# NI 43-101 TECHNICAL REPORT

**For the**

## Guayabales Gold-Silver-Copper Project, Department of Caldas, Colombia

For

## Collective Mining Ltd.

82 Richmond Street East, 4th Floor, Toronto, ON, M5C1P1

**By**


## STEWART D. REDWOOD

**BSc (Hons), PhD, FIMMM, FGS**

**Consulting Geologist**

P.O. Box 0832-0757, World Trade Center, Panama City, Panama

stewart@sredwood.com



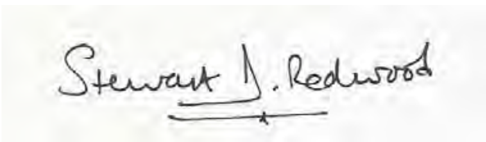
Effective date: 31 December 2022

Signature date: 21 April 2023

## DATE AND SIGNATURE PAGE

The effective date of this technical report, titled “NI 43-101 Technical Report for the Guayabales Gold-Silver-Copper Project, Department of Caldas, Colombia” is 21 April 2023.

Signed: 21 April 2023



Stewart D. Redwood, FIMMM

## AUTHOR'S CERTIFICATE

I, Stewart D. Redwood, FIMMM, hereby certify that:

1. I am a Consulting Geologist with address at P.O. Box 0832-0757, World Trade Center, Panama City, Republic of Panama.
2. I am the author of the technical report titled "NI 43-101 Technical Report for the Guayabales Gold-Silver-Copper Project, Department of Caldas, Colombia" (the Technical Report) with effective date 31 December 2022 and signature date 21 April 2023.
3. I graduated from the University of Glasgow with a First Class Honours Bachelor of Science degree in Geology in 1982, and from the University of Aberdeen with a Doctorate in Geology in 1986.
4. I am a Fellow in good standing of The Institute of Materials, Minerals and Mining, Number 47017.
5. I have than 40 years' field experience as a geologist working in mineral exploration and mine geology including gold, silver, copper and polymetallic deposits of epithermal, porphyry and other types in Latin America, North America, the Caribbean, Europe, Africa, Asia and Australia. This includes more than 18 years' experience in Colombia.
6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional organization (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101. I made a current personal inspection of the Guayabales Project on 12 to 15 January 2023.
7. I am responsible for all sections of the Technical Report.
8. I am independent of Collective Mining Ltd applying all of the tests in Section 1.5 of NI 43-101.
9. My previous involvement with the project to write a technical report for Collective Mining Ltd. with signature date 22 September 2021. I also carried out regional reconnaissance exploration of the greater project area in 2006-2008 for Colombia Goldfields Ltd.
10. I have read NI 43-101 and the Technical Report has been prepared in compliance with that instrument.
11. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the company files on their websites accessible by the public, of the Technical Report.

Dated 21 April 2023 Signature: *"Stewart D. Redwood"*

## TABLE OF CONTENTS

## List of Tables

## List of Figures

# 1 SUMMARY

## 1.1 Introduction

Collective Mining Ltd. (Collective Mining) requested that Dr. Stewart D. Redwood, Consulting Geologist, prepare an independent NI 43-101 technical report for the Guayabales Project in the Department of Caldas, Republic of Colombia. The purpose of the report is an update of the previous report with effective date 30 August 2021 to describe material changes.

## 1.2 Property Description and Location

The Guayabales Property is located 80 km south of Medellin, 75 km north of Pereira and 50 km north-northwest of Manizales in the Municipalities of Marmato, Supia and La Merced, Department of Caldas, and the Municipality of Caramanta, Department of Antioquia, at approximately 5°30’N, 75°36’W and an altitude of between 1,470 to 2,150 masl.

Collective Mining has mining rights at the Guayabales Property to 26 claims with a total area of 4,780.98 ha, of which four claims have title with a total area of 2,411.16 ha. These comprise two exploitation claims with title with a total area of 412.98 ha, two exploration claims with title with a total area of 1,998.18 ha, 22 concession applications with a total area of 2,297.90 ha, and 116 claim applications on incomplete cells or gaps surrounding the exploitation claims with an approximate total area of 71.92 ha. The two exploitation claims (LH-0017-17 and 781-17) and their incomplete cells are subject to purchase option agreements to obtain 100% with total payments of $11.050 million over ten years and total expenditure commitments of $13.0 million. Concession LH-0071-17 is subject to a 1% net smelter return (NSR) royalty payable to the current owner once commercial production is achieved. The NSR may be exchanged for a one-time payment of $8.0 million. The two exploration claims are wholly owned by Collective Mining’s subsidiaries. One concession application with an area of 156.96 ha is subject to a promise to purchase agreement with a third party. The other 21 applications, covering 2,140.94 ha, are direct applications made by subsidiaries of Collective Mining.

## 1.3 History

Gold has been mined in the Marmato-Supia district, which includes the Guayabales Project, since ancient times. The recent history begins in 1995 when the Guayabales Miners Association started artisanal gold mining of the Encanto zone of the Guayabales Project. The project was explored for gold by three companies between 2005-2012: Colombia Gold plc in 2005, Colombian Mines Corporation (Colombian Mines) in 2006-2009, and Mercer Gold Corporation (Mercer Gold) in 2010-2012 (called Tresoro Mining Corp. from 2011). Exploration carried out was geological mapping, soil sampling, rock sampling, mapping and channel sampling of artisanal mines, and diamond drilling. In 2008, Colombian Mines drilled 17 diamond drill holes for 2,079 m in the Encanto Zone, and in 2010-2011, Mercer Gold drilled 11 diamond drill holes for 4,067 m in the Encanto Zone and to the northeast of it. Drilling targeted Au-Ag-polymetallic veins. Two holes intersected porphyry gold mineralisation. Exploration was inactive from 2012-2020.

## 1.4 Geological Setting and Mineralization

The Guayabales Project lies within the Romeral Terrane that is bounded by the Romeral Fault System on the east and the Cauca-Patia Fault System to the west, and comprises metamorphic rocks of medium to high grade, ophiolitic sequences and oceanic sediments of Late Jurassic to Early Cretaceous age. These are overlain by continental sedimentary rocks of Oligocene-Miocene age, and andesitic volcanic rocks of Late Miocene age. Gold-silver-copper mineralization in the belt is related to multiple clusters of Late Miocene porphyry intrusions of diorite to quartz diorite composition, and related breccias and veins.

The Guayabales Project is located in the Middle Cauca Gold-Copper Belt. This belt extends for about 250 km in a north-south direction from the Buritica gold mine to La Colosa gold deposit. The gold mineralization in the belt is of intermediate sulphidation epithermal to sub-epithermal style Au-Ag-polymetallic deposits (also known as carbonate-base metal veins) and porphyry Au and Au-Cu deposits. Mineralization is related to porphyry intrusions of Late Miocene age. The principal deposits in the belt are the Buritica vein Au-Ag deposit (Zijin Mining Group Co. Ltd.), the Nuevo Chaquiro porphyry Au-Cu deposit (AngloGold Ashanti), the Marmato porphyry- hosted sheeted veinlet Au-Ag deposit (Aris Gold Corporation), located 2 km southeast of Guayabales, and La Colosa porphyry Au deposit (AngloGold Ashanti).

Collective Mining has discovered four gold, silver and/or copper deposits by Phase 1 drilling at the Guayabales Project in 2021-2022. These are the Apollo porphyry-breccia-vein Au-Ag-Cu deposit; the Olympus porphyry-vein Au-Ag deposit; the Donut breccia Au-Ag deposit; and the Trap porphyry-vein Au-Ag-(Cu) deposit.

## 1.5 Deposit Type

There are three related deposit types at the Guayabales Project which are: 1) porphyry Au-Ag±Cu-Mo deposits hosted by porphyry intrusions and wall rocks; 2) breccia-hosted Au-Ag-Cu deposits that form part of the porphyry systems; and 3) intermediate sulphidation epithermal to sub-epithermal, high grade Au-Ag-Zn-Pb-Cu vein deposits, termed gold-bearing carbonate-base metal veins (CBM), that overprint the porphyries and breccias. All three deposit types carry precious and/or base metals and all three deposit types are present at the Apollo deposit.

## 1.6 Exploration

Collective Mining has carried out exploration of the Guayabales Project since 2020. The work consisted of geological mapping, rock sampling, soil sampling, relogging of historic drill core, a LIDAR survey, an airborne magnetic and radiometric survey, data compilation and reinterpretation. The exploration defined eight drill targets, of which six targets were tested by diamond drilling and the others remain to be drilled.

## 1.7 Drilling

Collective Mining carried out a Phase 1 program of diamond drilling at the Guayabales Project between September 2021 and 31 December 2022, the effective date of this Technical Report. The program consisted of 71 holes totalling 27,618 m, with an average hole length of 388.6 m. Six targets were tested with the majority of the drilling at the Apollo (54%, 31 holes for 14,976.50 m) and Olympus (26%, 22 holes for 7,099.65 m) targets, and the rest of the drilling was on the Donut, The Box, Trap and Victory West targets. The drilling resulted in the discovery of four deposits with significant long intersections of gold, silver and/or copper.

The most significant discovery is the **Apollo** gold-silver-copper deposit which is a porphyry stockwork deposit with an intermineral breccia called the Apollo Porphyry System, and is overprinted by high grade gold-silver bearing sheeted carbonate base metal veins (CBM). The current dimensions of the Apollo Porphyry System, based on limited drilling, are 385 m by 350 m on surface by 915 m vertical, and it is open in all directions. The breccia lies within stockwork mineralization. The highlights of the drill intersections into the Apollo Porphyry System include:

- APC-001: 87.80 m @ 0.88 g/t Au, 61 g/t Ag, 0.39% Cu.
- APC-002: 207.15 m @ 1.46 g/t Au, 45 g/t Ag, 0.31% Cu.
- APC-008: 265.75 m @ 1.26 g/t Au, 55 g/t Ag, 0.22% Cu.
- APC-012: 237.7 m @ 1.15 g/t Au, 72 g/t Ag, 0.38% Cu.
- APC-014: 47.45 m @ 0.81 g/t Au, 13 g/t Ag, 0.20% Cu.
- APC-018: 168.60 m @ 0.98 g/t Au, 69 g/t Ag, 0.50% Cu.
- APC-019: 298.6 m @ 0.48 g/t Au, 34 g/t Ag, 0.31% Cu.
- APC-020: 102.20 m @ 2.72 g/t Au, 28 g/t Ag, 0.08% Cu.
- APC-022: 426.00 m @ 1.05 g/t Au, 23 g/t Ag, 0.08% Cu.
- APC-025: 106.85 m @ 0.81 g/t Au, 30 g/t Ag, 0.62% Cu.
- APC-026: 397.10 m @0.62 g/t Au, 13 g/t Ag, 0.05% Cu.
- APC-028: 601.65 m @ 0.89 g/t Au, 24 g/t Ag, 0.10% Cu.
- APC-029: 301.00 m @ 0.63 g/t Au, 14 g/t Ag, 0.05% Cu.

- APC-030: 318.65 m @ 0.61 g/t Au, 19 g/t Ag, 0.12% Cu.

Seven more breccia bodies with anomalous Au, Ag, Cu and Mo geochemistry were discovered recently around the main drilled breccia body in a zone with approximate surface dimensions of 750 m EW by 650 m NS, and they will be drilled in the Phase 2 drill program.

The second early-stage discovery is the **Olympus target**, a porphyry with polymetallic veins with gold-silver mineralization but no copper, with the following intersection highlights:

- OLCC-001: 116.30 m @ 0.85 g/t Au, 9 g/t Ag, 0.02% Cu.
- OLCC-003: 301.90 m @ 0.89 g/t Au, 11 g/t Ag, 0.03% Cu.
- OLCC-004: 216.70 m @ 0.79 g/t Au, 13 g/t Ag, 0.04 % Cu.
- OLCC-004: 110.10 m @ 0.69 g/t Au, 7 g/t Ag, 0.02% Cu.
- OLCC-005: 58.60 m @ 0.61 g/t Au, 23 g/t Ag, 0.03% Cu.
- OLCS-003: 41.80 m @ 0.68 g/t Au, 34 g/t Ag, 0.04% Cu.
- OLCU-002: 55.25 m @ 1.75 g/t Au, 11 g/t Ag, 0.02% Cu.
- OLCU-002: 47.15 m @ 0.61 g/t Au, 18 g/t Ag, 0.03% Cu.

The third early-stage discovery is the **Donut target**, which is a porphyry-related breccia pipe with significant gold and silver intersections. The known surface dimensions of the breccia are small. The drill highlights include:

- DOC-002: 104.00 m @ 1.20 g/t Au, 12 g/t Ag.
- DOC-003: 163.00 m @ 1.20 g/t Au, 11 g/t Ag.
- DOC-008: 107.65 m @ 0.78 g/t Au, 21 g/t Ag
- DOC-010: 76.20 m @ 0.44 g/t Au, 22 g/t Ag.

The fourth early-stage discovery is the **Trap target** which is a porphyry with late-stage carbonate base metals veins. It has significant intersections of gold and silver with low copper and the following highlights:

- TRC-001: 102.20 m @ 1.26 g/t Au, 12 g/t Ag, 0.09% Cu.
- VICE-001: 14.70 m @ 1.14 g/t Au, 26 g/t Ag, 0.01% Cu.
- VICE-002: 18.90 m @ 1.06 g/t Au, 36 g/t Ag, 0.18% Cu.

## 1.8 Mineral Processing and Metallurgical Testing

Collective Mining has carried out preliminary metallurgical testing by three bottle-roll cyanide leaching tests on ground samples from the Apollo target. Recoveries after 72 hours were between 90.70% and 97.57% for gold, and from 46.27% and 52.34% for silver. The initial test work confirms that gold in the sulphide zone is not refractory. About half of the silver is leachable, and the rest of the silver may be present as a substitution in other minerals such as chalcopyrite, in which case silver would report to a copper flotation concentrate. An extensive program of metallurgical testwork is planned.

## 1.9 Mineral Resource Estimates

There are no mineral resource estimates for the property that are subject to the current CIM standards and definitions required by the Canadian NI 43-101 “Standards for Disclosure of Mining Projects”. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

## 1.10 Interpretation and Conclusions

Collective Mining has identified eight drill targets for gold, silver and/or copper in porphyry, breccia and polymetallic veins at the Guayabales Project, and has made four discoveries by drilling at the Apollo, Olympus, Donut and Trap targets. The most significant discovery to date is the Apollo target which is a porphyry gold-silver-copper deposit with mineralized intermineral breccia and late, high grade auriferous, polymetallic CBM veins. The Apollo Porphyry System has the dimensions and grades to be a potentially major deposit. The amount of drilling carried out up to the effective date of this report is not sufficient to define the geometry and grade in order to make a mineral resource estimate. The results justify additional drilling program to define the extent and grade of the system and eventually to make a Mineral Resource estimate.

The metallurgical test work at Apollo, comprising three bottle roll tests, is preliminary and is too early stage to make predictions about metal recoveries. However, the initial test work confirms that gold in the sulphide zone is not refractory, and shows that some of the silver may occur in other minerals such as chalcopyrite, in which case silver would report to a copper flotation concentrate. Mineralogical studies are required to characterise the different metal zones and build a geometallurgical model, with extensive flotation and leach test work.

Collective Mining has also made three other discoveries based on long drill intersection of gold and silver at the Olympus porphyry-vein, Donut breccia and Trap porphyry targets. The amount of drilling at these targets is much less than Apollo, and further drilling is required to define the extent, geometry and grades. Finally, there are three other targets that have not been drilled yet and require preliminary drilling.

The Guayabales Project is located in the Middle Cauca Gold-Copper Belt on the eastern side of the Western Cordillera of Colombia. This metallogenic belt of Late Miocene age is highly prospective for porphyry gold-silver-copper, breccia gold-silver-copper and auriferous polymetallic vein deposits. The Apollo discovery is located about 2 km northwest of the historic Marmato gold-silver mine, where a major underground expansion is under development to exploit the Marmato Deeps Zone.

The Guayabales Project lies within the Romeral terrane that is bounded by the Romeral Fault System to the east and the Cauca-Patia Fault System to the west, and comprises metamorphic rocks of medium to high grade, ophiolitic sequences and oceanic sediments of Late Jurassic to Early Cretaceous age that are overlain by continental sedimentary rocks of Oligocene-Miocene age, and andesitic volcanic rocks of Late Miocene age. Gold-silver-copper mineralization in the belt is related to multiple clusters of Late Miocene porphyry intrusions of diorite to quartz diorite composition, and related breccias and veins.

The Project is located in a historic, active gold mining district within an area with good infrastructure including a major highway, abundant water, power grids and nearby rail and airport facilities.

The author concludes that the Guayabales Project is a discovery-stage project for porphyry and intermineral breccia-hosted gold-silver-copper-molybdenum with auriferous, polymetallic veins. The exploration programs carried out by Collective Mining are well planned and executed and supply sufficient information to plan further exploration. Sampling, sample preparation, assaying and analyses were carried out in accordance with best current industry standard practices and are suitable to plan further exploration. Sampling, assaying and analyses include quality assurance and quality control procedures. There are no known significant risks or uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information.

## 1.11 Recommendations

The Guayabales Project warrants a follow-up drilling program to define the extent and grade of the Apollo discovery and its potential extensions as the geometry is not well defined at depth or on the margins, in order to eventually make a Mineral Resource estimate and a Preliminary Economic Assessment (PEA), and also to carry out exploration drilling at the other targets particularly in the vicinity of Apollo. A work program of two phases of eighteen months each is recommended, as summarised in Table 1.1, and the decision to proceed to the Phase 2 program is dependant on continued positive results from Phase 1.

| Item | | Metres | Cost per metre (US$) | Total (US$) |
|---|---|---|---|---|
| **Phase 1 drilling** | | | | |
| Drilling | Apollo, extensions and surrounding targets | 30,000 | 250 | 7,500,000 |
| | Other Targets | 10,000 | 250 | 2,500,000 |
| Site G&A | | 40,000 | 50 | 2,000,000 |
| Target generative work | | | | 1,000,000 |
| Metallurgical test work | | | | 300,000 |
| Geotechnical and hydrogeological studies | | | | 200,000 |
| Land acquisition | | | | 750,000 |
| Option agreements payments | | | | 650,000 |
| ESG | | | | 725,000 |
| G&A | | | | 1,800,000 |
| Sub-total | | | | 17,425,000 |
| | | | | |
| **Phase 2 drilling** | | | | |
| Drilling | Apollo | 40,000 | 250 | 10,000,000 |
| | Other Targets | 20,000 | 250 | 5,000,000 |
| | Geotechnical, hydrogeological, metallurgical | 10,000 | 250 | 2,500,000 |
| Site G&A | | 70,000 | 50 | 3,500,000 |
| Resource Estimate | | | | 200,000 |
| PEA | | | | 500,000 |
| Land acquisition | | | | 1,000,000 |
| Option agreement payments | | | | 916,000 |
| ESG | | | | 600,000 |
| G&A | | | | 2,300,000 |
| Sub-total | | | | 26,516,000 |
| Total | | | | 43,941,000 |

**Table 1.1. Estimated budget for the recommended two-stage exploration programme for the Guayabales Project.**

Phase 1 of the recommended exploration program comprises 30,000 m of diamond drilling within Apollo including potential extensions and surrounding breccia bodies, 10,000 m of diamond drilling at other targets, of which first pass drilling is required at the ME, Donut, Plutus and other targets. The program includes on-going target generation work, and metallurgical testwork, geotechnical and hydrogeological studies at Apollo. The budget also includes land acquisition, option payments, environmental, social, governance (ESG) and general and administration (G&A)

costs. The estimated cost of the Phase 1 programme is US$ 17,425,000. The Phase 1 drill program was started on 1 January 2023 after the effective date of the Technical Report.

Phase 2 of the recommended exploration program is planned for 2024-2025, and comprises an additional 40,000 m of diamond drilling at Apollo, as well as 10,000 m of geotechnical, hydrogeological and metallurgical drilling, and to make a Mineral Resource estimate and a Preliminary Economic Assessment (PEA) for Apollo. The program includes 20,000 m of diamond drilling at other targets, land acquisition, option payments, ESG and G&A costs. The estimated cost of the Phase 2 program is US$ 26,516,000. The total budget for Phases 1 and 2 is US$ 43,941,000 (Table 1.1).

# 2 INTRODUCTION

## 2.1 Purpose of Report

Collective Mining Ltd. (Collective Mining) requested that Dr. Stewart D. Redwood, Consulting Geologist, prepare an updated, independent NI 43-101 Technical Report for the Guayabales Project in the Department of Caldas, Republic of Colombia. The purpose of the report is an update of the previous report with effective date 30 August 2021 to describe changes to a material mineral property.

## 2.2 Terms of Reference

The terms of reference were to prepare a Technical Report as defined in Canadian Securities Administrators' National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1 (Technical Report) and Companion Policy 43-101CP for the Guayabales Project.

## 2.3 The Issuer

Collective Mining Ltd. (Collective Mining) is a company registered in Ontario which trades on the TSX Venture Exchange (TSX-V). It carries out business through a holding company in Bermuda called Collective Mining Limited, a Colombian branch called Collective Mining Limited Sucursal Colombia (Collective Mining Colombia), and two wholly-owned Colombian subsidiaries called Minerales Provenza S.A.S. (Minerales Provenza) and Minera Campana S.A.S., as shown in Figure 2.1.

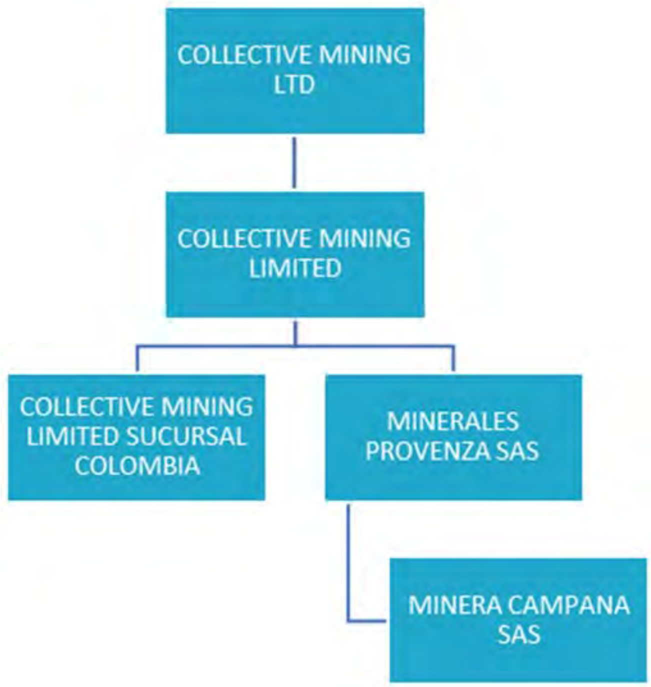



**Figure 2.1 The corporate structure of Collective Mining.**

## 2.4 Sources of Information

The main sources of information for the project are the project database, unpublished historical and Collective Mining company reports, and historical NI 43-101 technical reports, press releases, financial reports and other documents filed on The System for Electronic Document Analysis and Retrieval (SEDAR). The reports that were consulted, as well as other technical reports, published government reports and scientific papers, are listed in Section 19 of this report. The author considers that he has seen all of the relevant information that exists for the project. The cut-off date for the database is 31 December 2022.

Five previous NI 43-101 technical reports were written for the project including one for the current issuer by the author in 2021:

1. Thompson (2007) for Colombian Mines Corporation;
2. Turner (2010) for Uranium International Corporation, which was renamed Mercer Gold Corporation);
3. Turner (2011) for Mercer Gold Corporation. This report was not filed on SEDAR and appears to have been private. A copy has not been located but it is quoted extensively in the next technical report by Leroux (2012).

4. Leroux (2012) for Tresoro Mining Corp.;
5. Redwood (2021c) for Collective Mining.

## 2.5 Site Visit

The author made a personal inspection of the Guayabales Project and the company's field office and core logging facility in Supia on 12 to 15 January 2023. Core was examined from four drill holes APC-001 (0-418.05 m at the end of the hole (EOH)), APC-002 (178.00-365.20 m EOH), DOC-002 (0-264.75 m EOH), and OLCC-003 (148.10-335.55 m). A field visit was made to the drilling at the Apollo target and two drill platforms were visited, Pad 2 and Pad 6 with drilling of APC-031 in progress. The protocols, workflow and chain of custody of the core from the drill to sample despatch were seen, and storage of core, rejects and pulps. The protocols, execution and results for QAQC were revised. Presentations were given in person and by video-conference on the property, geology and mineralization by Collective Mining's Chief Executive Officer, Vice President of Exploration, Senior Technical Advisors, project geologists and QA-QC Manager.

## 2.6 Abbreviations

A list of the abbreviations used in the report is provided in Table 2.1. All currency units are stated in US Dollars, unless otherwise specified. Quantities are generally expressed in the metric International System (SI) of units. The coordinate system used is WGS84.

| Description | Abbreviation |
|---|---|
| Actlabs Colombia S.A.S., Activation Laboratories Ltd. | Actlabs |
| ALS Chemex, ALS Minerals | ALS |
| Argon step-heating method of radiometric dating of rocks. | Ar-Ar |
| Atomic absorption spectrophotometer | AAS |
| Australian Stock Exchange | ASX |
| Canadian Dollar | CDN$ |
| Canadian Institute of Mining, Metallurgy and Petroleum | CIM |
| Canadian National Instrument 43-101 | NI 43-101 |
| Carbonate base metals vein | CBM |
| Centimetre(s) | cm |
| Collective Mining Ltd. | Collective Mining |
| Collective Mining Ltd. Sucursal Colombia | Collective Mining Colombia |
| Republic of Colombia | Colombia |
| Colombian Geological Survey (*Servicio Geológico Colombiano*) | SGC |

| Description | Abbreviation |
|---|---|
| Comunidad Minera Guayabales | Minera Guayabales |
| Corporación Minera de Colombia S.A.S. | CMC |
| Colombian Mines Corporation | Colombian Mines |
| Certified Standard Reference Materials | CSRM |
| Degree(s) | º |
| United States' Dollar(s) | US$ |
| End of hole | EOH |
| Environmental Impact Study (*Estudio de Impacto Ambiental*) | EIA |
| Environmental Management Plan (*Plan de Manejo Ambiental*) | PMA |
| Environmental, social, governance | ESG |
| General & administration | G&A |
| Gram(s) | g |
| Grams per metric ton | g/t |
| Greater than | > |
| Hectare(s) | ha |
| Inductively coupled plasma spectrometer | ICP |
| Inductively coupled plasma atomic / optical emission spectrometer | ICP-AES or ICP-OES |
| Inductively coupled plasma mass spectrometer | ICP-MS |
| Colombian Institute of Geology & Mining (*Instituto Colombiano de Geología y Minería*) | INGEOMINAS |
| Induced polarization geophysical survey | IP |
| International Organization for Standardization | ISO |
| Joint Ore Reserves Committee, Australasian Institute of Mining & Metallurgy, Australasian Institute of Geoscientists, Minerals Council of Australia | JORC |
| Kilogram(s) | kg |
| Kilometre(s) | km |
| Square kilometre (s) | $km^2$ |
| Pound, million pounds, billion pounds | lb, Mlb, Blb |
| Radiometric dating method of zircons by laser ablation and ICP-MS | LA-ICP-MS |
| Less than | < |
| Lower limit of detection | LLD |
| Mercer Gold Corporation | Mercer Gold |
| Meter(s) | m |
| Meters above mean sea level | masl |
| Million metric tons | Mt |
| Million Troy ounces | Moz |
| Million years ago | Ma |

| Description | Abbreviation |
|---|---|
| Millimetre(s) | mm |
| Minerales Provenza S.A.S. | Minerales Provenza |
| Mining Plan (*Programa de Trabajos y Obras de Explotación*) | PTO |
| Ministry of the Environment | MinAmbiente |
| Minutes | ‘ |
| Net smelter return | NSR |
| No significant values | NSV |
| Ounces (Troy) | oz |
| Millions of ounces (Troy) | Moz |
| Parts per billion | ppb |
| Parts per million | ppm |
| Percent(age) | % |
| Plus or minus | ± |
| Quality Assurance - Quality Control | QA-QC |
| South African Mineral Resource Committee | SAMREC |
| Standard deviation | SD |
| The System for Electronic Document Analysis and Retrieval | SEDAR |
| Système International d'Unités (International System of Units) | SI |
| SGS Colombia S.A., SGS Peru S.A. | SGS |
| Metric ton(s) | t |
| Metric tons per day | tpd |
| TSX Venture Exchange | TSX-V |
| Universal Transverse Mercator | UTM |
| Uranium-lead method of radiometric dating of minerals | U-Pb |

**Table 2.1. List of abbreviations.**

# 3 RELIANCE ON OTHER EXPERTS

For Sections 4.2 to 4.10, the author has relied on information supplied by Omar Ossma, President and CEO of Collective Mining, and by Natalia Hernandez, Head of Legal Affairs of Collective Mining, presented at a meeting on 15 January 2023 and received in writing on 16 January 2023.

# 4 PROPERTY DESCRIPTION AND LOCATION

## 4.1 Property Location

The Guayabales Property is close to several major cities in Colombia. It is located 80 km south of Medellin, 75 km north of Pereira and 50 km north-northwest of Manizales. Politically, the property is in the Municipalities of Marmato, Supia and La Merced, Department of Caldas, and the Municipality of Caramanta, Department of Antioquia, at approximately 5°30'N, 75°36'W and an altitude of between 1,470 to 2,150 masl (Figure 4.1).


**Figure 4.1 Location map of the Guayabales Project.**

## 4.2 Legal Framework

All mineral resources in Colombia belong to the state and can be explored and exploited by means of concession contracts granted by the state. The mining authority is the National Mining Agency (*Agencia Nacional Minería* or ANM) except in the Department of Antioquia, where it has been delegated to the Government of Antioquia through its Secretary of Mines. The Ministry of Mines and Energy is in charge of setting and overseeing the Government´s national mining policies. Mining is governed by the Mining Law 685 of 2001 and subsequent decrees and resolutions, except for mining titles granted before that law, which are grandfathered by the law in place at the time of their granting (most commonly Decree 2655, 1988). Certain minor amendments to the law have been enacted by means of Laws 1450 of 2011, 1753 of 2015, and 1955 of 2019. Under the Mining Law 685 of 2001, there is a single type of concession contract covering exploration, construction and mining that is valid for 30 years and can be extended for another 30 years.

Concession contract areas are defined on a map with reference to a starting point (*punto arcifinio*) with distances and bearings, or map coordinates. Older concession contract areas are irregular polygons that are defined in the contractual agreement, while newer ones are formed of square cells of 1.24 ha area (about 352 m by 352 m) each oriented north-south.

The mining authority has recently set in place a new application process for concession contracts that is entirely online as follows:

1. Purchase a PIN number (one per concession application). Each PIN costs one minimum salary which is currently Colombian pesos (COP) 1,160,000.00 (about US$232) plus sales tax.

2. Submit the application on the internet at the ANM website ANNA Mineria www.annamineria.anm.gov.co/sigm/externalLogin.

3. Upload pdf copies of the annexes to the application. These comprise legal, economic and technical documents including demonstration of the economic capacity of the applicant and the exploration proposal for the requested area. As per a recent State Council Court ruling issued on 4 August, 2022, the applicant must also provide a certification from the relevant environmental authority which reports whether the project overlaps with certain types of environmentally protected or sensitive ecosystems, and whether the said ecosystems are identified within the mining cadaster, and finally whether mining activities are permitted or not within the said environmental areas.

4. A Technical Study is carried out by ANM to determine whether there is any overlap with other contracts or applications. The applicant is notified of the "free areas". The full area of the application may be not granted in its entirety if there is overlap with existing mining rights.

5. A legal and financial study is made by ANM.

6. A consultation process is held with the mayor of the municipality in which the application is located.

7. A public hearing is held to inform the neighbouring communities.

8. The contract is prepared and signed.

9. The contract is inscribed in the National Mining Registry (*Registro Minero Nacional*, RMN). The contract comes into effect on the date of registration.

A surface tax (*canon superficial*) is paid for concession contracts annually in advance during the exploration and construction phases. The first payment is due when the concession contract is registered in the RMN. The surface tax varies with the size and phase of the concession contract and is between one-half minimum daily wage per hectare (ha) (about US$3.86) and three minimum daily wages per hectare (about US$23.19). The minimum daily wage is adjusted annually and in 2023 it is COP38,666.66 (about US$7.73).

Only exploration activities involving underground methods (i.e. drilling) require a mining title. Superficial exploration activities or prospecting can be carried out freely and do not require a mining title.

The concession contract has three phases:

1. Exploration Phase:
   - Starts once the contract is registered in the National Mining Registry.
   - Valid for 3 years plus up to 4 extensions of 2 years each, for a maximum of 11 years.
   - Annual surface tax payments required.
   - Requires an annual Environmental Mining Insurance Policy for 5% of the value of the planned exploration expenditure for the year.
   - No environmental licensing is required during this phase, other than specific permits and concessions required for the use of natural renewable resources, such as water rights, dumping rights, and forestry rights, amongst others. In addition, explorers must file a follow up document known as Mining Environmental Guidelines (*Guias Minero Ambientales*), which explains the explorer´s proposed environmental management activities during exploration. This document does not require approval by the environmental authority
   - At the end of the exploration phase, the explorer must file a Mining Plan (*Programa de Trabajos y Obras de Explotación* or PTO) with the mining authority and an

Environmental Impact Study (*Estudio de Impacto Ambiental* or EIA) with the environmental authority in order to start construction and exploitation activities.

2. Construction Phase:
   - May only initiate once the PTO and EIA have been approved and an environmental license has been issued.
   - Valid for 3 years plus a 1-year extension.
   - Annual surface tax payments continue.
   - Requires an annual Environmental Mining Insurance Policy for 5% of the value of the planned investment as defined in the PTO for the year.

3. Exploitation Phase:
   - Valid for the remaining time of the concession (deducting elapsed exploration and construction time) which may be renewed for 30 years.
   - An annual Environmental Mining Insurance Policy is required equivalent to 10% of the estimated production in the PTO.
   - No annual surface taxes.
   - Pay a royalty based on the regulations in force at the time of granting of the Contract.

## 4.3 Property Mining Rights

Collective Mining has mining rights at the Guayabales Property to 26 claims with a total area of 4,780.98 ha (Figure 4.2, Figure 4.3). Four claims have title with a total area of 2,411.16 ha comprising two exploitation claims with title with a total area of 412.98 ha, and two exploration claims with title with a total area of 1998.18 ha (Table 4.1). The two exploitation claims and their incomplete cells applications, described below, are subject to option agreements as described in Section 4.4. The two exploration claims are wholly owned by Collective Mining's subsidiaries.

There are 22 concession applications with a total area of 2,297.90 ha (Table 4.2). One of the concession applications with an area of 156.96 ha is subject to a promise to purchase agreement with a third party, as described in Section 4.4. The other 21 applications, covering 2,140.94 ha, are direct applications by subsidiaries of Collective Mining.

Finally, there are 116 claim application for incomplete cells surrounding the two exploitation claims with an approximate area of 71.92 ha. Incomplete cells are gaps between claims that are smaller than the cell size that resulted from converting old irregular claim shapes to claims built of square cells of 1.24 ha (about 352 m by 352 m) oriented north-south.

The location of a mining title is defined by the coordinates of its corners, as described in each of the mining concession agreements executed with the mining authority. There is no legal requirement to mark the corners by monuments in the field or have the corners officially surveyed, and this has not been done.

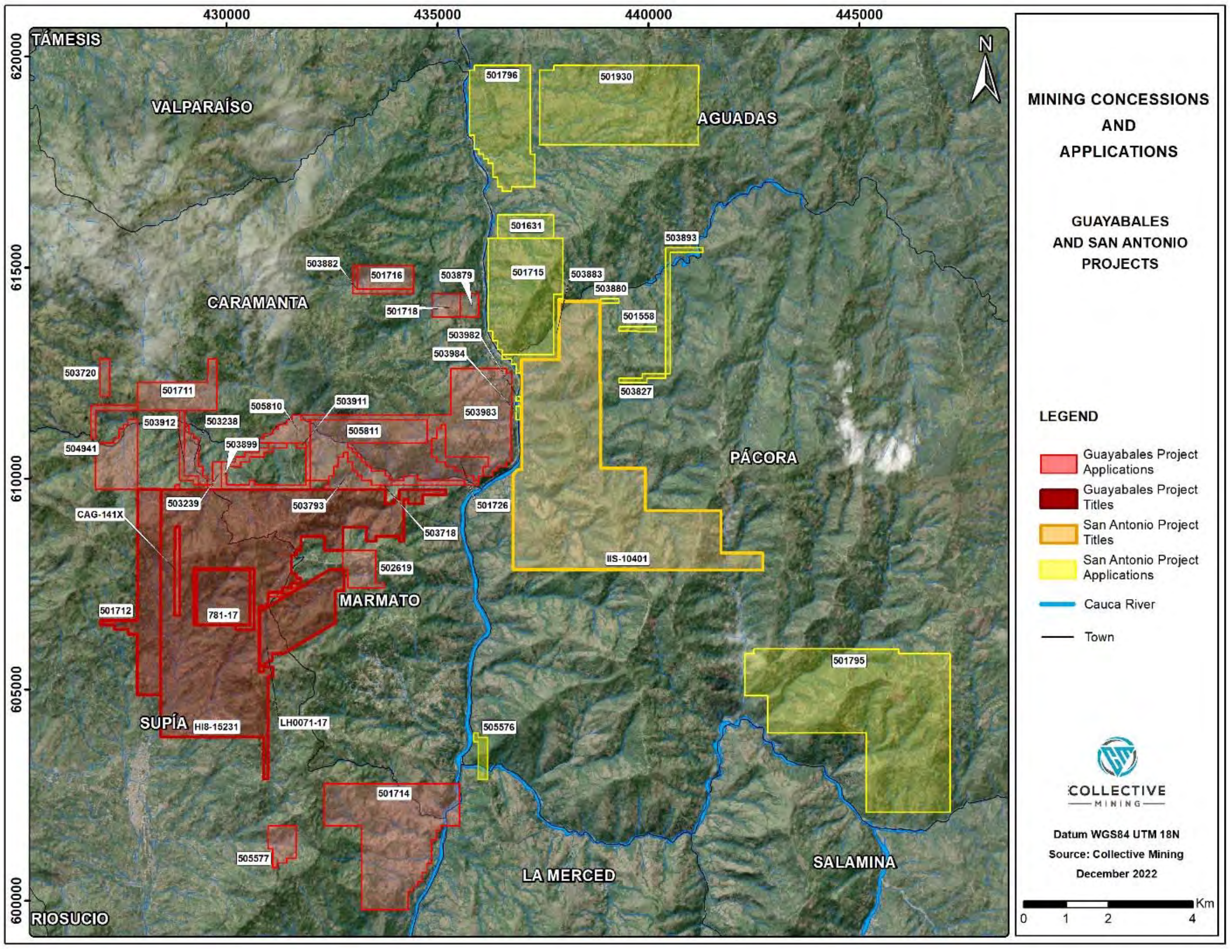



**Figure 4.2. Plan of Collective Mining's mining titles and applications of the Guayabales Project, shown in red, west of the River Cauca (Tables 4.1 to 4.3 in this report), and the San Antonio Project, shown in yellow and orange, east of the River Cauca (see Redwood, 2021b).**

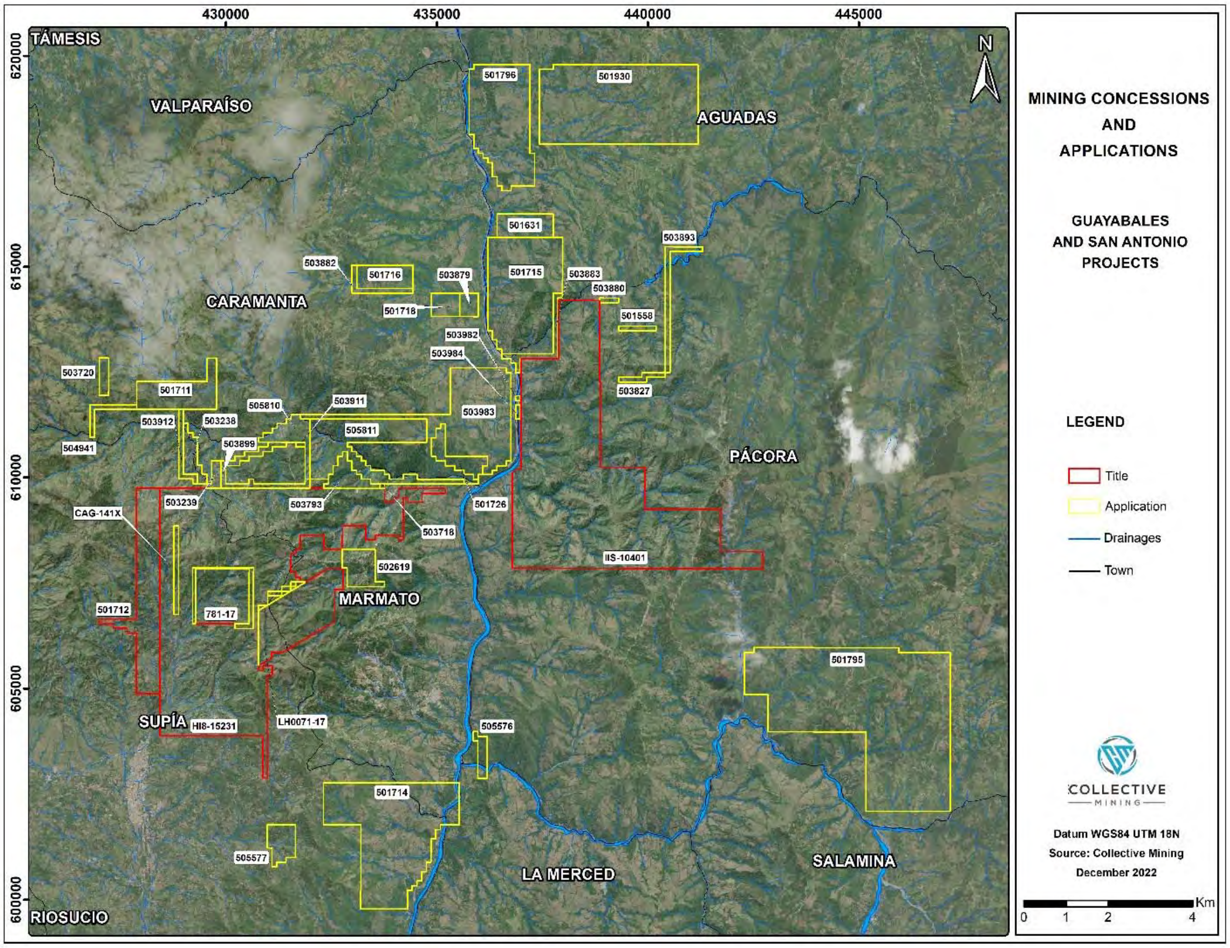



**Figure 4.3. Plan of Collective Mining's tenements showing mining titles in red and applications in yellow for the Guayabales Project, which lies west of the River Cauca (Tables 4.1 to 4.3 in this report), and the San Antonio Project, which lies east of the River Cauca (Redwood, 2021b).**

| No. | Name | Number | Type | Owner | Date of Registration | Date of Expiry | Area (ha) |
|---|---|---|---|---|---|---|---|
| **1** | Guayabales | LH0071-17 | Exploitation | Asociacion de Mineros Guayabales | 28/03/2008 | 28/03/2038 | 247.87 |
| **2** | The Box | 781-17 | Exploitation | Sandra Liliana Saldarriaga Escobar, Margarita Maria Saldarriaga Escobar, Monica Paola Saldarriaga Escobar | 16/05/2006 | 16/05/2036 | 165.11 |
| **3** | Guayabales | HI8-15231 | Exploration | Collective Mining Limited Sucursal Colombia | 11/10/2021 | 12/10/2051 | 1710.00 |
| **4** | Guayabales | 501712 | Exploration | Minerales Provenza SAS | 25/10/2021 | 26/10/2051 | 288.18 |
| | | | | | | **TOTAL** | **2411.16** |

**Table 4.1 List of the mining rights with title of the Guayabales Project.**

| No. | Name | Number | Type | Owner | Date of Application | Area (ha) |
|---|---|---|---|---|---|---|
| 1 | Guayabales | 501711 | Exploration | Collective Mining Limited Sucursal Colombia | 07/05/2021 | 137.33 |
| 2 | Guayabales | 501714 | Exploration | Collective Mining Limited Sucursal Colombia | 07/05/2021 | 615.64 |
| 3 | Guayabales | 501716 | Exploration | Collective Mining Limited Sucursal Colombia | 07/05/2021 | 73.57 |
| 4 | Guayabales | 501718 | Exploration | Collective Mining Limited Sucursal Colombia | 07/05/2021 | 36.78 |
| 5 | Guayabales | 501726 | Exploration | Collective Mining Limited Sucursal Colombia | 07/05/2021 | 58.86 |
| 6 | Guayabales | 502173 | Exploration | Collective Mining Limited Sucursal Colombia | 23/07/2021 | 2.45 |
| 7 | Guayabales | 502174 | Exploration | Collective Mining Limited Sucursal Colombia | 23/07/2021 | 1.22 |

| No. | Name | Number | Type | Owner | Date of Application | Area (ha) |
|---|---|---|---|---|---|---|
| 8 | Guayabales | 502619 | Exploration | Collective Mining Limited Sucursal Colombia | 17/09/2021 | 66.22 |
| 9 | Guayabales | 503238 | Exploration | Collective Mining Limited Sucursal Colombia | 14/10/2021 | 41.69 |
| 10 | Guayabales | 503239 | Exploration | Collective Mining Limited Sucursal Colombia | 14/10/2021 | 15.94 |
| 11 | Guayabales | CAG-141X | Exploration | Mineros SA | 13/10/2021 | 156.96 |
| 12 | Guayabales | 503720 | Exploration | Collective Mining Limited Sucursal Colombia | 09/12/2021 | 19.61 |
| 13 | Guayabales | 503718 | Exploration | Collective Mining Limited Sucursal Colombia | 09/12/2021 | 1.22 |
| 14 | Guayabales | 503793 | Exploration | Collective Mining Limited Sucursal Colombia | 16/12/2021 | 52.72 |
| 15 | Guayabales | 503899 | Exploration | Collective Mining Limited Sucursal Colombia | 27/12/2021 | 52.72 |
| 16 | Guayabales | 503911 | Exploration | Collective Mining Limited Sucursal Colombia | 28/12/2021 | 2.45 |
| 17 | Guayabales | 503983 | Exploration | Collective Mining Limited Sucursal Colombia | 30/12/2021 | 550.53 |
| 18 | Guayabales | 504177 | Exploration | Collective Mining Limited Sucursal Colombia | 28/01/2022 | 3.67 |
| 19 | Guayabales | 504941 | Exploration | Minerales Provenza SAS | 22/03/2022 | 19.62 |
| 20 | Guayabales | 505577 | Exploration | Collective Mining Limited Sucursal Colombia | 13/04/2022 | 53.96 |
| 21 | Guayabales | 505810 | Exploration | Minerales Provenza SAS | 12/05/2022 | 62.53 |
| 22 | Guayabales | 505811 | Exploration | Collective Mining Limited Sucursal Colombia | 12/05/2022 | 272.21 |
| | | | | | | **2297.90** |

**Table 4.2. List of concession applications of the Guayabales Project.**

## 4.4 Agreements

Titles LH-0071-17 and 781-17 are subject to agreements that entitle Collective Mining Colombia to perform exploration activities on behalf of the mining title owners. The agreements, executed in June 2020 and January 2021, entail certain investments and exploration commitments by Collective Mining Colombia, as well as the future right of Collective Mining Colombia to opt to acquire the properties.

The agreements establish a total of $11.050 million in staged option payments over ten years as described in Table 4.3. A total of $2.25 million has been paid to date for the years 2020 to 2022 and the payments are up to date and the agreements are in good standing. The total exploration expenditure commitment derived from the agreements amounts to $13.0 million during the validity of the agreements. As a result of the payments, Collective Mining Colombia will be entitled to acquire 100% of the property of the tenements. During the execution of the agreements, the title holders are entitled to continue existing mining operations in the area of the tenements. These activities must be ceased once the payments have been completed at Collective Mining Colombia´s request. LH-0071-17 is subject to a 1% net smelter return (NSR) royalty payable to the current owner once commercial production is achieved. The NSR may be exchanged for a one-time payment of $8.0 million.

Concession application CAG-141x was filed by Mineros S.A., and is subject to a property purchase agreement with an outstanding payment of $25,000 subject to the condition precedent of it being granted as a mining title.

| Year | Amount (US$) | Payments made (US$) |
|---|---|---|
| 2020 | 350,000 | 350,000 |
| 2021 | 800,000 | 800,000 |
| 2022 | 1,100,000 | 1,100,000 |
| 2023 | 750,000 | |
| 2024 | 666,667 | |
| 2025 | 583,333 | |
| 2026 | 583,333 | |
| 2027 | 583,333 | |
| 2028 | 583,333 | |
| 2029 | 2,733,333 | |
| 2030 | 2,316,667 | |
| 2030 | 1% NSR or 8,000,000 | |

**Table 4.3 Yearly payments resulting from mining title option agreements.**

## 4.5 Royalties

Royalties payable to the state are 4% of gross value at the mine mouth for gold and silver and 5% for copper (Law 141 of 1994, modified by Law 756 of 2002). For the purposes of royalties, the gold and silver prices are set by the government and are typically 80% of the average of the London afternoon fix price for the previous month.

Concession LH-0071-17 is subject to a 1% net smelter return (NSR) royalty payable to the current owner once commercial production is achieved. The NSR may be exchanged for a one-time payment of $8.0 million as described in Table 4.3.

## 4.6 Legal Access and Surface Rights

The granting of a concession contract does not include a legal right of surface access, for which permission has to be obtained from the land owners or the community. Collective Mining does not own the surface rights over the Guayabales Project. However, the company holds access rights to lands belonging to the title holders associated with concession agreements LH0071-17 and 781-17, although they do not own all of the surface rights. Under the terms of the option agreements, the title holders are obliged to grant access to lands owned by them in the areas of the mining titles. In addition, the company has executed easement rights with different land owners in the Guayabales Project. The company currently holds easement rights to 30 lots of land that allow it carry out exploration activities. These consist of 7 lots of land used for 12 drill platforms; 3 lots of land for access to take water at Agua Clara, Arquia and Guayabales, the latter of which is part of the option agreement with the Guayabales Miners Association; and 20 lots of land for the hoses, pumps and storage tanks of two water lines, Agua Clara and Guayabales. The agreements are mostly for periods of 12 months with payment of a fee.

## 4.7 Water Rights

A Superficial Water Concession is required if water is to be taken from creeks or underground sources for drilling. The company has one Superficial Water Concession approved called Agua Clara, and two applications (Table 4.4). Water rights may take from 6 to 9 months to obtain. If needed, water can be purchased in bulk and trucked in tanks to the drilling areas.

| Water Permit Name | Status | Number | Date Granted |
|---|---|---|---|
| Agua Clara | Approved | Resolution No. 2022-0122 | January 2022 |
| Arquía | Application | Application No. 500-01-2022-0028 | |
| Quebrada San Jorge (Apollo 2) | Application | Application No. EI-00021580 | |

**Table 4.4. List of Superficial Water Concessions and applications for the Guayabales Project.**

## 4.8 Environmental Liabilities

The Guayabales Project has artisanal mining in four areas. Under Colombian law, existent artisanal mining will not be an environmental liability for Collective Mining. As good sustainability practice, the company has approached the local miners to evaluate joint opportunities and to evaluate the potential of the areas for exploration. The company has carried out environmental baseline studies to determine existing liabilities in the area, and continues to do so as it identifies local miners.

## 4.9 National Parks and Reserves

There are no national parks, reserves or other areas that exclude mining covering the Guayabales Project area.

## 4.10 Indigenous Reserves and Communities

Within the Municipality of Supia there is one indigenous reserve (*resguardo indígena* in Spanish), called the Cañamomo and Loma Prieta Reserve, and two indigenous partialities (*parcialidad indigena* in Spanish), called Cartama and La Trina, which are non-territorial indigenous communities, or in other words, they don't have any territory but they live according to their indigenous laws and customs. All three belong to the Embera Chami indigenous group. The partialities reside in certain areas that overlap with parts of Collective Mining's mining rights, but do not overlap with the current areas of exploration interest.

Exploration is permitted by law both in reserves and partialities, and in practice, would require an agreement with the relevant indigenous communities. In principle, a Prior Consultation for the environmental licensing for the exploitation phase would not be required for this project because there is no overlap of mining titles with indigenous reserves. However, a Prior Consultation may be required depending on the level of direct or indirect impact that a project may have with regard to a neighbouring reserve or a partiality.

## 4.11 Other

The author is not aware of any other significant factors and risks that may affect access, title or the right or ability to perform work on the property.

# 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

## 5.1 Accessibility

The Guayabales Project is located close to several major cities. It is 80 km south of Medellin (population 2.5 million), the capital of the Department of Antioquia and the second largest city in Colombia, 50 km north-northwest of Manizales (population 434,400), the capital of the Department of Caldas, 75 km north of Pereira (population 477,000), the capital of the Department of Risaralda, and about 190 km west-northwest of Bogotá (population 7.4 million), the capital of the Republic of Colombia.

Access to the Guayabales Project can be made by road from Medellin (152 km), Manizales (93 km) or Pereira (110 km). The company has a field office in the town of Supia (population about 26,000), about 5 km southwest of the property, as shown in Table 5.1 and Figure 5.1. From Supia access is by a secondary paved road that goes to Caramanta, and by local, unsurfaced roads.

| From | To | Route | Distance (km) |
|---|---|---|---|
| Medellin | La Pintada | Route 25 (tolls) | 79 |
| La Pintada | Supia | Route 25 (tolls) | 61 |
| Total | | | 140 |
| | | | |
| Manizales | Supia | Route 50 (tolls) | 81 |
| | | | |
| Pereira | Supia | Routes 29 and 50 (tolls) | 98 |
| | | | |
| Supia | Mediacaral | Secondary road to Caramanta, surfaced | 14.9 |
| Mediacaral | Guayabales | Local road, unsurfaced | 0.7 |
| Total | | | 12 |

**Table 5.1 The principal access routes from Medellin, Manizales and Pereira to Supia, and from Supia to the Guayabales Project.**

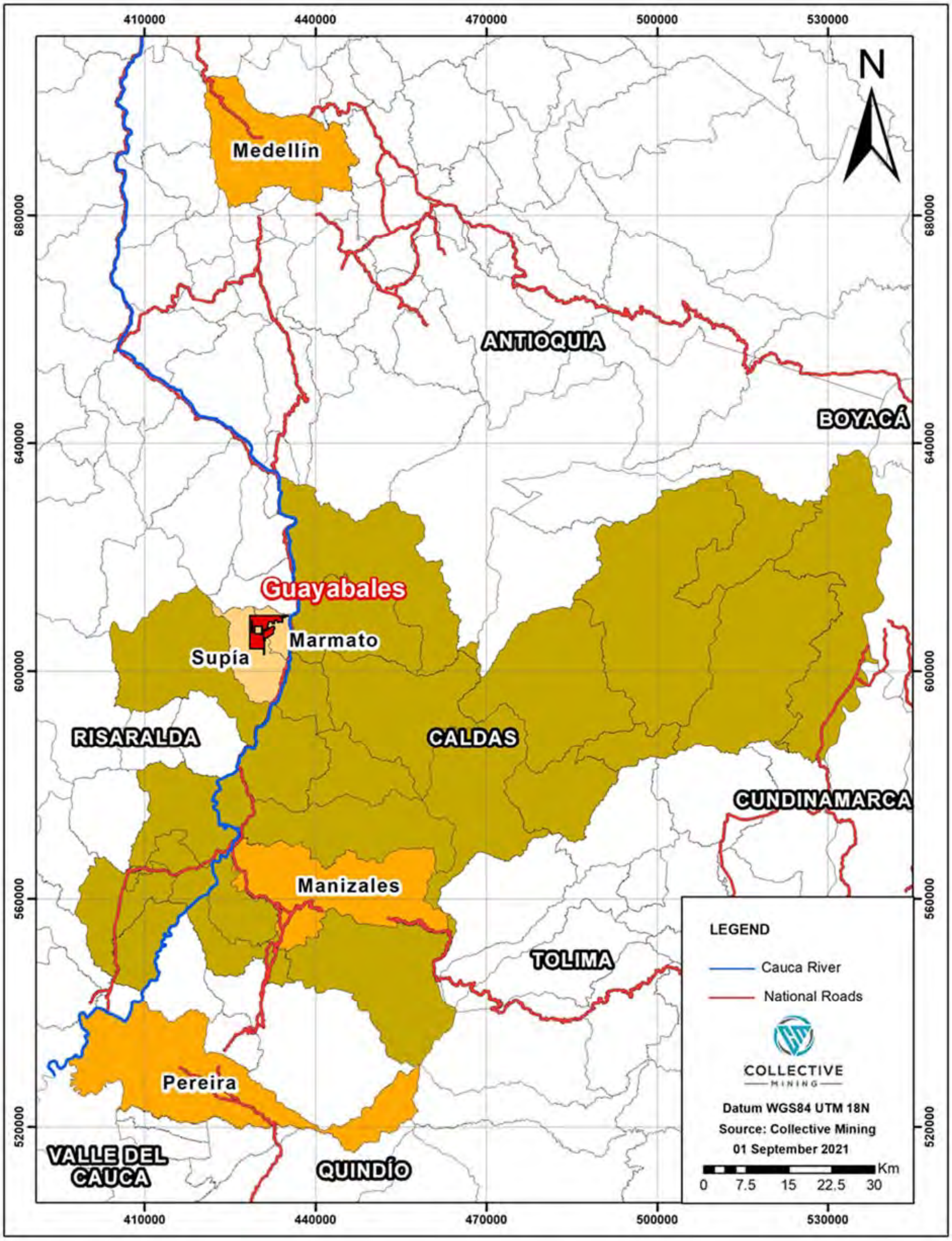



**Figure 5.1 Location and access map of the Guayabales Project.**

## 5.2 Climate

The Köppen climate classification for the Guayabales Project is Tropical rainforest climate (Af) which is characterised by constant high temperatures with an average of 18°C or higher for every month, and average rainfall of at least 60 mm every month. The nearest weather data is for Medellin where the average annual temperature is 22.5°C and varies little on a monthly basis between 21.8-23.1°C, while the average annual high temperature is 27.8°C, the average annual low temperature is 17.4°C, the average relative humidity is 67%, and the average annual rainfall is 1,752.3 mm and varies from 63.2 mm to 226.7 mm per month (1981-2010, Olaya Herrera Airport, Medellin; Wikipedia.org). Rainfall has a bimodal distribution with the wettest months from March to June, and again from September to November. Field work can be carried on the project out all year round.

## 5.3 Local Resources and Infrastructure

The Guayabales Project is located about 200 km east of the Pacific Ocean and 300 km south of the Caribbean Sea. The nearest port is Buenaventura on the Pacific Ocean. The nearest railhead is at Medellin. There are international airports at Medellin and Pereira, and a national airport at Manizales. The Medellin to Cali segment of the PanAmerican Highway, Route 25, runs through Supia, the base for the project.

The national electricity and natural gas grids run along the River Cauca valley about 3 km east of the project. They comprise three 230 kV power lines and a ten-inch diameter oil and gas pipeline with a capacity of 12,000 barrels per day.

Field personnel for the exploration program are available locally from towns and villages near the project. The district is expected to be able to supply the basic workforce for any future mining operation. There is an industrial underground gold mine operation at Marmato, and there is abundant artisanal mining in the region.

The region has high rainfall and there are ample water resources available.

The project lies within the tropical, moist forest to premontane wet forest ecological zones of the Holdridge Life Zone climatic classification system. The vegetation is tropical forest that has been partly cleared for pasture, with secondary forest growth. Land use is rough pasture for cattle, and coffee growing.

Collective Mining does not own any surface rights over the Guayabales Project. The project is at the exploration stage and it is too early to consider the location of surface rights that may need to be bought in the future. Likewise, it is too early to consider potential tailings storage areas, potential waste rock disposal areas or potential processing plant sites.

## 5.4 Physiography

The Guayabales Project lies on the eastern edge of the Western Cordillera and on the western side of the River Cauca valley. The project is located at altitudes between 800 and 2,250 masl. The Cauca is a major north-flowing river in a deep valley that separates the Western and Central Cordilleras. The river has an average flow rate of 500 to 600 cubic meters per second. It is a tributary of the River Magdalena that discharges into the Caribbean Sea at Barranquilla. Rock is exposed in streams, rivers, road cuttings and artisanal mines but elsewhere there is little exposure. The terrain is rugged and steep and is covered by forest with clearings for pasture.


**Figure 5.2. A general view of the physiography of the Guayabales Project looking southwest at the Apollo target from Drill Pad 2 and showing the drill access path and the location of other drill pads (S. Redwood).**


**Figure 5.3. A general view of the Guayabales Project looking north from the access road to the town of Caramanta on the far ridge (S. Redwood).**

# 6 HISTORY

The Marmato-Supia district, including Guayabales, was mined for gold since pre-Columbian times by the Quimbaya culture (600 BC – 1600 AD), who were highly skilled goldsmiths, during the Spanish colonial period (1534-1819), and during the republican period (1819 to present) (Gartner, 2005; Bray et al., 2021). The early history of Guayabales is not known. The recent history of the Guayabales Project begins in 1995 when the Guayabales Mining Community (*Comunidad Minera Guayabales*), also known as the Guayabales Miners Association (*Asociación de Mineros Guayabales*), started artisanal gold mining. It developed 16 small underground mines in the Encanto zone. It began the process to legalise ownership in 2002 and was granted ownership when the title to concession contract LH-0071-17 was registered on 28 March 2008. The total gold production is not known. The history of the Guayabales Project is summarised in Table 6.1.

| Years | Company | Work carried out | NI 43-101 reports |
|---|---|---|---|
| 600 BC to 21$^{st}$ Century AD | Quimbaya Culture (600 BC – 1600 AD) Spanish Colonial Period (1534-1819) Republic of Colombia period (1819-present) | The Marmato-Supia district, including Guayabales, was mined for gold since pre-Columbian times. | |
| 1995-present | Guayabales Mining Community | Artisanal gold mining in 16 underground mines. Legalisation started 2002. Mining title LH-0071-17 registered 28 March 2008. | |
| 2005-2006 | Colombia Gold plc, London | Underground sampling, surface rock sampling. | |
| 2006-2009 | Colombian Mines Corporation, Vancouver | Underground sampling, surface rock sampling, 17 diamond drill holes (DDH) for 2,079 m. | Thompson (2007) |
| 2010-2011 | Mercer Gold Corporation, Nevada | Underground and surface rock sampling, soil grid, geological mapping, 11 diamond drill holes for 4,067 m. | Turner (2010, 2011) |
| 2011-2013 | Tresoro Mining Corp., Nevada (name changed from Mercer Gold Corporation) | No work. Option expired 2012 or 2013. | Leroux (2012) |
| 2014-2019 | None | Exploration inactive | |
| 2020-present | Collective Mining Ltd., Toronto | Current exploration programme | Redwood (2021c) and this report |

**Table 6.1 Summary of the history of the Guayabales Project.**

From 2005-2013 the Guayabales project was explored for gold by three companies under option agreements with Comunidad Minera Guayabales. These were Colombia Gold plc in 2005, Colombian Mines Corporation (Colombian Mines) in 2006-2009, and Mercer Gold Corporation (Mercer Gold) in 2010-2012 (previously called Uranium International Corp.). Mercer Gold changed its name to Tresoro Mining Corp. in 2011 but it carried out no more exploration, the option expired for non-compliance on an undisclosed date in 2012 or 2013, and the company declared bankruptcy on 3 March 2014. NI 43-101 technical reports were written for Guayabales by Colombian Mines (Thompson, 2007), Uranium International Corp. (Turner, 2010), Mercer Gold (Turner, 2011) and for Tresoro by A.C.A. Howe International Limited (Leroux, 2012). Exploration carried out by these companies included geological mapping, soil sampling, rock sampling, and mapping and channel sampling of artisanal mines, and diamond drilling. In 2008 Colombian Mines drilled 17 holes for 2,079 m in the Encanto Zone, and in 2010-2011 Mercer Gold drilled 11 holes for 4,067 m in the Encanto Zone and to the northeast of this zone. Exploration was inactive from 2012-2020 until Collective Mining began the current exploration program.

Exploration of the Comunidad Minera Guayabales concession focused on the NW to WNW-trending Encanto Zone where 16 small gold mines are currently operated by Comunidad Minera Guayabales. The zone is a shear zone at least 500 m long and 20-40 m wide with gold-silver-polymetallic veins that were targeted by drilling. Porphyry stockwork veining mineralization is exposed in some road cuts shown by argillic and sericitic alteration overprinting quartz veinlet stockworks and hematite after magnetite veinlets, and was intersected in two historical drill holes. The results of the historical exploration and drilling are reported in Sections 9.1 and 10.1.

# 7 GEOLOGICAL SETTING AND MINERALIZATION

## 7.1 Regional Geology

The Guayabales Project is located in the Western Cordillera of the Colombian Andes in the late Miocene Middle Cauca Gold-Copper Belt (Figure 7.1). The project occurs in the Romeral terrane, an oceanic terrane comprising a melange of metabasalts, amphibolites, serpentinites, graphitic schist, biotite schist, sericite schist and chlorite schist that are called the Arquía Complex of probable Late Jurassic to Early Cretaceous age (Cediel & Cáceres, 2000; Cediel et al., 2003). This terrane was accreted to the continental margin along the Romeral Fault in the Aptian. Movement on the Romeral Fault was dextral indicating that terrane accretion was highly oblique from the southwest. The terrane is bounded by the Cauca-Patia Fault on the west side. Further west, additional oceanic and island arc terranes were subsequently accreted to the Western Cordillera in the Paleogene and Neogene periods, culminating in the on-going collision of the Panamá-Choco arc since the late Miocene. This reactivated the Cauca-Patia and Romeral faults with left lateral and reverse movements (Cediel & Cáceres, 2000; Cediel et al., 2003). The Romeral terrane is partially covered by continental sediments of the middle Oligocene to late Miocene age Amagá Formation, comprising gray to green colored conglomerates, sandstones, shales and coal seams, and by thick subaerial basaltic to andesitic volcanic and sedimentary rocks of the late Miocene Combia Formation. Epithermal Au-Ag-Zn and porphyry Au-Ag-Cu-Mo mineralization in the Middle Cauca Gold-Copper Belt is related to clusters of late Miocene porphyry intrusions of diorite to tonalite composition, and intrusive breccias (Figure 7.2). These are described in Section 15.

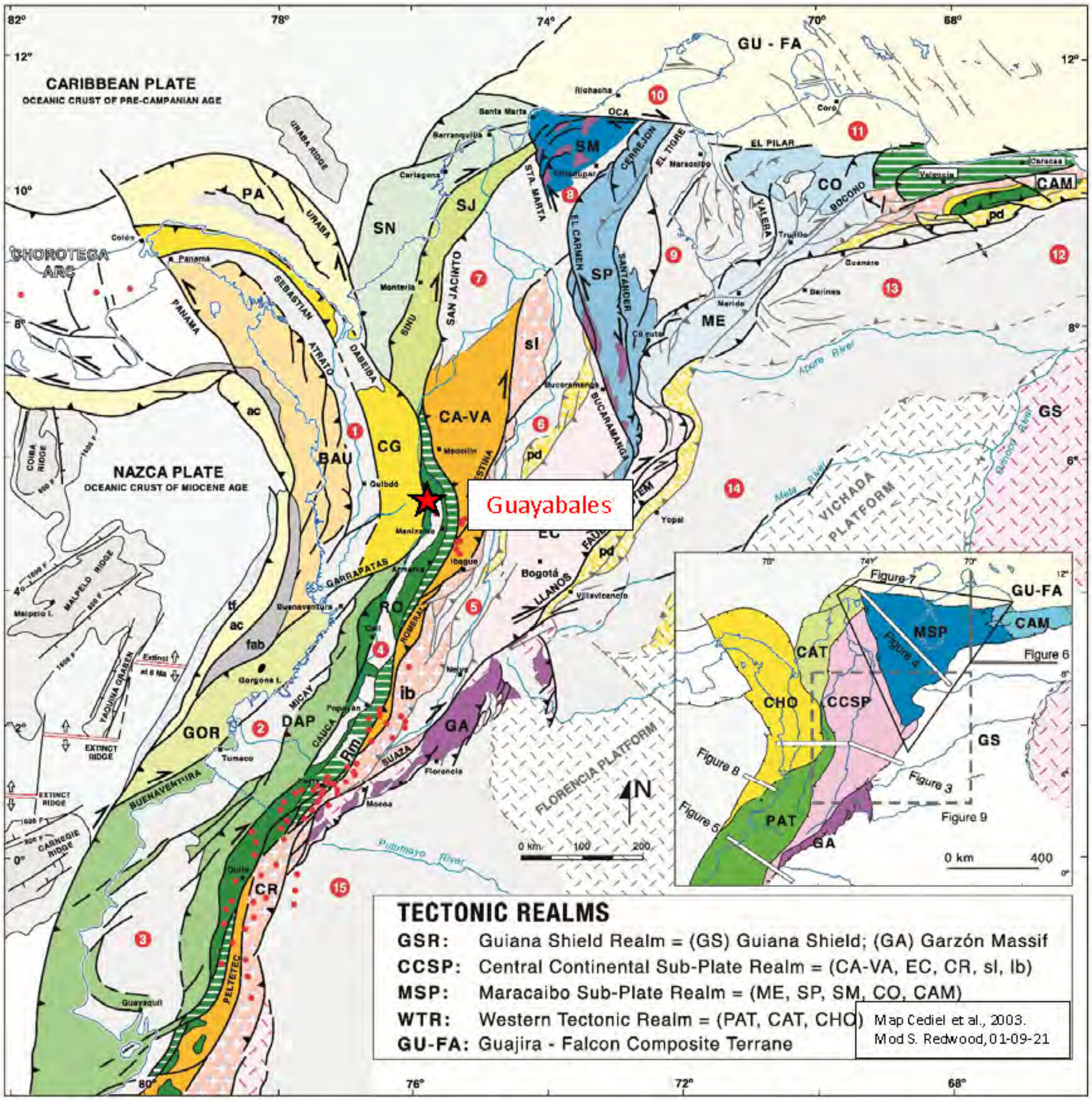



**Figure 2.** Lithotectonic and morphostructural map of northwestern South America. GS = Guiana Shield; GA = Garzón massif; SP = Santander massif–Serranía de Perijá; ME = Sierra de Mérida; SM = Sierra Nevada de Santa Marta; EC = Eastern Cordillera; CO = Carora basin; CR = Cordillera Real; CA-VA = Cajamarca-Valdivia terrane; sl = San Lucas block; ib = Ibagué block; RO = Romeral terrane; DAP = Dagua-Piñón terrane; GOR = Gorgona terrane; CG = Cañas Gordas terrane; BAU = Baudó terrane; PA = Panamá terrane; SJ = San Jacinto terrane; SN = Sinú terrane; GU-FA = Guajira-Falcon terrane; CAM = Caribbean Mountain terrane; Rm = Romeral mélange; fab = fore arc basin; ac = accretionary prism; tf = trench fill; pd = piedmonte; 1 = Atrato (Chocó) basin; 2 = Tumaco basin; 3 = Manabí basin; 4 = Cauca-Patía basin; 5 = Upper Magdalena basin; 6 = Middle Magdalena basin; 7 = Lower Magdalena basin; 8 = Cesar-Ranchería basin; 9 = Maracaibo basin; 10 = Guajira basin; 11 = Falcon basin; 12 = Guarico basin; 13 = Barinas basin; 14 = Llanos basin; 15 = Putumayo-Napo basin; Additional Symbols: PALESTINA = fault/suture system; red dot = Pliocene-Pleistocene volcano; Bogotá = town or city.

**Figure 7.1 Regional tectonic and terrane map of Colombia showing the location of the Guayabales Project (Cediel et al., 2003).**

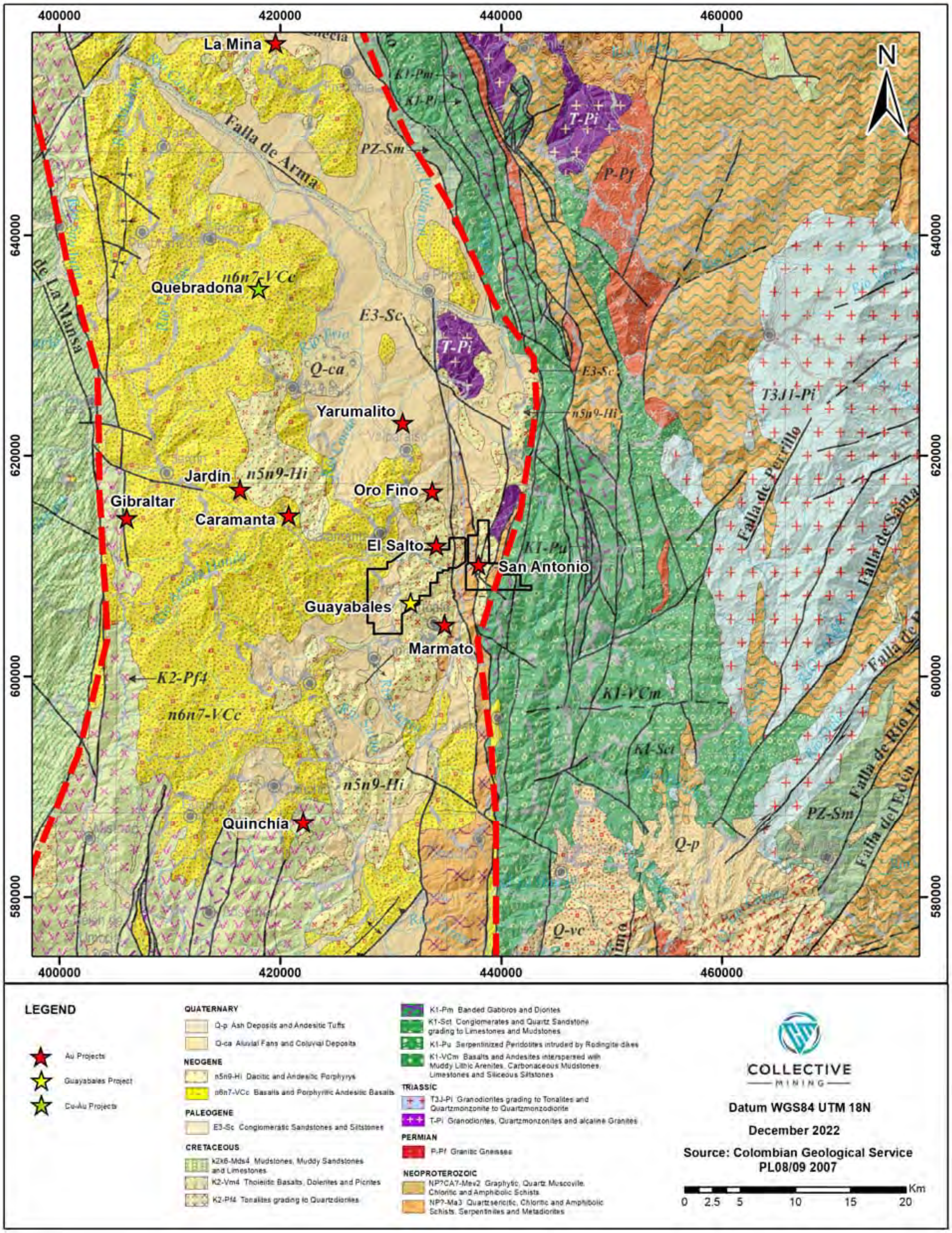



**Figure 7.2 The geology and major gold deposits of the Middle Cauca Gold-Copper Belt showing the location of the Guayabales Project.**

## 7.2 Local Geology

The local geology comprises basement chlorite, sericite and graphitic schist of the Late Jurassic to Early Cretaceous Arquia Complex, basalts of the late Miocene Combia Formation, several types of porphyry intrusions, and late to post-mineral basalt dykes (Figure 7.2). Sedimentary rocks of the Oligocene to lower Miocene Amagá Formation occur to the west. They are unconformable on the schists and have a basal conglomerate followed by sandstone with carbonaceous beds, carbonaceous mudstone and claystone with lenses of sandstone. It is overlain by volcano-sedimentary rocks of the late Miocene Combia Formation (9-4 Ma) of basaltic to andesitic composition that locally exceeds 1,000 m in stratigraphic thickness (Leal-Mejía et al., 2019). The Amagá and Combia Formations were deposited in a pull-apart basin in the Cauca-Patia intermontane basin. The central part of the Middle Cauca Gold-Copper Belt coincides with the depocenter of the Combia Formation, which are the contemporaneous volcanic rocks related to and cut by the late Miocene porphyry intrusions and related gold-copper mineralization.

## 7.3 Property Geology

### 7.3.1 Targets

A geological map of the main area of the Guayabales Project that has been explored is shown in Figure 7.3. Eight targets have been defined by geochemistry: these are Apollo (previously called Encanto), ME (Marmato Extension, previously called Guayabales), Olympus (previously called La Llorona), The Box, Donut, Plutus (previously called Donut SE), Trap (previously called Victory Central) and Victory (previously called Victory East). Six targets have been drill tested in the Phase 1 drill program: Apollo, Olympus, The Box, Donut, Trap and Victory West.

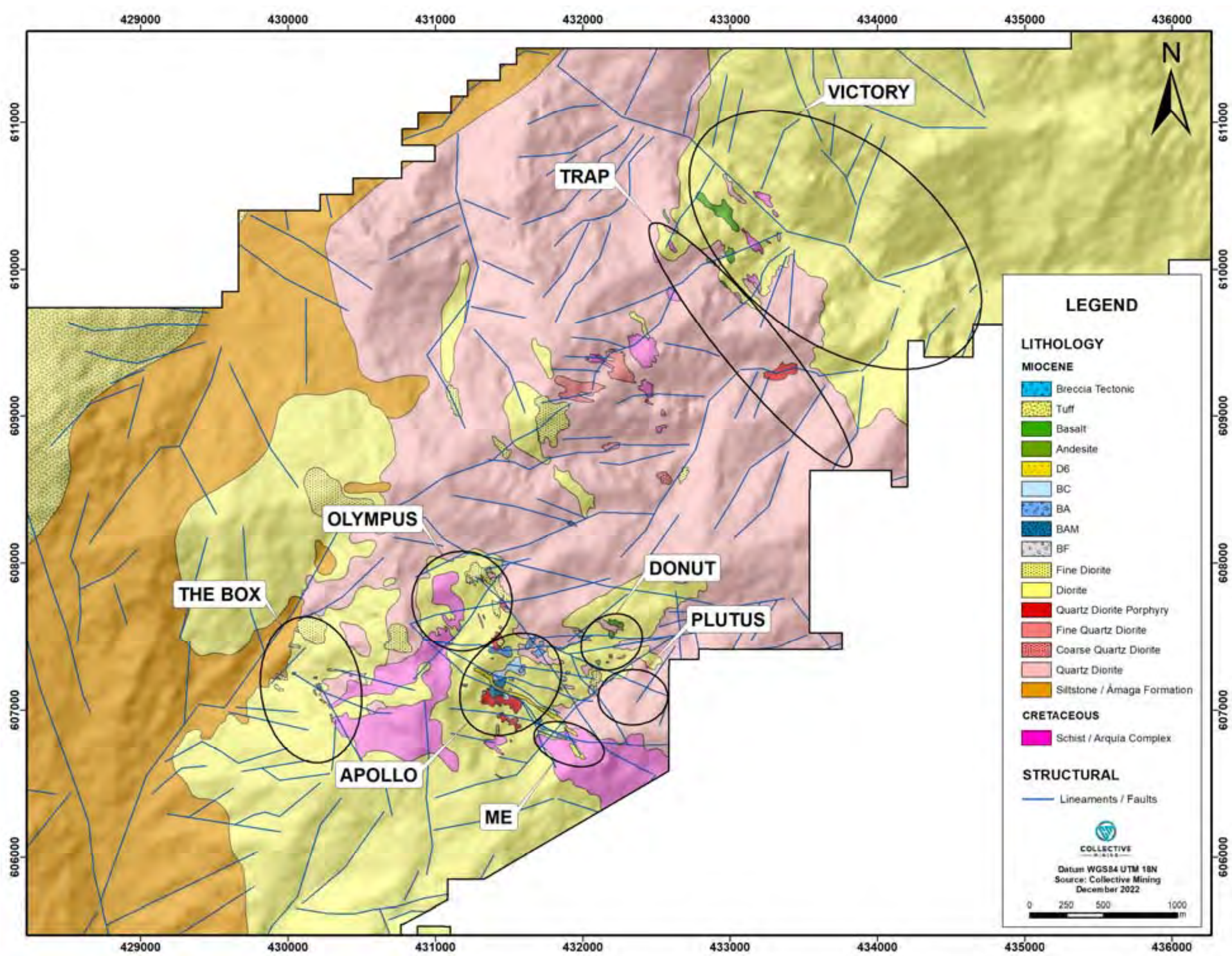



**Figure 7.3. Geological map of the Guayabales Project showing targets.**

### 7.3.2 Lithology

The geology of the Guayabales Project is shown on a map in Figure 7.3 and the principal lithologies are described in Table 7.1. These are based on mapping by Collective Mining and core logging. The project area is over 95% covered with soil, volcanic ash, saprolite, vegetation and landslides, and due to the lack of outcrop the mapping is necessarily generalized and interpretative.

The project area is characterised by Miocene diorite and quartz diorite stocks and breccias intruded into chlorite, sericite and graphite schists of the Cretaceous Arquia Complex, with remnant outliers of Miocene Combia Formation lavas and tuffs of basalt to andesite composition. The Miocene stocks are flanked on the west side by siltstones of the Oligocene-Miocene Amaga Formation.

There are multiple phases of fracturing with older, roughly NS structures displaced by NW-WNW trending structural corridors and finally, by late EW structures. A major NW trending structural corridor crosses the centre of the project area and includes the Encanto shear system as well as the Donut, Apollo and Olympus targets. This structure is the NW extension of the Marmato-Aguas Claras mineralized trend.

Gold, silver, copper and molybdenum mineralization is related to porphyry systems and they are overprinted by polymetallic veins with gold, silver, copper, lead and zinc trending NW-WNW and EW. The alteration includes potassic and sericite-chlorite. The late vein overprints are associated with intense phyllic alteration which is characterised by sericite and pyrite.

| Lithology | Description |
|---|---|
| Tectonic Breccia | Milled rock in fault zones of white colour with gouge, clay, sericite and sometimes with disseminated pyrite and other sulphides. |
| Diorite coarse grained (D6) | Diorite hypocrystaline, sub-phaneritic, sub-euhedral, sub-idiomorphic, mesocratic of intermediate composition, inequigranular porphyritic texture with phenocrysts of plagioclase >5mm (very coarse grain size) and 20% plagioclase by volume. |
| Mineralized Angular Breccia (BAM) | Collapse-type breccia that is clast-supported, showing variations from monomict to polymictic, with clasts of diorite, quartz diorite and occasionally schist. It is cemented by Fe and Cu sulfides, predominantly pyrite, chalcopyrite and pyrrhotite. Laterally there is mineralization of carbonates, sphalerite, galena, and towards the upper zones arsenopyrite is present. The Zn, Pb and As sulphides are structurally controlled and occasionally visible gold is present. |
| Angular Breccia | Breccia generated by decompression and could also be the transition between BAM and BF. Mostly monomict with variation to polymictic, clast-supported with clasts of schist, quartz diorite and diorite, cemented mainly by chlorite and sericite, sometimes with carbonates disseminated in cement. |
| Crackle Breccia (BC) | This is formed by crackling, is clast-supported, generally monomict. There is no transport shown in the clasts. Sheeted fractures are common. The clasts are usually, quartz diorite and diorite. The amount of cement is minor, mainly sericite and chlorite. |
| Fluidized breccia (BF) | Polymictic breccia with rock flour matrix, matrix supported, there is evidence of more transport than the BAM and clasts are subrounded. The clasts are mostly quartz diorite and diorite. It appears to be the first breccia event. |

| **Lithology** | **Description** |
|---|---|
| Intrusion Breccia | Polymictic breccia with subangular clasts of diorite, quartz diorite, siltstone and schist, in a matrix of fine grained porphyritic diorite with plagioclase phenocrysts. |
| Basalt | Small mafic bodies of dark greenish colour with an aphanitic texture. |
| Andesite | Small bodies of dark grey colour, fine grained with phenocrysts of plagioclase 30% and mafic minerals 7%. |
| Porphyritic Andesite | Dykes and small bodies andesite with medium to coarse grained plagioclase phenocrysts 30% in an aphanitic groundmass of dark gray color. |
| Fine Diorite Porphyry | Dark to light gray coloured, porphyritic texture, fine grain size, plagioclase 35% to 40%, quartz <5% and hornblende 7%. |
| Diorites | There are multiple types of diorite with textural variations in the ratio of phenocrysts to groundmass and crystal sizes. They are dark to light gray colour, porphyritic texture, medium grain size, plagioclase 35%-60%, quartz <5% and mafics 7%-10% (hornblende and euhedral biotite). |
| Quartz Diorite | There are multiple quartz diorites with textural variations in the ratio of phenocrysts to groundmass and crystal sizes. They are dark to light gray colour, porphyritic texture, medium to coarse grain size, plagioclase 35% to 45%, quartz 5% to 15% and mafics 5% to 10% (euhedral biotite and hornblende). |
| Tuff | Volcano-sedimentary sequence with agglomerates and fine tuff beds. |
| Siltstone | Sedimentary rocks of purple to dark brown color of fine grain size. |
| Schist | Fine grained, grey to black colored rock with a schistose texture, some have quartz segregations and others are without quartz. |

**Table 7.1. Description of the main lithologies in the Guayabales Project.**

The host rocks are several different phases of diorite and quartz diorite porphyry. The diorite has phenocrysts of plagioclase and hornblende. The grain size and percentage of phenocrysts varies, and a crowded porphyritic texture is common. The quartz diorite porphyry has phenocrysts of biotite and hornblende that are often replaced by sulphides, and 30% plagioclase, 5-10% quartz eyes with a microcrystalline quartz - K feldspar groundmass.

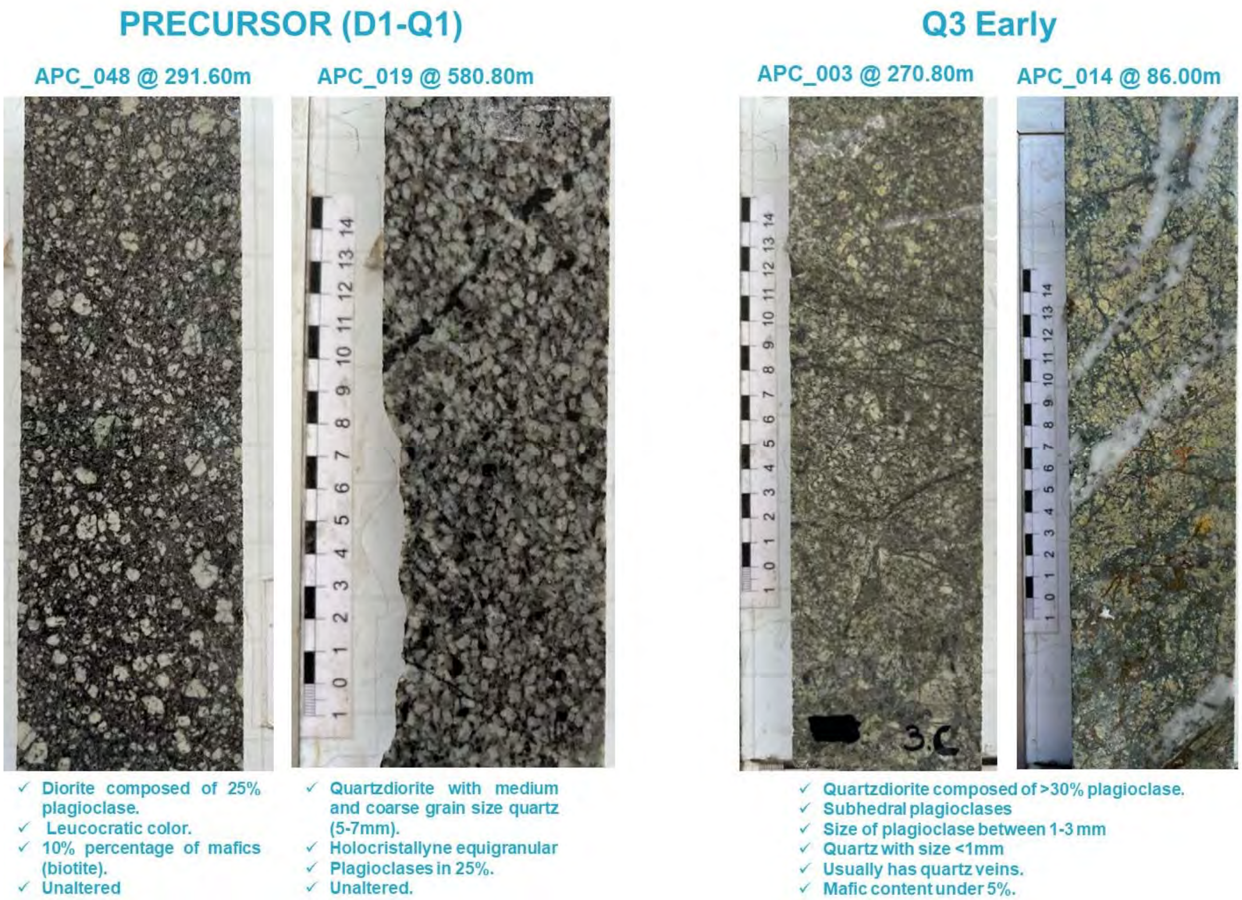



**Figure 7.4. Core photos of the precursor and early porphyries at the Apollo Porphyry System.**

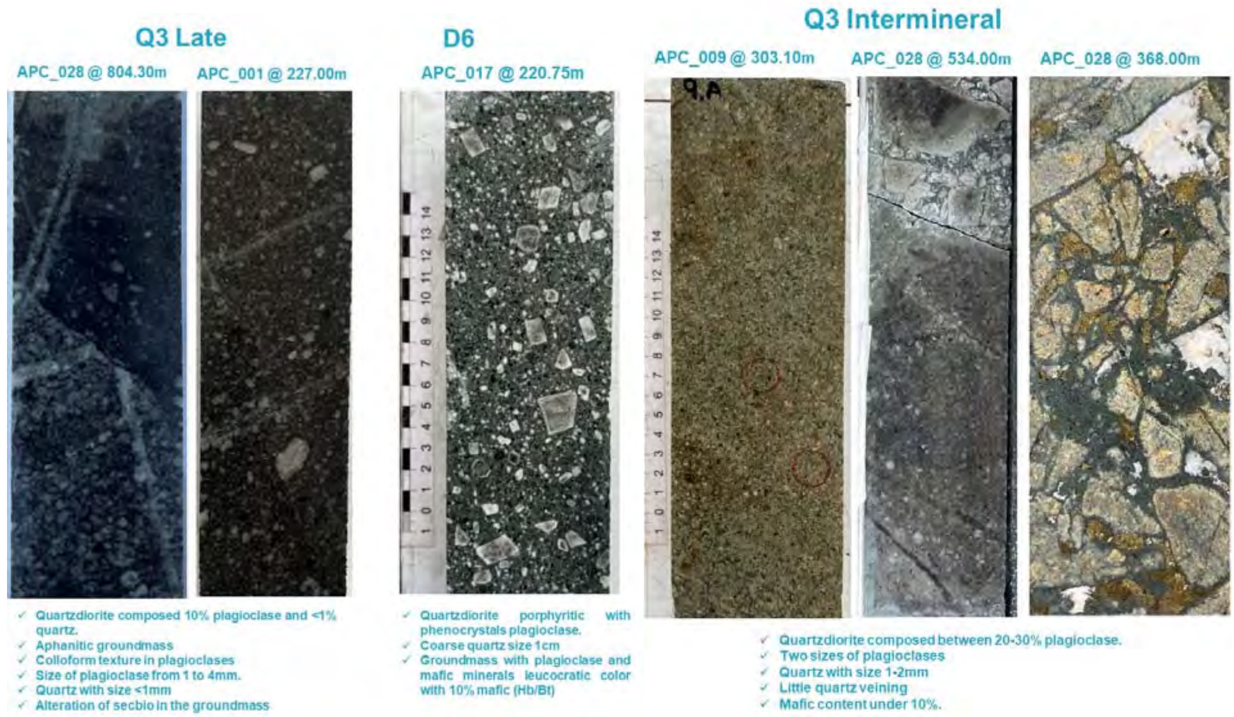



**Figure 7.5. Core photos of the intermineral, late mineral and post mineral porphyries at the Apollo Porphyry System.**

### 7.3.3 Alteration

Potassic, propylitic, sericitic and sericite-chlorite alteration are present in the area with different level of intensity and controls. The potassic alteration is characterised by replacement of the mafic minerals by secondary biotite, magnetite and sometimes epidote. These minerals are also associated with quartz veins, and secondary biotite has been identified in vein halos. Epidote-chlorite alteration is mainly characterized by overprinting mafic minerals located on the outer zones of the potassic alteration. Strong sericite-illite alteration is related to the late stage high grade polymetallic veins and can affect all lithologies. It is the main alteration at Olympus and Donut.

#### *7.3.3.1 Secondary biotite*

Secondary biotite alteration occurs mainly in diorites, quartz diorites and schists. It is pervasive in schists while in igneous units, it appears as replacement of primary mafic minerals. Dc-30 diorite displays greater intensity in the groundmass. Quartz diorite is the only unit that records the mineral assemblage for potassic alteration itself (secondary biotite-magnetite-feldspar) and it is present in weak intensity.


**Figure 7.6. Left: Secondary biotite alteration in porphyry diorites replacing mafic minerals and in groundmass. Right: Selective secondary biotite alteration in schists.**

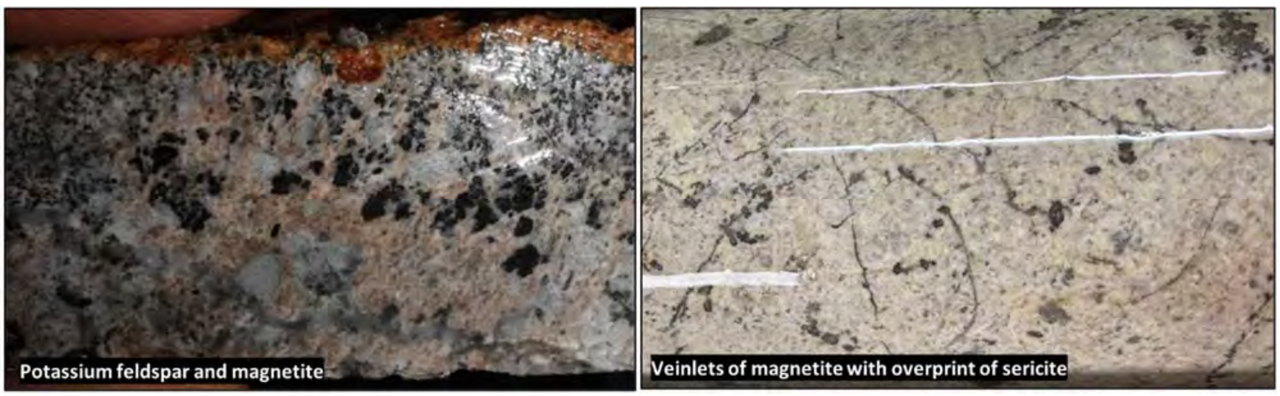



**Figure 7.7. Left: Potassium feldspar and magnetite in quartz diorites with sericite overprint. Right: Magnetite veinlets in quartz diorites with sericite alteration overprint.**

#### *7.3.3.2 Sericite-chlorite*

The main alteration in the Apollo target sericite-chlorite which appears as an overprint on the secondary biotite alteration. The greatest intensity of this alteration is in the breccia cements (BAM, BA, BC, BF), and it is present in both mineralized and non-mineralized zones.

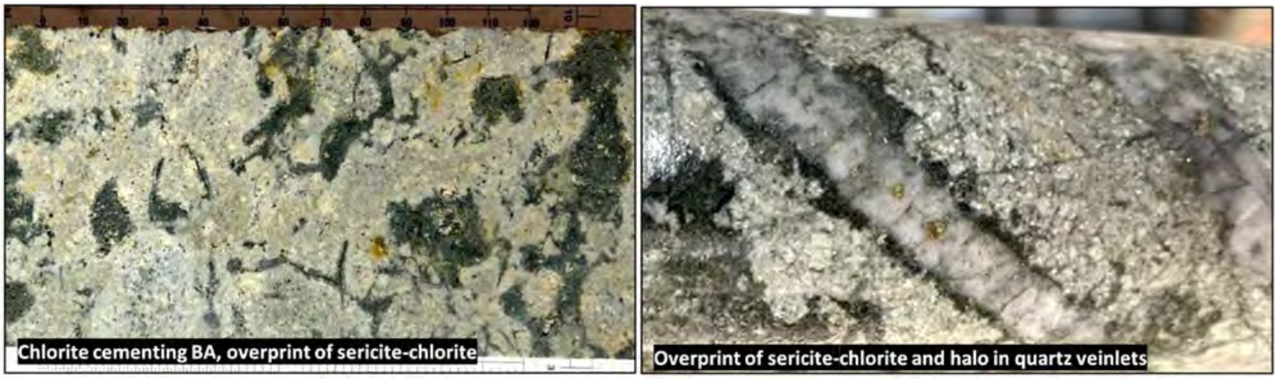



**Figure 7.8. Left: chlorite cementing angular breccia, with strong sericite overprint in clasts and cement. Right: Sericite-chlorite in quartz diorite as a halo in granular quartz veinlets.**

### *7.3.3.3 Sericite*

Sericite displays different levels of intensity, occurring more strongly in fault zones and near polymetallic mineralization, associated with structures.

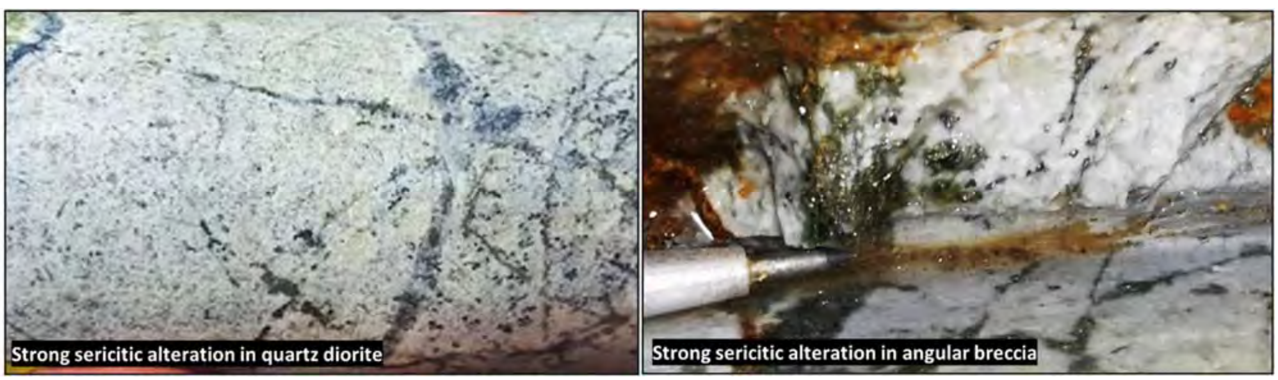



**Figure 7.9. Left: Strong sericite alteration in quartz diorite. Right: Strong sericite alteration with sulfides hosted in angular breccia.**

### *7.3.3.4 Chlorite*

Chlorite alteration is mostly found with sericite alteration in the zone of mineralization. Chlorite is associated with mafic minerals and carbonates, and it is most intense in cement and surrounding clasts in mineralized and non-mineralized breccias.

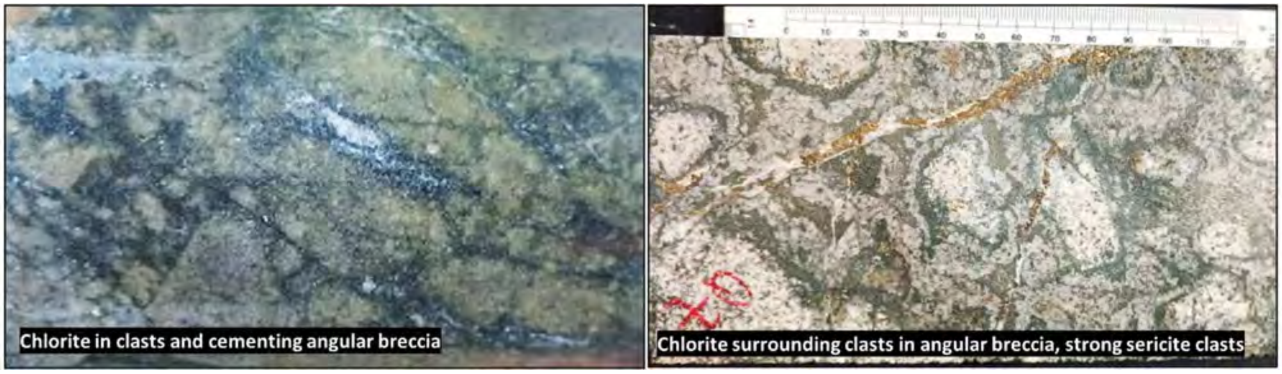



**Figure 7.10. Left: Chlorite alteration in clasts and cementing angular breccia. Right: Chlorite alteration surrounding clasts in angular breccia.**

### 7.3.4 Mineralization

Three styles of mineralization occur in the project: porphyry, breccias and polymetallic veins.

#### *7.3.4.1 Porphyry-type mineralization*

The porphyry-type mineralization is related to high densities of quartz veinlets between 5% and 20% in volume, with magnetite and sulphides including pyrite, molybdenite and chalcopyrite in traces. These minerals are present as suture and cross cutting quartz veinlets of A, AB, B and M type.

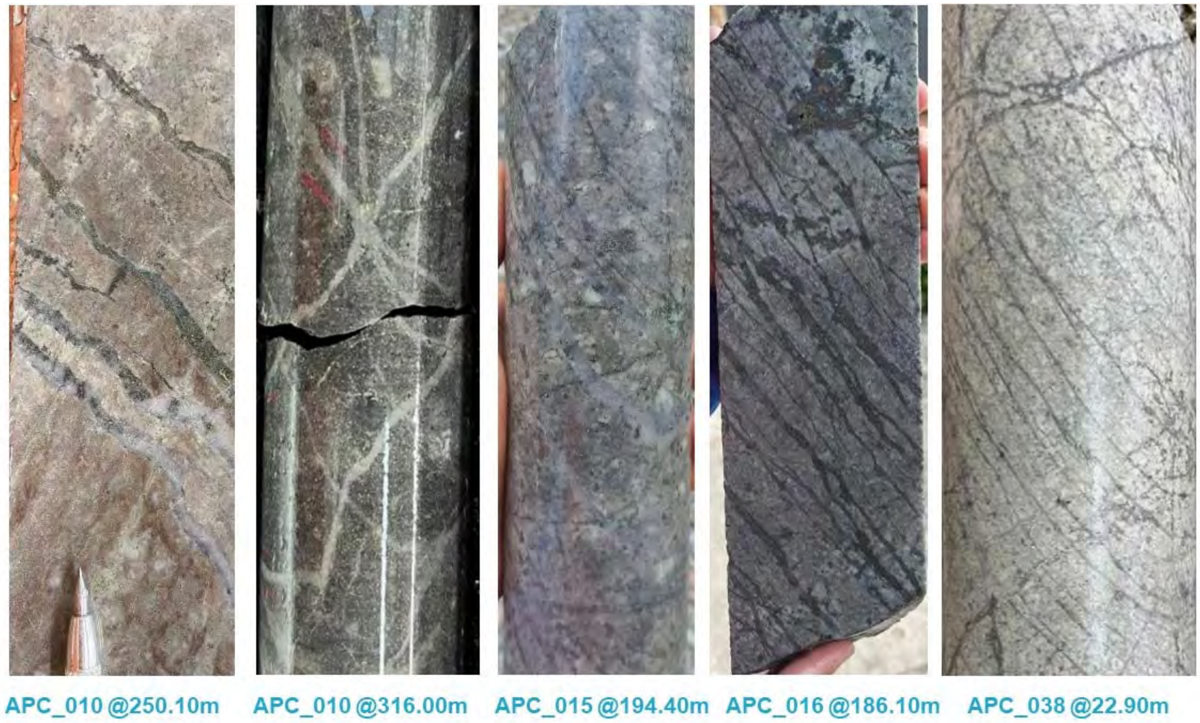



**Figure 7.11. Porphyry veinlet types, Apollo target.**

**Left: Quartz diorite porphyry with quartz veinlets with suture with chalcopyrite and molybdenite (APC-10). Center: sugary quartz veins with densities of 8-10% (APC-15) and 10-20% (APC-16). Right: sheeted quartz veinlets with densities up to 20% (APC-38).**


**Figure 7.12. Left: Quartz diorite with granular quartz veinlets and sulphides (pyrite, molybdenite, chalcopyrite), secondary biotite in groundmass. Right: possible unidirectional solidification texture (UST) veins cut by granular quartz veinlets, sulphide mineralization (pyrite, molybdenite, chalcopyrite).**

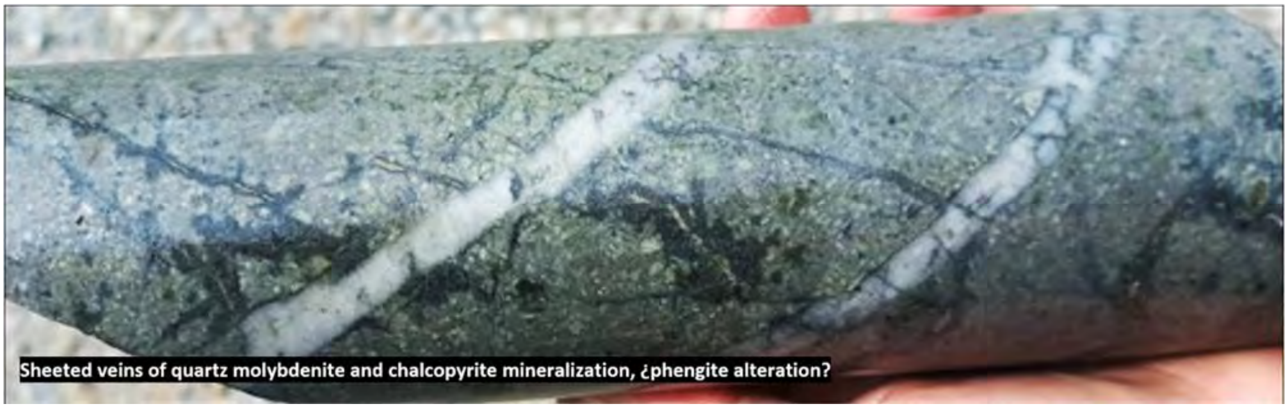



**Figure 7.13. Sheeted veins with molybdenite mineralization, disseminated chalcopyrite, apparent phengite alteration.**

### *7.3.4.2 Breccias*

Breccias vary from cement-supported to clast-supported, and are cemented by an aggregate of sericite, carbonates, sulphides, quartz and rock flour. They have strong sericitic alteration of both clasts and cement, as well as having subangular to sub-rounded fragments with high vein densities of quartz + magnetite or of K-feldspar + magnetite. The main sulphides are pyrite, chalcopyrite and pyrrhotite at deeper levels. They show strong oxidation to hematite and jarosite on surface and have anomalous Au, Ag, Cu and Mo values. The Apollo target has important breccias.

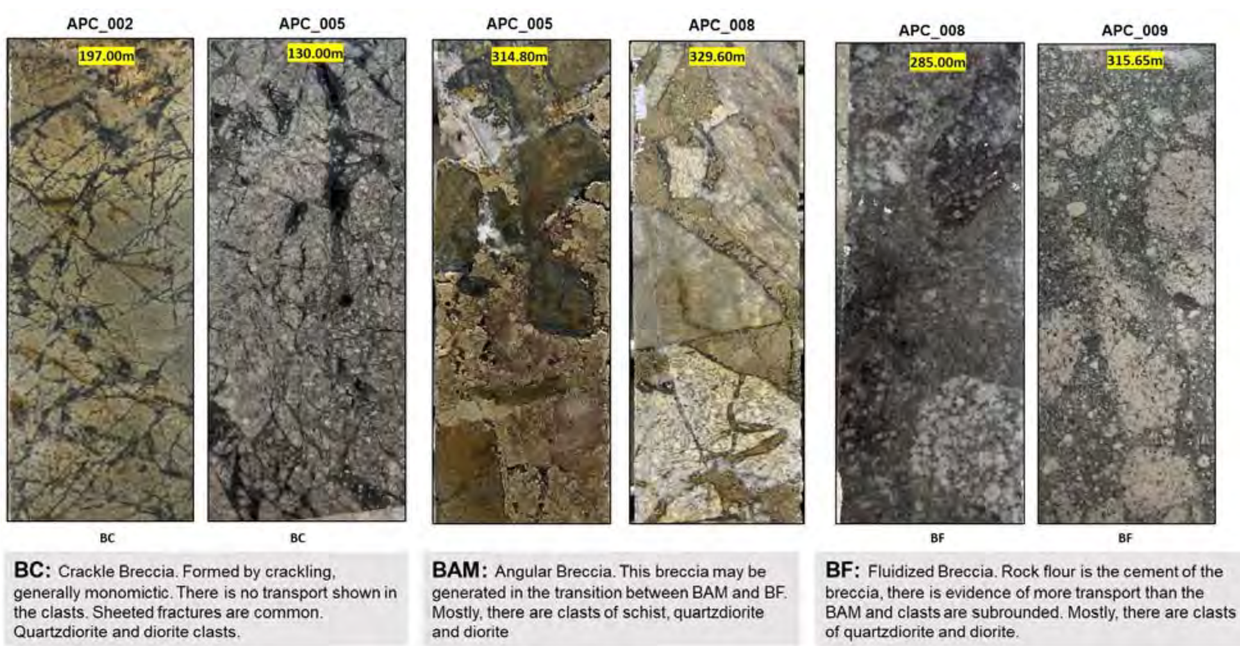



**Figure 7.14. Breccia types at the Apollo target associated with porphyry-type mineralization.**

#### *7.3.4.3 Polymetallic Veins*

Polymetallic carbonate-base metal veins (CBM) are related to late structures such as shear zones and are formed of sphalerite, galena, pyrite and carbonates with sericite alteration. The major structures are related to the regional WNW trend. The vein thickness ranges from 0.5 m to 2.5 m in some cases form important mineralized zones. Polymetallic veins occur at all targets.

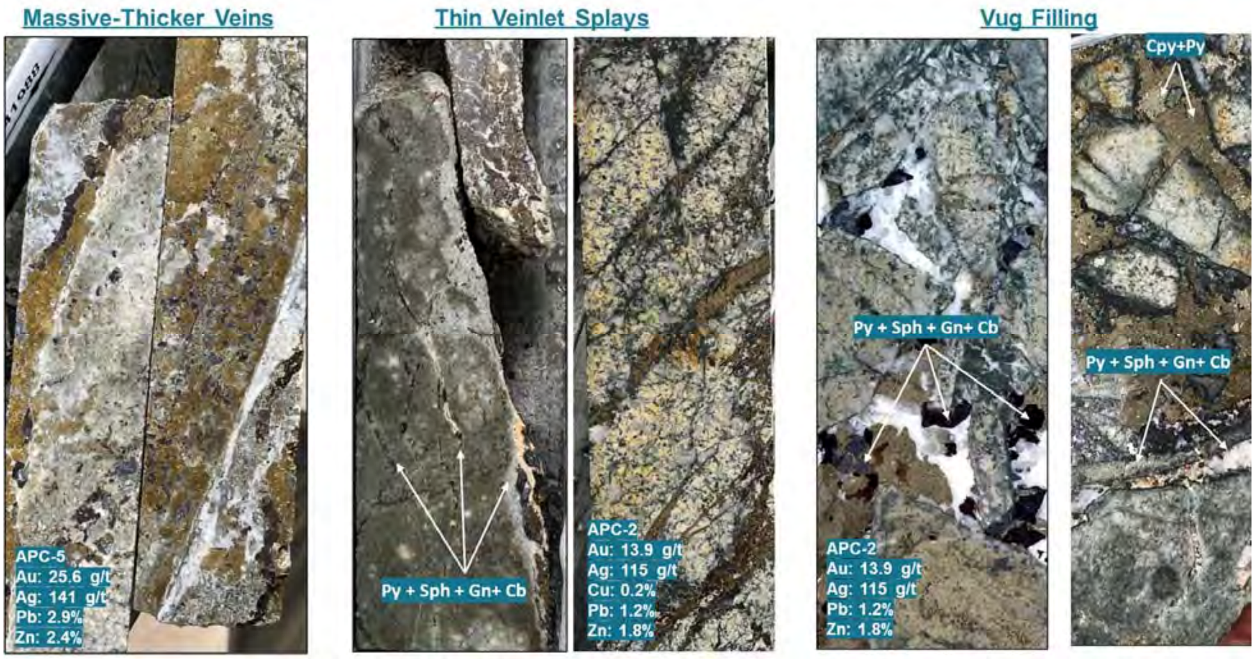



**Figure 7.15. Polymetallic carbonate base metal (CBM) veins in the Apollo target.**

### 7.3.5 Apollo Target

The Apollo target has silver-copper and gold associated with a porphyry system with breccias, and late carbonate-base metal veins (CBM) with sphalerite, galena, and gold. The geology comprises multiple phases of diorite and quartz diorite porphyry. The system has an area defined to date by surface mapping of about 1,000 m by 1,200 m. The breccia has an area of 385 m by 320 m. The target has been drilled to 915 m depth. There are three phases of mineralization: 1) magnetite-quartz-chalcopyrite formed at high temperature; 2) pyrite-chalcopyrite-pyrrhotite with quartz formed at medium temperature; and 3) CBM veins with sphalerite, galena, pyrite, As and Te formed at low temperature.

The Apollo target has quartz diorite porphyry clasts in the breccias which host the stage 0 mineralization. Small schist bodies are present in the area but are insignificant in terms of volume.

There is a late dioritic intrusion as a dike and of considerable continuity that cuts the mineralized zone.

The dominant alteration is sericite-chlorite, it overprints the chlorite that is surrounding clasts. The sericite alteration is strong when associated with polymetallic style veins. The occurrence of alteration with potassic assemblage is scarce, however it was recognized in the quartz diorite to the south of the target. Alteration to potassic feldspar, magnetite and biotite replacing mafic minerals has been recognised with a moderate sericite alteration overprint.

The mineralization of the Apollo breccia presents several events spaced temporally and with clear differences in the style of mineralization. The event with greater extension and higher grade is the one that cements the hydrothermal breccias, it is also disseminated and has a variation in the vertical dimension, being enriched in chalcopyrite, pyrite and traces of molybdenite towards the shallower zone. At depth, there is a decrease of chalcopyrite and increase of sphalerite and galena, however the occurrence of these polymetallic style is associated with subsequent and structurally controlled event with a WNW orientation. Seven more breccia bodies with anomalous Au, Ag, Cu and Mo geochemistry were discovered subsequent to the effective dates of this report by excavations to build new trails for drill access. These breccias occur around the main drilled breccia body in a zone with approximate dimensions of 750 m EW by 650 m NS (Figure 7.16). It is planned to drill these new breccia targets in the Phase 2 drill program.

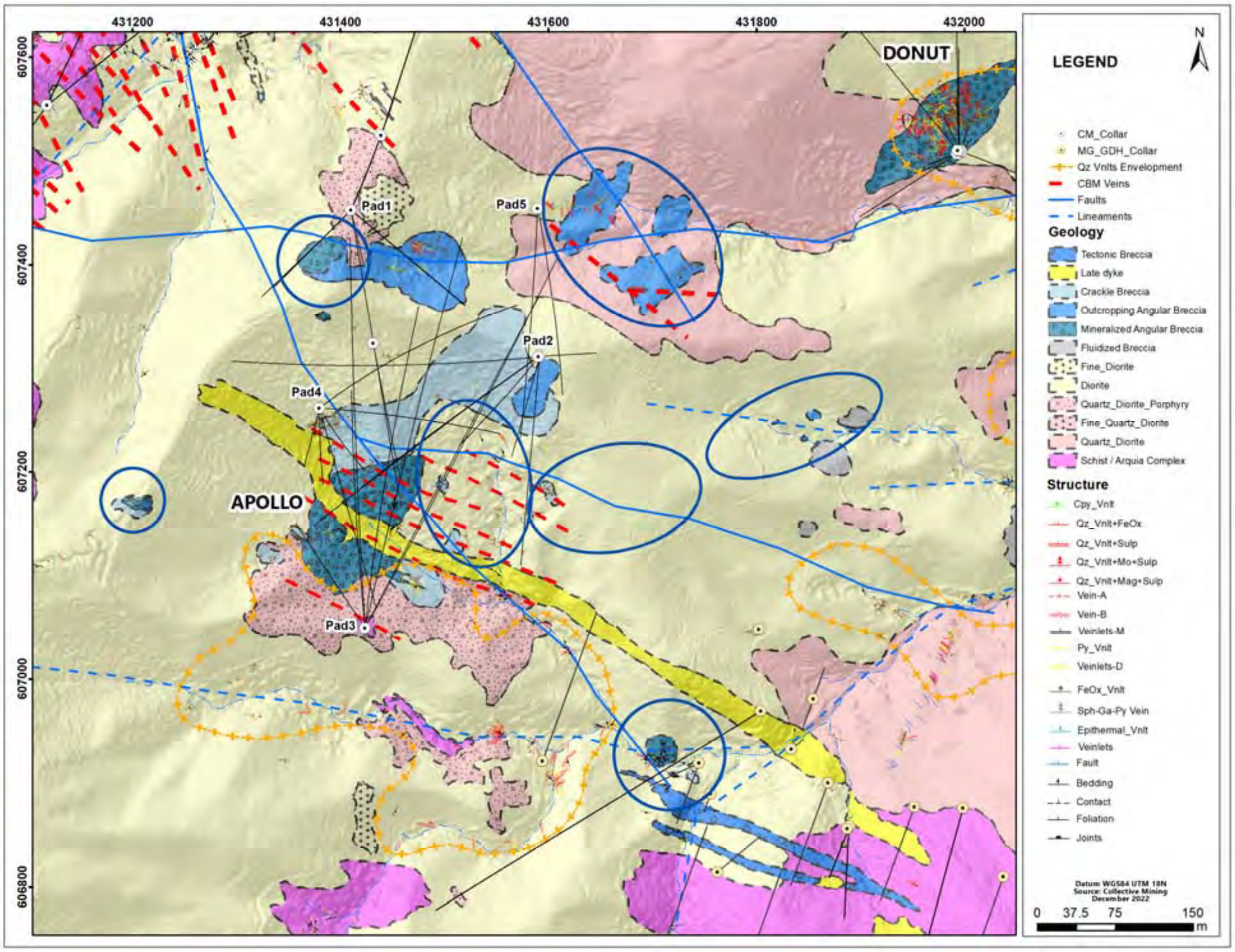



**Figure 7.16. Geological map of the Apollo target showing the Collective Mining drill hole traces and seven newly discovered breccia bodies around the main breccia body.**

A model for the Apollo Porphyry System is shown in Figure 7.17 and typical core photos of lithology, alteration and mineralization for each stage are shown in Figure 7.18 to Figure 7.20.

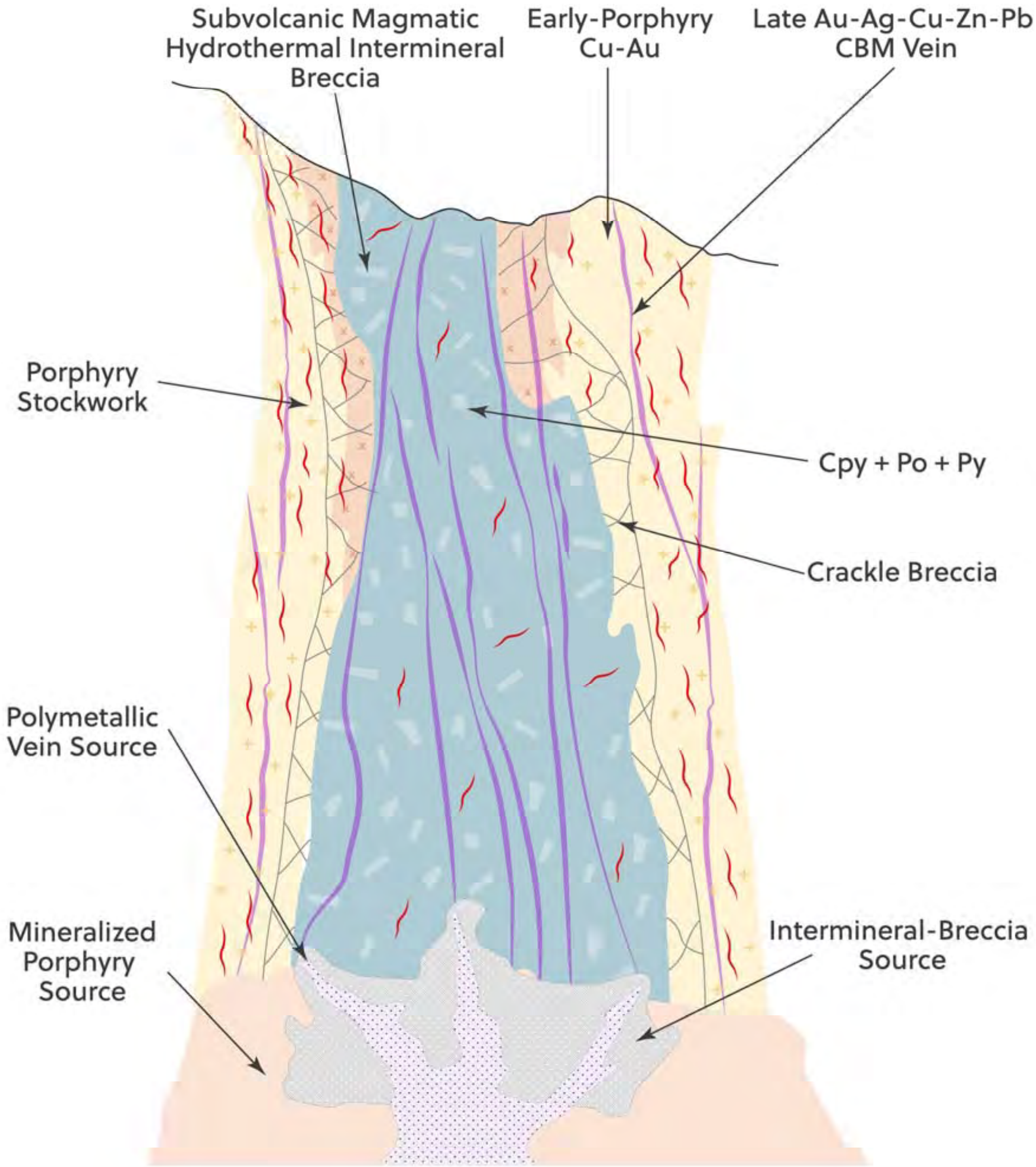



**Figure 7.17. Schematic cross section of the Apollo Porphyry System showing the relationship between early porphyries, intermineral breccias and late veins.**

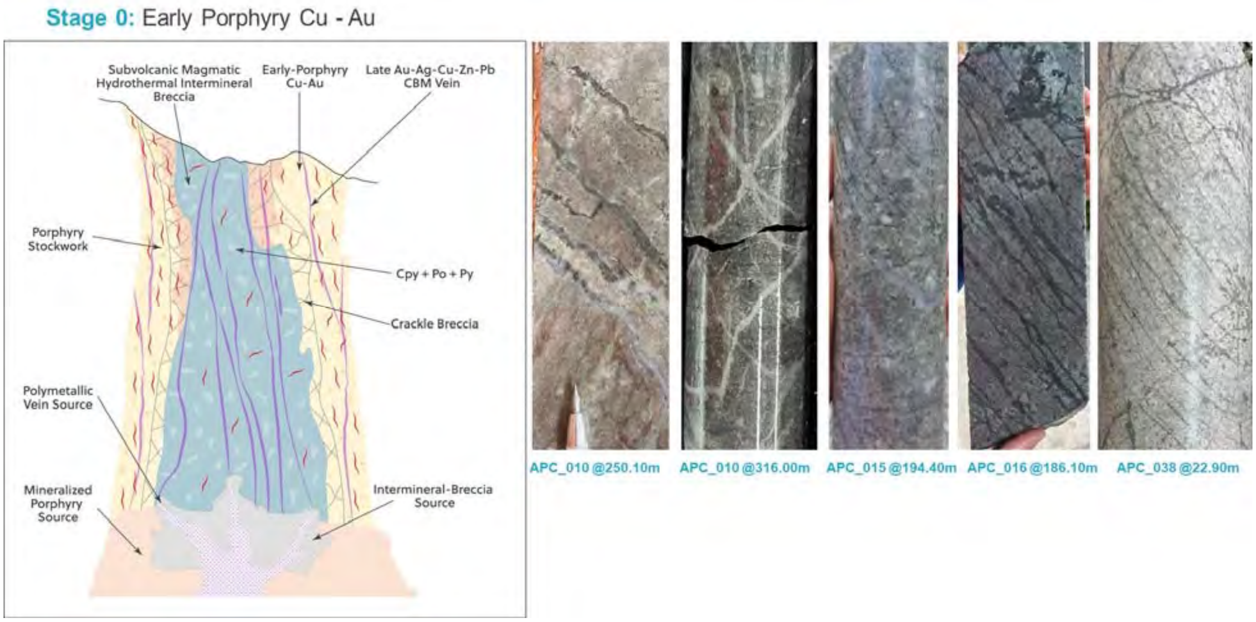



**Figure 7.18. Apollo Porphyry System model, Stage 0, early porphyry.**

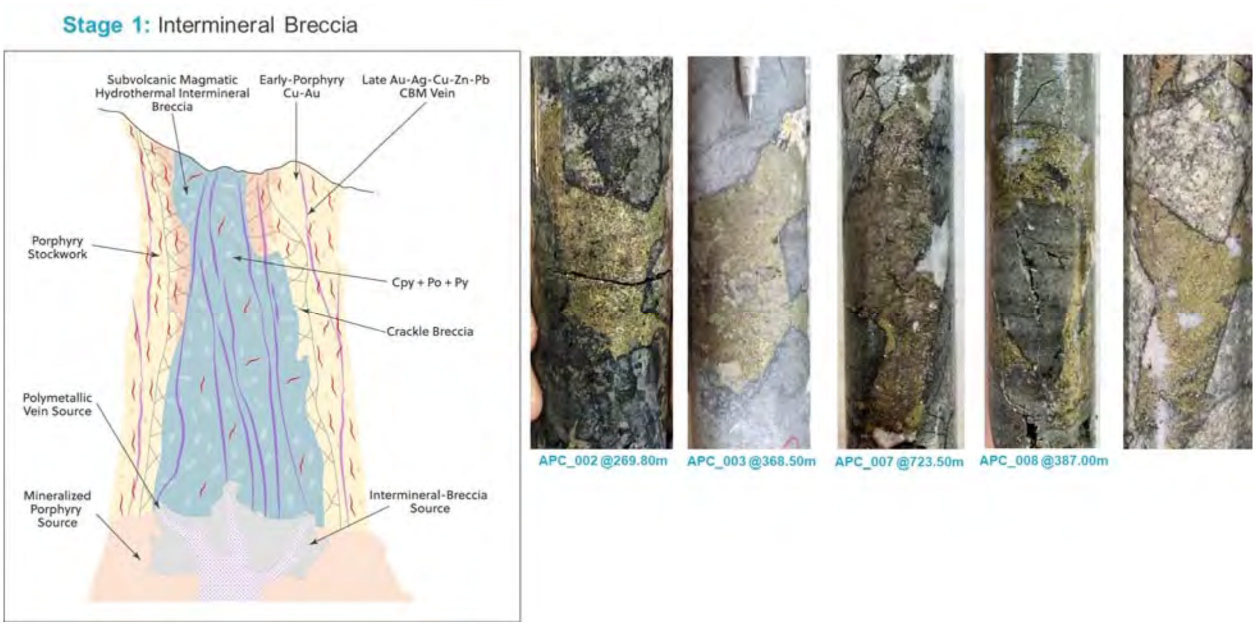



**Figure 7.19. Apollo Porphyry System model, Stage 1, intermineral breccia.**

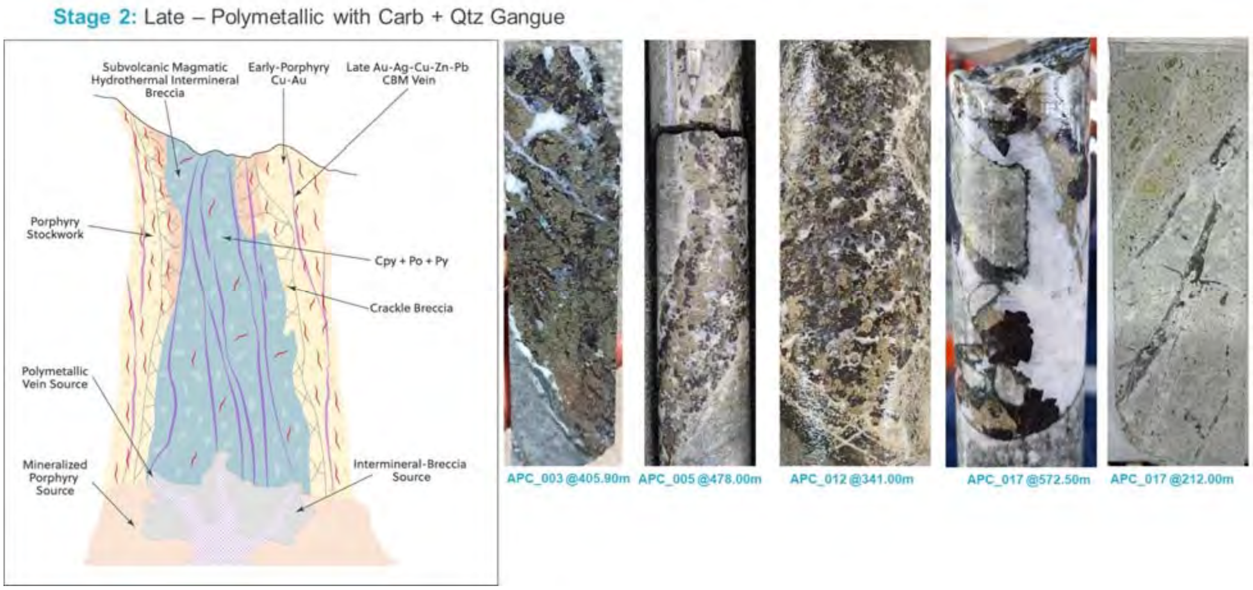



**Figure 7.20. Apollo Porphyry System model, Stage 2, late polymetallic carbonate-quartz base metal (CBM) veins.**

### 7.3.6 Olympus Target

The Olympus target has early porphyry Cu-Mo mineralization and later polymetallic veins. The porphyry-type mineralization consists of high densities of quartz veinlets between 5% and 20% by volume, with magnetite and sulphides such as pyrite, molybdenite and chalcopyrite in traces. The polymetallic Au-Ag-Cu-Pb-Zn veins are related to late structures such as shear zones and are formed of sphalerite, galena, pyrite and carbonates with sericite alteration. The major structures are related to the regional NW trend.

The defined veins are based on underground mapping information. The continuity and constancy of the grades is variable. Most of the defined structures are faulted, and there are very few massive ones. There are defined structures that only correspond to zones of cataclasis and strong sericite alteration. The geometric relationship between faults and extension zones, together with kinematic indicators define a sinistral movement as the main component. The main trend with greater affectation is represented by the NNW-SSE Guayabales Fault. The structures with NW-SE direction (300 – 310°) are mostly located west of the target. The veins defined for the Olympus target remain within the same corridor as those identified for the Apollo target.

The dominant hydrothermal alteration related to the grade zones is sericite. The different lithological units are cut by the mineralized structures. The contact relationship between intrusions and schists is controlled by fault zones which in turn show intrusive contact zones. Texturally, the veins show banding and lattice-bladed quartz replacement.

The mineralogy of the veins is mainly pyrite and gouge, with sphalerite, galena, jamesonite and chalcopyrite with quartz gangue more abundant than carbonate.

The fault defined in Olympus as the Guayabales Fault is the equivalent of the D6 fault and its corresponding sub-parallel structures such as the Mamey Fault. This along with the Gustavo and Gloria Faults are well defined by drilling, mapping on surface and in tunnels.

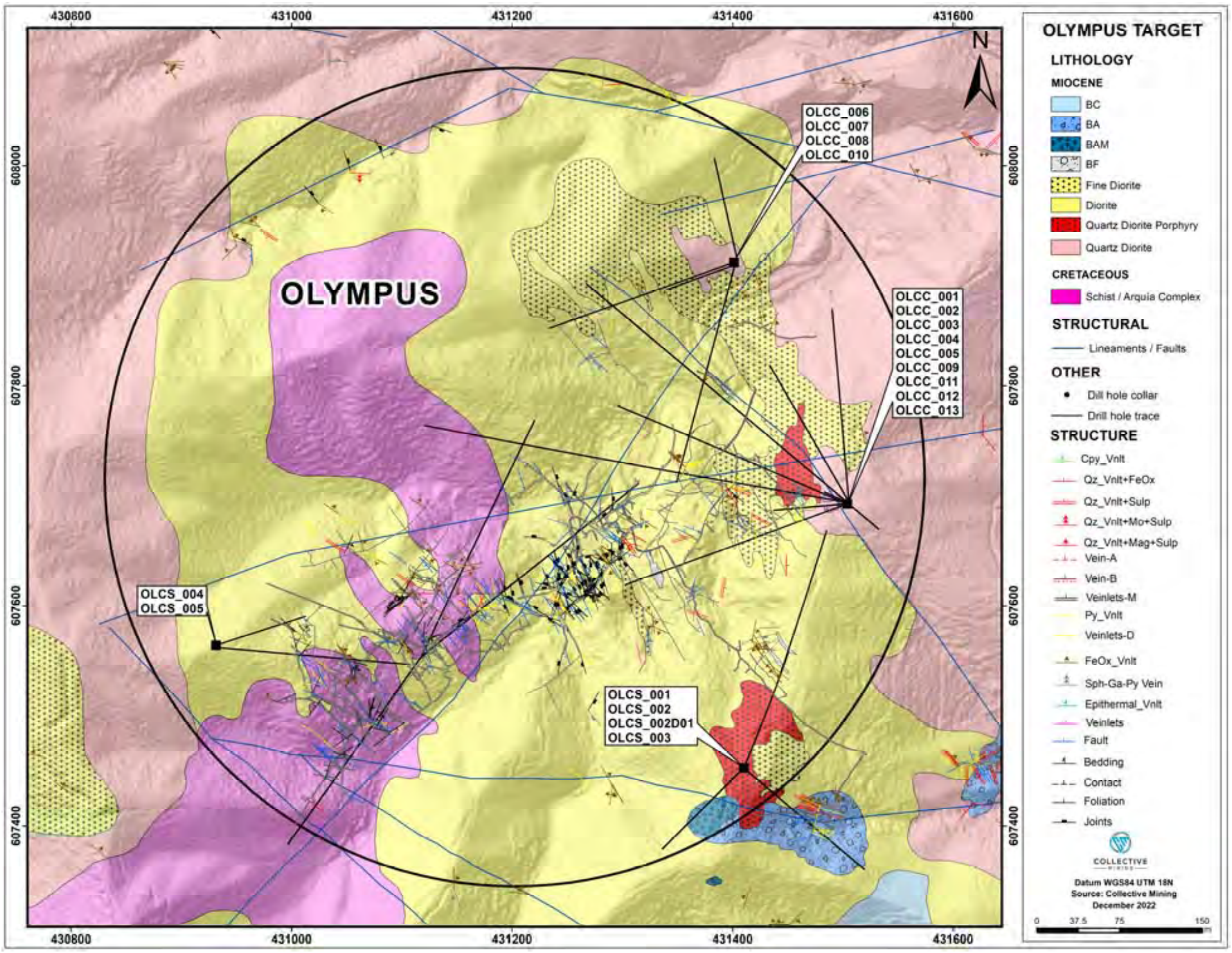



**Figure 7.21. Geological map of the Olympus target showing the Collective Mining drill hole traces.**

### 7.3.7 Donut Target

The Donut target geology comprises quartz diorite porphyries, diorite porphyries, and breccias with clasts of schist. The breccias are fluidized breccia, angular breccia and mineralized angular breccia. The predominant hydrothermal alterations are sericite and propylitic, with occasional potassic alteration (secondary biotite +/- potassic feldspar). The mineralization comprises pyrite-magnetite-chalcopyrite-pyrrhotite, and/or arsenopyrite, and/or galena and sphalerite.

The lithology in the Donut target consists of medium to coarse-grained porphyritic quartz diorites, fine to medium-grained porphyritic diorites, fluidized breccia, angular breccia and mineralized angular breccia.

Porphyritic quartz diorites have moderate to pervasive sericite alteration, and weak to moderate propylitic alteration, occasional secondary biotite in matrix. Sulphide mineralization is defined by disseminated and veinlets of pyrite, pyrrhotite and chalcopyrite in patches and veinlets, quartz-molybdenite veinlets, and quartz-magnetite-molybdenite veinlets. The porphyritic diorites show moderate to strong pervasive and selective sericite alteration. Moderate propylitic alteration as an overprint of the secondary biotite.

Breccias include polymictic fluidized breccia with subrounded and rounded clasts of schists, quartz diorites and diorites with matrix cemented with secondary chlorite and biotite; polymictic angular breccia with subangular and angular clasts of schist, quartz diorite and diorite, matrix cemented with mainly chlorite; and polymictic mineralized angular breccia with subangular and angular clasts of quartz diorite and diorite, matrix cemented with sulphide mineralization of pyrite, pyrrhotite and chalcopyrite. The veinlet assemblages are carbonate, carbonate-pyrite, pyrite-pyrrhotite-chalcopyrite, pyrite-chalcopyrite, quartz, quartz-magnetite, magnetite, quartz-molybdenite, quartz-magnetite-molybdenite, carbonate-pyrite, carbonate±quartz-pyrite-chalcopyrite-galena-sphalerite.

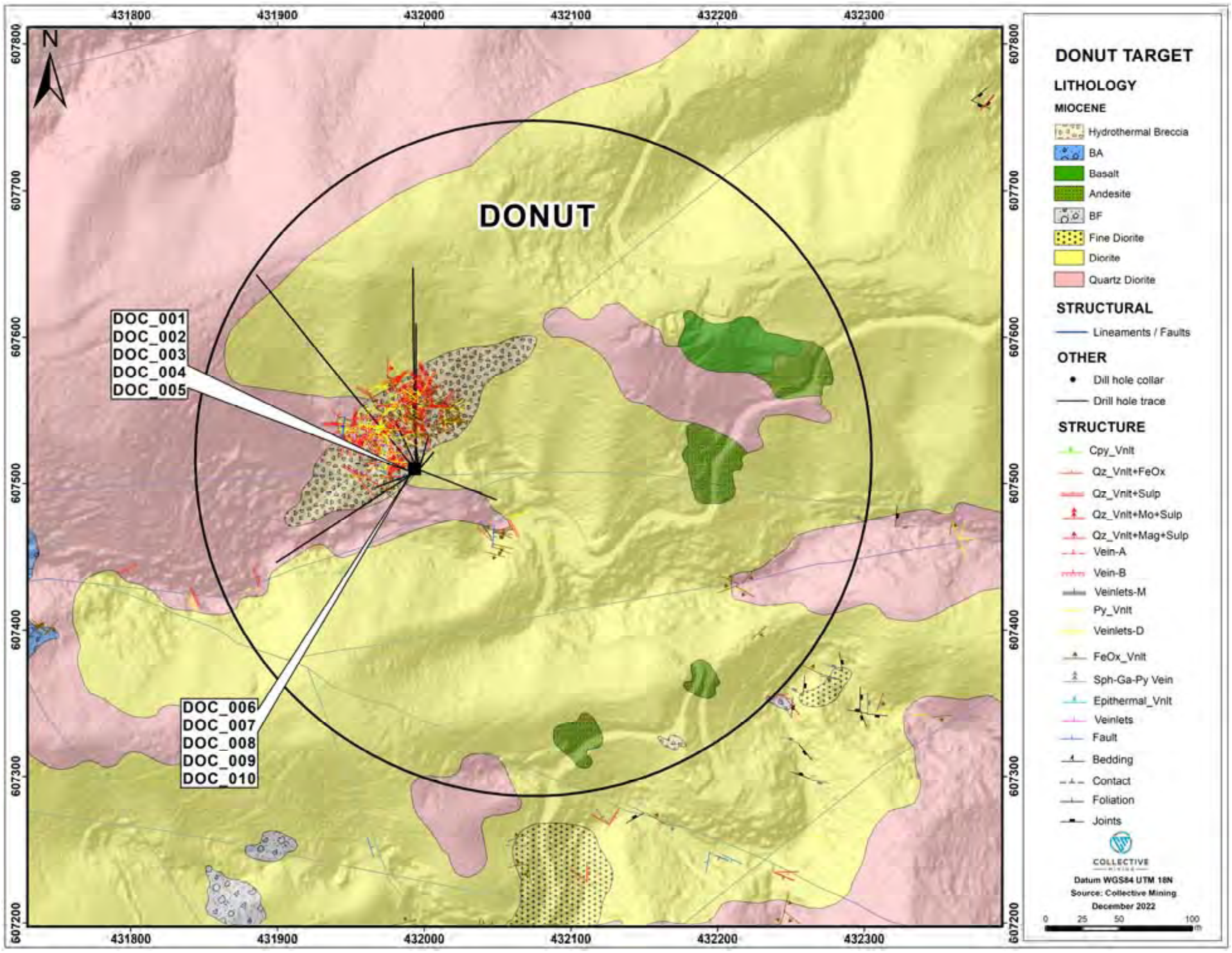



**Figure 7.22. Geological map of the Donut target showing the Collective Mining drill hole traces.**

### 7.3.8 The Box Target

The Box target geology includes graphitic schists, siliceous mudstones and fine to medium grained diorite porphyries. The predominant hydrothermal alterations are secondary biotite in matrix mainly overprinted by sericite-chlorite. The mineralization is pyrite-chalcopyrite in veinlets and disseminated, pyrite-chalcopyrite-galena-sphalerite in veinlets and isolated patches, and carbonate-galena-sphalerite in CBM veinlets.

The graphitic schists appear in this area in a discontinuous way and in the form of isolated roof pendants, and there is no evidence of a uniform continuity of this unit. They have carbonate veinlets, segregation quartz lenses and disseminated pyrite.

Siliceous mudstones occur as matrix-embedded clasts with chlorite cement in the hydrothermal breccia, evidenced in drill cores. At surface it is intuited by a porphyritic hypabyssal body.

The main hydrothermal alteration is sericite and sericite-chlorite, occurring mainly in diorites with a pervasive and selective style, followed by secondary biotite alteration as mafic minerals replacement. Finally, propylitic alteration with the mineralogical assemblage chlorite-epidote is present in a pervasive style in some rocks, as replacement of mafic minerals (amphibole) and overprinted over secondary biotite.

The mineralization consists of disseminated and veinlet pyrite, pyrrhotite and chalcopyrite and CBM veinlets with carbonate-pyrite-chalcopyrite-galena-sphalerite.

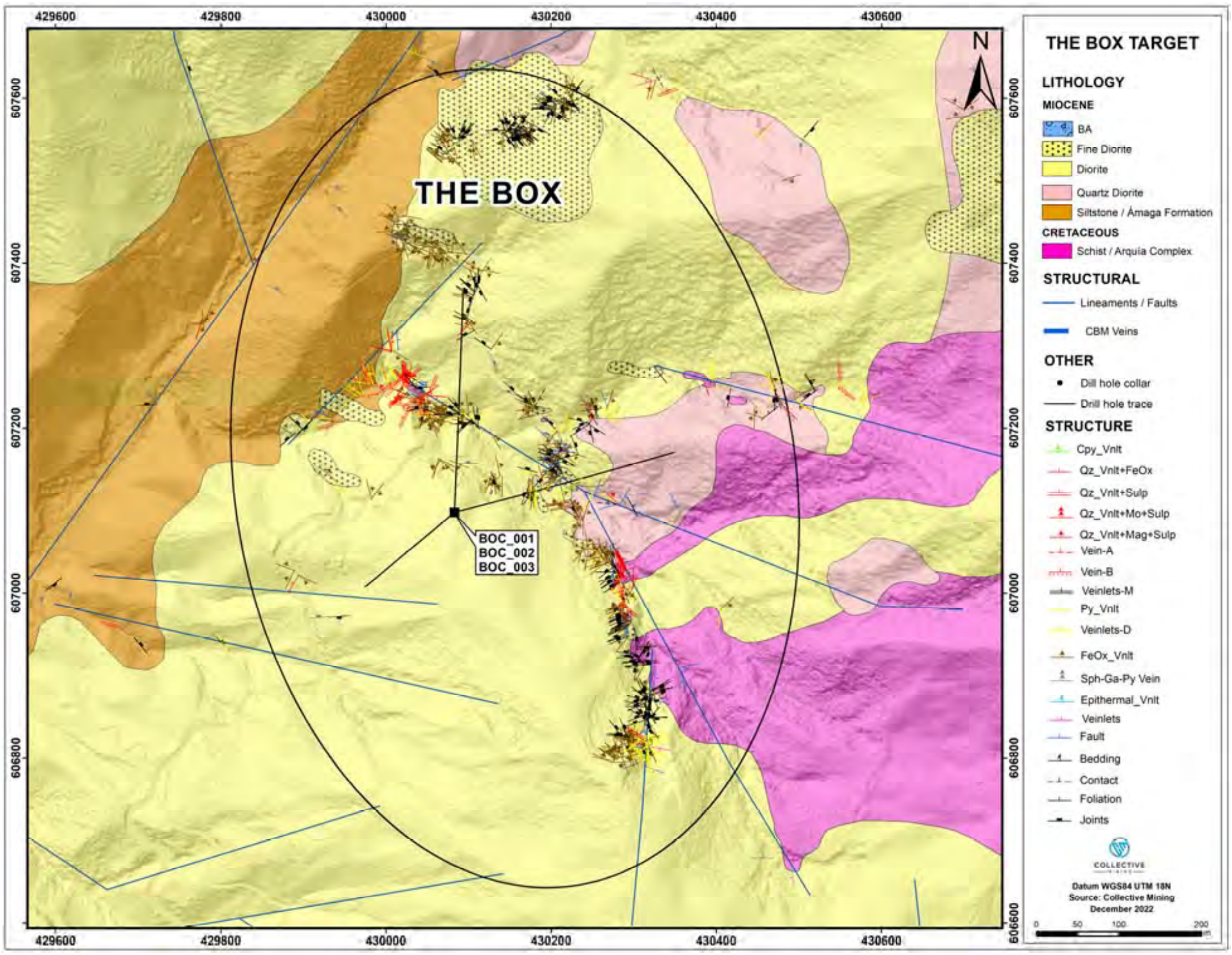



**Figure 7.23. Geological map of The Box target showing the Collective Mining drill hole traces.**

### 7.3.9 Trap Target

The Trap target is a north-northwest trending structurally controlled corridor in quartz diorite porphyry with evidence of porphyry Au-Ag-Cu-Mo mineralization associated with potassic and sericite alteration. The potassic alteration is characterized by replacement of the mafic minerals by secondary biotite and magnetite. This is overprinted by late-stage NW-SE trending carbonate base metal (CBM) polymetallic veins with gold, silver, copper, lead and zinc.

The project area is characterized by diorite and quartz diorite stocks and graphite schists of the Arquía Complex. There are multiple phases of fracturing with older, roughly NS structures displaced by NW-WNW trending structural corridors and finally, by late E-W structures. This major NW trending structural corridor run along strike and may be the potential NW extension of the Echandia-Marmato mineralized corridor.

Gold, silver, copper, and molybdenum mineralization is related to porphyry systems, and they are overprinted by polymetallic NW-SE veins with gold, silver, copper, lead and zinc. The alteration includes potassic and sericite-chlorite. The late vein overprints are associated with intense sericite alteration which is characterized by sericite and pyrite.

It is possible to identify the potential of polymetallic veins with NW-SE trend along the entire target >1km and porphyry-type mineralization with the presence of secondary biotite, magnetite, chalcopyrite, locally disseminated chalcocite and quartz veins. In the El Pital sector there is a mixture of the two types of mineralization, where there is quartz diorite with secondary biotite, magnetite veins, chalcocite and disseminated chalcopyrite. As well as the Trap Fault structure with a NW tendency, high content of sulphides such as sphalerite, galena, carbonates, malachite and strong sericite alteration. The diorite body is located several hundred meters north of the El Pital sector, and there is weak secondary biotite, disseminated magnetite and weak chlorite-epidote in this rock. In the San Francisco creek, porphyry-type mineralization occurs since the rock contains secondary biotite, epidote, disseminated chalcopyrite and in stringers, and locally quartz veins with molybdenite suture (type B).

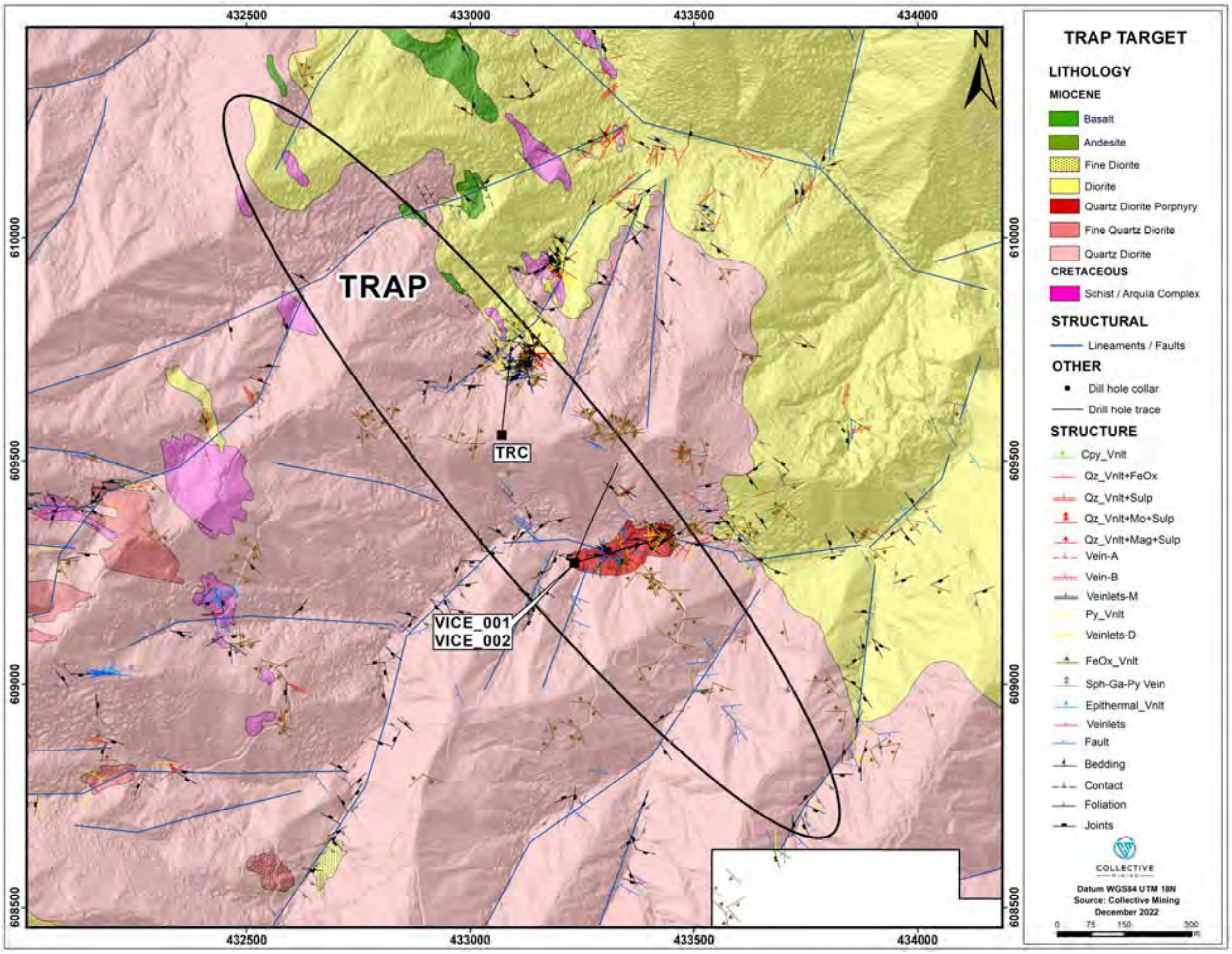



**Figure 7.24. Geological map of the Trap target showing the Collective Mining drill hole traces.**

### 7.3.10 Victory Target

The Victory target is a porphyry Cu-Au system hosted by quartz diorite and diorite porphyries. Potassic alteration occurs consisting of secondary biotite replacing mafic minerals, associated with disseminated and veinlet magnetite and disseminated and stringer chalcopyrite. It has not been drilled yet. The country rock in the Arquía River area is black schists, with saccharoidal quartz veinlets cutting the foliation. In some zones, actinolite veinlets associated with albite occur, which may be evidence of a high temperature sodic-calcic alteration in the lowest part of the valley in the deep part of a porphyry system. Occurrences of polymetallic mineralization with sphalerite, galena, chalcopyrite, and gold were identified. The hypabyssal bodies are associated with the Combia Formation. Sandstones and mudstones of the Amaga Formation contain oxide veinlets. In the Arquia River, sheeted quartz veinlets with a suture (B type) are further evidence of porphyry-type mineralization in the area.

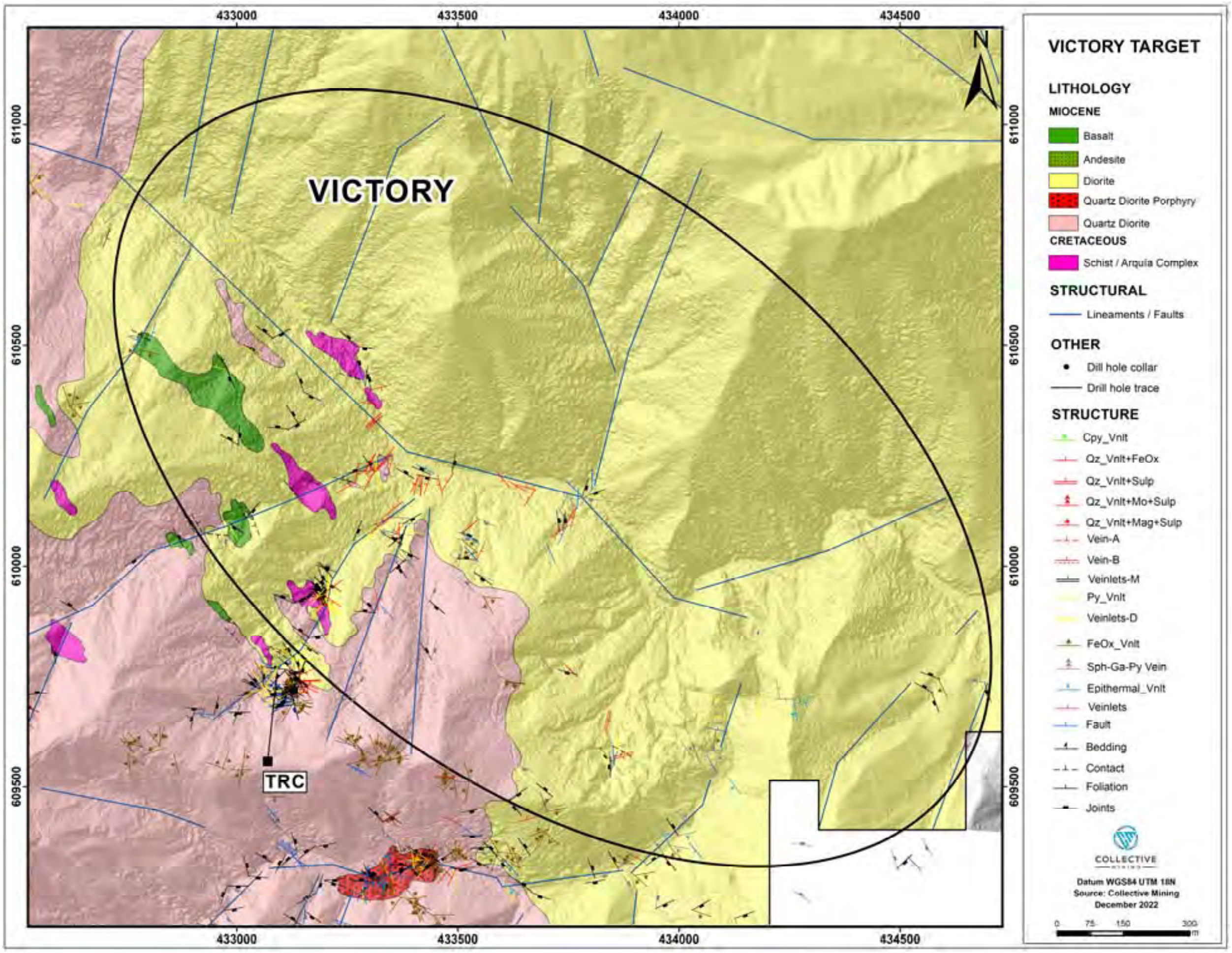



**Figure 7.25. Geological map of the Victory target showing the Collective Mining drill hole traces.**

### 7.3.11 Conclusions

Eight drill targets have been defined at the Guayabales Project for porphyry, breccia and vein Au, Ag ± Cu mineralization based on geological mapping, surface rock and soil geochemistry, shallow mine geochemistry, geophysics and limited historical drilling, and are described further in Section 9.3. The Phase 1 drill program by Collective Mining at the Guayabales project tested six targets and resulted in the discovery of a significant mineral system at the Apollo target as well as three other earlier stage drilling discoveries at the Olympus, Donut and Trap targets, as described in Section 10.2. The current dimensions of the Apollo Porphyry System, based on limited drilling, are 385 m by 350 m on surface by 915 m vertical, and it is open in all directions. However, the other targets are at too early an exploration stage at present to be able to quantify the length, width, depth and continuity of mineralization.

# 8 DEPOSIT TYPES

## 8.1 Guayabales Porphyry-Breccia-Vein System

The deposit types at the Guayabales Project are: 1) porphyry Au-Ag+Cu±Mo mineralization hosted by porphyry intrusions and wall rocks; 2) intermineral breccias with Au-Ag±Cu; and 3) structurally-controlled, Au-Ag-bearing carbonate-base metal (Zn-Pb-Cu) veins.

The evolution of the Apollo Porphyry System is interpreted to be as follows:

1. Early-stage quartz diorite porphyry cut by diorite porphyry. Potassic alteration with stockwork of granular quartz veins (A type) and early biotite veins with sulphides with Au-Ag-Cu-Mo mineralization.
2. Intermineral stage diorite porphyry at depth with exsolution of the fluid into a brine and a vapour phase, with volume expansion of the vapour to form crackle breccia then a breccia with a rock flour matrix. The fluid caused potassic alteration at depth overprinted by chlorite-sericite alteration at shallower levels, and replacement of breccia matrix by pyrite-chalcopyrite with Au-Ag-Cu mineralization.
3. Late stage fluid related to another porphyry at depth formed veins and in part replaced the matrix of breccia with quartz, carbonate, Au-Ag-bearing polymetallic Pb-Zn-Cu sulphides in carbonate-base metals veins (CBM).

The Apollo Porphyry Au-Ag-Cu deposit is 2 km NW of the Marmato gold mine, which is described as a hybrid reduced intrusion-related/porphyry gold deposit (Santacruz et al., 2021), and 3.5 km NW of the Aguas Claras porphyry gold deposit (Santacruz et al., 2021) (Figure 8.1). The Guayabales targets occur at a higher elevation than the other two deposits indicating different levels in the systems and/or vertical movement by block faulting. The porphyry intrusions at Apollo are different from those at Marmato and Aguas Claras. Each system is centred on a different composite porphyry stock, and they formed as a cluster of separate porphyry systems. Porphyry deposits typically occur in clusters in the Middle Cauca Gold-Copper Belt, as described in Section 15.

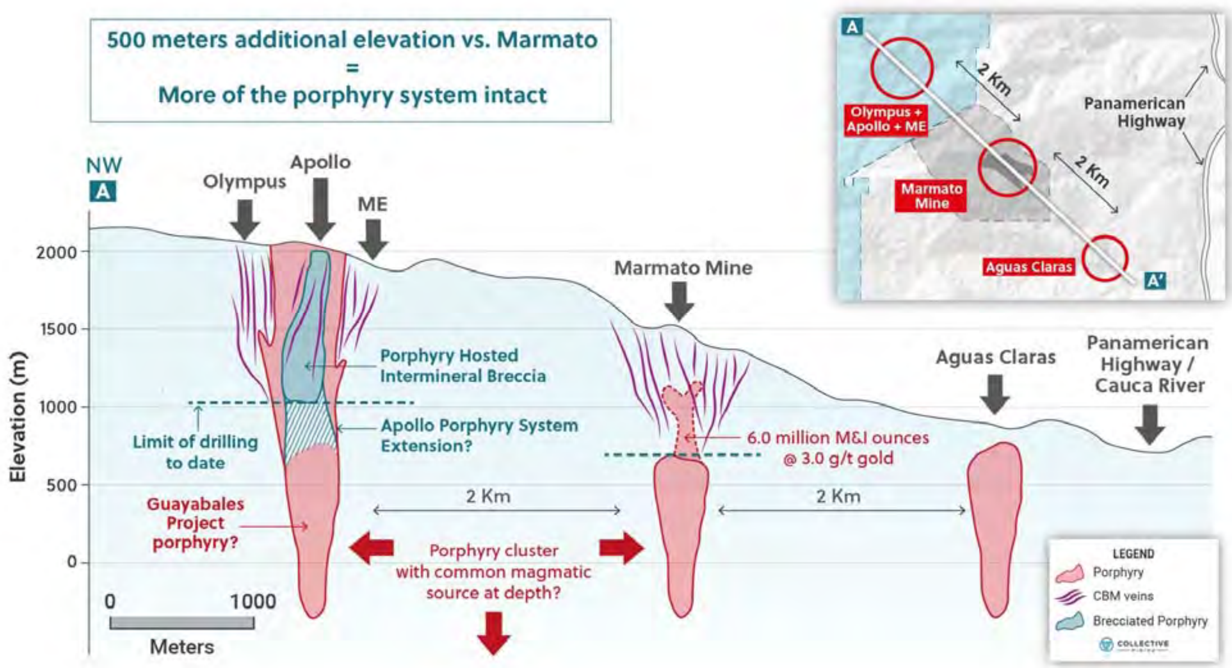



**Figure 8.1. Cartoon NW-SE long section along the Marmato trend showing an interpretation of the possible relationship between the Guayabales targets, Marmato and Aguas Claras. (Collective Mining).**

## 8.2 Porphyry Systems

Porphyry systems were reviewed by Sillitoe (2010) and a schematic deposit model is shown in Figure 8.2. Porphyry systems may contain porphyry Cu ± Mo ± Au deposits of various sizes from less than 10 million tonnes to 10 billion tonnes. Typical primary porphyry Cu deposits have average grades of 0.5 to 1.5% Cu, <0.01 to 0.04% Mo, and 0.01 to 1.5 g/t Au, although a few gold-only deposits have grades of 0.9 to 1.5 g/t gold but little Cu (<0.1 %). The known porphyry systems in the Middle Cauca Gold-Copper Belt are porphyry Au, Au-Cu and Cu-Au deposits, and breccia-hosted Au deposits (as described in Section 15).

The alteration and mineralization in porphyry systems can have a volume of many cubic kilometers of rock and are zoned outward from stocks or dike swarms, which typically comprise several generations of intermediate to felsic porphyry intrusions. Porphyry Cu ± Au ± Mo deposits are centered on the intrusions. High-sulphidation epithermal deposits may occur in lithocaps above porphyry Cu deposits, where massive sulphide lodes tend to develop in deeper feeder structures and Au ± Ag-rich, disseminated deposits within the uppermost 500 m or so. Less commonly, intermediate sulphidation epithermal mineralization, chiefly veins, may develop on the peripheries of the lithocaps. The porphyry systems of the Middle Cauca Gold-Copper Belt are characterised by late stage, high grade Au-Ag-polymetallic veins that can have a vertical extent of +1 km, and exceptionally up to 2 km at Buritica.

The alteration and mineralization in the porphyry Cu deposits is zoned upward from barren, early sodic-calcic alteration through potentially ore-grade potassic, chlorite-sericite, and sericitic alteration, capped by an advanced argillic alteration lithocap which may attain >1 km in thickness if unaffected by significant erosion. Low sulphidation-state chalcopyrite ± bornite assemblages are characteristic of potassic zones, whereas higher sulphidation-state sulphides are generated progressively upwards as a result of temperature decline and the accompanying greater degrees of hydrolytic alteration, culminating in pyrite ± enargite ± covellite in the shallow parts of the lithocaps. The porphyry Cu mineralization occurs in a distinctive sequence of quartz-bearing veinlets as well as in disseminated form in the altered rock between them. Magmatic-hydrothermal breccias may form during porphyry intrusion, with some of them containing high-grade mineralization because of their intrinsic permeability. In contrast, most phreatomagmatic breccias, constituting maar-diatreme systems, are poorly mineralized because they usually formed late in the evolution of the porphyry systems.

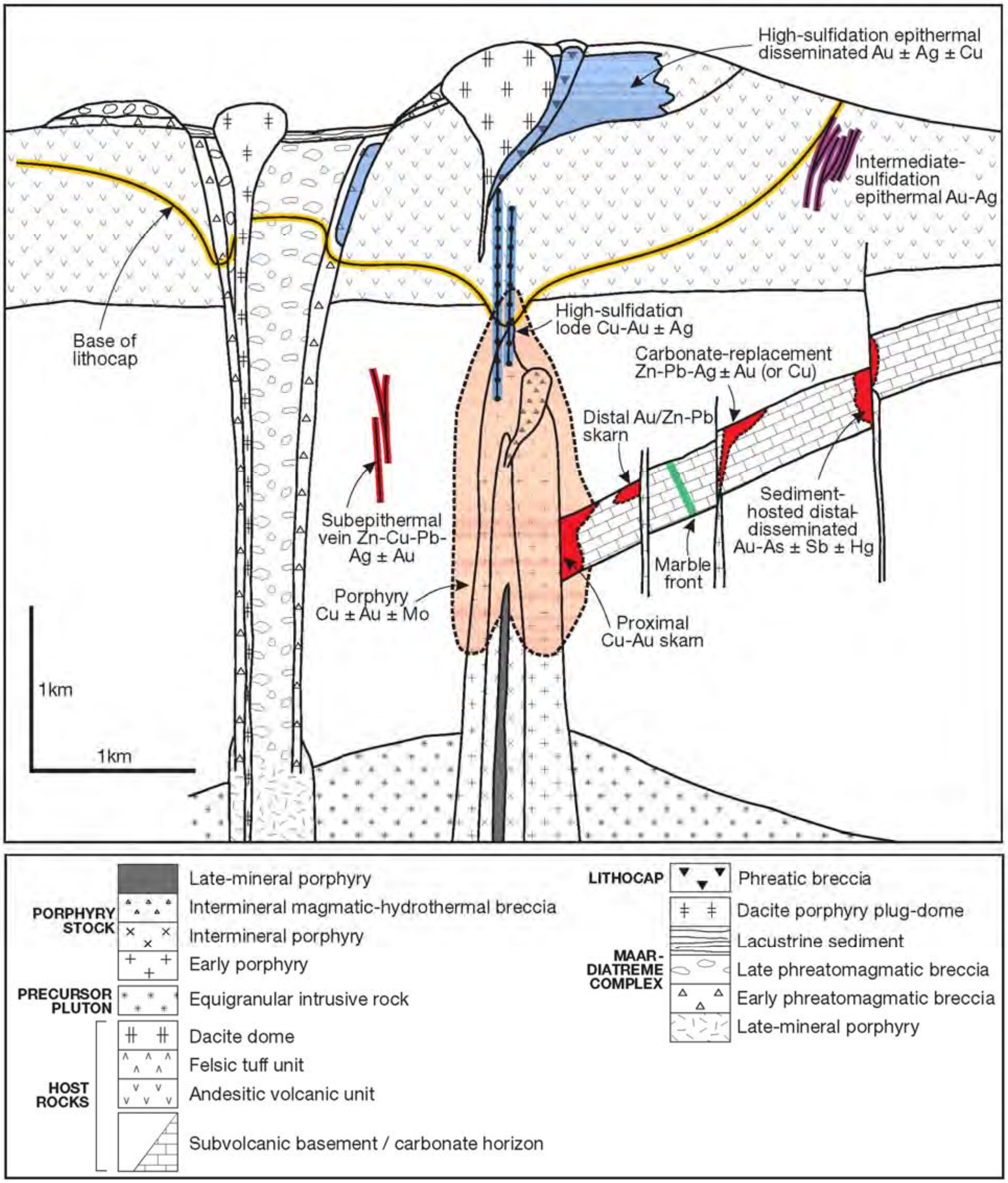



**Figure 8.2 Porphyry system model (Sillitoe, 2010).**

# 9 EXPLORATION

## 9.1 Historical Exploration

### 9.1.1 Summary

The historical exploration activities carried out at the Guayabales Project are summarised in Table 9.1.

| Year | Company | Survey | Contractor | Units | Number | Zone |
|---|---|---|---|---|---|---|
| 2005-2006 | Colombia Gold plc | Rock sampling mines and surface | None | Samples | 263 | Encanto Zone |
| 2006-2008 | Colombian Mines Corporation | Rock sampling mines | None | Samples | 512 | Encanto Zone |
| | | Rock sampling surface | None | Samples | 212 | Encanto Zone |
| | | Rock sampling road cuts | None | Samples | 163 | New access road LH-0017-17 |
| | | Diamond drilling 17 holes | Terramundo | Meters | 2,079.36 | Encanto Zone |
| 2010-2011 | Mercer Gold Corporation (from 2011 called Tresoro Mining Corp.) | Geological mapping | None | $km^2$ | 2.50 | Whole property LH-0017-17 |
| | | Soil sample grid 100 m x 100 m | None | Samples | 253 | Whole property LH-0017-17 |
| | | Rock sampling surface | None | Samples | 89 | Whole property LH-0017-17 |
| | | Rock sampling mines | None | Samples | 15.00 | Encanto Zone |
| | | Diamond drilling 11 holes | Logan Drilling | Meters | 4,067.90 | Encanto and Donut targets |

**Table 9.1 Summary of historical exploration carried out at the Guayabales Project.**

### 9.1.2 Topographical Surveys and Grids

No topographical survey was carried out by the historical operators.

### 9.1.3 Geological Mapping

Geological mapping of the concession was carried out by Mercer Gold, and of the mine workings by all three companies.

### 9.1.4 Petrography

No petrographic study was carried out.

### 9.1.5 Soil Geochemistry

Soil sampling was carried out by Mercer Gold on a 100 m by 100 m grid. Plots of the soil geochemistry for Au, Ag, Cu and Mo are shown combined with Collective Mining sampling in Figure 9.1 to Figure 9.4 (Section 9.2.5).

### 9.1.6 Rock Geochemistry

Rock channel sampling was carried out in underground mines, outcrops and road cuttings by all three companies. Plots of the rock geochemistry for Au, Ag, Cu and Mo are shown combined with Collective Mining sampling in Figure 9.5 to Figure 9.8 (Section 9.2.6).

### 9.1.7 Geophysics

No geophysical surveys were carried out historically.

## 9.2 Collective Mining Exploration

### 9.2.1 Summary

The exploration of the Guayabales Project carried out by Collective Mining since it acquired the project in July 2020 up to the effective date of this report is summarized in Table 9.2.

| Year | Survey | Contractor | Units | Number | Zone |
|---|---|---|---|---|---|
| 2020-2022 | Database compile historic data | None | samples | 1,561 | Whole property |
| 2020-2021 | Historical core relogging | None | meters | 2,941 | |
| 2020-2022 | Geological mapping | None | $km^2$ | 24 | Whole property |
| 2020-2022 | Rock sampling | None | samples | 3,349 | Donut, The Box, Olympus, Trap, Apollo, ME and Victory |
| 2020-2022 | Soil sampling | None | samples | 1,398 | |
| 2021-2022 | Drilling | Kluane | meters | 27,618 | Donut, The Box, Olympus, Trap and Apollo |
| 2022 | Petrography | University of Caldas | samples | 2 | Olympus |
| 2022 | | Minerlab Ltda | samples | 8 | Olympus |
| 2022 | Cyanidation Bottle Roll test | SGS Peru S.A.C | samples | 3 | Apollo |
| 2022 | Bulk Density | ALS Colombia Ltda | samples | 91 | Apollo |
| 2021 | LIDAR survey | Lidarus | $km^2$ | 76.8 | Whole property |
| 2021 | Full Waveform Distributed Array Induced Polarization survey (AGDAS) | Arce Geofísicos Ltd | $km^2$ | 3.37939 | Olympus and The Box |
| 2020-2021 | Heli-magnetic and radiometric survey | MPX Geophysics Ltd & Arce Geophysics Ltd | Line km | 775.9 | Whole property |
| 2022 | Heli-magnetic and radiometric survey Reprocessing | Condor Consulting, Inc. | line km | 775.9 | Whole property |
| 2022 | IP survey Reprocessing | Condor Consulting, Inc. | $km^2$ | 3.37939 | Olympus and The Box |

**Table 9.2 Summary of exploration carried out by Collective Mining at the Guayabales Project in 2020-2022.**

### 9.2.2 Topographical Surveys and Grids

Collective Mining carried out a LIDAR survey of the concessions and surrounding areas in 2021 to create a digital terrain model (DTM), a digital surface model (DSM) and a topographic map with 1 m contours.

### 9.2.3 Geological Mapping

Collective Mining carried out geological mapping of the concessions and targets since 2020-2022, which is ongoing, as well as reviewing and compiling historical mapping. The results are described in Section 7.3 and the targets in Section 9.3.

### 9.2.4 Petrography

Collective Mining has carried out limited petrography of 10 samples.

### 9.2.5 Soil Geochemistry

Collective Mining has collected 1,398 soil samples. Soil samples were generally taken on ridges and spurs, and in some places on a grid of 100 m by 100 m. Ridge and spur sampling was found to be more effective than grid sampling due to young volcanic ash cover, which has been washed away on the ridges, and landslides. The company has a written protocol for soil sampling. Samples are taken at the transition between the B and C soil horizon at a depth between 1.5-3.5 m using a manually operated auger. The sample is collected on a plastic sheet and then placed in a sample bag that is numbered and sealed. The geologist completes a sample description card with the location, soil profile description, weathering intensity, color, oxides and other information. This is entered into the exploration database. The protocol and chain of custody for transport and analysis of rock and soil samples is summarised in Table 9.3.

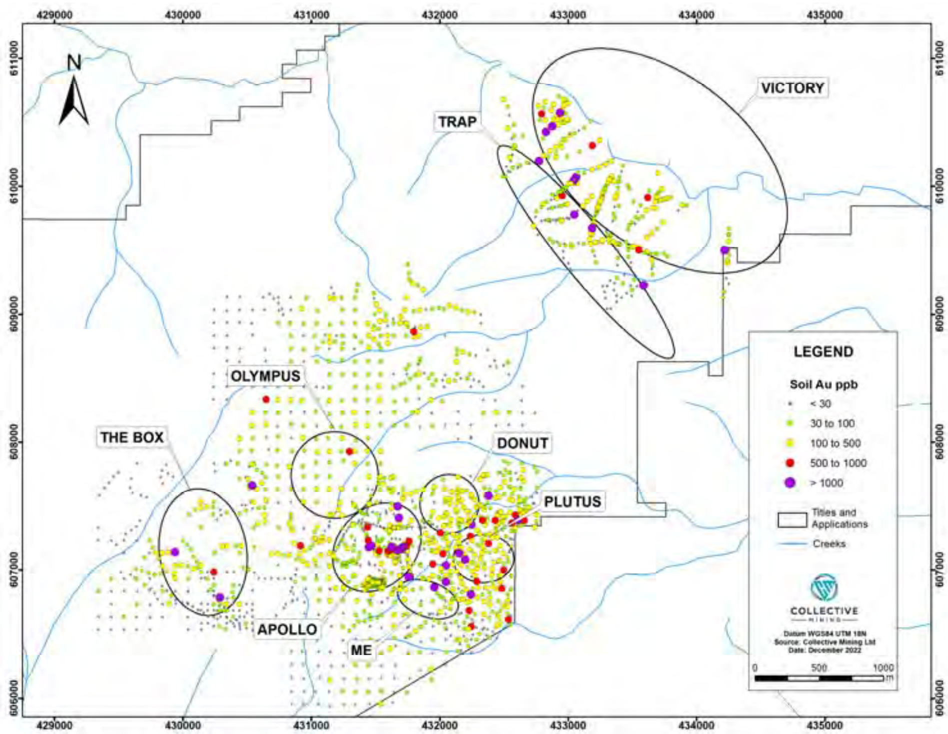



**Figure 9.1. Guayabales Project, Collective Mining and historical soil geochemistry for gold.**

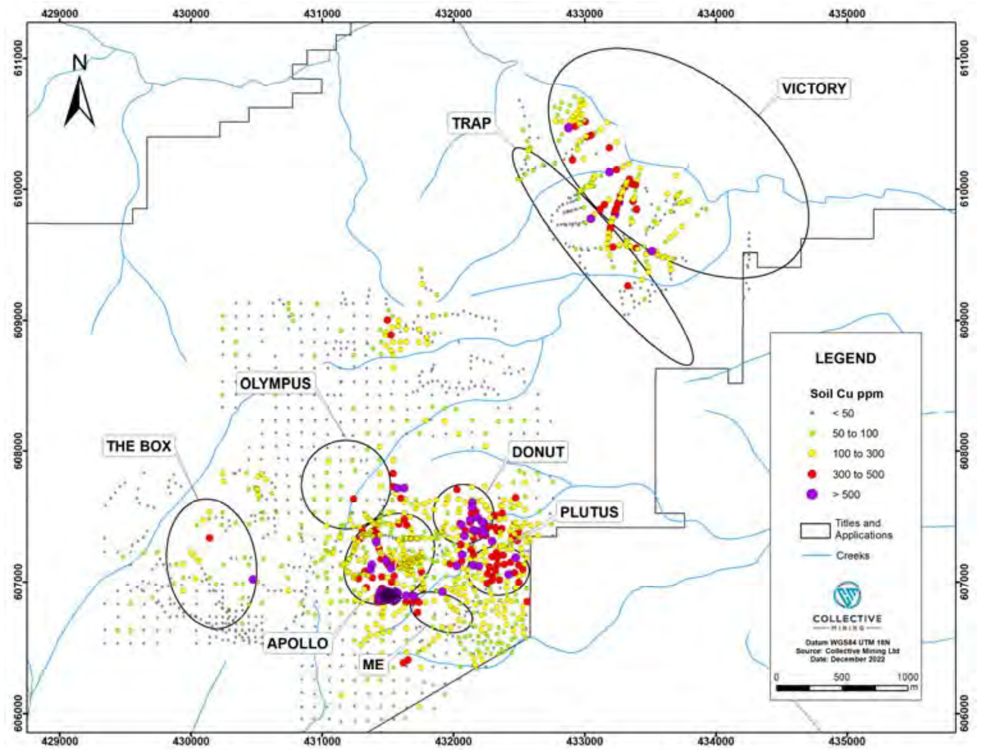



**Figure 9.2. Guayabales Project, Collective Mining and historical soil geochemistry for copper.**

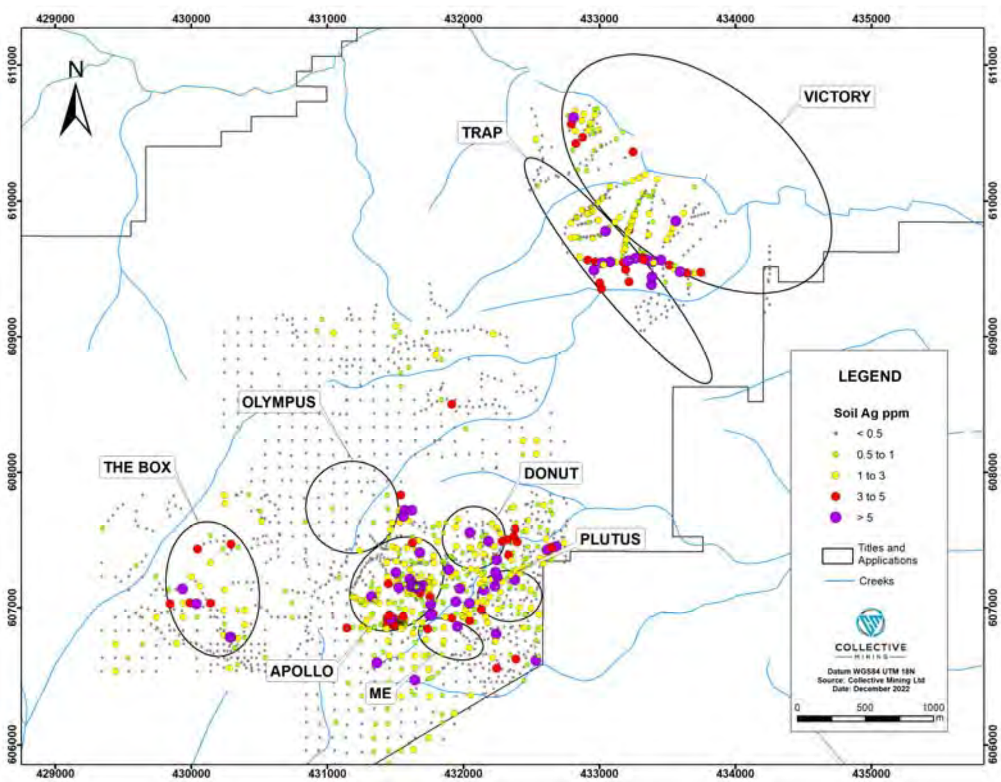



**Figure 9.3. Guayabales Project, Collective Mining and historical soil geochemistry for silver.**

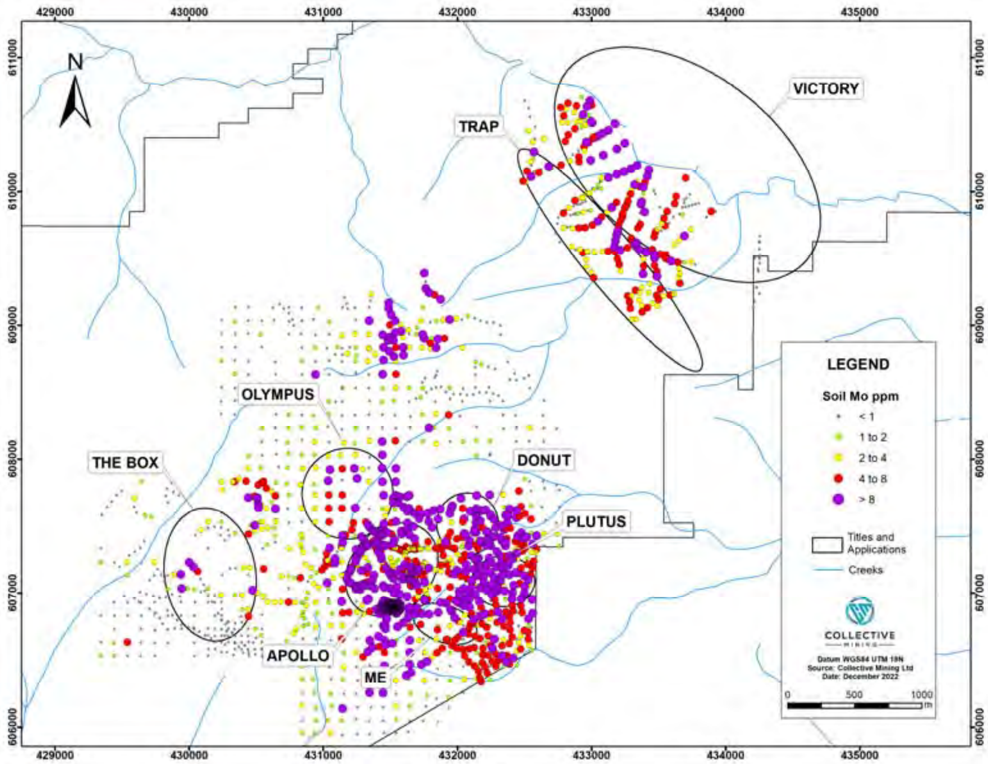



**Figure 9.4. Guayabales Project, Collective Mining and historical soil geochemistry for molybdenum.**

### 9.2.6 Rock Geochemistry

Collective Mining has taken 3,349 surface and underground rock samples as of the effective date of this report. The types of samples taken were chip channel samples in areas of good exposure and rock chip samples in areas with non-continuous exposure. The company has a written protocol for taking rock samples. The chip channel samples are marked with paint in lengths of 2.00 m and a continuous sample is taken using a hammer and chisel. The broken rock is collected on a plastic sheet and then placed in a sample bag that is numbered and sealed. Rock chip samples are taken in a similar manner but by taking a rock chip every approximately 10 cm, rather than a continuous channel. A sample description card is completed in the field for each sample with the location and description. The protocol and chain of custody for transport and analysis of rock and soil samples is summarised in Table 9.3.

| Step | Location | Person(s) | Description |
|---|---|---|---|
| 1 | Field | Technician, geologist | Sample collection according to protocol of stream sediment (none taken), soil, rock or underground mine samples. |
| 2 | Transport to field camp and to core logging facility, Supia | Company pickup truck and driver | |
| 3 | Core logging facility | Facility manager | Temporary secure storage. |
| 4 | Core logging facility | Geologist, technician | Insert QAQC samples. |
| 5 | Core logging facility | Technician | Samples packed in sacks and labelled. Lab order form prepared. |
| 6 | Transport to lab, Medellin | Company pickup truck and driver | Sample batches sent to lab three times per week. |
| 7 | Laboratory Medellin | Laboratory personnel | Receive samples. Sample preparation. |
| 8 | Laboratory Callao | Laboratory personnel | Sample pulps shipped by courier, assayed at Callao Lab. |
| 9 | Sample storage rooms at camp | Technician | Sample coarse rejects and pulps returned by lab, checked, noted in database, secure storage. |

**Table 9.3. Protocol and chain of custody for soil and rock samples.**

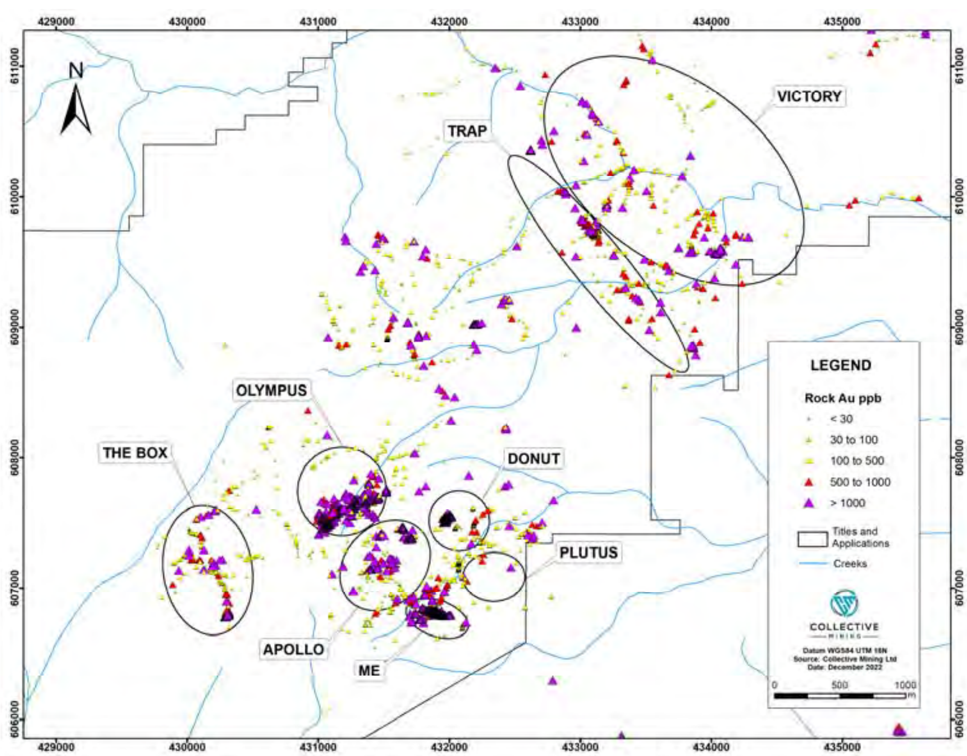



**Figure 9.5. Guayabales Project, Collective Mining and historical rock geochemistry for gold.**

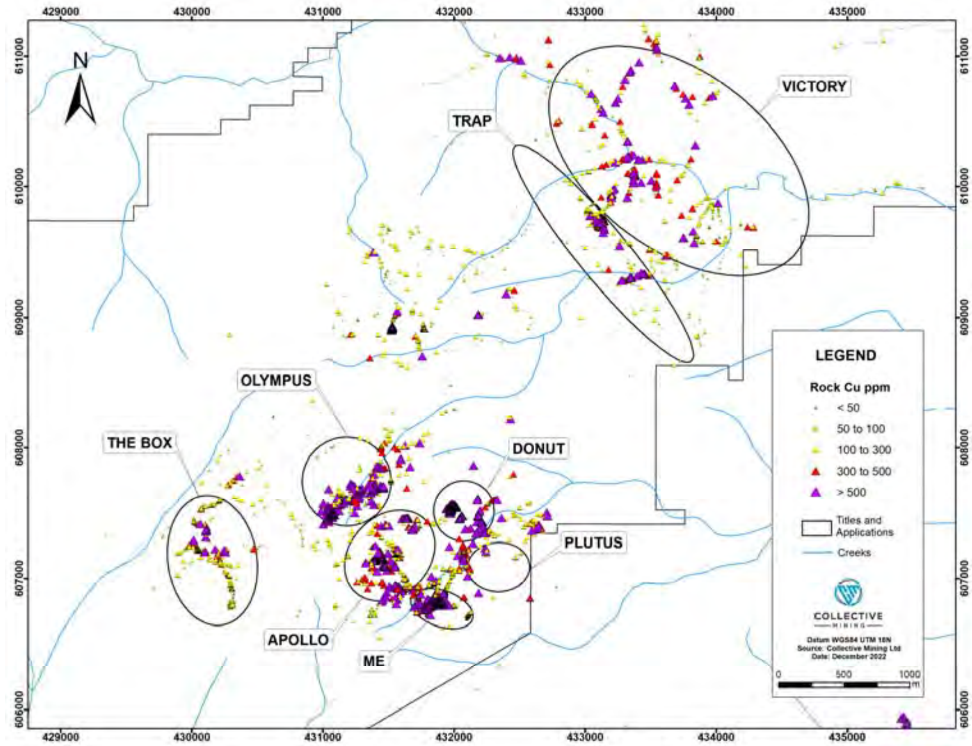



**Figure 9.6. Guayabales Project, Collective Mining and historical rock geochemistry for copper.**

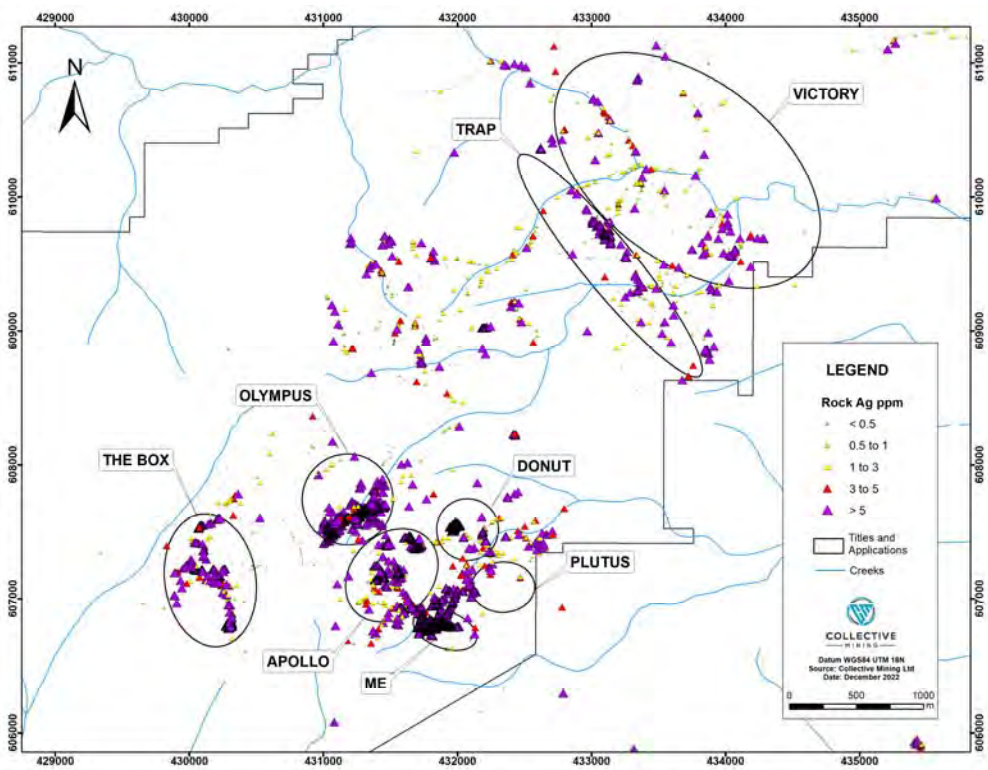



**Figure 9.7. Guayabales Project, Collective Mining and historical rock geochemistry for silver.**

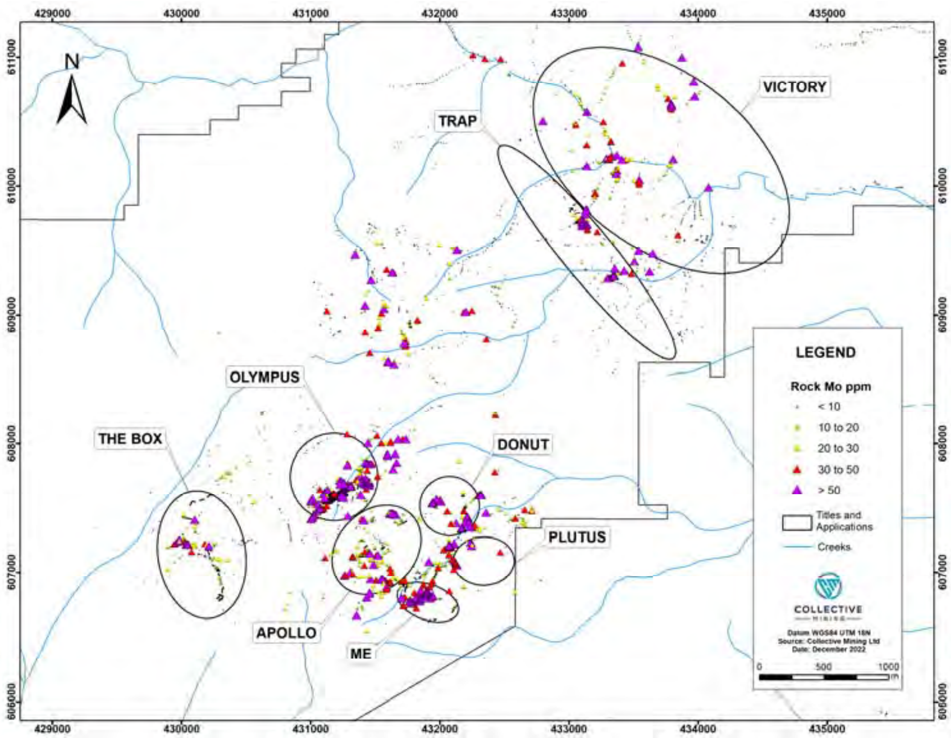



**Figure 9.8. Guayabales Project, Collective Mining and historical rock geochemistry for molybdenum.**

### 9.2.7 Geophysics

Collective Mining carried out a helicopter-borne magnetic and radiometric geophysical survey in December 2020 over an area of about 9 km E-W by 8 km N-S centered on the mining titles. Data was collected on 775.9 line-km on N-S flight lines with a line spacing of 100 m and nominal mean terrain clearance of 80 m, with E-W tie lines. The survey was flown by MPX Geophysics Ltd (MPX, 2020). The data was processed by Arce Geophysics (Arce, 2021) and reprocessed by Condor Consulting. Maps of the results are shown in Figure 9.9 to Figure 9.15.

A Full Waveform Distributed Array Induced Polarization (IP) survey (AGDAS) was carried out at the Olympus and The Box targets over 3.38 km2 by Arce Geofísicos Ltd. in 2021. However, it was not very effective due to high chargeability from graphite schists, as well as sulphides (Figure 9.16).

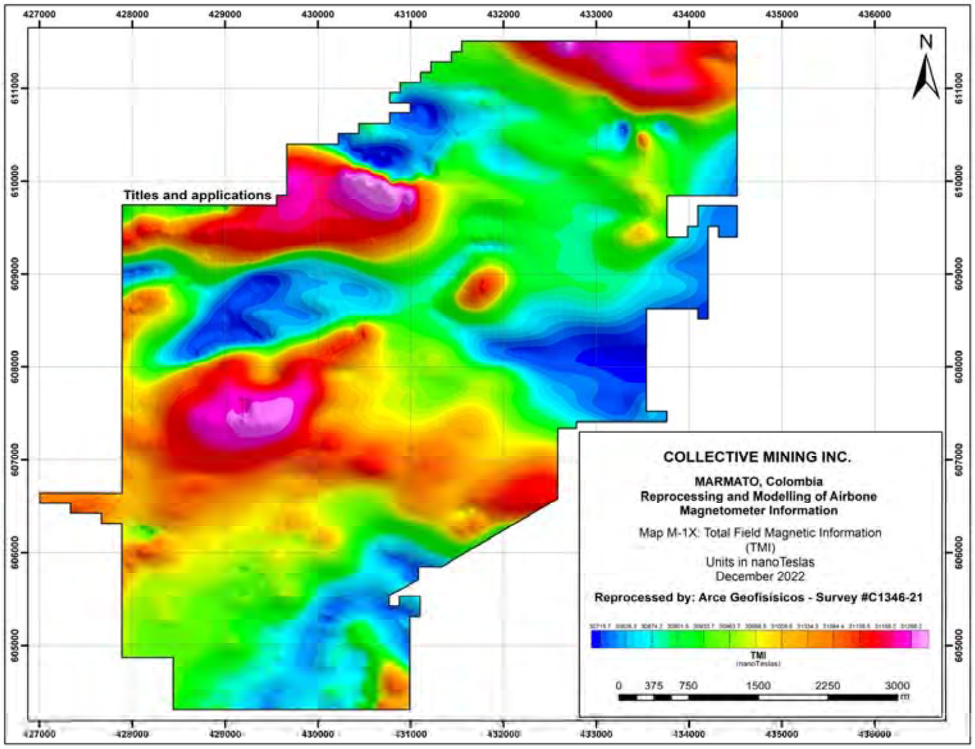



**Figure 9.9. Guayabales Project map of total field magnetic intensity (clipped to mining titles).**

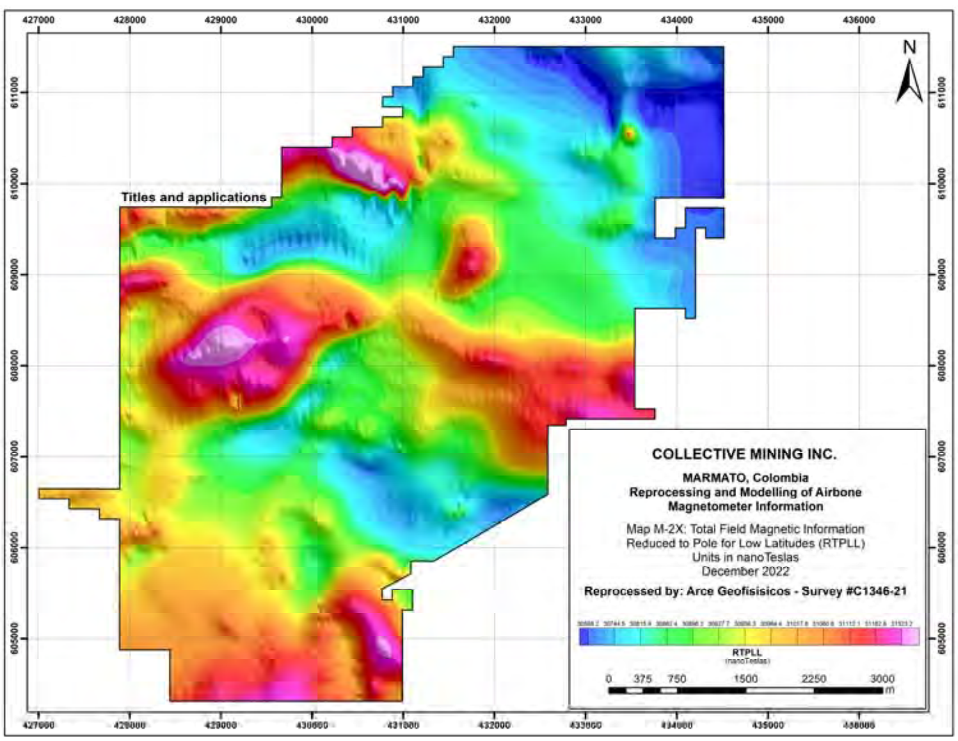



**Figure 9.10. Guayabales Project map of total field magnetic field reduced to the pole (clipped to mining titles).**

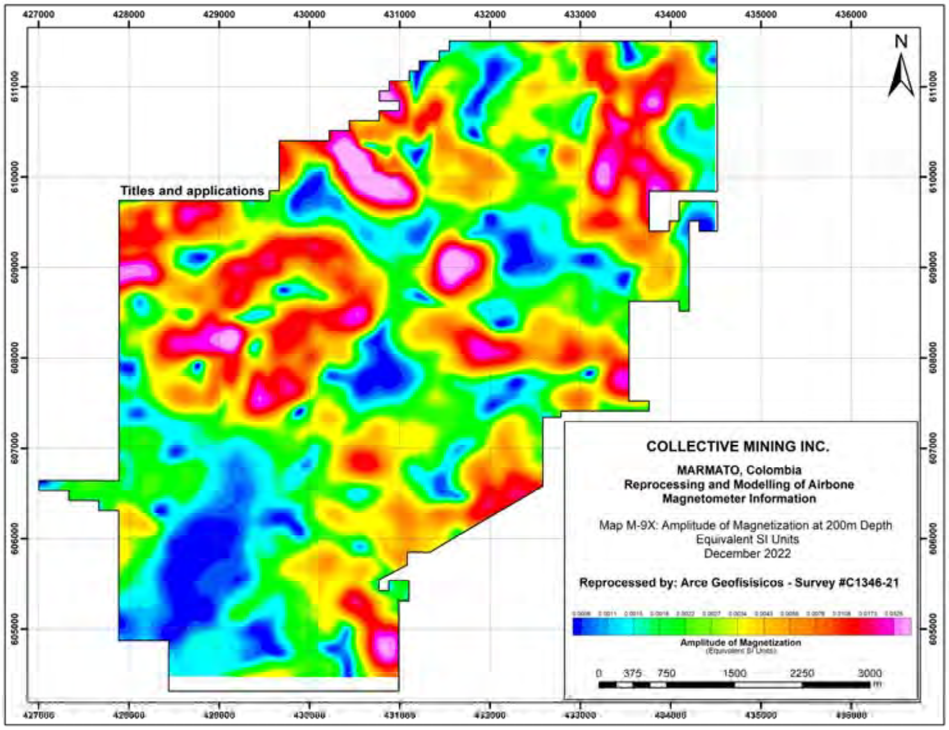



**Figure 9.11. Guayabales Project map of amplitude of magnetization at 200 m depth (clipped to mining titles).**

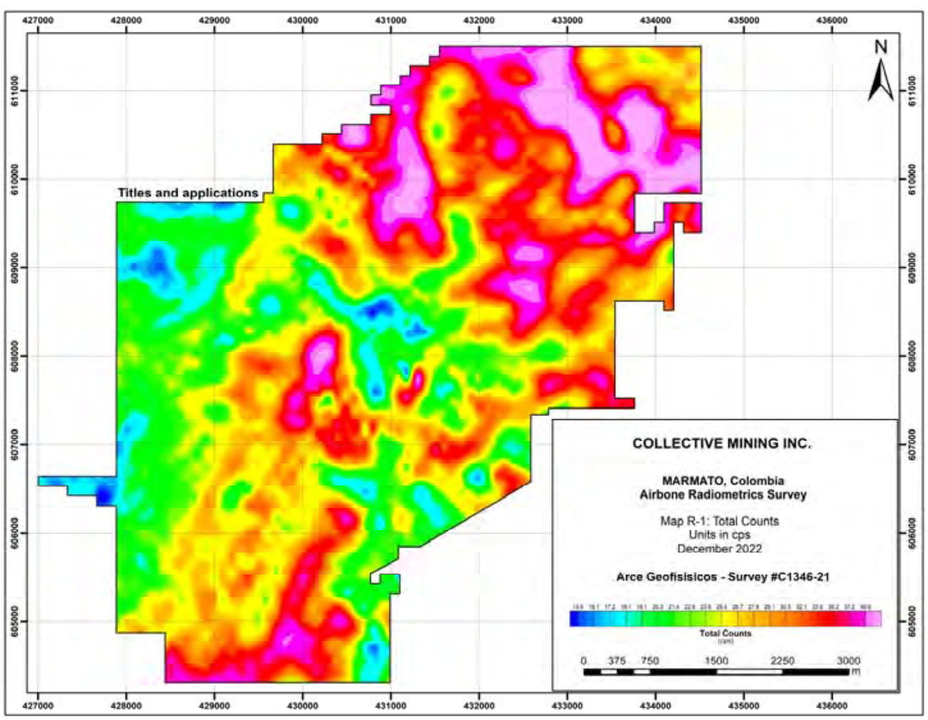



**Figure 9.12. Guayabales Project map of radiometric survey of total counts in counts per second (cps) (clipped to mining titles).**

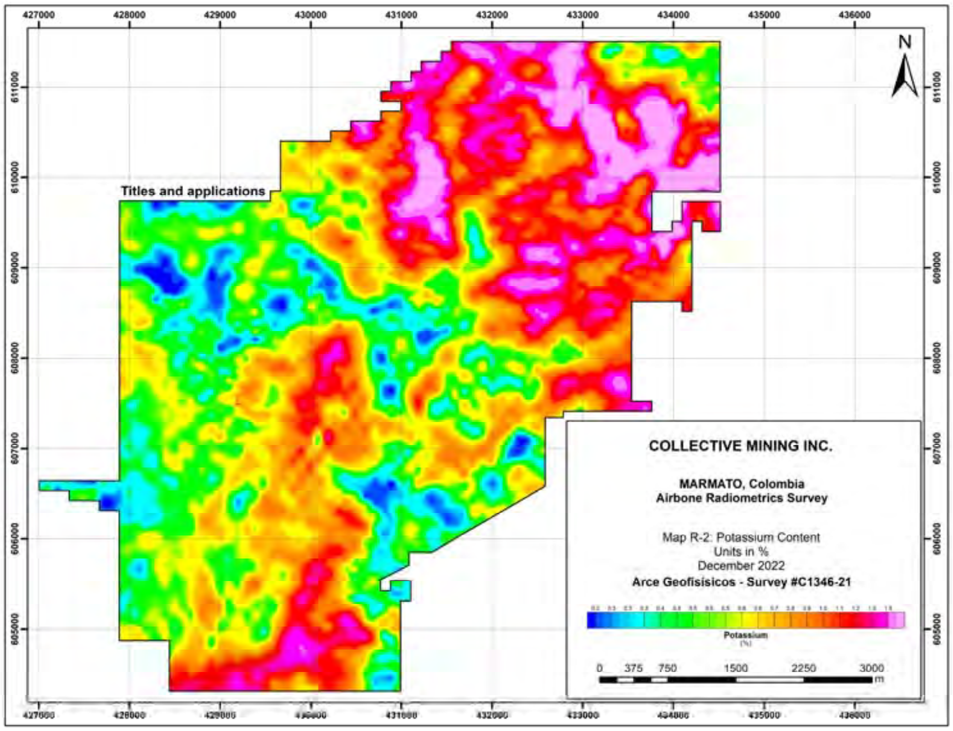



**Figure 9.13. Guayabales Project map of radiometric survey potassium content in percent (clipped to mining titles).**

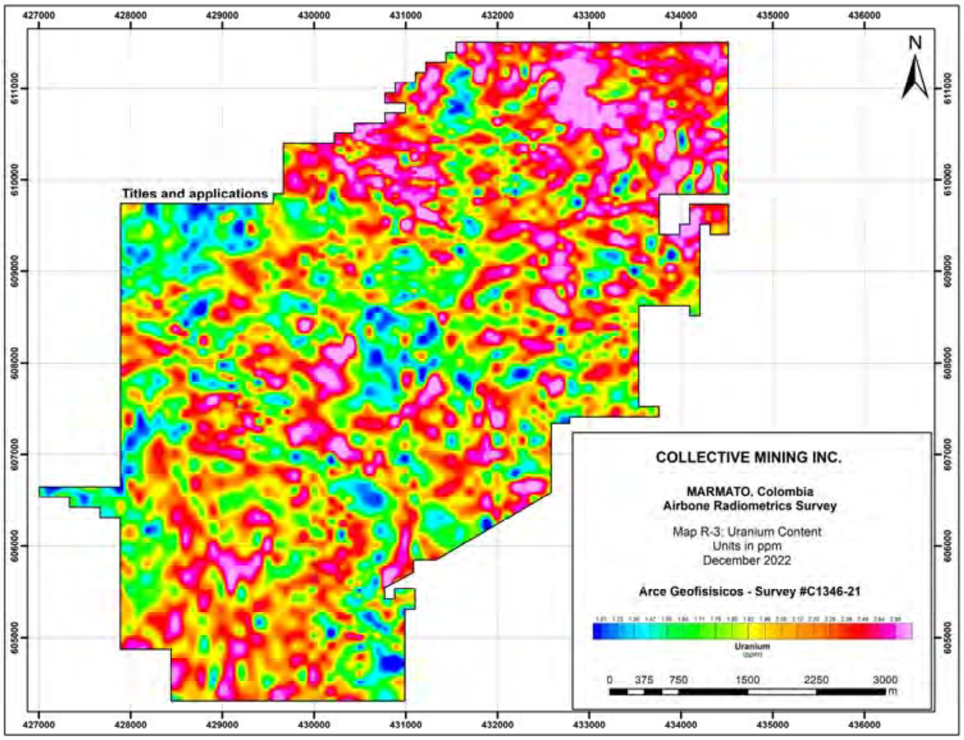



**Figure 9.14. Guayabales Project map of radiometric survey uranium content in ppm (clipped to mining titles).**

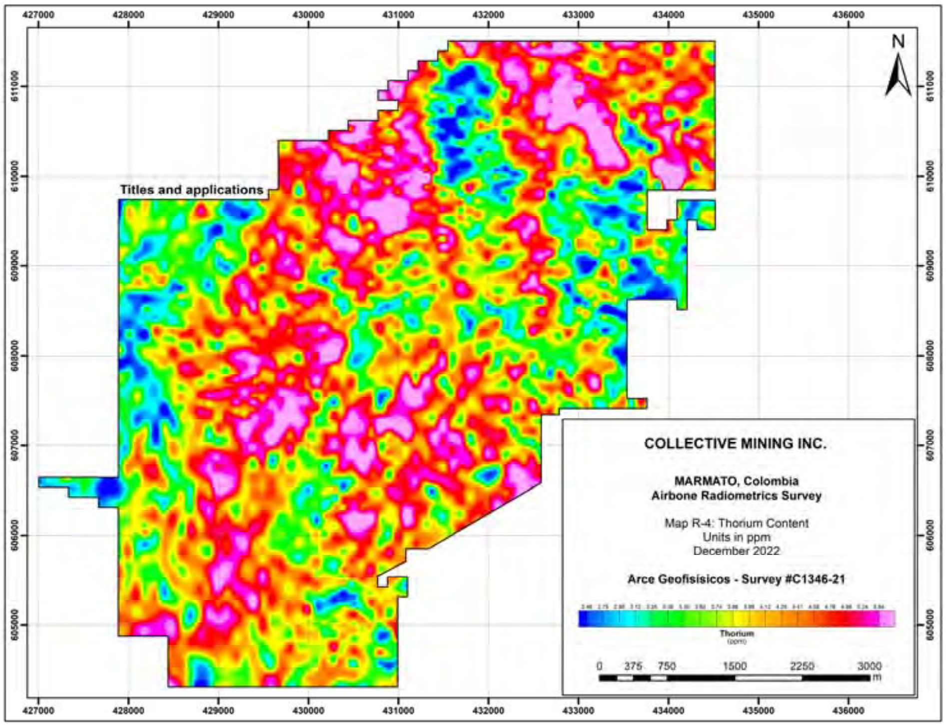



**Figure 9.15. Guayabales Project map of radiometric survey thorium content in ppm (clipped to mining titles).**

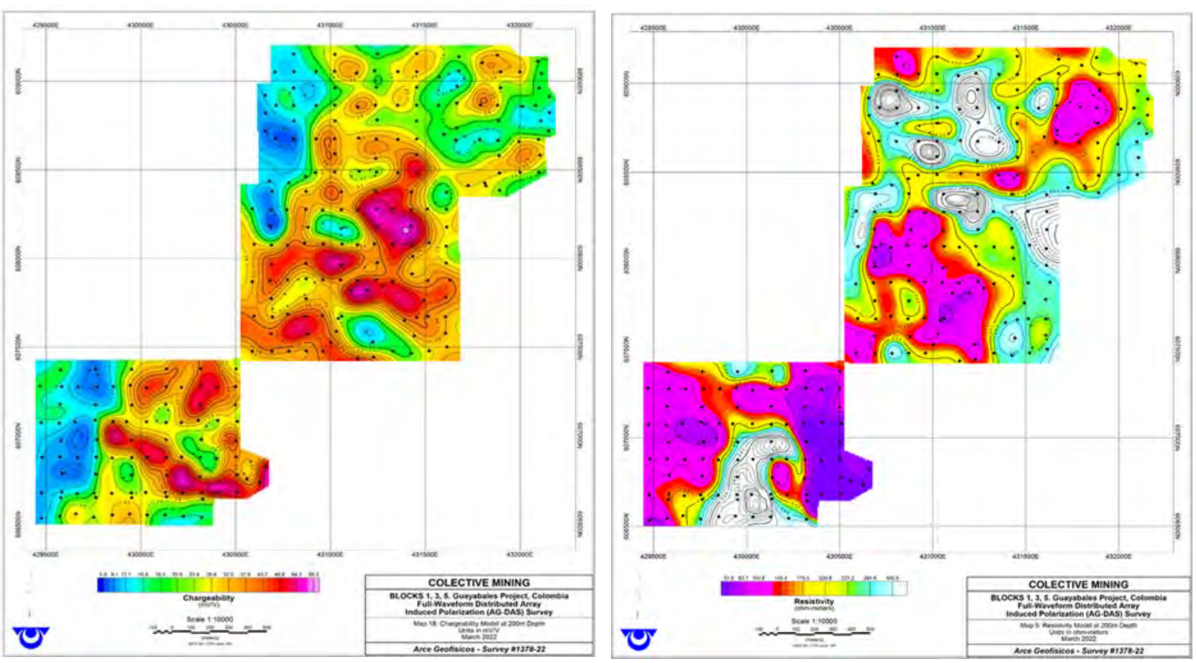



**Figure 9.16. Guayabales Project IP chargeability (left) and resistivity (right) at 200 m depth.**

## 9.3 Significant Results and Interpretation to Generate Drill Targets

Collective Mining has identified eight targets called Apollo (previously called Encanto), ME (Marmato Extension, previously called Guayabales), Olympus (previously called La Llorona), The Box, Donut, Plutus (previously called Donut SE), Trap (previously called Victory Central) and Victory (previously called Victory East). These are shown in Figure 7.3

### 9.3.1 Apollo Target

Plans of the geochemistry of gold, copper, silver, and molybdenum in rocks and soils that were used to define drill targets at Apollo are shown in Figure 9.17 to Figure 9.20, together with the later drill core results. Geochemistry and mapping identified a breccia as a drill target which returned significant grades of gold, silver and copper in drilling. Seven more breccia bodies with anomalous Au, Ag, Cu and Mo geochemistry were discovered subsequent to the effective dates of this report by excavations to build new trails for drill access. These breccias occur around the main drilled breccia body in a zone with approximate dimensions of 750 m EW by 650 m NS (Figure 9.21). It is planned to drill these new breccia targets in the Phase 2 drill program.

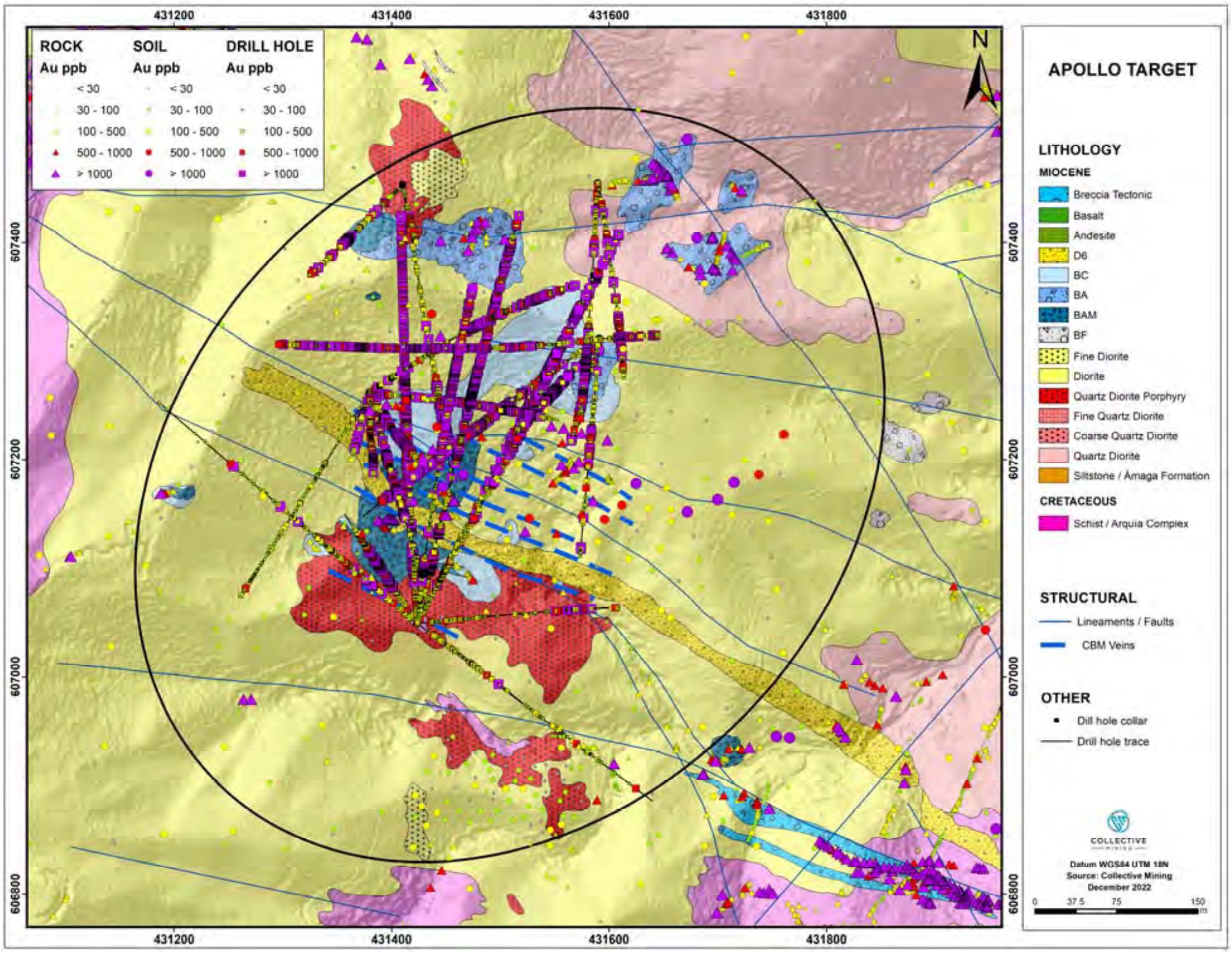



**Figure 9.17. Apollo target geology and geochemistry for gold (soil, rock, drill core).**

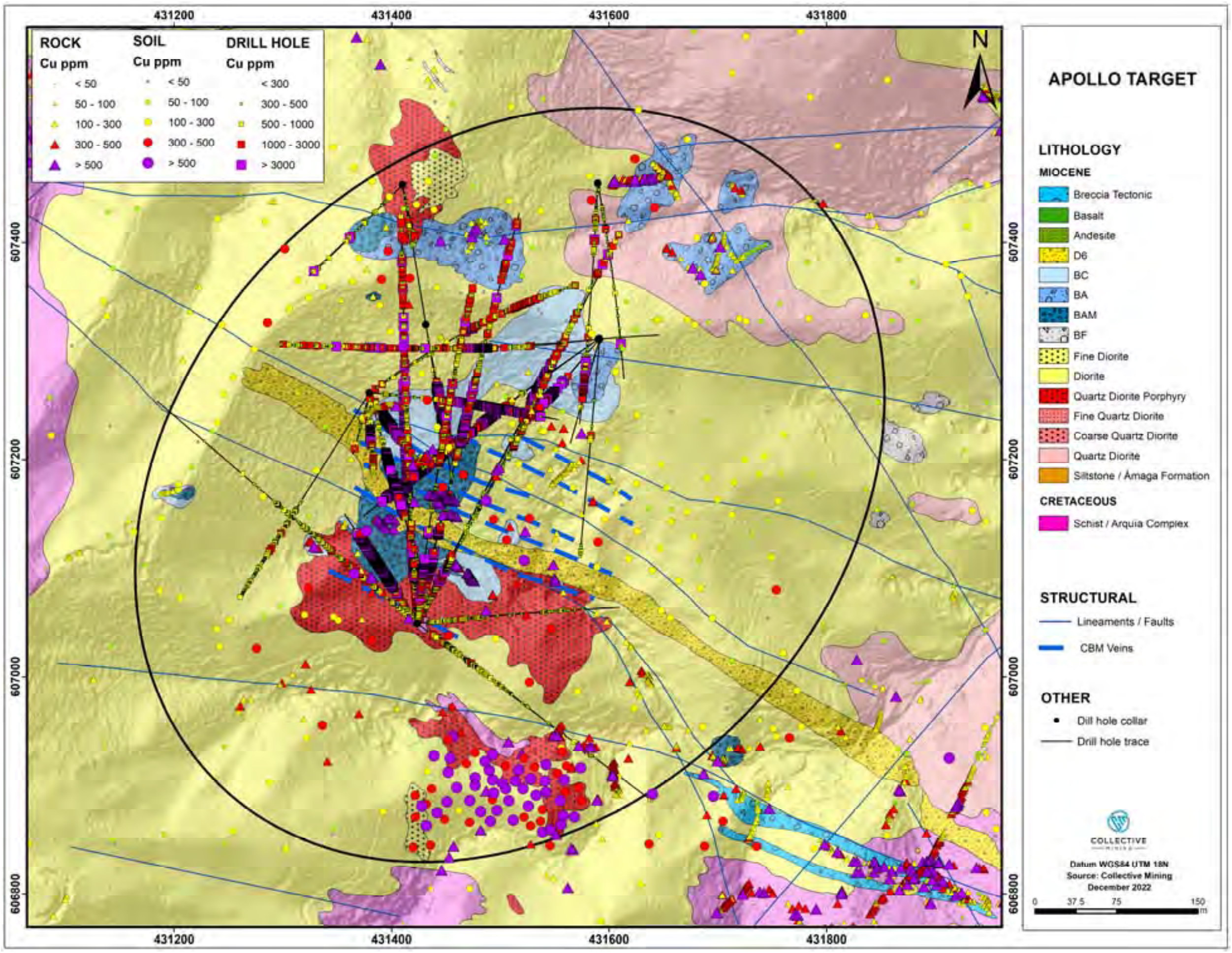



**Figure 9.18. Apollo target geology and geochemistry for copper (soil, rock, drill core).**

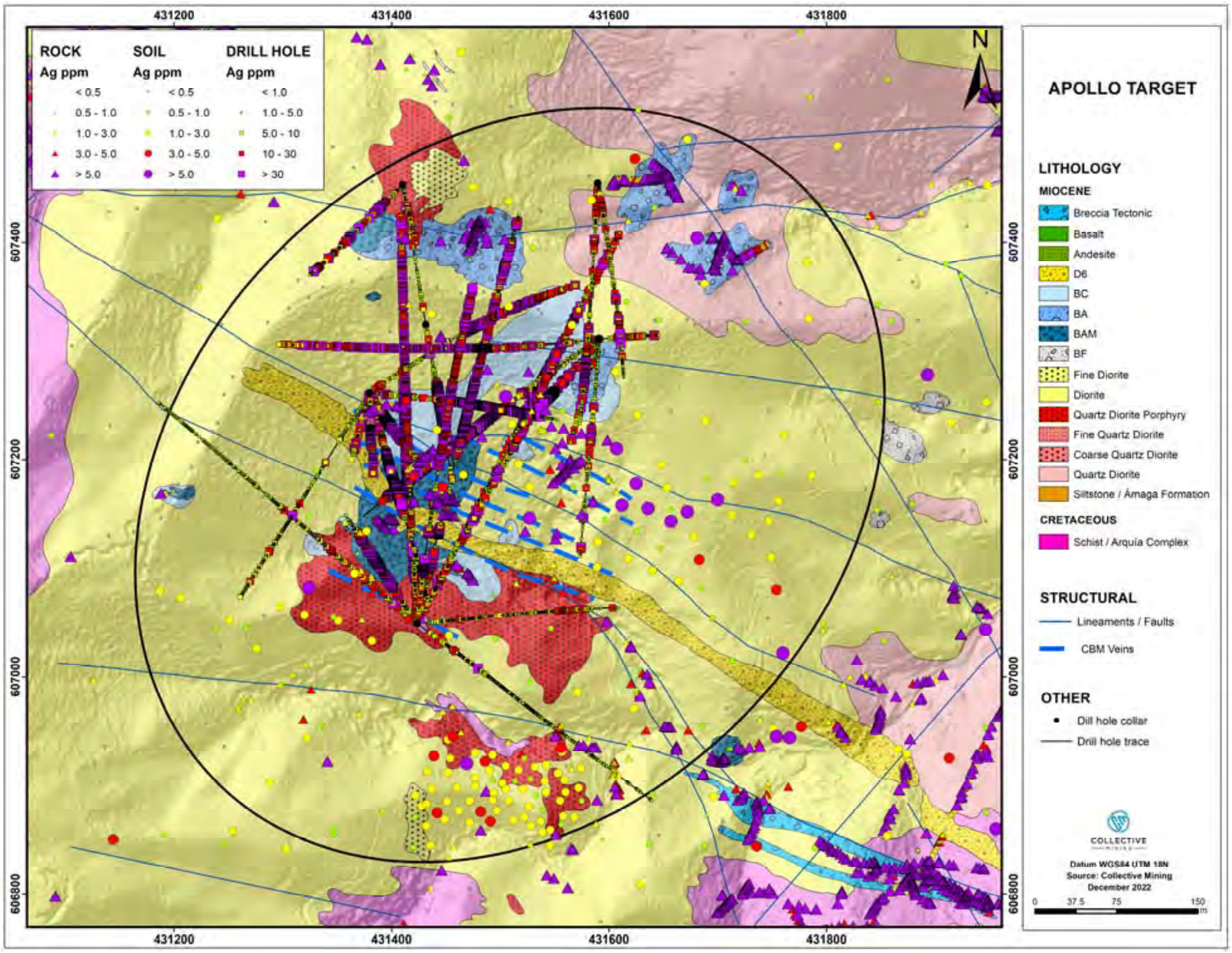



**Figure 9.19. Apollo target geology and geochemistry for silver (soil, rock, drill core).**

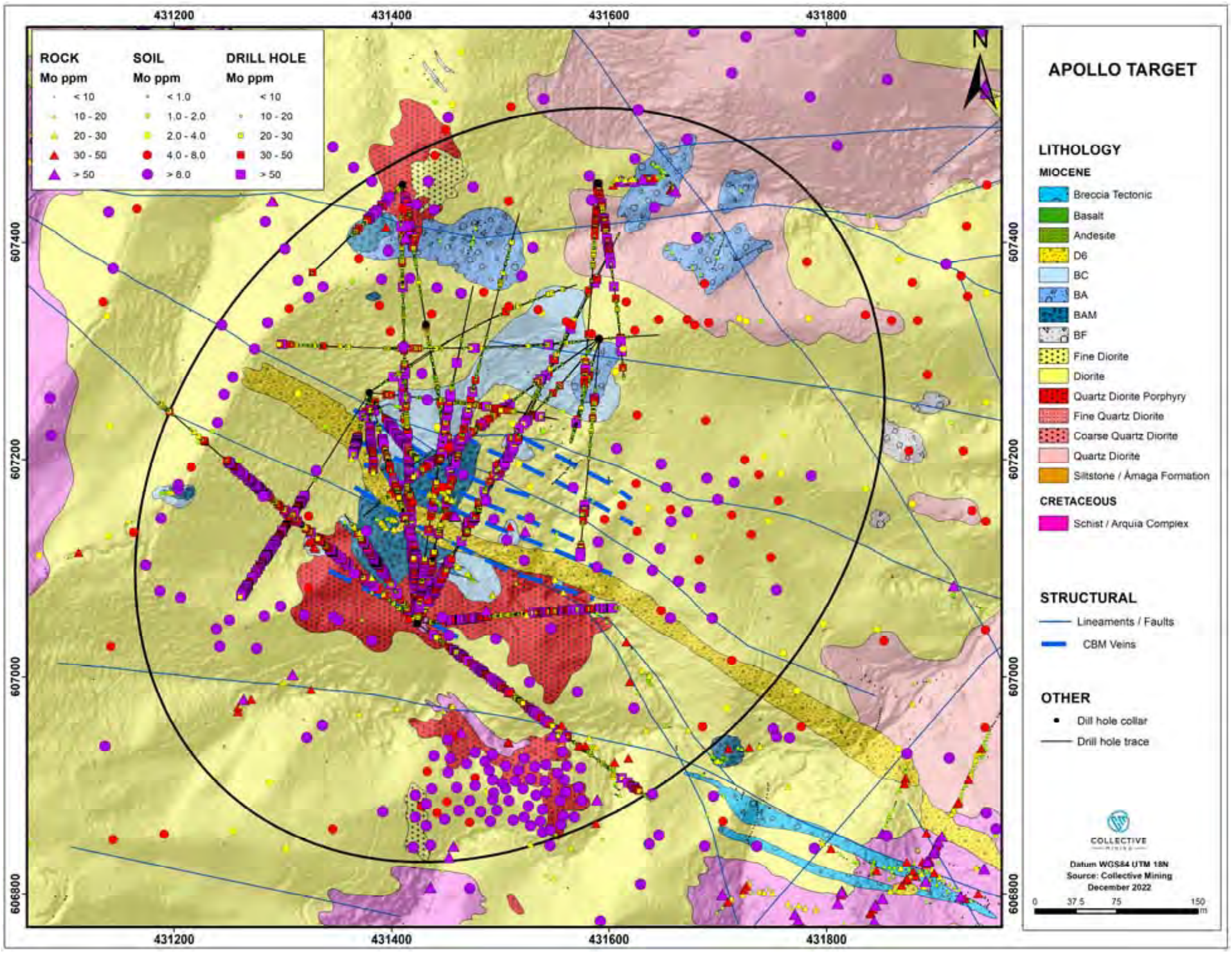



**Figure 9.20. Apollo target geology and geochemistry for molybdenum (soil, rock, drill core).**

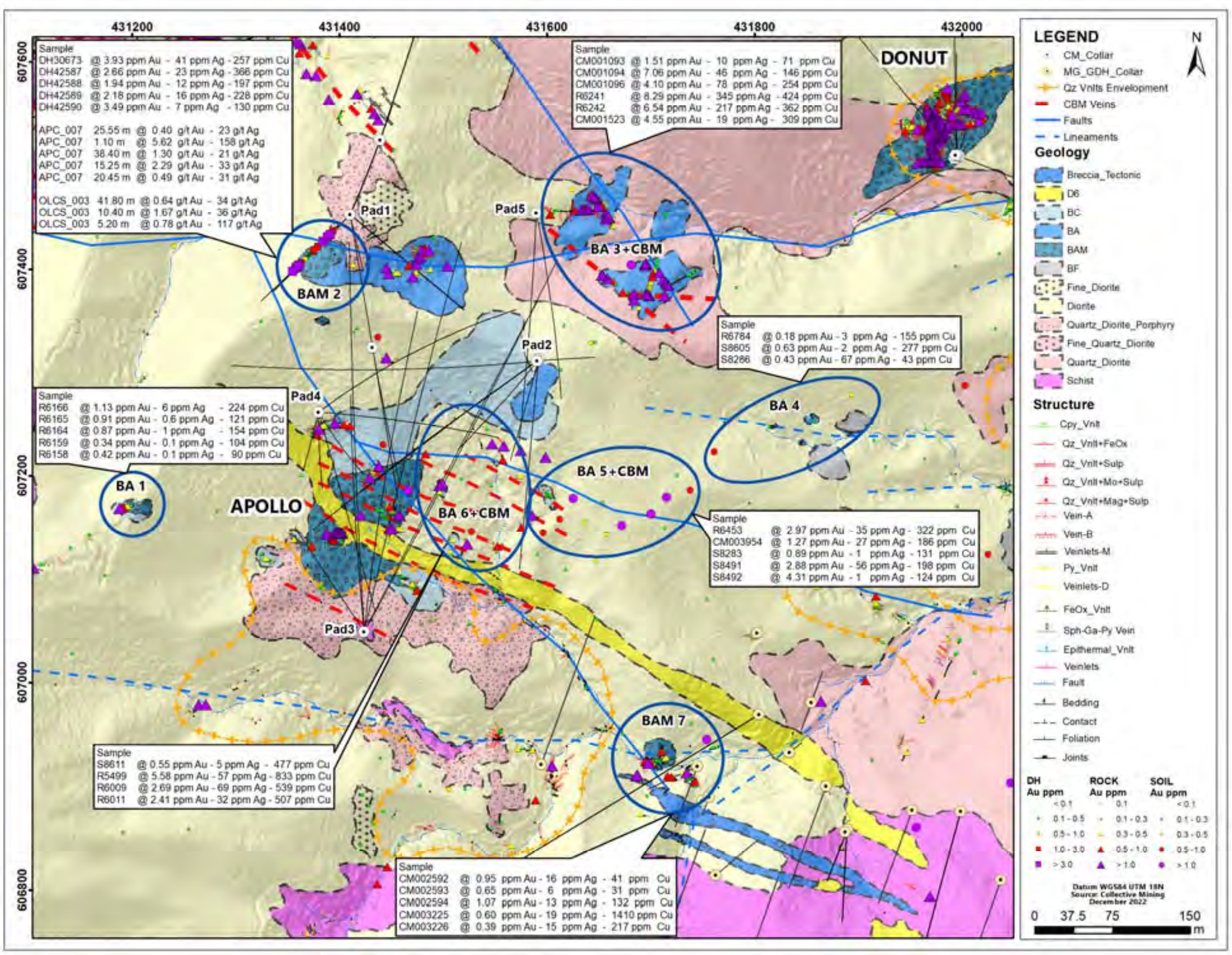



**Figure 9.21. Geological map of the Apollo target showing seven newly discovered breccia bodies with rock and soil sample grades for Au, Ag and Cu around the main breccia body.**

### 9.3.2 Olympus Target

Plans of the geochemistry of gold, copper, silver, and molybdenum in rocks and soils that were used to define drill targets at the Olympus target are shown in Figure 9.22 to Figure 9.25, together with the later drill core results.

The Olympus target is a NW trending mineralized corridor located within diorite and quartz diorite porphyries that intrude schists in the west of the target area. Hydrothermal breccia has been mapped in the southern portion of the Gustavo mine and in the Donut target. The Olympus mineralised corridor has been mapped over a width of 600 m and traced over a NW trending strike length of 600 m, and is open in all directions. It hosts multiple veins, veinlet and mineralised breccias, and forty-one artisanal mine workings have been identified.

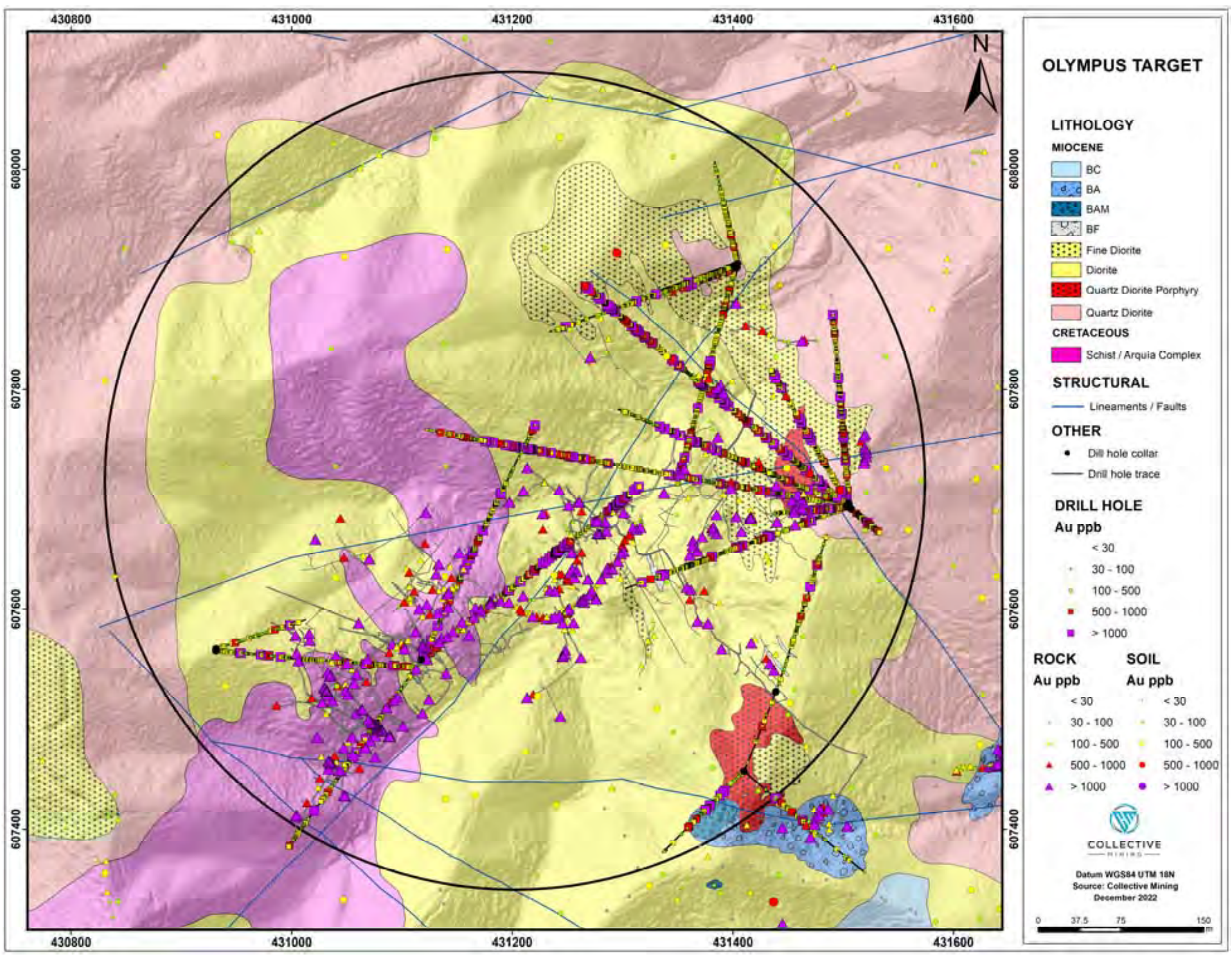



**Figure 9.22. Olympus target geology and geochemistry for gold (soil, rock, drill core).**

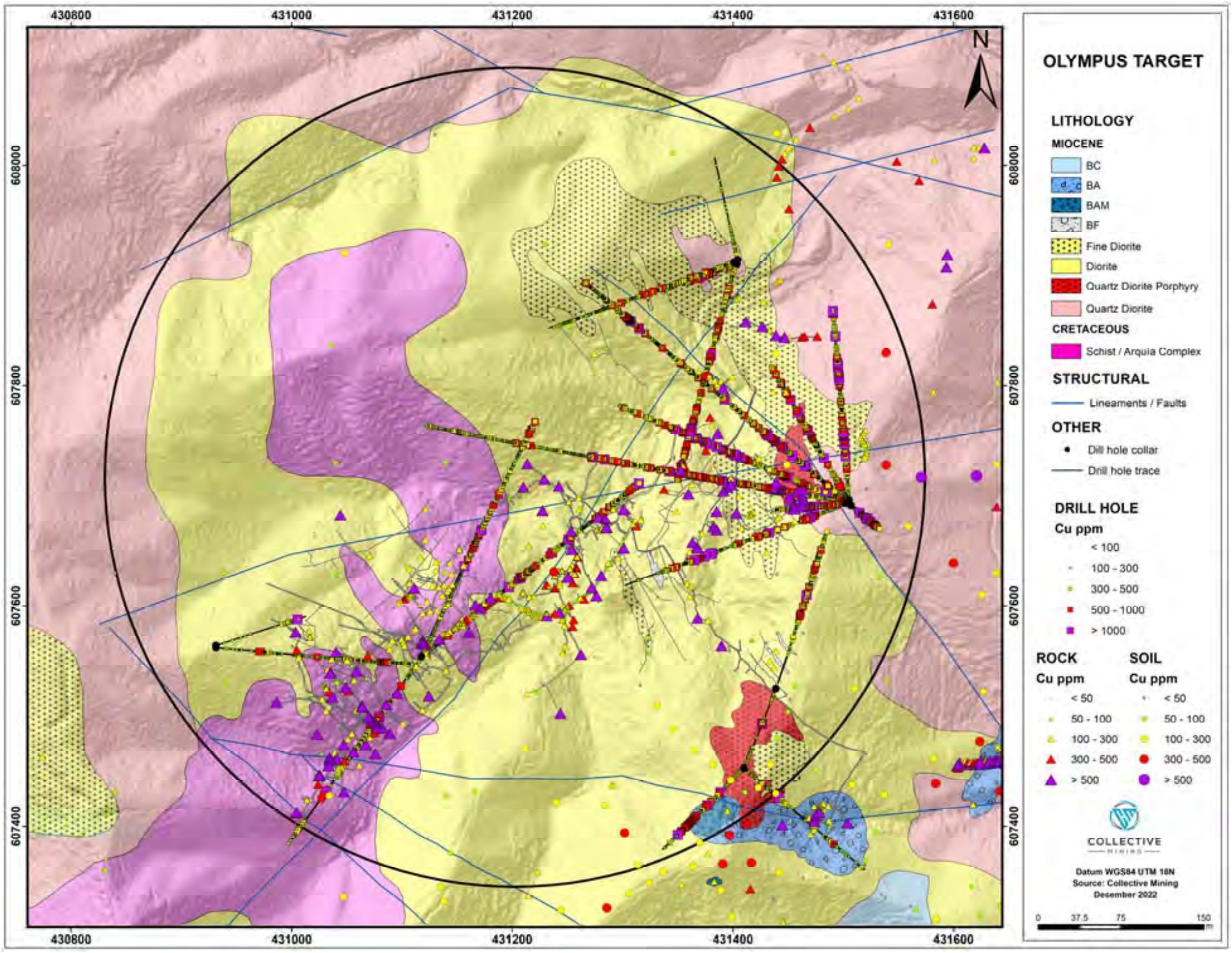



**Figure 9.23. Olympus target geology and geochemistry for copper (soil, rock, drill core).**

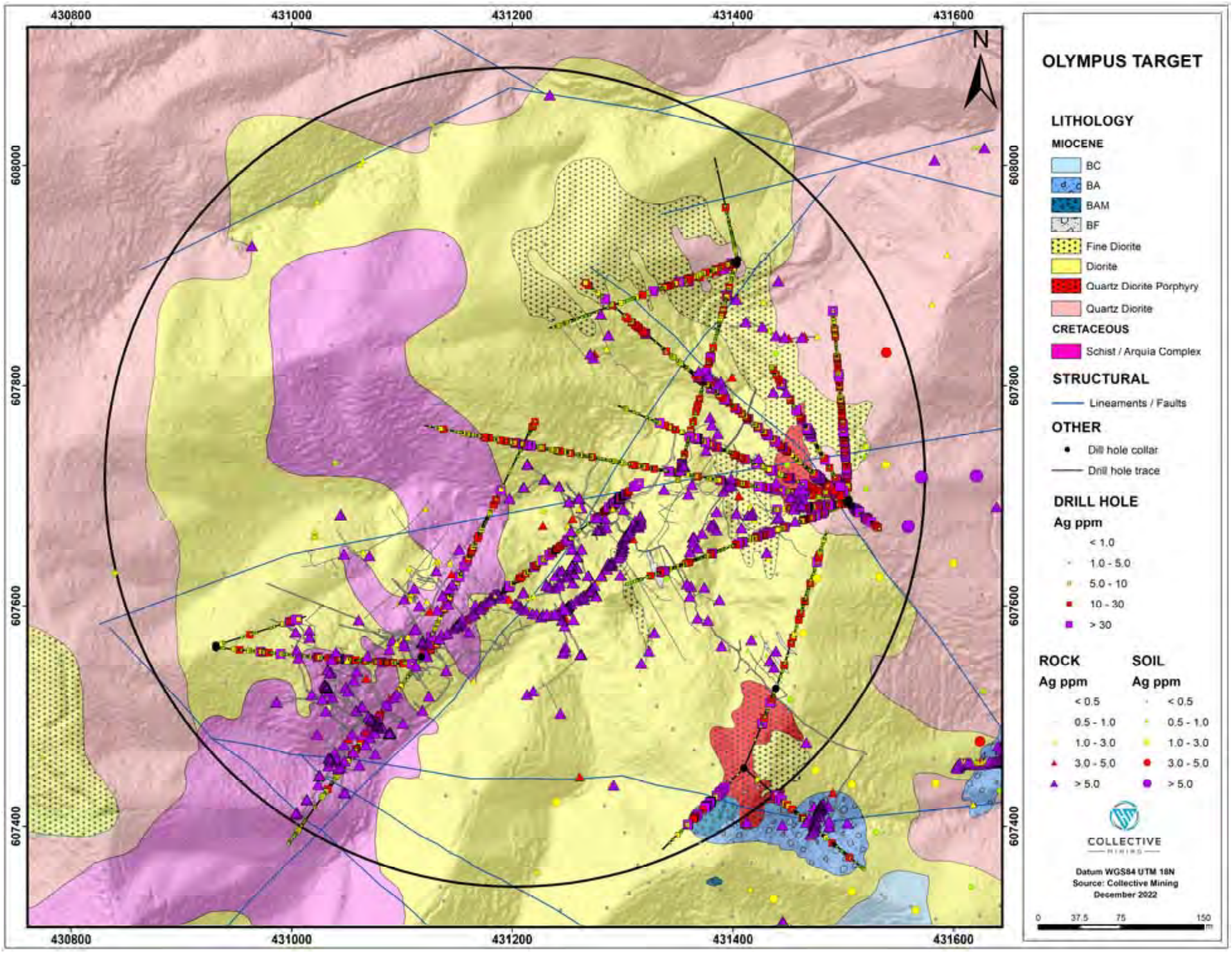



**Figure 9.24. Olympus target geology and geochemistry for silver (soil, rock, drill core).**

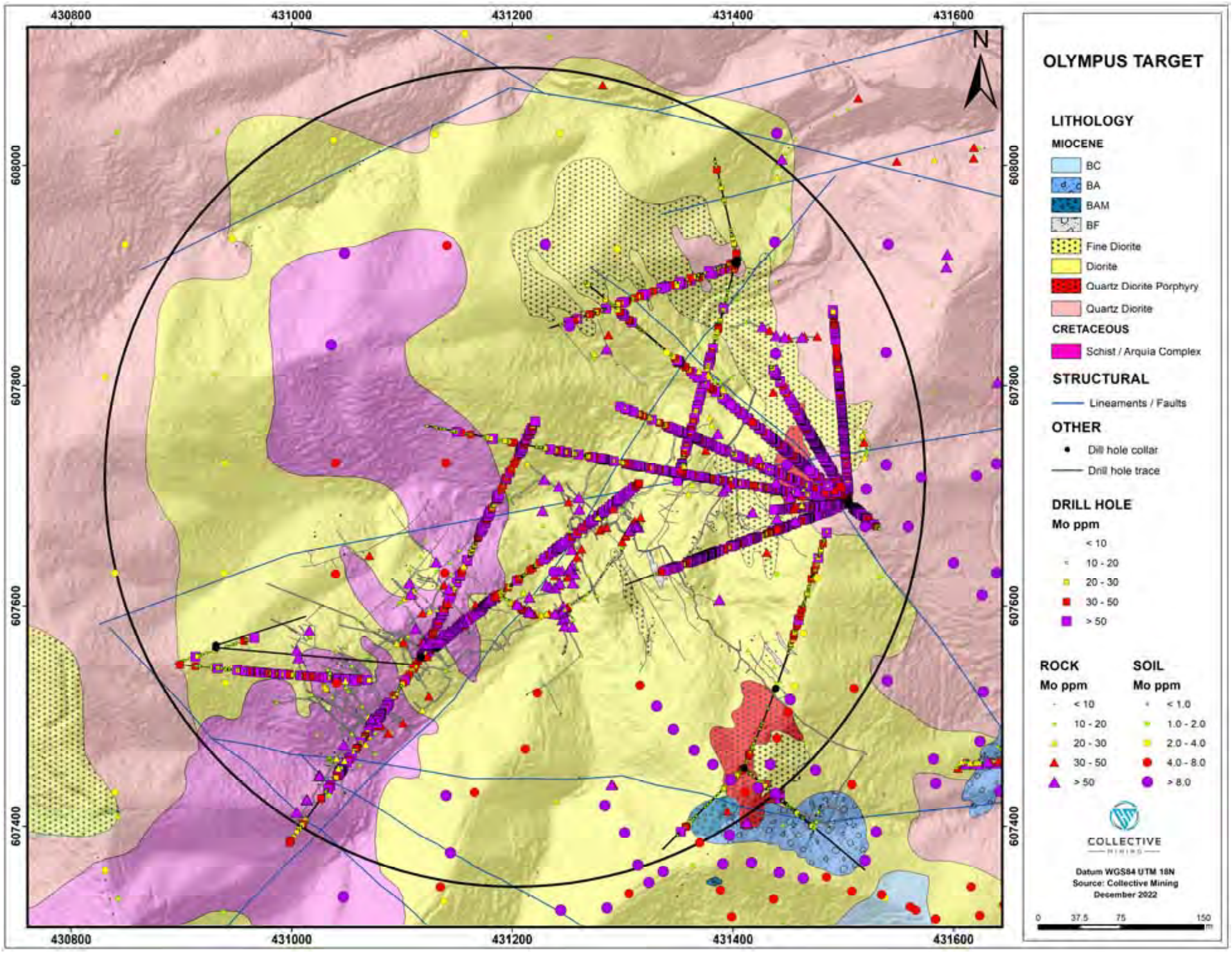



**Figure 9.25. Olympus target geology and geochemistry for molybdenum (soil, rock, drill core).**

### 9.3.3 Donut Target

Plans of the geochemistry of gold, copper, silver, and molybdenum in rocks and soils that were used to define drill targets at the Donut target are shown in Figure 9.26 to Figure 9.29, together with the later drill core results.

The Donut target is an area where shallow underground workings have exposed porphyry and breccia related mineralization. The porphyry veining contains chalcopyrite, chalcocite and lesser bornite with molybdenite and abundant pyrite. The Donut target displays intense zones of both potassic alteration and overprinting vein and stockwork systems associated with phyllic alteration. This porphyry-breccia zone is coincident with anomalous soil and channel sample geochemistry of gold, copper and molybdenum soil in an area of 300 m by 300 m.

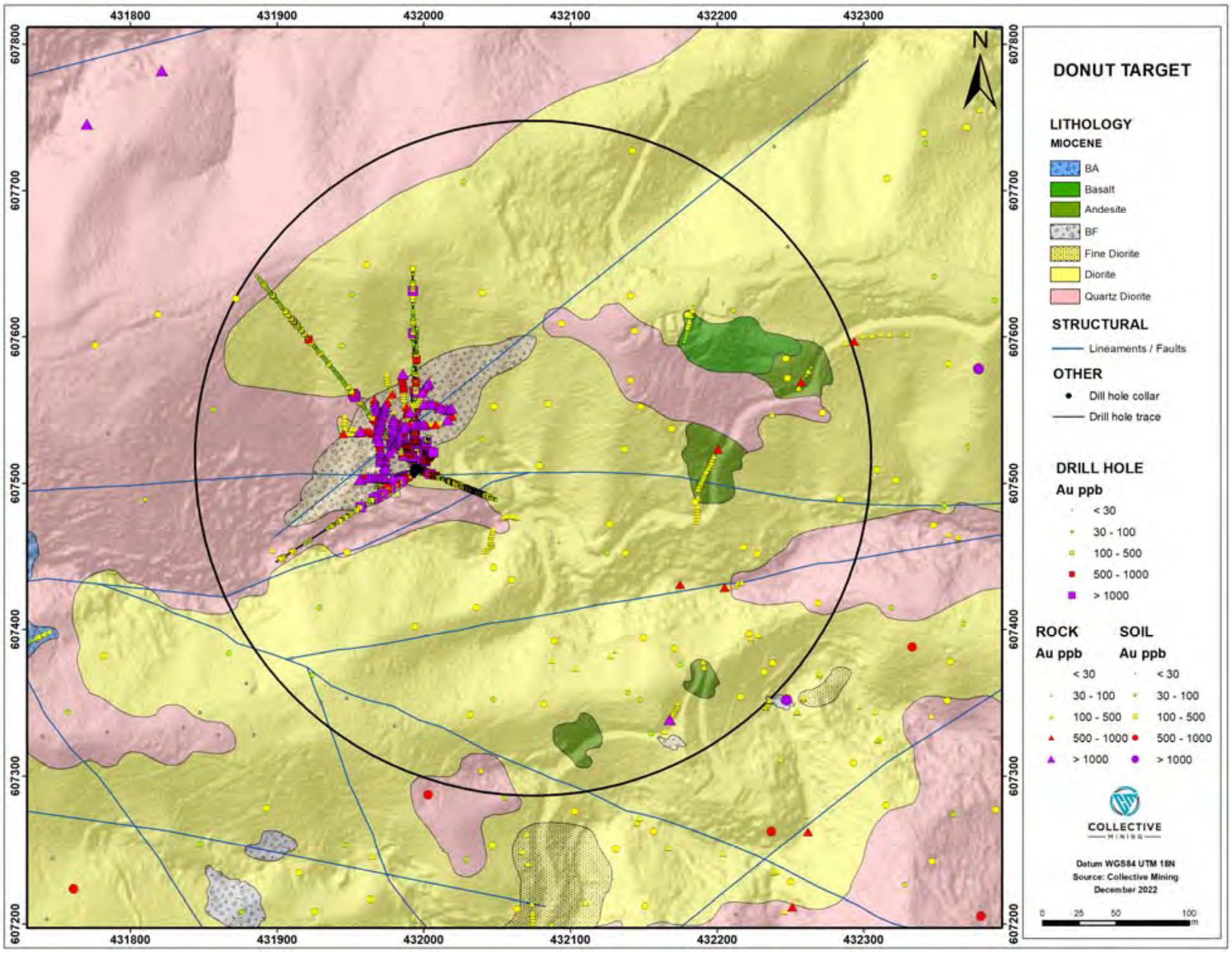



**Figure 9.26. Donut target geology and geochemistry for gold (soil, rock, drill core).**

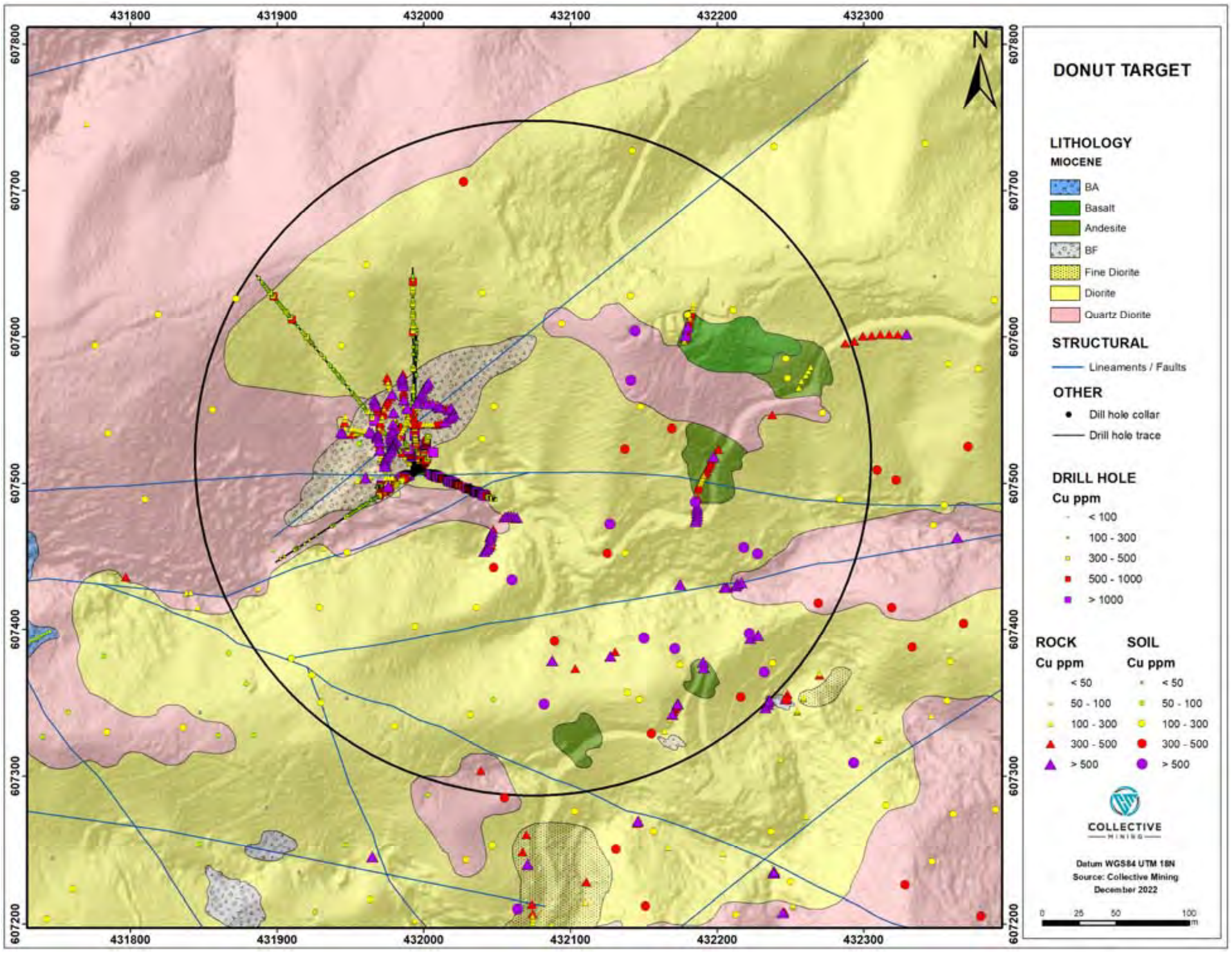



**Figure 9.27. Donut target geology and geochemistry for copper (soil, rock, drill core).**

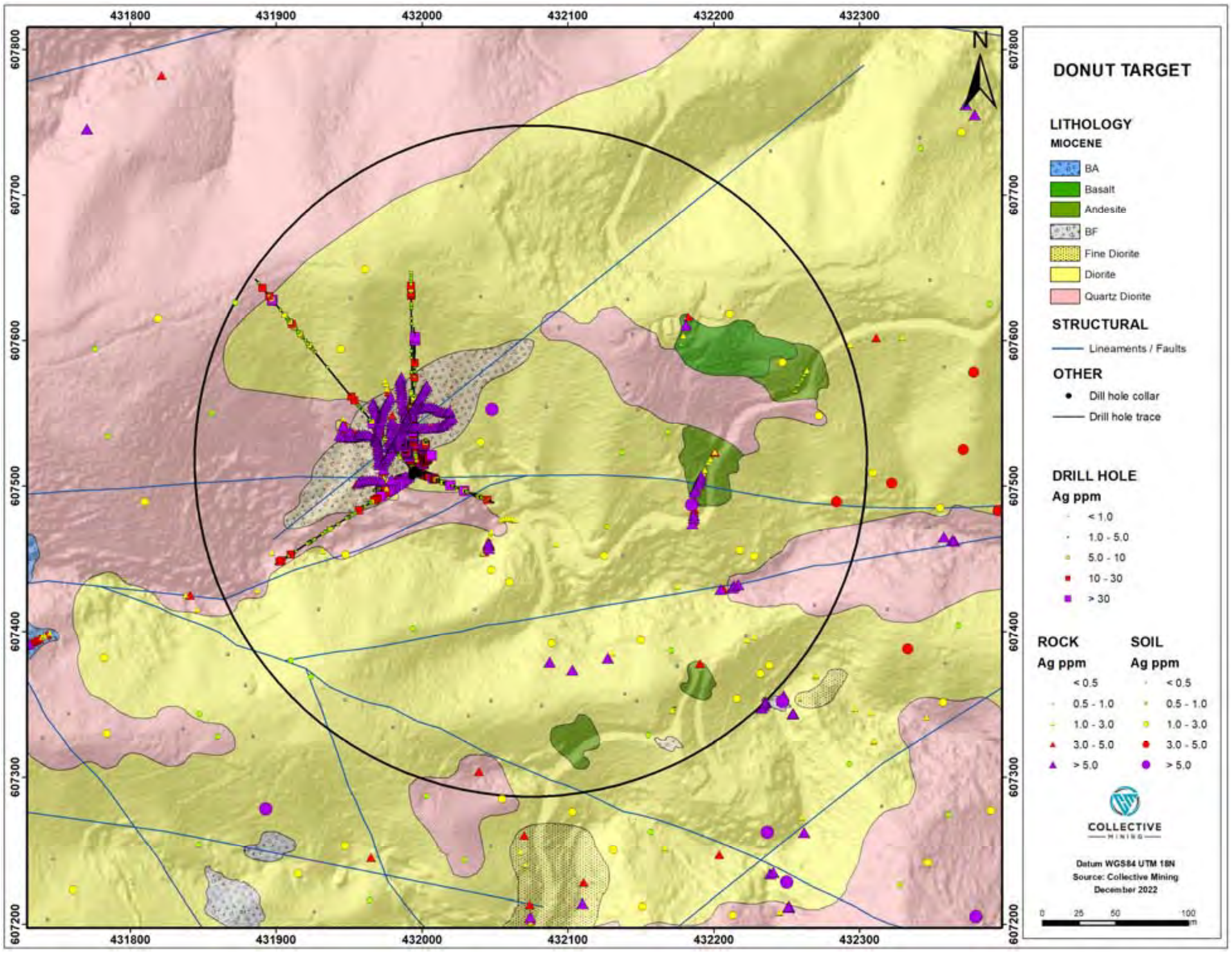



**Figure 9.28. Donut target geology and geochemistry for silver (soil, rock, drill core).**

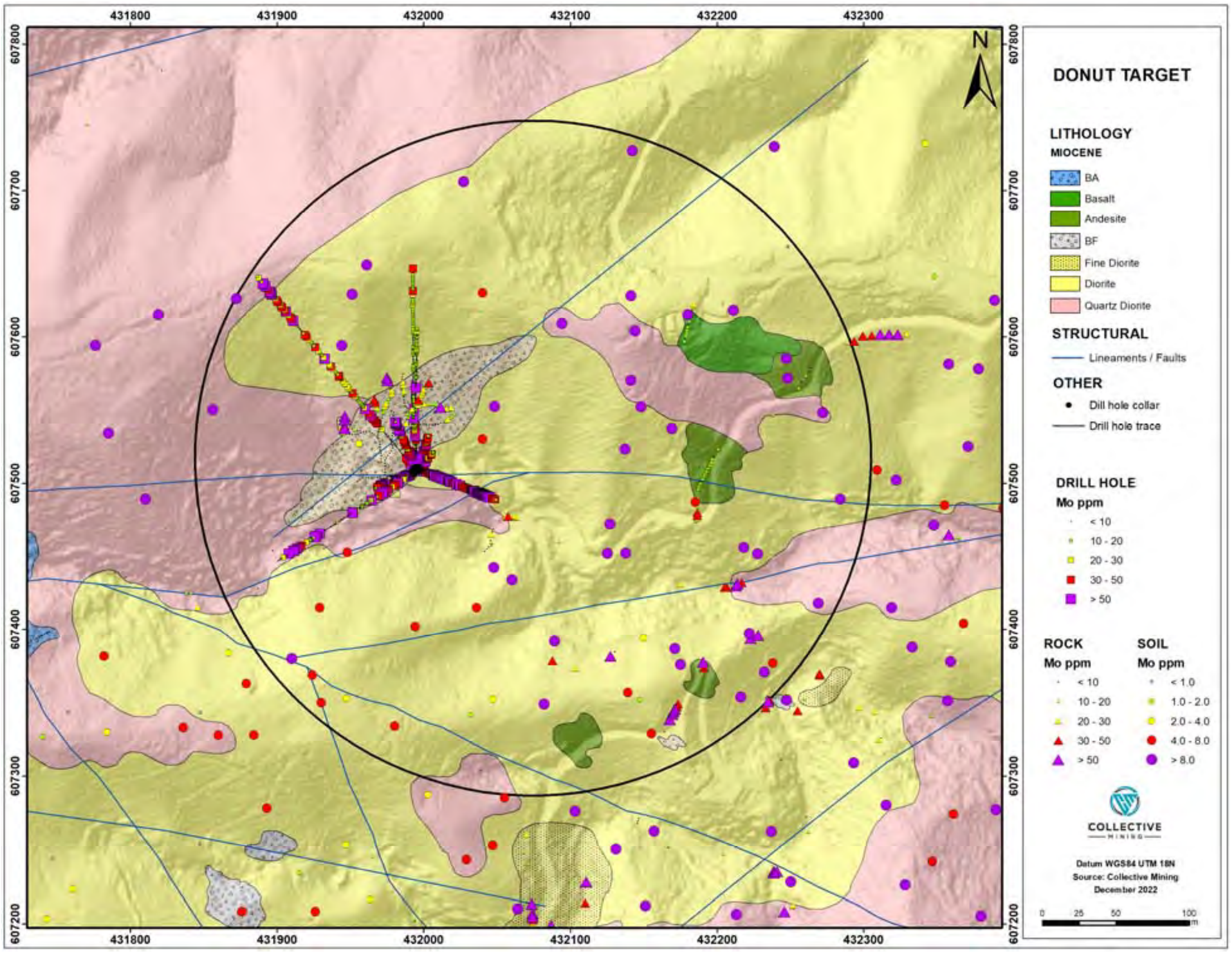



**Figure 9.29. Donut target geology and geochemistry for molybdenum (soil, rock, drill core).**

### 9.3.4 The Box Target

Plans of the geochemistry of gold, copper, silver, and molybdenum in rocks and soils that were used to define drill targets at the Olympus target are shown in Figure 9.30 to Figure 9.33, together with the later drill core results.

Geological mapping of the Box target has defined two mineralized systems with anomalous gold and silver in an area of 800 m NS by 600 m. The Box North zone of 400 m by 400 m comprises porphyry mineralization with a vein overprint and the Box South part contains vein mineralization at 300 m higher elevation.

Geologically the whole area is characterised by porphyry bodies intruded into schists and Amaga Formation siltstones. There is extensive ash, landslide and colluvium cover so outcrops are restricted to stream exposures and old workings.

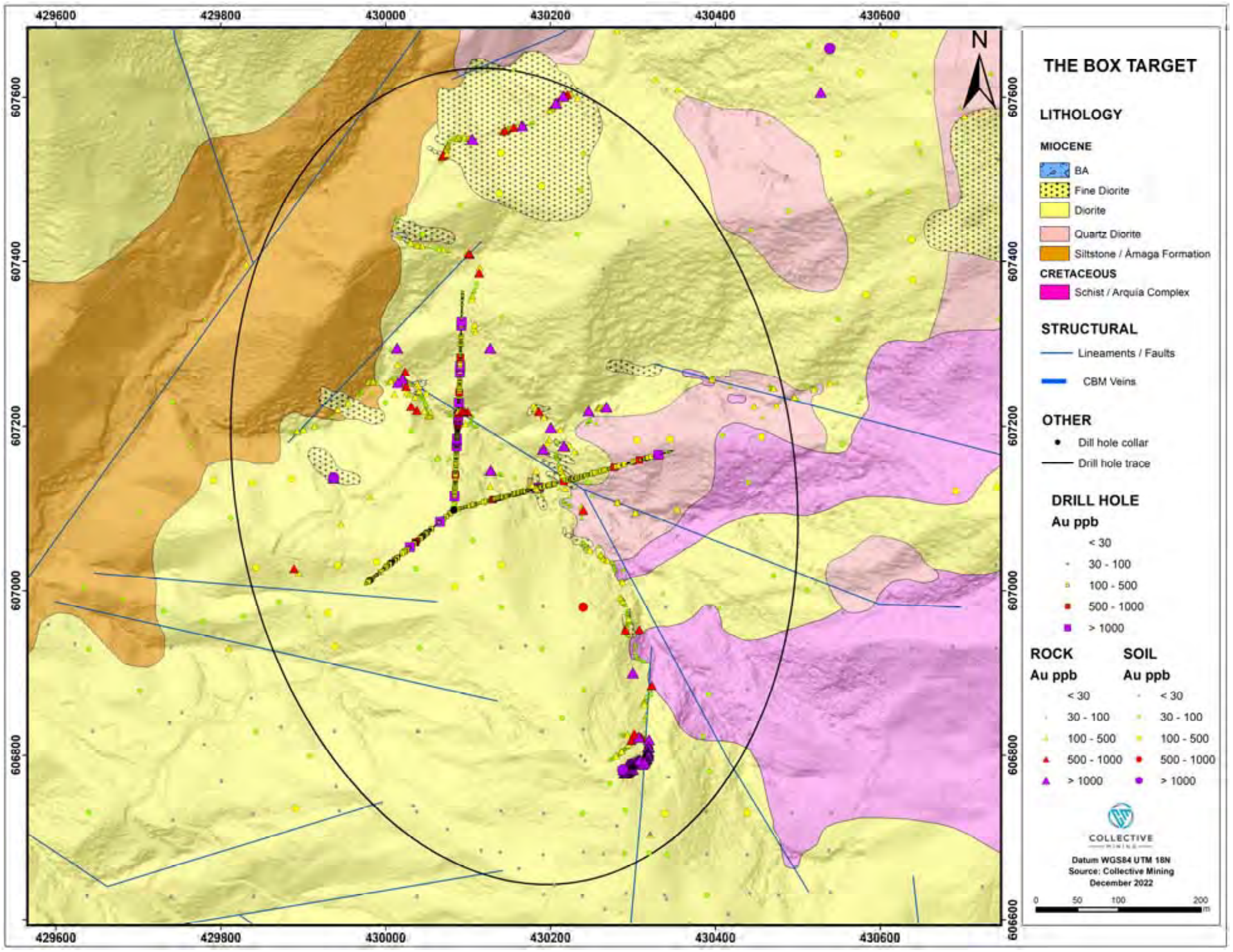



**Figure 9.30. The Box target geology and geochemistry for gold (soil, rock, drill core).**

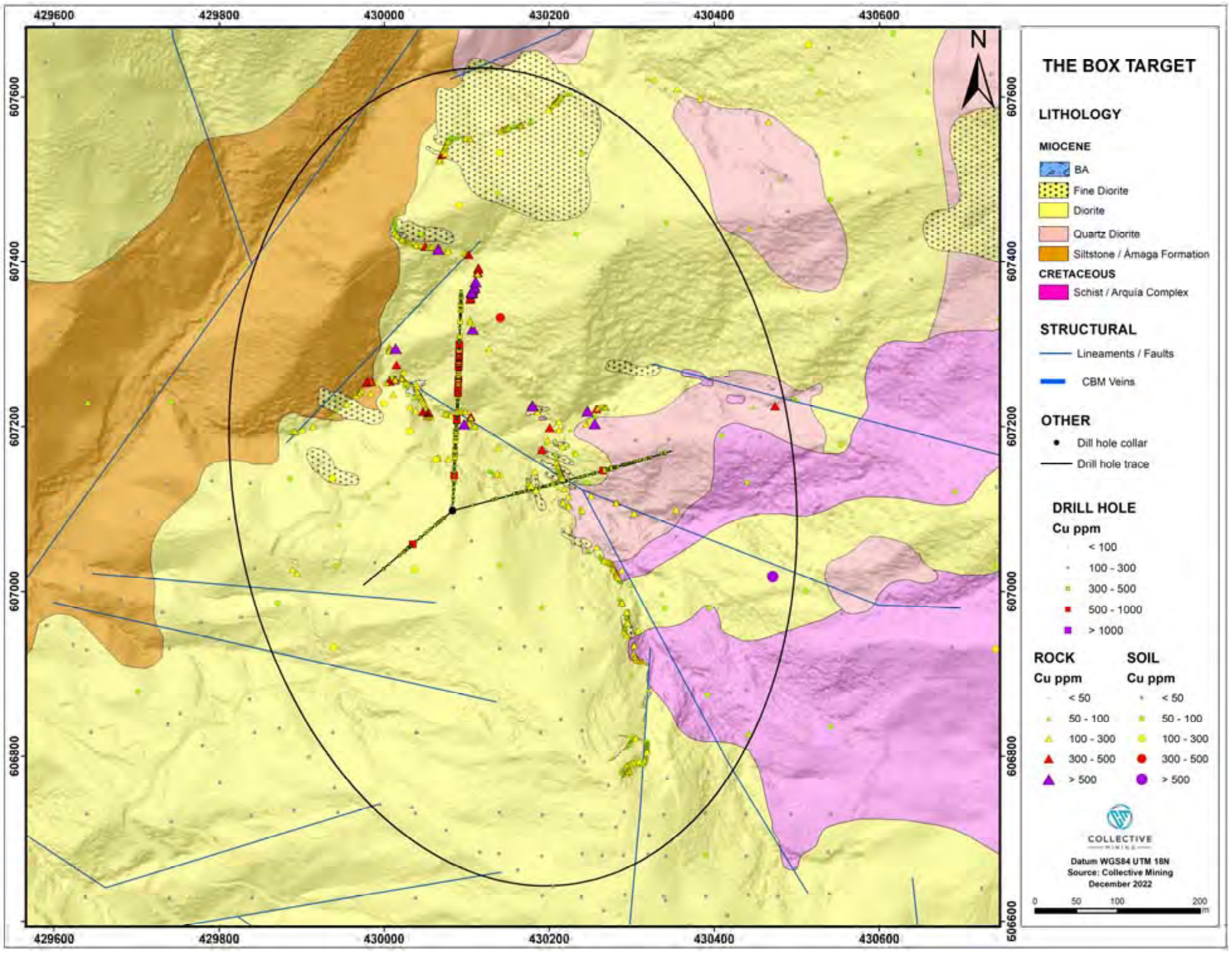



**Figure 9.31. The Box target geology and geochemistry for copper (soil, rock, drill core).**

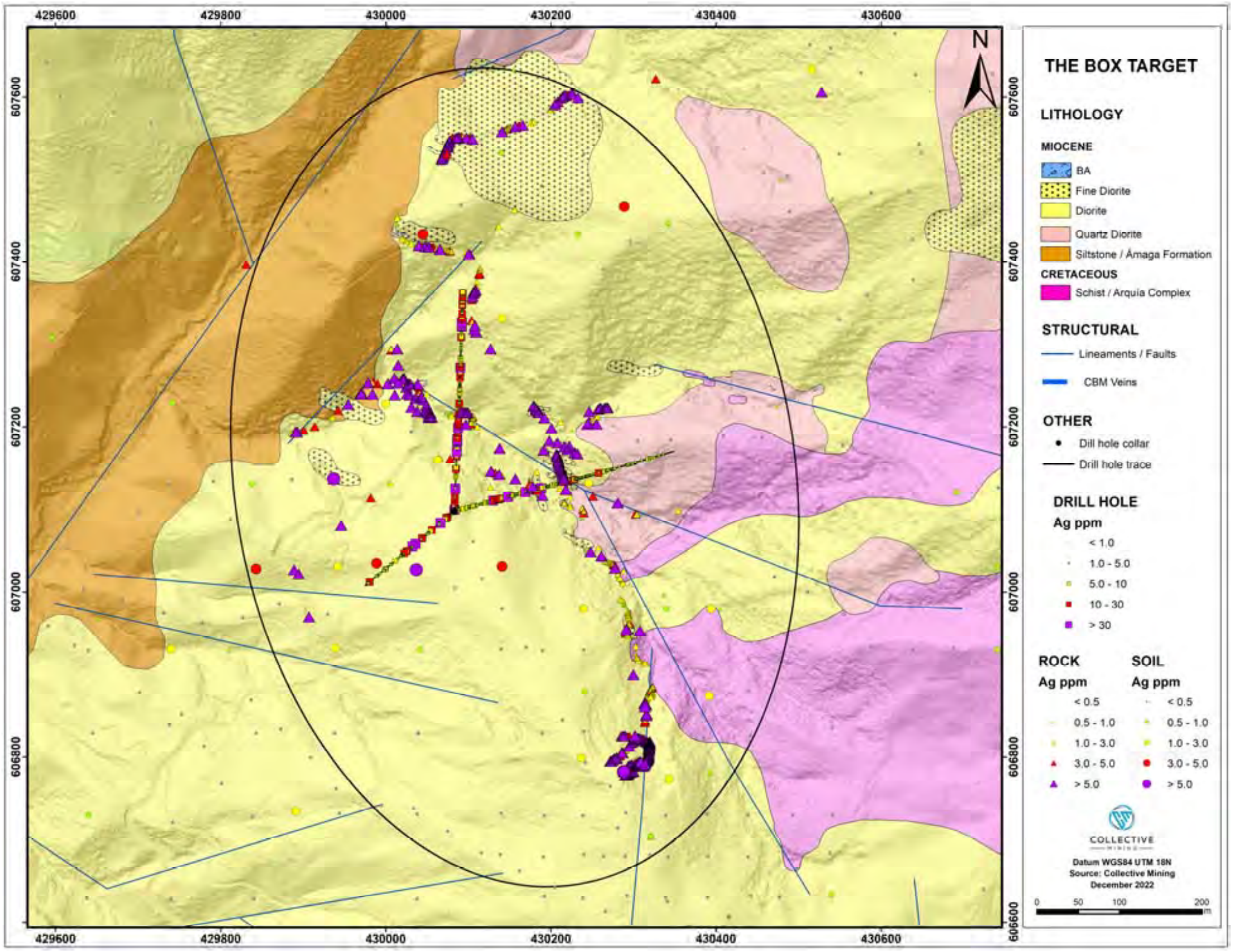



**Figure 9.32. The Box target geology and geochemistry for silver (soil, rock, drill core).**

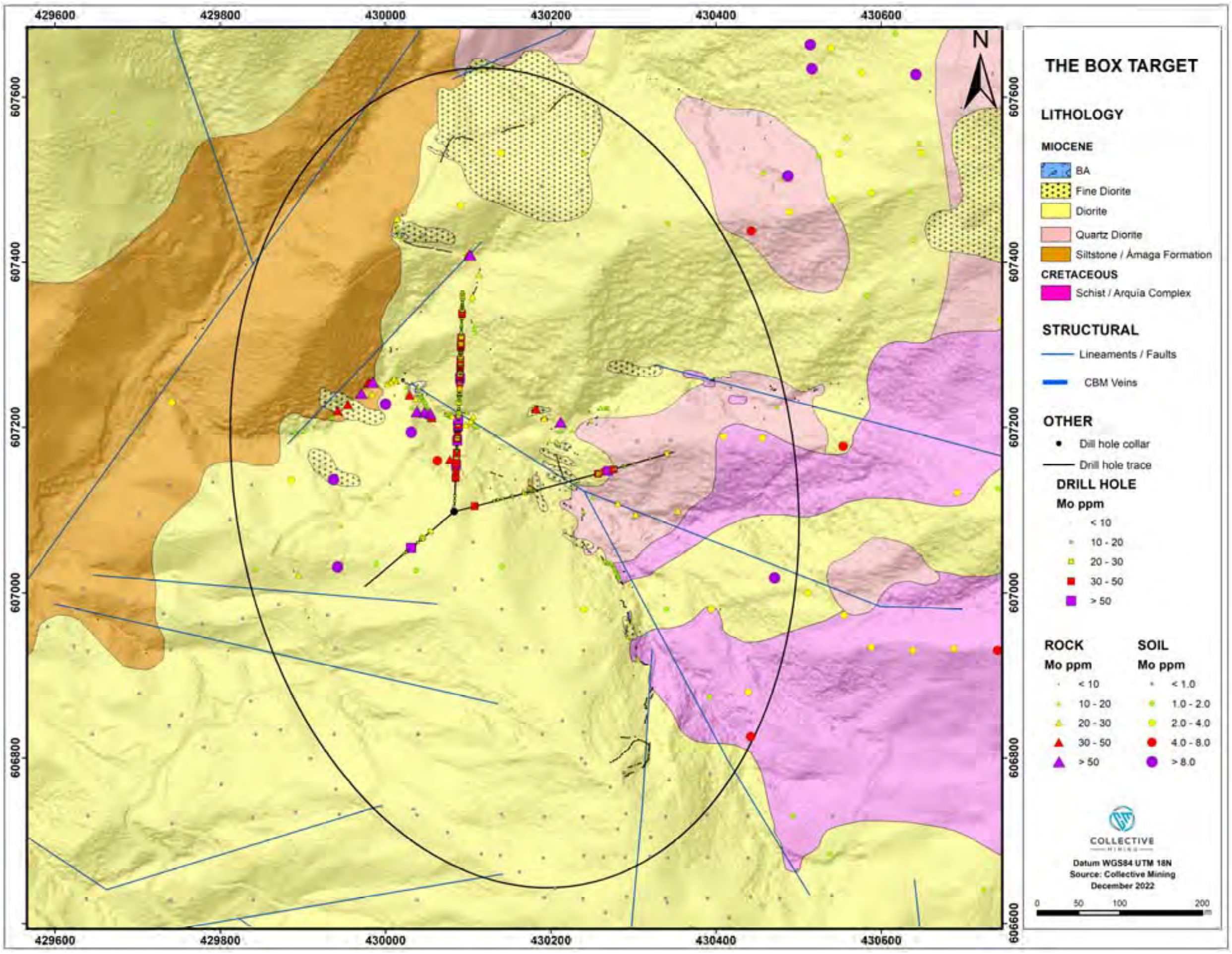



**Figure 9.33. The Box target geology and geochemistry for molybdenum (soil, rock, drill core).**

### 9.3.5 Trap Target

Plans of the geochemistry of gold, copper, silver, and molybdenum in rocks and soils that were used to define drill targets at the Trap target are shown in Figure 9.34 to Figure 9.37, together with the later drill core results.

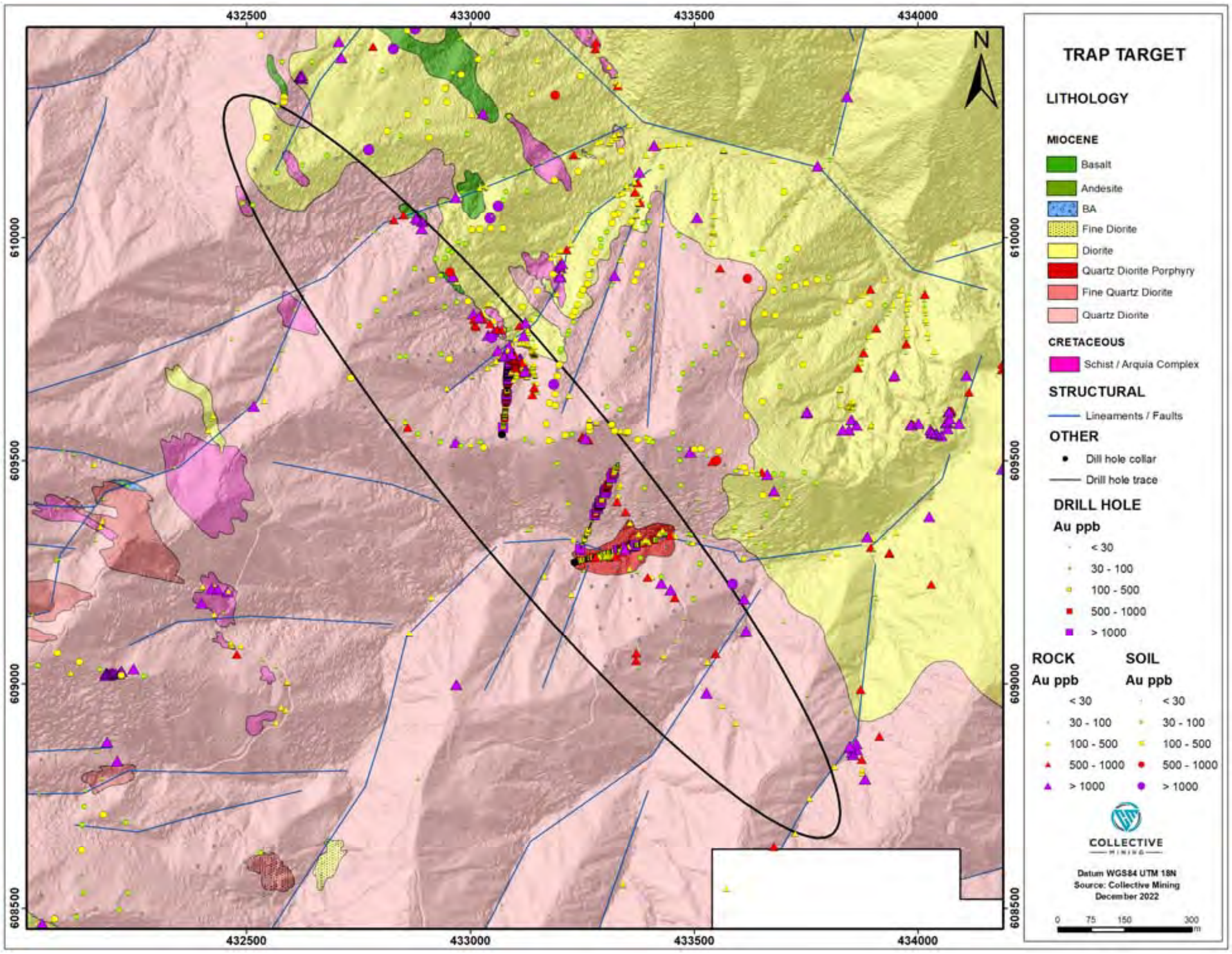



**Figure 9.34. Trap target geology and geochemistry for gold (soil, rock, drill core).**

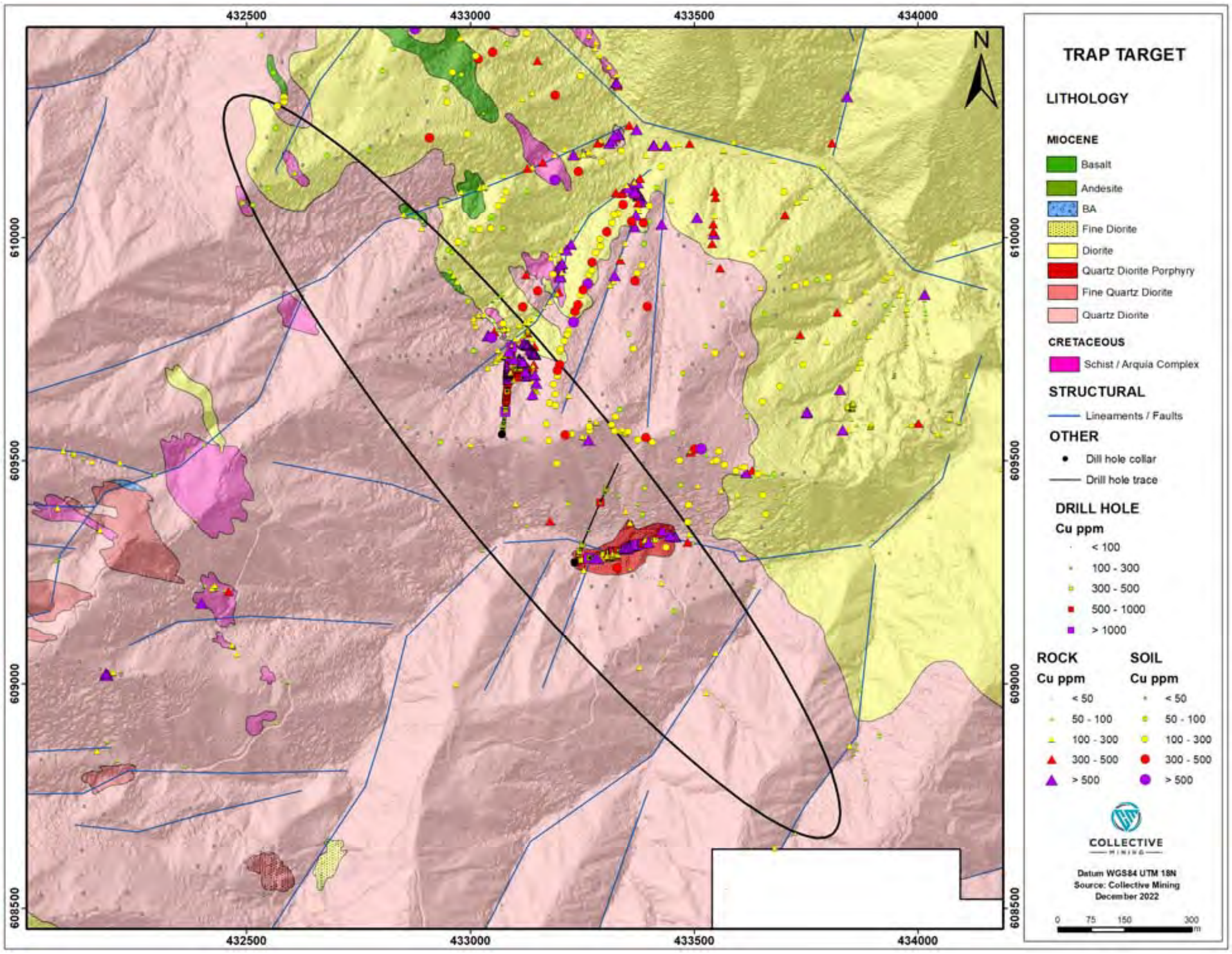



**Figure 9.35. Trap target geology and geochemistry for copper (soil, rock, drill core).**

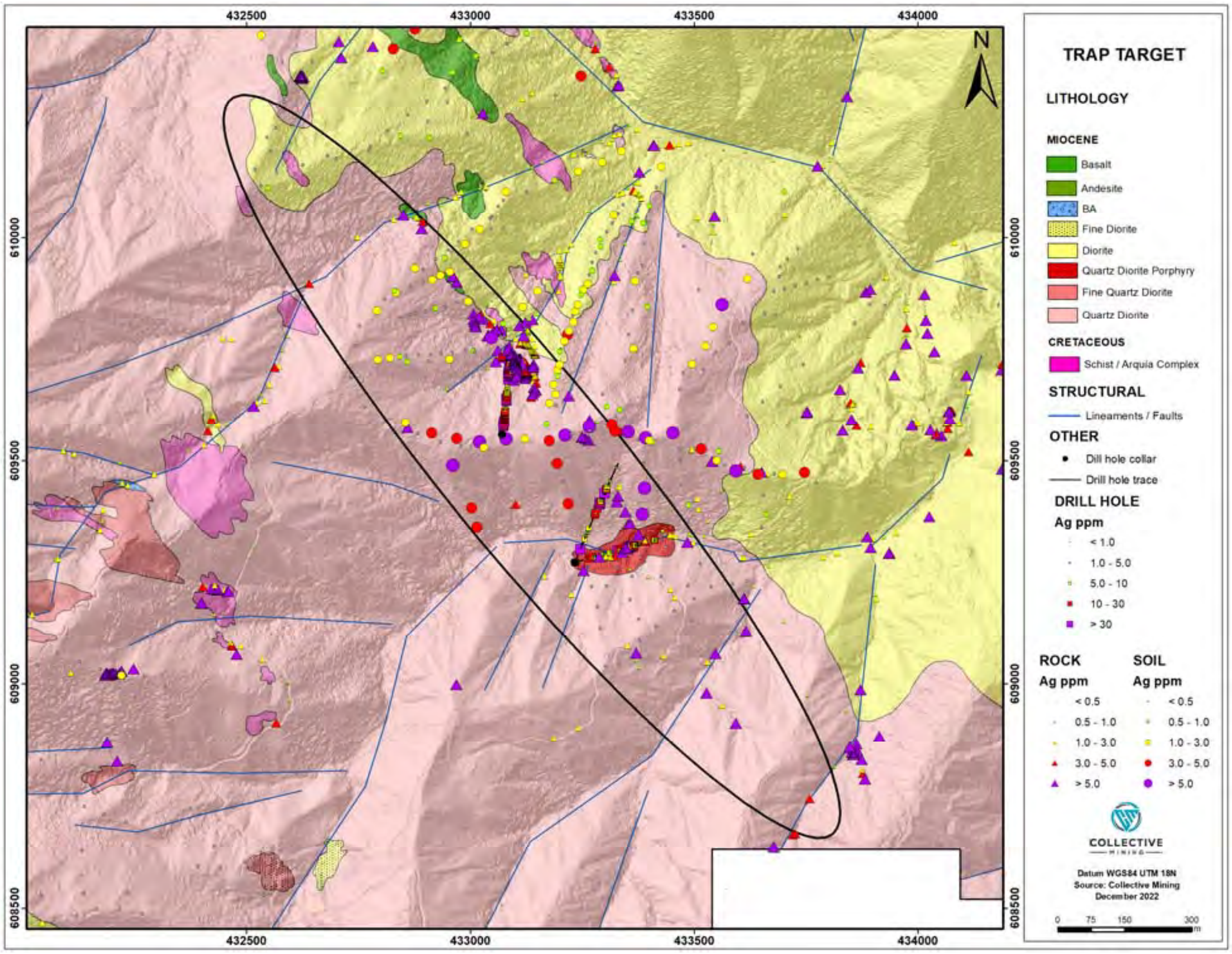



**Figure 9.36. Trap target geology and geochemistry for silver (soil, rock, drill core).**

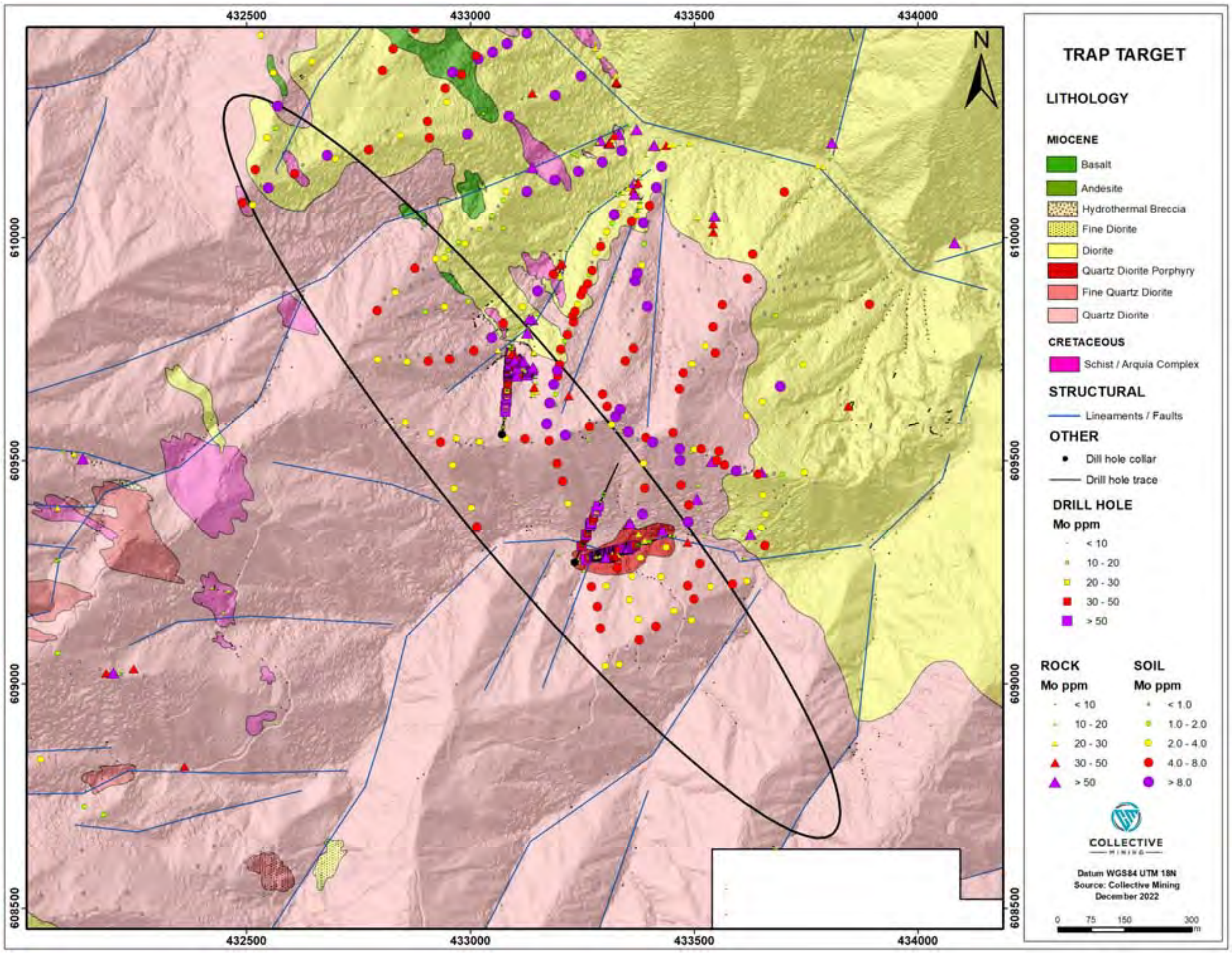



**Figure 9.37. Trap target geology and geochemistry for molybdenum (soil, rock, drill core).**

### 9.3.6 Victory Target

Plans of the geochemistry of gold, copper, silver, and molybdenum in rocks and soils at the Victory target are shown in Figure 9.38 to Figure 9.41.

The Victory target includes a porphyry Au ± Cu-Mo system overprinted by polymetallic veins. The target is defined by anomalous gold, silver and copper soil and rock samples over an area of 500 m NS by 600 m EW. This is underlain by a magnetic anomaly from MVI modelling which extends to a depth of 600 m, and coincides with magnetite veinlets on surface.

The Victory target is located in the north of the project area and consists of a stockwork of porphyry magnetite veinlets with disseminated sulphides hosted within multiple phases of diorite and quartz diorite porphyry. Mineralization is related to porphyry veinlets (A, B and M veins), hydrothermal breccia and late polymetallic veins with carbonate, quartz, sphalerite and galena. Both vein systems trend NW-SE and EW. The breccia bodies are clast supported shingle breccias with a matrix of pyrite, sericite, carbonate, quartz and some magnetite. Porphyry quartz-magnetite and B veinlets are associated with potassic alteration and disseminated pyrite, with occasional chalcopyrite and molybdenite. Mineralization is spatially related to the fine-grained diorite bodies. Pervasive sericite alteration with disseminated pyrite covers an area of 800 m EW by 500 m NS. Zones with epidote alteration have also been mapped.

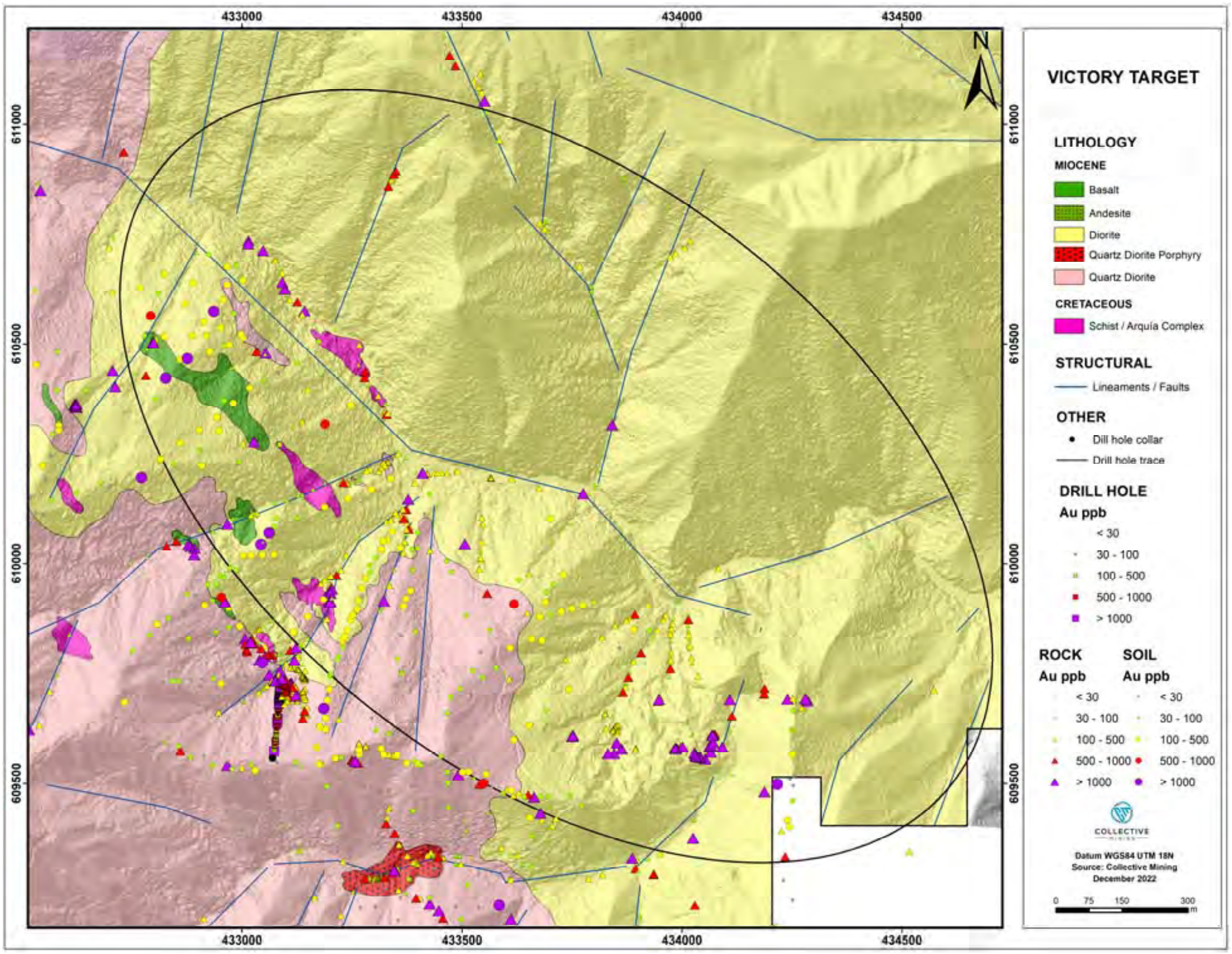



**Figure 9.38. Victory target geology and geochemistry for gold (soil, rock, drill core).**

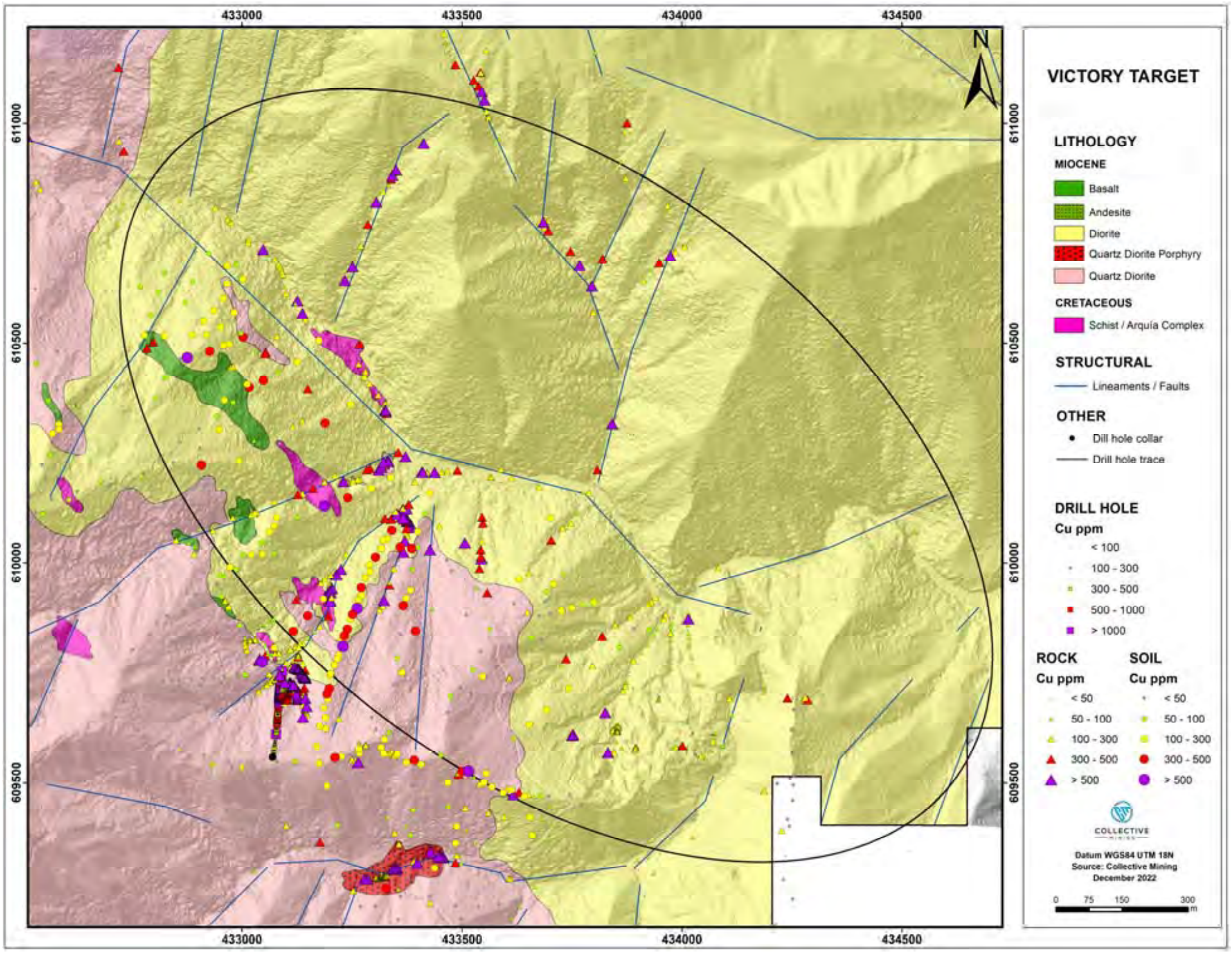



**Figure 9.39. Victory target geology and geochemistry for copper (soil, rock, drill core).**

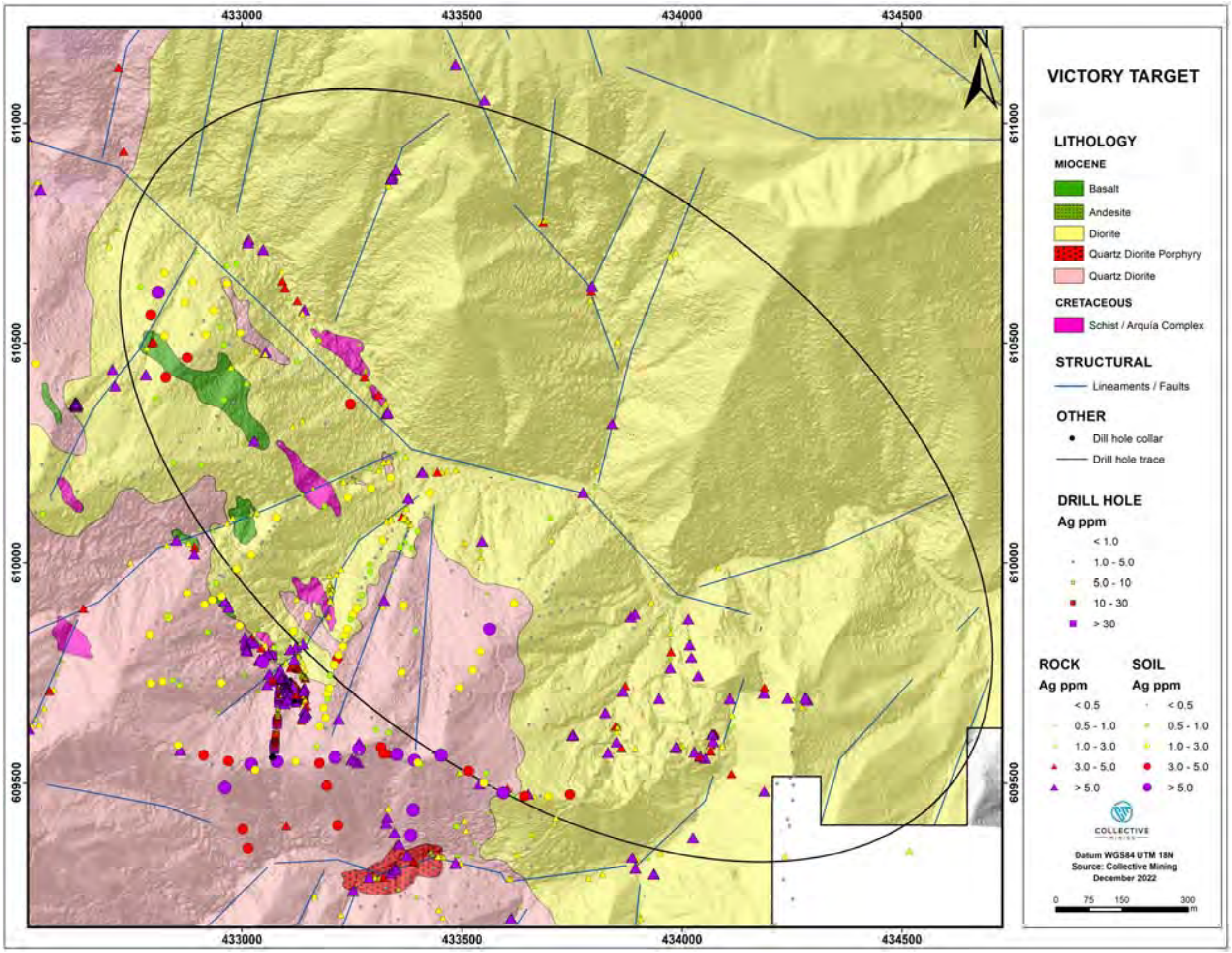



**Figure 9.40. Victory target geology and geochemistry for silver (soil, rock, drill core).**

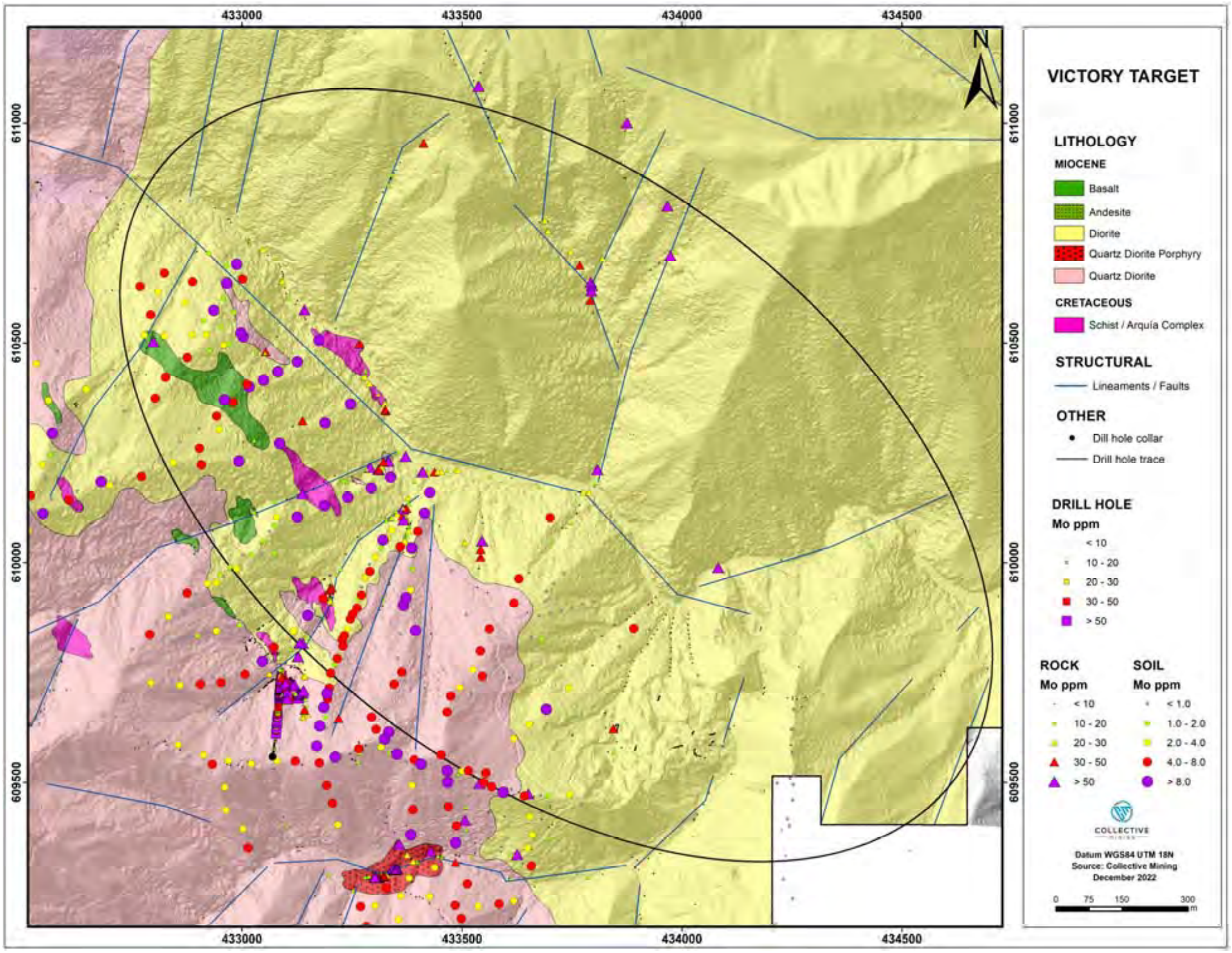



**Figure 9.41. Victory target geology and geochemistry for molybdenum (soil, rock, drill core).**

## 9.4 Comments on Section 9

The Collective Mining sampling was carried out using standard industry procedures and the samples are considered to be representative for the purpose of planning future exploration. Rock geochemistry was the most effective means of identifying targets. Care has to be exercised in soil geochemistry due to young volcanic ash cover which masks the underlying bedrock geochemistry, thus grid surveys are not effective, and ridge and spur samples were found to be effective. The IP survey was not very effective due to the presence of graphite schists.

Collective Mining also reconstructed the database of historical sampling based on laboratory certificates and inherited databases. The historical sampling protocols are not known but the sampling is believed to have been done using standard industry procedures. The sample results are considered to be adequate for the purpose of planning future exploration. The historical sampling was used by Collective Mining as a guide to identify areas of interest in which it carried out new rock and soil sampling.

There are no factors in historical samples, so far as can be determined, or the Collective Mining sampling that could have resulted in sample bias.

# 10 DRILLING

## 10.1 Historical Drilling

### 10.1.1 Drill Programs

Two drill programmes focused on the Encanto zone were carried out by previous companies in 2008 and 2010-2011 with a total of 28 diamond drill holes drilled using the wireline recovery method for a total of 6,147.26 m. Colombian Mines drilled 17 diamond drill holes for a total of 2,079.36 m in 2008. Eleven holes were drilled with a skid-mounted Boyle 37 rig with lengths of 83.70 to 221.50 m and an average of 160.9 m. Five holes were drilled with a man-portable Winkie drill (GDH-05, 06, 09, 11, 16) with lengths of 9.53 to 48.90 m and an average of 29.6 m and failed to reach their targets. Mercer Gold drilled 11 diamond drill holes for 4,067.90 m in 2010-2011 with a track-mounted Duralite T600N drill rig. The hole lengths were 76.6 to 620.0 m with an average of 369.8 m. The holes were drilled in the Guayabales and Donut targets. The contractors, rig types and core sizes are summarised in Table 10.1. The drill collar locations are listed in Table 10.2 and are shown in a plan in Figure 10.1.

| Year | Company | Contractor | Rig type | Core size | Diameter (mm) | Holes | Total meters |
|---|---|---|---|---|---|---|---|
| 2008 | Colombian Mines Corporation | Terramundo | Boyles 37 | HQ | 63.5 | 12 | 1931.20 |
| | | | Winkie | BTW | 42 | 5 | 148.16 |
| 2010-2011 | Mercer Gold | Logan Drilling Colombia SAS | Duralite T600N | HQ, NQ | 63.5, 47.6 | 11 | 4067.90 |
| Total | | | | | | 28 | 6147.26 |

**Table 10.1 Summary of historical diamond drill programs.**

| No. | Hole No. | Company | Year | Easting WGS84 | Northing WGS84 | Altitude (m) | Azimuth | Inclination | Depth (m) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | GDH-01 | CM | 2008 | 431704 | 606726 | 1881.0 | 20 | -45 | 198.80 |
| 2 | GDH-02 | CM | 2008 | 431704 | 606726 | 1881.0 | 20 | -60 | 221.50 |
| 3 | GDH-03 | CM | 2008 | 431774 | 606679 | 1914.0 | 20 | -45 | 201.80 |
| 4 | GDH-04 | CM | 2008 | 431762 | 606814 | 1890.3 | 50 | -65 | 128.00 |
| 5 | GDH-05 | CM | 2008 | 431749 | 606886 | 1849.6 | 200 | -50 | 9.53 |
| 6 | GDH-06 | CM | 2008 | 431855 | 606981 | 1820.1 | 200 | -50 | 43.69 |
| 7 | GDH-07 | CM | 2008 | 431745 | 606919 | 1844.9 | 200 | -45 | 83.70 |
| 8 | GDH-08 | CM | 2008 | 431745 | 606919 | 1844.9 | 200 | -60 | 124.30 |
| 9 | GDH-09 | CM | 2008 | 431855 | 606981 | 1820.1 | 20 | -50 | 48.90 |
| 10 | GDH-10 | CM | 2008 | 431594 | 606921 | 1872.0 | 20 | -45 | 215.60 |
| 11 | GDH-11 | CM | 2008 | 431834 | 606933 | 1828.0 | 50 | -40 | 19.60 |
| 12 | GDH-12 | CM | 2008 | 431594 | 606921 | 1872.0 | 20 | -65 | 202.50 |
| 13 | GDH-13 | CM | 2008 | 431745 | 606919 | 1844.9 | 245 | -60 | 104.50 |
| 14 | GDH-14 | CM | 2008 | 431869 | 606900 | 1860.0 | 200 | -45 | 148.45 |
| 15 | GDH-15 | CM | 2008 | 431952 | 606877 | 1889.7 | 200 | -50 | 148.65 |
| 16 | GDH-16 | CM | 2008 | 431756 | 606890 | 1846.6 | 200 | -45 | 26.44 |
| 17 | GDH-17 | CM | 2008 | 432037 | 606810 | 1916.0 | 200 | -50 | 153.40 |
| 18 | MGDH-01 | MG | 2010 | 431889 | 606857 | 1866.0 | 182.9 | -42.1 | 117.50 |
| 19 | MGDH-01A | MG | 2010 | 431890 | 606858 | 1866.0 | 201.8 | -45.8 | 76.60 |
| 20 | MGDH-02 | MG | 2010 | 431887 | 606856 | 1866.0 | 200.8 | -67.9 | 300.50 |
| 21 | MGDH-03 | MG | 2010 | 431804 | 606969 | 1863.8 | 238.6 | -53.8 | 620.00 |
| 22 | MGDH-04 | MG | 2011 | 431801 | 607047 | 1871.9 | 24.4 | -56.2 | 505.60 |
| 23 | MGDH-04A | MG | 2011 | 431802 | 607048 | 1871.9 | 19.7 | -46.5 | 400.00 |
| 24 | MGDH-05 | MG | 2010 | 431999 | 606876 | 1896.0 | 195.3 | -60.2 | 600.00 |
| 25 | MGDH-06 | MG | 2011 | 432086 | 607294 | 1799.9 | 70.8 | -42.5 | 400.00 |
| 26 | MGDH-06A | MG | 2011 | 432087 | 607295 | 1799.9 | 191.0 | -41.3 | 500.20 |
| 27 | MGDH-07 | MG | 2011 | 432225 | 607623 | 1848.0 | 199.2 | -44.7 | 97.50 |
| 28 | MGDH-07A | MG | 2011 | 432226 | 607621 | 1848.0 | 199.7 | -47.9 | 450.00 |

**Table 10.2 Drill collar table for historical drilling at the Guayabales Project.**

CM Colombian Mines Corporation. MG Mercer Gold. The collar locations are shown on Figure 10.1.

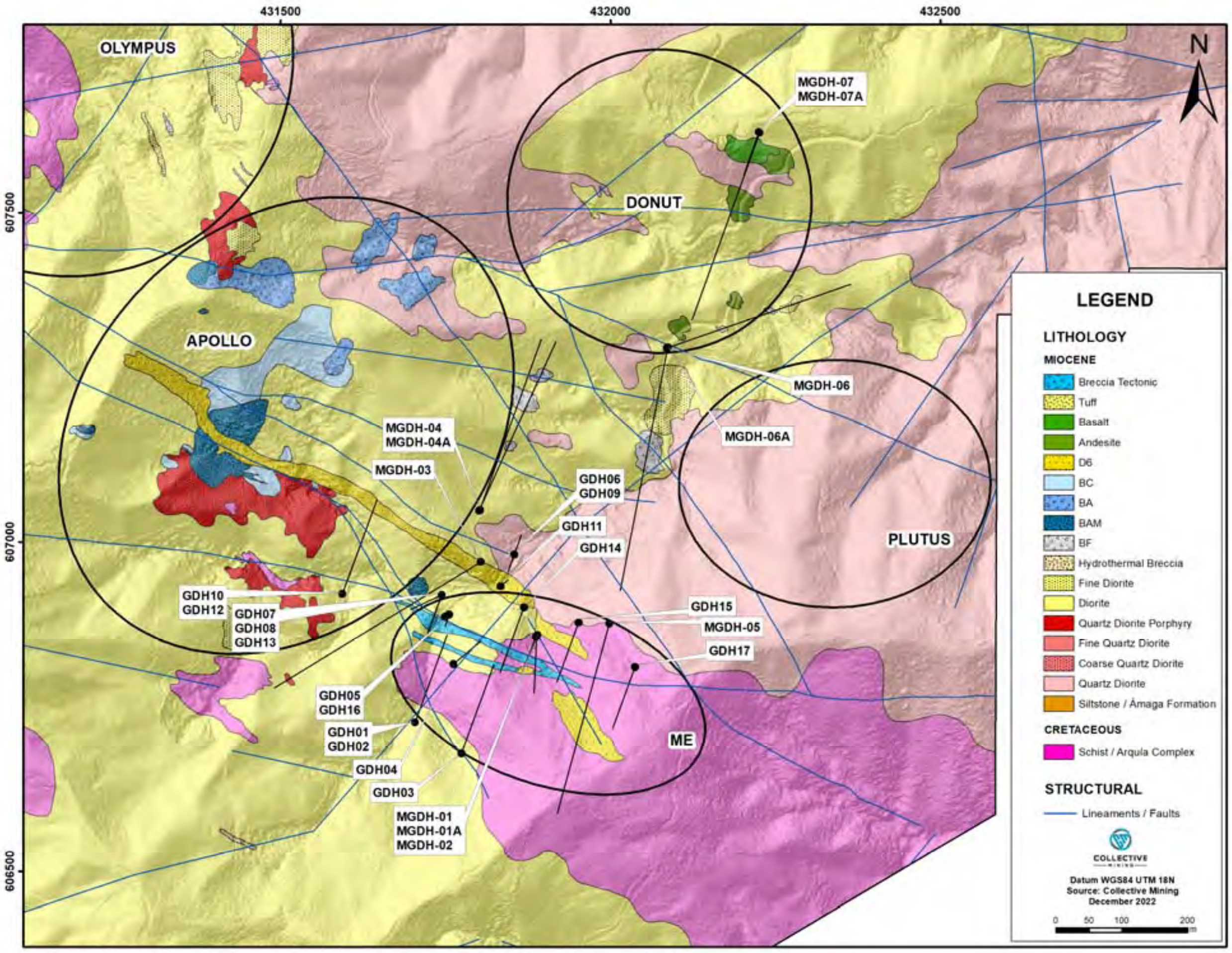



**Figure 10.1. Location map of the historical drill collar locations and drill hole traces in the Guayabales Project.**

### 10.1.2 Collar and Downhole Surveys

The survey method used to record the drill collars is not recorded.

No downhole directional surveys were carried out.

### 10.1.3 Drill Platforms

The drill platforms were restored and revegetated after use. The hole collars are not marked.

### 10.1.4 Recovery

The average core recovery of the holes is not known.

### 10.1.5 Logging and Sampling Protocols

The historical technical reports do not describe the protocols for the core handling, logging, sampling and chain of security for the two drill programs (Turner, 2010; Leroux, 2012). The core is stored in wooden boxes and was cut in half lengthwise with a diamond saw for sampling.

### 10.1.6 Density

No measurements of density or specific gravity were made from drill core in either program.

### 10.1.7 Results

A table of significant drill intersections is given in Table 10.3.

Colombian Mines drilled 17 diamond drill holes for a total of 2,078.8 m in 2008 numbered GDH-01 to GDH-17. It tested epithermal veins in the Encanto Zone in the Guayabales target along 450 m strike length. Intersections included 21.85 m (9.18 m estimated true width) @ 2.43 g/t Au and 16.5 g/t Ag, including 3.15 m (1.32 m estimated true width) @ 11.0 g/t Au and 43.0 g/t Ag (GDH-07).

Mercer Gold drilled 11 diamond drill holes for 4,060.97 m in 2010-2011 numbered MGDH-01 to MGDH-7A, including four repeated holes with the suffix A when the original hole failed to reach the target depth. The targets were mostly epithermal veins in the Encanto Zone in the Guayabales target, and two holes tested porphyry-style mineralization in the Guayabales and Donut targets. Significant intersections in the Encanto Zone included 13.7 m (11.4 m true width) @ 2.36 g/t Au and 38.0 g/t Ag (MGDH-01), 4.0 m (2.6 m true width) @ 2.00 g/t Au and 33.5 g/t Ag (MGDH-02), 2.0 m (1.66 m true width) @ 3.30 g/t Au and <2.0 g/t Ag (MGDH-04), 2.00 m (1.66 m true width) @ 5.56 g/t Au and 49.0 g/t Ag (MGDH-04A), 12.0 m (10.0 m true width) @ 2.14 g/t Au and 12.8 g/t Ag (MGDH-05), 4.0 m (3.33 m true width) @ 2.08 g/t Au and 5.0 g/t Ag (MGDH-05) and 2.0 m (1.66 m true width) @ 2.41 g/t Au and 22.0 g/t Ag (MGDH-05).

Two of the Mercer Gold holes, MGDH-06A and MGDH-07A, intersected porphyry style mineralization in the Guayabales and Donut targets. Hole MGDH-06A was collared north of the Encanto Zone with azimuth 191°. The author examined the core in 2020 and observed that the hole cut a feldspar-biotite diorite porphyry with large phenocrysts in the upper part of hole with intersections of Au mineralization >0.1 g/t of 96.5 m @ 0.169 g/t Au (7.5-104.0 m) and 138.0 m @ 0.113 g/t Au (128.0-266.0 m). The porphyry is interpreted to be inter-mineral in relative age. The lower part of the hole cut a late mineral quartz diorite porphyry with crowded phenocrysts with low grade Au mineralization <0.1 g/t. The inter-mineral diorite porphyry has biotite-magnetite alteration with quartz B veinlets with pyrite, molybdenite and a few magnetite veinlets. It is cross cut by pyrite veinlets and quartz-pyrite-molybdenite veinlets with a sericite halo, with pervasive sericite in places.

The author also examined the core of hole MGDH-07A drilled across the Donut target with azimuth 199.7°. It cut inter-mineral diorite porphyries, magmatic breccia, basalt county rock and late-mineral basalt dykes. Mineralization >0.1 g/t Au occurs in saprolite, basalt and inter-mineral diorite porphyries in the upper part of the hole with intersections of 110.0 m @ 0.164 g/t Au (12.0-122.0 m) and 106.0 m @ 0.153 g/t Au (188.0-294.0 m).

| Hole No. | From (m) | To (m) | Interval (m) | Est. True Width (m) | Au (g/t) | Ag (g/t) |
|---|---|---|---|---|---|---|
| GDH-01 | 185.95 | 197.38 | 11.43 | 10.40 | 1.04 | 15.2 |
| Includes | 194.60 | 195.80 | 1.20 | 1.10 | 5.12 | 43.8 |
| GDH-02 | 21.40 | 27.00 | 5.60 | 4.31 | 1.08 | 13.0 |
| GDH-04 | 3.30 | 9.25 | 5.95 | 4.22 | 1.07 | 33.1 |
| and | 87.85 | 93.50 | 5.65 | 4.01 | 2.55 | 38.3 |
| Includes | 90.75 | 93.50 | 2.75 | 1.95 | 4.92 | 72.3 |
| GDH-07 | 50.25 | 72.10 | 21.85 | 9.18 | 2.43 | 16.5 |
| Includes | 50.25 | 53.40 | 3.15 | 1.32 | 11.00 | 43.0 |
| GDH-08 | 87.00 | 117.85 | 30.85 | 5.24 | 1.16 | 17.0 |
| Includes | 95.50 | 99.25 | 3.75 | 0.64 | 4.81 | 32.7 |
| GDH-13 | 91.80 | 103.60 | 11.80 | 2.01 | 3.11 | 15.3 |
| Includes | 97.90 | 101.00 | 3.10 | 0.53 | 10.48 | 26.2 |
| GDH-14 | 78.90 | 122.95 | 44.05 | 18.50 | 1.24 | 17.6 |
| Includes | 96.45 | 97.50 | 1.05 | 0.44 | 18.45 | 16.6 |
| Includes | 108.95 | 110.55 | 1.60 | 0.67 | 3.09 | 11.0 |
| Includes | 117.95 | 122.95 | 5.00 | 2.10 | 2.44 | 67.6 |
| GDH-15 | 110.10 | 139.45 | 29.35 | 9.98 | 0.87 | 7.8 |
| MGDH-01 | 20.80 | 42.50 | 21.70 | 18.00 | 1.70 | 28.4 |
| Includes | 28.80 | 42.50 | 13.70 | 11.40 | 2.36 | 38.0 |
| MGDH-01A | 24.00 | 44.00 | 20.00 | 16.70 | 1.71 | 12.6 |
| MGDH-02 | 70.00 | 74.00 | 4.00 | 2.60 | 2.00 | 33.5 |
| and | 108.00 | 112.00 | 4.00 | 2.60 | 0.74 | 7.0 |
| MGDH-03 | 204.00 | 209.00 | 5.00 | 4.16 | 0.90 | 1.3 |
| and | 308.00 | 312.00 | 4.00 | 3.30 | 1.00 | 27.5 |
| and | 498.00 | 506.00 | 8.00 | 6.63 | 1.90 | 2.2 |
| MGDH-04 | 80.00 | 82.00 | 2.00 | 1.66 | 3.30 | <2 |
| and | 184.00 | 186.00 | 2.00 | 1.66 | 1.33 | 18.0 |
| MGDH-04A | 120.00 | 122.00 | 2.00 | 1.66 | 5.56 | 49.0 |
| and | 180.00 | 182.00 | 2.00 | 1.66 | 1.74 | 6.0 |

| Hole No. | From (m) | To (m) | Interval (m) | Est. True Width (m) | Au (g/t) | Ag (g/t) |
|---|---|---|---|---|---|---|
| MGDH-05 | 20.50 | 26.50 | 6.00 | 5.00 | 0.80 | 57.0 |
| and | 67.00 | 70.00 | 3.00 | 2.50 | 1.29 | 56.0 |
| and | 544.00 | 556.00 | 12.00 | 10.00 | 2.14 | 12.8 |
| and | 582.00 | 586.00 | 4.00 | 3.33 | 2.08 | 5.0 |
| MGDH-06 | 226.00 | 228.00 | 2.00 | 1.66 | 2.41 | 0.6 |
| MGDH-06A | 7.50 | 104.00 | 96.50 | n/a | 0.17 | 1.1 |
| and | 128.00 | 266.00 | 138.00 | n/a | 0.11 | 3.5 |
| MGDH-07 | 21.00 | 24.00 | 3.00 | 2.50 | 1.02 | 9.4 |
| MGDH-07A | 12.00 | 122.00 | 110.00 | n/a | 0.16 | 4.1 |
| and | 188.00 | 294.00 | 106.00 | n/a | 0.15 | 1.4 |

**Table 10.3 Significant drill intersections in the Guayabales historical drill holes.**

GDH intervals from Turner (2010) based on veins.
MGDH intervals from Leroux (2012) based on veins.
MGDH-06A, 07A porphyry intersections calculated by the author at a cut-off of 0.1 g/t Au.
n/a not applicable.

### 10.1.8 Sample Length / True Thickness

The drill intersections do not represent the true width of the mineralized zones. The true widths were estimated for the epithermal vein intersections by Turner (2010) and Leroux (2012) (Table 10.3). The true width cannot be estimated for porphyry intersections which require multiple holes to determine the geometry, width and thickness of the mineralised zones.

### 10.1.9 Comments

The protocols for the drilling, logging, sampling and QA-QC of the legacy drilling are not known but appear to have been carried out to current industry standards. The author considers that there are no drilling, sampling or recovery factors that could materially affect the accuracy and reliability of the results.

## 10.2 Collective Mining Drilling

### 10.2.1 Drill Programs

Collective Mining carried out a Phase 1 program of diamond drilling at the Guayabales Project between September 2021 and the effective date of this Technical Report. The contractor was Kluane Colombia SAS using one KD-1000 and two KD-1700 drill rigs manufactured by Kluane

Drilling Ltd, Canada. These are modular, portable drill rigs with hydraulic drive using the wireline core drilling method. The core diameters are thin-wall HTW (70.92 mm core diameter) and NTW (56.0 mm core diameter), while BTW (42.0 mm core diameter) was used in only one hole (Table 10.4). The KD-1000 rig is rated to 1,000 m depth with NTW rods and 1,200 m depth with BTW rods, and the KD-1700 rig is rated to 1,200 m and 1,700 m depth respectively. The program consisted of 71 holes totalling 27,618 m (Table 10.6). The average hole length is 388.6 m, the minimum length is 134.40 m, and the maximum length is 956.35 m, with 14 holes greater than 500 m long. Most of the drilling was at the Apollo (54%) and Donut (26%) targets, with the rest of the drilling on the Olympus, Trap, Box and Victory West targets (Table 10.5). The drill hole distribution by target is listed in Table 10.5, the drill collars are listed in Table 10.6 and the collar locations are shown in a plan in Figure 10.3.

**Figure 10.2. Portable Kluane KD-1000 hydraulic drill rig drilling hole APC-031 on Drill Pad 6 on 14 January 2023.**

| Year | Company | Contractor | Rig type | Core size | Diameter (mm) | Holes | Total meters |
|---|---|---|---|---|---|---|---|
| 2021-22 | Collective Mining | Kluane Colombia SAS | KD-1000<br>KD-1700 | HTW, NTW, BTW | 70.92, 56.0, 42.0 | 71 | 27,618.15 |
| Total | | | | | | 71 | 27,618.15 |

**Table 10.4. Summary of the Collective Mining Phase 1 diamond drill program.**

| Target | Platforms | Drill holes | Total length (m) | Meters (%) |
|---|---|---|---|---|
| Apollo | 5 | 31 | 14,976.50 | 54 |
| Olympus | 4 | 22 | 7,099.65 | 26 |
| Donut | 1 | 10 | 2,534.55 | 9 |
| Trap | 2 | 3 | 1,059.90 | 4 |
| Box | 1 | 3 | 1,011.35 | 4 |
| Victory West | 1 | 2 | 936.20 | 3 |
| **Total** | **14** | **71** | **27,618.15** | |

**Table 10.5. Collective Mining drill holes by target.**

| No. | Hole number | Target | Azimuth | Inclination | Depth (m) |
|---|---|---|---|---|---|
| 1 | APC_001 | Apollo | 170.00 | -50.00 | 438.70 |
| 2 | APC_002 | Apollo | 235.00 | -42.00 | 393.10 |
| 3 | APC_003 | Apollo | 28.00 | -45.00 | 506.15 |
| 4 | APC_004 | Apollo | 185.00 | -50.00 | 327.80 |
| 5 | APC_005 | Apollo | 235.00 | -65.00 | 524.10 |
| 6 | APC_006 | Apollo | 28.00 | -60.00 | 759.00 |
| 7 | APC_007 | Apollo | 225.00 | -70.00 | 360.15 |
| 8 | APC_008 | Apollo | 220.00 | -78.00 | 523.00 |
| 9 | APC_009 | Apollo | 168.00 | -80.00 | 330.75 |
| 10 | APC_010 | Apollo | 126.00 | -50.00 | 439.05 |
| 11 | APC_011 | Apollo | 195.00 | -65.00 | 243.75 |
| 12 | APC_012 | Apollo | 95.00 | -67.00 | 474.35 |
| 13 | APC_013 | Apollo | 85.00 | -83.00 | 374.15 |
| 14 | APC_014 | Apollo | 355.00 | -57.00 | 407.50 |
| 15 | APC_015 | Apollo | 310.00 | -37.00 | 387.30 |
| 16 | APC_016 | Apollo | 215.00 | -40.00 | 303.35 |
| 17 | APC_017 | Apollo | 356.00 | -70.00 | 912.80 |
| 18 | APC_018 | Apollo | 166.00 | -66.00 | 499.05 |
| 19 | APC_019 | Apollo | 144.00 | -83.00 | 582.30 |
| 20 | APC_020 | Apollo | 185.00 | -60.00 | 445.40 |
| 21 | APC_021 | Apollo | 356.00 | -80.00 | 347.80 |
| 22 | APC_022 | Apollo | 13.00 | -60.00 | 734.80 |

| No. | Hole number | Target | Azimuth | Inclination | Depth (m) |
|---|---|---|---|---|---|
| 23 | APC_023 | Apollo | 170.00 | -68.00 | 454.90 |
| 24 | APC_024 | Apollo | 185.00 | -80.00 | 349.95 |
| 25 | APC_025 | Apollo | 326.00 | -57.00 | 215.80 |
| 26 | APC_026 | Apollo | 56.00 | -76.50 | 813.70 |
| 27 | APC_027 | Apollo | 84.00 | -65.00 | 424.50 |
| 28 | APC_028 | Apollo | 263.00 | -73.00 | 956.35 |
| 29 | APC_029 | Apollo | 6.00 | -65.00 | 644.80 |
| 30 | APC_030 | Apollo | 174.00 | -83.00 | 589.00 |
| 31 | APC001_D01 | Apollo | 169.00 | -52.30 | 213.15 |
| 32 | BOC_001 | The Box | 2.00 | 55.00 | 471.90 |
| 33 | BOC_002 | The Box | 230.00 | 45.00 | 200.40 |
| 34 | BOC_003 | The Box | 75.00 | 36.00 | 339.05 |
| 35 | DOC_001 | Donut | 320.00 | 50.00 | 263.15 |
| 36 | DOC_002 | Donut | 0.00 | -60.00 | 264.75 |
| 37 | DOC_003 | Donut | 0.00 | -75.00 | 380.95 |
| 38 | DOC_004 | Donut | 250.00 | -85.00 | 312.30 |
| 39 | DOC_005 | Donut | 110.00 | -80.00 | 327.25 |
| 40 | DOC_006 | Donut | 15.00 | -85.00 | 243.00 |
| 41 | DOC_007 | Donut | 40.00 | 85.00 | 155.15 |
| 42 | DOC_008 | Donut | 355.00 | 70.00 | 150.95 |
| 43 | DOC_009 | Donut | 237.00 | 52.00 | 185.30 |
| 44 | DOC_010 | Donut | 335.00 | 82.00 | 251.75 |
| 45 | OLCC_001 | Olympus | 265.00 | -80.00 | 366.85 |
| 46 | OLCC_002 | Olympus | 250.00 | -60.00 | 424.20 |
| 47 | OLCC_003 | Olympus | 310.00 | -60.00 | 632.75 |
| 48 | OLCC_004 | Olympus | 280.00 | -55.00 | 688.10 |
| 49 | OLCC_005 | Olympus | 330.00 | -70.00 | 415.85 |
| 50 | OLCC_006 | Olympus | 250.00 | -50.00 | 276.35 |
| 51 | OLCC_007 | Olympus | 250.00 | -78.00 | 326.05 |
| 52 | OLCC_008 | Olympus | 195.00 | -52.00 | 333.70 |
| 53 | OLCC_009 | Olympus | 355.00 | -65.00 | 411.85 |
| 54 | OLCC_010 | Olympus | 347.00 | -45.00 | 134.40 |
| 55 | OLCC_011 | Olympus | 294.00 | -82.00 | 168.30 |
| 56 | OLCC_012 | Olympus | 294.00 | -55.00 | 401.30 |
| 57 | OLCC_013 | Olympus | 130.00 | -80.00 | 189.25 |
| 58 | OLCS_001 | Olympus | 130.00 | -65.00 | 349.05 |
| 59 | OLCS_002D | Olympus | 22.00 | -50.00 | 175.80 |
| 60 | OLCS_002D01 | Olympus | 18.00 | -50.00 | 234.40 |
| 61 | OLCS_003 | Olympus | 225.00 | -50.00 | 162.10 |

| No. | Hole number | Target | Azimuth | Inclination | Depth (m) |
|---|---|---|---|---|---|
| 62 | OLCS_004 | Olympus | 72.00 | -53.00 | 141.70 |
| 63 | OLCS_005 | Olympus | 95.00 | -65.00 | 402.65 |
| 64 | OLCU_001 | Olympus | 215.00 | -30.00 | 243.00 |
| 65 | OLCU_002 | Olympus | 51.00 | -40.00 | 331.80 |
| 66 | OLCU_003 | Olympus | 25.00 | -35.00 | 290.20 |
| 67 | TRC_001 | Trap | 55.00 | -10.00 | 380.25 |
| 68 | VICE_001 | Trap | 25.00 | -50.00 | 364.65 |
| 69 | VICE_002 | Trap | 75.00 | -52.00 | 315.00 |
| 70 | VICW_001 | Victory West | 185.00 | -55.00 | 519.90 |
| 71 | VICW_002 | Victory West | 219.00 | -55.00 | 416.30 |
| | | | | | 27618.15 |

**Table 10.6. Collar table of Collective Mining drill holes.**
The collar locations are shown in Figure 10.3.

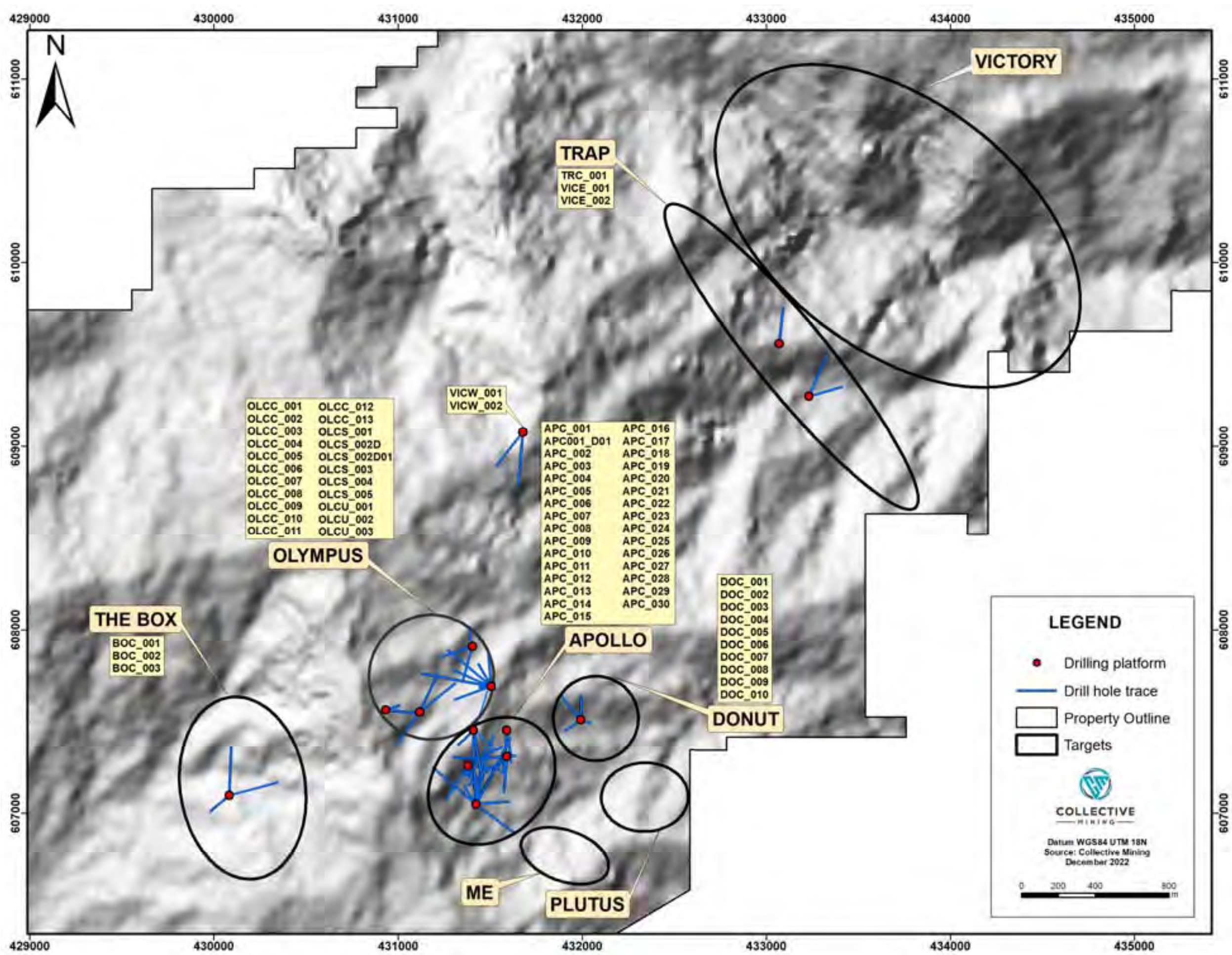



**Figure 10.3. Location map of Collective Mining drill holes.**

### 10.2.2 Collar and Downhole Surveys

The collars are surveyed by total station using a network of eight survey control points. Downhole directional surveys are made using a gyro survey instrument several times during the drilling of a hole.

### 10.2.3 Drill Pads

The drill pads are built by hand due to the steep slopes and are accessed by mule trails. Multiple holes are drilled from each pad. A collar monument is installed. The pads are restored and revegetated after final use. The drill rigs are man-portable. Men and mules move the rigs, rods, tanks and accessories, carry in consumables such as fuel and drilling mud, and carry out core boxes. Water is pumped from streams at two authorised water licenses and distributed by water lines over several kilometers to the pads. Returned drill water is collected in tanks, rather than sumps, and is recirculated. Drill cuttings are treated as hazardous waste due to the presence of sulphides and metals. They settle out in the recirculation tanks, are collected and put in sacks, then taken to the core logging facility in Supia, and, together with the cuttings from the core saw, are periodically collected by a licensed contractor for safe disposal at an authorised hazardous waste disposal facility.

**Figure 10.4. Drill Pad 8, Apollo target.**

**Figure 10.5. Drill Pad 2, Apollo target.**

The drill pad was being used as a staging point for water and material for other drill pads. Earth has been dumped over the collar until it can be sealed and a cement monument made, and the pad will be restored and revegetated.

### 10.2.4 Recovery

The average core recovery in the Phase 1 drill program is 97%.

### 10.2.5 Logging and Sampling Protocols

A summary of the core logging and sampling flowsheet, protocols and chain of custody is given in Table 10.7. There is a written manual of protocols.

| Step | Location | Person(s) | Description |
|---|---|---|---|
| 1 | Transport from rig to Core logging facility | Drill contractor | The core boxes are transported by the drilling company from the rig to the road by mule, and by pick-up truck to the core logging facility. Custody is given to the Logging Manager. |
| 2 | Core logging facility | Logging manager | Check core boxes against driller's list. |
| 3 | Core logging facility | Geologist | Quick log. |
| 4 | Core logging facility | Technician | Photo 1 of uncut core boxes. Photos are stored directly in a laptop computer and named using IMAGO app. |
| 5 | Core logging facility | Technician | Log Recovery, RQD. |
| 6 | Core logging facility | Geologist | Geological log using MX Deposit program on a laptop computer. |
| 7 | Core logging facility | Geologist | Mark sample intervals and cut-line. Priority is given to geology. Minimum sample length 0.50 m, maximum 2.00 m. |
| 8 | Core logging facility | Technician | Assign sample numbers and list in laptop using MX Deposit. |
| 9 | Core cutting room | Technician core cutting | Cut core using a diamond core saw. |
| 10 | Core logging facility | Technician | Sample cut core into plastic bags and seal with cable tie. |
| 11 | Core logging facility | Technician | Photo 2 of cut and sampled core boxes. |
| 12 | Core logging facility | Technician | Magnetic susceptibility. |
| 13 | Core logging facility | Technician | Select specific gravity samples for shipment to lab. |
| 14 | Core logging facility | Geologist, technician | Insert QAQC samples. |
| 15 | Core logging facility | Technicians | Core boxes stored in rack. |
| 16 | Core logging facility | Technician | Samples packed in sacks and labelled. Lab order form prepared. |
| 17 | Transport to lab, Medellin | Pickup Truck and driver from company that provides the field vehicles | Sample batches sent to lab three times per week. |
| 18 | Laboratory Medellin | Laboratory personnel | Receive samples. Sample preparation. |
| 19 | Laboratory Callao | Laboratory personnel | Sample pulps shipped by courier, assayed at Callao Lab. |
| 20 | Sample storage rooms at camp | Technician | Sample coarse rejects and pulps returned by lab, checked, noted in database, stored in secure rooms at camp. |

**Table 10.7. Core logging and sampling flowsheet with chain of custody.**

### 10.2.6 Density

Samples are sent to ALS Colombia Ltda laboratory in Medellin for determination of specific gravity by weighing in air and water after wax coating. A total of 91 samples from the Apollo target were sent up to the effective date of this report. The company plan to carry out specific gravity measurements themselves at the core logging facility.

### 10.2.7 Results

The Phase 1 drill program at the Guayabales project resulted in the discovery of significant mineral system at the Apollo target along with three additional earlier stage drilling discoveries at the Olympus, Donut and Trap targets.

#### *10.2.7.1 Apollo Target*

Phase 1 drill program resulted in a significant grassroots discovery of a new bulk tonnage and high-grade, gold-silver-copper porphyry-breccia-vein system named the Apollo Porphyry System. The discovery hole was announced on 22 June 2022. A total of 31 holes were drilled from 5 pads for 14,976.5 m at the Apollo Target in Phase 1. The significant intersections of the results are listed in Table 10.8. The current dimensions of the Apollo Porphyry System, based on current, limited drilling are 385 m along strike by 350 m across by 915 m vertical, and it is open in all directions. The breccia lies within stockwork mineralization. The high grades in the breccia are due to multiple phases of mineralization which include early gold-silver-copper breccia matrix mineralization derived from a porphyry source and younger, overprinting, sheeted carbonate base metal vein systems. Highlight assay results for drill holes into the Apollo Porphyry System include:

- APC-001: 87.80 m @ 0.88 g/t Au, 61 g/t Ag, 0.39% Cu.
- APC-002: 207.15 m @ 1.46 g/t Au, 45 g/t Ag, 0.31% Cu.
- APC-008: 265.75 m @ 1.26 g/t Au, 55 g/t Ag, 0.22% Cu.
- APC-012: 237.7 m @ 1.15 g/t, 72 g/t Ag, 0.38% Cu.
- APC-014: 47.45 m @ 0.81 g/t Au, 13 g/t Ag, 0.20% Cu.
- APC-018: 168.60 m @ 0.98 g/t Au, 69 g/t Ag, 0.50% Cu.
- APC-019: 298.6 m @ 0.48 g/t Au, 34 g/t Ag, 0.31% Cu.
- APC-020: 102.20 m @ 2.72 g/t Ag, 28 g/t Ag, 0.08% Cu.
- APC-022: 426.00 m @ 1.05 g/t Au, 23 g/t Ag, 0.08% Cu.
- APC-025: 106.85 m @ 0.81 g/t Au, 30 g/t Ag, 0.62% Cu.
- APC-026: 397.10 m @ 0.62 g/t Au, 13 g/t Ag, 0.05% Cu.
- APC-028: 601.65 m @ 0.89 g/t Au, 24 g/t Ag, 0.10% Cu.

- APC-029: 301.00 m @ 0.63 g/t Au, 14 g/t Ag, 0.05% Cu.
- APC-030: 318.65 m @ 0.61 g/t Au; 19 g/t Ag, 0.12% Cu.

The depth of oxidation varies from 16.5 to 80.0 m vertically below surface, with an average of about 38.0 m. The majority of the mineralization is expected to be in sulphides.

The significant intersections for Au, Ag, Cu and Mo are listed in Table 10.8. There are no significant intersections of Pb and Zn. Gold is reported un-capped. Gold is also reported capped at 10 g/t as a check on the influence of high grade samples. For intersections >50 m long, the effect of capping is to decrease the grade by an average of 11.4%, showing that the high grade samples only have a small influence. Silver is reported un-capped and also capped at 400 g/t, which affects the grade of intersections >50 m long by an average of only 0.3%.

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| APC_001 | 291.60 | 379.40 | 87.80 | 0.88 | 0.87 | 61 | 60 | 0.39 | 0.001 |
| Inc. | 291.60 | 302.50 | 10.90 | 1.03 | 0.95 | 156 | 149 | 0.58 | 0.001 |
| Inc. | 352.00 | 366.30 | 14.30 | 2.41 | 2.41 | 28 | 28 | 0.50 | 0.001 |
| APC_002 | 154.70 | 361.90 | 207.15 | 1.46 | 1.21 | 45 | 45 | 0.31 | 0.002 |
| Inc. | 192.50 | 209.90 | 17.40 | 6.57 | 3.59 | 44 | 44 | 0.08 | 0.003 |
| Inc. | 270.60 | 291.60 | 20.95 | 3.67 | 3.66 | 68 | 68 | 0.41 | 0.002 |
| APC_003 | 303.40 | 484.00 | 180.60 | 1.52 | 1.21 | 39 | 38 | 0.16 | 0.001 |
| Inc. | 304.90 | 326.00 | 21.10 | 2.86 | 2.52 | 24 | 24 | 0.04 | 0.001 |
| Inc. | 363.10 | 409.70 | 46.60 | 3.78 | 2.72 | 58 | 58 | 0.20 | 0.001 |
| APC_004 | 132.30 | 149.80 | 17.50 | 12.79 | 0.85 | 21 | 21 | 0.03 | 0.001 |
| Inc. | 143.60 | 144.25 | 0.65 | 331.47 | 10.00 | 53 | 53 | 0.14 | 0.001 |
| APC_005 | 210.25 | 478.25 | 268.00 | 0.89 | 0.76 | 22 | 22 | 0.13 | 0.002 |
| Inc. | 210.25 | 226.60 | 16.35 | 1.95 | 1.73 | 20 | 20 | 0.04 | 0.001 |
| Inc. | 252.60 | 271.80 | 19.20 | 2.61 | 2.24 | 14 | 15 | 0.04 | 0.000 |
| Inc. | 456.00 | 478.25 | 22.25 | 2.30 | 1.79 | 21 | 21 | 0.04 | 0.002 |
| APC_005 | 496.80 | 510.65 | 13.85 | 0.71 | 0.71 | 9 | 9 | 0.02 | 0.001 |
| APC_006 | 364.60 | 690.65 | 326.05 | 0.85 | 0.75 | 10 | 10 | 0.04 | 0.001 |
| Inc. | 480.15 | 631.65 | 151.50 | 0.96 | 0.84 | 11 | 11 | 0.04 | 0.001 |
| Inc. | 680.10 | 690.65 | 10.55 | 4.67 | 3.12 | 7 | 7 | 0.05 | 0.000 |
| APC_007 | 85.65 | 111.20 | 25.55 | 0.40 | 0.40 | 23 | 23 | 0.02 | 0.002 |
| Inc. | 110.10 | 111.20 | 1.10 | 5.62 | 5.62 | 158 | 158 | 0.05 | 0.009 |
| APC_007 | 199.85 | 238.25 | 38.40 | 1.30 | 1.30 | 21 | 21 | 0.04 | 0.000 |
| Inc. | 207.10 | 222.35 | 15.25 | 2.29 | 2.29 | 33 | 33 | 0.07 | 0.000 |
| APC_007 | 325.00 | 345.45 | 20.45 | 0.49 | 0.49 | 31 | 31 | 0.05 | 0.000 |
| APC_008 | 202.00 | 467.75 | 265.75 | 1.26 | 1.05 | 55 | 52 | 0.22 | 0.045 |

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| Inc. | 202.00 | 215.20 | 13.20 | 3.68 | 2.86 | 27 | 27 | 0.03 | 0.238 |
| Inc. | 239.05 | 257.50 | 18.45 | 3.48 | 2.78 | 53 | 51 | 0.12 | 0.216 |
| Inc. | 279.40 | 307.85 | 28.45 | 3.70 | 2.33 | 24 | 24 | 0.16 | 0.016 |
| Inc. | 342.60 | 358.10 | 15.50 | 2.15 | 2.13 | 158 | 133 | 0.47 | 0.104 |
| APC_009 | NSV | | | | | | | | |
| APC_010 | NSV | | | | | | | | |
| APC_011 | 55.00 | 55.60 | 0.60 | 7.73 | 7.73 | 28 | 28 | 0.02 | 0.001 |
| APC_011 | 157.55 | 158.10 | 0.55 | 1.88 | 1.88 | 61 | 61 | 0.06 | 0.001 |
| APC_011 | 160.00 | 161.20 | 1.20 | 2.89 | 2.89 | 113 | 113 | 0.07 | 0.001 |
| APC_011 | 173.60 | 174.25 | 0.65 | 5.95 | 5.96 | 18 | 18 | 0.02 | 0.002 |
| APC_011 | 231.00 | 231.65 | 0.65 | 11.80 | 10.00 | 12 | 12 | 0.01 | 0.001 |
| APC_011 | 234.70 | 235.45 | 0.75 | 2.42 | 2.42 | 50 | 50 | 0.02 | 0.001 |
| APC_011 | 237.10 | 238.45 | 1.35 | 4.22 | 4.22 | 11 | 11 | 0.02 | 0.001 |
| APC_012 | 191.35 | 429.05 | 237.70 | 1.15 | 0.94 | 72 | 64 | 0.38 | 0.001 |
| Inc. | 209.70 | 224.00 | 14.30 | 4.01 | 2.22 | 77 | 77 | 0.21 | 0.001 |
| Inc. | 339.55 | 361.30 | 21.75 | 3.84 | 3.07 | 210 | 138 | 0.68 | 0.001 |
| Inc. | 416.90 | 429.05 | 12.15 | 3.64 | 2.97 | 84 | 73 | 0.22 | 0.001 |
| APC_013 | 126.40 | 143.20 | 16.80 | 4.24 | 2.09 | 19 | 19 | 0.01 | 0.001 |
| Inc. | 128.95 | 132.85 | 3.90 | 9.73 | 5.07 | 34 | 34 | 0.02 | 0.000 |
| Inc. | 141.20 | 143.20 | 2.00 | 15.54 | 6.51 | 65 | 65 | 0.02 | 0.001 |
| APC_013 | 242.10 | 242.80 | 0.70 | 3.63 | 3.63 | 24 | 24 | 0.02 | 0.000 |
| APC_013 | 343.60 | 353.70 | 10.10 | 1.15 | 1.15 | 16 | 16 | 0.01 | 0.000 |
| Inc. | 343.60 | 345.60 | 2.00 | 2.77 | 2.77 | 25 | 25 | 0.01 | 0.000 |
| APC_014 | 84.25 | 131.70 | 47.45 | 0.81 | 0.81 | 13 | 13 | 0.20 | 0.003 |
| APC_014 | 197.00 | 391.30 | 194.30 | 0.39 | 0.39 | 56 | 56 | 0.44 | 0.002 |
| APC_015 | 54.20 | 110.25 | 56.05 | 0.37 | 0.37 | 5 | 5 | 0.06 | 0.002 |
| Inc. | 68.60 | 69.10 | 0.50 | 6.26 | 6.26 | 15 | 15 | 0.05 | 0.001 |
| Inc. | 77.85 | 79.20 | 1.35 | 4.17 | 4.17 | 20 | 20 | 0.07 | 0.002 |
| APC_015 | 180.95 | 181.65 | 0.70 | 13.29 | 10.00 | 9 | 9 | 0.02 | 0.003 |
| APC_015 | 206.95 | 207.50 | 0.55 | 7.87 | 7.87 | 5 | 6 | 0.03 | 0.001 |
| APC_016 | NSV | | | | | | | | |
| APC_017 | 118.20 | 190.50 | 72.30 | 1.00 | 1.00 | 28 | 28 | 0.63 | 0.004 |
| Inc. | 121.90 | 130.40 | 8.50 | 2.42 | 2.42 | 30 | 30 | 0.61 | 0.005 |
| APC_017 | 252.60 | 264.25 | 11.65 | 1.80 | 1.80 | 4 | 4 | 0.05 | 0.002 |
| APC_017 | 365.15 | 912.80 | 547.65 | 0.76 | 0.65 | 14 | 14 | 0.04 | 0.001 |
| Inc. | 527.80 | 561.10 | 33.30 | 3.01 | 1.45 | 19 | 19 | 0.05 | 0.002 |
| Inc. | 579.20 | 596.80 | 17.60 | 2.37 | 2.36 | 25 | 25 | 0.06 | 0.001 |
| Inc. | 816.00 | 837.50 | 21.50 | 1.53 | 1.39 | 28 | 28 | 0.09 | 0.001 |
| APC_018 | 136.05 | 304.65 | 168.60 | 0.98 | 0.88 | 69 | 69 | 0.50 | 0.002 |

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| Inc. | 149.20 | 157.00 | 7.80 | 5.08 | 4.27 | 35 | 35 | 0.52 | 0.002 |
| Inc. | 193.20 | 205.10 | 11.90 | 2.18 | 1.32 | 154 | 150 | 0.77 | 0.001 |
| Inc. | 233.90 | 251.50 | 17.60 | 1.49 | 1.48 | 56 | 54 | 0.74 | 0.002 |
| Inc. | 291.65 | 297.00 | 5.35 | 3.26 | 3.26 | 10 | 10 | 0.11 | 0.001 |
| APC_019 | 199.20 | 497.80 | 298.60 | 0.48 | 0.48 | 34 | 34 | 0.31 | 0.002 |
| Inc. | 199.20 | 323.50 | 124.30 | 0.62 | 0.62 | 64 | 64 | 0.63 | 0.002 |
| APC_020 | 298.20 | 400.40 | 102.20 | 2.72 | 1.84 | 28 | 28 | 0.08 | 0.001 |
| Inc. | 324.25 | 357.85 | 33.60 | 6.30 | 3.63 | 45 | 45 | 0.08 | 0.001 |
| APC_021 | NSV | | | | | | | | |
| APC_022 | 89.25 | 136.50 | 47.25 | 4.65 | 2.23 | 22 | 22 | 0.39 | 0.003 |
| APC_022 | 167.00 | 183.80 | 16.80 | 2.59 | 2.54 | 79 | 79 | 0.50 | 0.002 |
| APC_022 | 308.80 | 734.80 | 426.00 | 1.05 | 0.87 | 23 | 23 | 0.08 | 0.001 |
| Inc. | 406.15 | 471.00 | 64.85 | 3.16 | 2.28 | 33 | 33 | 0.08 | 0.001 |
| Inc. | 568.10 | 593.90 | 25.80 | 2.23 | 1.56 | 25 | 25 | 0.05 | 0.001 |
| Inc. | 665.85 | 681.40 | 15.55 | 1.59 | 1.59 | 26 | 26 | 0.07 | 0.001 |
| APC_023 | 311.35 | 383.05 | 71.70 | 0.86 | 0.86 | 10 | 10 | 0.02 | 0.001 |
| Inc. | 359.10 | 376.40 | 17.30 | 1.47 | 1.47 | 14 | 14 | 0.04 | 0.001 |
| APC_024 | 101.00 | 151.60 | 50.60 | 1.15 | 1.12 | 10 | 10 | 0.02 | 0.001 |
| Inc. | 110.05 | 120.20 | 10.15 | 2.19 | 2.19 | 8 | 8 | 0.01 | 0.003 |
| Inc. | 128.75 | 134.75 | 6.00 | 2.04 | 2.04 | 11 | 11 | 0.02 | 0.001 |
| APC_024 | 316.25 | 317.65 | 1.40 | 4.85 | 4.85 | 26 | 26 | 0.08 | 0.001 |
| APC_025 | 73.00 | 179.85 | 106.85 | 0.81 | 0.81 | 30 | 30 | 0.62 | 0.003 |
| Inc. | 111.00 | 125.00 | 14.00 | 2.00 | 2.00 | 35 | 35 | 0.75 | 0.005 |
| APC_026 | 415.00 | 812.10 | 397.10 | 0.62 | 0.49 | 13 | 13 | 0.05 | 0.000 |
| Inc. | 415.00 | 726.20 | 311.20 | 0.74 | 0.57 | 16 | 16 | 0.06 | 0.001 |
| Inc. | 810.50 | 812.10 | 1.60 | 1.53 | 1.53 | 23 | 23 | 0.00 | 0.000 |
| APC_027 | 299.50 | 372.40 | 72.90 | 0.30 | 0.30 | 6 | 6 | 0.02 | 0.002 |
| APC_028 | 286.60 | 305.55 | 18.95 | 1.11 | 1.11 | 12 | 12 | 0.04 | 0.001 |
| APC_028 | 354.70 | 956.35 | 601.65 | 0.89 | 0.75 | 24 | 24 | 0.10 | 0.001 |
| Inc. | 354.70 | 614.65 | 259.95 | 1.21 | 0.95 | 43 | 43 | 0.20 | 0.001 |
| Inc. | 713.10 | 772.80 | 59.70 | 2.04 | 1.74 | 15 | 15 | 0.14 | 0.040 |
| Inc. | 863.15 | 868.80 | 5.65 | 2.00 | 2.00 | 13 | 13 | 0.04 | 0.001 |
| APC_029 | 111.30 | 143.30 | 32.00 | 9.24 | 5.25 | 60 | 60 | 0.45 | 0.003 |
| APC_029 | 194.80 | 203.45 | 8.65 | 0.57 | 0.57 | 82 | 82 | 0.27 | 0.001 |
| APC_029 | 343.80 | 644.80 | 301.00 | 0.63 | 0.59 | 14 | 14 | 0.05 | 0.001 |
| Inc. | 343.80 | 558.20 | 214.40 | 0.77 | 0.71 | 14 | 14 | 0.05 | 0.001 |
| Inc. | 460.00 | 558.20 | 98.20 | 1.26 | 1.13 | 15 | 15 | 0.04 | 0.001 |
| APC_030 | 267.60 | 586.25 | 318.65 | 0.61 | 0.53 | 19 | 19 | 0.12 | 0.002 |
| Inc. | 267.60 | 328.40 | 60.80 | 0.17 | 0.17 | 48 | 48 | 0.40 | 0.002 |

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| Inc. | 472.30 | 553.70 | 81.40 | 1.95 | 1.61 | 18 | 18 | 0.04 | 0.002 |
| APC001_D01 | 293.00 | 382.40 | 89.40 | 0.89 | 0.77 | 58 | 58 | 0.39 | 0.001 |
| Inc. | 296.60 | 315.90 | 19.35 | 1.04 | 0.49 | 128 | 128 | 0.53 | 0.001 |
| Inc. | 367.10 | 382.40 | 15.30 | 1.90 | 1.90 | 16 | 16 | 0.14 | 0.001 |

**Table 10.8. Table of significant Phase 1 drill intersections of the Apollo Target.**

Cut-off grade for intersections is 0.1 g/t Au. Au reported uncapped and Au *10 capped at 10 g/t/. Ag is reported uncapped and Ag *400 capped at 400 g/t. Cu and Mo are not capped. NSV no significant values.

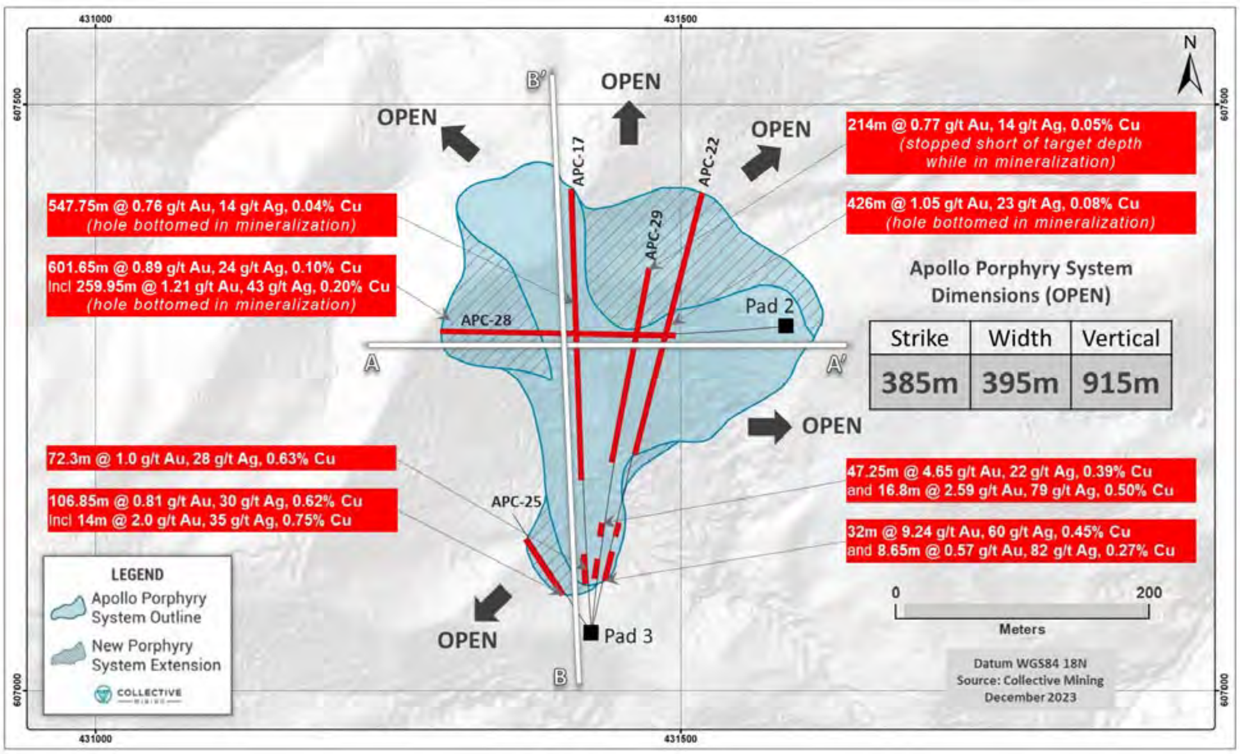



**Figure 10.6. Plan showing hole traces and significant intersections in porphyry at the Apollo Porphyry System target.**

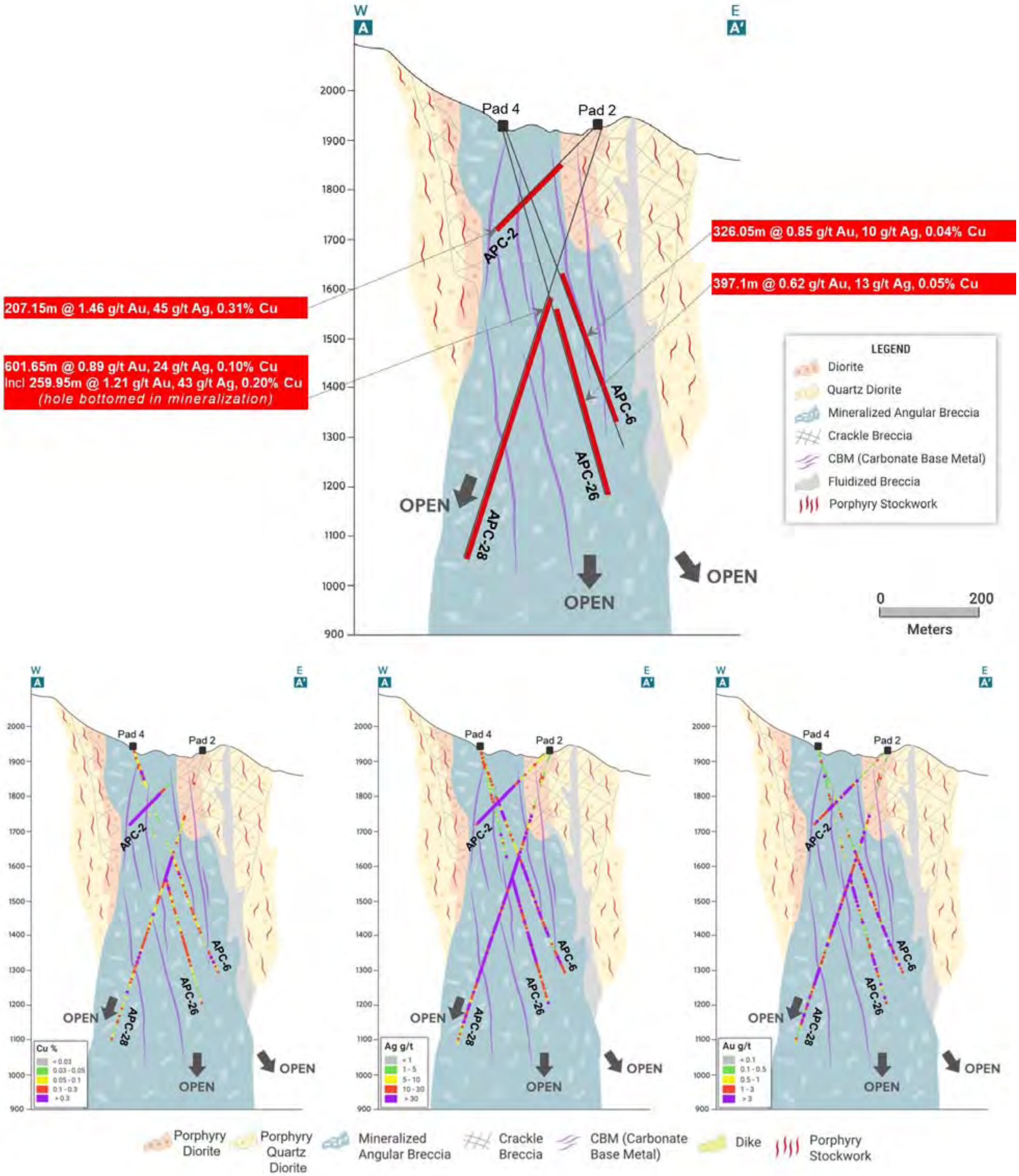



**Figure 10.7. Cross section W-E looking north at the Apollo Target showing significant drill intersections.**

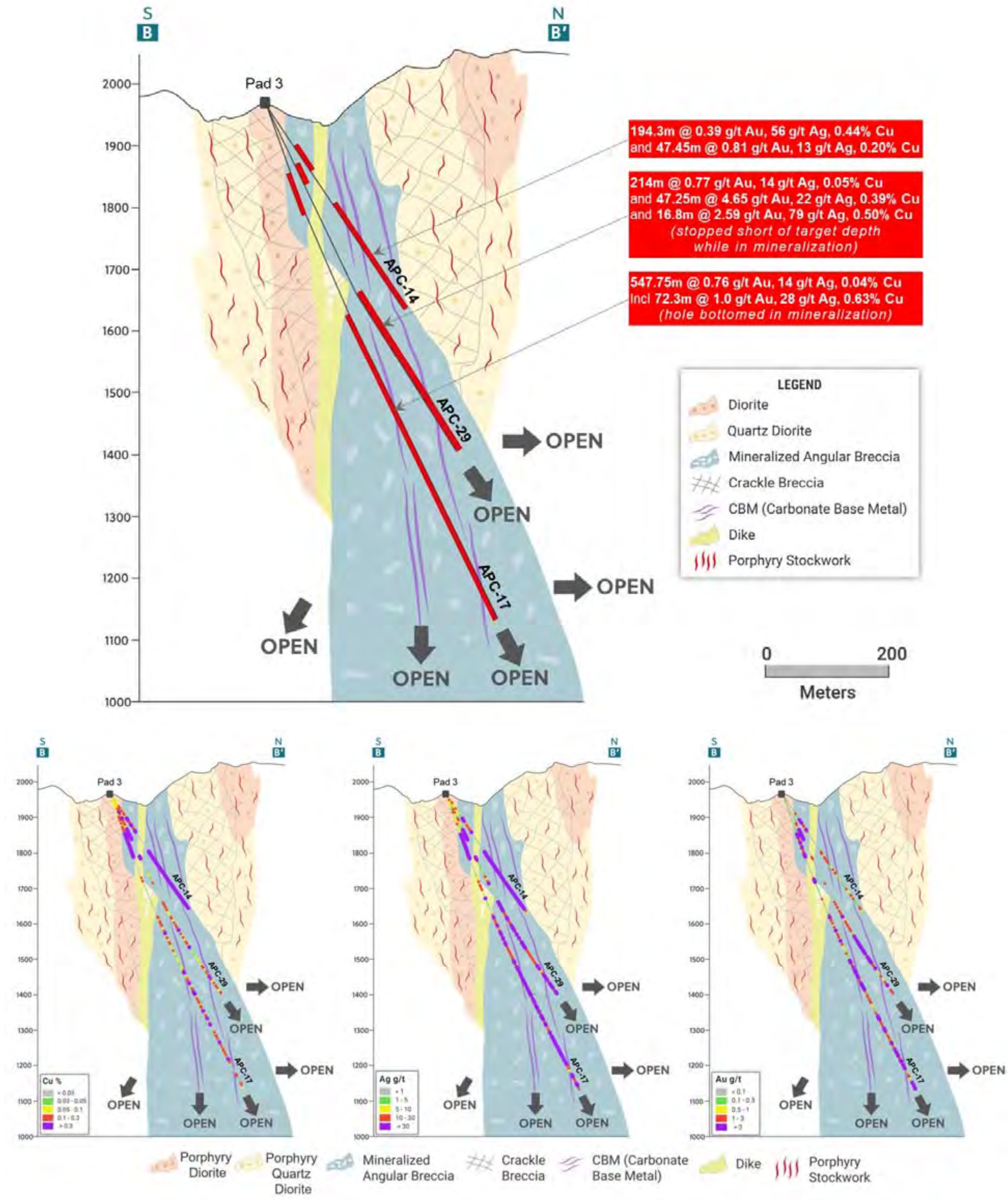



**Figure 10.8. Cross section S-N looking west at the Apollo Target with significant drill intersections.**

#### 10.2.7.2 Olympus Target

The first significant drill results in the Olympus target were announced on 25 March 2022. The Olympus discovery is characterized by broad drilling intersections of medium grade gold and silver with low base metals. The Olympus discovery covers an area measuring 1.0 km by 0.9 km and remains open in most directions. A total of 22 holes were drilled from 4 pads for 7,100 m at the Olympus Target in Phase 1, with the following highlights:

- OLCC-001: 116.30 m @ 0.85 g/t Au, 9 g/t Ag, 0.02% Cu.
- OLCC-003: 301.90 m @ 0.89 g/t Au, 11 g/t Ag, 0.03% Cu.
- OLCC-004: 216.70 m @ 0.79 g/t Au, 13 g/t Ag, 0.04 % Cu.
- OLCC-004: 110.10 m @ 0.69 g/t Au, 7 g/t Ag, 0.02% Cu.
- OLCC-005: 58.60 m @ 0.61 g/t Au, 23 g/t Ag, 0.03% Cu.
- OLCS-003: 41.80 m @ 0.68 g/t Au, 34 g/t Ag, 0.04% Cu.
- OLCU-002: 55.25 m @ 1.75 g/t Au, 11 g/t Ag, 0.02% Cu.
- OLCU-002: 47.15 m @ 0.61 g/t Au, 18 g/t Ag, 0.03% Cu.

The significant intersections for Au, Ag, Cu and Mo are listed in Table 10.9.

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| OLCC_001 | 30.60 | 146.80 | 116.30 | 0.85 | 0.53 | 9 | 9 | 0.02 | 0.004 |
| Inc. | 84.00 | 93.50 | 9.60 | 7.94 | 3.97 | 28 | 28 | 0.02 | 0.007 |
| OLCC_001 | 202.20 | 203.70 | 1.50 | 1.00 | 1.00 | 476 | 211 | 2.86 | 0.004 |
| OLCC_002 | 46.00 | 87.80 | 41.80 | 0.20 | 0.20 | 25 | 25 | 0.04 | 0.012 |
| OLCC_002 | 151.20 | 152.00 | 0.80 | 3.42 | 3.42 | 176 | 176 | 0.13 | 0.002 |
| OLCC_002 | 259.80 | 260.30 | 0.50 | 6.35 | 6.35 | 72 | 72 | 0.13 | 0.006 |
| OLCC_003 | 61.70 | 363.60 | 301.90 | 0.89 | 0.46 | 12 | 12 | 0.03 | 0.003 |
| Inc. | 71.00 | 72.10 | 1.10 | 7.80 | 6.23 | 21 | 21 | 0.01 | 0.002 |
| Inc. | 195.90 | 197.30 | 1.30 | 67.81 | 9.65 | 441 | 381 | 0.32 | 0.012 |
| Inc. | 214.80 | 215.50 | 0.70 | 15.02 | 10.00 | 7 | 7 | 0.06 | 0.016 |
| Inc. | 329.60 | 330.90 | 1.30 | 42.62 | 10.00 | 109 | 109 | 0.03 | 0.002 |
| OLCC_003 | 470.20 | 471.70 | 1.50 | 5.53 | 5.53 | 0 | 0 | 0.03 | 0.000 |
| OLCC_003 | 486.70 | 520.90 | 34.20 | 0.74 | 0.70 | 8 | 8 | 0.03 | 0.001 |
| Inc. | 508.60 | 509.10 | 0.50 | 12.89 | 10.00 | 24 | 24 | 0.02 | 0.001 |
| OLCC_003 | 630.00 | 630.50 | 0.50 | 7.43 | 7.43 | 29 | 29 | 0.05 | 0.001 |
| OLCC_004 | 73.00 | 289.70 | 216.70 | 0.79 | 0.39 | 14 | 14 | 0.04 | 0.004 |
| Inc. | 73.00 | 83.30 | 10.30 | 8.84 | 3.78 | 141 | 141 | 0.03 | 0.004 |
| OLCC_004 | 288.60 | 289.70 | 1.10 | 38.54 | 7.93 | 263 | 242 | 0.16 | 0.002 |
| OLCC_004 | 427.10 | 427.80 | 0.70 | 9.11 | 9.11 | 1 | 1 | 0.01 | 0.001 |

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| OLCC_004 | 449.20 | 449.80 | 0.60 | 5.84 | 5.84 | 16 | 16 | 0.02 | 0.001 |
| OLCC_004 | 480.30 | 590.40 | 110.10 | 0.69 | 0.69 | 7 | 7 | 0.02 | 0.001 |
| Inc. | 526.40 | 528.40 | 2.00 | 4.16 | 4.16 | 61 | 61 | 0.04 | 0.001 |
| OLCC_004 | 539.20 | 542.30 | 3.10 | 3.41 | 3.41 | 42 | 42 | 0.03 | 0.001 |
| OLCC_005 | 11.00 | 70.60 | 58.60 | 0.61 | 0.61 | 23 | 23 | 0.03 | 0.004 |
| Inc. | 38.80 | 40.10 | 1.30 | 7.07 | 7.07 | 4 | 4 | 0.05 | 0.003 |
| Inc. | 43.10 | 43.80 | 0.70 | 4.30 | 4.30 | 215 | 215 | 0.08 | 0.002 |
| OLCC_005 | 196.40 | 221.70 | 25.30 | 0.42 | 0.42 | 22 | 22 | 0.04 | 0.005 |
| OLCC_005 | 360.40 | 361.70 | 1.30 | 4.18 | 4.18 | 78 | 78 | 0.08 | 0.001 |
| OLCC_006 | NSV | | | | | | | | |
| OLCC_007 | 225.20 | 227.00 | 1.80 | 1.54 | 1.54 | 32 | 32 | 0.03 | 0.001 |
| OLCC_008 | 143.65 | 145.10 | 1.45 | 1.80 | 1.80 | 46 | 46 | 0.02 | 0.002 |
| OLCC_008 | 265.70 | 266.30 | 0.60 | 9.80 | 9.80 | 242 | 242 | 0.21 | 0.001 |
| OLCC_008 | 306.30 | 306.80 | 0.50 | 1.99 | 1.99 | 31 | 31 | 0.03 | 0.010 |
| OLCC_009 | 67.00 | 68.15 | 1.15 | 0.02 | 0.02 | 221 | 221 | 0.03 | 0.001 |
| OLCC_009 | 92.80 | 93.30 | 0.50 | 5.19 | 5.19 | 4 | 4 | 0.02 | 0.001 |
| OLCC_009 | 145.20 | 148.00 | 2.80 | 0.63 | 0.63 | 150 | 150 | 0.08 | 0.004 |
| OLCC_009 | 194.30 | 194.85 | 0.55 | 3.71 | 3.71 | 14 | 14 | 0.02 | 0.022 |
| OLCC_009 | 408.55 | 409.05 | 0.50 | 2.29 | 2.29 | 115 | 115 | 0.16 | 0.002 |
| OLCC_010 | NSV | | | | | | | | |
| OLCC_011 | 45.50 | 46.20 | 0.70 | 2.46 | 2.46 | 16 | 16 | 0.02 | 0.001 |
| OLCC_011 | 72.75 | 80.60 | 7.85 | 1.66 | 1.56 | 89 | 69 | 0.04 | 0.010 |
| Inc. | 79.35 | 80.60 | 1.25 | 7.00 | 6.33 | 341 | 215 | 0.06 | 0.005 |
| OLCC_011 | 115.90 | 116.70 | 0.80 | 2.37 | 2.37 | 84 | 84 | 0.10 | 0.002 |
| OLCC_012 | 31.35 | 32.35 | 1.00 | 4.55 | 4.55 | 1 | 1 | 0.01 | 0.006 |
| OLCC_012 | 74.40 | 76.15 | 1.75 | 2.48 | 2.48 | 23 | 23 | 0.04 | 0.005 |
| OLCC_012 | 108.25 | 109.25 | 1.00 | 3.26 | 3.26 | 109 | 109 | 0.11 | 0.002 |
| OLCC_012 | 243.00 | 243.60 | 0.60 | 7.05 | 7.05 | 40 | 40 | 0.07 | 0.005 |
| OLCC_012 | 264.75 | 269.50 | 4.75 | 4.19 | 3.94 | 112 | 112 | 0.09 | 0.005 |
| OLCC_013 | 20.60 | 57.30 | 36.70 | 0.21 | 0.21 | 38 | 38 | 0.02 | 0.008 |
| OLCC_013 | 94.40 | 114.40 | 20.00 | 0.27 | 0.27 | 58 | 58 | 0.11 | 0.007 |
| Inc. | 101.40 | 102.70 | 1.30 | 0.32 | 0.32 | 306 | 306 | 0.04 | 0.006 |
| Inc. | 111.00 | 111.80 | 0.80 | 1.16 | 1.16 | 245 | 245 | 0.81 | 0.004 |
| OLCS_001 | 90.40 | 91.70 | 1.30 | 1.88 | 1.88 | 208 | 208 | 0.04 | 0.004 |
| OLCS_002D | 67.90 | 68.40 | 0.50 | 0.64 | 0.64 | 132 | 132 | 0.52 | 0.001 |
| OLCS_002D01 | 189.35 | 191.00 | 1.65 | 3.25 | 3.25 | 29 | 29 | 0.02 | 0.002 |
| OLCS_003 | 37.00 | 78.80 | 41.80 | 0.64 | 0.64 | 34 | 34 | 0.04 | 0.001 |
| Inc. | 38.50 | 48.90 | 10.40 | 1.67 | 1.67 | 36 | 36 | 0.03 | 0.002 |
| Inc. | 73.60 | 78.80 | 5.20 | 0.78 | 0.78 | 117 | 117 | 0.10 | 0.001 |

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| OLCS_004 | 117.40 | 118.40 | 1.00 | 2.32 | 2.32 | 51 | 51 | 0.04 | 0.002 |
| OLCS_004 | 129.70 | 132.50 | 2.80 | 0.23 | 0.23 | 329 | 260 | 0.08 | 0.020 |
| OLCS_005 | 50.00 | 53.20 | 3.20 | 14.30 | 4.41 | 5 | 5 | 0.02 | 0.001 |
| OLCS_005 | 93.20 | 94.30 | 1.10 | 7.89 | 5.64 | 52 | 52 | 0.04 | 0.006 |
| OLCS_005 | 108.45 | 109.00 | 0.55 | 3.65 | 3.65 | 6 | 6 | 0.01 | 0.001 |
| OLCS_005 | 133.25 | 134.35 | 1.10 | 4.97 | 4.97 | 103 | 103 | 0.02 | 0.006 |
| OLCS_005 | 268.30 | 271.45 | 3.15 | 0.33 | 0.33 | 116 | 116 | 0.01 | 0.001 |
| OLCS_005 | 362.00 | 362.90 | 0.90 | 4.16 | 4.16 | 7 | 7 | 0.02 | 0.002 |
| OLCU_001 | NSV | | | | | | | | |
| OLCU_002 | 5.90 | 6.40 | 0.50 | 3.40 | 3.40 | 242 | 242 | 0.13 | 0.004 |
| OLCU_002 | 133.55 | 134.25 | 0.70 | 1.51 | 1.51 | 180 | 180 | 0.13 | 0.002 |
| OLCU_002 | 172.60 | 227.85 | 55.25 | 1.75 | 0.91 | 11 | 11 | 0.02 | 0.010 |
| Inc. | 205.00 | 206.60 | 1.60 | 3.01 | 3.01 | 20 | 20 | 0.02 | 0.002 |
| Inc. | 207.60 | 208.80 | 1.20 | 2.89 | 2.89 | 10 | 10 | 0.01 | 0.004 |
| Inc. | 211.05 | 211.60 | 0.55 | 4.39 | 4.39 | 14 | 14 | 0.02 | 0.002 |
| Inc. | 217.30 | 224.75 | 7.45 | 8.62 | 2.36 | 28 | 28 | 0.04 | 0.003 |
| OLCU_002 | 264.70 | 265.20 | 0.50 | 8.05 | 8.05 | 89 | 89 | 0.05 | 0.006 |
| OLCU_002 | 284.15 | 331.30 | 47.15 | 0.61 | 0.61 | 18 | 18 | 0.03 | 0.002 |
| Inc. | 301.50 | 302.70 | 1.20 | 2.75 | 2.75 | 55 | 55 | 0.02 | 0.001 |
| Inc. | 329.80 | 331.30 | 1.50 | 2.87 | 2.87 | 34 | 34 | 0.05 | 0.002 |
| OLCU_003 | 58.55 | 59.40 | 0.85 | 4.53 | 4.53 | 12 | 12 | 0.01 | 0.003 |
| OLCU_003 | 111.55 | 112.25 | 0.70 | 2.12 | 2.12 | 108 | 108 | 0.14 | 0.001 |
| OLCU_003 | 116.85 | 134.30 | 17.45 | 0.64 | 0.64 | 9 | 9 | 0.03 | 0.004 |
| Inc. | 133.70 | 134.30 | 0.60 | 8.95 | 8.95 | 10 | 10 | 0.03 | 0.004 |
| OLCU_003 | 204.80 | 206.10 | 1.30 | 3.45 | 3.45 | 26 | 26 | 0.03 | 0.003 |

**Table 10.9. Table of significant Phase 1 drill intersections of the Olympus Target.**

Cut-off grade for intersections is 0.1 g/t Au. Au reported uncapped and Au *10 capped at 10 g/t/. Ag is reported uncapped and Ag *400 capped at 400 g/t. Cu and Mo are not capped.

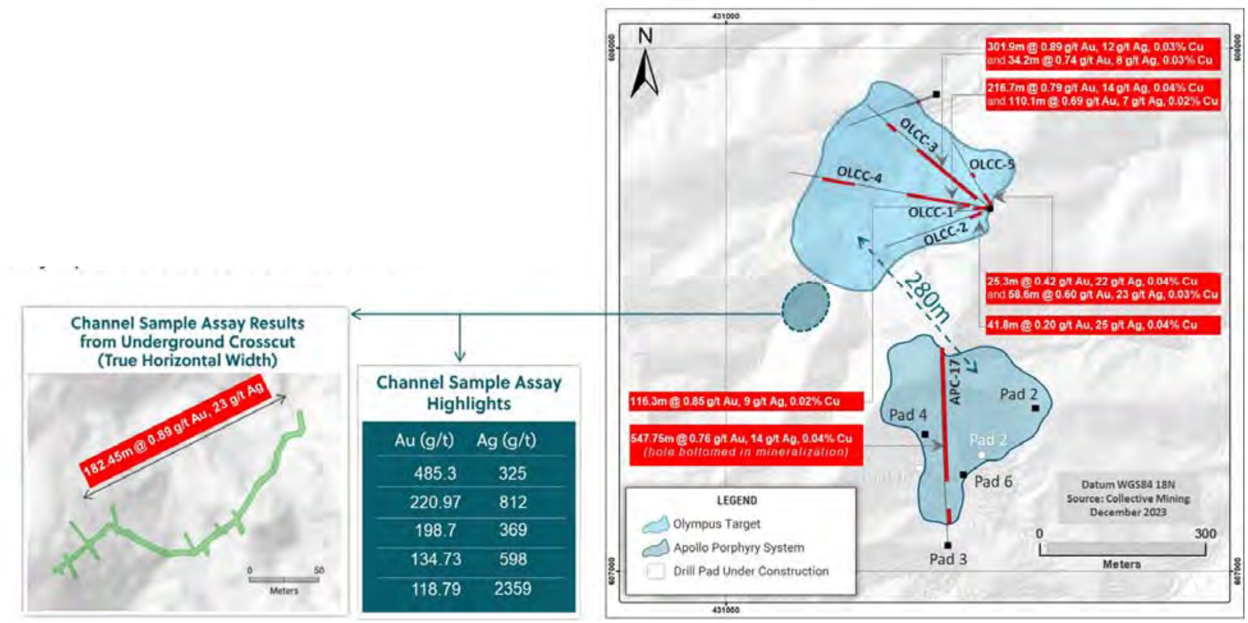



**Figure 10.9. Significant intersections at the Olympus target.**

### *10.2.7.3 Donut Target*

A total of 10 holes were drilled from one pad for 2,534 m at the Donut Target in Phase 1. These resulted in the discovery of significant intersections of gold and silver in a breccia pipe. The surface dimensions of the breccia are small. The highlights include:

- DOC-002: 104.00 m @ 1.20 g/t Au, 12 g/t Ag.
- DOC-003: 163.00 m @ 1.20 g/t Au, 11 g/t Ag.
- DOC-010: 76.20 m @ 0.44 g/t Au, 22 g/t Ag.

The significant intersections of Au, Ag, Cu and Mo are listed in Table 10.10.

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Au *10 (g/t) | Ag (g/t) | Ag *400 (g/t) | Cu (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| DOC_001 | 0.00 | 106.00 | 106.00 | 0.40 | 0.37 | 7 | 7 | 0.03 | 0.002 |
| Inc. | 55.00 | 70.20 | 15.00 | 0.60 | 0.61 | 23 | 23 | 0.07 | 0.002 |
| Inc. | 89.70 | 106.00 | 16.00 | 0.60 | 0.62 | 5 | 5 | 0.02 | 0.002 |
| DOC_002 | 0.00 | 104.00 | 104.00 | 1.20 | 0.76 | 12 | 12 | 0.03 | 0.002 |
| Inc. | 16.00 | 58.10 | 42.00 | 2.50 | 1.35 | 8 | 8 | 0.05 | 0.001 |
| Inc. | 16.00 | 34.00 | 18.00 | 4.80 | 2.20 | 10 | 10 | 0.05 | 0.001 |
| Inc. | 20.00 | 22.00 | 2.00 | 33.30 | 10.00 | 41 | 41 | 0.02 | 0.000 |
| DOC_003 | 0.00 | 163.00 | 163.00 | 1.20 | 0.50 | 11 | 10 | 0.02 | 0.002 |
| Inc. | 156.00 | 157.00 | 2.00 | 83.20 | 10.00 | 37 | 37 | 0.04 | 0.001 |
| DOC_004 | 0.00 | 260.00 | 260.00 | 0.50 | 0.54 | 9 | 9 | 0.03 | 0.003 |
| Inc. | 183.00 | 246.00 | 63.00 | 0.90 | 0.96 | 8 | 8 | 0.02 | 0.003 |
| Inc. | 193.00 | 195.00 | 2.00 | 10.00 | 8.02 | 19 | 16 | 0.05 | 0.003 |
| DOC_005 | 0.00 | 163.00 | 163.00 | 1.20 | 0.22 | 11 | 7 | 0.07 | 0.003 |
| DOC_005 | 13.50 | 288.00 | 275.00 | 0.20 | 0.20 | 5 | 5 | 0.07 | 0.004 |
| Inc. | 13.50 | 81.00 | 68.00 | 0.40 | 0.40 | 13 | 13 | 0.08 | 0.004 |
| DOC_006 | 58.00 | 209.10 | 151.10 | 0.54 | 0.54 | 11 | 11 | 0.03 | 0.002 |
| Inc. | 58.00 | 88.60 | 30.60 | 0.83 | 0.83 | 10 | 10 | 0.03 | 0.002 |
| DOC_007 | 13.00 | 155.20 | 142.20 | 0.36 | 0.36 | 13 | 13 | 0.03 | 0.002 |
| DOC_008 | 18.00 | 125.70 | 107.70 | 0.78 | 0.59 | 21 | 21 | 0.02 | 0.001 |
| Inc. | 27.90 | 30.40 | 2.50 | 15.62 | 7.67 | 6 | 6 | 0.03 | 0.001 |
| DOC_009 | 5.40 | 74.30 | 68.90 | 0.97 | 0.59 | 24 | 24 | 0.03 | 0.002 |
| DOC_010 | 53.50 | 229.70 | 176.20 | 0.44 | 0.44 | 22 | 22 | 0.03 | 0.002 |
| Inc. | 53.50 | 99.60 | 46.10 | 0.44 | 0.44 | 34 | 34 | 0.04 | 0.002 |

**Table 10.10. Table of significant Phase 1 drill intersections of the Donut Target.**

Cut-off grade for intersections is 0.1 g/t Au. Au reported uncapped and Au *10 capped at 10 g/t/. Ag is reported uncapped and Ag *400 capped at 400 g/t. Cu and Mo are not capped.

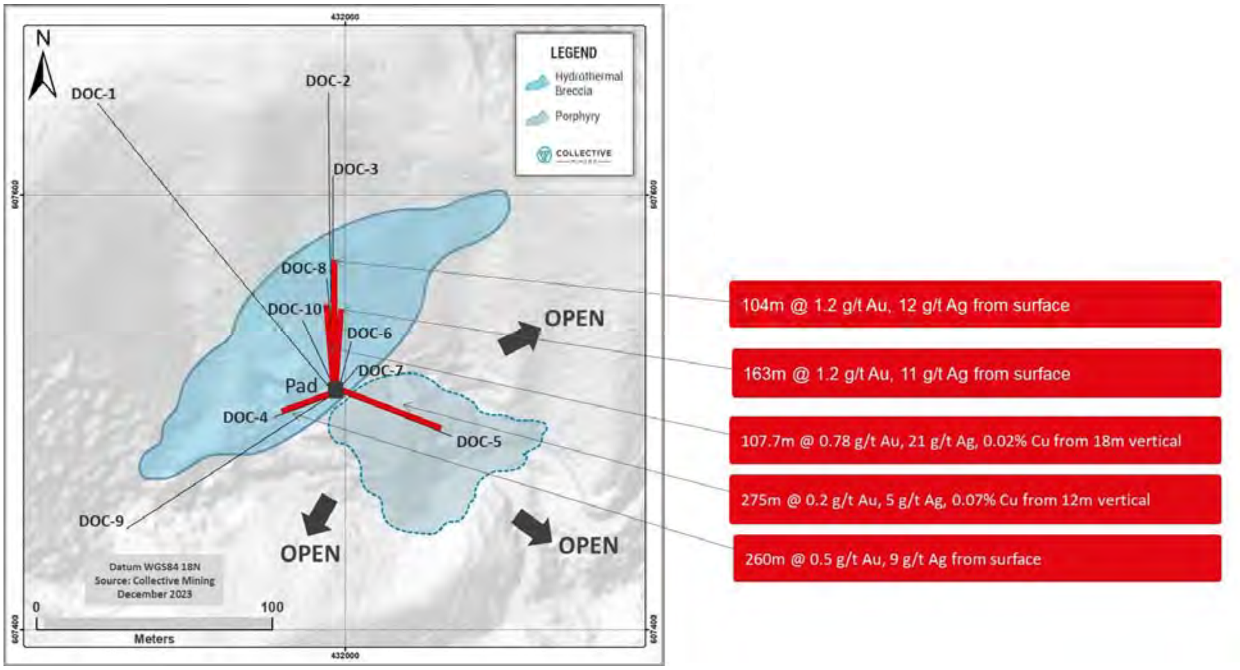



**Figure 10.10. Plan of the significant drill intersections in the Donut target.**

### *10.2.7.4 The Box Target*

A total of 3 holes were drilled from 1 pad for 1,011 m at The Box Target in Phase 1. There were no significant intersections.

### *10.2.7.5 Trap Target*

The fourth discovery at the Trap target was announced on 27 September 2022. Trap is a north to northwest trending, structurally controlled corridor with evidence of porphyry B veins overprinted by late-stage carbonate base metals veins. A total of 3 holes were drilled from 2 pads for 1,060 m at the Trap Target in Phase 1 with the following highlights:

- TRC-001: 102.20 m @ 1.04 g/t Au, 12 g/t Ag, 0.09% Cu.
- VICE-001: 14.70 m @ 1.14 g/t Au, 26 g/t Ag, 0.01% Cu.
- VICE-002: 18.90 m @ 1.06 g/t Au, 35 g/t Ag, 0.18% Cu.

The significant intersections for Au, Ag, Cu and Mo are listed in Table 10.11.

| Hole ID | From (m) | To (m) | Interval (m) | Au (g/t) | Ag (g/t) | Cu (%) | Zn (%) | Pb (%) | Mo (%) |
|---|---|---|---|---|---|---|---|---|---|
| TRC_001 | 233.8 | 336 | 102.2 | 1.04 | 12 | 0.09 | 0.08 | 0.01 | 0.003 |
| Inc | 259.1 | 269 | 9.9 | 2.92 | 25 | 0.25 | 0.03 | 0.00 | 0.007 |
| Inc | 294.5 | 303.7 | 9.2 | 1.82 | 31 | 0.07 | 0.27 | 0.08 | 0.003 |
| VICE_001 | 212.6 | 227.3 | 14.7 | 1.14 | 26 | 0.01 | 0.07 | 0.06 | 0.001 |
| Inc | 213.2 | 214.8 | 1.6 | 2.33 | 47 | 0.01 | 0.01 | 0.01 | 0.000 |
| Inc. | 219.55 | 220.7 | 1.15 | 1.91 | 131 | 0.04 | 0.45 | 0.46 | 0.001 |
| VICE_001 | 253.5 | 270.5 | 17 | 0.69 | 6 | 0.01 | 0.14 | 0.15 | 0.001 |
| VICE_002 | 214.6 | 233.5 | 18.9 | 1.06 | 35 | 0.18 | 0.14 | 0.12 | 0.005 |
| Inc. | 214.6 | 216.6 | 2 | 3.55 | 196 | 0.17 | 1.10 | 0.99 | 0.012 |

**Table 10.11. Table of significant Phase 1 drill intersections of the Trap Target.**

Cut-off grade for intersections is 0.1 g/t Au. Au reported uncapped and Au *10 capped at 10 g/t/. Ag is reported uncapped and Ag *400 capped at 400 g/t. Cu and Mo are not capped.

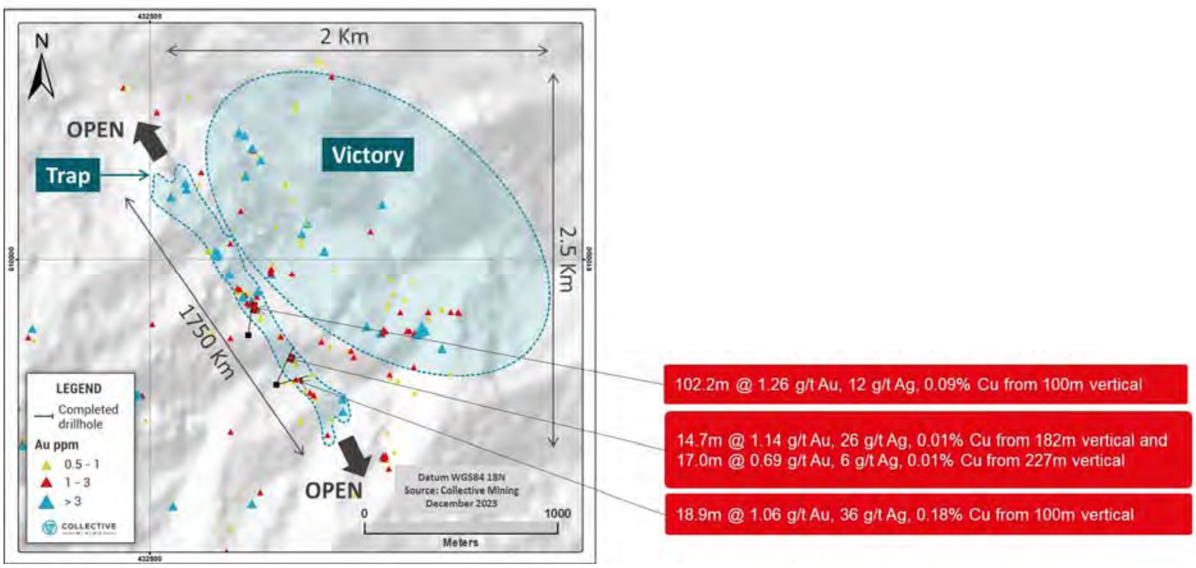



**Figure 10.11. Plan of the significant drill intersections in the Trap target and Au in rocks in the Trap and Victory targets**

### *10.2.7.6 Victory West Target*

Two holes were drilled in the Victory West Target (VICW_001 and 002) with no significant results. No holes were drilled in the main Victory Target (previously known as Victory East) in the Phase 1 program.

### 10.2.8 Sample Length / True Thickness

The drill intersections do not represent the true width of the mineralized zones in porphyry and breccia intersections which require multiple holes to determine the geometry, width and thickness of the mineralised zones.

### 10.2.9 Comments

The protocols for the drilling, logging, sampling and QA-QC are carried out to or exceeds current industry standards. The author considers that there are no drilling, sampling or recovery factors that could materially affect the accuracy and reliability of the results.

# 11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

## 11.1 Historical Data

### 11.1.1 Sample Preparation, Analysis and Security

The historical sample preparation and analysis is summarized in Table 11.1 (Turner, 2010; Leroux, 2012).

| Company | Laboratory | Method | Code | Procedure |
|---|---|---|---|---|
| Colombia Gold | not known | Preparation | | Not known |
| | | Au | | Fire assay 30 g, AAS |
| | | Au overlimit | | Fire assay 30 g, gravimetry |
| | | Multielements | | ICP-AES |
| Colombian Mines | Inspectorate, Medellin and Reno (ISO/TEC 17025) | Preparation | | Crush to -10 mesh, split 500 g, pulverise to -150 mesh. |
| | | Au | FA/AA | Fire assay 30 g, AAS |
| | | Au overlimit | FA/GRAV | Fire assay 30 g, gravimetry |
| | | Multielements | ICP | ICP-AES |
| Colombian Mines (from June 2007) | SGS, Medellin and Callao (ISO 9001) | Preparation | | Not known |
| | | Au | FAA313 | Fire assay 30 g, AAS |
| | | Au overlimit | | Fire assay 30 g, gravimetry |
| | | Multielements | ICP12B | 34 elements by aqua regia digestion, ICP-AES |
| Mercer Gold (soils, rocks) | SGS, Medellin and Callao (ISO 9001) | Preparation soils | SCR30 | Dry, screen to -10 mesh and -80 mesh, pulverise to P95 -140 mesh. |
| | | Preparation rocks | PRP94 | Dry, crush to -1/4 inch and -10 mesh, split 250 g, pulverise to P95 -140 mesh. |
| | | Au | FAA313 | Fire assay 30 g, AAS |
| | | Au | FAI303 | Fire assay 30 g, ICP |
| | | Multielements | ICP40B | 32 elements by 4 acid digestion, ICP-AES |
| | | Multielements | ICP12B | 34 elements by aqua regia digestion, ICP-AES |
| Mercer Gold (core) | Acme, Medellin and Vancouver (ISO 9001) | Preparation | R200 | Crush 1 kg to p80 -10 mesh, split 250 g, pulverise to p85 -200 mesh. |
| | | Au | G6 | Fire assay 30 g, AAS |
| | | Ag | 7AR1 | Aqua regia digest, ICP-AES |
| | | Multielements | 1D02 | 34 elements by aqua regia digestion, ICP-AES |

**Table 11.1 Summary of the sample preparation and analyses methods of the historical samples.**
AAS - atomic absorption spectrophotometer; ICP, ICP-AES - inductively coupled plasma atomic emission spectrometer.

The historical samples were prepared and analysed by standard methods at certified laboratories (Turner, 2010; Leroux, 2012). Colombian Gold and Mercer Gold had standard industry protocols for sample security with sampling supervised by a geologist, and secure sample storage and transport to the laboratory as summarised by Turner (2010) and Leroux (2012).

### 11.1.2 Quality Assurance and Quality Control (QA-QC)

Colombian Mines and Mercer Gold inserted certified standard reference materials (CSRM), coarse blanks and field duplicates in the sample batches of soil, rock and core samples, as summarised in Table 11.2. The CSRM were monitored for Au and Ag by scatter plots with performance gates of the recommended value of the data ± 2SD and ±3SD, and show acceptable results (Turner, 2010; Leroux, 2012). The blanks were monitored for Au and Ag by scatter plots, and generally showed acceptable results, although the Acme gold samples show some carry-over between samples (Turner, 2010; Leroux, 2012). Field duplicates were monitored for Au on scatter plots and show low variability at low grades and scatter at higher grades as a result of geological heterogeneity. No check samples at a second laboratory was carried out. Both Turner (2010) and Leroux (2012) analysed check samples and took field duplicates, with acceptable correlations.

| Company | Type | Material | Position | No. | Acceptance |
|---|---|---|---|---|---|
| Colombian Mines | CSRM | OREAS 15Pa, 62Pb, 50Pb, 61Pb | Not known | 27 | Average ± 2SD, 3SD |
| | Coarse Blank | Not known | Not known | 53 | Scatter plot |
| | Field Duplicate | Protocol not known | Not known | 40 | Scatter plot |
| | Check samples | None | none | 0 | n/a |
| Mercer Gold | CSRM | OREAS 65a, 66a, 60a | Not known | 30 | Average ± 2SD, 3SD |
| | Coarse Blank | Not known | Not known | 28 | Scatter plot |
| | Field Duplicate | Protocol not known | Not known | 37 | Scatter plot |
| | Check samples | None | none | 0 | n/a |

**Table 11.2 QA-QC samples used in the historical sampling programs.**

## 11.2 Collective Mining

### 11.2.1 Sample Preparation, Analysis and Security

From 2020-2021, Collective Mining samples were prepared and analysed by Actlabs Colombia S.A.S. at a laboratory in Rionegro, Medellin, certified to ISO 9001-2008, and Activation Laboratories Ltd., Ancaster, Ontario, certified to ISO/IEC 17025. Since 2021, Collective Mining has used SGS Colombia S.A.S., Medellin for sample preparation and SGS Peru S.A.S., El Callao for analysis, both certified to ISO 9001. Both Actlabs and SGS are independent of Collective

Mining. The methods are listed in Table 11.3. The limits of detection of the SGS analytical methods are listed in Table 11.4 to Table 11.6.

| Laboratory | Method | Code | Procedure |
|---|---|---|---|
| Actlabs, Medellin and Activation Laboratories Ltd., Ancaster, Ontario | Preparation rocks | RX1 | Dry, crush to P80 -2 mm, riffle split 250 g, and pulverise to P95 -105 µm. |
| | Preparation soils | S1 | Dry, sieve to -177 microns. |
| | Au | 1A2-30 | Fire assay 30 g, AAS |
| | Au overlimit | AQ1 | Aqua regia digestion, AAS |
| | Multielements rocks | UT-4M | 42 elements by multiacid digestion, ICP-MS |
| | Multielements Soils | UT-1M | 34 elements by aqua regia digestion, ICP-MS |
| SGS Colombia SAS, Medellin and SGS Peru, El Callao | Preparation rocks | PRP93 | Dry at 105°C, crush to P90 -2 mm, riffle split 450-550 g (originally 250 g), pulverise to P95 -106 µm |
| | Preparation Soils | SCR31 | Dry, sieve to -177 µm, riffle split 250 g, pulverise to P95 -105 µm. |
| | Au | FAA313 | Fire assay 30 g, AAS |
| | Au overlimit | FAG303 | Fire assay 30 g, gravimetry |
| | Ag | AAS12C | Aqua regia digestion, AAS |
| | Ag overlimit | AAS41B | Aqua regia digestion, AAS |
| | Cu, Pb, Zn overlimit | AAS41B | Aqua regia digestion, AAS |
| | Fe overlimit | | |
| | S overlimit | CSA24V | LECO combustion, infra-red absorption |
| | Multielements rocks | ICM40B | 43 elements by multiacid digestion, ICP-OES/ICP-MS |
| | Multielements soils | ICM14B | 36 elements by aqua regia digestion, ICP-OES |

**Table 11.3 Summary of the sample preparation and analyses methods of the Collective Mining samples.**

Abbreviations: AAS atomic absorption spectrophotometer; ICP, ICP-AES inductively coupled plasma atomic emission spectrometer. ICP-MS inductively coupled plasma mass spectrometer.

| Element | Unit | Method | Lower Limit of Detection | Upper Limit of Detection | | Element | Unit | Method | Lower Limit of Detection | Upper Limit of Detection |
|---|---|---|---|---|---|---|---|---|---|---|
| Ag | ppm | ICM40B | 0.02 | 50 | | Na | % | ICM40B | 0.01 | 15 |
| Al | % | ICM40B | 0.01 | 15 | | Nb | ppm | ICM40B | 0.1 | 1000 |
| As | ppm | ICM40B | 1 | 10000 | | Ni | ppm | ICM40B | 0.5 | 10000 |
| Ba | ppm | ICM40B | 5 | 10000 | | P | ppm | ICM40B | 50 | 10000 |
| Be | ppm | ICM40B | 0.1 | 100 | | Pb | ppm | ICM40B | 0.5 | 10000 |
| Bi | ppm | ICM40B | 0.04 | 10000 | | Rb | ppm | ICM40B | 0.2 | 10000 |
| Ca | % | ICM40B | 0.01 | 15 | | S | % | ICM40B | 0.01 | 5 |
| Cd | ppm | ICM40B | 0.02 | 10000 | | Sb | ppm | ICM40B | 0.05 | 10000 |
| Ce | ppm | ICM40B | 0.05 | 1000 | | Sc | ppm | ICM40B | 0.1 | 10000 |
| Co | ppm | ICM40B | 0.1 | 10000 | | Se | ppm | ICM40B | 2 | 1000 |
| Cr | ppm | ICM40B | 1 | 10000 | | Sn | ppm | ICM40B | 0.3 | 1000 |
| Cs | ppm | ICM40B | 0.05 | 1000 | | Sr | ppm | ICM40B | 0.5 | 10000 |
| Cu | ppm | ICM40B | 0.5 | 10000 | | Ta | ppm | ICM40B | 0.05 | 10000 |
| Fe | % | ICM40B | 0.01 | 15 | | Tb | ppm | ICM40B | 0.05 | 10000 |
| Ga | ppm | ICM40B | 0.1 | 500 | | Te | ppm | ICM40B | 0.05 | 500 |
| Ge | ppm | ICM40B | 0.1 | 10000 | | Th | ppm | ICM40B | 0.2 | 10000 |
| Hf | ppm | ICM40B | 0.02 | 500 | | Ti | % | ICM40B | 0.01 | 15 |
| In | ppm | ICM40B | 0.02 | 500 | | Tl | ppm | ICM40B | 0.02 | 10000 |
| K | % | ICM40B | 0.01 | 15 | | U | ppm | ICM40B | 0.1 | 10000 |
| La | ppm | ICM40B | 0.1 | 10000 | | V | ppm | ICM40B | 1 | 10000 |
| Li | ppm | ICM40B | 1 | 50000 | | W | ppm | ICM40B | 0.1 | 10000 |
| Lu | ppm | ICM40B | 0.01 | 1000 | | Y | ppm | ICM40B | 0.1 | 10000 |
| Mg | % | ICM40B | 0.01 | 15 | | Yb | ppm | ICM40B | 0.1 | 1000 |
| Mn | ppm | ICM40B | 5 | 10000 | | Zn | ppm | ICM40B | 1 | 10000 |
| Mo | ppm | ICM40B | 0.05 | 10000 | | Zr | ppm | ICM40B | 0.5 | 10000 |

**Table 11.4. Elements and limits of detection in SGS ICP package ICM40B.**

| Element | Unit | Method | Lower Limit of Detection | Upper Limit of Detection | | Element | Unit | Method | Lower Limit of Detection | Upper Limit of Detection |
|---|---|---|---|---|---|---|---|---|---|---|
| Al | % | ICM14B | 0.01 | 15 | | Na | % | ICM14B | 0.01 | 15 |
| As | ppm | ICM14B | 1 | 10000 | | Nb | ppm | ICM14B | 0.05 | 1000 |
| B | ppm | ICM14B | 10 | 10000 | | Ni | ppm | ICM14B | 0.5 | 10000 |
| Ba | ppm | ICM14B | 5 | 10000 | | P | ppm | ICM14B | 50 | 10000 |
| Be | ppm | ICM14B | 0.1 | 100 | | Pb | ppm | ICM14B | 0.2 | 10000 |
| Bi | ppm | ICM14B | 0.02 | 10000 | | Rb | ppm | ICM14B | 0.2 | 10000 |
| Ca | % | ICM14B | 0.01 | 15 | | Re | ppm | ICM14B | 0.002 | 10000 |
| Cd | ppm | ICM14B | 0.01 | 10000 | | S | % | ICM14B | 0.01 | 5 |
| Ce | ppm | ICM14B | 0.05 | 1000 | | Sb | ppm | ICM14B | 0.05 | 10000 |
| Co | ppm | ICM14B | 0.1 | 10000 | | Sc | ppm | ICM14B | 0.1 | 10000 |
| Cr | ppm | ICM14B | 1 | 10000 | | Se | ppm | ICM14B | 1 | 1000 |
| Cs | ppm | ICM14B | 0.05 | 1000 | | Sn | ppm | ICM14B | 0.3 | 1000 |
| Cu | ppm | ICM14B | 0.5 | 10000 | | Sr | ppm | ICM14B | 0.5 | 10000 |
| Fe | % | ICM14B | 0.01 | 15 | | Ta | ppm | ICM14B | 0.05 | 10000 |
| Ga | ppm | ICM14B | 0.1 | 10000 | | Tb | ppm | ICM14B | 0.02 | 10000 |
| Ge | ppm | ICM14B | 0.1 | 10000 | | Te | ppm | ICM14B | 0.05 | 1000 |
| Hf | ppm | ICM14B | 0.05 | 500 | | Th | ppm | ICM14B | 0.1 | 10000 |
| Hg | ppm | ICM14B | 0.01 | 10000 | | Ti | % | ICM14B | 0.01 | 15 |
| In | ppm | ICM14B | 0.02 | 500 | | Tl | ppm | ICM14B | 0.02 | 10000 |
| K | % | ICM14B | 0.01 | 15 | | U | ppm | ICM14B | 0.05 | 10000 |
| La | ppm | ICM14B | 0.1 | 10000 | | V | ppm | ICM14B | 1 | 10000 |
| Li | ppm | ICM14B | 1 | 50000 | | W | ppm | ICM14B | 0.1 | 10000 |
| Lu | ppm | ICM14B | 0.01 | 1000 | | Y | ppm | ICM14B | 0.05 | 10000 |
| Mg | % | ICM14B | 0.01 | 15 | | Yb | ppm | ICM14B | 0.1 | 100 |
| Mn | ppm | ICM14B | 5 | 10000 | | Zn | ppm | ICM14B | 1 | 10000 |
| Mo | ppm | ICM14B | 0.05 | 10000 | | Zr | ppm | ICM14B | 0.5 | 10000 |

**Table 11.5. Elements and limits of detection in SGS ICP package ICM14B.**

| Element | Unit | Method | Lower Limit of Detection | Upper Limit of Detection |
|---|---|---|---|---|
| Ag | ppm | AAS12C | 0.3 | 500 |
| Ag | g/t | AAS41B | 3 | 4000 |
| Au | ppb | FAA313 | 5 | 10000 |
| Au | g/t | FAG303 | 1 | 3000 |
| Cu | % | AAS41B | 0.002 | 20 |
| Fe | % | | | |
| Pb | % | AAS41B | 0.002 | 20 |
| S | % | CSA24V | 0.01 | 40 |
| Zn | % | AAS41B | 0.01 | 20 |

**Table 11.6. Limits of detection of SGS assays for gold, silver and overlimit base metals, iron and sulphur.**

### 11.2.2 Quality Assurance and Quality Control (QA-QC)

Collective Mining has written protocols for sampling and QA-QC with the insertion of certified standard reference materials (CSRM), coarse blanks, fine blanks, field duplicates, coarse duplicates and fine duplicates, as described in Table 11.7. A total of 24% QA-QC samples are inserted which exceeds normal industry standards. The QA-QC is monitored in real time on receipt of the results of each batch of samples. The protocol for failed CSRM or blanks is to investigate the sample when in company custody then in laboratory custody and, if necessary, reanalyse the interval.

Check analyses of coarse rejects and pulps at an umpire laboratory have not been carried out and it is recommended that this be started as soon as possible and be carried out on a regular basis.

| Type | Code | Material | Position | Rock, core % | Soils, seds % | Acceptance |
|---|---|---|---|---|---|---|
| CSRM | STD | OREAS 503d, 601c, 604 certified for Au, Ag, Cu, multielements | Random | 4 | 4 | Rec value ±2SD, 3SD |
| Coarse Blank | BKG | Coarse quartz | After BKF | 4 | 0 | 3x and 5x LLD |
| Fine Blank | BKF | Fine quartz | After mineralised zones | 4 | 4 | 3x and 5x LLD |
| Field Duplicate | DU | Second sample at same location or quarter core | Random | 4 | 4 | 30% relative error |
| Coarse Duplicate | DUG | Take second split of coarse reject | Random | 4 | 0 | 20% relative error |
| Fine Duplicate | DUP | Second split of the pulp | Random | 4 | 0 | 10% relative error |
| Total | | | | 24 | 12 | |

**Table 11.7 QA-QC protocol of Collective Mining.**

The charts in the following three sections are for analyses of drill core from the Phase I drill program.

#### *11.2.2.1 CSRM*

The CSRM are monitored for gold, silver and copper by scatter plots with performance gates with rejection if a sample is greater or lesser than the recommended value ± 3SD, and a warning if two or more samples are between the recommended value ±2 to ±3SD (Figure 11.1 to Figure 11.3).

Gold has good precision but high variability in OREAS-503d (recommended value 666 ppb Au) and OREAS-606 (recommended value 340 ppb Au), and much less scatter in OREAS-601c (recommended value 996 ppb Au). An additional CSRM with low gold of about 100 ppb is recommended to monitor lower grades.

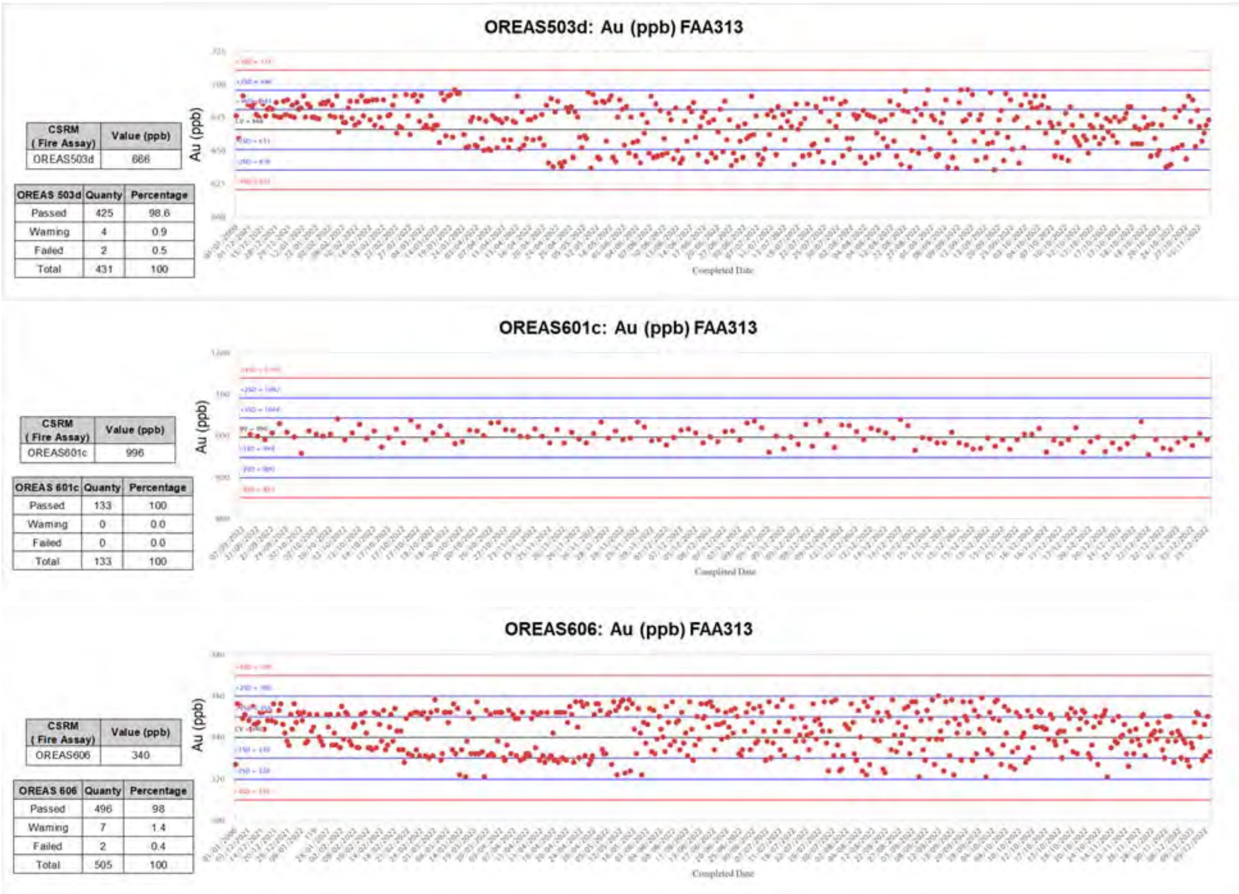



**Figure 11.1. Scatter plots of CSRM OREAS 503d, 601c and 606 for gold.**

The recommended silver grades of the CSRM are 1.02 ppm, 1.34 ppm and 50.4 ppm. The two low grade CSRM are close to the lower limit of detection of silver which is 0.3 ppm, and so are not suitable for QA-QC. The lines of samples on these two plots are a function of the very low grade of silver and a laboratory artefact of the step-wise intervals of instrument readings. OREAS-503d (recommended value 1.34 ppm) has good accuracy. OREAS- 606 (recommended value 1.02 ppm) returns higher than the recommended value. OREAS-601c (recommended value 50.4 ppm) shows good accuracy and precision.

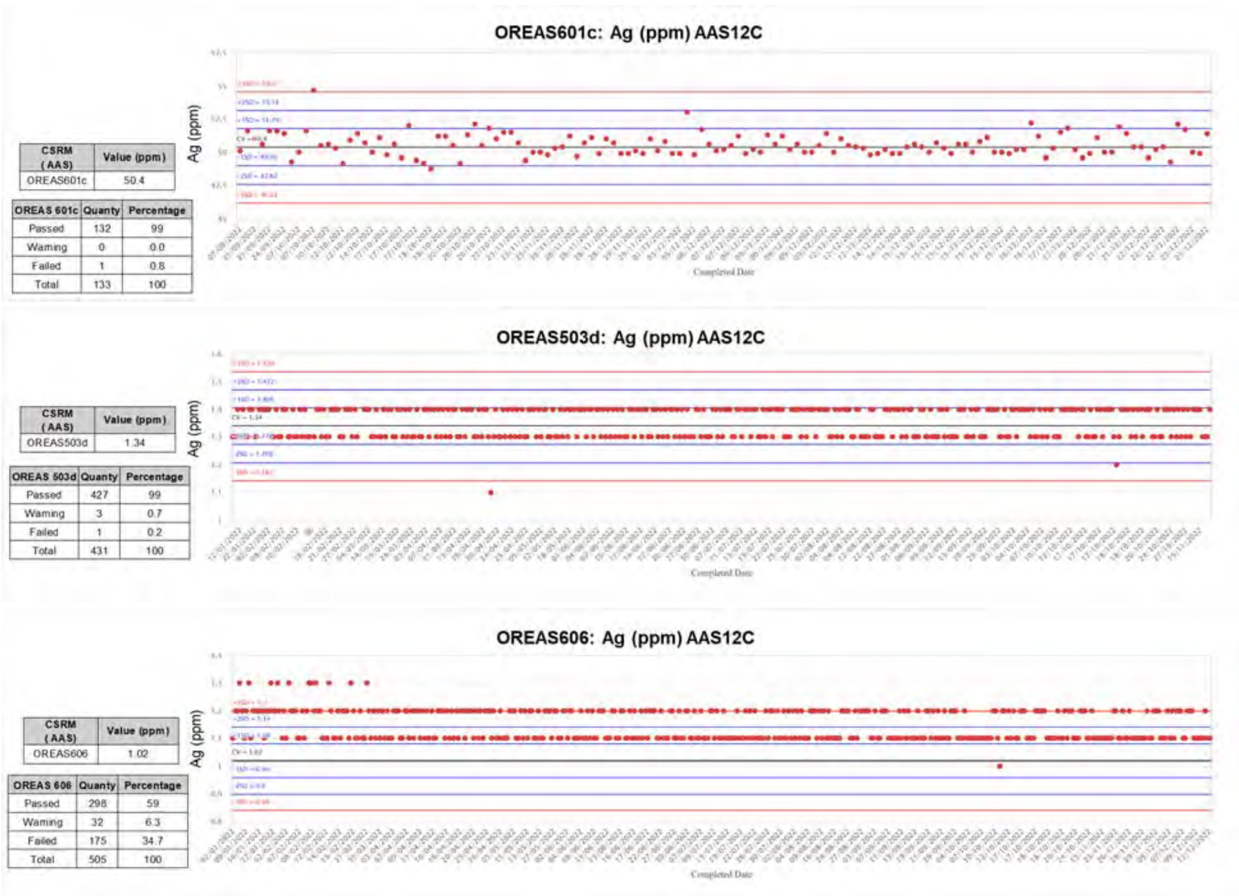



**Figure 11.2. Scatter plots of CSRM OREAS 503d, 601c and 606 for silver.**
The lines of samples are a function of the very low grade of silver and a laboratory artefact of the step-wise intervals that the instrument reads values.

The recommended copper grades of the CSRM are 268 ppm (OREAS-606), 1150 ppm (OREAS-601c) and 5240 ppm (OREAS-503d). OREAS-601c has good accuracy and acceptable precision. OREAS-606 and OREAS-503d have good accuracy and acceptable precision, although the latter was initially below the recommended grade and then improved.

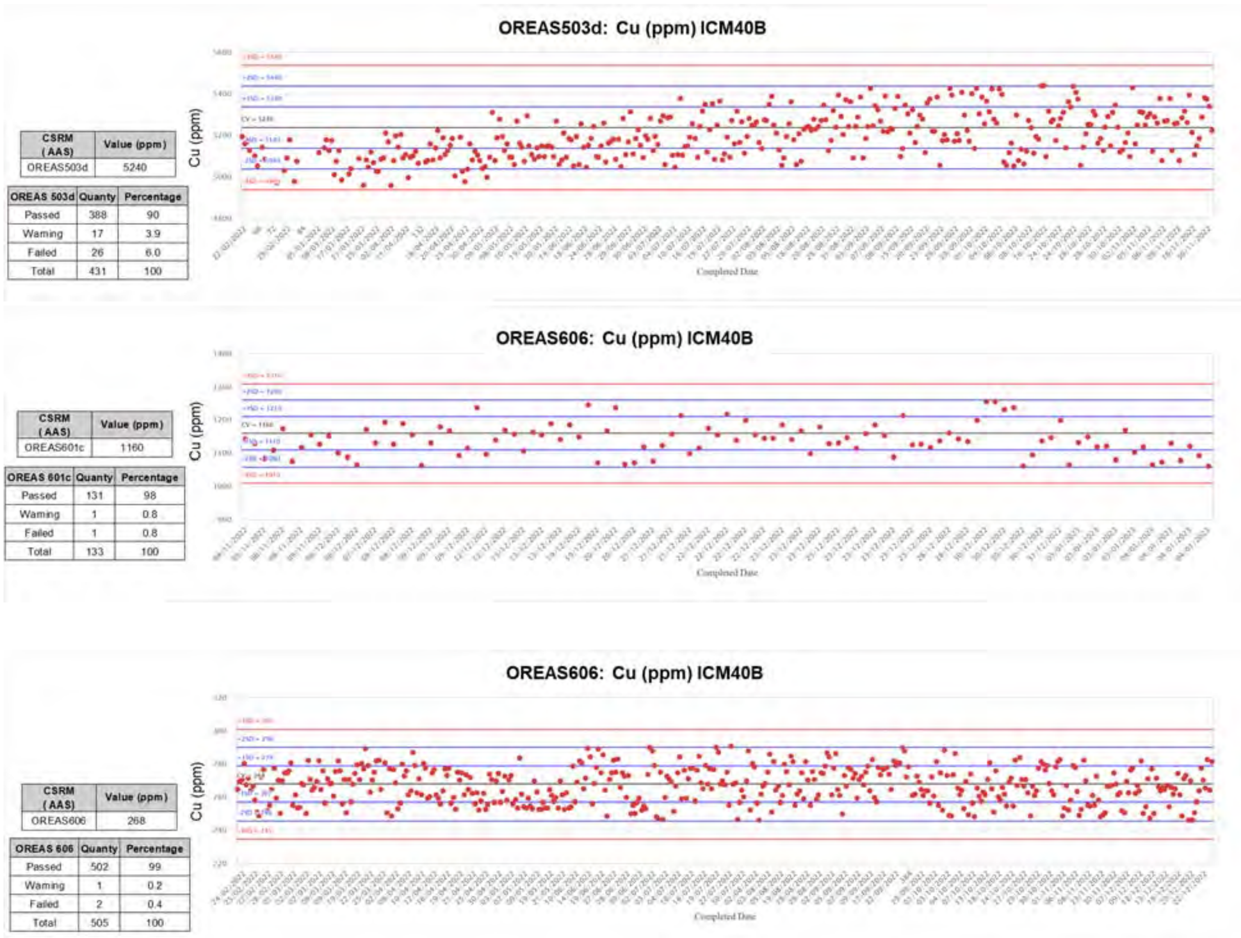



**Figure 11.3. Scatter plots of CSRM OREAS 503d, 601c and 606 for copper.**

### *11.2.2.2 Blanks*

The coarse blanks (BKG) and fine blanks (BKF) are monitored for gold, silver and copper by scatter plots with reference to five times the lower limit of detection of the element (Figure 11.4 to Figure 11.6). The results for gold and silver are excellent. However, copper has 5.6% and 9.1% failures for coarse and fine blanks respectively, which is high and needs further investigation. The low threshold of 2.5 ppm Cu may be an artefact at low levels. However, the coarse blanks have more high grade failures >10 ppm than the fine blanks which suggests carry-over during sample preparation.

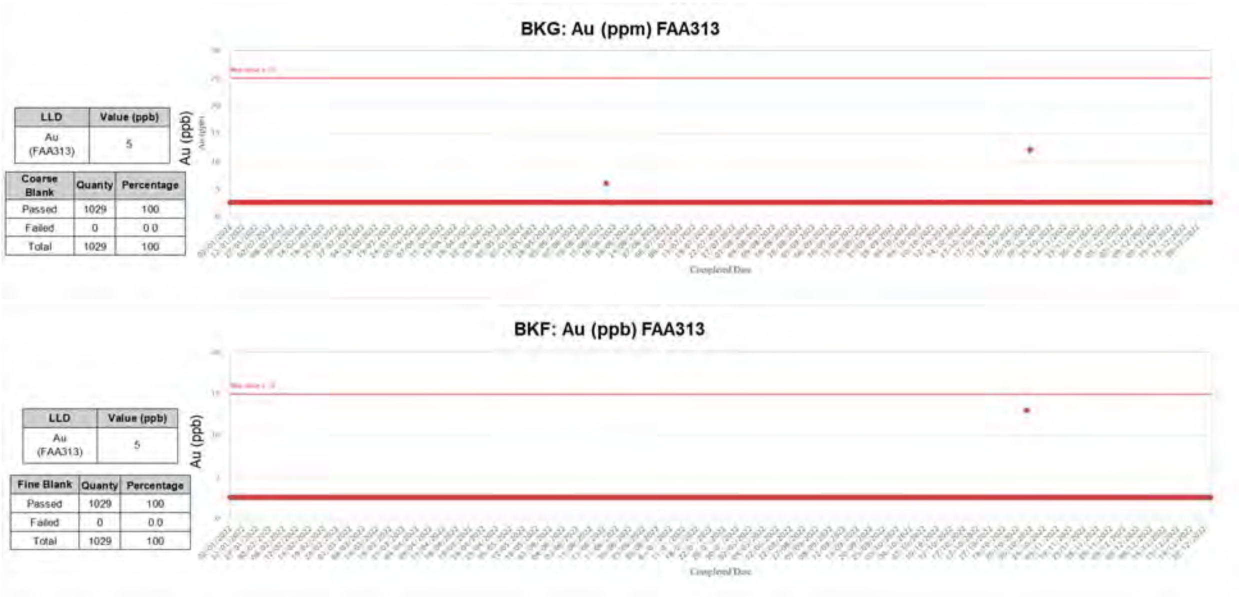



**Figure 11.4. Scatter plots of coarse and fine blanks for gold.**


**Figure 11.5. Scatter plots of coarse and fine blanks for silver.**

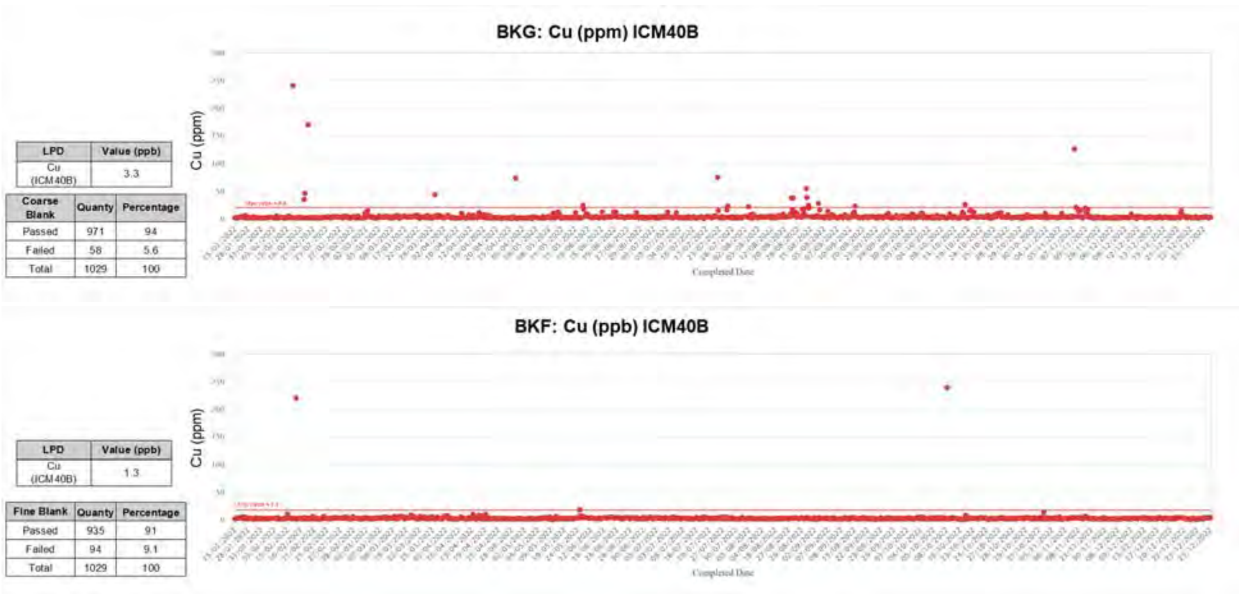



**Figure 11.6. Scatter plots of coarse and fine blanks for copper.**

### *11.2.2.3 Duplicates*

The duplicates are monitored for gold, silver and copper on scatter plots of original versus duplicate (Figure 11.7 to Figure 11.9). The core duplicates (DU) show very high scatter but this is not representative due to the use of quarter-core original and duplicate samples which are half the weight of the normal half-core samples. The quarter-core duplicates give no useful information and it is recommended to change the protocol to use half-core duplicates. The coarse duplicates (DUG) and fine duplicates (DUF) show much less scatter indicating that the sample preparation is adequate to homogenise the samples, and that the sample pulp is representative.

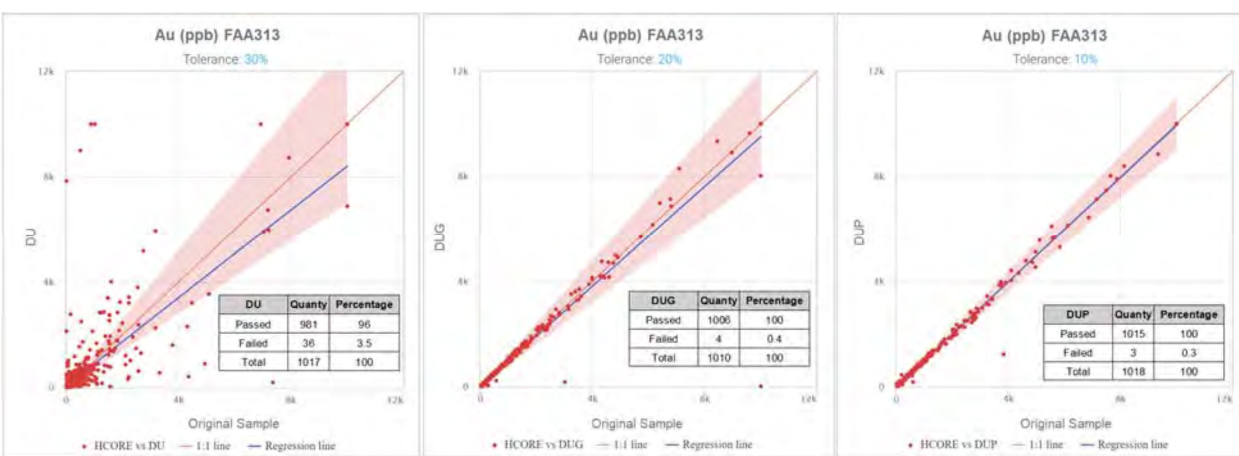



**Figure 11.7. Scatter plots of duplicates for gold.**

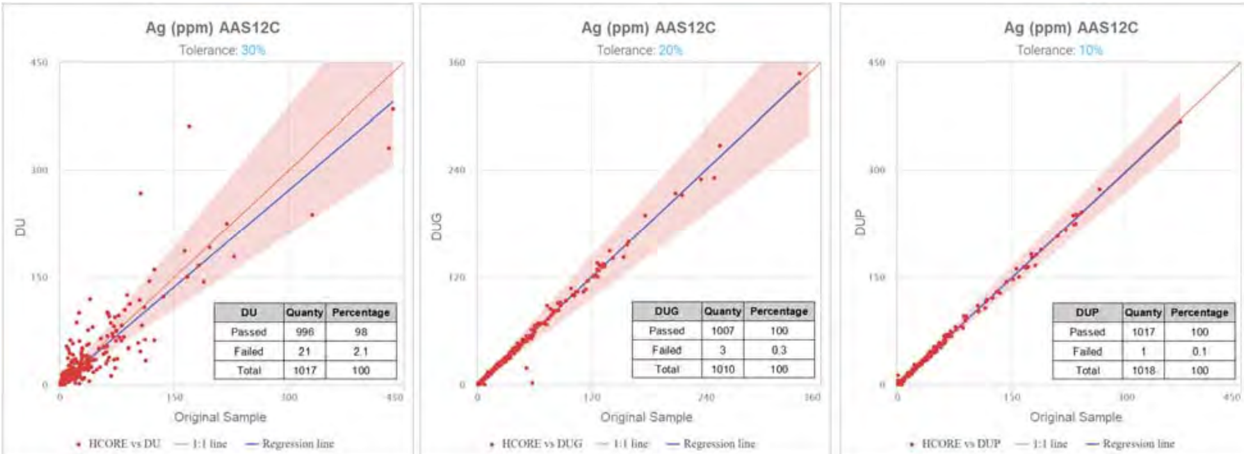



**Figure 11.8. Scatter plots of duplicates for silver.**

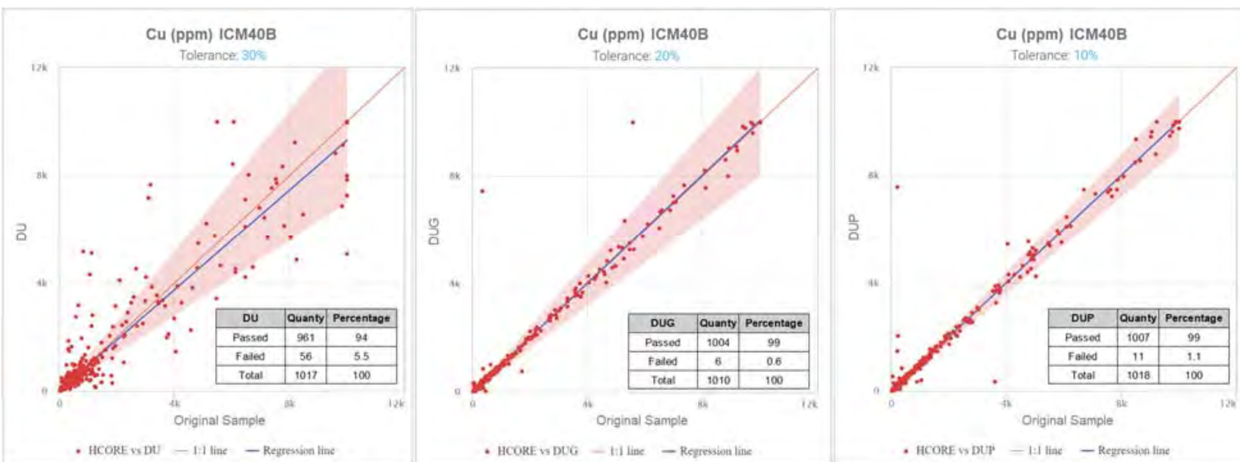



**Figure 11.9. Scatter plots of duplicates for copper.**

## 11.3 Comments on Section 11

Collective Mining's sample preparation, analysis and chain of custody and QA-QC meet with or even exceed current standard industry practise. The QP considers that the data are adequate for the purposes of this Technical Report.

The sample preparation and analysis of the historical samples were carried out by independent, certified laboratories using standard methods and, although not all of the data is available now, it is the author's opinion that sample preparation, analysis and security meet with current standard industry practise. The companies had protocols for sample and analytical QA-QC that follow standard industry practise, with protocols for monitoring QA-QC in real time and for checking any sample batches that fail. In practise, the historical geochemical data are only used as an exploration guide by Collective Mining and repeat soil and rock sampling is carried out in areas of interest.

# 12 DATA VERIFICATION

## 12.1 Summary

The author has verified the data used in this Technical Report by the following means:

1. Making a current site visit to the field office, core logging facility and drilling site.
2. Prior site and field visit.
3. Reviewing drill core.
4. Revising the database and checking a percentage of the assay certificates.
5. Reviewing the QA-QC.

## 12.2 Site Visits

The author made a personal inspection of the Guayabales Project and the company's field office and core logging facility in Supia on 12 to 15 January 2023. Core was examined from four drill holes to observe the geology and mineralization, verify the logging, and compare with the assay sheets. The core was from holes APC-001 (0-418.05 m, EOH), APC-002 (178.00-365.20 m EOH), DOC-002 (0-264.75 m EOH), and OLCC-003 (148.10-335.55 m). A field visit was made to the drilling at the Apollo target and two drill platforms were visited, Pad 2 and Pad 6 where drilling of hole APC-031 was in progress. The protocols, work flow and chain of custody of the core from the drill to sample despatch were seen, and the storage of core, rejects and pulps. The protocols, execution and results for QA-QC were revised. Presentations were given in person and by video-conference about the property, geology, mineralization, exploration, drilling, sample preparation and analysis, QA-QC and other topics by Collective Mining's Chief Executive Officer, Vice President of Exploration, Senior Technical Advisors, project geologists and QA-QC Manager. The author was given access to all people, places and data that were requested.

The author also made a previous inspection of the Guayabales Project on 24 to 25 October 2020. The core of historic drill holes MGDH-06A (500.0 m long) and MGDH-07A (450.00 m long) was examined at the company's field office in Supia. Discussions on the geology and mineralization were held with Collective Mining's Technical Advisors and geologists. Two localities were visited in the field. The first, on the southern side of La Llorona (north side of the Donut target), was a small valley on the upper part of a ridge with several small artisanal gold mines and mills/processing plants (*entables*) equipped with jaw crushers, small ball mills (*cocos*) and Wilfley tables to recover coarse gold by gravimetry. The tailings (*arenas*) are taken elsewhere for recovery of fine gold by cyanide leaching in tanks. An examination of rock types in the ore bins showed several types of dioritic porphyry with biotite and sericite alteration, and quartz-sulphide veinlets, similar to the porphyry seen in drill core; and hornfelsed schist with biotite and sericite alteration. These observations were significant at the time for two reasons, firstly in showing that porphyry-style mineralization outcrops in this area, and secondly, the artisanal miners were recovering free gold from porphyry-style mineralization. The second locality visited was a viewpoint over the Encanto zone in the Guayabales valley where the author was able to observe the NW valley trend extending from the Marmato gold deposit at lower elevation to the SE and through the Guayabales valley, the NW-trending structural control on mineralization, several re-vegetated drill pads, and several artisanal mines in the upper part of the valley.

## 12.3 Drill Core

Drill core was reviewed in 2023 from Collective Mining drill holes APC-001 (0-418.05 m, EOH), APC-002 (178.00-365.20 m EOH), DOC-002 (0-264.75 m EOH), and OLCC-003 (148.10-335.55 m), and in 2020 from historical drill holes MGDH-06A (500.0 m long) and MGDH-07A (450.00 m long).

## 12.4 Database and Assay Certificates

The sample database of historical and Collective Mining data was supplied to the author in Access and Excel files. The author checked a percentage of the assay certificates and Excel reports against the databases and found no errors in the transcription of the analyses.

The historical drill database was reconstructed by Collective Mining based on assay certificates and core photos. The author reviewed this in 2020 by running checks for unusual sample intervals and for gaps in sample continuity, and found no errors.

## 12.5 QA-QC

The QA-QC was revised by the author as described in Section 11.2.

## 12.6 Comment

The author considers that the exploration data are adequate for the purposes of this Technical Report.

# 13 MINERAL PROCESSING AND METALLURGICAL TESTING

Collective Mining has carried out preliminary metallurgical testing by three bottle-roll cyanide leaching tests on ground core samples from the sulphide zone of the Apollo target at the Guayabales Project at the laboratory of SGS del Peru SAS (2021). The head grades were 1.17 to 8.01 g/t Au and 16.05-56.08 g/t Ag. Recovery after 72 hours was between 90.70% and 97.57% for gold, and from 46.27% and 52.34% for silver (Table 13.1). The recovery of Au and Ag did not vary significantly in the sample with high As, probably as arsenopyrite, indicating that Au is not encapsulated in arsenopyrite. The recovery of Au and Ag did not vary significantly in the sample with high Cu or the sample with high Zn and Pb. The consumption of sodium cyanide was from 2.68 kg/t to 5.87 kg/t, and of lime was from 0.48 kg/t to 1.24 kg/t.

The initial test work confirms that gold in the sulphide zone is not refractory. Mineralogical studies are required to determine the mineral(s) that carry the high silver grades. The ~50% cyanide recovery indicates that about half the silver is leachable, and that the rest of the silver may be present as a substitution in other minerals such as chalcopyrite, in which case silver would report to a copper flotation concentrate. Further testwork is required to study this.

| Sample No. | Description | Au (g/t) | Ag (g/t) | Cu (%) | As (ppm) | Au Rec. % 24 hr | Au Rec. % 48 hr. | Au Rec. % 72 hr. | Ag Rec. % 24 hr | Ag Rec. % 48 hr. | Ag Rec. % 72 hr. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APBRT 01 | BAM | 1.17 | 53.83 | 1.04 | 62 | 82.34 | 87.12 | 90.70 | 42.83 | 43.76 | 49.19 |
| APBRT 03 | CBM As bearing | 4.92 | 16.05 | 0.06 | 2213 | 82.70 | 86.42 | 92.51 | 49.58 | 48.74 | 52.34 |
| APBRT 04 | CBM Zn and Pb | 8.01 | 56.08 | 0.10 | 216 | 93.44 | 93.08 | 97.57 | 36.59 | 41.73 | 46.27 |

**Table 13.1. Summary of the results of bottle-roll cyanide leaching tests on samples from the Apollo target.**

p80 = 75 microns, pH = 10.5-11, CN =1,000 ppm. BAM: Angular Mineralized Breccia. CBM: carbonate-base metals veins.

The metallurgical test work is preliminary and is too early stage to make predictions about metal recoveries. Going forward, the company plans to carry out mineralogical studies to characterise the various metal zones and build a geometallurgical model. This will define different geometallurgical zones that will require extensive flotation and leach test work.

# 14 MINERAL RESOURCE ESTIMATES

There are no mineral resource estimates for the Guayabales Project that were prepared in accordance with the current CIM standards and definitions required by the Canadian NI 43-101 “Standards for Disclosure of Mining Projects”. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

# 15 ADJACENT PROPERTIES

## 15.1 Middle Cauca Gold-Copper Belt

The Guayabales Project lies in the central part of the Middle Cauca Gold-Copper Belt. A summary of the mineral resources of the Middle Cauca Gold-Copper Belt is given in Table 15.1 which was compiled from public disclosures of the operators as cited in the table and the text. The belt extends for about 250 km in a north-south direction from the Buritica gold deposit in the north to La Colosa gold deposit in the south, as shown in Figure 15.1. The majority of the deposits occur between Titiribi and Quinchia in a belt about 85 km long and 35 km wide (Figure 7.2). There are at least 42 known porphyry deposits and occurrences in this part of the belt, including the eight porphyry-related targets at the Guayabales Project, in addition to breccia and vein deposits. The belt contains five giant gold deposits (Buritica, Cerro Vetas, Nuevo Chaquiro, Marmato, La Colosa), one of which is also a giant copper deposit (Nuevo Chaquiro), based on the U.S. Geological Survey's definition of giant deposits having a metal content in excess of 100 t (3.2 Moz) gold or 2 Mt (4.4 Blb) copper (Singer, 1995).

The belt is described in regional studies of magmatism by Leal-Mejía et al. (2019) and of mineral deposits by Shaw et al. (2019). Mineralization is related to clusters of porphyry stocks of late Miocene age (9-4 Ma, Leal-Mejía et al., 2019). Magmatism and mineralization are related to subduction of the Nazca Plate beneath the South American Plate, and occurred after terrain accretion; the belt cross cuts the Romeral Terrane as well as the Cañas Gordas oceanic terrane and the continental margin of the Central Cordillera. The deposits are described briefly in this section from north to south.

| Deposit | Category | Cut off Au (g/t) | Mt | Au (g/t) | Ag (g/t) | Cu (%) | Au (Moz) | Ag (Moz) | Cu (Mlb) | Source |
|---|---|---|---|---|---|---|---|---|---|---|
| Buritica | Measured+Indicated | 3.0 | 16.02 | 10.32 | 40.76 | | 5.32 | 21.00 | | 1 |
| | Inferred | 3.0 | 21.87 | 8.56 | 37.28 | | 6.02 | 26.22 | | |
| El Zancudo (Titiribi) | Inferred | 4.0 | 2.78 | 6.50 | 112.00 | | 0.58 | 9.97 | | 2 |
| Cerro Vetas (Titiribi) | Measured | 0.3 | 85.00 | 0.39 | | 0.15 | 1.07 | | 281 | 3 |
| | Indicated | 0.3 | 254.40 | 0.35 | | 0.14 | 2.86 | | 785 | |
| | Inferred | 0.3 | 124.90 | 0.31 | | 0.08 | 1.24 | | 220 | |
| Chisperos (Titiribi) | Indicated | 0.3 | 60.40 | 0.48 | | | 0.93 | | | |
| | Inferred | 0.3 | 44.20 | 0.45 | | | 0.64 | | | |
| NW Breccia (Titiribi) | Indicated | 0.3 | 34.80 | 0.61 | | | 0.68 | | | |
| | Inferred | 0.3 | 72.80 | 0.55 | | | 1.29 | | | |
| La Mina (La Cantera, Middle Zone) | Indicated | 0.25 | 28.25 | 0.73 | 1.76 | 0.24 | 0.66 | 1.60 | 149 | 4 |
| | Inferred | 0.25 | 13.63 | 0.65 | 1.76 | 0.27 | 0.28 | 0.77 | 81 | |
| Nuevo Chaquiro | Measured | $48/t NSR | 86.74 | 0.50 | 5.72 | 0.95 | 1.09 | 11.92 | 1,817 | 5 |
| | Indicated | $48/t NSR | 227.33 | 0.46 | 5.99 | 0.87 | 3.36 | 36.93 | 4,360 | |
| | Inferred | $48/t NSR | 305.94 | 0.23 | 3.66 | 0.48 | 2.97 | 44.10 | 3,238 | |
| Yarumalito | Inferred | 0.5 | 66.20 | 0.58 | | 0.09 | 1.24 | | 131 | 6 |
| Marmato | Measured+Indicated | 1.3, 1.8 | 61.50 | 3.03 | 7.20 | | 6.00 | 14.27 | | 7 |
| | Inferred | 1.3, 1.8 | 35.60 | 2.43 | 3.20 | | 2.79 | 3.68 | | |
| Batero Quinchia | Indicated | 0.3 | 131.80 | 0.59 | 1.80 | 0.11 | 2.50 | 7.60 | 320 | 8 |
| | Inferred | 0.3 | 33.50 | 0.50 | 1.60 | 0.06 | 0.54 | 1.70 | 44 | |
| Dosquebradas (Quinchia) | Inferred | 0.5 | 20.21 | 0.71 | 0.70 | 0.06 | 0.46 | 0.43 | 27 | 9 |
| Miraflores (Quinchia) | Measured+Indicated | 1.2 | 9.27 | 2.82 | 2.77 | | 0.84 | 0.83 | | 10 |
| | Inferred | 1.2 | 0.49 | 2.36 | 2.36 | | 0.04 | 0.06 | | |
| Tesorito (Quinchia) | Inferred | 0.5 | 50.00 | 0.81 | | | 1.30 | | | 11 |
| La Colosa | Indicated | 0.35 | 833.49 | 0.87 | | | 23.35 | | | 12 |
| | Inferred | 0.35 | 217.89 | 0.71 | | | 4.98 | | | |
| **Total** | **Measured+Indicated** | | | | | | **48.67** | **94.14** | **7,712** | |
| **Total** | **Inferred** | | | | | | **22.49** | **76.96** | **3,741** | |

**Table 15.1. Mineral Resources in the Middle Cauca Gold-Copper Belt.**

Sources: (1) Jones et al., 2019. (2) Parsons, 2023. (3) Kantor et al., 2021. (4) Wilson & Castañeda, 2021. (5, 12) AngloGold Ashanti Mineral Resource and Mineral Reserve Report, as at 32 December 2022. (6) Mosher, 2020. (7) Parsons et al., 2022. (8) Evans et al., 2013. (9) Wilson, Los Cerros Limited, Australian Stock Exchange (ASX) Announcement, 25-02-20. (10) Wilson, Metminco Limited, Australian Stock Exchange (ASX) Announcement, 14-03-17. (11) Andrews, Los Cerros Limited, Australian Stock Exchange (ASX) Announcement, 22-03-22. Reporting codes: NI 43-101 (1, 2, 3, 4, 6, 7, 8), JORC (9, 10, 11), SAMREC (5, 12).

Disclaimer: the author has been unable to verify the information in the reports cited in this table and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

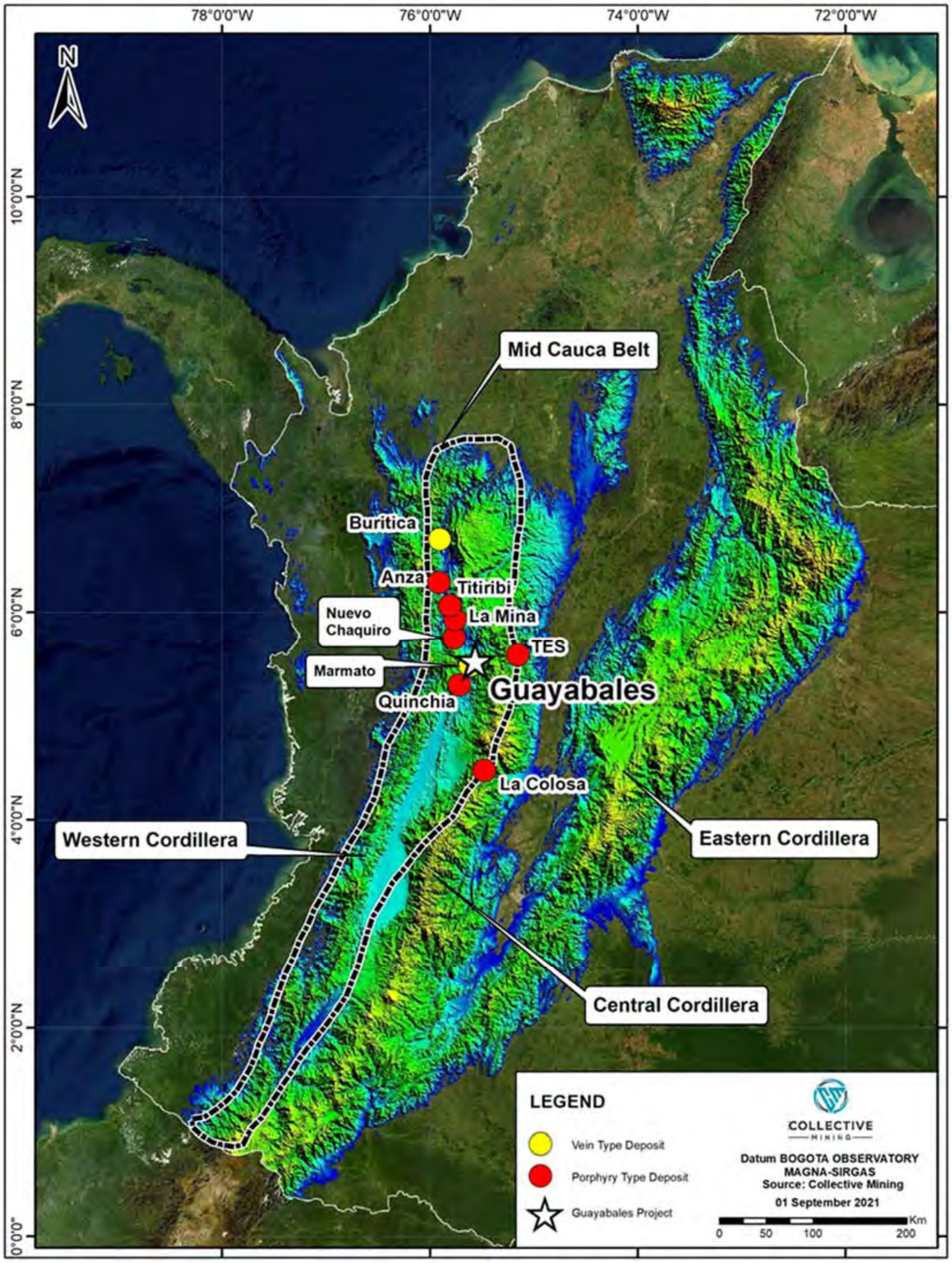



**Figure 15.1 The principal mineral deposits of the Middle Cauca Gold-Copper Belt.**

## 15.2 Buriticá

The Buriticá deposit is located at the north end of the belt, 135 km north-northwest of the Guayabales Project. Gold has been mined since the pre-Columbian period. It was explored by Continental Gold Inc. from 2012-2019 and was bought by Zijin Mining Group Co. Ltd. in 2019, starting production in 2020 with a 3,000 tpd plant that was expanded to 4,000 tpd in 2021.Gold production was 6.1 t (196 koz) in 2021 and 7.8 t (250 koz) in 2022. The deposit has a measured and indicated resource of 16.02 Mt grading 10.32 g/t Au and 40.76 g/t Ag (5.32 Moz Au, 21.00 Moz Ag) and an inferred resource of 21.87 Mt grading 8.56 g/t Au and 37.28 g/t Ag (6.02 Moz Au, 26.22 Moz Ag) (Jones et al., 2019). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

Mineralization is a porphyry-hosted, intermediate sulphidation epithermal to sub-epithermal or carbonate-base metal gold vein/breccia system with two vein systems, Yaraguá and Veta Sur. Mineralization is hosted by the Buriticá Intrusive Complex that consists of andesite, diorite and monzodiorite porphyries and intrusive/hydrothermal breccia, dated at 7.41 ± 0.4 Ma, which intruded the Upper Cretaceous Barroso Formation of volcanic and volcaniclastic rocks of basalt to andesite composition interbedded with mudstone, siltstone and chert of the Cañas Gordas oceanic terrane, and the Upper Cretaceous Buriticá tonalite (Lesage et al., 2013; Jones et al., 2019). Alteration is early potassic (biotite and minor K Feldspar) and propylitic alteration (chlorite-epidote) overprinted by later phyllic alteration (chlorite-sericite-pyrite), including intense phyllic alteration (sericite-adularia) as a selvedge to the carbonate-base and precious metal veins.

There are two main depositional stages of mineralization, Stage 0: porphyry gold mineralization (gold, pyrite, pyrrhotite, quartz, K-feldspar) overprinted by Stage I: banded base-metal (iron, zinc and lead) sulphide-rich veins with quartz-carbonate gangue and Stage II: texturally and chemically distinctive gold-bearing veins and breccia textures with quartz and carbonate gangue, abundant free Au, arsenopyrite, arsenical pyrite, Au tellurides and tennantite-tetrahedrite. The Yaraguá system has been defined by drilling along 1,200 m strike and 1,800 m vertically, while the Veta Sur system has been drilled along 1200 m strike and 1,300 m vertically. Both systems are characterised by sheeted multiple, steeply-dipping individual veins averaging 1.1 m diluted width and Broader Mineralized Zones (BMZ). The resource model contains a total of 27 vein domains zones and three BMZs.

## 15.3 Güintar-Niverengo-Margaritas

The Güintar-Niverengo-Margaritas prospect is located in the Anza district about 45 km west of Medellin and 95 km north-northwest of Guayabales. The project was discovered by AngloGold-Ashanti in 2015 and later sold to Royal Road Minerals Ltd in 2019. Mineros S.A. has an option to earn 50%. The geology comprises late Cretaceous-Paleocene age, deep marine metasediments and mafic volcanic rocks which have been intruded by dioritic to dacitic stocks of Upper Miocene age. The Güintar-Niverengo prospect comprises garnet-pyroxene skarn Au-Ag-Cu associated with hornfelsed metasediments with magnetite and biotite, and Au-bearing epithermal veins with pyrrhotite (Chapman, 2020). Drilling at Niverengo returned 14 m at 392.7 g/t Ag and 0.15% Cu (hole 7), 10 m at 223.2 g/t Ag and 0.10% Cu (hole 8), 18 m at 129.8 g/t Ag, 0.6 g/t Au and 0.10% Cu, and 21.5 m at 14.9 g/t Ag, 0.9 g/t Au and 0.30% Cu (both hole 10), and 10.8 m at 3.3 g/t Au and 0.15% Cu (hole 15) (Royal Road Minerals Ltd press release, 29-09-20). Drilling at Güintar in 2021-2022 intersected porphyry copper-gold-silver mineralization in diorite including GUI-DD-012 with 303.7 m (open) at 0.7 g/t Au, 4.3 g/t Ag and 0.22% Cu, including 62.0 m at 2.1 g/t Au, 12.4 g/t Ag and 0.62% Cu; GUI-DD-013 with 126.0 m at 0.8 g/t Au, 5.5 g/t Ag and 0.34% Cu, including 41 m at 1.5 g/t Au, 10.6 g/t Ag and 0.6% Cu, and 44.0 m at 1.1 g/t Au); GUI-DD-020 with 118.0 m at 0.8 g/t Au, 3.8 g/t Ag and 0.17% Cu; GUI-DD-021 with 181.0 m at 0.9 g/t Au, 3.6 g/t Ag and 0.20% Cu, including 43.0 m at 2.4 g/t Au, 8.0 g/t Ag and 0.40% Cu; and ALM-DD-001 with 80.5 m at 1.0 g/t Au (Royal Road Minerals Ltd press releases 14-12-21). The Margaritas prospect comprises hydrothermal breccias with Au-Ag cut by epithermal veins.

## 15.4 Titiribi

The Titiribi district, located about 65 km north-northwest of Guayabales, has been mined for high grade gold and silver in steep veins and shallow mantos in the El Zancudo intermediate sulphidation epithermal deposit with estimated production of 1.5 to 2.0 Moz gold equivalent between 1793-1948 (Gallego & Akasaka, 2007; Redwood, 2010, 2021a). It was explored by Gran Colombia Gold Corp. from 2010-2021, with partner IAMGOLD Corporation from 2017-2022, and was bought by Denarius Silver Corp. in 2021, now called Denarius Metals Corp. The deposit has an inferred resource of 2.776 Mt grading 6.5 g/t Au and 112 g/t Ag containing 576 koz Au and 9,974 koz Ag (Parsons, 2023). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

Porphyry Au-Cu mineralization was discovered at Cerro Vetas at Titiribi south of El Zancudo in 1998 by Gold Fields Ltd of South Africa Limited and Muriel Mining S.A. (Meldrum, 1998). The project was subsequently explored by Gold Plata Mining (formerly Muriel Mining) with partners Debeira Goldfields in 2006-2008, Windy Knob Resources in 2008-2009, and Sunward Resources

Ltd. (now called GoldMining Inc.) in 2009-2013 (Kantor & Cameron, 2016). The Titiribi district is about 7.0 km NS by 5.0 km wide and consists of a cluster of eight porphyry and breccia deposits and anomalies in the southern half, and the El Zancudo epithermal veins in the northern half. Porphyry mineralization is hosted by diorite and monzonite porphyry stocks and a diatreme breccia that cut schists of the Cretaceous Arquia Complex and sedimentary rocks of the Oligocene-Miocene Amaga Formation (Kantor & Cameron, 2016). A granodiorite porphyry from Titiribi yielded an age of about 7.6 Ma (U-Pb zircon, Leal-Mejía et al., 2019). Three deposits have been drilled with definition of mineral resources: the Cerro Vetas porphyry Au-Cu deposit, the Chisperos breccia Au deposit, and the NW Breccia Au deposit. There are another five untested targets defined by soil gold anomalies and magnetic highs called Candela, Porvenir, Junta, Margarita and Rosa. The Titiribi deposit has measured and indicated mineral resources of 434.60 Mt grading 0.409 g/t Au and 0.11% Cu containing 5.54 Moz Au and 1,001 Mlb Cu, and inferred mineral resources of 241.90 Mt grading 0.41 g/t Au and 0.04% Cu containing 3.16 Moz Au and 213 Mlb Cu (Kantor et al., 2021). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

## 15.5 La Mina

La Mina is a cluster of three gold-copper porphyry deposits, La Cantera, Middle Zone and La Garrucha, located about 5 km south of Venecia and about 52 km north of Guayabales. Gold mineralization is hosted by porphyry stocks and Combia Formation basalts. The La Mina diorite porphyry was dated at about 7.6 Ma (U-Pb zircon, Leal-Mejía et al., 2019). The deposit has indicated resources of 28.25 Mt grading 0.73 g/t Au (0.66 Moz Au), 1.76 g/t Ag (1.60 Moz Ag) and 0.24% Cu (150 Mlb Cu), and inferred resources of 13.83 Mt grading 0.65 g/t Au (0.29 Moz Au), 1.76 g/t Ag (0.77 Moz Ag) and 0.27% Cu (81 Mlb Cu) in La Cantera and Middle Zone deposits (Wilson & Castañeda, 2021). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report. Previously explored by AngloGold Ashanti and Bellhaven Copper & Gold Inc., the deposit is now owned by GoldMining Inc.

## 15.6 Nuevo Chaquiro, Quebradona District

The Nuevo Chaquiro porphyry gold-copper deposit was discovered in the Quebradona district by AngloGold Ashanti in 2012. The 6 km by 5 km district, located between Jerico and Tamesis, about 30 km northwest of Guayabales, has five porphyry gold deposits called La Aurora, La Isabela, La Sola, El Chaquiro and El Tenedor that are hosted by porphyry stocks cutting Combia Formation andesitic volcanic rocks (Gorham & Dahrouge, 2007). The Aurora diorite porphyry was dated at about 8.0 Ma (U-Pb zircon, Leal-Mejía et al., 2019). The concealed Nuevo Chaquiro deposit was discovered at a depth of 250-400 m beneath barren phyllic alteration in 2012-14 (Bartos et al., 2015, 2017). It is hosted in the cupola of stocks with potassic (biotite-magnetite) alteration. The deposit has a measured resource of 57.90 Mt grading 0.58 g/t Au (1.09 Moz Au) and 1.10% Cu (1,406 Mlb Cu), an indicated resource of 203.77 Mt grading 0.47 g/t Au (3.08 Moz Au) and 0.89% Cu (3,981 Mlb Cu), and an inferred resource of 340.43 Mt grading 0.27 g/t Au (2.97 Moz Au) and 0.57% Cu (4,290 Mlb Cu) (AngloGold Ashanti Mineral Resource and Mineral Reserve Report, as of 31 December 2022). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

## 15.7 Caramanta / South Támesis

The Caramanta or South Támesis porphyry district, located west of the town of Caramanta and about 10 km northwest of the Guayabales Project, is a 3 km long, NNE-oriented trend of six porphyry Au deposits called El Retén, El Corral, Ajiaco Sur, Malabrigo, Casa Verde and El Conde that are hosted within and along the SE margin of the Támesis Stock. They were explored by Solvista Gold Corporation (O'Prey, 2014) and then IAMGOLD Corporation. Gold mineralization is hosted by porphyry stocks, Combia Formation basalts, and coarse diorite of the Támesis Stock dated at 7.2 Ma (U-Pb zircon, Leal-Mejía et al., 2019). There are no mineral resources.

## 15.8 Yarumalito

The Yarumalito porphyry Au deposit with epithermal gold veins is located about 10 km north-northwest of Guayabales. It is hosted by porphyry stocks dated at 7.0 ± 0.15 and 6.95 ± 0.16 Ma by U-Pb zircon, and Combia Formation andesites (Henrichs et al, 2014). It was explored by Colombian Mines Corporation (Thompson, 2006) and GoldMining Inc. which estimated an inferred resource of 66.2 Mt grading 0.58 g/t Au (1.236 Moz Au) and 0.09% Cu (129.2 Mlb Cu) (Mosher, 2020). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

## 15.9 Oro Fino and El Salto

The Oro Fino porphyry Au prospect is located about 6 km northeast of the Guayabales Project (Rennebaum & Redwood, 2011) and the El Salto porphyry Au prospect hosted by a diorite porphyry with phyllic alteration is located about 3.0 km northeast of the Guayabales Project.

Reconnaissance exploration was carried out by Colombia Goldfields Ltd. in 2006-2008 (Lewis, 2006; Lewis & San Martin, 2008).

## 15.10 Marmato

The Marmato deposit, located about 2 km southeast of the Guayabales Project, has been mined since pre-Columbian times with estimated historical production of 1.9 to 2.4 Moz gold. It has a measured and indicated mineral resource of 61.5 Mt grading 3.03 g/t Au (5.997 Moz Au) and 7.2 g/t Ag (14.270 Moz Ag), and an inferred mineral resource of 35.6 Mt grading 2.43 g/t Au (2.787 Moz Au) and 3.2 g/t Ag (3.682 Moz Ag) (Parsons et al., 2022). These underground resources occur in veins and porphyry in the Upper Mine above 950 masl, and in sheeted veinlets in the Lower Mine or Deeps Zone that is a new discovery. However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report. A sulphide-rich mineral assemblage is dominated by pyrite, arsenopyrite, black Fe-rich sphalerite, pyrrhotite, chalcopyrite and electrum in the Upper Zone, and a sheeted quartz veinlet system with pyrrhotite, chalcopyrite, bismuth minerals and free gold occurs in the Deeps Zone. Aris Mining Corporation produced 25,216 oz. of gold from the Upper Mine in 2022 and is carrying out a major underground mine expansion to exploit the Deeps Zone in the Lower Mine with plant capacity of 5,250 tpd and planned production of 162 koz gold per year.

Mineralization at Marmato is hosted by five hornblende-bearing dacitic to andesitic hypabyssal porphyry intrusions, with ilmenite and minor magnetite, and country rocks of the Arquía Complex of graphitic and chlorite schists. The porphyry intrusions, denominated P1 to P5, have been dated between 6.576 ± 0.075 Ma and 5.75 ± 0.11 Ma by LA-ICP-MS $^{206}Pb/^{238}U$ on zircon. The age of mineralization was determined by $^{40}Ar/^{39}Ar$ analyses of adularia in veins with plateau ages between 6.95 ± 0.02 Ma and 5.96 ± 0.02 Ma, closely related to the magmatism (Santacruz et al., 2019, 2021). The Marmato deposit model is described as a hybrid between a reduced intrusion-related and a porphyry gold deposit with epithermal veins in the upper part (Santacruz e al., 2021). The adjacent Aguas Claras porphyry gold deposit is related to quartz veinlets with magnetite, pyrite and chalcopyrite. It is low grade and has no mineral resources. Mineralization is hosted by five dacitic to microgranodioritic porphyry intrusions called AP1 to AP5 dated between 6.55 ± 0.15 Ma and 5.74 ± 0.14 Ma by LA-ICP-MS $^{206}Pb/^{238}U$ on zircon (Santacruz et al., 2021).

## 15.11 San Antonio

The San Antonio porphyry Au and CBM Au vein targets, located about 6 km east-northeast of Guayabales, is being explored by Collective Mining (Redwood, 2021b). Potassic alteration (biotite-magnetite) is hosted by multi-phase diorite intrusions and Arquia Complex schist wall rock. There are three targets, Pound, Dollar and COP, the first two of which were drilled in 2021.

The Pound target is located in the northern part of the project. It is defined by multiple hydrothermal breccia bodies hosted within highly altered diorite and quartz diorite, and overprinted by late stage, polymetallic veins. It trends NE-SW and has as strike length of 1.3 km. A porphyry-related breccia discovery was made by drilling in 2021, with hole SAC-6 intersecting 750.4 m at 0.32 g/t Au, 6 g/t Ag and 0.02% Cu, including 186.75 m at 0.50 g/t Au and 9 g/t Ag, and 69.55 m at 0.41g/t Au, 2 g/t Ag and 0.12% Cu; and SAC-8 cut 710.05 m at 0.40 g/t Au, 6 g/t Ag and 0.04% Cu, including 152.20 m at 0.50 g/t Au, 11 g/t Ag, and 133.30 m at 0.61 g/t Au, 6 g/t Ag and 0.15% Cu.

The Dollar target, located at the southern part of the project, has of outcropping quartz diorite porphyry with stockwork and sheeted quartz-magnetite veining with disseminated pyrite, with a 600 m radius. The best scout drill intersection of six holes was SAC-7 with 621.15 m at 0.22 g/t Au, 3 g/t Ag and 0.01% Cu, including 73.75 m at 0.49 g/t Au, 6 g/t Ag and 0.05% Cu.

The COP target, which has not been drilled yet, is located in the centre area of the project 800 m south of Pound. It is defined by highly anomalous Mo (8-108 ppm) and Au up to 2.74 g/t in soils in altered diorite porphyry with quartz veinlets over an area of 650 m by 350 m.

## 15.12 Supía – Riosucio

Epithermal Au-Ag-Cu-Pb-Zn veins are hosted by diorite and granodiorite porphyry and felsic pyroclastic rocks of the Combia Formation between Supía and Riosucio, located 6 km and 13 km southwest of the Guayabales Project (Shaw et al., 2019). The veins are currently mined by artisanal miners. Alluvial gold deposits in the Supía River were mined by a bucket-line dredge from 1940-1955 by the Supia Gold Dredging Company (owned by International Mining Corporation, New York), which produced 12 t of gold (West, 1952; Gartner, 2005).

## 15.13 Quinchia

The Quinchia porphyry gold deposit cluster is located about 25 km south-southwest of the Guayabales Project. It includes the La Cumbre, Mandeval, Dosquebradas, Tesorito and Chuscal porphyry gold deposits, and the Miraflores gold-bearing breccia pipe. Gold mineralization is associated with multiple porphyry stocks that intrude basalts of the Cretaceous Barroso Formation and basaltic to andesitic volcanic rocks of the late Miocene Combia Formation. The Dosquebradas porphyry was dated at about 8.0 Ma by U-Pb on zircon (Leal-Mejía et al., 2019).

The Batero Quinchia deposit, owned by Batero Gold Corp., has a measured and indicated resource of 131.8 Mt grading 0.59 g/t Au, 1.8 g/t Ag and 0.11% Cu (2.50 Moz Au) and an inferred resource of 33.5 Mt grading 0.50 g/t Au, 1.6 g/t Ag and 0.06% Cu (0.542 Moz Au) in three porphyry deposits, La Cumbre, Mandeval and Dosquebradas (Evans et al., 2013). Oxide resources at La Cumbre are 25.85 Mt grading 0.72 g/t Au and 1.8 g/t Ag measured and indicated (0.57 Moz Au) and 8.9 Mt grading 0.63 g/t and 1.3 g/t Ag (0.573 Moz Au) (Vilela & Linares, 2018). However, the author has been unable to verify the information in these reports and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

The rest of the district is owned by Los Cerros Limited of Australia. There are three targets with JORC-compliant resources at Miraflores, Tesorito and Dosquebradas, two porphyry gold exploration targets with long drill intersections of gold at Chuscal (including CHDDH01 with 350 m at 0.57 g/t Au) and Ceibal (including CEDDH02 with 586 m at 0.51 g/t Au; CEDDH04 with 120 m at 0.71 g/t Au), and several gold in soil anomalies at Santa Sofia, La Lorna and Los Medios East.

The Dosquebradas porphyry has an inferred resource of 20.2 Mt grading 0.71 g/t Au, 0.7 g/t Ag and 0.06% Cu (0.459 Moz Au) (Los Cerros Limited, Australian Stock Exchange (ASX) Announcement, 25-02-20). The Miraflores breccia has a measured and indicated resource of 9.27 Mt grading 2.82 g/t Au and 2.77 g/t Ag (0.84 Moz Au, 0.826 Moz Ag) and an inferred resource of 0.49 Mt grading 2.36 g/t Au and 3.64 g/t Ag (0.037 Moz Au, 0.057 Moz Ag) (Metminco Limited, ASX Announcement 14-03-17). The Tesorito gold porphyry, adjacent to Miraflores, has an inferred resource of 50.0 Mt at 0.81 g/t Au (1.205 Moz Au) (Los Cerros Limited, ASX Announcement, 22-03-22). However, the author has been unable to verify the information in these reports and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

## 15.14 El Poma

The El Poma porphyry Au prospect, located about 10 km north of Pereira and about 60 km south of Guayabales, was discovered by stream sediment sampling by Barrick Gold Corporation in 2009. It comprises a cluster of four targets called La Estrella, El Deleite, La Hermita and La Mina that trending NE over at least 10 km. Barrick drilled the first three targets with 30 diamond holes for a total of 14,316 m with highlights of 95.50 m at 0.90 g/t Au (hole P5, El Deleite), 99.50 m at 0.74 g/t Au (hole P25, La Estrella), 175.30 m at 0.81 g/t Au (hole P6, El Deleite), and 181.25 m at 0.72 g/t Au (hole P27, El Deleite) (Rugby Mining Ltd press release, 13-06-16). The porphyry is cut by epithermal veins with high grade Au and Ag including drill intersections of 4.10 m at 13.28 g/t Au including 1.50 m at 33.70 g/t Au (hole P7, El Deleite); 2.10 m at 89.71 g/t Au (hole P7, El Deleite);

22.50 m at 3.09 g/t Au including 4.50 m at 10.51 g/t Au (hole P6, El Deleite); and 1.50 m at 28.40 g/t Au (hole P21, La Hermita) (Rugby Mining Ltd press release, 13-06-16). The project was bought by Rugby Mining Ltd in 2016 and it awaits granting of concessions. There are no mineral resources or reserves.

## 15.15 La Colosa

The La Colosa porphyry Au deposit, discovered by AngloGold Ashanti in 2007 (Lodder et al., 2010), is located 115 km south of the Guayabales Project. It has an indicated resource of 833.47 Mt grading 0.87 g/t Au (23.35 Moz Au) and an inferred resource of 217.89 Mt grading 0.71 g/t Au (4.98 Moz Au) (AngloGold Ashanti Mineral Resource and Mineral Reserve Report, as of 31 December 2022). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralization on the Guayabales Project that is the subject of this Technical Report.

The La Colosa deposit is a gold-only porphyry system related to a late Miocene multi-phase porphyritic diorite-granodiorite complex dated at 8.5-7.4 Ma (Lodder et al., 2010; Naranjo et al., 2018). Gold grades of 0.75 to 1 g/t are associated with early dioritic porphyries and intrusion breccias with potassic and sodic-calcic alteration. Inter-mineral diorite porphyries have gold grades of 0.5 to 0.75 g/t. Late stage porphyries are quartz diorite and tonalite and have grades of <0.3 g/t Au, with propylitic and intermediate argillic alteration. A second gold event formed sheeted veinlets of drusy quartz and pyrite with centimeter-wide halos of albite-sericite-pyrite, with high grade gold (>1.5 g/t Au over >10 m drill core intervals) within N-striking normal faults.

The deposit contains >5 volume percent magnetite and 3 to 5 volume percent pyrite. Gold is mainly contained within pyrite. The porphyries cross-cut the early Paleozoic Cajamarca Group carbonaceous to graphitic and chloritic schist and micaceous metapelite, with minor carbonaceous metapsammite, quartzite, marble, and amphibolite, which forms part of the Cajamarca-Valdivia terrane of the Central Cordillera continental margin.

## 15.16 Conclusion

The Guayabales Project is located in a highly fertile porphyry-epithermal gold-silver-copper belt with a long history of gold-silver vein mining and several recent major discoveries that are potentially bulk mineable of porphyry gold, silver and/or copper deposits. The author considers that these factors positively affect the prospectivity of the Guayabales Project.

# 16 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data and information to be reported.

# 17 INTERPRETATION AND CONCLUSIONS

Collective Mining has identified eight drill targets for gold, silver and/or copper in porphyry, breccia and polymetallic veins at the Guayabales Project and has made four discoveries by drilling at the Apollo, Olympus, Donut and Trap targets. The most significant discovery to date is the Apollo target which is a porphyry gold-silver-copper deposit with mineralised breccias and late, high grade auriferous, polymetallic CBM veins. The Apollo system has the dimensions and grades to be a potentially major deposit. The amount of drilling carried out up to the effective date of this report is not sufficient to define the geometry and grade in order to make a mineral resource estimate. The results justify additional drilling program to define the extent and grade of the system and make a Mineral Resource estimate.

The metallurgical test work at Apollo, comprising three bottle roll tests, is preliminary and is too early stage to make predictions about metal recoveries. The initial test work confirms that gold in the sulphide zone is not refractory, and shows that some of the silver may occur in other minerals such as chalcopyrite, in which case silver would report to a copper flotation concentrate. Mineralogical studies are required to characterise the different metal zones and build a geometallurgical model, with extensive flotation and leach test work.

Collective Mining has also made three other discoveries of long drill intersections of gold, silver and/or copper at the Olympus porphyry-vein, Donut breccia and Trap porphyry-vein targets. The amount of drilling is much less than Apollo, and further drilling is required to define the extent, geometry and grades. Finally, there are three other targets that have not been drilled yet and require preliminary drilling.

The Guayabales Project is located in the Middle Cauca Gold-Copper Belt on the eastern side of the Western Cordillera of Colombia. This metallogenic belt of Late Miocene age is highly prospective for porphyry gold-copper, breccia gold-copper and auriferous polymetallic vein deposits. The Apollo discovery is located about 2 km northwest of the historic Marmato gold-silver mine, where a major underground expansion is under development to exploit the Marmato Deeps Zone.

The Guayabales Project lies within the Romeral terrane that is bounded by the Romeral fault system to the east and the Cauca-Patia fault system to the west, and comprises metamorphic rocks of medium to high grade, ophiolitic sequences and oceanic sediments of Late Jurassic to Early Cretaceous age. Gold-silver-copper mineralization in the belt is related to multiple clusters of Late Miocene porphyry intrusions of diorite to quartz diorite composition, and breccias.

The Guayabales Project is located in a historic, active gold mining district within an area with good infrastructure including a major highway, abundant water, power grids and nearby rail and airport facilities.

The author concludes that the Guayabales Project is a discovery-stage project for porphyry and breccia-hosted gold-silver-copper-molybdenum with auriferous, polymetallic veins. The exploration programs carried out by Collective Mining are well planned and executed and supply sufficient information to plan further exploration. Sampling, sample preparation, assaying and analyses were carried out in accordance with best current industry standard practices and are suitable to plan further exploration. Sampling, assaying and analyses include quality assurance and quality control procedures. There are no known significant risks or uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information.

# 18 RECOMMENDATIONS

The Guayabales Project warrants a follow-up drilling program to define the extent and grade of the Apollo discovery and its potential extensions as the geometry is not well defined at depth or on the margins, and to eventually make a Mineral Resource estimate and a Preliminary Economic Assessment (PEA), and also to carry out exploration drilling at the other targets. A work program of two phases of eighteen months each is recommended, as summarised in Table 18.1, and the decision to proceed to the Phase 2 program is dependant on continued positive results from Phase 1.

| Item | | Metres | Cost per metre (US$) | Total (US$) |
|---|---|---|---|---|
| **Phase 1 drilling** | | | | |
| Drilling | Apollo, extensions and surrounding targets | 30,000 | 250 | 7,500,000 |
| | Other Targets | 10,000 | 250 | 2,500,000 |
| Site G&A | | 40,000 | 50 | 2,000,000 |
| Target generative work | | | | 1,000,000 |
| Metallurgical test work | | | | 300,000 |
| Geotechnical and hydrogeological studies | | | | 200,000 |
| Land acquisition | | | | 750,000 |
| Option agreements payments | | | | 650,000 |
| ESG | | | | 725,000 |
| G&A | | | | 1,800,000 |
| Sub-total | | | | 17,425,000 |
| | | | | |
| **Phase 2 drilling** | | | | |
| Drilling | Apollo | 40,000 | 250 | 10,000,000 |
| | Other Targets | 20,000 | 250 | 5,000,000 |
| | Geotechnical, hydrogeological, metallurgical | 10,000 | 250 | 2,500,000 |
| Site G&A | | 70,000 | 50 | 3,500,000 |
| Resource Estimate | | | | 200,000 |
| PEA | | | | 500,000 |
| Land acquisition | | | | 1,000,000 |
| Option agreement payments | | | | 916,000 |
| ESG | | | | 600,000 |
| G&A | | | | 2,300,000 |
| Sub-total | | | | 26,516,000 |
| Total | | | | 43,941,000 |

**Table 18.1 Estimated budget for the recommended two-stage exploration programme for the Guayabales Project.**

Phase 1 of the recommended exploration program comprises 30,000 m of diamond drilling at Apollo including potential extensions and surrounding breccia bodies, 10,000 m of diamond drilling at other targets, of which first pass drilling is required at the ME, Donut, Donut SE and other targets. The program includes on-going target generation work, and metallurgical test work, geotechnical and hydrogeological studies at Apollo. The budget includes land acquisition, option payments, environmental, social, governance (ESG) and general and administration (G&A) costs. The estimated cost of the Phase 1 programme is US$ 17,425,000. The Phase 1 drill program was started on 1 January 2023 after the effective date of the Technical Report.

Phase 2 of the recommended exploration program is planned for 2024-2025 and comprises an additional 40,000 m of diamond drilling at Apollo, as well as 10,000 m of geotechnical hydrogeological and metallurgical drilling, and to make a Mineral Resource estimate and a Preliminary Economic Assessment (PEA) for Apollo. The program includes 20,000 m of diamond drilling at other targets, land acquisition, option payments, ESG and G&A costs. The estimated cost of the Phase 2 program is US$ 26,516,000. The total budget for Phases 1 and 2 is US$ 43,941,000 (Table 18.1).

# 19 REFERENCES

Arce, J., 2021. Marmato, Colombia. Geophysical Survey. Reprocessing and modelling of airborne magnetometer survey. Report for Collective Mining Ltd by Arce Geofisicos, Lima, Peru, 20 January 2021, 9 p.

Bartos, P. J., Brommecker, R. & Winer, N., 2015. Discovery and geology of the Nuevo Chaquiro copper and gold porphyry deposit, Middle Cauca Belt, Colombia. *NewGenGold* 2015, p. 245-258.

Bartos, P., Garcia, C. & Gil, J., 2017. The Nuevo Chaquiro Cu-Au-(Mo) Porphyry Deposit, Middle Cauca Belt, Colombia: Geology, Alteration, Mineralization. *Economic Geology*, Vol. 112, p. 275-294.

Bray, W., Cooke, R. H. & Redwood, S. D., 2021. Early Metalwork in Caribbean Colombia and Southern Central America. In: McEwan, C. & Hoopes, J. W., eds. *Pre-Columbian Art from Central American and Colombia at Dumbarton Oaks*. Dumbarton Oaks Research Library and Collection, Trustees for Harvard University, Washington, D. C., p. 541-567.

Cediel, F. & Cáceres, C., 2000. *Geological Map of Colombia*. Bogotá, Colombia, Geotec Ltda, 3rd edition. 7 maps at 1:1,000,000 scale.

Cediel, F., Shaw, R. P. & Cáceres, C., 2003. Tectonic Assembly of the Northern Andean Block. In: Bartolini, C., Buffler, R. T. & Blickwede, J. (Eds), The Circum-Gulf of Mexico and the Caribbean: Hydrocarbon habitats, basin formation, and plate tectonics. *American Association of Petroleum Geologists Memoir* 79, p. 815-848.

Chapman, R. N., 2020. NI 43-101 technical report for the Guintar – Niverengo – Margaritas property, Antioquia, Western Colombia. SEDAR, NI 43-101 technical report for Royal Road Minerals Ltd., 5 June 2020, 50 p.

Evans, L., Ehasoo, G. & Altman, K. A., 2013. Technical Report on the Batero-Quinchia Project, Department of Risaralda, Colombia. SEDAR, NI 43-101 technical report by Roscoe Postle Associates Inc. for Batero Gold Corporation, 16 December 2013, 269 p.

Gartner, A., 2005. *Los místeres de las minas: Crónica de la colonia europea más grande de Colombia en el siglo XIX, surgida alrededor de las minas de Marmato, Supía y Riosucio.* Manizales, Editorial Universidad de Caldas, 475 p.

Gallego, A. N. & Akasaka, M., 2007. Silver-bearing and Associated Minerals in El Zancudo Deposit, Antioquia, Colombia. *Resource Geology*, 57 (4), p. 386-399.

Gorham, J. & Dahrouge, J., 2007. Summary Report on the Quebradona Property, Department of Antioquia, Colombia. SEDAR, NI 43-101 technical report for B2Gold Corp., 22 October 2007, 122 p.

Henrichs, I. A., Frantz, J. C., Marques, J. C., Ordoñez-Carmona, O., Castoldi, M. S. & Sato, K., 2014. Caracterização e geocronologia SHRIMP U-Pb em zircão das rochas subvulcânicas do sistema pórfiro Yarumalito, Distrito de Marmato, Colômbia. *Pesquisas em Geociencias*, Vol. 41, no. 3, p. 231-242.

Jones, I., Blaylock, G., Caldwell, J., Corso, W., Creek, M., Levy, M., McLeod, K., Stone, D. & Tahijia, L., 2019. NI 43-101 Buriticá Mineral Resource 2019-01, Antioquia, Colombia. SEDAR, NI 43-101 technical report by Ivor Jones Pty Ltd., Australia for Continental Gold Ltd, 18 March 2019, 285 p.

Kantor, J. A. & Cameron, R. E., 2016. Technical Report on the Titiribi Project, Department of Antioquia, Colombia. SEDAR, NI 43-101 technical report by Behre Dolbear & Company (USA), Inc. for Brazil Resources Inc., 28 October 2016, 179 p.

Kantor, J. A., Cameron, R. E. & Castañeda, M., 2021. Technical Report on the Titiribi Project, Department of Antioquia, Colombia. SEDAR, NI 43-101 technical report by Behre Dolbear & Company (USA), Inc. for GoldMining Inc., 24 August 2021, 165 p.

Leal-Mejía, H., Shaw, R. P. & Melgarejo, J. C., 2019. Spatial-temporal migration of granitoid magmatism and the tectono-magmatic evolution of the Colombian Andes. In: Cediel, F. & Shaw, R. P. (eds), *Geology and Tectonics of Northwestern South America: The Pacific-Caribbean-Andean Junction*. Springer International Publishing AG, Cham, Switzerland, p. 253–410.

Leroux, D. C., 2012. Technical report on the Guayabales gold project, Department of Caldas, Republic of Colombia. SEDAR, NI 43-101 technical report by A.C.A. Howe Ltd. for Tresoro Mining Corp., 31 July 2012, 116 p.

Lesage, G., Richards, J. P., Muehlenbachs, K. & Spell, T. L., 2013. Geochronology, Geochemistry, and Fluid Characterization of the Late Miocene Buriticá Gold Deposit, Antioquia Department, Colombia. *Economic Geology*, Vol. 108, p. 1067-1097.

Lewis, W. J., 2006. NI 43-101 Technical Report on the Marmato and Caramanta Projects, Departments of Caldas and Antioquia, Republic of Colombia. SEDAR, NI 43-101 technical report by Micon International Ltd., Toronto, for Colombia Goldfields Ltd, 14 November 2006, 120 p.

Lewis, W. J. & San Martin, A. J., 2008. Updated NI 43-101 Technical Report and Preliminary Resource Estimate for the Marmato Project, Department of Caldas, Republic of Colombia. SEDAR, NI 43-101 technical report by Micon International Ltd., Toronto for Colombia Goldfields Ltd, 31 May 2008, 2 volumes, 212 p + 85 p.

Lodder, C., Padilla, R., Shaw, R., Garzon, T., Palacio, E. & Jahoda, R., 2010. Discovery History of the La Colosa Gold Porphyry Deposit, Cajamarca, Colombia. *Society of Economic Geologists, Special Publication* No. 15, Vol. I, p.19-28.

Meldrum, S. J., 1998. Titiribi Porphyry Copper Project, Antioquia, Colombia: Data Compilation and Porphyry Model. Report for Gold Fields Ltd., 1 October 1998, 42 p.

Mosher, G. Z., 2020. Technical Report. Yarumalito Gold-Copper Property, Departments of Antioquia and Caldas, Colombia. SEDAR, NI 43-101 technical report by Global Mineral Resource Services, Vancouver for GoldMining Inc., 1 April 2020.

MPX Geophysics Ltd., 2020. Heliborne Magnetic and Radiometric Geophysical Survey, Marmato Block, Antioquia y Caldas, Colombia. Report for Collective Mining Inc., December 2020, 37 p.

Naranjo, A., Horner, J., Jahoda, R., Diamond, L. W., Castro, A., Uribe, A., Perez, C., Paz, H., Mejia, C. & Weil, J., 2018. La Colosa Au Porphyry Deposit, Colombia: Mineralization Styles, Structural Controls, and Age Constraints. *Economic Geology*, Vol. 113, p. 553-578.

O'Prey, M., 2014. Technical Report on the Caramanta Project, Department of Antioquia, Republic of Colombia. SEDAR, NI 43-101 technical report for Solvista Gold Corporation, 28 February 2014, 123 p.

Parsons, B., 2023. NI 43-101 Technical Report, El Zancudo Mineral Resource Estimate, Colombia. SEDAR, NI 43-101 technical report by SRK Consulting (U.S.) Inc. for Denarius Metals Corp., 14 April 2023, 132 p.

Parsons, B., and 13 others, 2022. NI 43-101 Technical Report for the Marmato Gold Mine, Caldas Department, Colombia: Pre-Feasibility Study of the Lower Mine Expansion Project. SEDAR, NI 43-101 technical report by SRK Consulting (U.S.) Inc. for Aris Mining Corporation, 23 November 2022, 250 p.

Redwood, S. D., 2010. NI 43-101 Technical Report for the El Zancudo Project, Department of Antioquia, Republic of Colombia. SEDAR, NI43-101 Technical report for Tapestry Resource Corp., Vancouver and Gran Colombia Gold, S.A., Bogota, Colombia. Effective date 6 April 2010, signature date 31 July 2010, 70 p.

Redwood, S. D., 2021a. NI 43-101 Technical Report for the Zancudo Gold-Silver Project, Municipality of Titiribi, Department of Antioquia, Colombia. SEDAR, NI 43-101 Technical Report for ESV Resources Ltd. (Denarius Silver Corp.), Vancouver, effective date 12 December 2020, signature date 15 February 2021, 117 p.

Redwood, S. D., 2021b. NI 43-101 Technical Report for the San Antonio Gold Project, Department of Caldas, Colombia. SEDAR, NI 43-101 Technical Report for Collective Mining Inc., Toronto and POCML 5 Inc., Toronto (Collective Mining Ltd), effective date 31 December 2020, signature date 19 April 2021,134 p.

Redwood, S. D., 2021c. NI 43-101 Technical Report for the Guayabales Gold Project, Department of Caldas, Colombia. SEDAR, NI 43-101 Technical Report for Collective Mining Ltd., Toronto. Effective date 30 August 2021, signature date 22 September 2021, 115 p.

Rennebaum, T. D. & Redwood, S. D., 2011. Technical Report, Oro Fino Project, Departments of Caldas and Antioquia, Republic of Colombia. SEDAR, NI 43-101 Technical Report by Scott E. Wilson Consulting, Inc., Highlands Ranch, Colorado, for Tolima Gold Corp. and FMX Ventures Inc., Toronto, 7 July 2011, 90 p.

Santacruz, R. L., Redwood, S. D., Ceballos, J., Matteini, M. & Botelho, N. F., Cecchi, A. & Molano, J. C., 2019. Marmato Gold Deposit, Colombia: A Hybrid between a Porphyry and a Reduced Intrusion-Related Gold System. *Society of Economic Geologists (SEG) 2019 Conference*, Santiago, Chile, 7-10 October 2019 (abstract).

Santacruz, R. L., Redwood, S. D., Cecci, A., Matteini, M., Botelho, N. F., Ceballos, J., Starling, T. & Molano, J. C., 2021. The age and petrogenesis of reduced to weakly oxidized porphyry intrusions at the Marmato gold deposit, Colombia. *Ore Geology Reviews*, Vol. 131, 103953. https://doi.org/10.1016/j.oregeorev.2020.103953

Shaw, R. P., Leal-Mejia, H. & Melgarego i Draper, J. C., 2019. Phanerozoic Metallogeny in the Colombian Andes: A Tectono-Magmatic Analysis in Space and Time. In Cediel, F. & Shaw, R. P. (eds), *Geology and Tectonics of Northwestern South America: The Pacific-Caribbean-Andean Junction*. Springer International Publishing AG, Cham, Switzerland, p. 411-549.

SGS del Peru SAS, 2021. Bottle Cyanidation Metallurgical Testing Service. Final report by SGS del Peru SAS for Collective Mining Ltd, February 2021, 11 p.

Sillitoe, R. H., 2010. Porphyry Copper Systems. *Economic Geology*, Vol. 105, p. 3-41.

Singer, D. A., 1995. World class base and precious metal deposits - a quantitative analysis. *Economic Geology*, Vol. 90, p. 88–104.

Thompson, R. J., 2006. Yarumalito Project Technical Report, Departments of Antioquia and Caldas, Republic of Colombia. SEDAR, NI 43-101 Technical Report for Colombian Mines Corporation, November 30, 2006, 111 p.

Thompson, R. J., 2007. Guayabales Project Technical Report, Department of Caldas, Republic of Colombia. SEDAR, NI 43-101 Technical Report for Colombian Mines Corporation, April 5, 2007, 54 p.

Turner, D. D., 2010. Guayabales Project Technical Report, Department of Caldas, Republic of Colombia. SEDAR, NI 43-101 Technical Report by Exploration Geotechnologies Inc., Littleton, Colorado for Uranium International Corp., effective date 28 May 2010, 144 p.

Turner, D. D., 2011. Guayabales Project Technical Report, Department of Caldas, Republic of Colombia. SEDAR, NI 43-101 Technical Report by Exploration Geotechnologies Inc., Littleton, Colorado for Mercer Gold Corporation, effective date 8 February 2011, 193 p. (cited by Leroux, 2012 but not filed on SEDAR).

Vila, T. & Sillitoe, R. H., 1991. Gold-rich porphyry systems in the Maricunga Belt, northern Chile. *Economic Geology*, Vol. 86, p. 1238-1260.

Vilela, E. & Linares, F., 2018. La Cumbre Gold Project, Department of Risaralda, Colombia, NI 43-101 Technical Report on Updated Mineral Resource Estimate. SEDAR, NI 43-101 Technical Report by Linares Americas Consulting SAS for Batero Gold Corp., 10 October 2018, 116 p.

West, R. C., 1952. *Colonial Placer Mining in Colombia*. Louisiana State University Press, Baton Rouge, 157 p.

Wilson, S. E. & Castañeda, M., 2021. NI 43-101 Technical Report, GoldMining Inc., La Mina Project, Antioquia, Republic of Colombia. SEDAR, NI 43-101 Technical Report by Metal Mining Consultants Inc., Highlands Ranch, Colorado for GoldMining Inc., 8 September 2021, 200 p.