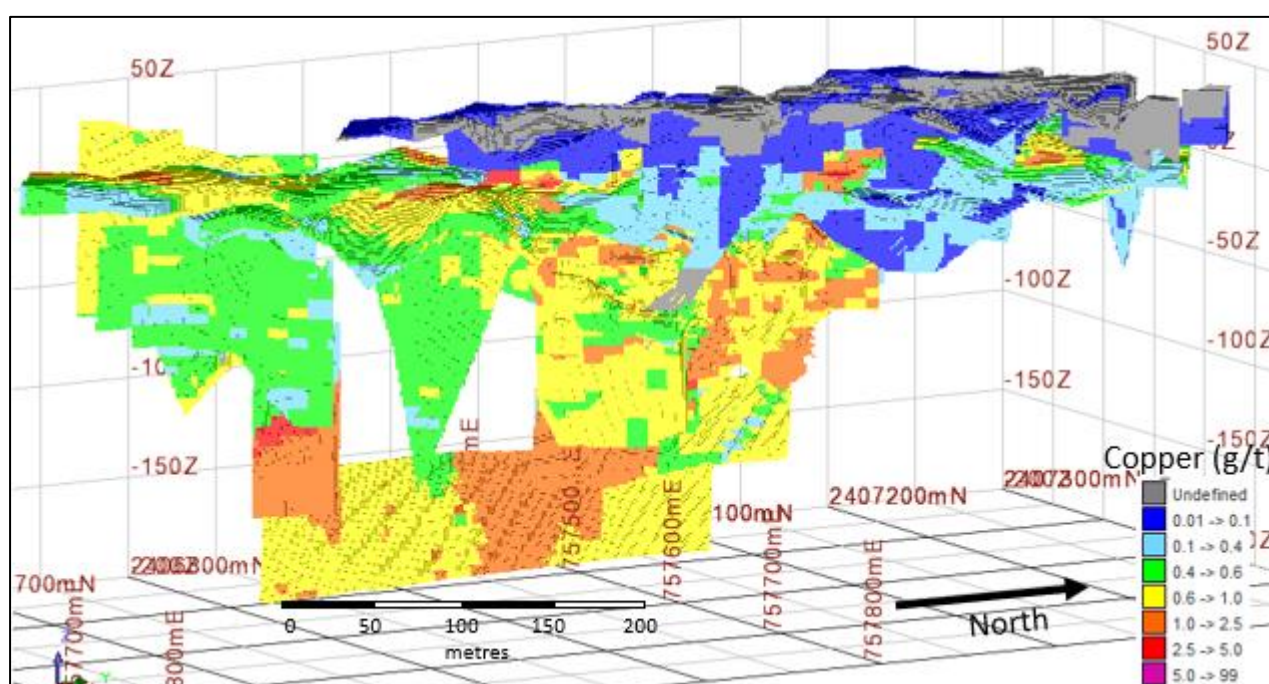


Figure 4-12. Nueva Sabana block model, looking West, copper grades (looking 300°N, tilt -10°).

#### 4.11.1 Alternate Estimation Methods

Kriged copper and gold estimates were validated against nearest neighbour (NN) and inverse distance squared (ID<sup>2</sup>) estimates (Figure 4-13 and Figure 4-14). 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 de-cluster samples.

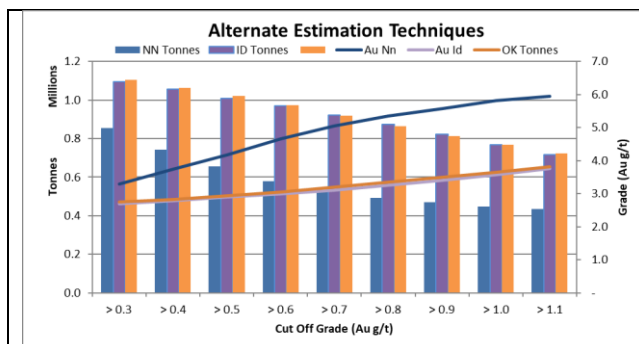


Figure 4-13. Grade Tonnage Curve, alternate gold estimates

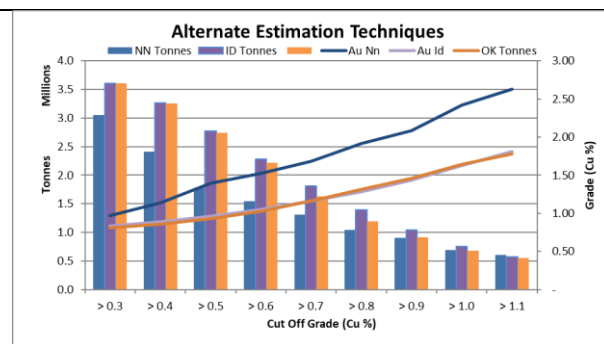


Figure 4-14. Grade Tonnage Curve, alternate copper estimates

#### 4.11.2 Comparison with past estimates

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

Table 4-11. 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 applicable		34.50	105.23	2.40

\*1997 historic resource is superseded by the current resource reported here-in.

Table 4-12, Resource (March 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

\*March 2024 resource is superseded by the current resource reported here-in.

Table 4-13. October 2024 Mineral Resource

	Tonnes	Cu %	Au g/t	M lb	k Oz	Density
Gold (> 0.3 g/t, < 0.25 % Cu)	851,000		2.56		70.15	2.38
Copper (>0.25%)	3,186,000	0.75	0.35	36.25	52.41	2.54
	4,037,000	Not applicable		36.25	122.56	2.51

The 2024 MLV infill drilling has increased the tonnes by 4.7%, but dropped the contained copper by -3.0% and contained gold by -1.9%.

#### 4.11.3 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 4-15). 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.

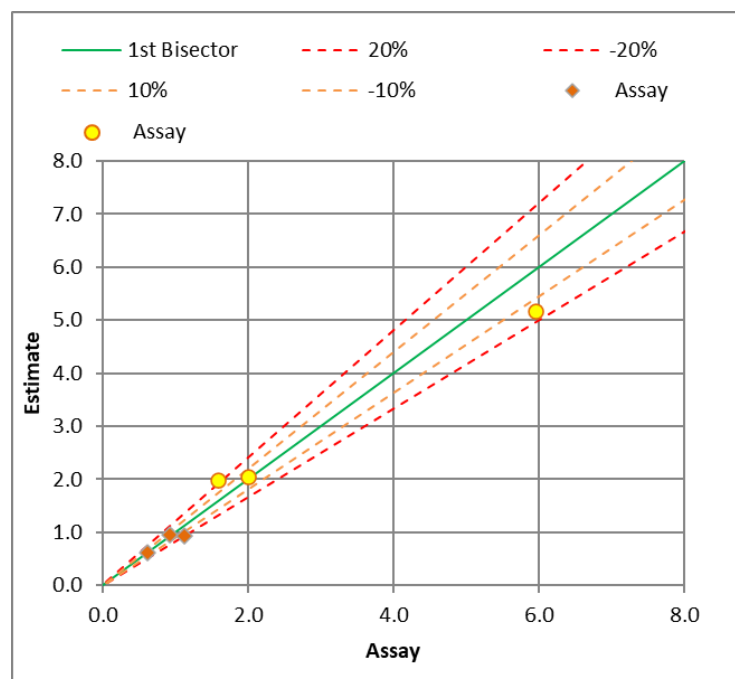


Figure 4-15. Global Validation by Domains Comparing OK and Average Sample Data (gold)

#### 4.11.4 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 4-16 and Figure 4-17), 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 4-16; 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, Two holes below PDH-002, RC-115 and PDH-010, confirm the limited extent of mineralisation in hole PDH-002, and two MLV holes targeting this shoot in 2024 showed broad intercepts (15 m @ 2.12 g/t and 19 m @ 2.36 g/t downhole) but lower grades than PDH-002. Figure 4-17 shows copper mineralisation does undulate to the south, these high grade areas are associated with steep structures (dominantly in Cu\_W domain), these outliers are tempered with the copper samples on adjacent sections.

The southern extent of the copper mineralisation is strongly influenced by hole PDH-167 which returned high grade near surface copper mineralisation, this hole was followed up (PDH-079, 084, 091 and 092) the best was hole PDH-092 that intercepted 22.3 m @ 0.85% Cu.

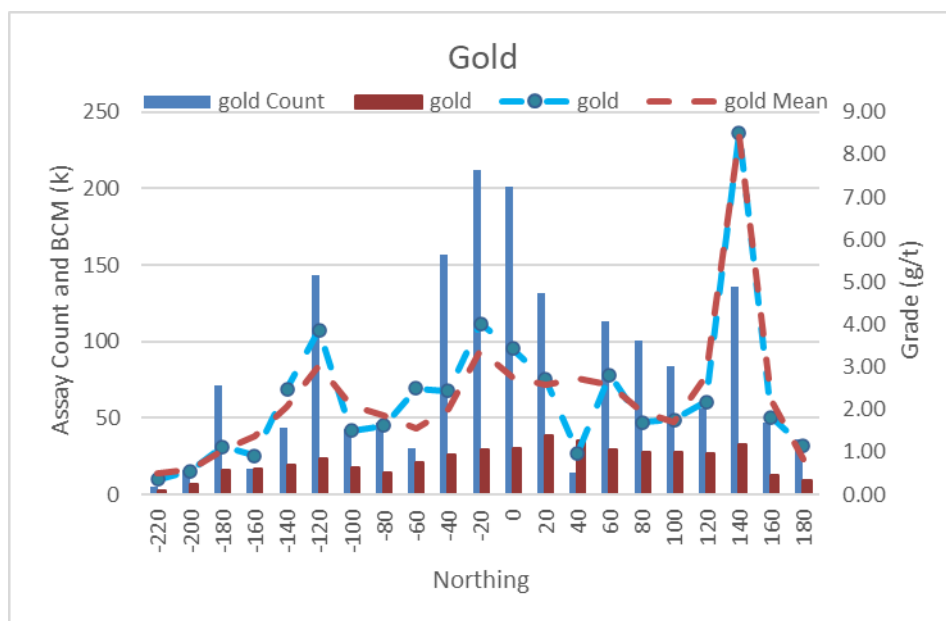


Figure 4-16. Northing Swath Plot – Nueva Sabana Gold Mineralisation

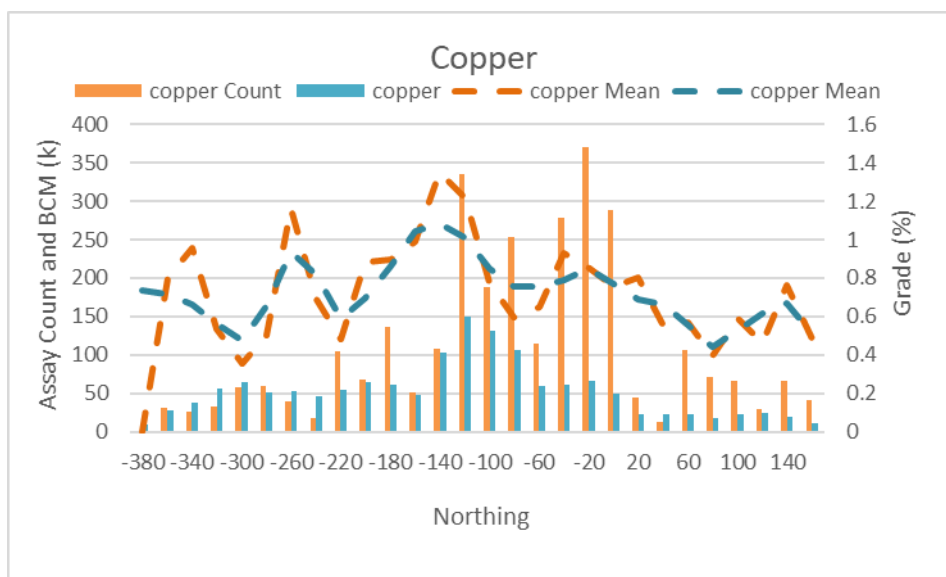


Figure 4-17. Northing Swath Plot – Nueva Sabana Copper Mineralisation

#### 4.12 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 4-11 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

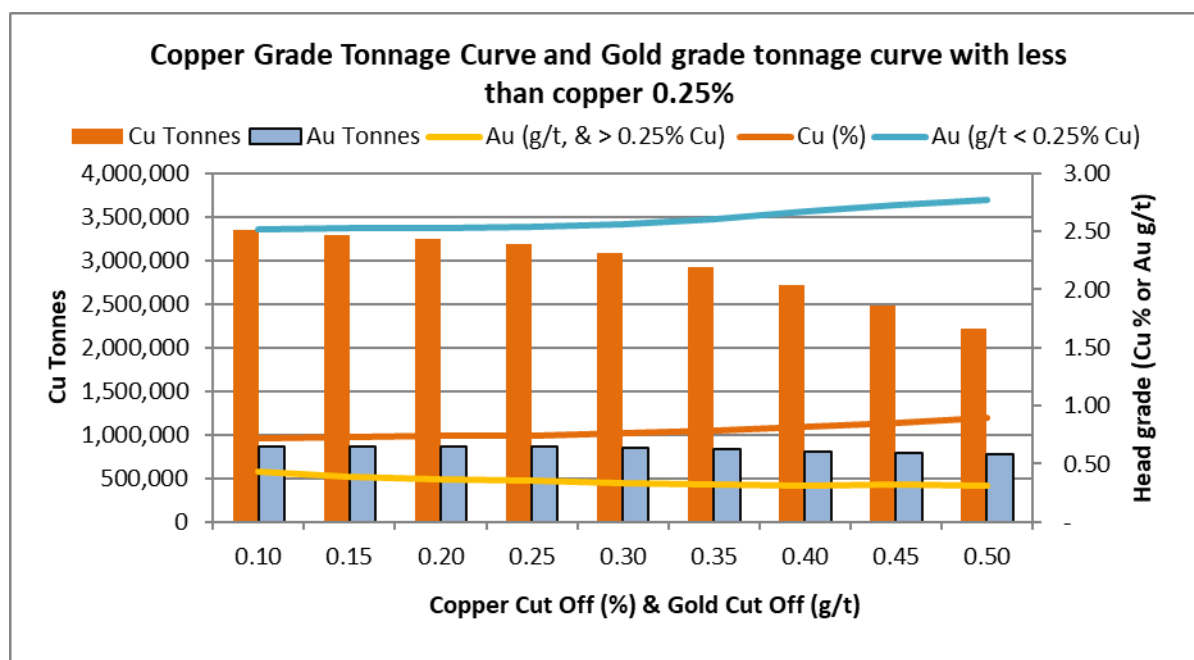
reasonable prospects for eventual economic extraction have not been included in the Mineral Resource Statement.

**Table 4-14. 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 5 g/t.

The grade tonnage chart (Figure 4-18) indicates mineralised tonnes increase with decreasing cut-off. The gold only material adds an additional.



**Figure 4-18. Grade Tonnage Curve, copper-gold, and gold only mineralisation.**

#### 4.13 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 4-19).

Indicated Resources are the portions of the deposit with a drill spacing of 20 m x 20 m or tighter, particularly where MLV 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.

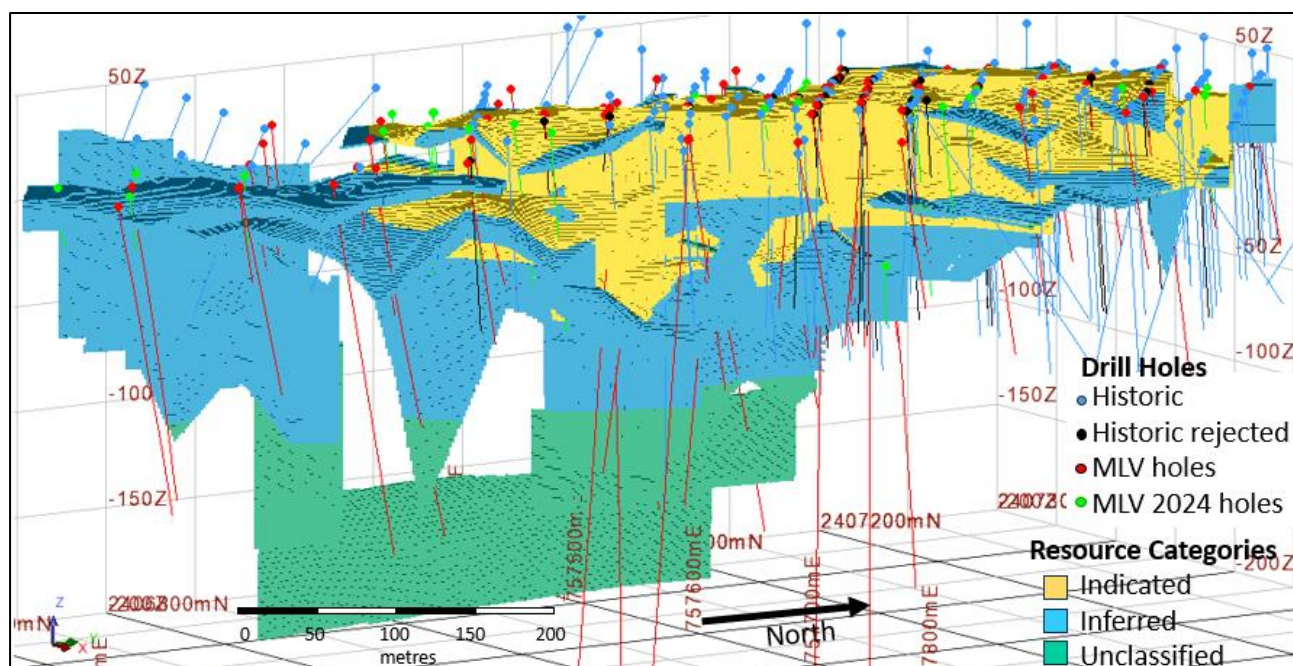


Figure 4-19. MRE Block Models by Resource Classification

#### 4.14 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 copper and gold domain, and a copper domain mineralisation.

Material Type	Resource Category	Tonnes	Gold (g/t)	Gold (koz)	Copper (%)	Copper (Mlb)	S%
Gold Domain	Indicated	654,000	2.81	59.0	-	-	0.08
	Inferred	196,000	1.75	11.0	-	-	0.82
<b>Sub Total</b>		<b>850,000</b>	<b>2.56</b>	<b>70.1</b>	<b>-</b>	<b>-</b>	<b>0.25</b>
Copper Gold Domain	Indicated	1,071,000	0.79	27.3	0.65	15.34	1.22
	Inferred	74,000	1.50	3.6	0.50	0.82	1.98
<b>Sub Total</b>		<b>1,145,000</b>	<b>0.84</b>	<b>30.9</b>	<b>0.64</b>	<b>16.16</b>	<b>1.27</b>
Copper Domain	Indicated	398,000	0.15	1.9	1.25	10.96	1.86
	Inferred	1,644,000	0.07	3.5	0.70	25.32	1.94
<b>Sub Total</b>		<b>2,042,000</b>	<b>0.08</b>	<b>5.4</b>	<b>0.81</b>	<b>36.28</b>	<b>1.92</b>
<b>Totals</b>		<b>4,037,000</b>	<b>-</b>	<b>106.4</b>	<b>-</b>	<b>52.44</b>	<b>-</b>

Table 4-15. Nueva Sabana 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.

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 work most of the inferred resources could be upgraded to indicated resources.

The mineral resource contains 106.4 koz Au of shallow gold, and 91% of the MRE tonnes and ounces are within 50 m of the surface. Of the 52.44 Mlb of copper, 45% lies between 20 and 50 m of the surface.

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

MLV 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 Nueva Sabana 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 payable above 1g/t). Low Sulphur gold mineralisation (gold domains) show 83 % recovery to the float concentrates. The current Mineral Resource does not include any dilution or ore loss associated with practical mining constraints.



## 6 REFERENCES

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## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Section 1: Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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>	<p><u>Historic Drilling (pre 2022)</u></p> <ul style="list-style-type: none"> <li>Historic drilling (pre-2021) was completed using open hole (reverse circulation) and diamond core.</li> <li>Sample intervals were variable based on geological features however the majority range from 1m to 2m in length.</li> <li>RC samples were collected via a riffle splitter, core sample were chiselled in poorly consolidated material and core sawn in competent rock</li> </ul> <p><u>Recent Drilling (2022 onwards)</u></p> <ul style="list-style-type: none"> <li>Recent drilling has been completed using diamond drilling at HQ and NQ core size.</li> <li>Core samples were ½ core sawn samples in competent rock, in friable rock</li> <li>Samples were collected at 2m intervals in 2022 and are collected at 1m intervals from April 2023 although adjusted for geological features as required.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <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 what method, etc).</li> </ul>	<p><u>Historic Drilling (pre 2022)</u></p> <ul style="list-style-type: none"> <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> <p><u>Recent Drilling (2022 onwards)</u></p> <ul style="list-style-type: none"> <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>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<p><u>Historic Drilling (pre 2022)</u></p> <ul style="list-style-type: none"> <li>Detailed records on drill core and chip recovery are not available.</li> </ul> <p><u>Recent Drilling (2022 onwards)</u></p> <ul style="list-style-type: none"> <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</li> </ul>



Criteria	JORC Code explanation	Section 1: Commentary
		<p>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.</p> <p>*Diamond drill core was not orientated due to technological limitations in-country for holes PDH-001 to 006, but all subsequent holes have been orientated Reflex ACTIII.</p> <ul style="list-style-type: none"> <li>Resource infill holes PDH-071 to PDH-093 and PDH-095 drilled in 2024 were not orientated given their infill nature.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p><u>Historic Drilling (pre 2022)</u></p> <ul style="list-style-type: none"> <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> </ul> <p><u>Recent Drilling (2022 onwards)</u></p> <ul style="list-style-type: none"> <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 are stored on a server.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p><u>Historic Drilling (pre 2022)</u></p> <ul style="list-style-type: none"> <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> <p><u>Recent Drilling (2022 onwards)</u></p> <ul style="list-style-type: none"> <li>Core is cut using diamond saw, with half core selected for sample analysis. Samples too broken to cut were split and half the rubble was submitted.</li> <li>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.</li> <li>Subsample is pulverised to 104 microns.</li> <li>One 250 g sample is sent to SGS Peru for analysis of Au and 49 elements by a 2 acid digest.</li> <li>1/4 core duplicates are collected at an average rate of 1 in every 20 samples.</li> <li>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.</li> </ul>

Criteria	JORC Code explanation	Section 1: Commentary
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<p>Historic Drilling (pre 2022)</p> <ul style="list-style-type: none"> <li>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, Ti, 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.</li> <li>Recent Drilling (2022)</li> <li>Preliminary analysis was undertaken at LACEMI in Havana Cuba, which does not have ISO certification.</li> <li>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, and is considered a total assay method for gold.</li> <li>Cu is analysed by 2 acids HNO<sub>3</sub> -HCL, and measurement by ICP. 2 acid digests are considered a partial assay method. There are no observed copper silicates or oxides.</li> <li>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.</li> <li>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</li> <li>SGS results were prioritised over the LACEMI results for the estimation of the mineral resource.</li> </ul> <p>Recent Drilling (2023)</p> <ul style="list-style-type: none"> <li>Analysis is being undertaken at SGS laboratories in Lima Peru.</li> <li>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. Both methods are considered a total assay methods.</li> <li>Cu is analysed by 2 acids HNO<sub>3</sub> -HCL, and measurement by ICP. 2 acid digests are considered a partial assay method. There are no observed copper silicates or oxides, though there is copper mineralisation above the total oxidation profile.</li> <li>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.</li> <li>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.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data</i></li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections are reviewed by multiple company and contractor personnel.</li> <li>The CP reviewed several intersections during the site visit.</li> <li>Part of the 2023 drilling has been designed to twin</li> </ul>

Criteria	JORC Code explanation	Section 1: Commentary
	<p>entry procedures, data verification, data storage (physical and electronic) protocols.</p> <ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<p>historic drilling as part of a sample verification process as well as extend further into the mineralisation at depth.</p> <ul style="list-style-type: none"> <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>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 July 2024 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>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The deposit is drilled on 20 m sections, commonly with 20 m hole spacings.</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 were drilled in 2023 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> <li>The 25 Holes drilled in 2024 were designed to target areas of inferred resources, such that they can add additional confidence to reclassify to Inferred resources where appropriate.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Given the oxide zones are sub-horizontal and elongated, based on the level of oxidation defined from previous drilling, MLV drilling has been oriented to cut both the oxide gold and copper zones at optimal angles. However, given there are multiple subvertical structures, along with the flat lying oxidation boundaries, this must be taken in account when considering the optimum drillhole orientation. The underlying sulphide mineralisation has been shown to be largely sub-vertical in nature and drilling has cut these zones at more optimal angles.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>For transport of pulp samples to SGS Peru, the prepared samples are collected by Minera La Victoria (the JV company) personnel, and driven directly to the Jose Marti International airport, where the waybill is prepared by Cubana Airfreight. The samples are flown to Lima, after customs clearance, SGS Lima Laboratories instructs a third-party freight company to retrieve the samples and deliver them to SGS Lima laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>98 sample pulps were sent from SGS to Bureau Veritas in Lima as check assays. All Au and Cu assays showed high repeatability.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Section 2: Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>The San Nicholas Reconnaissance Permit (formerly known as the El Pilar Reconnaissance permit) is registered to Minera La Victoria SA ("MLV"), which is a Joint Venture 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 17,086.8 Ha and is located in the topographic sheets (1:50,000) Ceballos (4481-I), Gaspar (4481-II), Corajo (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 separate 752.3 Ha Nueva Sabana Exploitation Concession (formerly the El Pilar oxide Geological Investigation Concession), covering the Nueva Sabana gold and copper mineralisation. The Exploitation Concession is in the 50:50 Minera la Victoria JV.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The El Pilar prospect was explored in 1990's by Canadian company KWG, who undertook airborne geophysics, trenching (22 trenches totalling 4640 m) and RC and Diamond drilling.</li> <li>Drilling was undertaken between 1994 and 1997, with 159 RC holes drilled for a total of 20,799 m and 29 diamond holes drilled for a total of 3,611 m.</li> <li>Chemical analysis for Au, Cu and other elements undertaken at Chemex laboratories in Canada. No core samples remain.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Nueva Sabana 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. The area is intruded by similar age granodiorite and diorite stocks.</li> <li>The geological setting is very similar to the many prospective volcanic island arc geological environments that host porphyry style mineralisation, and associated vein systems.</li> <li>The Nueva Sabana/Nueva Sabana 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>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>All relevant data was provided in electronic format to Mining Associates.</li> <li>No new drill hole information is released in this announcement.</li> </ul>

Criteria	JORC Code explanation	Section 2: Commentary
	<ul style="list-style-type: none"> <li>metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No new exploration results are disclosed in this announcement.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>No new exploration results are disclosed in this announcement.</li> <li>All intercepts are length weighted, and referred to as down the hole intercepts.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer sections within this release. Relevant plans were included in previous releases dated 8 November 2022, 17 November 2022, 1 December 2022, 15 December 2022, 20 January 2023, 3 March 2023, 21 June 2023, 4 July 2023, 17 July 2023, 20 July 2023, 27 July 2023, 9 August 2023, 21 September 2023, 22 October 2023, 30 October 2023, 2 November 2023, 16 November 2023, 26 December 2023, 25 January 2024 and 1 August 2024.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All data (electronic) was provided to Mining Associates for consideration in the preparation of this mineral resource estimate.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological</li> </ul>	<ul style="list-style-type: none"> <li>Refer memo: El Pilar – Gold Concentrate Produced from a Gold Oxide Sample, dated 17 August 2023, by Antilles Gold Limited Technical Director Dr Jinxing Ji, JJ Metallurgical Services inc</li> </ul>



Criteria	JORC Code explanation	Section 2: Commentary
	<i>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.</i>	<ul style="list-style-type: none"> <li>Refer memo: Nueva Sabana – Metallurgical Testwork, Flowsheet and Forecast of Concentrate Production, dated 22 April 2024, by Antilles Gold Limited Technical Director Dr Jinxing Ji, JJ metallurgical Services, included as Attachment C of the Nueva Sabana Scoping Study, reported to the ASX on 7 May 2024</li> <li>Refer Memos: Nueva Sabana – Metallurgical Testwork &amp; Flowsheet, dated 11 November 2024, and Nueva Sabana – Forecast of Concentrate Production, dated 11 November 2024, by Antilles Gold Limited Technical Director Dr Jinxing Ji, JJ metallurgical Services, includes as Attachments C and D of the updated Nueva sabana Scoping Study, reported to the ASX on 14 November 2024.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>MLV plans to use this updated mineral resource estimate for the preparation of a pre-feasibility study.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Section 3: Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <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 managed by MLV 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>
<b>Site visits</b>	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person (Mr I.Taylor, BSc(Hons), FAusIMM(CP)) visited site on the 25<sup>th</sup> and 26<sup>th</sup> 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 MLV's Procedures.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li><i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></li> <li><i>Nature of the data used and of any</i></li> </ul>	<ul style="list-style-type: none"> <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:</li> </ul>

Criteria	JORC Code explanation	Section 3: Commentary
	<p>assumptions made.</p> <ul style="list-style-type: none"> <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>	<p>there is only sub-crop in the area covering the deposit.</p> <ul style="list-style-type: none"> <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. The 2024 drilling was designed to test the interpretation and improve confidence in the model.</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 inflection points in the log-probability plots. Domains strike north-east 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>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• The Nueva Sabana (formerly 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 quite thin, modelled to down to 2 m.</li> <li>• 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).</li> <li>• Mineralisation strikes NE (UTM) and dips shallowly to the SE ~10-20°, with a perceived plunge to the SW, ~5°.</li> <li>• The steep central proportion of the deposit with elevated copper is expected to propagate to depth and is still open.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> </ul>	<ul style="list-style-type: none"> <li>• 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 have been twinned with diamond core holes. One section is infilled on 10 m centres. Down dip pierce points are commonly 20 m.</li> <li>• A KNA analysis during the initial MRE 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 final 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))</li> <li>• Search ellipses were based on a combination of drill density and variogram ranges, variogram ranges ranged between 50 and 100 m, 60 m was</li> </ul>

Criteria	JORC Code explanation	Section 3: Commentary
	<ul style="list-style-type: none"> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>selected as the long axis of the search ellipse.</p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Gold and copper mineralisation are not correlated and are estimated independently. Fe and S are correlated are estimated into the model.</li> <li>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.</li> <li>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.</li> <li>Validation included section review, global drill hole and sample means comparisons, Localised swath plots, both at the deposit scale and domains scale.</li> <li>Grade tonnage curves from a Nearest neighbour and ID<sup>2</sup> estimate were compared to the OK grade tonnage curve.</li> <li>No mining has occurred at the project.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>No moisture readings were collected, samples were air dried before weighing, for use in the density determinations.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <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>



Criteria	JORC Code explanation	Section 3: Commentary
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <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 three-stage open circuit and then two-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> <li>The concentrate recovery is expected to be 84% for gold and 82 % for copper.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <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 stork, 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) was completed in August 2024 by State Agency Empresa Geocuba Camagüey-Ciego de Ávila (AEMA-GEOCUBA).</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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/m<sup>3</sup>, with most falling in the 2.4 to 2.6 t/m<sup>3</sup>.</li> <li>Density increases with depth. Material above 50 m RL was assigned 2.13 t/m<sup>3</sup>, and material below -50 m RL was assigned a density of 2.6 t/m<sup>3</sup>. The remainder of the blocks were assigned a density based a regression formula from the RL of the block. <ul style="list-style-type: none"> <li><math>BD = 0.1021\ln(\text{depth[m]}) + 2.13</math></li> </ul> </li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data,</li> </ul>	<ul style="list-style-type: none"> <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 distribution.</li> <li>The mineral resource estimate has been classified as indicated, inferred or unclassified based on drill</li> </ul>

Criteria	JORC Code explanation	Section 3: Commentary
	<p><i>confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <ul style="list-style-type: none"> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<p>hole spacing, geological continuity and estimation quality parameters.</p> <ul style="list-style-type: none"> <li>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 kriging variance (<math>&lt; 0.3</math>) and high conditional bias slope (<math>&gt; 0.8</math>).</li> <li>Inferred mineralisation is dominantly informed by a 20 x 20 m drill pattern and 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. Kriging variances are higher (<math>\sim 0.6</math>) and conditional bias slopes are low (<math>\sim 0.2</math>).</li> <li>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.</li> <li>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.</li> <li>The classification reflects the competent person's view of the Nueva Sabana deposit within the San Nicholas Reconnaissance Permit.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>There has been no independent audit of the data or mineral resource.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>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 MLV diamond drill campaign.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>Comparison with the previous estimates indicates that the changes implemented in the current Mineral Resource Estimate produced results that are in line with expectations. (marginal Increase in tonnes and increased copper but reduced gold grades)</li> <li>No mining has occurred at the deposit.</li> </ul>



### Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and  
Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

#### Report name.

Mineral Resource Estimate of the Nueva-Sabana Deposit (previously El Pilar Deposit), Central Cuba.

*(Insert name or heading of Report to be publicly released) ('Report')*

Antilles Gold Limited

*(Insert name of company releasing the Report)*

Nueva-Sabana Deposit (previously El Pilar Deposit), Central Cuba.

*(Insert name of the deposit to which the Report refers)*

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

01<sup>th</sup> October 2024

*(Date of Report)*

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## Written Consent Statement

I/We,

Ian 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 Nueva-Sabana Deposit, Central Cuba on which the Report is based, for the period ended 30<sup>th</sup> August 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 02<sup>nd</sup> October 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 01/10/24 – Do Not Copy

01<sup>st</sup> October 2024

Signature of Competent Person:

Date:

FAusIMM (CP)

110090

Professional Membership:  
(insert organisation name)

Membership Number:

Signed 01/10/24 – Do Not Copy

Bargara

Signature of Witness:

Print Witness Name and Residence:  
(eg town/suburb)



## Life of Mine Plan for the Nueva Sabana Copper Gold Project

Prepared by Mining Associates Pty Ltd  
for  
Antilles Gold Limited

Author: Anthony Stepcich  
Peer Reviewers: Peter Caristo / Ian Taylor

Effective Date: 12 November 2024  
Submitted Date: 12/11/2024  
Project Code: MA2420

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## 1 EXECUTIVE 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 MA Mining Study was undertaken as part of a pre-feasibility study (PFS) on the Nueva Sabana copper/gold project. The pre-feasibility study was managed by Antilles Gold Ltd and the team consisted of Antilles and Minera La Victoria personnel and a number of external consultants. This Mining Study should be read in conjunction with the other chapters of the prefeasibility study, which when all combined constitute the “Pre-feasibility Study on the Nueva Sabana copper/gold project” as a whole.

The Mining Study undertaken by MA was undertaken as part of a prefeasibility study with an inherent level of confidence of approximately +/- 30%

Mining is to be undertaken using an open-pit mining method. Industry standard drill-blast-load-haul methods are to be used at Nueva Sabana. MA has undertaken a pit optimisation, pit design and mine schedule and economic analysis for the Nueva Sabana deposit. This work was carried out utilising the Deswik CAD package and Micromine’s SPRY scheduling package. Source, destination and haulage scheduling were undertaken in SPRY. Economic modelling was done in Microsoft Excel.

Scenario that was modelled in the Mining Study.

- A Life of Mine Plan (LOMP) which was optimised, designed and scheduled using factored Indicated and Inferred resource categories. This is the plan the Joint Venture intend to use for future mining operations.
- 

### 1.1 LIFE OF MINE PLAN

The result of the LOMP was a pit with a total material movement of 8.8Mt and a strip ratio of 2.86 t:t. A discounted cashflow economic model was constructed resulting in a pre-tax Net Present Value of US\$68.9M at a discount rate of 7.5%. The Internal Rate of Return of the economic model was 100%. The pre-tax NPV was estimated on a 100% basis for the Joint Venture.

Table 1-1: LOMP Total Material Movement

Total Material Movement	Units	
Total Factored Resources Mined (Au, Cu, AuCu)	t	2,276,933
Waste	t	6,191,945
Mineralised Waste	t	330,500
<b>Total Material Movement</b>	<b>t</b>	<b>8,799,379</b>
Strip Ratio	t:t	2.86

## INTRODUCTION

This Technical Report has been prepared by Mining Associates Pty Ltd (“MA”) for Antilles Gold Limited (“Antilles Gold Ltd”). MA was commissioned in September 2024 to prepare this Mining Study.

### 1.2 AUTHORS

The following personnel were responsible for compiling this report:

- Anthony Stepcich, Author and Competent Person
- Peter Caristo, Peer Review
- Ian Taylor, Peer Review

### 1.3 INFORMATION USED

This report is based on technical data provided by Antilles Gold Ltd to MA. Antilles Gold Ltd provided open access to all the records necessary, in the opinion of MA, to enable a proper assessment of the project. Readers of this report must appreciate that there is an inherent risk of error in the acquisition, processing and interpretation of geological and geophysical and mining data, and MA takes no responsibility for such errors.

The Competent Person (JORC Code 2012 Edition) for this Technical Report is Mr Anthony Stepcich. Anthony Stepcich is an Associate of MA and has sufficient experience relevant to the style of mineralisation and deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in JORC Code 2012 Edition.

### 1.4 CURRENT PERSONAL INSPECTION BY COMPETENT PERSONS

A personal inspection by Anthony Stepcich was not conducted to the project area. A site inspection was previously conducted by Ian Taylor of Mining Associates for the estimation of the Mineral Resources. Mr Stepcich has relied on the previous Site Visit by Mr Taylor. I have had access to GIS Data, Plans, Maps, on-line Meetings and extensive discussions with Ian Taylor regarding the site conditions.

Based on the competent persons professional knowledge and experience it is considered that sufficient current information is available to allow an informed assessment to be made of the project sites.

### 1.5 RELEVANT CODES AND GUIDELINES

Where and if Mineral Resources and Reserves have been referred to in this Report, the classifications are consistent with the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (JORC Code 2012), prepared by the Joint Ore Reserves Committee of the AusIMM, the AIG and the Minerals Council of Australia, effective December 2012.

### 1.6 DECLARATIONS

The information in this report that relates to Technical Assessment of Mineral Assets reflects information compiled and conclusions derived by Anthony Stepcich, who is a Fellow of the Australian Institute of Mining and Metallurgy. Anthony Stepcich is an Associate of, but not a permanent employee of Mining Associates. Anthony Stepcich consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### 1.6.1 Independence

MA is a mining and exploration consultancy and operates as an independent party. Neither MA nor the contributors to this Mining Study have any interests in Antilles Gold Limited or related parties, or in any of the mineral properties which are the subject of this Mining Study.

Neither MA nor the contributors to this Mining Study or members of their immediate families hold shares in Antilles Gold Limited.

MA is being paid a fee in line with its normal rates and out of pocket expenses in the preparation of this Mining Study. Its fee is not contingent on either the conclusions reached in this report or the outcome of the transaction subject to this Mining Study. The fees are based on several factors including the project stage, complexity of the project, available data and MA's knowledge of the assets.

### 1.6.2 Reliance on other experts

The author has relied on reports, opinions or statements of legal or other experts who are not Competent Persons for information concerning legal, environmental, political or other issues and factors relevant to this report.

MA has assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Technical Report are accurate and complete in all material aspects. While MA has carefully reviewed all the available information presented to us, MA cannot guarantee its accuracy and completeness. MA reserves the right but will not be obligated to revise the Technical Report and conclusions if additional information becomes known to us subsequent to the date of this Technical Report.

Copies of the tenure documents, operating licences, permits, and work contracts were not reviewed.

MA has relied upon this public information, as well as tenure information from Antilles Gold Ltd and has not undertaken an independent detailed legal verification of title and ownership of the Property ownership. MA has not verified the legality of any underlying agreement(s) that may exist concerning the licences or other agreement(s) between third parties.

Select technical data, as noted in the Technical Report, were provided by Antilles Gold Ltd and MA has relied on the integrity of such data. A draft copy of this Technical Report has been reviewed for factual errors by the client and MA has relied on Antilles Gold Ltd's knowledge of the Property in this regard. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Technical Report.

## 2 CAVEAT LECTOR

This Mining Study (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.

MA has, in preparing the Report, followed methodology and procedures, and exercised due care consistent with the intended level of accuracy, using its professional judgment and reasonable care. However, no warranty should be implied as to the accuracy of estimates or other values and all estimates and other values are only valid as at the date of the Report and will vary thereafter.

Parts of the Report have been prepared or arranged by Antilles Gold or third party contributors, as detailed in the document. While the contents of those parts have been generally reviewed by MA for inclusion into the Report, they have not been fully audited or sought to be verified by MA. MA is not in a position to, and does not, verify the accuracy or completeness of, or adopt as its own, the information and data supplied by others and disclaims all liability, damages or loss with respect to such information and data.

In respect of all parts of the Report, whether or not prepared by MA no express or implied representation or warranty is made by MA or by any person acting for and/or on behalf of MA to any third party that the contents of the Report are verified, accurate, suitably qualified, reasonable or free from errors, omissions or other defects of any kind or nature. Third parties who rely upon the Report do so at their own risk and MA disclaims all liability, damages or loss with respect to such reliance.

MA disclaims any liability, damage and loss to Antilles Gold and to third parties in respect of the publication, reference, quoting or distribution of the Report or any of its contents to and reliance thereon by any third party.

This disclaimer must accompany every copy of this Report, which is an integral document and must be read in its entirety.



### 3 PROPERTY DESCRIPTION AND LOCATION

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.

Mining Associates Pty Ltd (MA) have been engaged by Antilles Gold Limited (Antilles) to undertake a Mining Study of the Nueva Sabana project located in Cuba. The type of mining evaluation work undertaken can be categorised as a Prefeasibility Study, with an estimated level of accuracy of approximately +/- 30%.

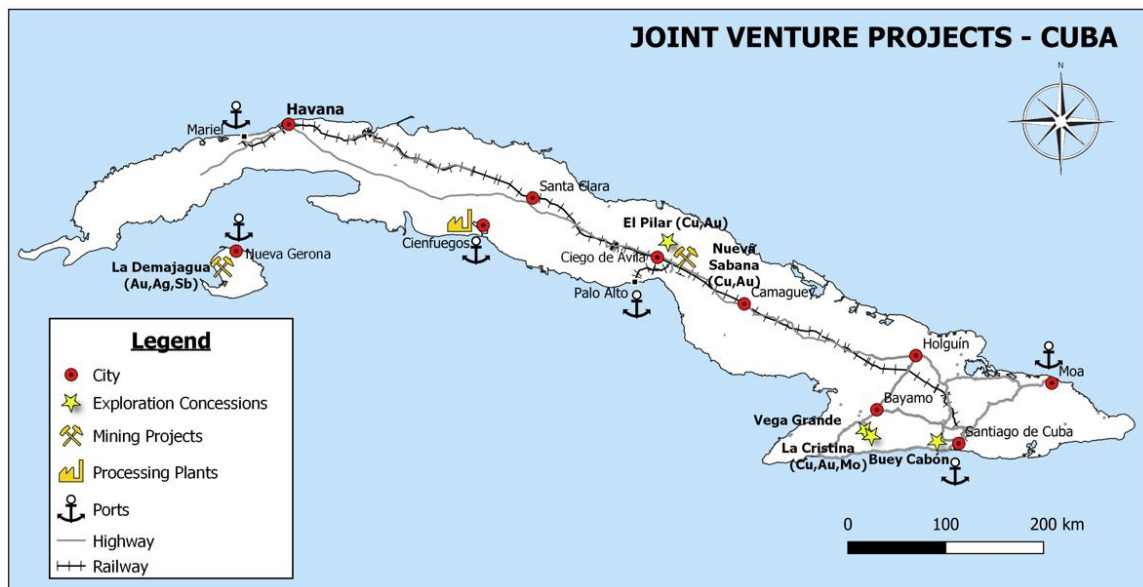


Figure 3-1: Cuba Joint Venture Projects

### 4 MINERAL RESOURCES

A JORC 2012 Code compliant Mineral Resource Estimate (MRE) of the El Pilar deposit in central Cuba was undertaken by the Competent Person, Ian Taylor of Mining Associates Pty Ltd. The MRE for Nueva Sabana was released publicly by Antilles on 30 September 2024.

The MRE was reported above the depth of -100 mRL and above a geological cut-off grade of 0.25% Cu, including gold mineralisation greater than 0.3 g/t where mineralisation is outside of the copper mineralisation. The mineralisation is divided into three metallurgical domains, a gold domain, a copper domain and a copper-gold domain.

The current MRE does not include any dilution or ore loss associated with practical mining constraints. No significant artisanal mining and no mechanised mining has occurred on the property.

**Table 4-1: Mineral Resources at Nueva Sabana**

Material Type	Resource Category	Tonnes	Gold (g/t)	Gold (koz)	Copper (%)	Copper (Mlb)	S%
Gold Domain	Indicated	654,000	2.81	59.0	-	-	0.08
	Inferred	196,000	1.75	11.0	-	-	0.82
<b>Sub Total</b>		<b>850,000</b>	<b>2.56</b>	<b>70.1</b>	<b>-</b>	<b>-</b>	<b>0.25</b>
Copper Gold Domain	Indicated	1,071,000	0.79	27.3	0.65	15.34	1.22
	Inferred	74,000	1.50	3.6	0.50	0.82	1.98
<b>Sub Total</b>		<b>1,145,000</b>	<b>0.84</b>	<b>30.9</b>	<b>0.64</b>	<b>16.16</b>	<b>1.27</b>
Copper Domain	Indicated	398,000	0.15	1.9	1.25	10.96	1.86
	Inferred	1,644,000	0.07	3.5	0.70	25.32	1.94
<b>Sub Total</b>		<b>2,042,000</b>	<b>0.08</b>	<b>5.4</b>	<b>0.81</b>	<b>36.28</b>	<b>1.92</b>
<b>Totals</b>		<b>4,037,000</b>	<b>-</b>	<b>106.4</b>	<b>-</b>	<b>52.44</b>	<b>-</b>

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 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 work most of the inferred resources could be upgraded to indicated resources.

The mineral resource contains 106.4 koz Au of shallow gold, and 91% of the MRE tonnes and ounces are within 50 m of the surface. Of the 52.44 Mlb of copper, 45% lies between 20 and 50 m of the surface

Antilles envisages mining via conventional open pit truck and excavator methods and utilising standard grinding and flotation methods to process the ore. Metallurgical test work was undertaken at Blue Coast Research in British Columbia, Canada, on a range of composites for the gold domain, the copper domain, and the copper-gold domain. The mineralisation sampled by El Pilar has been shown to be amenable to floatation for copper and gold. Overall copper recovery across all domains totalled approximately 80% of contained metal with the Company planning the send a float concentrate product off site.

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, higher grade gold mineralisation (gold domain) shows a recovery to the float concentrates above 80%.

The Mineral Resource Estimate is reported in detail in the September 2024 Mineral Resource Report which is a part of this pre-feasibility study. The pre-feasibility study and its constituent chapters should be read as a whole.

## 5 MINING STUDY

### 5.1 STUDY LEVEL OF ACCURACY

The MA Mining Study was undertaken as part of a pre-feasibility study (PFS) on the Nueva Sabana copper/gold project. The pre-feasibility study was managed by Antilles Gold Ltd and the team consisted of Antilles personnel and a number of external consultants. This Mining Study should be

read in conjunction with the other chapters of the prefeasibility study, which when all combined constitute the “Pre-feasibility Study on the Nueva Sabana copper/gold project” as a whole.

The Mining Study undertaken by MA was undertaken as part of a prefeasibility study with an inherent level of accuracy of approximately +/- 30%

MA has undertaken a pit optimisation, pit design and mine schedule for the Nueva Sabana deposit. This work was carried out utilising the Deswik CAD package and Micromine’s SPRY scheduling package. Source, destination and haulage scheduling were undertaken in SPRY. Deswik’s optimisation module uses the Psuedoflow optimiser algorithm.

## 5.2 MINING BLOCK MODEL

The MRE sub-cell block model was regularised to a standard selective mining unit size (SMU) of 5 m x 2.5 m x 2.5 m (xyz) to generate a mining block model suitable for pit optimisation purposes. This SMU size was selected based on considerations for the given mineralisation geometry and expected mining equipment sizing.

Expected mining losses and mining dilution were accounted for via the regularisation process used to generate the mining block model from the MRE model. A summary of ore loss and dilution applied is shown in Table 5-1 below. No further dilution or loss factors were applied to the mineralisation for this study.

The global MRE sub-cell model is compared to the global regularised mining model below in Table 5-1.

**Table 5-1: Block Model Comparison**

Global El-Pilar Subcell Resource Block Model rescat 2&3: Indicated and Inferred					
Legend Name	Tonnes	cu_ok (%)	au_ok (g/t)	Au Oz	Cu lb
AUZONE (Au>=0.3 Cu<0.25)	849,451	0.04	2.57	70,055	685,238
CUAUZONE (Au>=0.3 Cu>=0.25)	446,685	0.75	2.23	32,086	7,433,064
CUZONE (Au<0.3 Cu>=0.25)	2,743,047	0.74	0.05	4,206	45,013,512
<b>Total</b>	<b>4,039,183</b>	<b>0.60</b>	<b>0.82</b>	<b>106,348</b>	<b>53,131,815</b>

Global Regularised Mining Block Model Rescat 2&3: Indicated & Inferred					
Legend Name	Tonnes	cu_ok (%)	au_ok (g/t)	Au Oz	Cu lb
AUZONE (Au>=0.3 Cu<0.25)	1,138,686	0.03	1.91	69,879	875,749
CUAUZONE (Au>=0.3 Cu>=0.25)	454,440	0.72	2.07	30,263	7,233,854
CUZONE (Au<0.3 Cu>=0.25)	2,838,148	0.68	0.04	4,069	42,419,104
<b>Total</b>	<b>4,431,275</b>	<b>0.52</b>	<b>0.73</b>	<b>104,211</b>	<b>50,528,708</b>

Variance Comparison Subcell Resource Model to Regularised Mining Model					
Legend Name	Tonnes	cu_ok (%)	au_ok (g/t)	Au Oz	Cu lb
AUZONE (Au>=0.3 Cu<0.25)	34%	-5%	-26%	0%	28%
CUAUZONE (Au>=0.3 Cu>=0.25)	2%	-4%	-7%	-6%	-3%
CUZONE (Au<0.3 Cu>=0.25)	3%	-9%	-7%	-3%	-6%
<b>Total</b>	<b>10%</b>	<b>-13%</b>	<b>-11%</b>	<b>-2%</b>	<b>-5%</b>

Three Resource domain were evaluated in this PFS:

- A Gold Resource domain with grade parameters: Au>=0.3 g/t and Cu < 0.25%
- A Gold/Copper Resource domain with grade parameters: Au>=0.3 g/t and Cu >= 0.25%
- A Copper Resource domain with grade parameters: Au < 0.3 g/t and Cu >= 0.25%.

The copper concentrate produced from the Copper Resource zone has minor gold credits some of which have payability as outlined in Table 6-1 below.

### 5.3 CUT OFF GRADES

The cut-off grades used in this study were estimated on an individual block by block basis using the processing, smelting and royalty costs. If the payable revenue received from a tonne of plant feed exceeded the processing, smelting and royalty cost of that block of material, then that block will be fed through the processing plant.

- For mineralisation in the copper domain with no gold credits, this equated to material with a grade greater than 0.40% Cu being processed.
- For mineralisation in the gold domain with no copper credits, this equated to material with a grade greater than 0.49 g/t being processed.
- For mineralisation with both copper and gold grades and credits, the cut-off grade is a combination of the gold and copper grades that have a combined payable revenue greater than the processing, smelting and royalty cost. This was calculated individually for each mined SMU block.
- Material within the mineralised domains that has failed the block by block CoG revenue test was categorised as “Mineralised Waste” this material was stockpiled separately until the end of the mines life. Depending on commodity prices when the mine finishes operations this material could be processed at some time in the future. No revenue from this mineralised waste is included in either mine plan evaluated.

**Table 5-2: Gold only cut-off grade**

Gold only cut-off grade (No copper credits)	Value	Units
Gold Price	\$2,200.00	US\$/Oz
Gold Price	\$70.73	US\$/g
Selling Cost	\$1.72	US\$/g
Royalty 3%	\$2.12	US\$/g
Net Gold Price	\$66.89	US\$/g
Recovered Gold price	\$47.76	US\$/g
Mining Cost	\$3.65	US\$/t
Processing, Power and G&A Costs	\$23.64	US\$/t
Recovery	71.4%	%
Total Cost Ore	\$27.29	US\$/t
Total Cost Waste	\$3.65	US\$/t
<b>Gold Cut-off Grade</b>	<b>0.49</b>	<b>g/t Au</b>

**Table 5-3: Copper only cut-off grade**

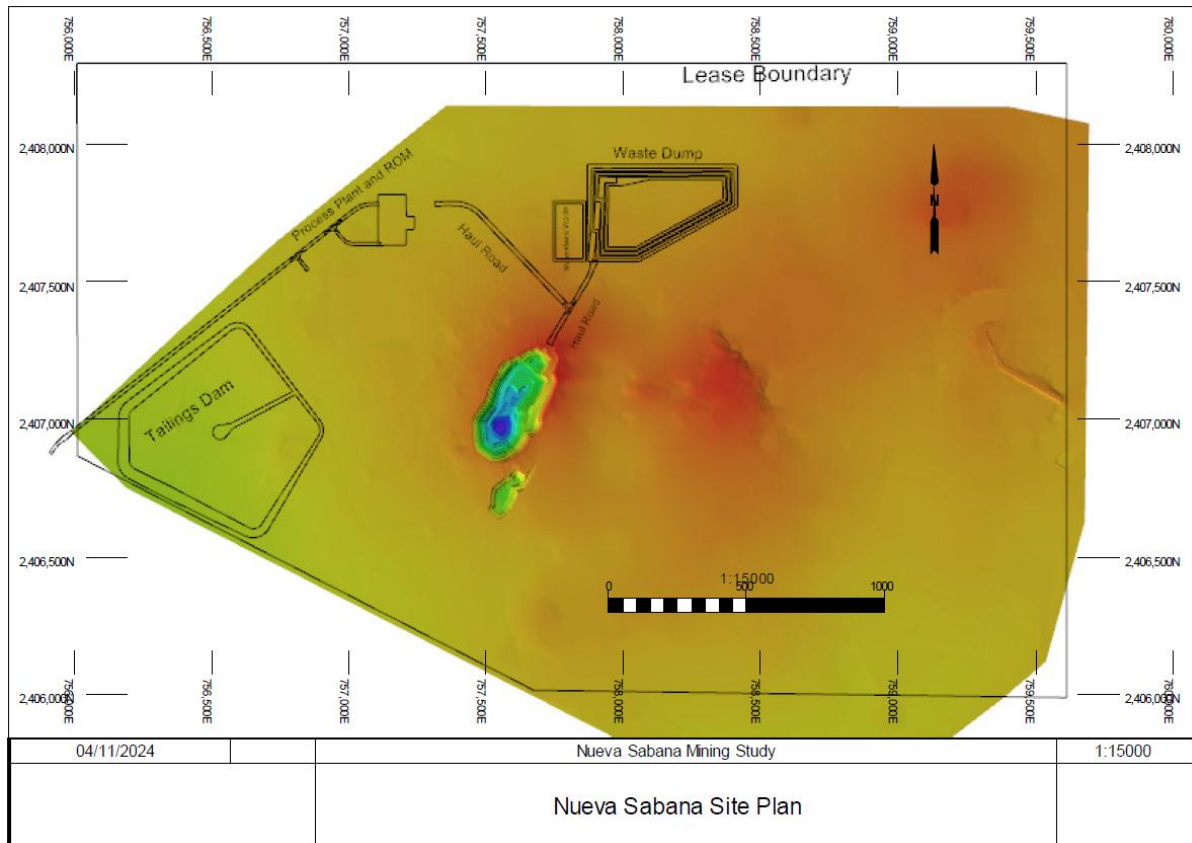
Copper only cut-off grade (No gold credits)	Value	Units
Copper Price	\$4.00	US\$/lb
Selling Cost	\$0.21	US\$/lb
Royalty 3%	\$0.12	US\$/lb
Net Copper Price	\$3.67	US\$/lb
Net Copper Price	\$8,085	US\$/t
Recovered Copper price	\$6,290	US\$/t
Mining Cost	\$3.65	US\$/t
Processing, Power and G&A Costs	\$25.21	US\$/t
Recovery	77.8%	%
Total Cost Ore	\$28.86	US\$/t
Total Cost Waste	\$3.65	US\$/t
<b>Copper Cut-off Grade</b>	<b>0.40</b>	<b>% Cu</b>

## 5.4 MINING STUDY SCENARIOS

The scenario that was modelled in the Mining Study.

- A Life of Mine Plan (LOMP) which was optimised, designed and scheduled using factored Indicated and Inferred resource categories. This is the plan the owner intend to use for future mining operations.

The factored indicated and inferred resources are the MRE resources that have had a regularisation process applied to produce a mining model as previously discussed in Section 7.2.



**Figure 5-1: Site Plan**

## 6 MINING STUDY: LIFE OF MINE PLAN

### 6.1 PIT OPTIMISATION

#### 6.1.1 Optimisation Inputs

A LOMP pit optimisation was undertaken using Deswik Psuedoflow software. The regularised block model was coded with the cost and revenue parameters shown in Table 6-1 and Table 6-2 below.

The pit optimisations were undertaken applying revenue from both the factored indicated and inferred resource classifications.

The commodity prices used for the optimisations were advised by Antilles in collaboration with MA. A copper price of US\$4.00/lb and a gold price of US\$2,200/oz were used in the optimisations and financial modelling. The author considers that the commodity prices used were reasonable given recent price history.

Mining and site processing costs were developed by Antilles from first principles using activity-based costing methods. Off-site processing, payabilities and concentrate transport costs and net smelter return calculations were obtained from draft marketing agreements with Trafigura, the terms of these agreements are still to be finalised. Metallurgical test work, flowsheet and forecast of concentrate production. was directed by Jinxing Ji of JJ Metallurgical Services Inc. Four metallurgical test work programs were completed by Blue Coast Research in Parksville, British Columbia, Canada, in a period from March 2023 to July 2024

**Table 6-1: Optimisation Inputs #1**

Optimisation Parameters	Units	Value
TMM Mining Cost	US\$/t	3.79
Assumed TMM Rehandle	%	2.0%
<b>Cu and AuCu Factored Resource parameters</b>		
Processing, Power and G&A Cost	US\$/t Ore	\$25.39
Cu Recovered to Concentrate	%	80.7%
Cu Payability from Concentrate	%	96.4%
Au Recovered to Concentrate	%	81.5%
Au Payability from Concentrate		
Au grade in Cu Concentrate: 0-1 g/t	g/t	0%
Au grade in Cu Concentrate: 1-3 g/t	g/t	90.0%
Au grade in Cu Concentrate: 3-5 g/t	g/t	92.0%
Au grade in Cu Concentrate: 5-7 g/t	g/t	93.0%
Au grade in Cu Concentrate: 7-10 g/t	g/t	95.0%
Au grade in Cu Concentrate: 10-15 g/t	g/t	96.0%
Au grade in Cu Concentrate: >15 g/t	g/t	97.5%
Cu & AuCu Concentrate Grade	% Cu	27.5%
Assumed concentrate moisture	%	10%
Concentrate Transport	US\$/t Conc	\$128.99
Cu Treatment Charge	US\$/t Conc	\$40.00
Cu Refining Charge	US\$/lb	\$0.04
Au Refining Charge	US\$/oz	\$5.00

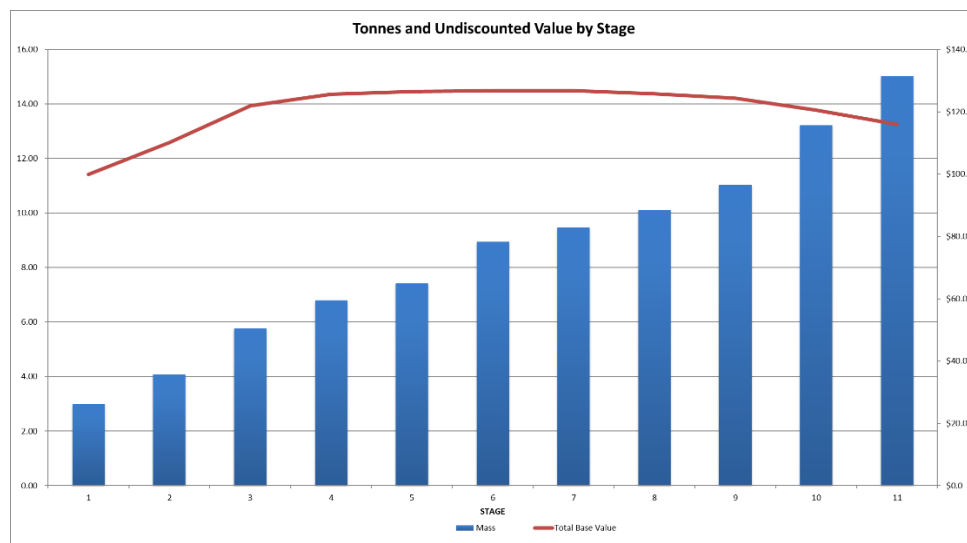


**Table 6-2: Optimisation Inputs #2**

Optimisation Parameters	Units	Value
<b>Au Factored Resources Parameters</b>		
Processing, Power and G&A Cost	US\$/t Ore	21.98
Au Recovered to Concentrate	%	84.0%
Au Payability from Concentrate	%	85.0%
Au Concentrate Grade	g/t Au	75.09
Concentrate Transport	US\$/t Conc	128.99
Assumed Concentrate moisture	%	10%
<b>Revenues</b>		
Cu Price	US\$/lb	\$4.00
Au Price	US\$/oz	\$2,200
Royalty Rate (ad Valorem)	%	3.0%

### 6.1.2 Optimisation Outputs

A series of optimisations were undertaken using the Deswik Psuedoflow optimisation algorithm. The results of which are shown below. The Revenue Factor 1 pit shell was used as the basis for detailed pit design work for this prefeasibility Study.


**Figure 6-1: Optimisation Shells Total Material Moved (Mass) & Value (opex margin)**

**Table 6-3: LOMP Revenue Factor Optimisation Results**

Stage	Revenue Factor %	RF Value US\$M	Total Value US\$M	Mass Mt	Total Mass Mt
1	50%	\$99.9	\$99.9	3.00	3.00
2	60%	\$10.2	\$110.1	1.08	4.09
3	70%	\$11.9	\$122.0	1.67	5.76
4	80%	\$3.6	\$125.6	1.04	6.79
5	90%	\$0.8	\$126.4	0.62	7.41
<b>6</b>	<b>100%</b>	<b>\$0.3</b>	<b>\$126.8</b>	<b>1.54</b>	<b>8.95</b>
7	110%	\$0.0	\$126.8	0.52	9.47
8	120%	-\$1.0	\$125.8	0.65	10.12
9	130%	-\$1.5	\$124.3	0.90	11.02
10	140%	-\$3.7	\$120.5	2.20	13.22
11	150%	-\$4.5	\$116.0	1.81	15.02

## 6.2 MINE DESIGN

A number of pit design iterations were conducted for this Mining Study, in order to verify and validate the evaluation process and results for this new Nueva Sabana project

The trucks planned to be used at Nueva Sabana are Volvo A45G's. Dual lane 18.5 m wide access ramps were used in the design. This ramp width is based on standard calculations for a two-way access ramp being utilised by the expected mining equipment fleet. Single lane access ramps used in the design were designed at 10.5 m wide

Table 6-4 below is a comparison of the final version of the pit design versus the initial RF=1 pit optimisation shell

**Table 6-4: LOMP Optimisation Versus LOMP Pit Design**

Design Comparison	Units	PFS RevM Optimisation LOMP Indicated & Inferred	PFS Pit Design Rev7_N LOMP Indicated & Inferred
Au Factored Resources	t	877,522	863,797
Au Factored Resources Au Grade	g/t	2.29	2.29
AuCu Factored Resources	t	400,070	381,466
AuCu Factored Resources Au Grade	g/t	2.21	2.27
AuCu Factored Resources Cu Grade	%	0.75	0.76
Cu Factored Resources	t	1,060,163	1,035,021
Cu Factored Resources Cu Grade	%	0.86	0.85
Cu Factored Resources Au Grade	g/t	0.06	0.06
<b>Total Factored Resources</b>	<b>t</b>	<b>2,337,755</b>	<b>2,280,285</b>
Mineralised Waste	t	323,860	331,586
Waste	t	6,288,455	6,201,278
TMM	t	8,950,071	8,813,149
Strip Ratio	t:t	2.83	2.86
Insitu Au	oz	95,136	93,652
Insitu Cu	lb	26,657,150	25,877,453
Payable Au	oz	69,262	68,184
Payable Cu	lb	20,758,456	20,151,296
% Metal Recovery Au	%	72.8%	72.8%
% Metal Recovery Cu	%	77.9%	77.9%

A summary pit 5m bench report of the LOMP pit is shown in Table 6-5 and Table 6-6 below.

Figure 6-2 below shows a comparison between the LOMP optimised RF 100% shell and the LOMP pit design. Also shown in Figure 7.2 is the string design for the LOMP pit.

Figure 6-3 below shows 3 pit sections (A,B&C) through both the LOMP optimal shell and LOMP pit design showing the Resource Classification of the 3 Resource zones, Indicated & Inferred.

Figure 6-4 below shows 3 pit sections (A,B&C) through both the LOMP optimal shell and LOMP pit design showing the the 3 Resource zones, Gold Zone, Gold/Copper Zone and Copper Zone.

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**Table 6-5: LOMP 5m Bench Physicals Report**

PIT	mRL Bench	tonnes Au Tonnes Ind & Inf	g/t Au Grade	tonnes AuCu Tonnes Ind & Inf	g/t AuCu_AuGrade	% AuCu_CuGrade	tonnes Cu Tonnes Ind & Inf	% Cu_Grade	g/t Au_Grade
LOMP	60	0	0.00	0	0.00	0.00	0	0.00	0.00
LOMP	55	0	0.00	0	0.00	0.00	0	0.00	0.00
LOMP	50	10,691	1.48	0	0.00	0.00	0	0.00	0.00
LOMP	45	133,544	2.14	0	0.00	0.00	0	0.00	0.00
LOMP	40	177,092	2.06	0	0.00	0.00	147	0.88	0.02
LOMP	35	152,478	2.07	0	0.00	0.00	522	0.86	0.05
LOMP	30	124,958	2.19	759	1.02	0.38	31,328	0.71	0.01
LOMP	25	84,436	3.03	10,332	1.50	0.50	72,023	0.77	0.02
LOMP	20	53,967	3.49	44,376	2.20	0.53	91,119	0.70	0.04
LOMP	15	24,229	2.75	84,252	2.96	0.59	97,129	0.63	0.09
LOMP	10	18,196	2.36	89,890	2.66	0.78	90,949	0.65	0.09
LOMP	5	23,678	1.91	57,616	2.35	0.85	117,819	0.77	0.07
LOMP	0	26,509	2.11	39,194	2.08	0.93	134,005	0.96	0.09
LOMP	-5	15,864	2.45	12,903	1.13	0.94	118,696	1.03	0.08
LOMP	-10	7,966	1.86	13,002	0.77	0.64	88,103	1.01	0.06
LOMP	-15	4,534	1.74	5,911	0.84	1.02	62,305	1.09	0.05
LOMP	-20	2,808	2.08	10,647	0.59	1.13	45,873	1.04	0.05
LOMP	-25	9	1.47	3,796	0.81	1.78	26,332	1.06	0.05
LOMP	-30	0	0.00	2,732	1.10	1.41	14,231	0.93	0.04
LOMP	-35	0	0.00	968	0.82	0.67	17,361	0.74	0.04
LOMP	-40	0	0.00	2,991	0.62	0.96	15,298	0.71	0.03
LOMP	-45	0	0.00	2,015	0.70	1.45	11,353	1.01	0.05
LOMP	Total	860,958	2.30	381,382	2.27	0.76	1,034,593	0.85	0.06

**Table 6-6: LOMP 5m Bench Physicals Report (continued)**

PIT	mRL Bench	tonnes Min_Au_Waste	g/t Min_Au_Grade	tonnes Min_Cu_Waste	% Min_Cu_Grade	tonnes Total Waste	tonnes Total Min Waste	tonnes Total Ore	t:t Strip Ratio	tonnes TMM
LOMP	60	0	0.00	0	0.00	0	0	0		0
LOMP	55	0	0.00	0	0.00	7,061	0	0		7,061
LOMP	50	2,523	0.38	0	0.00	198,389	2,523	10,691	18.79	211,603
LOMP	45	17,062	0.40	0	0.00	391,457	17,062	133,544	3.06	542,063
LOMP	40	37,247	0.39	73	0.28	678,493	37,320	177,239	4.04	893,052
LOMP	35	28,039	0.39	75	0.34	790,971	28,113	152,999	5.35	972,083
LOMP	30	16,739	0.39	8,423	0.32	805,472	25,162	157,046	5.29	987,679
LOMP	25	11,840	0.41	10,131	0.33	680,137	21,972	166,792	4.21	868,901
LOMP	20	6,649	0.38	15,002	0.32	589,577	21,652	189,461	3.23	800,690
LOMP	15	5,271	0.40	20,180	0.33	430,152	25,451	205,609	2.22	661,211
LOMP	10	4,215	0.39	20,761	0.32	385,785	24,976	199,035	2.06	609,796
LOMP	5	6,136	0.38	22,522	0.33	292,300	28,658	199,112	1.61	520,070
LOMP	0	5,602	0.38	20,380	0.32	241,705	25,982	199,708	1.34	467,395
LOMP	-5	3,677	0.40	24,255	0.32	155,292	27,932	147,464	1.24	330,688
LOMP	-10	2,451	0.38	15,121	0.32	156,798	17,572	109,070	1.60	283,441
LOMP	-15	569	0.40	11,953	0.32	132,275	12,521	72,750	1.99	217,546
LOMP	-20	160	0.33	5,670	0.31	118,513	5,830	59,328	2.10	183,671
LOMP	-25	0	0.37	2,377	0.32	59,618	2,377	30,137	2.06	92,132
LOMP	-30	0	0.00	2,406	0.33	43,010	2,406	16,964	2.68	62,381
LOMP	-35	81	0.35	2,121	0.32	21,929	2,201	18,329	1.32	42,459
LOMP	-40	0	0.00	593	0.30	10,770	593	18,289	0.62	29,652
LOMP	-45	0	0.00	196	0.31	2,240	196	13,368	0.18	15,805
LOMP	Total	148,259	0.39	182,241	0.32	6,191,945	330,500	2,276,933	2.86	8,799,379

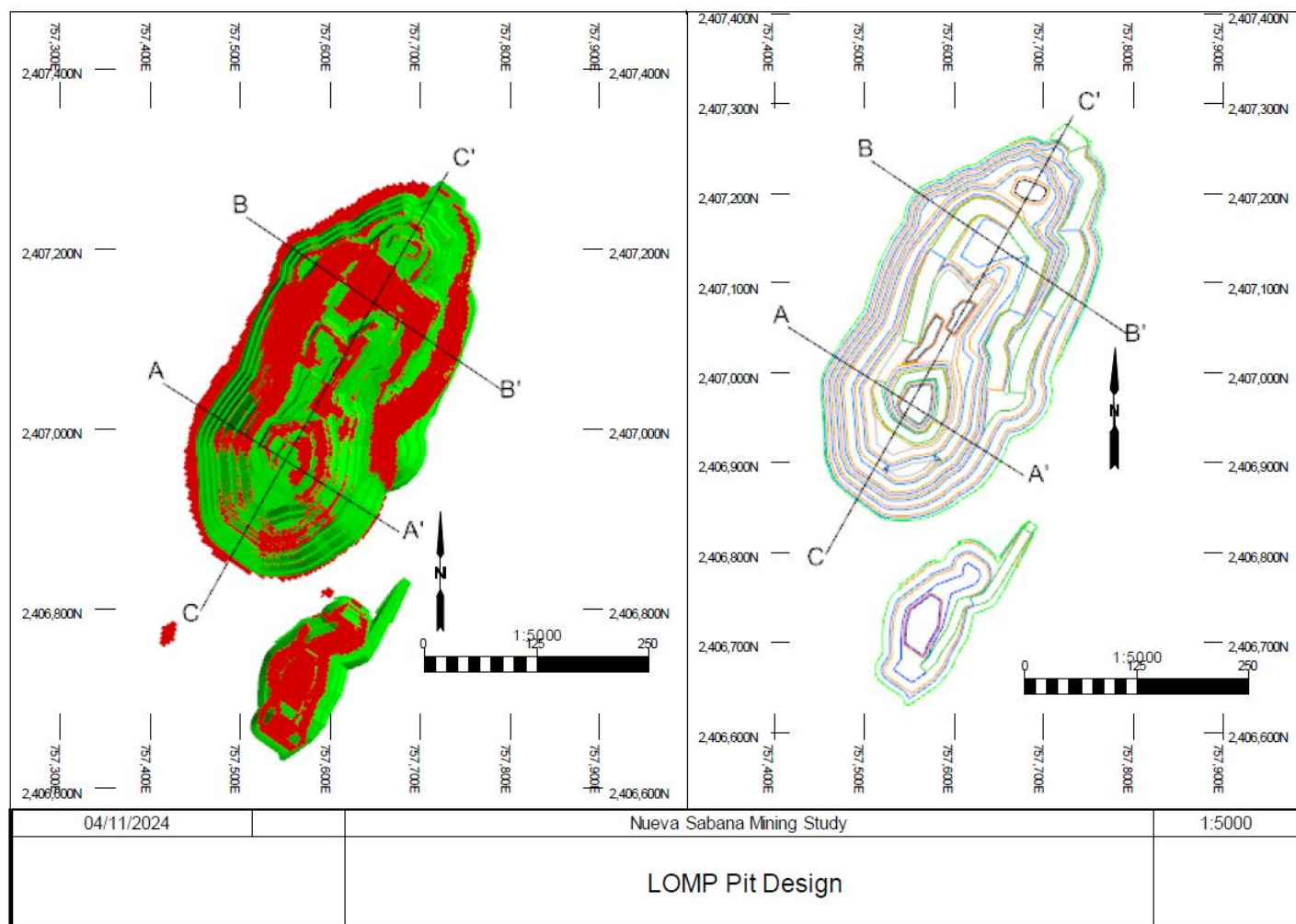


Figure 6-2: Optimisation Shell Comparison and Pit Design



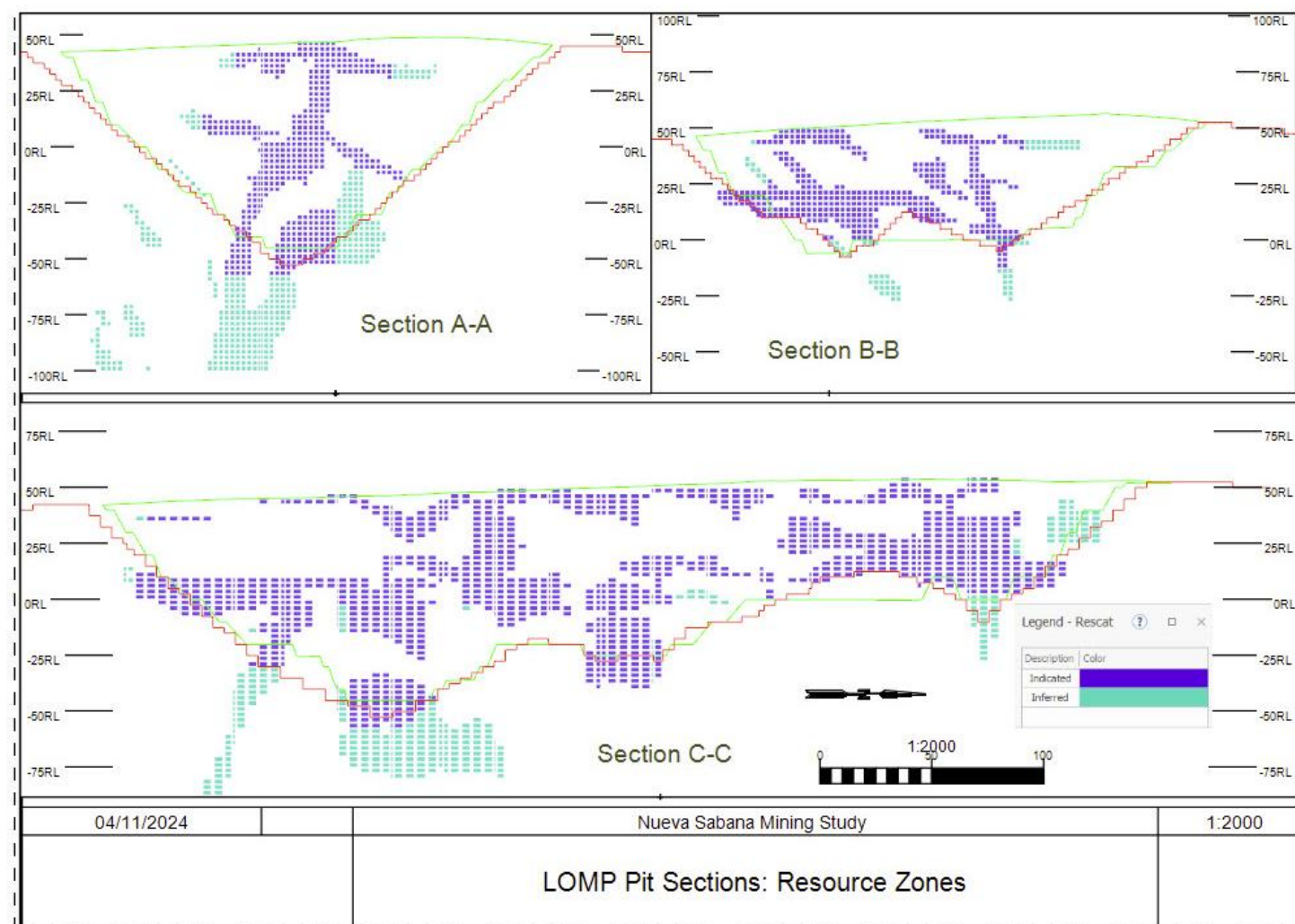


Figure 6-3 Indicated and Inferred Resources

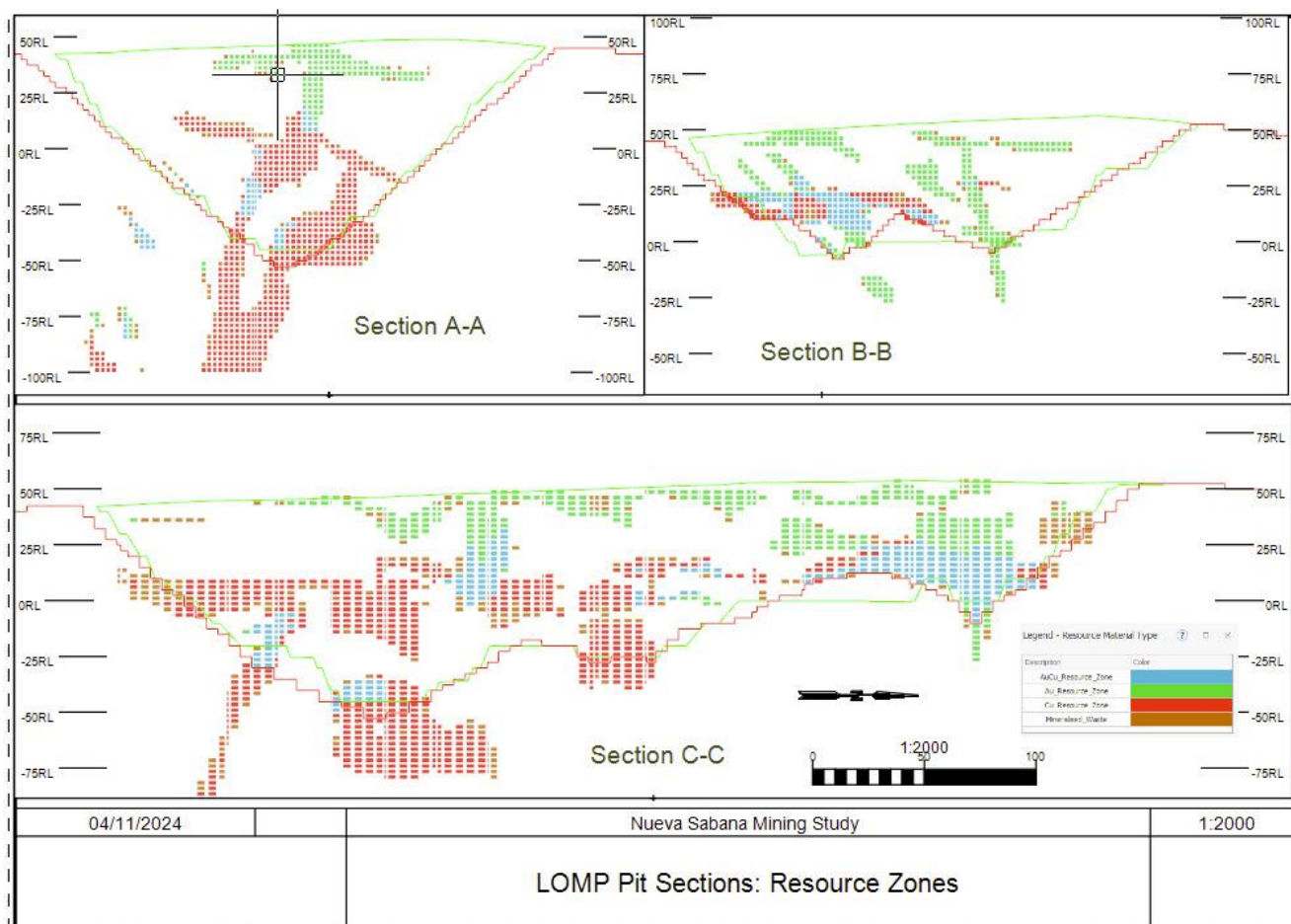


Figure 6-4 Type of Resource Domain

### 6.2.1 Geotechnical

The geotechnical study was undertaken by the Department of Mining of the Moa University, Cuba.

Factors of Safety were determined for six profiles through the Scoping Study pit design for both dry and saturated highwalls. Further work is currently being undertaken by the University to improve the confidence of the geotechnical analysis.

The pit design utilised 10 m benches, 70-degree batters and 3m berms for the walls where the RQD is greater than 25. Where the RQD is less than 25, 10 m benches, 45-degree batters and 3m berms were used.

Below is a high-level summary of the geotechnical work undertaken. The full University geotechnical report is available in the full PFS documentation.

The minimum Factor of Safety from the University's geotechnical analysis was 1.5. Therefore on this basis the designs are reasonable and sufficient for the current PFS and its level of accuracy.

Figure 6-7 shows the RQD values through several pit sections

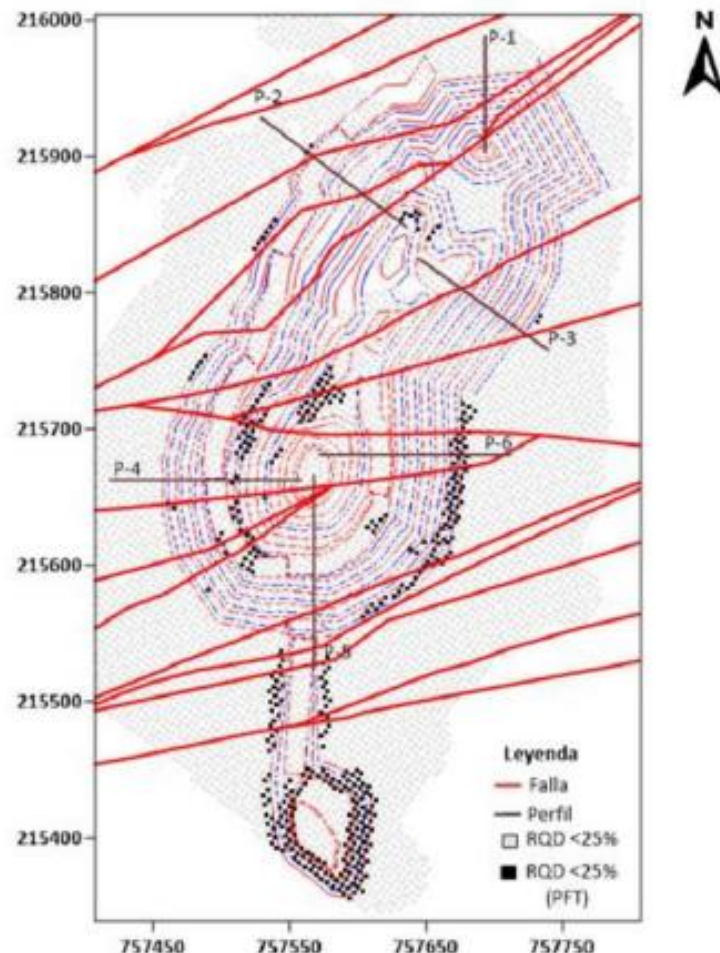


Figure 6-5: Geotech Pit Profiles

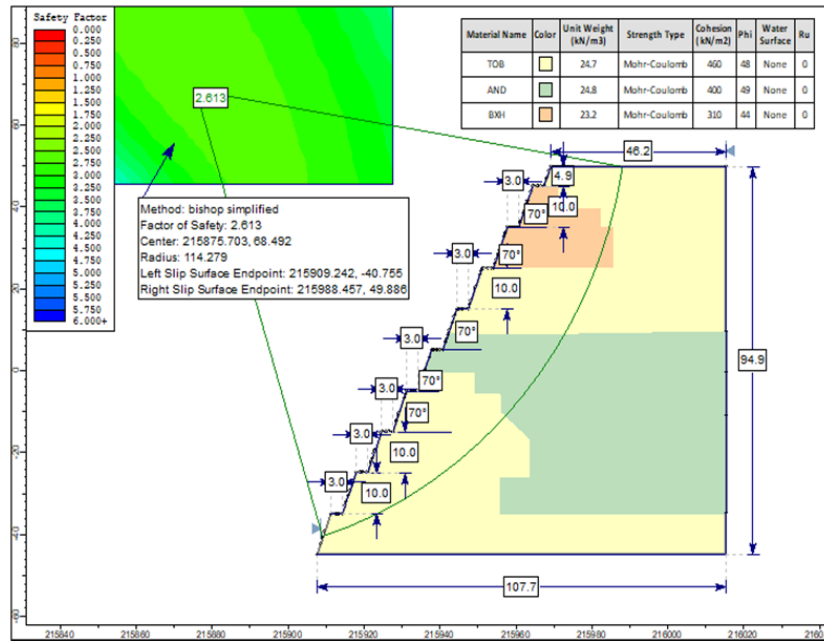


Figure 6-6: Highwall profile analysis

Table 6-7: Factor of Safety Calculations

Variation	Profiles	Bench Angle	Bench Height	Berm Width	Overall Slope Angle	Factor of Safety	Factor of Safety
		degrees	m		Degrees	Dry State	Saturated State
1	1	60	10	3.6	47	2.8	2.4
	2	70	10	5	49	2.8	2.2
	3	70	10	4	53	2.7	2.2
	4	70	10	3	56	2.6	1.9
2	1	60	10	3.6	47	2.9	2.5
	2	70	10	5	49	2.8	2.5
	3	70	10	4	53	2.6	1.8
	4	70	10	3	56	2.3	1.7
3	1	60	10	3.6	47	2.8	2.3
	2	70	10	5	49	2.9	2.1
	3	70	10	4	53	2.6	2.1
	4	70	10	3	56	2.4	1.8
4	1	60	10	3.6	47	2.9	2.4
	2	70	10	5	49	2.7	2.1
	3	70	10	4	53	2.67	2.0
	4	70	10	3	56	2.6	2.1
5	1	60	10	3.6	47	2.5	1.9
	2	70	10	5	49	2.3	1.7
	3	70	10	4	53	2.1	1.6
	4	70	10	3	56	1.8	1.5
6	1	60	10	3.6	47	2.6	2.4
	2	70	10	5	49	2.48	2.47
	3	70	10	4	53	2.3	1.7
	4	70	10	3	56	2.1	1.8



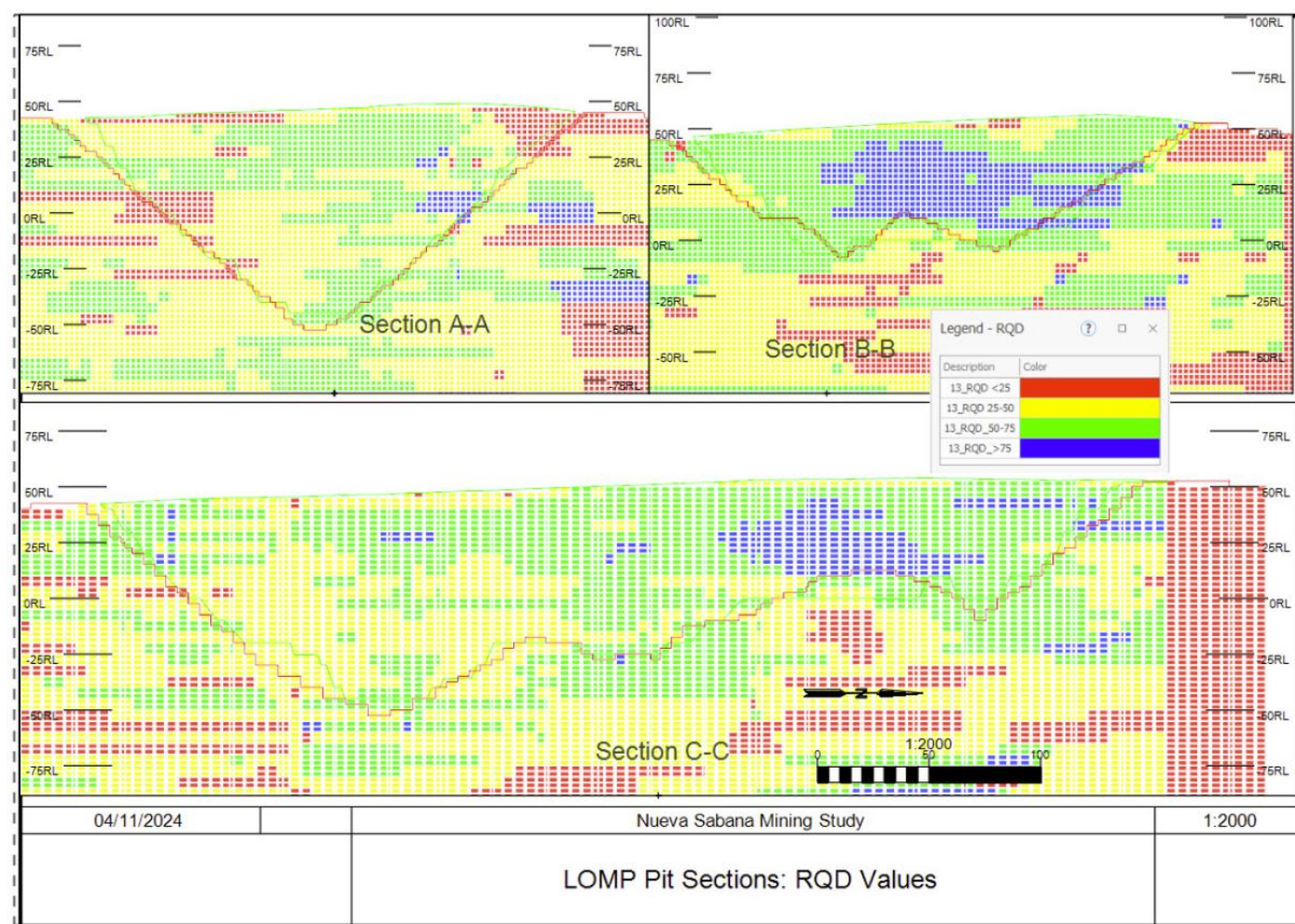


Figure 6-7: Pit Sections with RQD Values

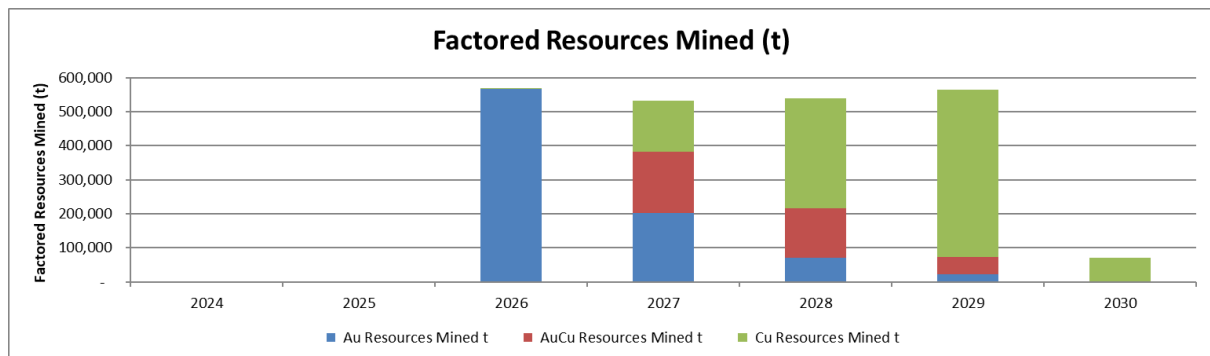
### 6.3 MINING SCHEDULE

LOMP mine scheduling was undertaken in the Micromine SPRY software package. Source, Destination and Haulage scheduling was completed on the LOMP pit design. The schedule was reported in two time periods: a monthly schedule and an annual schedule. The annual summary is shown below. The LOMP pit was optimised, designed and scheduled with revenue applied to the factored Indicated and Inferred Resource classifications.

The major pieces of equipment scheduled were two Volvo EC750 excavators and six Volvo A45G 40t trucks. The ancillary fleet needed was factored off the loader and truck hours in the operating cost model.

**Table 6-8: Factored Resources Mined**

Factored Resources Mining	Units	Total	2024	2025	2026	2027	2028	2029	2030
Au Factored Resources	t	860,958	0	0	567,074	201,186	69,543	23,155	0
Au Factored Resources Au grade	g/t	2.30	0.00	0.00	2.09	2.98	2.10	2.05	0.00
Cu Factored Resources	t	1,034,593	0	0	971	149,592	323,985	491,161	68,883
Cu Factored Resources Cu Grade	% Cu	0.85	0.00	0.00	0.82	0.62	0.83	0.95	0.79
Cu Factored Resources Au Grade	g/t Au	0.06	0.00	0.00	0.04	0.10	0.08	0.05	0.02
AuCu Factored Resources	t	381,382	0	0	607	181,807	146,101	50,852	2,015
AuCu Factored Resources Au Grade	g/t Au	2.27	0.00	0.00	1.06	2.68	2.31	0.75	0.70
AuCu Factored Resources Cu Grade	% Cu	0.76	0.00	0.00	0.40	0.58	0.88	1.02	1.45



**Figure 6-8: Factored Resources Mined**

**Table 6-9: Total Material Movement**

Total Material Movement		2024	2025	2026	2027	2028	2029	2030
Total Factored Resources Mined	t	0	0	568,652	532,585	539,630	565,168	70,898
Waste	t	0	0	2,500,578	1,932,688	859,276	889,455	9,947
Mineralised Waste	t	0	0	97,897	66,154	74,999	85,502	5,948
Total Material Movement	t	0	0	3,167,127	2,531,428	1,473,905	1,540,125	86,794
Strip Ratio	t:t	0.00	0.00	4.57	3.75	1.73	1.73	0.22



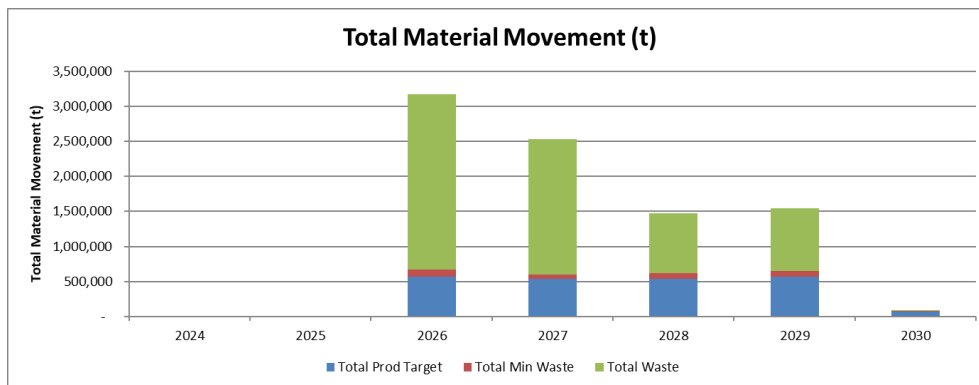


Figure 6-9: Total Material Movement

Table 6-10: Resource Classification Mined

Resource Categories Kt			Total	2026	2027	2028	2029	2030
Factored Resources- Indicated	Kt	1,944		515	507	505	404	13
Factored Resources- Inferred	Kt	333		53	26	35	162	58
Factored Resources- Unclassified	Kt	0		0	0	0	0	0
<b>Total Factored Resources</b>			<b>2,277</b>	<b>569</b>	<b>533</b>	<b>540</b>	<b>565</b>	<b>71</b>
Resource Categories %			Total	2026	2027	2028	2029	2030
Factored Resources- Indicated	%	85.4%		90.6%	95.1%	93.6%	71.4%	18.0%
Factored Resources- Inferred	%	14.6%		9.4%	4.9%	6.4%	28.6%	82.0%
Factored Resources- Unclassified	%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Factored Resources</b>			<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

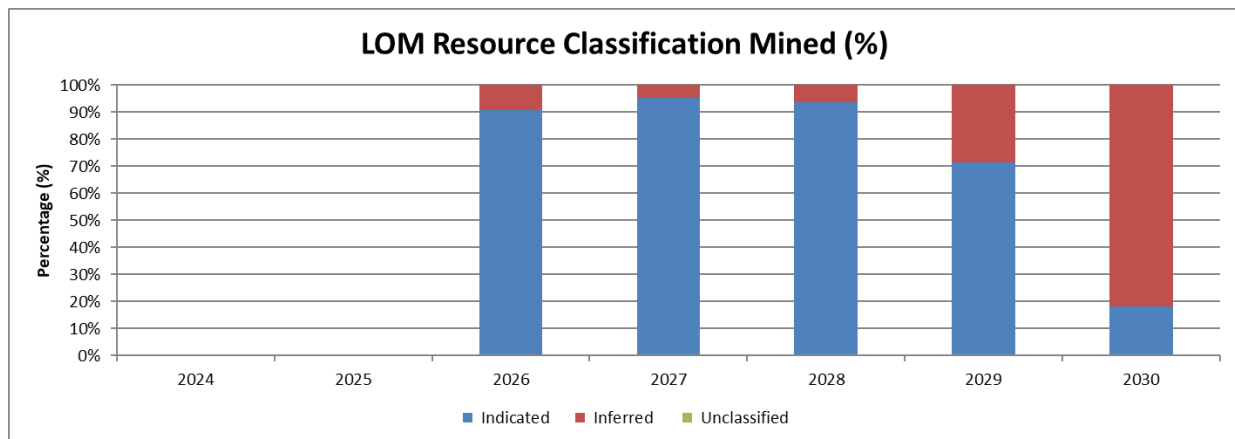


Figure 6-10: Resource Classification Mined (%)

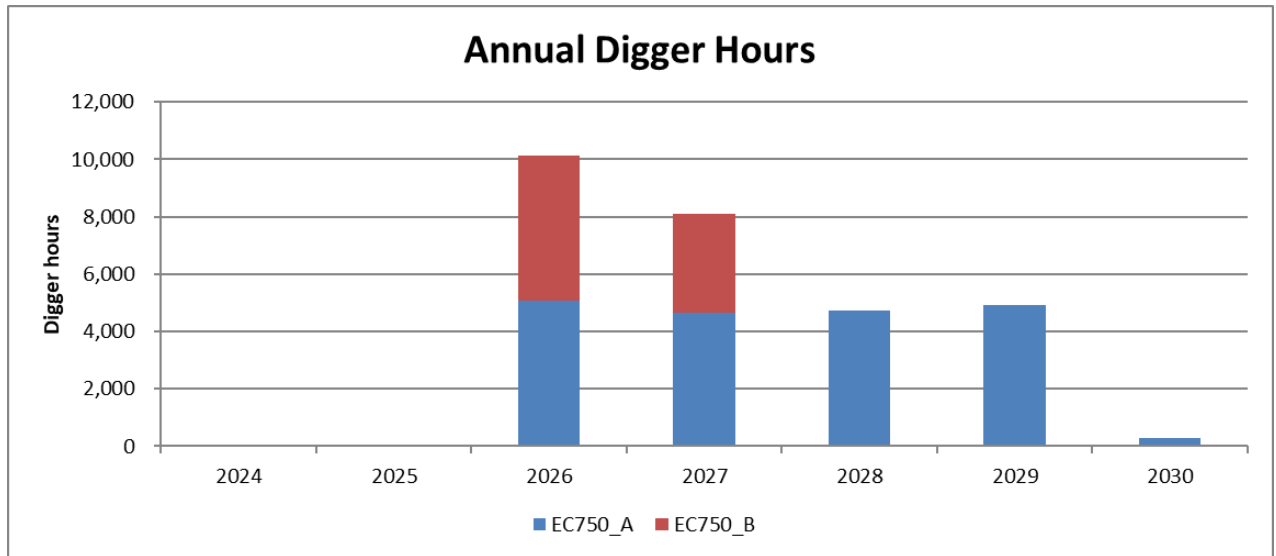


Figure 6-11: Annual Digger Hours

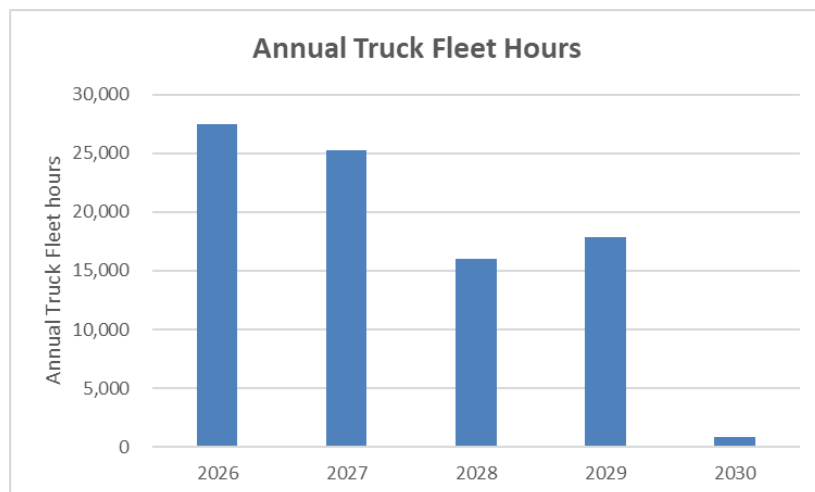


Figure 6-12: Annual Truck Fleet Hours

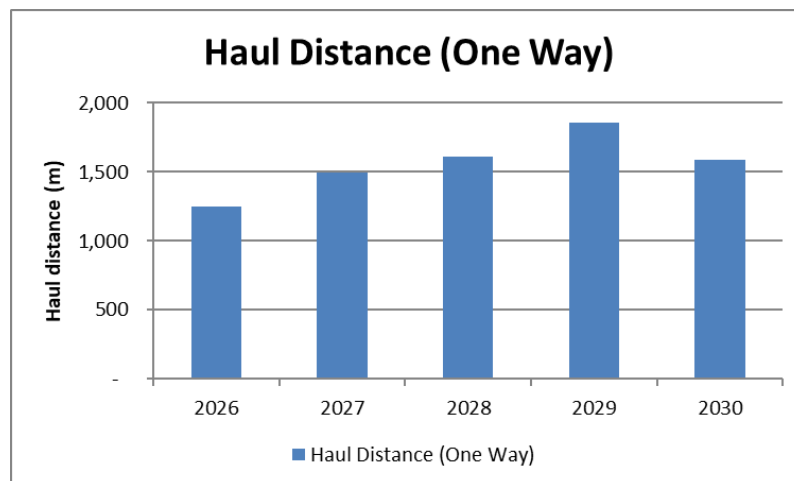


Figure 6-13: Average Annual Haul Distance (one way)

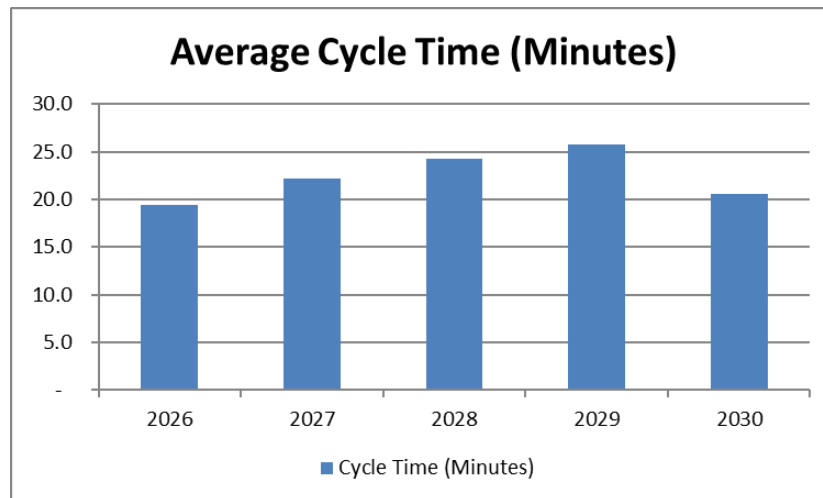


Figure 6-14: Average Cycle Time (min)

### 6.3.1 LOMP Stage Plans (6 Monthly)

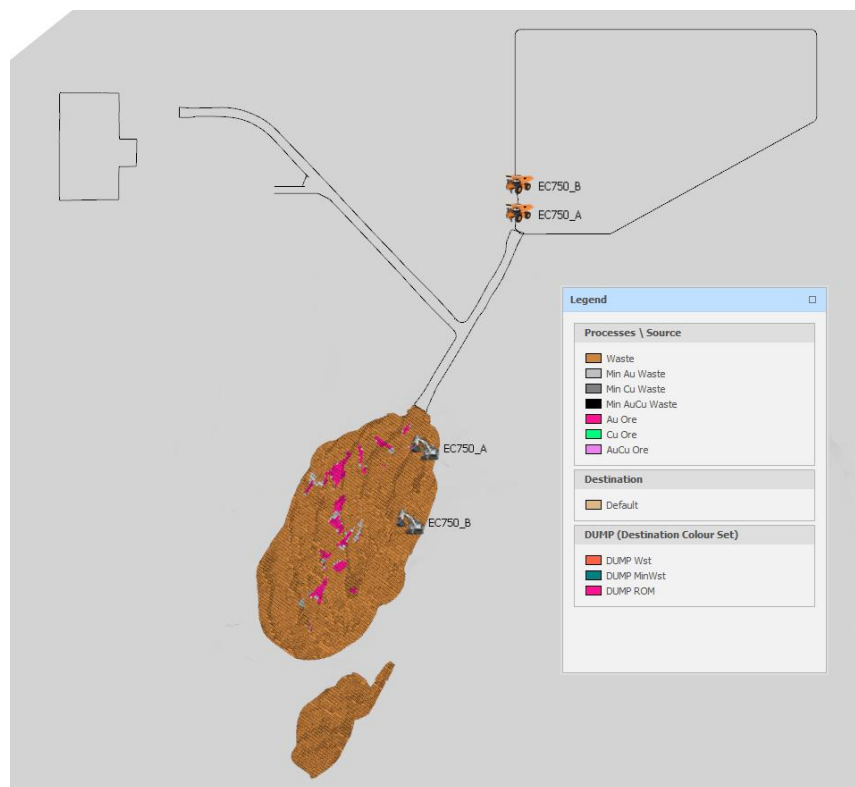


Figure 6-15: LOMP Stage Plan 01/01/2026

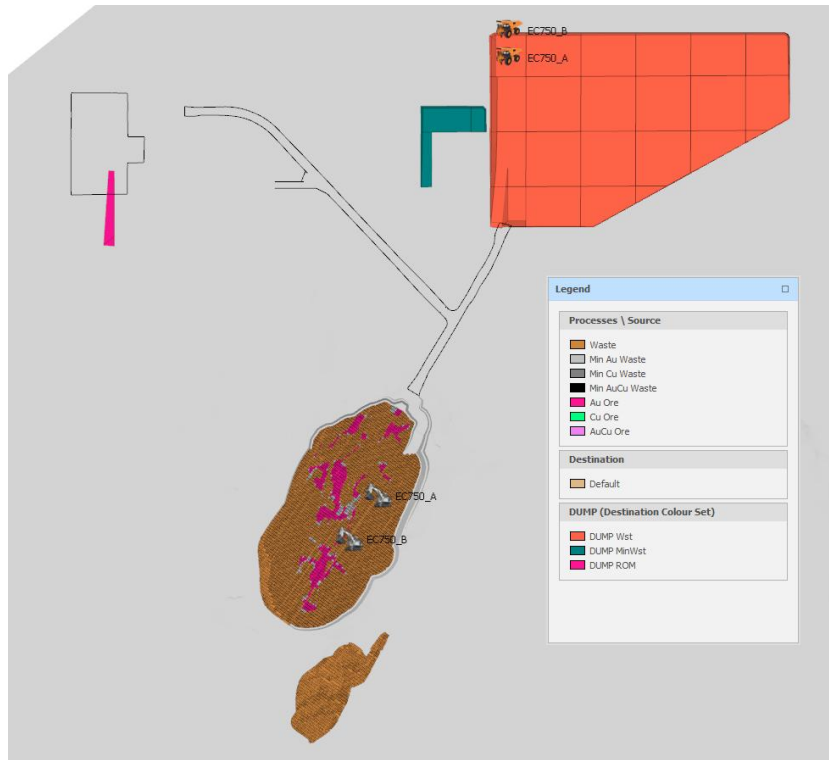


Figure 6-16: LOMP Stage Plan 01/07/2026



Figure 6-17: LOMP Stage Plan 01/01/2027

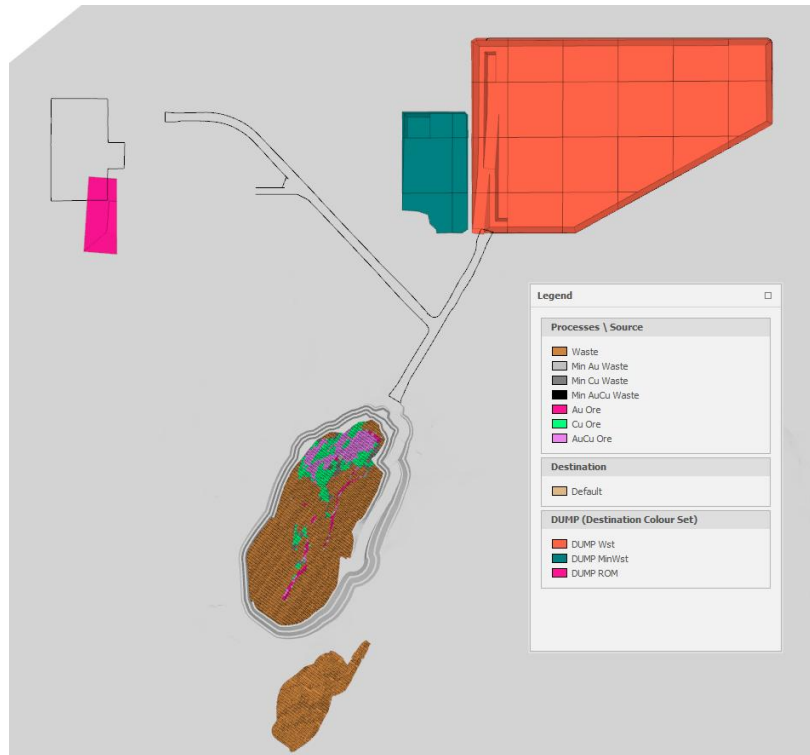


Figure 6-18: LOMP Stage Plan 01/07/2027

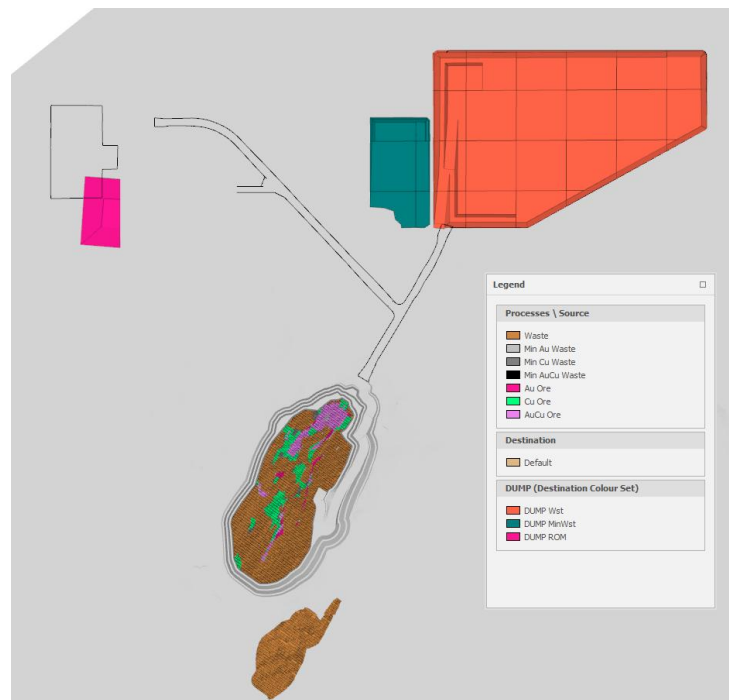


Figure 6-19: LOMP Stage Plan 01/01/2028

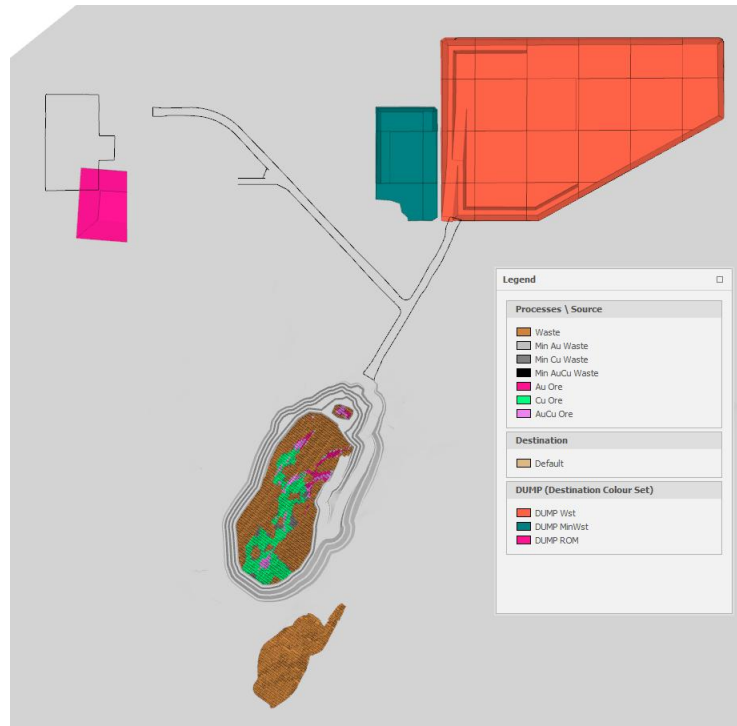


Figure 6-20: LOMP Stage Plan 01/07/2028

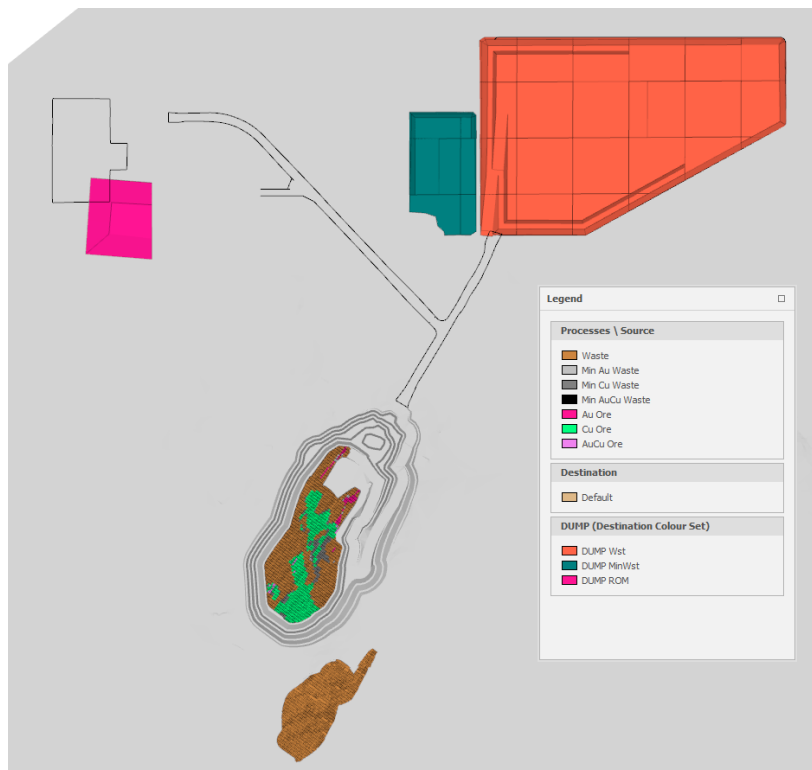


Figure 6-21: LOMP Stage Plan 01/01/2029





Figure 6-22: LOMP Stage Plan 01/07/2029

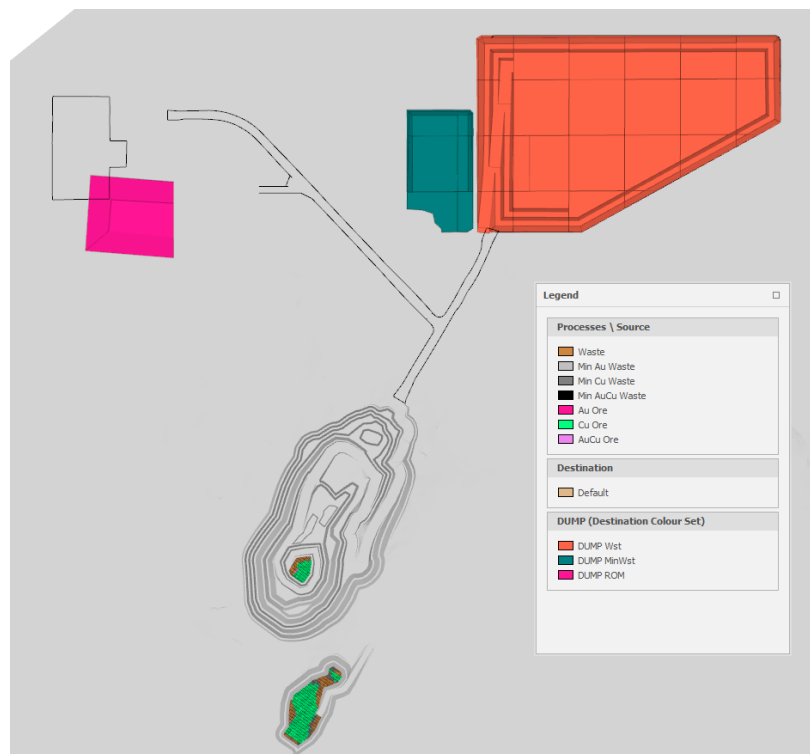


Figure 6-23: LOMP Stage Plan 01/01/2030

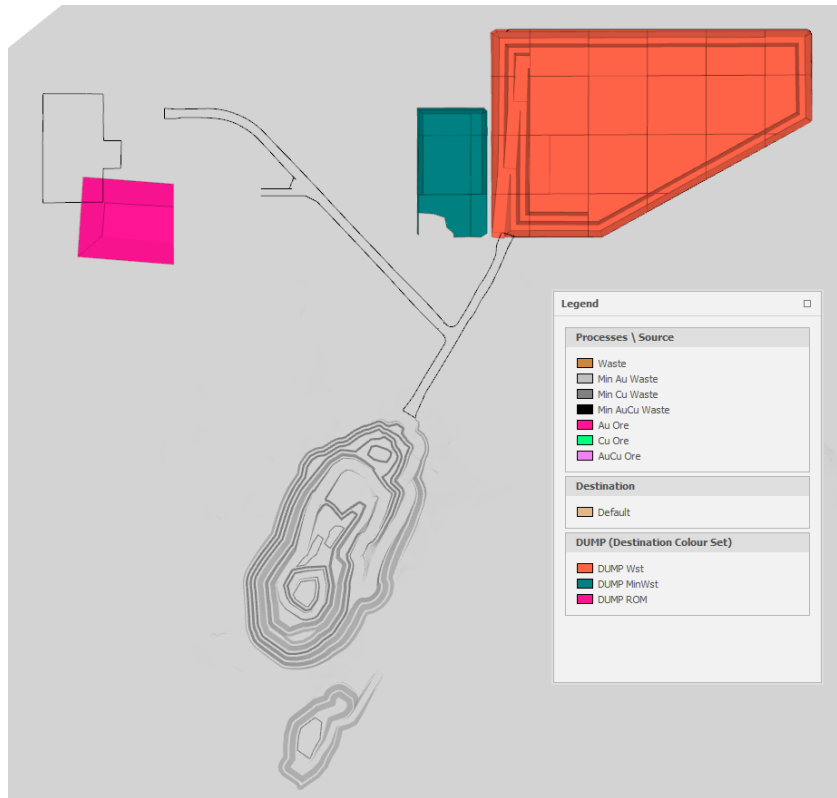


Figure 6-24: LOMP Stage Plan 01/03/2030

## 6.4 LOMP ECONOMIC ANALYSIS

A discounted cashflow economic and sensitivity analysis was undertaken on the LOMP scenario.

The physicals used in the financial modelling were the outputs of the LOMP scheduling process previously described in Section 6.3 of this report.

The operating costs used in the financial modelling were the same as the LOMP optimisation process previously described in Section 6.1 of this report. The PFS operating cost model was constructed from first principles by Antilles Gold Ltd and is detailed in the separate operating cost chapter of the PFS report. As part of this economic analysis undertaken a 5% operating cost contingency was added to the Site based operating costs in the DCF model.

### 6.4.1 Capital Cost

The capital costs used in the financial modelling were constructed from first principles by Antilles Gold Ltd and is detailed in the separate capital cost chapter of the PFS report. A capital cost summary is shown in Table 6-11 below. As part of this economic analysis undertaken a 10% capital cost contingency was added to the capital costs in the DCF model.

**Table 6-11: Capital Cost Summary**

CAPEX		Total	2024	2025	2026	2027	2028	2029	2030
Initial Capital	US\$M	\$28.1	\$0.4	\$27.7					
Sustaining CAPEX	US\$M	\$1.5			\$0.1	\$0.1	\$0.0	\$0.0	\$1.3
Contingency 10%	US\$M	\$3.0	\$0.0	\$2.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
<b>Total CAPEX inc Contingency</b>	<b>US\$M</b>	<b>\$32.6</b>	<b>\$0.4</b>	<b>\$30.5</b>	<b>\$0.1</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.4</b>
Depreciation	US\$M	\$32.6		\$6.4	\$6.4	\$6.4	\$6.4	\$6.4	\$0.6

### 6.4.2 Co-product Cost Analysis

A co-product cash cost analysis was completed on the economic model the results of which are shown below.

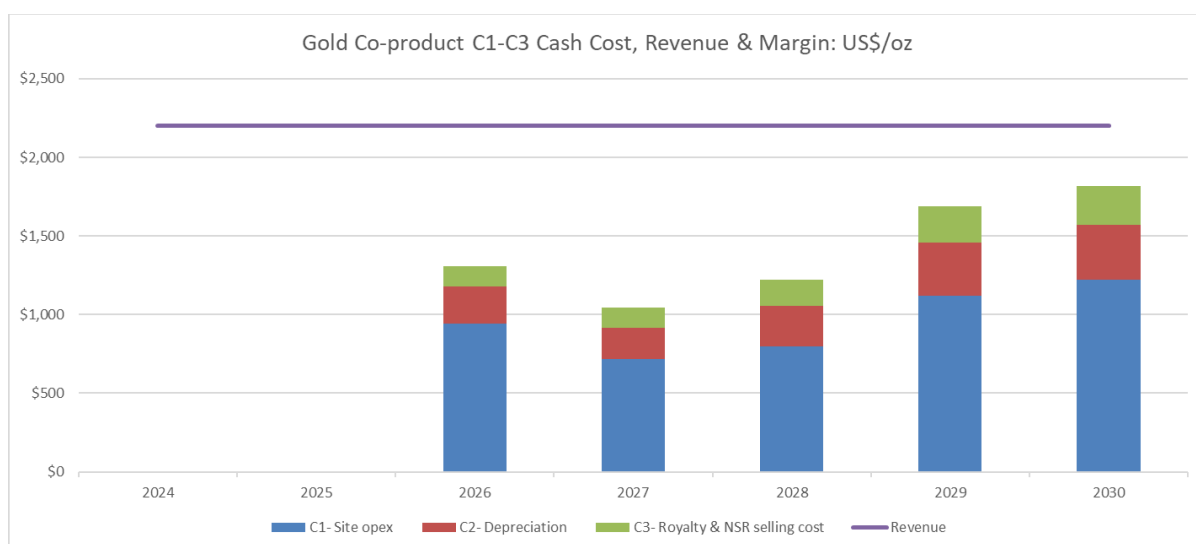
**Table 6-12: Co-product cost analysis**

Co Product Cash Cost Calcs		Total	2026	2027	2028	2029	2030
Cu Revenue	US\$M	80.5	0.1	13.6	27.3	35.7	3.9
Au Revenue	US\$M	152.1	59.9	58.5	27.8	5.8	0.1
Mining Opex	US\$M	35.1	12.6	10.1	5.9	6.1	0.3
Processing Opex	US\$M	57.6	13.1	13.5	14.1	15.0	1.9
Royalty	US\$M	7.0	1.8	2.2	1.7	1.2	0.1
Offsite NSR costs	US\$M	9.7	1.7	2.1	2.5	3.1	0.3
Payable Au	Oz	69,148	27,207	26,592	12,655	2,658	36
Payable Cu	lb	20,136,729	17,840	3,398,327	6,812,596	8,920,476	987,491
% Au of Revenue LOMP	%	65%	100%	81%	51%	14%	2%
% Cu of Revenue LOMP	%	35%	0%	19%	49%	86%	98%

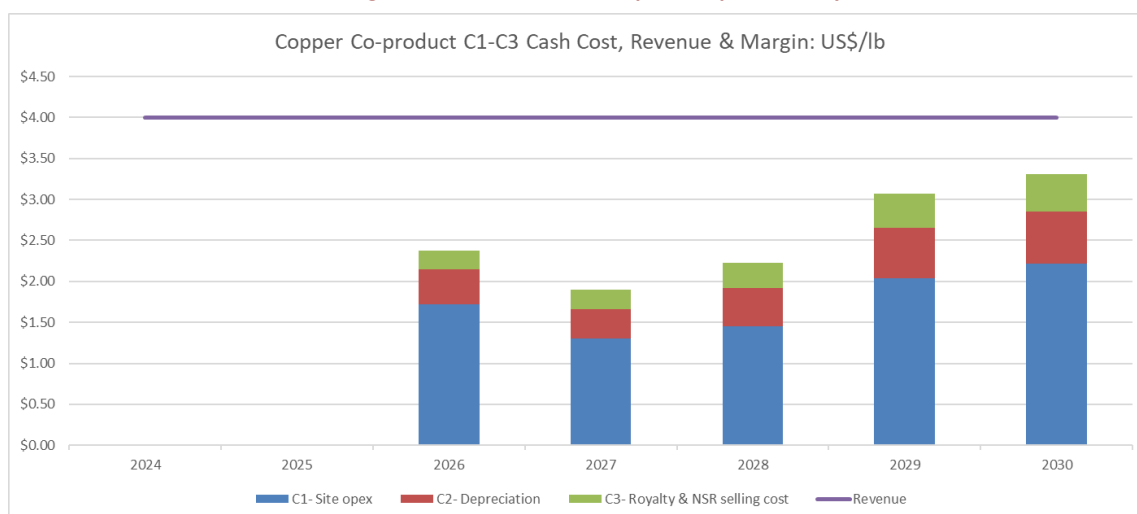
**Table 6-13: Life of mine co-product cost analysis**

Copper co-product Cash Cost A\$M			Units	Value
C1- Site opex			US\$M	\$34.7
C2- Depreciation			US\$M	\$10.5
C3- Royalty & NSR selling cost			US\$M	\$7.0
Total Cash Cost			US\$M	\$52.2
Revenue			US\$M	\$80.5
Cash Margin			US\$M	\$28.3
Copper Produced			lb	20,136,729
Copper co-product Cash Cost per lb			Units	Value
C1- Site opex			US\$/lb	\$1.72
C2- Depreciation			US\$/lb	\$0.52
C3- Royalty & NSR selling cost			US\$/lb	\$0.35
Total Cash Cost			US\$/lb	\$2.59
Revenue			US\$/lb	\$4.00
Cash Margin			US\$/lb	\$1.41

Gold co-product Cash Cost A\$M			Units	Value
C1- Site opex			US\$M	\$58.0
C2- Depreciation			US\$M	\$15.7
C3- Royalty & NSR selling cost			US\$M	\$9.7
Total Cash Cost			US\$M	\$83.4
Revenue			US\$M	\$152.1
Cash Margin			US\$M	\$68.8
Gold Produced			oz	69,148
Gold Co-product Cash Cost per oz			Units	Value
C1- Site opex			US\$/oz	\$838
C2- Depreciation			US\$/oz	\$227
C3- Royalty & NSR selling cost			US\$/oz	\$140
Total Cash Cost			US\$/oz	\$1,206
Revenue			US\$/oz	\$2,200
Cash Margin			US\$/oz	\$994



**Figure 6-25: Annual Gold Co-product profile analysis**



**Figure 6-26: Annual Copper Co-product profile analysis**

### 6.4.3 Economic Cashflow Analysis

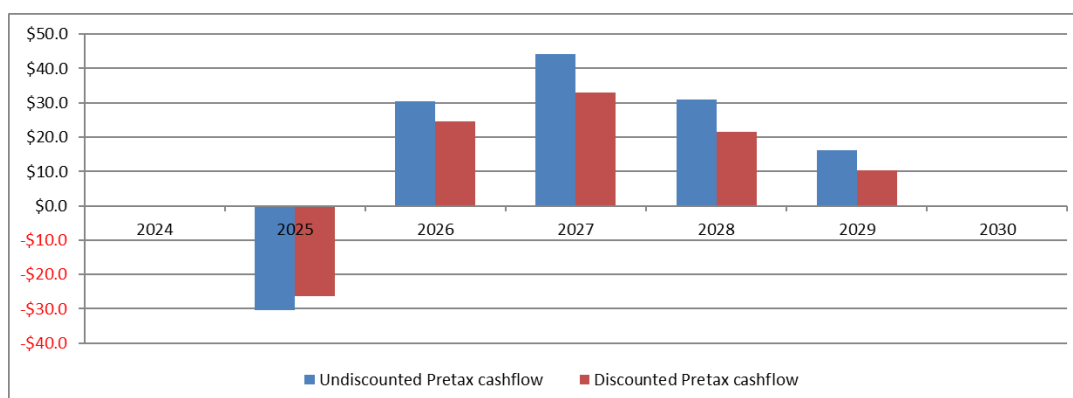
An economic discounted cashflow analysis was undertaken with the results shown in Table 6-14 and Table 6-15 below. At a discount rate of 7.5% a pretax NPV of US\$68.9M and an IRR of 100% were estimated. The NPV is estimated on a pre-tax basis for the 100% joint venture between Geominera and Antilles Gold Inc. The project is tax exempt for 8 years in Cuba through the JV agreement with the Cuban Government.

**Table 6-14: DCF Cashflow Summary**

LOMP Valuation Cashflows		Total	2024	2025	2026	2027	2028	2029	2030
Revenue	US\$M	\$232.7	\$0.0	\$0.0	\$59.9	\$72.1	\$55.1	\$41.5	\$4.0
Royalty	US\$M	\$7.0	\$0.0	\$0.0	\$1.8	\$2.2	\$1.7	\$1.2	\$0.1
Processing OPEX	US\$M	\$64.6	\$0.0	\$0.0	\$14.2	\$14.9	\$16.0	\$17.3	\$2.1
Mining OPEX	US\$M	\$33.4	\$0.0	\$0.0	\$12.0	\$9.6	\$5.6	\$5.8	\$0.3
Opex Contingency 5%	US\$M	\$4.4	\$0.0	\$0.0	\$1.2	\$1.1	\$1.0	\$1.0	\$0.1
CAPEX inc 10% contingency	US\$M	\$32.6	\$0.4	\$30.5	\$0.1	\$0.1	\$0.0	\$0.0	\$1.4
TAX	US\$M	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Undiscounted pre-tax Cash Flow</b>	<b>US\$M</b>	<b>\$90.7</b>	<b>-\$0.4</b>	<b>-\$30.5</b>	<b>\$30.5</b>	<b>\$44.2</b>	<b>\$30.9</b>	<b>\$16.1</b>	<b>-\$0.0</b>

**Table 6-15: NPV at various discount rates**

Discount Rate	NPV
0%	\$90.7
2.5%	\$82.6
5.0%	\$75.4
<b>7.5%</b>	<b>\$68.9</b>
10.0%	\$63.1
12.5%	\$57.8
15.0%	\$53.0
17.5%	\$48.6
20.0%	\$44.6
22.5%	\$41.0
25.0%	\$37.6
27.5%	\$34.6
30.0%	\$31.8
IRR	99.9%



**Figure 6-27: Annual Cashflow Analysis (US\$M)**

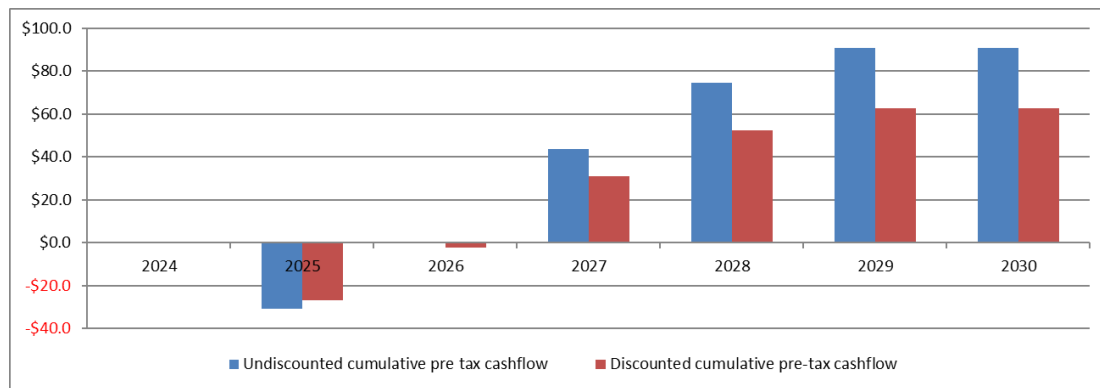


Figure 6-28: Cumulative Cashflow Analysis (US\$M)

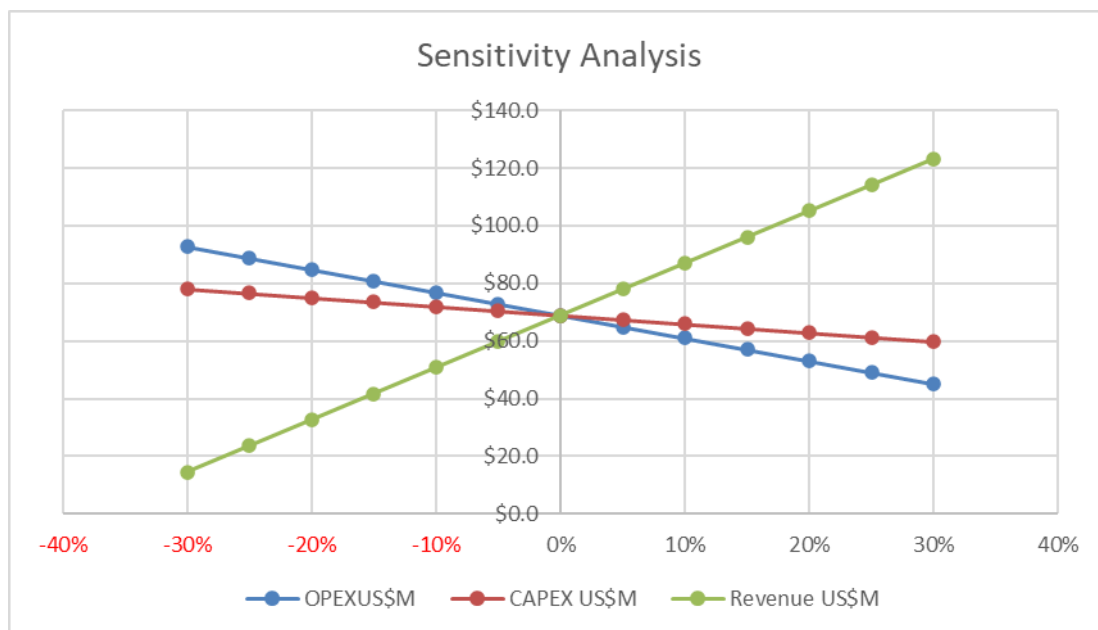
#### 6.4.4 Sensitivity Analysis

A sensitivity analysis was undertaken on the DCF economic analysis the results of which are shown in Figure 6-29 and Table 6-16 below.

Table 6-16: LOMP Sensitivity Analysis

Variance %	OPEXUS\$M	CAPEX US\$M	Revenue US\$M
30%	\$45.1	\$59.8	\$123.2
25%	\$49.1	\$61.3	\$114.2
20%	\$53.1	\$62.8	\$105.1
15%	\$57.0	\$64.3	\$96.1
10%	\$61.0	\$65.9	\$87.0
5%	\$65.0	\$67.4	\$78.0
<b>0%</b>	<b>\$68.9</b>	<b>\$68.9</b>	<b>\$68.9</b>
-5%	\$72.9	\$70.5	\$59.9
-10%	\$76.9	\$72.0	\$50.8
-15%	\$80.8	\$73.5	\$41.8
-20%	\$84.8	\$75.0	\$32.7
-25%	\$88.8	\$76.6	\$23.7
-30%	\$92.7	\$78.1	\$14.6





**Figure 6-29: LOMP Spider Chart Sensitivity Analysis**

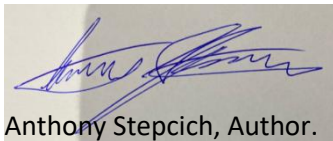
## 7 DATE AND SIGNATURE PAGE

This report titled "Life of Mine Plan for the Nueva Sabana Copper Gold Project" and dated 12/11/2024 was prepared and signed by the following authors:

Dated at Brisbane, QLD

12/11/2024

Signed



Anthony Stepcich, Author.

FAusIMM(CP), RPEQ

Signed



Peter Caristo, Peer Review

FAIG RPGeo FSEG

# Memorandum

To:	James Tyers Antilles Gold Limited	cc:
From:	Jinxing Ji JJ Metallurgical Services Inc	
Date:	November 11, 2024	
Re:	Nueva Sabana – Metallurgical Testwork and Flowsheet	

## 1 Metallurgical Testwork, Flowsheet and Forecast of Concentrate Production

### 1.1 Introduction

Four metallurgical testwork programs were completed by Blue Coast Research in Parksville, British Columbia, Canada, in a period from March 2023 to July 2024, involving thirteen mineralized composite samples of different mineralization and oxidation extent. The scope of work included the detailed head analysis, comminution testing, gravity concentration, whole ore cyanide leach for gold recovery, bulk flotation to generate gold concentrate, selective flotation to generate copper/gold concentrate and detailed assays of the concentrates. Four reports were issued by Blue Coast Research.

- The first report entitled "Gold Oxide Preliminary Metallurgical Testwork, Project No. PJ5446" was issued on February 8, 2024. Two mineralized composite samples (2.22 g/t gold and 17.3 g/t gold, respectively) from the Gold Domain were involved. The scope of work included the gravity concentration, cyanide leach, bulk flotation to generate gold concentrate and the detailed assay of one flotation concentrate which contained 55.8 g/t gold.
- The second report entitled "Copper Oxide Preliminary Metallurgical Testwork, Project No. PJ5454" was issued on March 8, 2024. Four mineralized composite samples (1.16% copper, 0.72% copper, 0.50% copper and 0.28% copper, respectively) from the Copper/Gold Domain were involved. The scope of work covered the gravity concentration and selective flotation to generate copper/gold concentrate and the detailed assay of two flotation concentrates which contained 25.1% copper and 27.1% copper, respectively.
- The third report entitled "Comminution Testwork, Project No. PJ5478" was issued on April 16, 2024. The scope of work included the ball mill work index, abrasion index and SMC testing using three samples, each from the Gold Domain (2.32 g/t gold), Copper Domain (0.64% copper) and Deep Copper Domain (0.67% copper).
- The fourth report entitled "Nueva Sabana – Metallurgical Testwork Phase II, Project No. PJ5490" was issued on July 26, 2024. Seven samples were involved, including
  - ✓ one sample (2.40 g/t gold, 0.01% copper and 0.02% sulfur) from the Gold Domain

- ✓ one sample (1.56 g/t gold, 0.65% copper and 1.78% sulfur) from the Copper/Gold Domain
- ✓ two samples (0.05 g/t gold, 0.93% copper and 1.96% sulfur for one sample, 0.04 g/t gold, 0.50% copper and 1.50% sulfur for another sample) from the Copper Domain
- ✓ one blended sample (0.81 g/t gold, 0.79% copper and 1.87% sulfur) at a blending ratio 1:1 between the Copper/Gold Domain and the Copper Domain
- ✓ one blended sample (1.98 g/t gold, 0.33% copper and 0.90% sulfur) at a blending ratio 1:1 between the Gold Domain and the Copper/Gold Domain
- ✓ one blended sample (1.23 g/t gold, 0.47% copper and 0.99% sulfur) at a blending ratio 1:1 between the Gold Domain and the Copper Domain

Table 1 shows the compositions of these thirteen samples and the associated metallurgical testwork completed. The abbreviations "CN", "GRG" and "LCT" stand for cyanide leach, gravity concentration and locked cycle flotation, respectively.

Table 1 Head grades and associated metallurgical testwork for thirteen composite samples

Domain	Sample Description	Year of Testing	Au	Ag	Cu	Fe	S	Scope of Work
			g/t	g/t	%	%	%	
Gold Domain	low grade	2023	2.22	1.1	0.01	3.37	0.02	CN, GRG, rougher flotation
	high grade	2023	17.3	1.0	0.01	2.69	0.02	GRG, rougher flotation
	average grade	2024	2.40	0.6	0.01	3.43	0.02	CN, rougher flotation
Copper/Gold Domain	low grade	2023/2024	4.57	0.1	0.28	3.04	1.01	GRG, cleaner flotation
	high grade	2023/2024	2.84	0.3	1.16	2.89	1.91	GRG, LCT flotation
	blend of LG+HG (1:1)	2023/2024	3.71	0.2	0.72	2.97	1.46	LCT flotation
	blend of LG+HG (3:1)	2023/2024	4.14	0.2	0.50	3.00	1.24	LCT flotation
	average grade	2024	1.56	0.6	0.65	3.61	1.78	LCT flotation
Copper Domain	average grade	2024	0.05	0.5	0.93	3.58	1.96	LCT flotation
	low grade	2024	0.04	0.3	0.50	2.70	1.50	LCT flotation
Blend	Cu/Au + Cu	blending ratio 1:1	0.81	0.5	0.79	3.59	1.87	LCT flotation
	Au + Cu/Au	blending ratio 1:1	1.98	0.6	0.33	3.52	0.90	rougher flotation
	Au + Cu	blending ratio 1:1	1.23	0.6	0.47	3.50	0.99	rougher flotation

## 1.2 Comminution testwork

Three mineralized composite samples from the Gold Domain (2.32 g/t Au), Copper Domain (0.64% Cu) and Deep Copper Domain (0.67% Cu) were subjected to the comminution testing, including SMC testing, Bond ball mill work index and Bond abrasion index. The results of comminution testing are summarized in Table 2. These data indicate the mineralized samples from the Gold Domain and Copper Domain are relatively soft and only mildly abrasive. For the mineralized sample from the Deep Copper Domain, the mineralized material is moderately hard and moderately abrasive.

Table 2 Results of comminution testing for the mineralized samples

Sample ID	Abrasion Index	Ball Mill Work Index	Specific Gravity	SMC Testing Result				
	g	kW.h/t	t/m <sup>3</sup>	A	b	Axb	ta	SCSE kW.h/t
Gold Composite	0.064	10.0	2.44	68.5	1.52	104	1.11	6.80
Copper Composite	0.048	8.1	2.59	66.2	1.49	99	0.99	6.85
Deep Copper Composite	0.176	16.1	/	/	/	/	/	/

### 1.3 Gravity concentration of the mineralized composite samples from the Gold Domain and Copper/Gold Domain

Two mineralized samples from the Gold Domain and another two mineralized samples from the Copper/Gold Domain were subjected to the standard extended gravity recoverable gold (E-GRG) testing. Contents of gold, silver, copper, sulphur, iron and mercury in these four samples are shown in Table 3.

Table 3 Compositions of the mineralized samples used in the gravity concentration testing

		Gold Domain		Copper/Gold Domain	
		Low-Grade Sample	High-Grade Sample	Low Copper-Grade Sample	High Copper-Grade Sample
Gold	g/t	2.22	17.34	4.57	2.84
Silver	g/t	1.1	1.0	0.1	0.3
Copper	%	0.010	0.013	0.28	1.16
Sulphur	%	0.02	0.02	1.01	1.91
Iron	%	3.37	2.69	3.04	2.89
Mercury	g/t	0.010	0.006	0.018	0.006

The gravity concentration testing involved a 20-kg sample, which was passed in three stages through a MD-3 Knelson centrifugal concentrator with the tailing being ground finer each stage. The target particle sizes were 80% passing 850 µm, 250 µm and 75 µm, respectively. The obtained testwork data indicate that majority of gold particles in the recovered gravity concentrate were smaller than 25 µm.

Table 4 Gold recovery expected from the commercial operation of gravity concentration

			Gold Domain		Copper/Gold Domain	
			Low-Grade Sample	High-Grade Sample	Low Copper-Grade Sample	High Copper-Grade Sample
Head Grade		g/t Au	2.22	17.34	4.57	2.84
Gold Recovery	Knelson Concentrator + Shaking Table	%	7.9 ~ 10.7	9.6 ~ 13.5	7.2 ~ 10.2	3.4 ~ 4.6
	Knelson Concentrator + Intensive Cyanide Leach	%	12.9	17.0	11.4	5.4

The obtained E-GRG testwork data were then utilized in the simulation to estimate gold recovery if a commercial gravity concentration circuit is constructed. The simulation results are presented in Table 4. When the Knelson centrifugal concentrator and shaking table are applied to either cyclone underflow or ball mill discharge, the expected gold recovery is between 7.9% and 13.5% for the mineralized samples from the Gold Domain and between 3.4% and 10.2% for the mineralized samples from the Copper/Gold Domain.

#### **1.4 Cyanide leach of two mineralized composite samples from the Gold Domain**

Three cyanide leach tests were completed in 2023 for one mineralized composite sample (2.22 g/t Au) from the Gold Domain under the conditions of grind size 80% passing 50 ~ 150 µm, cyanide concentration 0.50 ~ 2.0 g/L NaCN, pulp density 40% solid, pH 11.0, and retention time 48 hours. Gold recovery was between 96.6% and 97.1% and sodium cyanide consumption was between 0.44 kg/t and 0.81 kg/t.

In 2024, another mineralized composite sample (2.40 g/t gold) from the Gold Domain was subjected to cyanide leach under the conditions of grind size 80% passing 150 µm, cyanide concentration 0.50 g/L NaCN, pulp density 40% solid, pH 10.5 ~ 11.0, and retention time 48 hours. Gold recovery was 95.5% and sodium cyanide consumption was 0.21 kg/t.

#### **1.5 Bulk flotation of three mineralized composite samples from the Gold Domain to generate gold concentrate**

A series of bulk flotation tests were completed for three mineralized composite samples from the Gold Domain to generate gold concentrate. The compositions of these three mineralized samples are shown in Table 1 on page 2. Key conditions for the bulk flotation were:

- Lower pulp density (22% solid) was beneficial to achieve higher gold grade in the concentrate by reducing entrainment of gangue minerals
- Guar gum was utilized to depress the clay/slimes during testwork in 2023. The CMC was found to be more effective during testwork in 2024.
- Copper sulphate was used as an activator
- The first collector was Aerofloat 208 (dithiophosphate), which is a selective collector for copper ore and native gold, silver and copper
- The second collector was PAX (potassium xanthate), which is a non-selective strong collector for sulphide minerals
- Grind size was 80% passing 75 ~ 100 µm

For the testwork conducted in 2023, average additions of chemical reagents for Tests F-6, F-7, F-9 and F-17 were 125 g/t soda ash, 1022 g/t guar gum, 313 g/t copper sulphate, 79 g/t Aerofloat 208, 105 g/t PAX and 85 g/t MIBC. Additions of chemical reagents during commercial flotation operations are expected to be less than what were used during flotation testing in the laboratory.

Figure 1 shows the gold grade in the concentrate as a function of concentrate mass pull for the mineralized sample which contains 2.20 g/t gold. Based on the trendline of the results of these four rougher flotation tests, the concentrate mass pull needs to be controlled at 3.2% in order to achieve 55 g/t gold grade in the concentrate.

Figure 2 indicates the gold recovery as a function of gold grade in the concentrate for the mineralized sample which contains 2.20 g/t gold. Based on the trendline in this graph, gold recovery is around 84% when gold grade in the concentrate is 55 g/t.



Figure 1 Gold grade in the concentrate as a function of concentrate mass pull for the mineralized sample which contains 2.20 g/t gold for the testwork in 2023

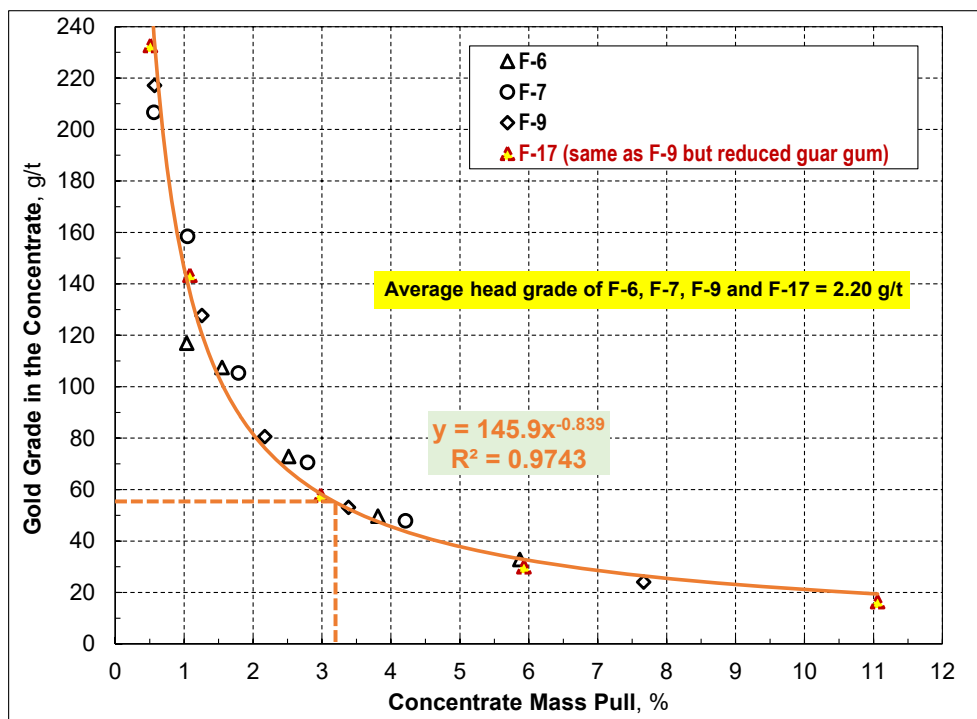


Figure 2 Gold recovery as a function of gold grade in the concentrate for the mineralized sample which contains 2.20 g/t gold for the testwork in 2023

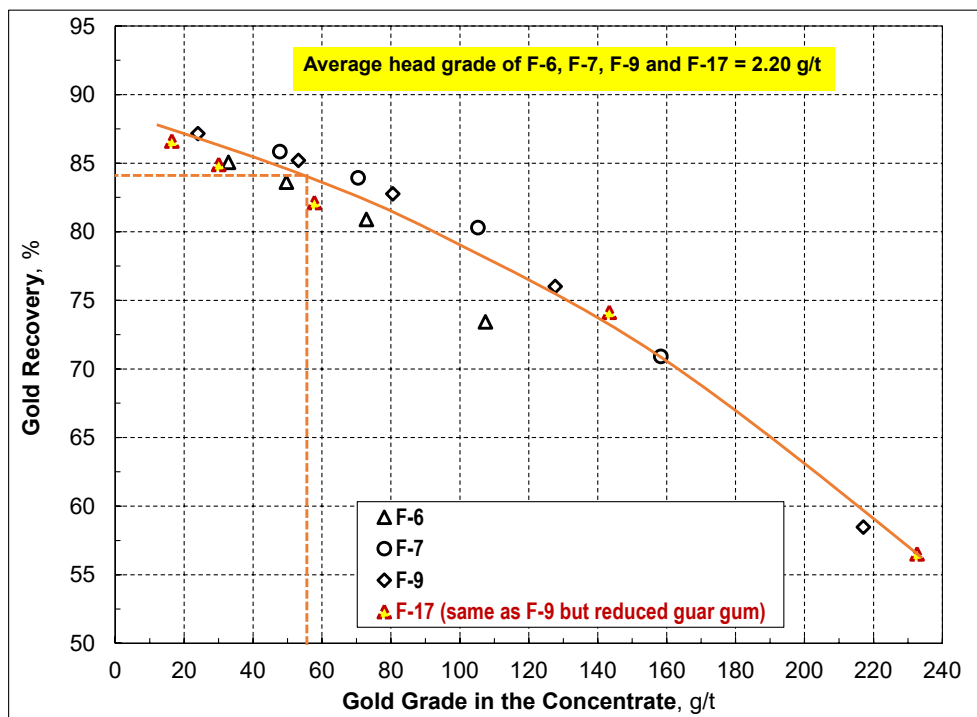


Figure 3 Comparison of the flotation performance between the high-grade sample (17.3 g/t gold) and the low-grade sample (2.20 g/t gold) for the testwork in 2023

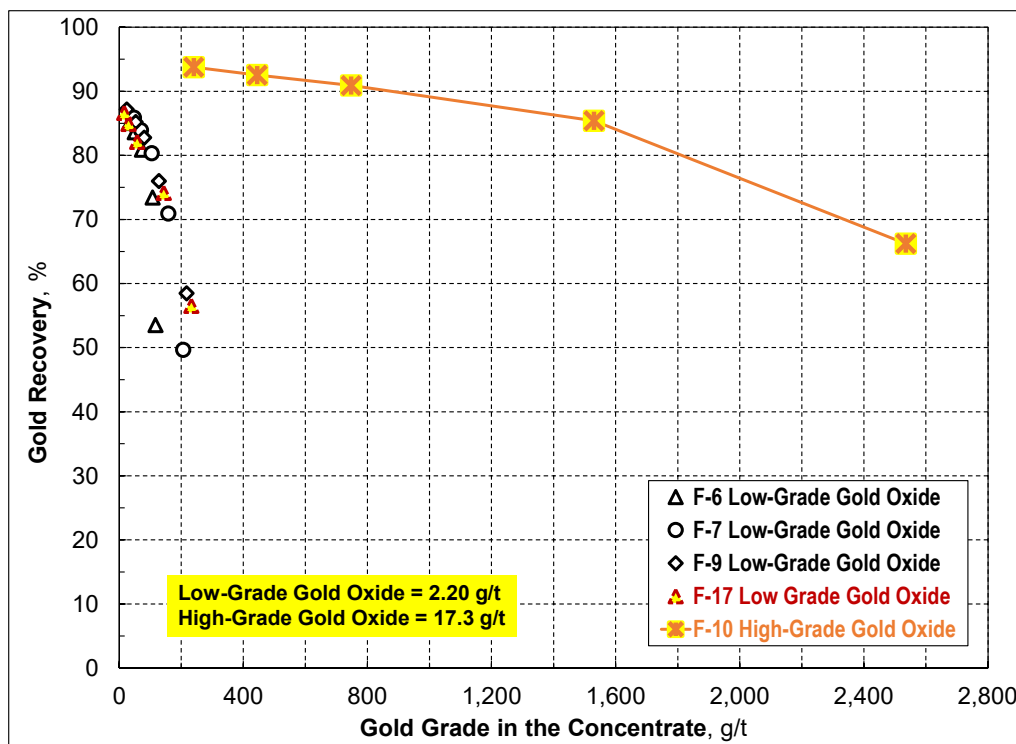


Figure 4 Comparison of gold flotation performance for the materials from the Gold Domain during testwork in 2023 and 2024

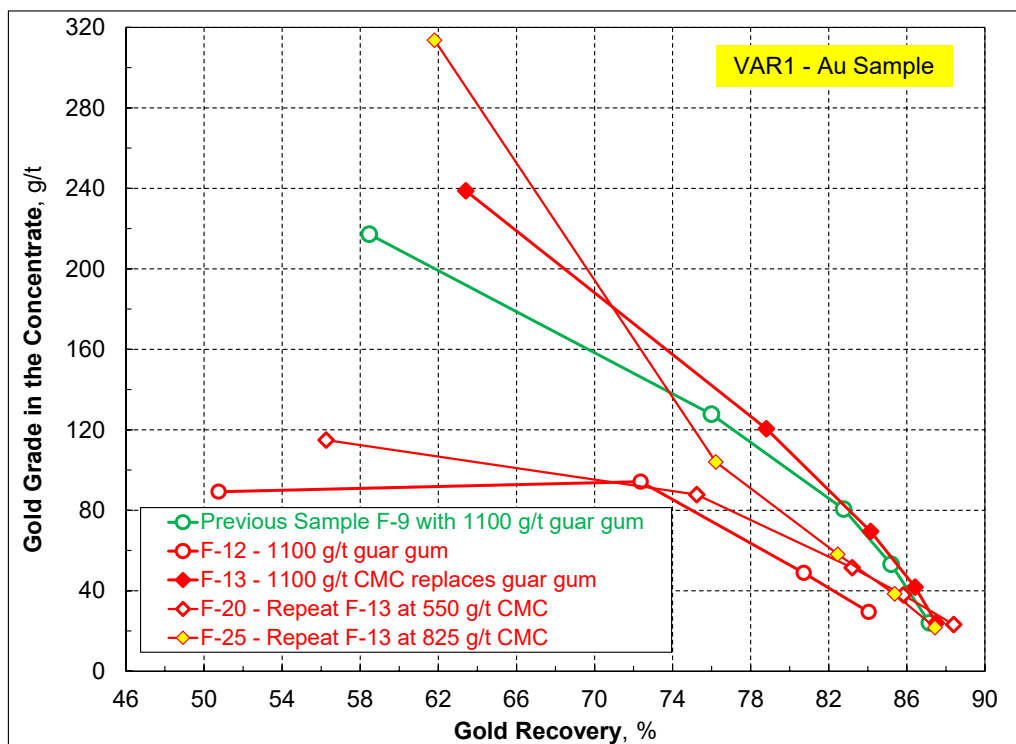


Figure 3 compares the flotation performance of the high-grade mineralized sample (17.3 g/t gold) with the low-grade sample (2.20 g/t gold). Based on the trendline for the high-grade sample, gold grade in the concentrate is above 800 g/t when gold recovery is 90%.

The high-quality flotation concentrate was produced from the mineralized sample in the Gold Domain. The detailed assays were carried out for one concentrate, which contained 55.8 g/t gold, 8.3 g/t silver, 0.005% arsenic, less than 0.01% antimony, 2.2 g/t cadmium and 0.05 g/t mercury.

A third sample (2.40 g/t Au) from the Gold Domain was tested in 2024 for bulk flotation following the similar conditions used in 2023 with the exception of guar gum. The CMC was found to be more effective than guar gum to depress non-sulfidic gangue minerals. When the CMC dosage was between 850 g/t and 1,100 g/t (Test F-25 and Test F-13 in Figure 4), the gold flotation performance was generally consistent with what was obtained previously in 2023 (Test F-9 in Figure 4). The combined first three kinetic concentrate of Test F-13 had the 3.1% mass pull and 84.1% gold recovery. This combined concentrate contained 70.8 g/t gold, 1.3 g/t silver, 0.01% arsenic, less than 0.01% antimony, 1.4 g/t cadmium and less than 0.05 g/t mercury

#### **1.6 Selective flotation of five mineralized composite samples from the Copper/Gold Domain to generate copper/gold concentrate**

During the testwork in 2023, four mineralized composite samples from the Copper/Gold Domain were subjected to selective flotation to generate copper/gold concentrate. A portion of pyrite was rejected during selective flotation in order to increase copper content in the concentrate. Two of these four mineralized composite samples are shown in Table 1 on page 2. Two additional samples were composited by blending these two samples at ratios of 3:1 and 1:1. Key conditions for selective flotation tests are:

- Lower pulp density (22% solid) was beneficial to achieve higher concentrate grade by reducing entrainment of gangue minerals
- Guar gum was utilized to depress clay/slime
- Copper sulfate was not used so that pyrite could be rejected
- Combination of cyanide addition and high pH were applied to depress pyrite flotation
- A selective collector AP3418A was used
- The combination of the regrinding of rougher concentrate, higher cyanide dosage, less addition of collector (AP3418A) and high pH increased greatly the copper content in the concentrate because of the enhanced rejection of pyrite
- Primary grind size was 80% passing 100 µm

Average additions of chemical reagents for Tests LCT-1, LCT-2, LCT-3 and F-42 were 2.2 kg/t lime, 218 g/t sodium cyanide, 688 g/t guar gum and 27 g/t AP3418. Table 5 summarizes the flotation results of these four mineralized samples from the Copper/Gold Domain. These results indicate that over 25% copper content in the concentrate was achieved when copper head grade was 0.48% or higher, and the corresponding copper recovery was between 79.3% and 82.1%. When copper head grade was 0.27%, the concentrate contained 19.3% copper with corresponding copper recovery of 72.2%. Gold recovery for these mineralized samples was between 76.4% and 86.5%.

Table 5 Flotation results of four samples from the Copper/Gold Domain tested in 2023

Sample	Test #	Product	Mass Pull	Composition				Recovery			
				Au	Cu	Fe	S	Au	Cu	Fe	S
			%	g/t	%	%	%	%			
High-Grade Sample (VAR1002)	LCT-1	2 <sup>nd</sup> -Stage Concentrate	3.3	62	<b>27.1</b>	24.2	34.7	76.4	82.1	26.4	62.0
		Feed		2.7	<b>1.10</b>	3.0	1.9				
High/Medium-Grade Sample (VAR1003)	LCT-3	3 <sup>rd</sup> -Stage Concentrate	2.1	157	<b>28.0</b>	27.2	36.9	86.5	81.9	17.8	53.3
		Feed		3.8	<b>0.71</b>	3.2	1.4				
Medium-Grade Sample (VAR1004)	LCT-2	3 <sup>rd</sup> -Stage Concentrate	1.5	228	<b>25.1</b>	30.1	40.4	80.9	79.3	14.4	51.1
		Feed		4.3	<b>0.48</b>	3.1	1.2				
Low-Grade Sample (VAR1001)	F-42	3 <sup>rd</sup> -Stage Concentrate	1.0	355	<b>19.3</b>	33.1	41.5	80.2	72.2	10.5	40.3
		2 <sup>nd</sup> -Stage Concentrate	1.2	317	<b>17.1</b>	31.1	38.3	84.9	75.8	11.6	44.1
		Feed		4.5	<b>0.27</b>	3.3	1.1				

The high-quality flotation concentrates were produced from the mineralized samples in the Copper/Gold Domain. The detailed assays were carried out for two concentrate samples, which contained 25.1 ~ 27.1% copper, 34.7 ~ 40.4% sulphur, 62 ~ 228 g/t gold, 10 ~ 12 g/t silver, 0.009 ~ 0.011% arsenic, less than 0.01% antimony, 5 ~ 8 g/t cadmium and 0.07 ~ 0.25 g/t mercury.

One more sample (1.65 g/t gold and 0.65% copper) from the Copper/Gold Domain was tested in 2024 for selective flotation to generate the copper/gold concentrate. Similar conditions to the 2023 testwork program were applied. The flotation results are presented in Table 6. Copper flotation performance of this new sample was similar to what was obtained in 2023. The concentrate contained 28.6% copper, 34.8% sulfur, 68.3 g/t gold, 13.9 g/t silver, 0.01% arsenic, less than 0.01% antimony, 7.3 g/t cadmium and 0.53 g/t mercury.

Table 6 Flotation results of the sample from the Copper/Gold Domain tested in 2024

Sample	Test #	Product	Mass Pull	Composition				Recovery			
				Au	Cu	Fe	S	Au	Cu	Fe	S
			%	g/t	%	%	%	%			
Average Grade Sample	LCT-1	3 <sup>rd</sup> -Stage Concentrate	1.89	68.3	28.6	27.6	34.8	78.4	82.9	15.1	38.1
		Feed		1.65	0.65	3.4	1.7				

### 1.7 Selective flotation of two mineralized composite samples from the Copper Domain to generate copper/gold concentrate

In 2024, two samples from the Copper Domain were selected and subjected to selective flotation to generate copper concentrate. One sample was average grade, containing 0.95% copper and 0.07 g/t gold. The other sample was low grade, containing 0.48% copper and 0.04 g/t gold. These two samples were subjected to selective flotation under similar conditions used to float the materials from the Copper/Gold Domain.

- primary grind size 80% passing 75 ~ 100 µm

- pH 11.0 for rougher and 1<sup>st</sup> cleaner, pH 11.5 for 2<sup>nd</sup> cleaner and pH 12.0 for 3<sup>rd</sup> cleaner
- additions of sodium cyanide were 200 g/t to primary grinding, 20 g/t to regrinding and 10 g/t to 2<sup>nd</sup> cleaner
- dosages of collector AP3418A were 20 g/t to rougher and 2.5 ~ 5.0 g/t to 1<sup>st</sup> cleaner
- dosage of guar gum was 500 g/t to rougher

The results of the locked cycle tests for these two samples are presented in Table 7. The concentrate, which was produced from the average-grade sample, contained 29.2% copper with corresponding 82.8% copper recovery. The numbers for gold were less accurate due to its low grade. The concentrate contained 1.0 g/t gold which corresponds to 40% gold recovery. For the concentrate, which was produced from the low-grade sample, contained 23.5% copper with corresponding 80.5% copper recovery and 1.2 g/t gold with corresponding 51% gold recovery. The relatively lower copper content (23.5%) in the concentrate was caused by the dilution of pyrite. 8.2 ~ 9.6 g/t silver was present in these two concentrates.

Both concentrates were high quality with very low levels of penalty elements, that is, 0.01% arsenic, less than 0.01% antimony, 5.0 ~ 7.2 g/t cadmium and 0.06 ~ 0.25 g/t mercury.

Table 7 Flotation results of two samples from the Copper Domain tested in 2024

Sample	Test #	Product	Mass Pull	Composition				Recovery			
				Au	Cu	Fe	S	Au	Cu	Fe	S
			%	g/t	%	%	%	%			
Average Grade Sample	LCT-2	3 <sup>rd</sup> -Stage Concentrate	2.68	1.0	29.2	27.5	34.6	40.1	82.8	20.5	53.3
		Feed		0.07	0.95	3.6	1.7				
Low-Grade Sample	LCT-3	3 <sup>rd</sup> -Stage Concentrate	1.64	1.2	23.5	31.0	35.7	51.1	80.5	18.2	41.5
		Feed		0.04	0.48	2.8	1.4				

### 1.8 Selective flotation of one blended sample between the Copper/Gold Domain and Copper Domain to generate copper/gold concentrate

One blended sample was prepared at a blending ratio of 1:1 using the material (1.56 g/t gold and 0.65% copper) from the Copper/Gold Domain and the material (0.05 g/t gold and 0.93% copper) from the Copper Domain. This blended sample was then subjected to selective flotation to generate copper/gold concentrate. The operating conditions were similar to what were used to float the individual samples from the Copper/Gold Domain and the Copper Domain.

- primary grind size 80% passing 100 µm
- pH 11.0 for rougher and 1<sup>st</sup> cleaner, pH 11.5 for 2<sup>nd</sup> cleaner and pH 12.0 for 3<sup>rd</sup> cleaner
- additions of sodium cyanide were 200 g/t to primary grinding, 20 g/t to regrinding and 10 g/t to 2<sup>nd</sup> cleaner
- dosages of collector AP3418A were 20 g/t to rougher and 2.5 g/t to 1<sup>st</sup> cleaner
- dosage of guar gum was 500 g/t to rougher

The results of the locked cycle test for this blended sample are presented in Table 8. The concentrate contained 31.2 g/t gold and 34.2% copper with corresponding recoveries of

78.6% for gold and 81.7% for copper. If copper content in the concentrate is reduced to 25%, both gold recovery and copper recovery are expected to increase. 13.1 g/t silver was present in the concentrate. The levels of penalty elements were very low, namely, 0.01% arsenic, less than 0.01% antimony, 5.0 g/t cadmium and 0.39 g/t mercury.

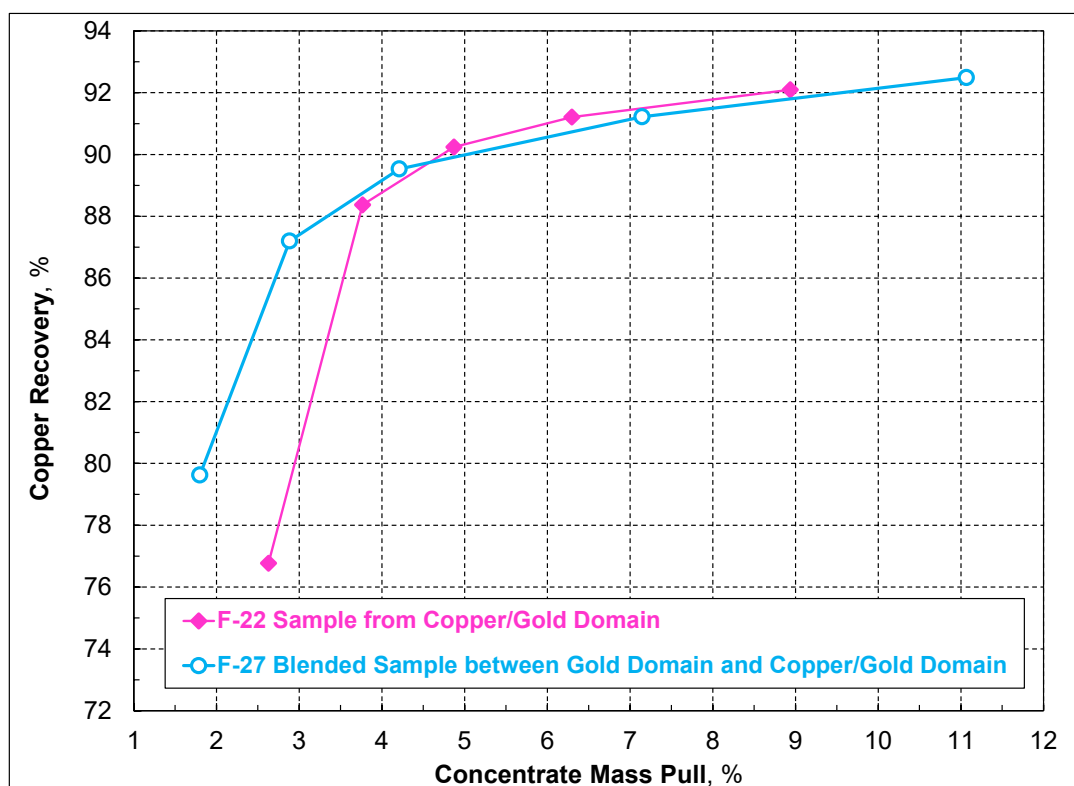
Table 8 Flotation results of the blended sample (1:1) between the Copper/Gold Domain and the Copper Domain tested in 2024

Sample	Test #	Product	Mass Pull	Composition				Recovery			
				Au	Cu	Fe	S	Au	Cu	Fe	S
			%	g/t	%	%	%	%			
Average Grade Sample	LCT-4	3 <sup>rd</sup> -Stage Concentrate	1.90	31.2	34.2	26.0	35.2	78.6	81.7	13.6	38.4
		Feed		0.76	0.80	3.6	1.7				

### 1.9 Rougher flotation of one blended sample between the Gold Domain and Copper/Gold Domain to generate copper/gold concentrate

One blended sample was prepared at a ratio of 1:1 using the material from the Gold Domain and the material from the Copper/Gold Domain. The sample from the Gold Domain contained 2.45 g/t gold, 0.01% copper and 0.02% sulfur. The sample from the Copper/Gold Domain contained 1.53 g/t gold, 0.66% copper and 1.65% sulfur. The blended sample contained 1.99 g/t gold, 0.33% copper and 0.83% sulfur.

Figure 5 Comparison of copper rougher flotation performance between the sample of Copper/Gold Domain and the blended sample (1:1)

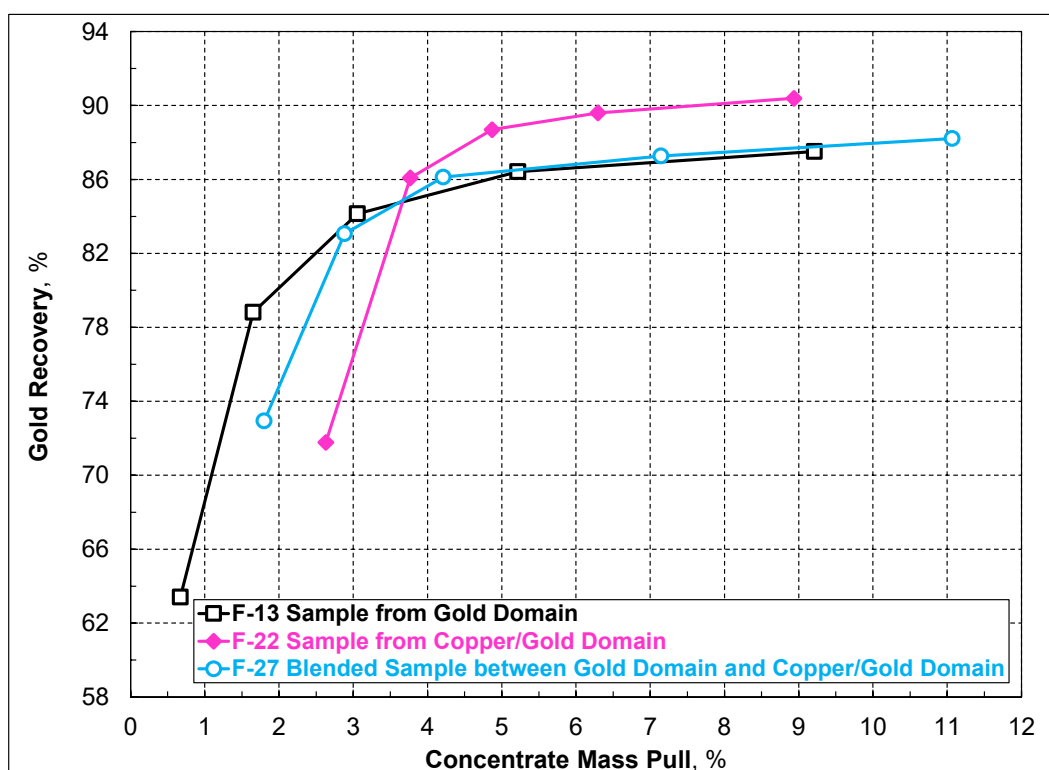




One preliminary rougher flotation test was completed by following the same conditions that were applied to the sample from the Copper/Gold Domain. As shown in Figure 5, copper flotation performance of the blended sample (Test F-27) was similar to that of the sample from the Copper/Gold Domain (Test F-22).

As far as gold performance of the blended sample is concerned, it followed closely to that of the sample from the Gold Domain (Figure 6). At a given concentrate mass pull, gold recovery of the blended sample was about 1.3% lower than the weighted average calculated from the sample of the Gold Domain and the sample of the Copper/Gold Domain. With additional flotation testwork, further improvement is expected.

Figure 6 Comparison of gold rougher flotation performance between the samples from the Gold Domain and Copper/Gold Domain, and the blended sample (1:1)



### 1.10 Rougher flotation of two blended samples between the Gold Domain and Copper Domain to generate copper/gold concentrate

One blended sample was prepared at a blending ratio of 1:1 using the material from the Gold Domain and the material from the Copper Domain. The sample from the Gold Domain contained 2.45 g/t gold, 0.01% copper and 0.02% sulfur. The sample from the Copper Domain contained 0.05 g/t gold, 0.92% copper and 1.88% sulfur. The blended sample contained 1.31 g/t gold, 0.46% copper and 0.88% sulfur on average from three rougher tests. Three rougher flotation tests were completed with this blended sample by following the similar conditions that were applied to the sample from the Copper Domain with the exceptions shown in Figure 7. As far as copper flotation performance is concerned, the blended sample was floated more quickly in the beginning and when the concentrate mass pull was over 5.5%, copper recovery of the blended sample was similar to that of the sample from the Copper Domain.

Figure 7 Comparison of copper rougher flotation performance between the sample of the Copper Domain and the blended sample (1:1)

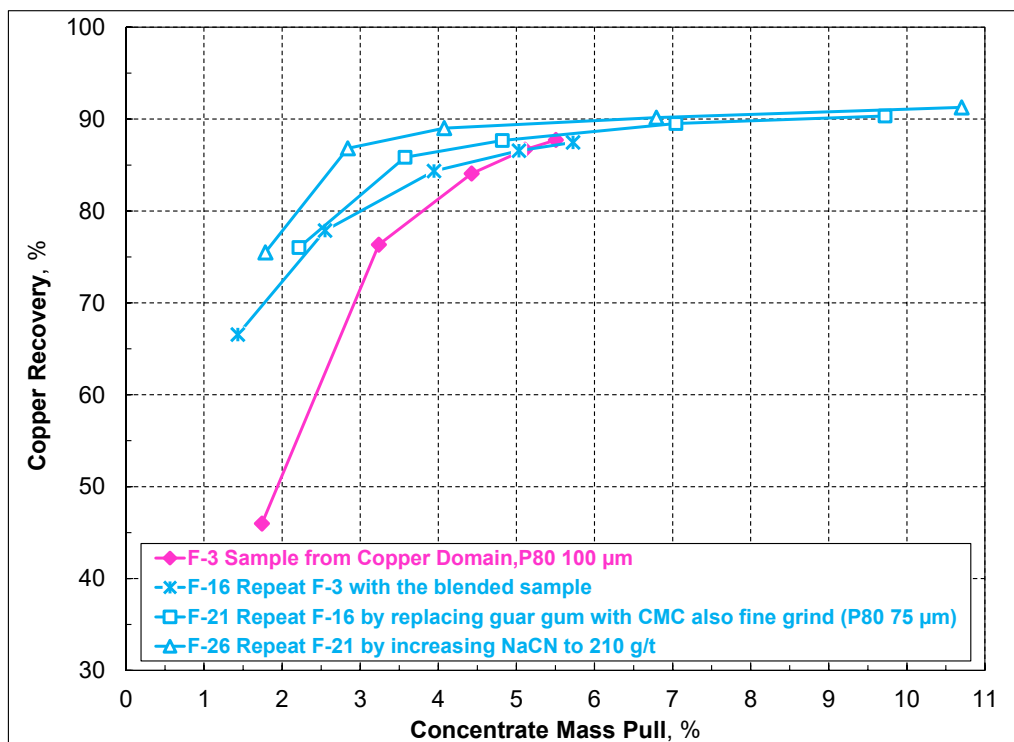
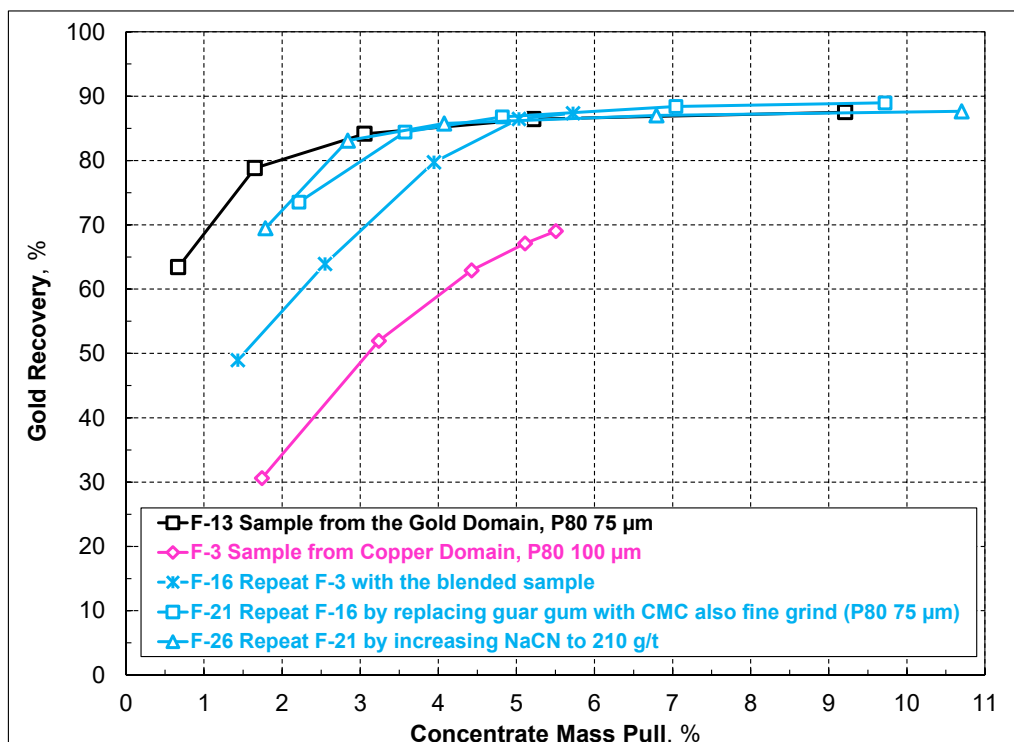


Figure 8 Comparison of gold rougher flotation performance between the samples from the Gold Domain and Copper Domain and the blended sample (1:1)



Gold flotation of the blended sample has a slightly slower rate in the beginning; however, when concentrate mass pull was over 3.0%, gold recovery of the blended sample was similar to that of the sample from the Gold Domain. In this case, relatively fine grind size (80% passing 75 µm) was beneficial to the gold flotation.

### **1.11 Detailed assays of the flotation concentrates**

Eight concentrate samples were submitted for the detailed assays, including two concentrate samples from the Gold Domain, three concentrate samples from the Copper/Gold Domain, two concentrate samples from the Copper Domain, and one concentrate sample from the blended sample between the Copper/Gold Domain and Copper Domain. The detailed assay results are present in Table 9. All of these eight concentrate samples were highly pure with very little amounts of penalty elements, including arsenic (0.01%), antimony (less than 0.01%), cadmium (1.4 ~ 8.2 g/t) and mercury (0.05 ~ 0.53 g/t).

Table 9 Detailed assays of the flotation concentrates

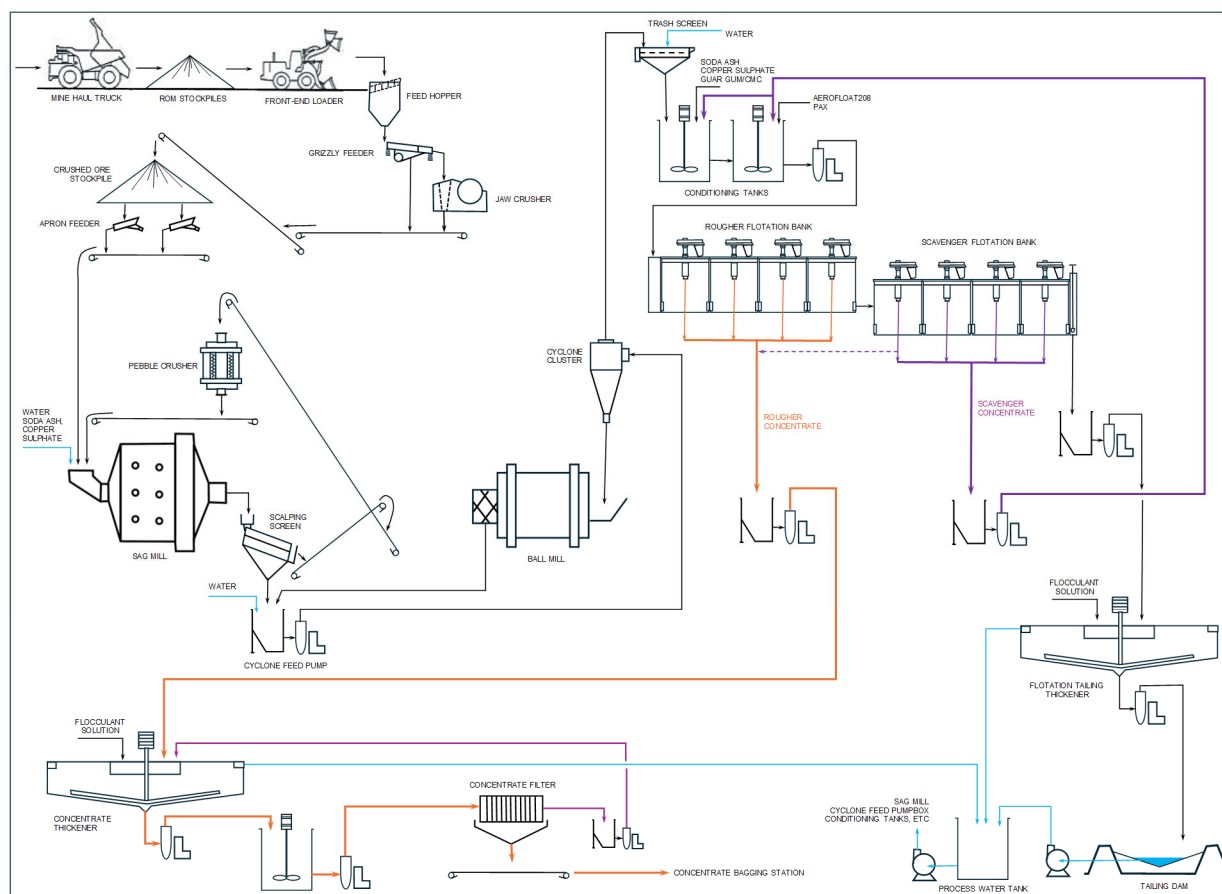
Domain			Gold Domain		Copper/Gold Domain			Copper Domain		Copper/Gold Domain + Copper Domain
Program			1 <sup>st</sup> Program	3 <sup>rd</sup> Program	2 <sup>nd</sup> Program		3 <sup>rd</sup> Program	3 <sup>rd</sup> Program		3 <sup>rd</sup> Program
Sample			VAR1-Low/Med Grade	VAR1 - Au Sample	VAR1002-High Grade	VAR1004-Med Grade	VAR2-Au/Cu	VAR3-Cu High-Grade	VAR4-Cu Low-Grade	VAR2-Au/Cu + VAR3-Cu High-Grade (1:1)
Test ID			Rougher Test F-6	Rougher Test F-13	LCT-1	LCT-2	LCT-1	LCT-2	LCT-3	LCT-4
<b>Ag</b>	<b>Silver</b>	<b>g/t</b>	<b>8.3</b>	<b>1.3</b>	<b>9.7</b>	<b>12.0</b>	<b>13.9</b>	<b>8.2</b>	<b>9.6</b>	<b>13.1</b>
Al	Aluminum	%	11.4	10.2	0.43	0.51	0.53	0.64	0.65	0.45
<b>As</b>	<b>Arsenic</b>	<b>%</b>	<b>0.005</b>	<b>0.006</b>	<b>0.009</b>	<b>0.011</b>	<b>0.012</b>	<b>0.007</b>	<b>0.011</b>	<b>0.008</b>
Au	Gold	g/t	<b>55.8</b>	<b>70.8</b>	<b>62.2</b>	<b>227.8</b>	<b>68.3</b>	<b>1.1</b>	<b>1.5</b>	<b>32.1</b>
Be	Beryllium	g/t	0.9	1.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bi	Bismuth	g/t	19	<2	25	31	<2	6	222	<2
C	Carbon	%	0.28	0.28	/	/	0.21	0.16	0.22	0.25
Ca	Calcium	%	0.04	< 0.01	0.02	0.19	0.06	0.06	0.05	0.11
<b>Cd</b>	<b>Cadmium</b>	<b>g/t</b>	<b>2.2</b>	<b>1.4</b>	<b>5.3</b>	<b>8.2</b>	<b>7.3</b>	<b>7.2</b>	<b>5.0</b>	<b>5.0</b>
Cl	Chloride	g/t	<100	500	<100	<100	200	100	200	100
Co	Cobalt	g/t	14	10	121	143	111	127	147	116
Cr	Chromium	g/t	866	711	62	78	57	79	231	163
<b>Cu</b>	<b>Copper</b>	<b>%</b>	<b>0.09</b>	<b>0.07</b>	<b>28.8</b>	<b>25.7</b>	<b>28.7</b>	<b>28.9</b>	<b>24.0</b>	<b>33.5</b>
F	Fluoride	g/t	500	500	200	<100	400	400	400	300
Fe	Iron	%	6.7	6.2	25.5	29.7	27.7	27.5	30.5	25.5
Ga	Gallium	g/t	32	31	<20	22	23	21	25	23
Ge	Germanium	g/t	<20	<20	<20	<20	<20	<20	<20	<20
Hf	Hafnium	g/t	<20	<20	<20	<20	<20	<20	<20	<20
<b>Hg</b>	<b>Mercury</b>	<b>g/t</b>	<b>0.05</b>	<b>&lt;0.05</b>	<b>0.07</b>	<b>0.25</b>	<b>0.53</b>	<b>0.06</b>	<b>0.25</b>	<b>0.39</b>
In	Indium	g/t	<20	<20	<20	<20	<20	<20	<20	<20
K	Potassium	%	3.2	3.1	0.18	0.10	0.20	0.20	0.20	0.10
Li	Lithium	g/t	<100	<100	<2	<100	<100	<100	<100	< 0.01
Mg	Magnesium	%	0.29	0.27	0.04	0.06	0.06	0.07	0.05	0.05
Mn	Manganese	g/t	200	200	41	<100	<100	<100	<100	< 100
Mo	Molybdenum	g/t	23	31	4	8	15	15	26	23
Na	Sodium	%	0.05	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nb	Niobium	g/t	<10	10	<10	<10	<10	<10	<10	<10
Ni	Nickel	g/t	518	402	33	38	32	51	143	77
P	Phosphorus	%	0.05	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Pb	Lead	%	0.049	0.002	0.003	0.016	0.002	0.002	0.002	0.003
Rb	Rubidium	g/t	81	194	<20	<20	<20	<20	<20	20
Re	Rhenium	g/t	<20	<20	44	46	37	35	41	39
S	Sulfur	%	0.13	0.11	23.2	40.3	34.6	34.2	36.1	34.0
<b>Sb</b>	<b>Antimony</b>	<b>%</b>	<b>&lt;0.01</b>	<b>&lt; 0.01</b>	<b>0.001</b>	<b>&lt;0.01</b>	<b>&lt; 0.01</b>	<b>&lt; 0.01</b>	<b>&lt; 0.01</b>	<b>&lt; 0.01</b>
Se	Selenium	g/t	<10	11	126	101	106	135	128	134
Si	Silicon	%	26.8	28.2	/	/	1.6	1.9	1.8	1.4
Sn	Tin	g/t	<10	<10	<10	<10	<10	<10	<10	<10
Sr	Strontium	g/t	106	22	3	3	4	3	3	3
Ta	Tantalum	g/t	<10	<10	11	14	15	12	16	<10
Te	Tellurium	g/t	84	15	125	116	90	75	254	90
Ti	Titanium	%	0.43	0.48	0.04	0.06	0.06	0.06	0.09	0.05
Tl	Thallium	g/t	2	<2	<2	<2	<2	<2	<2	<2
V	Vanadium	g/t	59	52	16	16	15	17	18	17
W	Tungsten	g/t	<10	<10	<10	26	45	43	36	44
Zn	Zinc	%	0.007	0.011	0.035	0.035	0.029	0.022	0.020	0.026
Zr	Zirconium	g/t	300	42	10	13	17	16	23	16

### 1.12 Flowsheet to generate gold flotation concentrate from the mineralized material in the Gold Domain

The mineralized material in the Gold Domain contains a negligible amount of sulphide minerals. As such, bulk flotation is appropriate to generate gold flotation concentrate. The flowsheet of bulk flotation is shown in Figure 9. The rougher concentrate is the final product. Key unit operations are:

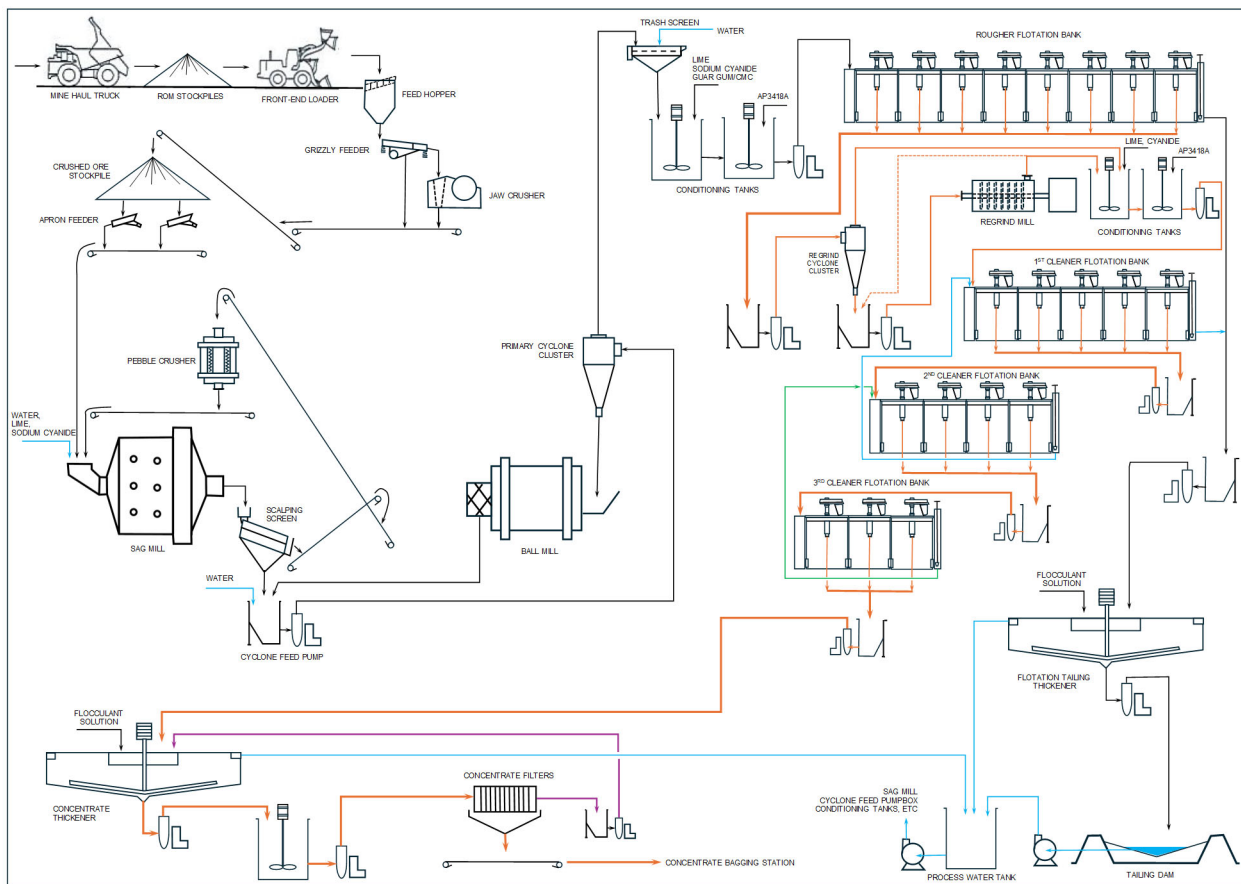
- The ROM material is stockpiled according to gold head grade.
- Single stage crushing is applied before grinding.
- The crushed material is stockpiled.
- The crushed material is then conveyed to the grinding circuit, which consists of a SAG mill, a ball mill, a pebble crusher and a cyclone cluster. Copper sulphate and soda ash are added to the grinding circuit.
- The cyclone overflow then goes through a trash screen and the screen undersize is then subjected to the conditioning where copper sulphate, soda ash, guar gum, or CMC, dilution water, Aerofloat 208 and PAX are added as required.
- One or two suitable frothers among MIBC, DF250, W31, OrePrep F-549 and F160-10, etc can be considered for addition in the flotation cells.

**Figure 9** Flowsheet to produce gold concentrate when processing the mineralized materials from the Gold Domain



- ### 1.13 Flowsheet to generate copper flotation concentrate and copper/gold flotation concentrates from the mineralized materials in the Copper Domain and Copper/Gold Domain

**Figure 10** Flowsheet to produce copper concentrate and copper/gold concentrate when processing the mineralized materials from the Copper and Copper/Gold Domains



- The ROM materials are stockpiled according to copper head grade, sulphur content, and the ratio of copper to sulphur
- Single stage crushing is applied before grinding.
- The crushed material is stockpiled.
- The crushed material is then conveyed to a grinding circuit, which consists of a SAG mill, a ball mill, a pebble crusher and a cyclone cluster. Lime and sodium cyanide are added to the grinding circuit.
- The cyclone overflow goes through a trash screen and the screen underflow is then subjected to the conditioning where lime, sodium cyanide, dilution water, guar gum or CMC and AP3418A are added as required.
- One or two suitable frothers among MIBC, DF250, W31, OrePrep F-549 and F160-10, etc can be considered for additions in the flotation cells.
- The conditioned slurry is then floated in the rougher flotation bank.
- All of the rougher concentrates are forwarded to the regrind circuit.
- The reground rougher concentrate is then conditioned with addition of lime, sodium cyanide and AP3418A collector.
- The conditioned rougher concentrate is then upgraded in three stages to reject additional pyrite and non-sulphidic gangue minerals.
- The concentrate after 3 stages of upgrade is then thickened, filtered and then bagged.
- The tailing from the first stage of cleaner contains a high level of pyrite, and thus combines with the rougher tail, and is then pumped to the tailing thickener. The thickener underflow is pumped to the tailing dam.
- The supernatant in the tailing dam is reclaimed and recycled back to the process plant.

Jinxing Ji, Ph.D, P.Eng

Director, JJ Metallurgical Services Inc.



November 11, 2024



# Memorandum

To:	James Tyers Antilles Gold Limited	cc:
From:	Jinxing Ji JJ Metallurgical Services Inc	
Date:	November 11, 2024	
Re:	Nueva Sabana Project – Forecast of Concentrate Production	

A new mine production schedule was developed for Nueva Sabana project by Maximus Mining Pty Ltd/Mining Associates Pty Ltd. The data were received on October 29, 2024 in an Excel file known as "02 Nueva Sabana Prelim LOMP Sched Pit 7\_N RevC.xlsx". The mine production is scheduled for 50 months.

- The mineralized materials from the Gold Domain will be mined from the 1<sup>st</sup> month to the 44<sup>th</sup> month. In total, 860,958 tonnes at 2.30 g/t gold will be produced.
- From the 7<sup>th</sup> month to 50<sup>th</sup> month, the mineralized materials from the Copper Domain will be mined to produce 1,034,593 tonnes which contain 0.06 g/t gold and 0.85% copper.
- The Gold/Copper Domain includes 381,382 tonnes which contain 2.27 g/t gold and 0.76% copper. The mining of this domain will start from the 12<sup>th</sup> month and end in the 50<sup>th</sup> month.

Based on the monthly mine production schedule, the flotation concentrate production was estimated. For the mineralized materials from the Gold Domain, the bulk flotation is applied to produce a gold concentrate. For the mineralized materials from the Copper Domain and Gold/Copper Domain, the selective flotation will be applied to produce a copper concentrate which also contains the associated gold. When a small portion of the materials from the Gold Domain is blended with the materials from the Copper Domain and Gold/Copper Domain, the selective flotation will also be applied. The flotation performance of such blended materials has been demonstrated in the flotation testwork completed by Blue Coast Research (refer to the memo "*Nueva Sabana - Metallurgical Testwork and Flowsheet 2024-11-11*").

The parameters used to estimate the concentrate production are as follows.

- Mill throughput is 500,000 tonnes per annum, i.e., 41,667 tonnes per month.
- Estimation of the concentrate production is carried out month by month.
- There are three ROM stockpiles, one for each Gold Domain, Copper Domain and Gold/Copper Domain. It is assumed that the composition of each stockpile is homogeneous.
- The mine operation starts two months prior to the commencement of the process plant operation.
- The process plant operation starts from the 3<sup>rd</sup> month and end in the 57<sup>th</sup> month.

- The material from the Gold Domain will be processed on its own at 41,667 tonne/month throughput for a period of 17 months from the 3<sup>rd</sup> month to the 19<sup>th</sup> month. The material mined during the same month will be processed first. When there is a shortage, the material from the ROM stockpile will be used to make up the shortfall. On another hand, when there is any surplus of material from the mine operation in any given month, the surplus material will be placed onto the ROM stockpile. From the 20<sup>th</sup> month onward, the material from the Gold Domain will be blended at a rate of 4,016 tonne/month (i.e., 9.6% of the mill feed) with the materials from the Copper Domain and Gold/Copper Domain and then floated together.
- From the 20<sup>th</sup> month onward, the materials from the Gold Domain, Copper Domain and Gold/Copper Domain will be floated together by following the selective flotation approach.
  - ✓ The proportion of the material from the Gold Domain is 4,016 tonne/month.
  - ✓ The proportion of the materials from the Copper Domain and Gold/Copper Domain is  $41,667 - 4,016 = 37,651$  tonne/month. The ratio of the material from the Copper Domain to the material from the Gold Domain is based on the ratio of their respective ROM stockpile capacities of immediately previous month.
  - ✓ For all these three domains, the materials mined during the same month will be processed first. When there is a shortage, the material from the ROM stockpiles will be used to make up the shortfall. When there is any surplus of material from the mine operation in any given month, the surplus material will be placed onto the ROM stockpiles.
- The concentrate quantity, gold recovery and copper recovery are estimated on the basis of the trendlines that are derived from the flotation testwork data. The recovery of gold associated with the Copper Domain is discounted due to its lower gold grade.
- When the flotation operation is switched from the bulk flotation to produce a gold concentrate to the selective flotation to produce a copper concentrate, it is assumed that the concentrate in the entire processing plant is completely collected before another concentrate is produced.

The estimated concentrate quantity and grade are presented year by year in **Table 1**.

- During the first seventeen months (3<sup>rd</sup> month to 19<sup>th</sup> month) of the mill operation, 708,333 tonnes at 2.31 g/t gold from the Gold Domain are floated, producing 24,082 tonnes of gold concentrate containing 57.5 g/t gold. Gold recovery is estimated to be 84.5% and total amount of gold contained in the concentrate is estimated to be 44,543 ounces.
- From the 20<sup>th</sup> month to the 57<sup>th</sup> month, the materials from the Gold Domain, Copper Domain and Gold/Copper Domain are floated together. In total, 1,568,600 tonnes containing 0.81 g/t gold and 0.75% copper are floated, which consists of 152,625 tonnes at 2.22 g/t gold from the Gold Domain, 1,034,593 tonnes at 0.06 g/t gold and 0.85% copper from the Copper Domain, and 381,382 tonnes at 2.27 g/t gold and 0.76% copper from the Gold/Copper Domain. Total concentrate production is expected to be 33,870 tonnes which contain 29.8 g/t gold and 28.3% copper. Average recoveries are 79.6% for gold and 81.7% for copper. Total amounts of metals contained in the concentrate are estimated to be 32,455 ounces of gold and 21,144,410 pounds of copper.
- When all three domains are combined, total estimated amounts of metals contained in the concentrates are 76,998 ounces of gold and 21,144,410 pounds of copper.

**Table 1 Annual Concentrate Production**

Year				Year 1	Year 2		Year 3	Year 4	Year 5	Total	
Cumulative Month				3 <sup>rd</sup> ~ 12 <sup>th</sup> Month	13 <sup>th</sup> ~ 19 <sup>th</sup> Month	20 <sup>th</sup> ~ 24 <sup>th</sup> Month	25 <sup>th</sup> ~ 36 <sup>th</sup> Month	37 <sup>th</sup> ~ 48 <sup>th</sup> Month	4 <sup>9th</sup> ~ 57 <sup>th</sup> Month		
Gold Domain	Mill Feed	Quantity	tonne	416,667	291,667	/	/	/	/	708,333	
		Gold Grade	g/t	2.09	2.63	/	/	/	/	2.31	
	Concentrate Production	Quantity	tonne	13,761	10,321	/	/	/	/	24,082	
		Gold Grade	g/t	53.5	62.9	/	/	/	/	57.5	
		Contained Gold	ounce	23,658	20,885	/	/	/	/	44,543	
	Recovery	Gold	%	84.3	84.7	/	/	/	/	84.5	
Copper Domain + Gold/Copper Domain + Gold Domain	Mill Feed	Gold Domain	Quantity	tonne	/	/	20,082	48,197	48,197	36,148	152,625
			Gold Grade	g/t	/	/	2.62	2.14	2.12	2.22	2.22
		Copper Domain	Quantity	tonne	/	/	82,417	264,468	386,928	300,779	1,034,593
			Gold Grade	g/t	/	/	0.11	0.08	0.05	0.05	0.06
			Copper Content	%	/	/	0.62	0.80	0.96	0.83	0.85
		Gold/Copper Domain	Quantity	tonne	/	/	105,834	187,334	64,874	23,340	381,382
			Gold Grade	g/t	/	/	2.50	2.45	1.35	2.28	2.27
			Copper Content	%	/	/	0.62	0.80	0.89	0.69	0.76
		Total	Quantity	tonne	/	/	208,333	500,000	500,000	360,267	1,568,600
			Gold Grade	g/t	/	/	1.56	1.17	0.42	0.41	0.81
			Copper Content	%	/	/	0.56	0.72	0.86	0.74	0.75
	Concentrate Production		Quantity	tonne	/	/	3,419	10,291	12,455	7,705	33,870
			Gold Grade	g/t	/	/	76.9	45.2	13.1	15.2	29.8
			Copper Content	%	/	/	27.0	28.5	28.5	28.3	28.3
			Contained Gold	ounce	/	/	8,454	14,962	5,264	3,775	32,455
			Contained Copper	tonne	/	/	924	2,934	3,555	2,178	9,591
				pound	/	/	2,036,730	6,467,840	7,837,210	4,802,630	21,144,410
	Recovery		Gold	%	/	/	80.7	79.6	78.3	78.8	79.6
			Copper	%	/	/	79.1	81.2	82.9	81.7	81.7
	Total	Concentrate Production	Contained Gold	ounce	23,658	20,885	8,454	14,962	5,264	3,775	76,998
Contained Copper			tonne	/	/	924	2,934	3,555	2,178	9,591	
			pound	/	/	2,036,730	6,467,840	7,837,210	4,802,630	21,144,410	

Jinxing Ji, Ph.D, P.Eng

Director, JJ Metallurgical Services Inc.



November 11, 2024

### **Competent Person – Dr Jinxing Ji, PhD. P.Eng.**

The estimates of concentrate production for the Nueva Sabana Project, and the summary of metallurgical testwork undertaken by Blue Coast Research on the Gold, Copper/Gold and Copper domains at Nueva Sabana, were carried out by Dr Jinxing Ji, an independent metallurgical consultant and Principal of JJ Metallurgical Services Inc. Dr Ji is a registered Professional Engineer with Engineers and Geoscientists British Columbia in accordance with the Professional Governance Act, Canada, with a Ph.D. degree in Metallurgy from the University of British Columbia, Canada.

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

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

Dr Ji has sufficient experience that is relevant to the test work on the Nueva Sabana Domains undertaken by Blue Coast Research, and in the design and operation of flotation circuits to qualify as a Competent Person as defined in 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.'

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

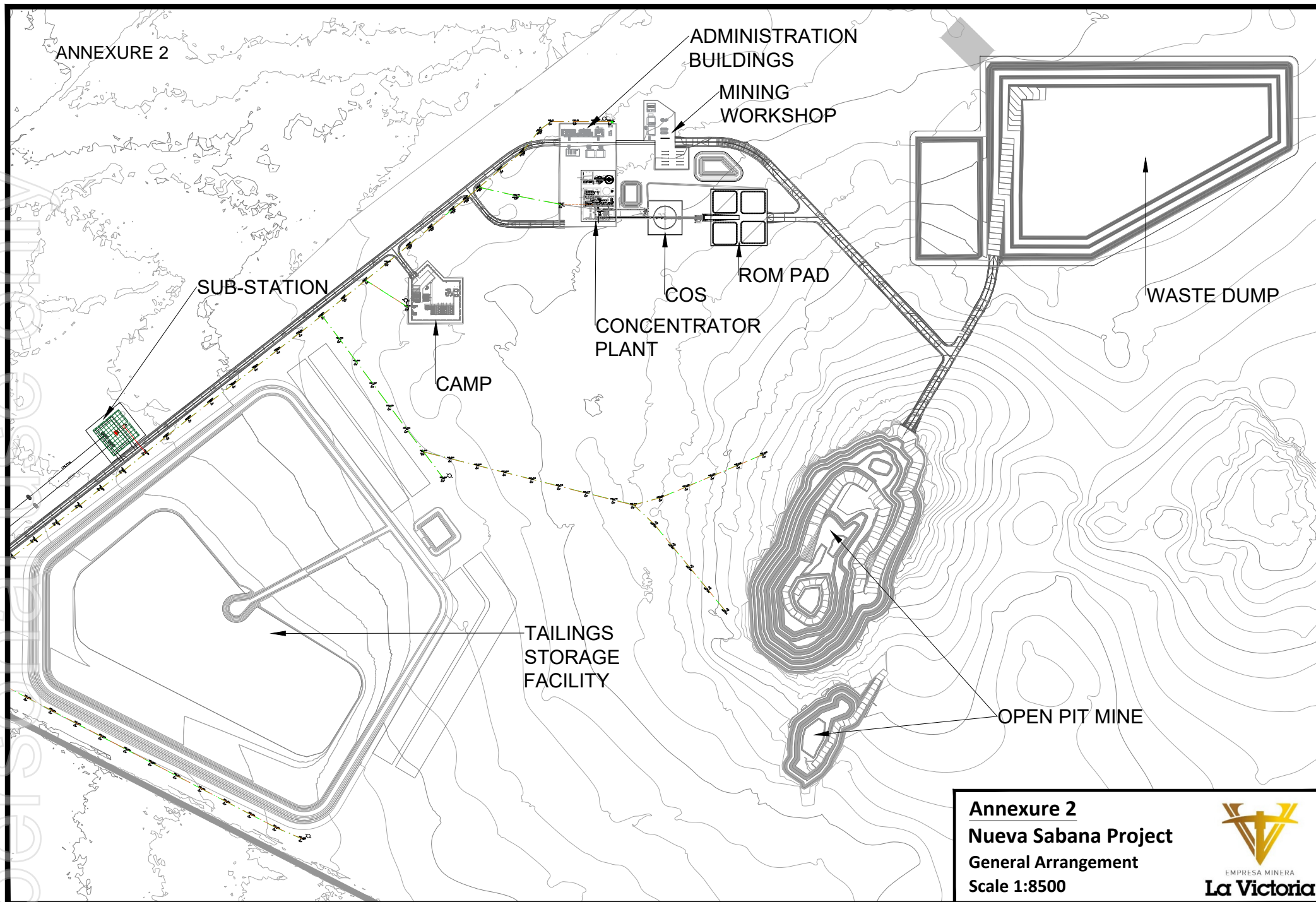
### **Competent Person – Christian Grainger PhD. AIG**

The information in this report that relates to Exploration Results and observations is based on information reviewed by Dr Christian Grainger, a Competent Person who is a member of the Australian Institute of Geoscientists (AIG). Dr Grainger is a Consultant to the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Grainger consents to the inclusion of the Exploration Results based on the information and in the form and context in which it appears.

ANNEXURE 1 - EQUIPMENT LIST NUEVA SABANA

MOBILE EQUIPMENT

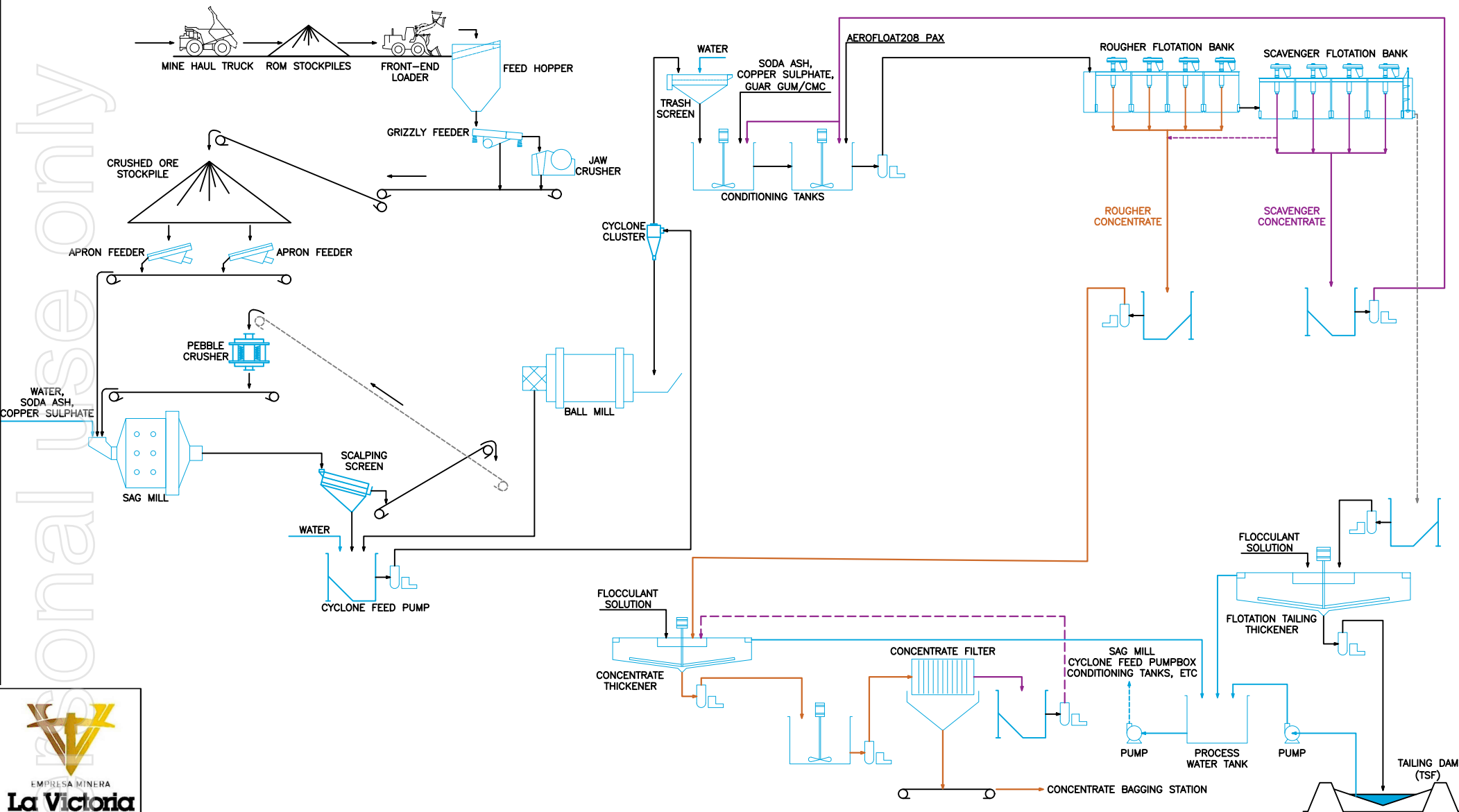
TYPE	MAKE	MODEL	QTY
MINING (Hire through Univol Cuba)			
Excavator	VOLVO	EC750E	2
Excavator	VOLVO	EC480D	1
Articulated Dump Truck	VOLVO	A45G	6
Loader	VOLVO	L220H	1
Dozer	DRESSDAT	D20	1
Grader	SDLG	G9220	1
MINING			
Drill	EPIROC	PowerROC T35	2
Water Truck	SINOTRUK		1
SUPPORT			
All-Terrain Crane Truck	XCMG	XCA60	1
Telescopic Handler	XCMG	XC6-4517K	1
Forklift	XCMG	FD35T-JBN	1
Pickup	TOYOTA	HiLux	12
Mini Bus	TOYOTA	Coaster	4
Mine Service Truck / Fuel Truck	SINOTRUK		1
Truck Tractor	SINOTRUK		2
Truck Trailers	SINOTRUK		4
Ambulance	TOYOTA	Hiace	1
ANCILLARY			
Light Tower	ATLAS COPCO	HILIGHT V5+ LED	6
Diesel Water Pump			1



**Annexure 2**  
**Nueva Sabana Project**  
**General Arrangement**  
**Scale 1:8500**

# ANNEXURE 3 – Process Flow Diagrams - Gold Domain

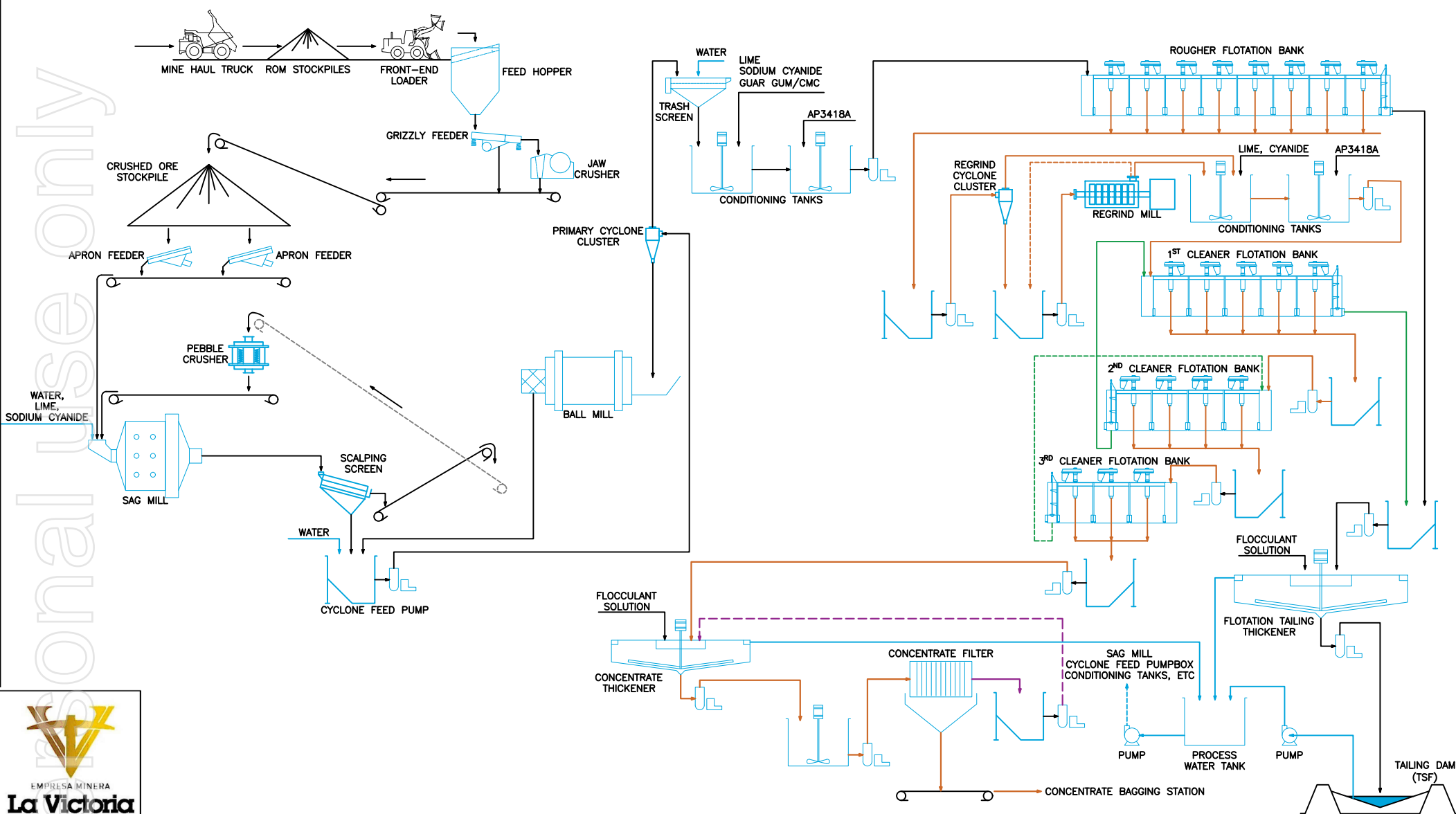
GOLD DOMAIN. PROCESS FLOWSHEET.





# ANNEXURE 3 – Process Flow Diagrams - Copper Domain

## COPPER DOMAIN. PROCESS FLOWSHEET.



Note – The two circuits are common, with the Gold circuit only requiring the use of the rougher and scavenger flotation cells to attain the required recoveries, with the additional cleaner cells utilised during Cu flotation