



## **NI 43-101 TECHNICAL REPORT**

For the

**San Antonio Gold Project,  
Department of Caldas, Colombia**

For

**Collective Mining Inc.**

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By

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Effective date: 31 December 2020

Signature date: 19 April 2021

## **DATE AND SIGNATURE PAGE**

The effective date of this technical report, titled “NI 43-101 Technical Report for the San Antonio Gold Project, Department of Caldas, Colombia” is 31 December 2020.

Signed: 19 April 2021

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 San Antonio Gold Project, Department of Caldas, Colombia" (the Technical Report) with effective date 31 December 2020 and signature date 19 April 2021.
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 more than 30 years' field experience as a geologist working in mineral exploration and mine geology including gold, silver and base metal projects of epithermal, porphyry, skarn, VMS, intrusion-related vein and orogenic type gold deposits in Latin America, North America, the Caribbean, Europe, Africa, Asia and Australia. This includes more than 15 years' experience working on porphyry and epithermal deposits 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.
7. I made a current personal inspection of the San Antonio Project on 22-26 October 2020.
8. I am responsible for all sections of the Technical Report.
9. I am independent of Collective Mining Inc. and POCML 5 Inc. applying all of the tests in Section 1.5 of NI 43-101.
10. My previous involvement with the project was to manage regional exploration of the area as Vice President Exploration for Colombia Goldfields Ltd in 2006 to 2008.
11. I have read NI 43-101 and the Technical Report has been prepared in compliance with that instrument.
12. 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.
13. 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 19 April 2021

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"Stewart D. Redwood"

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## **1 SUMMARY**

### **1.1 Introduction**

Collective Mining Inc. (Collective Mining) and POCML 5 Inc. (POCML5) requested that Dr. Stewart D. Redwood, Consulting Geologist, prepare an independent NI 43-101 Technical Report for the San Antonio Project in the Department of Caldas, Republic of Colombia. The report has been written in support of a Qualifying Transaction that is the reverse take-over of POCML5 by Collective Mining.

Collective Mining has entered into a business combination agreement with POCML5, a company registered in Ontario, and 2810651 Ontario Inc. (Subco), a wholly-owned subsidiary of POCML5, providing for the reverse take-over of POCML5 by Collective Mining (the Transaction). Pursuant to the Transaction, Collective and Subco will amalgamate and continue as a wholly-owned subsidiary of POCML5, and the shareholders of Collective Mining will receive shares of POCML5 in exchange for their shares of Collective Mining, such that the former shareholders of Collective Mining will become the holders of a majority of the shares of POCML5. Upon completion of the Transaction, POCML5, the resulting issuer company, will change its name to “Collective Mining Ltd.” and will carry out the business of Collective Mining, being the continued exploration and development of the San Antonio Gold Project.

Upon completion of the Transaction described above, Collective Mining Ltd. (formerly POCML5) will hold a 100% interest in the San Antonio Gold Project.

### **1.2 Property Description and Location**

The San Antonio Project is located 80 km south of Medellin and 50 km north of Manizales in the Municipalities of Aguadas and Pácora, Department of Caldas, Republic of Colombia, at approximately 5°30'N, 75°33'W and an altitude of 650 to 1,375 m above mean sea level (masl).

The mining rights consist of concession contract number IIS-10401 of 1,664.2 hectares (ha) that is owned by Minera Campana S.A.S., a subsidiary of Collective Mining. The title was registered on 1 April 2008 and is valid until 31 March 2038. 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.

Collective Mining's subsidiary Minerales Provenza S.A.S. signed an option contract to acquire the property by means of the purchase of 100% of the shares of Minera Campana S.A.S., the owner of concession contract number IIS-10401, dated 9 July 2020. The consideration is staged payments to the shareholders of Minera Campana S.A.S. over 7 years from the date of signing of the contract

totalling US\$2.5 million. The first payment was made on 14 August 2020. In addition, a 1.5% net smelter royalty (NSR) is payable to the original owners from the start of commercial production. The NSR may be purchased at any time for US\$2.5 million. The shares of Minera Campana S.A.S. were transferred to Minerales Provenza S.A.S. following the signing of the contract in order to give Collective Mining ownership of the concession contract. If Minerales Provenza S.A.S. withdraws from the option, the shares of Minera Campana S.A.S. will be reacquired by the original shareholders of Minera Campana S.A.S. at no cost.

### **1.3 History**

Regional reconnaissance geochemical exploration of the San Antonio area was first carried out by Sociedad Minera Kedahda S.A., a subsidiary of AngloGold Ashanti Ltd. (AngloGold Ashanti), in 2004-2005, and then by Colombia Goldfields Ltd. (Colombia Goldfields) in 2006-2008. Minera Campana was awarded the concession contract no. IIS-10401 in 2008. The project was explored under an option contract by Mineros S.A. (Mineros) from 2009 to 2015, which carried out surface geochemistry and geophysics, and drilled 24 diamond drill holes. Anglo American plc (Anglo American) evaluated the project in 2015. Rugby Mining Ltd. (Rugby) explored the project under an option agreement with Minera Campana from 2016 to 2018, and drilled one diamond drill hole.

Three historical drill programmes were carried out at the San Antonio Project by previous companies with a total of 7,717.15 m in 25 diamond drill holes. Significant intersections of more than 50.0 m grading 0.40 g/t AuEq or higher include 90.0 m grading 0.35 g/t Au and 10.54 g/t Ag (0.49 g/t AuEq; hole PADDH-018), 276.0 m grading 0.41 g/t Au and 6.74 g/t Ag (0.50 g/t AuEq; PADDH-023), 54.0 m grading 0.86 g/t Au and 9.67 g/t Ag (0.99 g/t AuEq; PADDH-023), 55.6 m grading 0.33 g/t Au and 5.58 g/t Ag (0.40 g/t AuEq; PADDH-123) 50.4 m grading 0.67 g/t Au and 11.7 g/t Ag (0.82 g/t AuEq; PADDH-024) and 100 m grading 0.44 g/t Au and 4.76 g/t Ag (0.50 g/t AuEq; SA-18-01).

### **1.4 Geological Setting and Mineralization**

The San Antonio Project lies within the Romeral terrane that is bounded by the Romeral fault system fault 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 mineralisation in the belt is related to multiple clusters of Late Miocene porphyry intrusions of diorite to tonalite composition, and intrusive breccias.

The San Antonio Project is located in the Middle Cauca Gold Belt. This extends for about 250 km in a north-south direction from Buritica to La Colosa. The gold mineralisation in the belt is of

intermediate sulphidation epithermal style Au-Ag-polymetallic deposits and porphyry Au and Cu-Au style. Mineralisation 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 Quebradona / Nuevo Chaquiro porphyry Au-Cu deposit (AngloGold Ashanti), the Marmato porphyry/reduced intrusion hosted Au-Ag deposit (Aris Gold Corporation), located 6 km southwest of San Antonio, and La Colosa porphyry Au deposit (AngloGold Ashanti).

San Antonio is a porphyry intrusive centre intruding basement schists with at least two known porphyry intrusions and the potential for others. Collective Mining has defined three targets called Dollar, COP and Pound.

The Dollar Target is an area of stockwork and sheeted vein systems hosted by diorite, quartz diorite and tonalite porphyries covering an area of 750 m by 1,200 m. It has a high density of porphyry-related quartz B and D veinlets in an area of 570 m by 430 m. Surface gold may have been leached from the system by a sericitic alteration overprint or reduced by supergene weathering. This target represents the potential apex of the porphyry system and has not been drill tested. The western area at lower elevation has high densities of B and M type veinlets of quartz – magnetite – chalcopyrite – molybdenite, disseminated chalcopyrite – pyrite, and minor hydrothermal breccias with sulphide cement exposed in creeks. Hole SA-18-01 was drilled north of the stockwork vein zone and did not intersect it, but did intersect 100.0 m from 605.0 m grading 0.44 g/t Au and 4.76 g/t Ag (0.50 g/t AuEq) with 0.034% Cu. This is related to an inter-mineral diorite and schists with potassic alteration (biotite, K feldspar, magnetite) and minor sodic-calcic alteration (albite, epidote) with sparse AB and B veinlets with chalcopyrite and pyrite, and later D pyrite veinlets and crackle breccias with a sericite halo.

The COP Target is defined by strong sericite altered diorite bodies in contact with chloritic schists in association with soil anomalies for gold and molybdenum over an area of 650 m by 350 m at surface. This anomalous zone is coincident with geophysical anomalies at 200 m depth of a magnetic high and IP chargeability and resistivity highs. The coincident soil anomalies include Mo values ranging from 1 ppm to 107.5 ppm (average 12.4 ppm, 38 samples) and Au values ranging from 0.0027 g/t to 2.74 g/t. The soil anomalies and alteration are postulated to be fluid leakage from a concealed, mineralised intrusive. This target was not tested by historical drill programmes.

The Pound Target in the northern block is defined by a NE trending area of 620 m by 375m hosting intermediate argillic and advanced argillic alteration of intrusion breccias, hydrothermal breccias and diorite intrusive bodies, with a low Mo soil anomaly (range 0.09 ppm to 11 ppm, average 3.3 ppm). The hydrothermal cemented breccia has a sericite and pyrite matrix with intrusive clasts and cross cuts the diorite bodies. The breccias are overprinted by a pyrophyllite - dickite - kaolinite – corundum assemblage which grades transitionally downwards and horizontally to sericite - illite –

chlorite - smectite alteration. Late-stage epithermal veins and crackle breccias, generally with an W-E strike, are composed of quartz, sphalerite, galena, tennantite, pyrite, chalcopyrite, stibnite, gypsum, ankerite and calcite. Historical drilling on the southern periphery of this target area returned drill intercepts of 276.0 m grading 0.41 g/t Au and 6.74 g/t Ag (0.50 g/t AuEq; PADDH-023), 54.0 m grading 0.86 g/t Au and 9.67 g/t Ag (0.99 g/t AuEq; PADDH-023), and 50.4 m grading 0.67 g/t Au and 11.7 g/t Ag (0.82 g/t AuEq; PADDH-024) from hydrothermal breccia bodies associated with quartz diorite porphyry and polymetallic veins. Alteration assemblages at surface demonstrate a locus within the lower portion of the advanced argillic lithocap which grades laterally and downwards into intermediate argillic alteration assemblages. The target is a porphyry system postulated to occur below the lithocap.

## **1.5 Deposit Type**

Alteration and mineralisation at the San Antonio Project are porphyry Au-Cu-Mo type and epithermal Au-Ag-polymetallic type. The target is expected to be primary sulfides with no significant oxidation or enrichment.

## **1.6 Exploration**

Collective Mining has carried out exploration of the San Antonio Project since August 2020. The work consisted of geological mapping, rock sampling, relogging of drill holes, reprocessing of the magnetic survey, a LIDAR survey, and data compilation and reinterpretation. The significant results of this and the legacy exploration led to the definition of three porphyry/breccia targets referred to as Dollar, COP and Pound, as described in Section 1.4.

## **1.7 Drilling**

Collective Mining has not carried out any drilling at the San Antonio Project as of the effective date of this Technical Report.

## **1.8 Mineral Processing and Metallurgical Testing**

No studies of mineral processing or metallurgical testing have been carried out.

## **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**

The San Antonio Project has had historical exploration that includes extensive stream sediment, soil and rock sampling, geology mapping, ground geophysics (magnetics and IP), and 7,717 m of diamond drilling in 25 holes. Previous drilling did not test the porphyry targets due to being principally focused on epithermal vein systems. The single Rugby diamond drill hole drilled a magnetic anomaly related to an inter-mineral diorite and basement schists.

Collective Mining has carried out geological mapping, rock sampling, 3D inversion modelling of magnetic data, a Lidar survey, core relogging, data compilation, geological interpretation and target definition.

The San Antonio licence displays alteration and vein characteristics which highlight near-surface, porphyry potential. Mapping to date has demonstrated multiple porphyry events. A major EW structure separates two blocks with different levels of intrusive and alteration exposure. In the southern block, surface copper, molybdenum and gold mineralisation is related to stockworks, sheeted vein systems, alteration and disseminated sulphide zones with a strong sericite overprint. In the northern block an epithermal vein system and advanced argillic lithocap hosts vertically continuous breccia bodies, with peripheral sericite-illite alteration. These rocks reflect preservation of the shallow levels of the porphyry system.

The San Antonio Project is located within an area with good infrastructure including a major highway, plenty of water, power grids and nearby rail and airport facilities. The area has no indigenous native communities or illegal mining activities.

The author concludes that the San Antonio Project is an exploration-stage project for porphyry gold - copper mineralisation. Three drill targets have been defined by Collective Mining.

The exploration programs carried out by Collective Mining and previous companies 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 San Antonio Project warrants further exploration of the three porphyry targets defined by Collective Mining called the Dollar, COP and Pound targets. A two stage exploration programme is recommended.

Phase 1 of the recommended exploration programme comprises additional geological mapping, rock chip and soil sampling, and 5,000 m of diamond drilling in 8 deep holes of 400 to 800 m length at the three targets. The estimated cost of the Phase 1 programme is US\$1,911,000. The estimated time is approximately one year including 4 months drilling with two drill rigs.

Phase 2 of the recommended exploration programme is conditional on positive results of the Phase 1 programme. The programme comprises additional rock chip and soil sampling, and 10,000 m of exploration diamond drilling, with the location and length of the holes to be determined based on the Phase 1 results. The estimated cost of the Phase 2 programme is US\$3,822,000. The estimated time is approximately one year including 8 months drilling with 2-3 drill rigs.

The budgets for Phases 1 and 2 are shown in Table 1.1. The total estimated cost is US\$5,733,000 and the time frame is approximately 2 years.



Item	Unit	Quantity	Unit Price (US\$)	Total (US\$)
<b>Phase 1</b>				
Drilling Phase 1	m	5,000	200	1,000,000
Assays	samples	5,000	50	250,000
Rock chip and soil sampling	samples	1,000	50	50,000
General and Administration (Geology department only)				351,000
Contingency				260,000
<b>Sub-total Phase 1</b>				<b>1,911,000</b>
<b>Phase 2</b>				
Drilling Phase 2	m	10,000	200	2,000,000
Assays	samples	10,000	50	500,000
Rock chip and soil sampling	samples	2,000	50	100,000
General and Administration (Geology department only)				702,000
Contingency				520,000
<b>Sub-total Phase 2</b>				<b>3,822,000</b>
<b>Grand Total</b>				<b>5,733,000</b>

**Table 1.1 Estimated budget for the recommended two-stage exploration programme on the San Antonio Project.**

## 2 INTRODUCTION

### 2.1 Purpose of Report

Collective Mining Inc. (Collective Mining) and POCML 5 Inc. (POCML5) requested that Dr. Stewart D. Redwood, Consulting Geologist, prepare an independent NI 43-101 Technical Report for the San Antonio Project in the Department of Caldas, Republic of Colombia. The report has been written in support of a Qualifying Transaction that is the reverse take-over of POCML5 by Collective Mining.

### 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 San Antonio Project.

### 2.3 The Issuer

Collective Mining Inc., a company registered in Ontario, carries out business through a holding company in Bermuda called Collective Mining (Bermuda) Ltd., a Colombian branch called Collective Mining (Bermuda) Ltd. Sucursal Colombia, and two wholly-owned Colombian subsidiaries called Minerales Provenza S.A.S. (Minerales Provenza) and Minera Campana S.A.S. (Minera Campana), as shown in Figure 2.1.

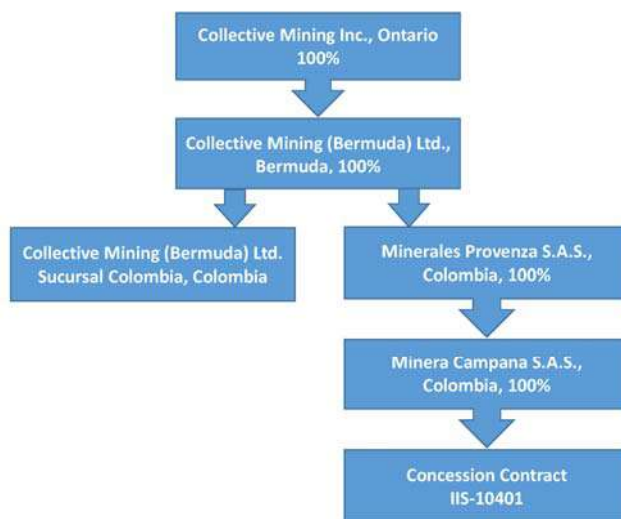


Figure 2.1 The corporate structure of Collective Mining.

Collective Mining has entered into a business combination agreement with POCML5, a company registered in Ontario, and 2810651 Ontario Inc. (Subco), a wholly-owned subsidiary of POCML5, providing for the reverse take-over of POCML5 by Collective Mining (the Transaction). Pursuant to the Transaction, Collective and Subco will amalgamate and continue as a wholly-owned subsidiary of POCML5, and the shareholders of Collective Mining will receive shares of POCML5 in exchange for their shares of Collective Mining, such that the former shareholders of Collective Mining will become the holders of a majority of the shares of POCML5. Upon completion of the Transaction, POCML5, the resulting issuer company, will change its name to “Collective Mining Ltd.” and will carry out the business of Collective Mining, being the continued exploration and development of the San Antonio Gold Project.

Upon completion of the Transaction described above, Collective Mining Ltd. (formerly POCML5) will hold a 100% interest in the San Antonio Gold Project.

## **2.4 Sources of Information**

The main sources of information for the project are the project database and unpublished reports by Mineros (Mineros, 2010; Rodriguez, 2012; Mineros, 2012; Botero Arias & Castaño Castro, 2014), Anglo American (Hernández, 2015), Rugby (Baker, 2016; Baker et al., 2016), weekly reports and summary reports by Collective Mining (e.g. Sierra & Largo, 2020; Marino, 2020; Sierra, 2021), and a thesis by Loaiza (2020). The reports that were consulted, as well as other 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.

There are no previous NI 43-101 technical reports for the project.

## **2.5 Site Visit**

The author made a current personal inspection of the San Antonio Project on 21 to 26 October 2020. One day was spent in the field visiting the Dollar target and the Arrayanales zone in the northern part of the concession. One and a half days were spent reviewing core from four of the Mineros drill holes (holes PADDH-23, PADDH-22, PADDH-10, PADDH-14) at a warehouse in Manizales, and half a day was spent examining the core of the Rugby drill hole (SA-18-01) at the company’s field office in Supia. Discussions on the geology and mineralisation were held with Collective Mining’s geologists.

## 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
2810651 Ontario Inc.	Subco
Actlabs Colombia S.A.S., Activation Laboratories Ltd.	Actlabs
ALS Chemex, ALS Minerals	ALS
Anglo American plc	Anglo American
AngloGold Ashanti Ltd.	AngloGold Ashanti
Argon step-heating method of radiometric dating of rocks	Ar-Ar
Atomic absorption spectrophotometer	AAS
Canadian Dollar	CDN\$
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument 43-101	NI 43-101
Centimetre(s)	cm
Collective Mining Inc.	Collective Mining
Republic of Colombia	Colombia
Colombia Goldfields Ltd.	Colombia Goldfields
Colombian Geological Survey ( <i>Servicio Geológico Colombiano</i> )	SGC
Certified Standard Reference Materials	CSRM
Degree(s)	°
United States' Dollar(s)	US\$
Environmental Impact Study ( <i>Estudio de Impacto Ambiental</i> )	EIA
Environmental Management Plan ( <i>Plan de Manejo Ambiental</i> )	PMA
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
Induced polarisation	IP
Colombian Institute of Geology & Mining ( <i>Instituto Colombiano de Geología y Minería</i> )	INGEOMINAS
International Organization for Standardization	ISO
Kilogram(s)	kg
Kilometre(s)	km

<b>Description</b>	<b>Abbreviation</b>
Square kilometre (s)	km <sup>2</sup>
Radiometric dating method of zircons by laser ablation and ICP-MS	LA-ICP-MS
Less than	<
Lower limit of detection	LLD
Meter(s)	m
Meters above mean sea level	masl
Million metric tons	Mt
Million Troy ounces	Moz
Million years ago	Ma
Millimetre(s)	mm
Mineros S.A.	Mineros
Mining Plan ( <i>Programa de Trabajos y Obras de Explotación</i> )	PTO
Ministry of the Environment	MinAmbiente
Minutes	'
Ounces (Troy)	oz
Parts per billion	ppb
Parts per million	ppm
Percent(age)	%
Plus or minus	±
POCML 5 Inc.	POCML5
Quality Assurance - Quality Control	QA-QC
Rugby Mining Ltd.	Rugby
Standard deviation	SD
Système International d'Unités (International System of Units)	SI
SGS Colombia S.A., SGS Peru S.A.	SGS
Metric ton(s)	t
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**

The author has relied on information supplied by Natalia Hernandez, Legal Counsel to Collective Mining in Colombia for information in Section 4.3 given in a certificate from the Cadastral Management and Mining Registry of the National Mining Agency dated 24 November 2020, in Section 4.4 in a copy of the relevant contract, and in Section 4.6 supplied by emails dated 5 November 2020, 24 November 2020 and 3 December 2020. This information included a notarised Business Group and Control Situation Registration dated 20 November 2020, signed by Paul Begin, Legal Representative, Collective Mining Inc. and directed to the Chambers of Commerce of Medellin and Manizales.

## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Property Location

The San Antonio Project is located 80 km south of Medellin and 50 km north of Manizales in the Municipalities of Aguadas and Pácora, Department of Caldas, Republic of Colombia, at approximately 5°30'N, 75°33'W and an altitude of 650 to 1375 m above mean sea level (masl) (Figure 4.1).



Figure 4.1 Location map of the San Antonio 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 said 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.

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) 908,526 (about US\$262.44) plus sales tax.
2. Submit the application on the internet at the ANM website ANNA Minería [www.annamineria.anm.gov.co/sigm/externalLogin](http://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.
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. The contract is prepared and signed.
7. 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\$4.37) and three minimum daily wages per hectare (about US\$26.22). The minimum daily wage is adjusted annually and in 2021 it is COP30,284.20 (about US\$8.74).

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 (*Guías 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 EIA has 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 tax.
- Pay a royalty based on the regulations in force at the time of granting of the Contract.

### 4.3 Property Mining Rights

The mining rights consist of concession contract number IIS-10401 of 1,664.2 hectares that is owned by Minera Campana S.A.S., a subsidiary of Collective Mining, as shown in Table 4.1 and in a map in Figure 4.2. The title was registered on 1 April 2008 and is valid until 31 March 2038. The contract is valid for 30 years of which 5 years are for exploration (extended progressively to 11 years), 3 years are for construction and 22 years are for exploitation (modified to the balance of 16 years). The contract can be extended for 30 years. The 11-year exploration period expired in 2019 and in January 2021 the company filed a request to extend the date to file the corresponding PTO and EIA. Even though the mining titles are structured in phases, under Colombian mining law, exploration activities are authorized during the entire duration of the concession. Therefore, the company will continue on with the planned exploration programme.

The location of the mining title is defined by the coordinates of its corners. There is no legal requirement to mark these by monuments in the field or have these officially surveyed, and these have not been done.

National Mining Agency File No.	National Mining Cadastre No.	Title Owner	Area (ha)	Date of Registration	Date of Expiry
IIS-10401	IIS-10401	Minera Campana S.A.S.	1664.2212	01 April 2008	31 March 2038

**Table 4.1 List of the mining rights of the San Antonio Project.**

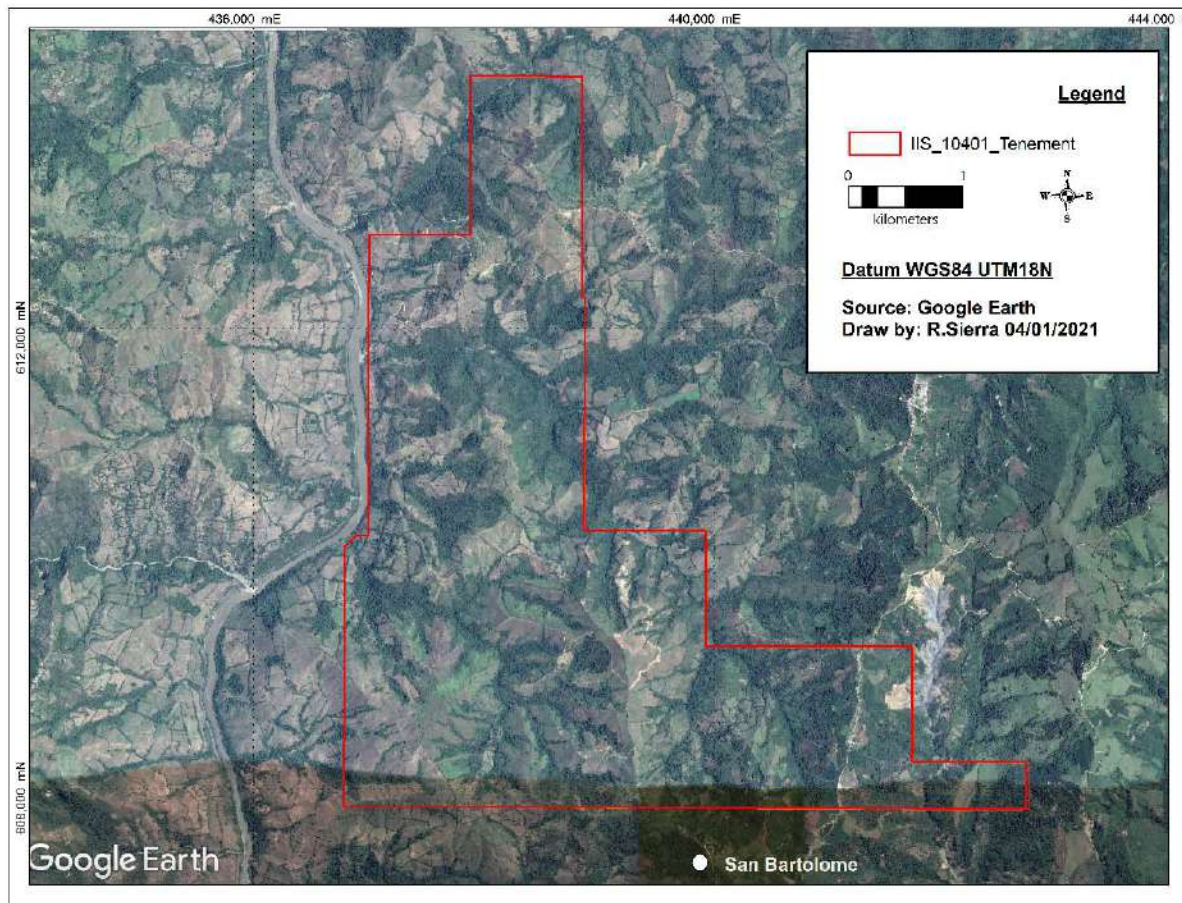


Figure 4.2 Plan of the mining rights of the San Antonio Project.

#### 4.4 Property Agreements

Collective Mining's subsidiary Minerales Provenza signed an option contract to acquire the San Antonio property by means of the purchase of 100% of the shares of Minera Campana, the owner of concession contract number IIS-10401, dated 9 July 2020. The consideration is staged payments to the shareholders of Minera Campana over 7 years from the date of signing of the contract totalling US\$2.5 million, to be made according to the schedule shown in Table 4.2. The first payment was made on 14 August 2020. In addition, a 1.5% net smelter royalty (NSR) is payable to the original shareholders from the start of commercial production. The NSR may be purchased at any time for US\$2.5 million. The shares of Minera Campana were transferred to Minerales Provenza following the signing of the contract in order to give Collective Mining ownership of the concession contract. If Minerales Provenza withdraws from the option, the shares of Minera Campana will be reacquired by the original shareholders of Minera Campana at no cost.

Time	Date	Payment (US\$)
20 business days following the subscription of the contract (paid)	10 August 2020	30,000
12 months after signing the contract	09 July 2021	50,000
24 months after signing the contract	09 July 2022	100,000
36 months after signing the contract	09 July 2023	150,000
48 months after signing the contract	09 July 2024	250,000
60 months after signing the contract	09 July 2025	420,000
72 months after signing the contract	09 July 2026	750,000
84 months after signing the contract	09 July 2027	750,000

**Table 4.2 Schedule of payments of the option contract to purchase Minera Campana S.A.S.**

#### 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 price is set by the government and is typically 80% of the average of the London afternoon fix price for the previous month.

A 1.5% net smelter royalty (NSR) is payable to the original shareholders of Minera Campana from the start of commercial production on the San Antonio Project. The NSR may be purchased by Collective Mining at any time for US\$2.5 million.

#### 4.6 Legal Access and Surface Rights

The granting of a concession contract in Colombia 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 San Antonio Project but has a verbal access agreement with the principal land owner.

#### 4.7 Water Rights

As drilling activities may require water, a Surficial Water Concession is required if water is to be taken from creeks or underground sources. Alternatively, the explorer may opt for transporting water for drilling in tanks. The company has a Surficial Water Concession and a Water Discharge Permit for residual domestic water and residual industrial water from drilling that were awarded by the Caldas Autonomous Regional Corporation (CORPOCALDAS) on 9 July 2018 and 21 June 2018, respectively, each valid for 3 years, which can be extended. The company has requested an

extension to both permits. Even though the company has indicated that there are no reasons to believe an extension on the permits will not be granted, it is expected that the current water permits suffice for the current exploration campaign.

#### **4.8 Environmental Liabilities**

The regional environmental authority has not registered any environmental liabilities at the San Antonio Project.

#### **4.9 Natural Parks and Reserves**

There are no national parks or reserves covering the San Antonio Project. The San Antonio Project is located at elevations below the altitude of the *páramo* (high moorland) ecosystem 3,200 masl, above which exploration and mining are prohibited.

#### **4.10 Indigenous Reserves and Communities**

There are no Indigenous or Black communities on the San Antonio Project that require a Prior Consultation by law before exploration or exploitation can be carried out.

#### **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, INFRA-STRUCTURE AND PHYSIOGRAPHY

### 5.1 Accessibility

The San Antonio Project is located 80 km south of Medellín (population 2.5 million), the capital of the Department of Antioquia and the second largest city in Colombia, 50 km north of Manizales (population 434,400), the capital of the Department of Caldas, 80 km north of Pereira (population 477,000), the capital of the Department of Risaralda, and about 185 km northwest of Bogotá (population 7.4 million), the capital of the Republic of Colombia.

Access to the San Antonio Project may be made either from Medellín, Manizales or Pereira. The company has a field office and house in the Municipality of Supia (population about 20,000), about 12 km southwest of the property on Route 25, as shown in Table 5.1 and Figure 5.1. From Supia access is by returning north along Route 25 to La Garucha at Marmato, crossing the River Cauca by a cable-car, then walking or riding north along a disused railway cutting along the east side of the river to the edge of the concession. Access within the concession is by foot or horse.

Alternatively, the San Antonio Project can be accessed by local roads from Pácora, located east of the concession, which is 138 km from Medellín by Route 25 and secondary roads. There are several villages on the mountain ridges on the east side of the concession.

From	To	Route	Distance (km)
Medellin	La Pintada	Route 25	79
La Pintada	Supia	Route 25	61
<b>Total</b>			<b>140</b>
Supia	La Garrucha	Route 25	24
La Garrucha		Cross River Cauca by cable car	
La Garrucha	Concession	Walk or ride along old railway cutting	7.5
<b>Total</b>			<b>31.5</b>
Medellin	La Pintada	Route 25	79
La Pintada	Pacora	Secondary road via Arma and Aguadas	59
Pacora	Concession	Local roads	15
<b>Total</b>			<b>153</b>

Table 5.1 Access routes to the San Antonio Project.



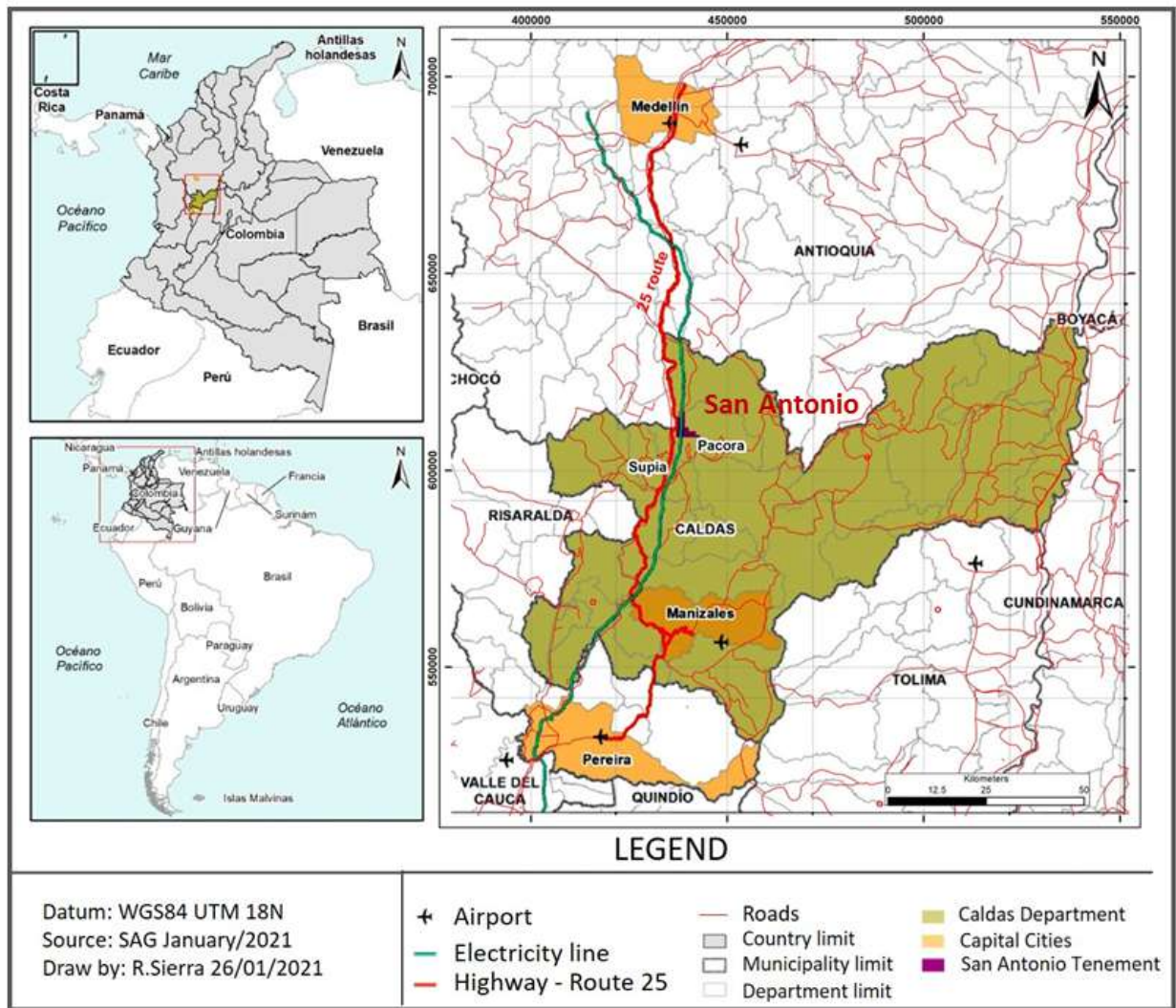


Figure 5.1 Location and access map of the San Antonio Project.

## 5.2 Climate

The climate is Tropical rainforest climate (Af) in the Köppen climate classification scheme, 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 Medellín where the average annual temperature is 22.5°C and varies from 21.8-23.1°C, 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, Medellín; 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 San Antonio 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 on the west side of the River Cauca, opposite the project.

The national electricity and natural gas grids run along the west side of the River Cauca valley and 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 located 6 km southwest of the project, 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 San Antonio 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 San Antonio Project lies on the western edge of the Central Cordillera and the eastern side of the River Cauca valley. The concession contract is located at altitudes between 650 and 1,375 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. Rocks are exposed in road cuts, an old railway cut, along the River Cauca and in streams but elsewhere there is little exposure. The terrain is steep and covered by forest with clearings for pasture.





**Figure 5.2 A general view of the physiography on the San Antonio Project looking north, with the Cauca River.**

## 6 HISTORY

### 6.1 Summary

The history of the San Antonio Project, previously also called La Campana and Pácora, is summarised in Table 6.1.

Years	Company	Exploration
2004-2005	AngloGold Ashanti Ltd. (Sociedad Minera Kedahda S.A.)	Concession application no. 615-17. Reconnaissance exploration.
2006-2008	Colombia Goldfields Ltd. (Minera de Caldas S.A., Gavilan Minerals S.A. and Minerales Andinos de Occidente S.A.)	Concession application no. IFM-08231X. Stream sediment, soil and rock sampling of the Campana and Pacora targets.
2008	Minera Campana S.A.S.	Concession contract IIS-10401 awarded.
2009-2015	Mineros S.A.	Optioned project from Minera Campana. Stream sediment sampling, soil sampling, rock sampling, topographic survey, geological mapping, IP, ground magnetic survey, 24 DDH.
2015	Anglo American plc	Project evaluation under agreement with Minera Campana. Rock sampling, geological mapping.
2016-2018	Rugby Mining Ltd. (Volador Holdings Inc.)	Optioned project from Minera Campana. Stream sediment sampling, rock sampling, soil sampling, geological mapping, magnetic inversion, 1 DDH.
2020	Collective Mining Inc.	Bought Minera Campana. Data compilation, channel sampling, geological mapping, re-log core, re-process geophysical data, Lidar survey.

**Table 6.1 Summary of the history of the San Antonio Project.**

There has been no significant historical mining on the project. Placer gold is panned on a small scale in some streams on and near the concession but there is no significant artisanal mining.

Regional reconnaissance exploration of the San Antonio area, then called Pácora, was carried out in 2004-2008 prior to the award of the Minera Campana concession. The first reconnaissance exploration was carried out by Sociedad Minera Kedahda S.A., a subsidiary of AngloGold Ashanti Ltd., in 2004-2005. Colombia Goldfields Ltd. of Toronto (now Gran Colombia Gold Corp.) then carried out surface geochemistry in 2006-2008 of the Campana and Pacora targets over a concession application in the San Antonio area as part of its Caramanta regional exploration

project. The work is summarised in NI 43-101 technical reports by Lewis (2006), Lewis & San Martin (2008) and Rennebaum & Redwood (2011).

Minera Campana, a company formed by a group of local landowners, was awarded the concession contract no. IIS-10401 in 2008. The company has not carried out any exploration of the concession itself and instead has optioned the concession to third party companies to explore. The project was explored under an option contract by Mineros S.A., a Colombian gold mining company, from 2009 to 2015, which carried out surface geochemistry and geophysics, and drilled 24 diamond drill holes in two phases. Anglo American plc then evaluated the project in 2015. Rugby Mining Ltd., an Australian junior company, explored the project under an option agreement with Minera Campana from 2016 to 2018, and drilled one diamond drill hole. Collective Mining bought Minera Campana under an option agreement in July 2020.

## **6.2 Exploration**

The historical exploration activities carried out at the San Antonio Project are summarised in Table 6.2. The numbers of stream sediment, soil and rock samples listed in the table, where known, are based on company reports; however, the reconstructed database contains less samples due to loss of information.

Year	Company	Survey	Contractor	Units	Number
2004-2005	Soc. Kadhada	Stream sediment and soil geochemistry	None	Samples	unknown
2006-2008	Colombia Goldfields	Stream sediment, soil and rock geochemistry	None	Samples	unknown
2009-2012	Mineros	Stream sediment geochemistry	None	Samples	45
2009-2012		Soil geochemistry	None	Samples	880
2009-2012		Lithochemochemistry	None	Samples	850
2009-2012		Geological mapping	None	km <sup>2</sup>	16.60
2010		Phase 1 diamond drilling Piñones target (9 x DDH).	Not known	meters	1,583.65
2011		Grid for geophysics (48 x E-W lines).	Itag Topografia	line km	69.45
2011		Induced polarisation survey	Arce Geophysics	line km	59.15
2011		Ground magnetic survey	Arce Geophysics	line km	59.15
2012		Topographic survey	None	line km	11.56
2012		Phase 2 diamond drilling Compañía (Campana) target (15 x DDH).	Geominas S.A.	meters	5,373.40
2015	Anglo American	Lithochemochemistry rock chip	None	Samples	39
2015		Geological mapping	None	km <sup>2</sup>	16.60
2016	Rugby	Geological mapping	None	km <sup>2</sup>	16.60
2016		Stream sediment geochemistry	None	Samples	17
2016		Soil geochemistry	None	Samples	unknown
2016		Channel sampling	None	Samples	unknown
2016		3D inversion of magnetic data	Not known	line km	59.15
2017		DEM made from satellite image	Not known	km <sup>2</sup>	>30
2018		Phase 3 diamond drilling Piñones target (1 x DDH).	Logan Drilling	meters	760.10

Table 6.2 Summary of historical exploration carried out at the San Antonio Project.

### **6.2.1 Topographical Surveys and Grids**

Mineros laid out a grid for geophysics in 2011 consisting of 47 E-W lines with a total length of 69.45-line km. In 2012 Mineros surveyed 11.56-line km by total station. These surveys were used to make a topographic base map with 50 m contours.

A digital elevation model (DEM) and topographic map with 2 m contours were made in 2017 from a satellite image.

### **6.2.2 Geological Mapping**

Geological mapping of the concession was carried out by Mineros (Mineros, 2010; Rodriguez, 2012; Mineros, 2012), Anglo American (Hernández, 2015) and Rugby (Baker, 2016; Baker et al., 2016).

### **6.2.3 Petrography**

A petrographic study of alteration and veining was made in a thesis by Loaiza (2020) at the University of Caldas, Manizales based on 33 thin sections of samples selected from the Minera Campana drill core.

### **6.2.4 Stream Sediment Geochemistry**

Stream sediment sampling was carried out by Sociedad Kedahda, Colombia Goldfields, Mineros and Rugby. The sampling methods are not known. The reconstructed database contains a total of 20 stream sediment samples, of which 15 samples (75%) have a laboratory certificate (Rugby samples). It is believed that more samples were taken but that the data has been lost.

### **6.2.5 Soil Geochemistry**

Soil sampling was carried out by Sociedad Kedahda, Colombia Goldfields, Mineros and Rugby. The soil sampling protocols are not known. The reconstructed database contains a total of 807 soil samples, of which 105 samples (13%) have a laboratory certificate. It is believed that more samples were taken but that the data has been lost. Plots of the legacy soil geochemistry for Au, Ag, Mo and Pb are shown in Figure 6.1 to Figure 6.4.

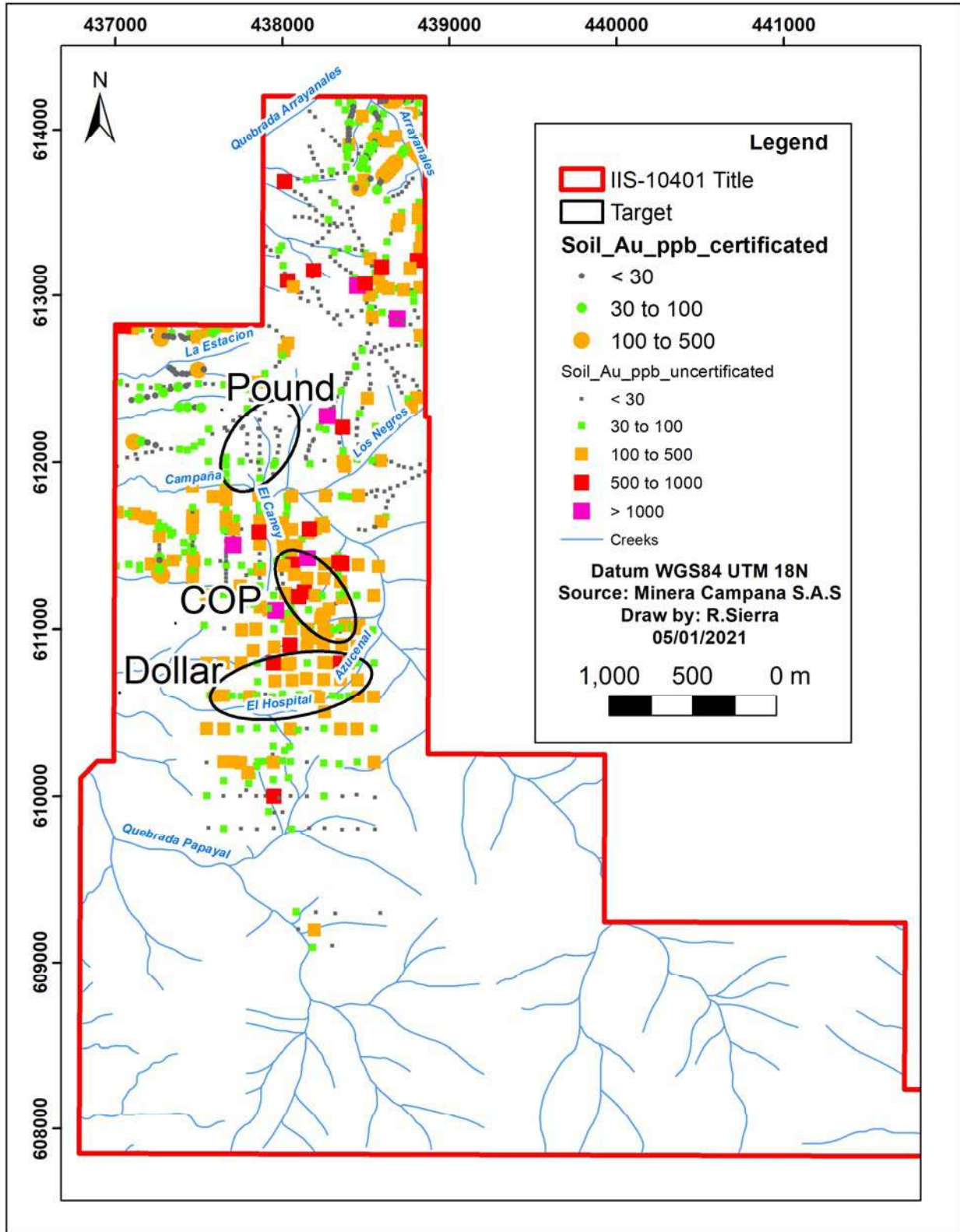


Figure 6.1 Soil geochemistry for Au showing targets.



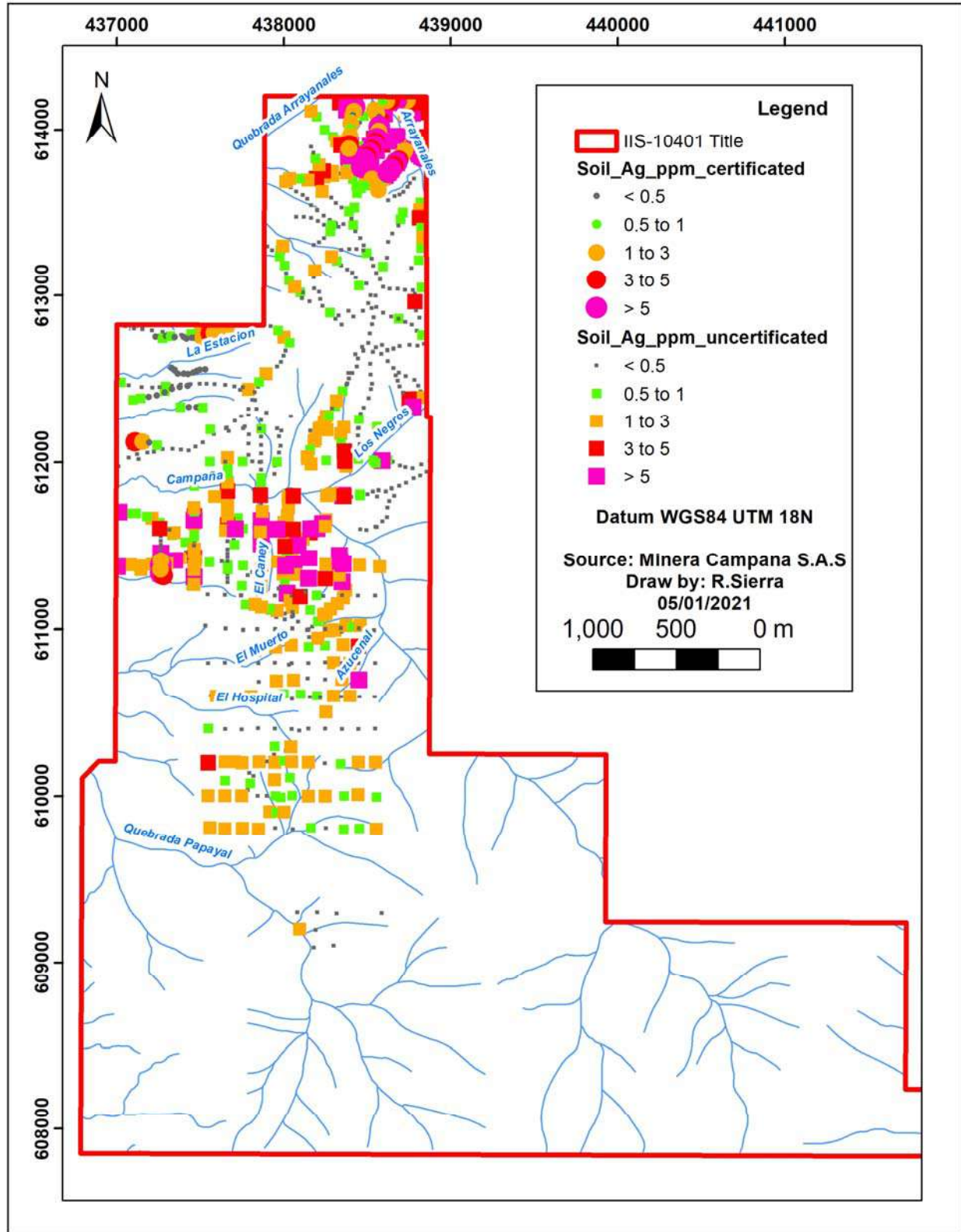


Figure 6.2 Soil geochemistry for Ag.

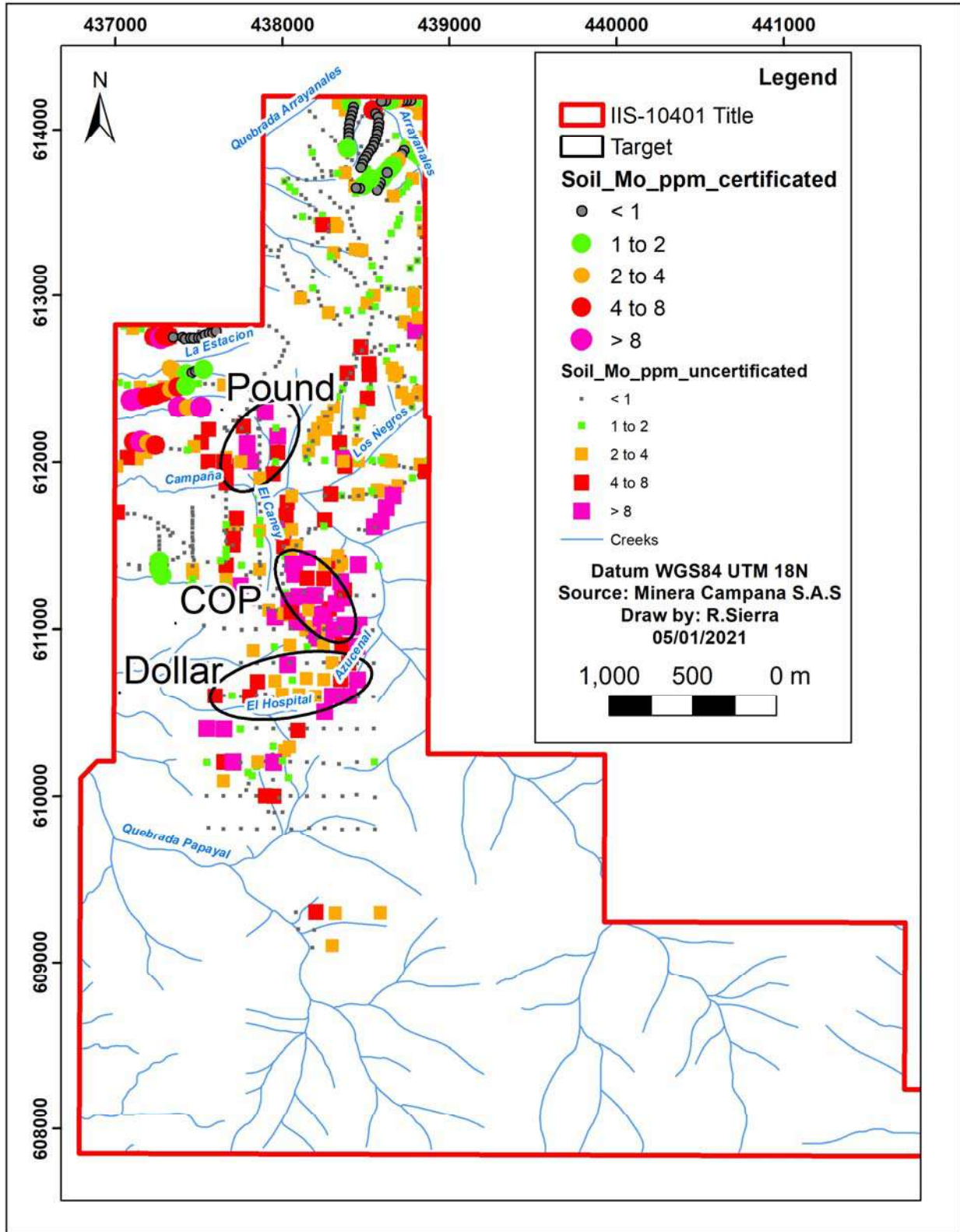


Figure 6.3 Soil geochemistry for Mo with targets shown.



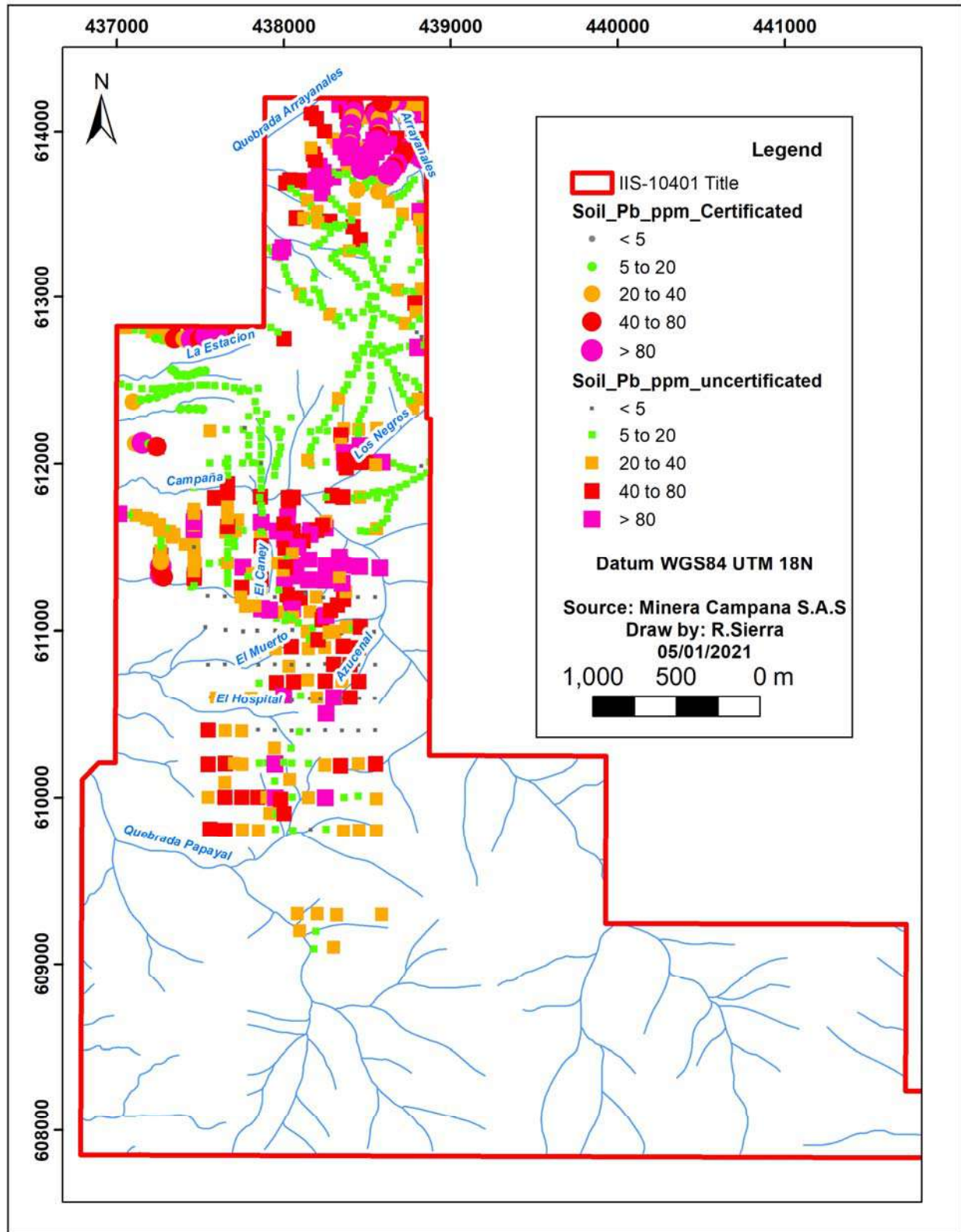


Figure 6.4 Soil geochemistry for Pb.

### **6.2.6 Rock Geochemistry**

Rock channel sampling was carried out by Colombia Goldfields, Mineros, Anglo American and Rugby. The reconstructed database contains a total of 729 rock samples, of which 491 samples (67%) have a laboratory certificate. It is believed that more samples were taken but that the data has been lost. Plots of the combined legacy and Collective Mining rock geochemistry for Au, Ag, Mo and Pb are shown in Figure 9.1 to Figure 9.4Figure 9.1.

### **6.2.7 Geophysics**

In 2011 Mineros carried out an induced polarisation (IP) survey consisting of spontaneous potential, resistivity and chargeability, together with a magnetic survey over a grid of 48 E-W lines spaced 100 m apart over a distance of 4.7 km N-S and 1.95 km E-W, with a total length of 59.15-line km. The IP electrode configuration was a pole-pole array with electrode spacing at 50 m up to 350 m. The contractor was Arce Geofisicos of Peru (Arce & Arce, 2011). The magnetic data was reprocessed by Rugby (Baker et al., 2016) and by Collective Mining. Examples of the IP survey results are shown in Figure 6.5 and Figure 6.6. Examples of the reprocessed magnetic survey are shown in Figure 9.5 to Figure 9.7.

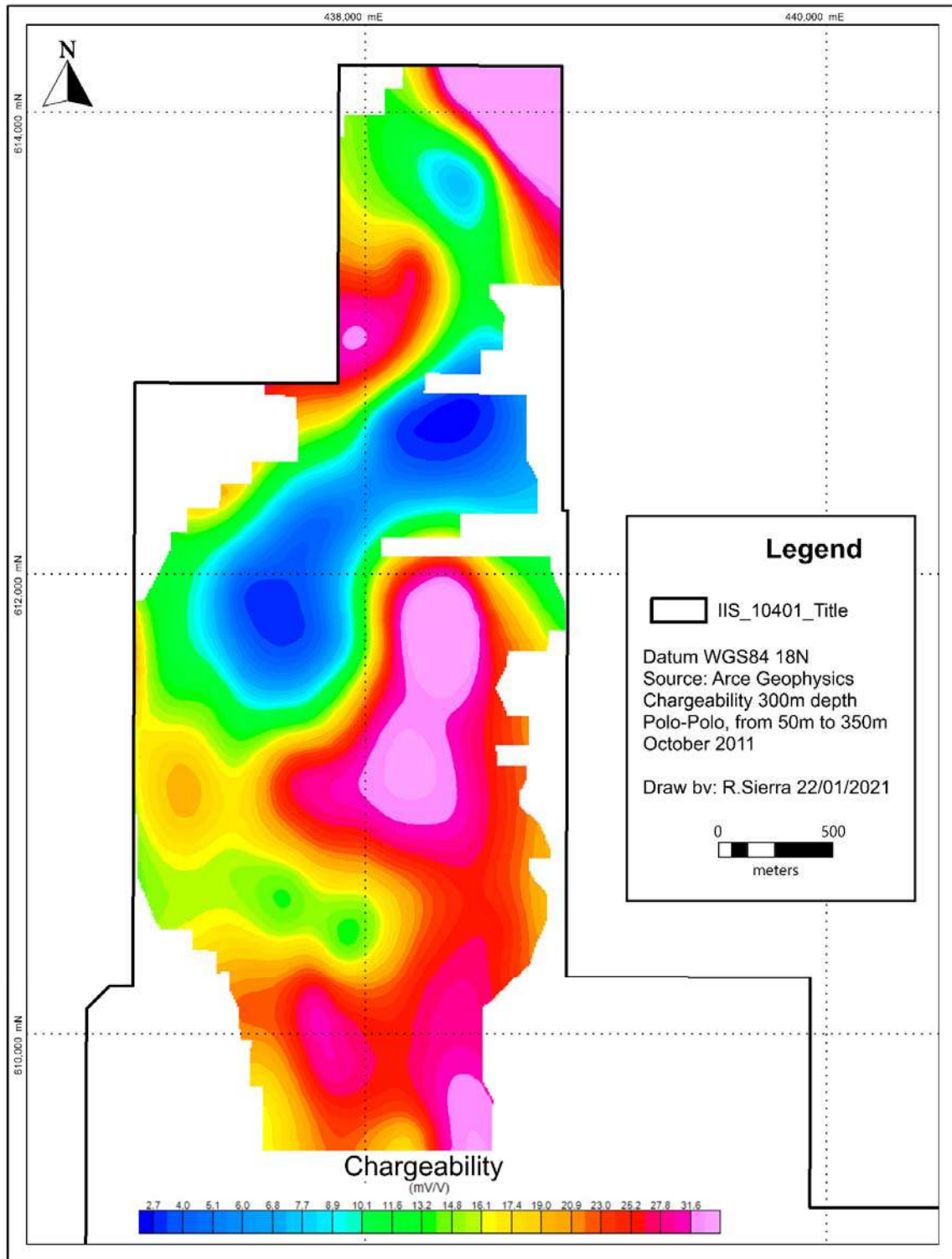


Figure 6.5 IP chargeability plan at 300 m depth.

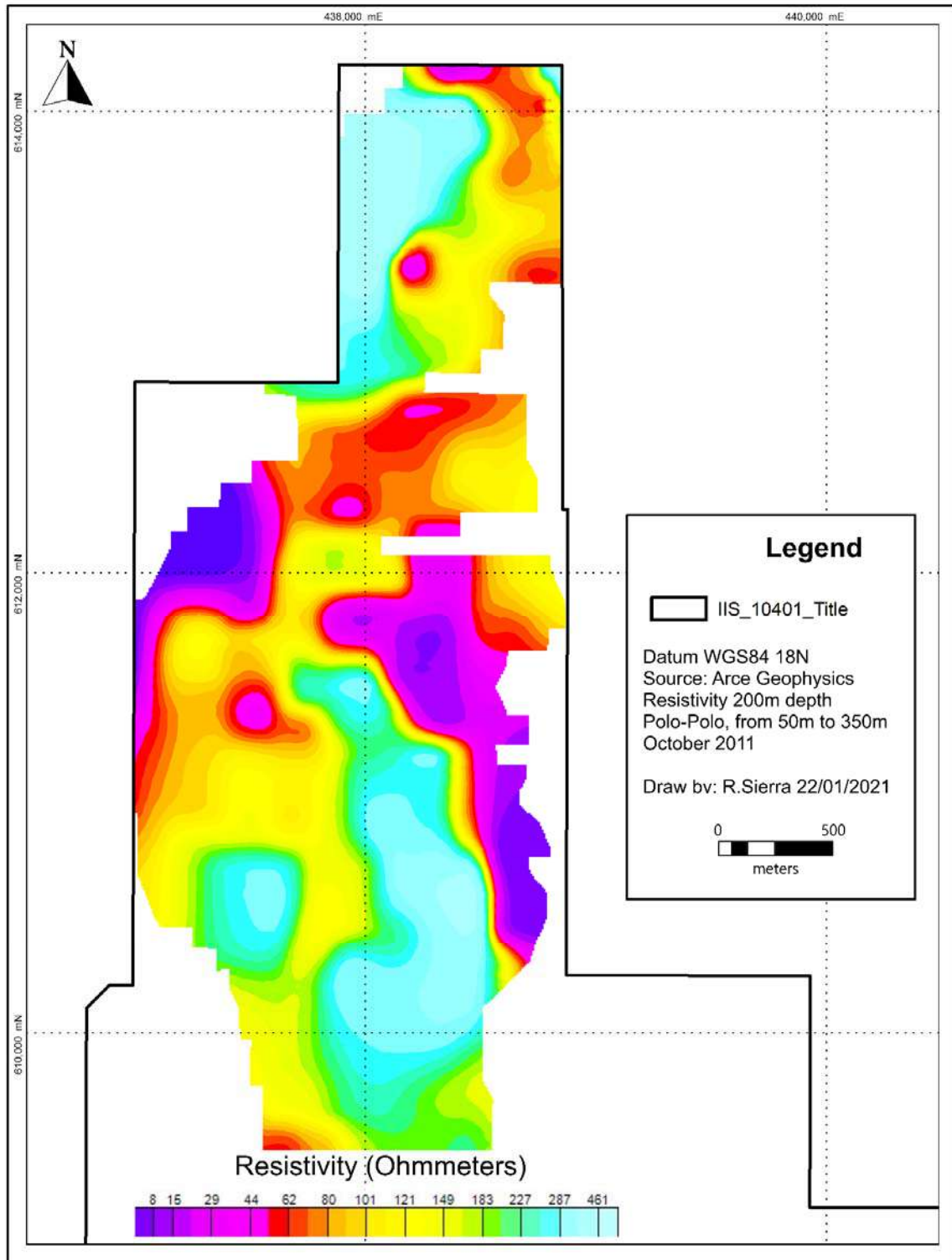


Figure 6.6 IP resistivity plan at 200 m depth.

## **6.3 Drilling**

### **6.3.1 Historical Drill Programmes**

Three drill programmes were carried out at the San Antonio Project by previous companies with a total of 25 diamond drill holes drilled using the wireline recovery method for a total of 7,717.15 m, as summarized in Table 6.3 and shown in plans in Figure 6.7 and Figure 6.8, and a cross section in Figure 6.9.

The Mineros Phase 1 drill programme in 2010 consisted of 9 holes (PADDH-001 to PADDH-009) for 1,583.65 m located south of the Dollar Target. The average hole length was 175.96 m and it varied from 90.05 m to 298.30 m. The drill contractor and rig type are not known. The core diameter was HQ (63.5 mm).

The Mineros Phase 2 drill programme in 2012 was 15 holes (PADDH-010 to PADDH-024) for 5,373.40 m in the so-called Compañía (Campana) area located north of the Phase 1 programme. Some of these holes intersected the southernmost edge of the Pound Target. The average hole length was 358.23 m and it varied from 94.70 m to 503.60 m. The drill contractor was Geominas S.A., the rig type is unknown, and the core diameter was mostly HQ with some NQ (47.6 mm).

Rugby drilled one hole (SA-18-1) in 2018 of 760.10 m length on the northern edge of the Dollar Target. The drill contractor was Logan Drilling, the rig type is not known, and the core diameters were HQ and NQ.

### **6.3.2 Collar and Downhole Surveys**

The drill hole collars were surveyed by total station in Phase 2. The survey method used in Phases 1 and 3 is not known.

No downhole directional surveys were carried out of the Mineros holes. A downhole directional survey was made of the Rugby hole by a Reflex multishot tool.

### **6.3.3 Drill Platforms**

The drill platforms were restored and revegetated and the collar marked by a plastic tube. The Mineros holes have a plaque with the hole information. The Rugby hole does not have a plaque or hole number.

No.	Hole No.	Company	Year	Easting WGS84	Northing WGS84	Altitude (m)	Azimuth	Inclination	Depth (m)
1	PADDH-001	Mineros	2010	437487	610690	953	240	-60	206.00
2	PADDH-002	Mineros	2010	437537	610487	879	240	-70	90.05
3	PADDH-003	Mineros	2010	437540	610487	880	240	-60	100.65
4	PADDH-004	Mineros	2010	437784	610402	1051	240	-60	248.00
5	PADDH-005	Mineros	2010	437847	610211	1166	240	-60	218.25
6	PADDH-006	Mineros	2010	437925	610026	1135	240	-60	298.30
7	PADDH-007	Mineros	2010	437926	610027	1135	60	-60	100.00
8	PADDH-008	Mineros	2010	438042	609866	1073	240	-60	222.40
9	PADDH-009	Mineros	2010	438043	609867	1075	60	-90	100.00
10	PADDH-010	Mineros	2012	438407	611795	902	270.3	-75	360.30
11	PADDH-011	Mineros	2012	438300	611702	790	273.0	-70	94.70
12	PADDH-012	Mineros	2012	438300	611702	790	273.0	-85	259.00
13	PADDH-013	Mineros	2012	438476	611601	862	270.0	-65	233.35
14	PADDH-014	Mineros	2012	438301	611799	855	270.6	-60	402.00
15	PADDH-015	Mineros	2012	438472	611600	862	276.8	-65	391.15
16	PADDH-016	Mineros	2012	438231	611699	791	269.0	-85	460.00
17	PADDH-017	Mineros	2012	438295	611600	817	272.8	-65	422.00
18	PADDH-018	Mineros	2012	438252	611501	896	271.0	-60	416.00
19	PADDH-019	Mineros	2012	438431	611497	824	267.1	-60	402.30
20	PADDH-020	Mineros	2012	438443	611298	965	271.1	-70	239.00
21	PADDH-021	Mineros	2012	438460	611401	894	274.5	-60	246.00
22	PADDH-022	Mineros	2012	438105	611800	771	271.1	-60	461.60
23	PADDH-023	Mineros	2012	437801	611800	759	88.9	-60	503.60
24	PADDH-024	Mineros	2012	437886	611699	829	93.1	-75	482.40
25	SA-18-01	Rugby	2018	437810	610900	1076	89.9	-60.87	760.10

**Table 6.3 Drill collar table for historical drilling at the San Antonio Project.**

Core was not recovered or sampled from PADDH-015 from 0.00-225.00 m.



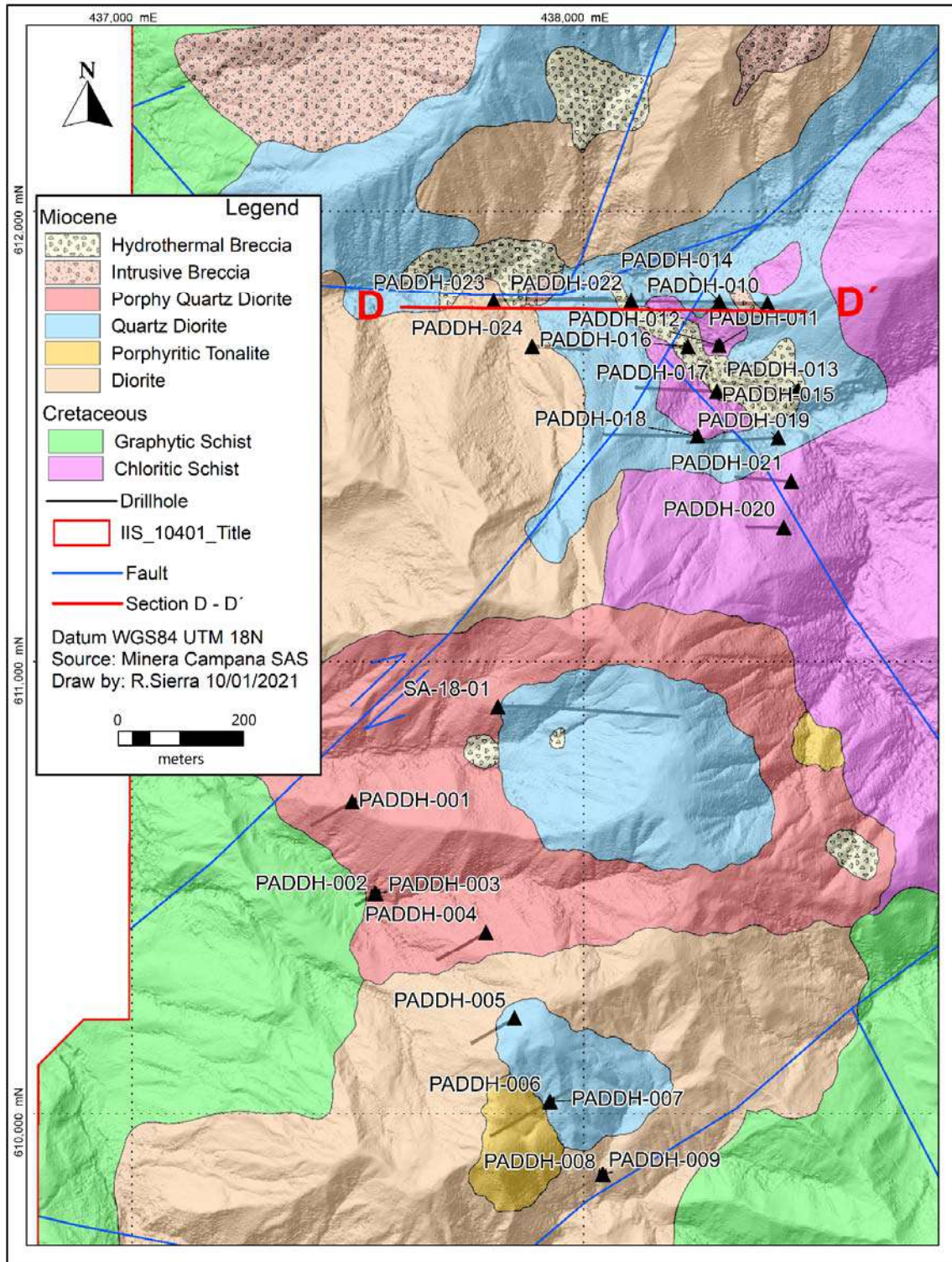


Figure 6.7 Location map of historical drill collar locations and drill hole traces with geology in the San Antonio Project. The northern area is shown in more detail in Figure 10.2.

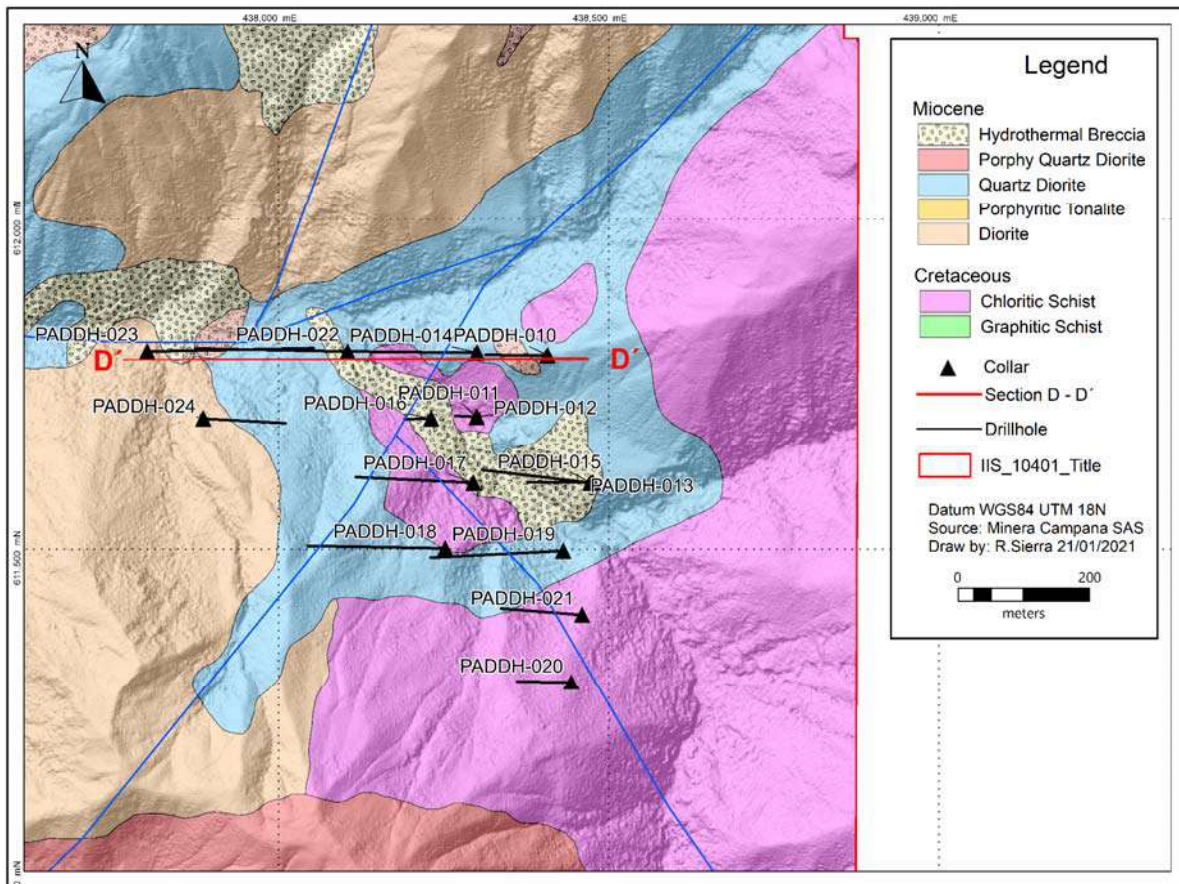


Figure 6.8 Detailed location map of historical Phase 2 drill holes in the northern area.



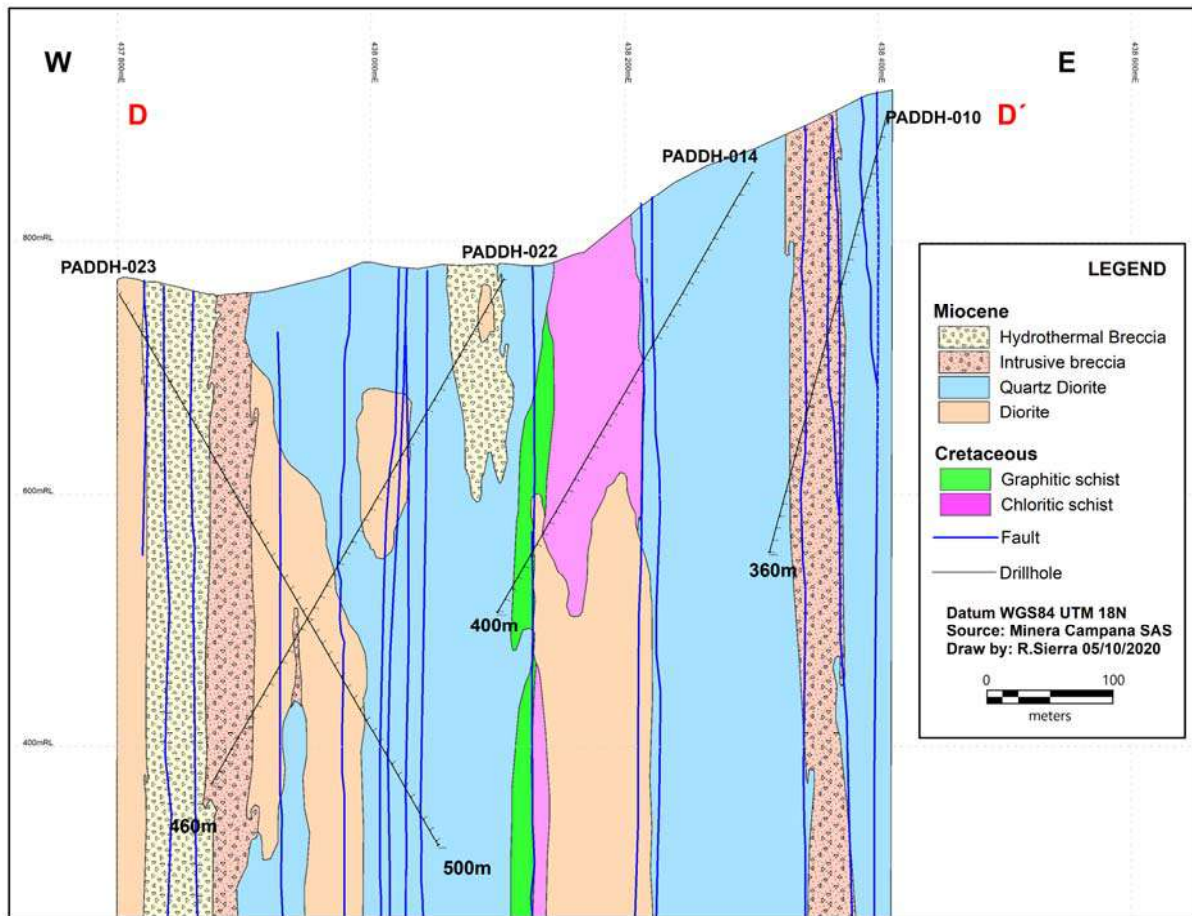


Figure 6.9 Cross section D-D' looking north and geological interpretation by Collective Mining based on core re-logging.

### 6.3.4 Recovery

The average core recovery of the Mineros holes was 92.6%. The interval from 0 to 225 m of hole PADDH-015 was not recovered for reasons unknown. The recovery data for the Rugby hole is not available.

### 6.3.5 Logging and Sampling Protocols

No written protocols are available now for the core handling, logging, sampling and chain of security for the Mineros and the Rugby drill programmes. Based on core inspection by the author and the information and core photographs in the database, the core handling procedures were as follows: the core was placed in wooden boxes by the drillers; the core boxes were transported by

mule and truck from the drill platform to the core logging facility; a geologist made geotechnical and geological drill logs; photographs were taken of the entire core in core boxes both dry and wet before marking samples (Rugby); the sample intervals were selected and marked; the entire core was photographed with the samples marked before cutting (Mineros); the core was cut with a diamond saw; the samples were taken and put in sample bags that were numbered and sealed; the QA-QC samples were inserted; photographs were taken of the half core wet after cutting and sampling (Mineros and Rugby); the samples were taken to the laboratory; the core boxes were stored in a secure warehouse; the coarse rejects and sample pulps were received from the laboratory for safe storage.

The drill database shows that the Mineros sample lengths are mostly 2.00 m (range 0.60-4.00 m, mean 1.96 m, median 2.00 m) indicating that samples were taken with a fixed length rather than based on geology. The Rugby hole has sample lengths of 3.00 m (range 1.40-4.00 m, mean 2.87 m, median 3.00 m) indicating that samples were also taken with a fixed length rather than based on geology.

### **6.3.6 Density**

No measurements of density or specific gravity were made from drill core by Mineros or Rugby.

### **6.3.7 Results**

A table of significant intersections greater than 0.15 g/t Au is given in Table 6.4. This shows long intervals that vary from 13.4 to 276.0 m length with average grades of 0.20 to 0.86 g/t Au and 1.06 to 22.15 g/t Ag (capped at 50.0 g/t Ag). The table also lists short higher grade intervals that are related to veins and veinlets that occur within some of the long, lower grade intersections and have lengths of 2.0 to 7.3 m with grades of 0.91 to 4.31 g/t Au and 1.0 to 1566.05 g/t Ag. Note that most samples were taken in fixed lengths of 2.00 m (Mineros) or 3.00 m (Rugby) rather than the actual length of the vein. Gold and Ag are commonly, but not always, associated with anomalous Cu greater than 100 ppm (6-1,826 ppm in intervals >10 m, 9-8,751 ppm in intervals <10 m), and Mo greater than 5 ppm (0.6-103.7 ppm in intervals >10 m, 0.4-29.0 ppm in intervals <10 m).

Hole No.	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Cu (ppm)	Mo (ppm)
PADDH-001	16.00	97.00	83.00	0.26	2.43	0.30	129	2.9
PADDH-005	148.05	218.25	70.20	0.36	5.52	0.43	366	103.7
PADDH-006	271.00	290.00	19.00	0.23	1.06	0.25	6	1.2
<b>PADDH-010</b>	<b>2.00</b>	<b>22.00</b>	<b>20.00</b>	<b>0.45</b>	<b>11.18</b>	<b>0.60</b>	<b>10</b>	<b>5.7</b>
incl.	16.00	18.00	2.00	2.55	120.00	4.15	13	7.1
<b>and</b>	<b>72.00</b>	<b>86.00</b>	<b>14.00</b>	<b>0.42</b>	<b>13.85</b>	<b>0.61</b>	<b>51</b>	<b>1.0</b>
PADDH-012	54.30	259.00	204.70	0.11	7.86	0.22	378	2.9
incl.	227.55	232.30	4.75	0.30	119.46	1.89	810	2.5
PADDH-014	226.40	330.20	103.80	0.25	6.16	0.34	617	1.7
incl.	228.95	231.00	2.05	1.57	5.19	1.64	499	0.4
and	346.20	402.00	55.80	0.24	4.16	0.30	226	6.8
incl.	383.50	386.10	2.60	1.03	9.76	1.16	25	16.8
<b>PADDH-016</b>	<b>17.00</b>	<b>41.00</b>	<b>24.00</b>	<b>0.32</b>	<b>16.24</b>	<b>0.54</b>	<b>494</b>	<b>5.2</b>
and	30.00	32.00	2.00	1.59	136.00	3.40	428	9.5
and	120.00	137.00	17.00	0.30	4.85	0.36	544	3.2
incl.	133.00	135.00	2.00	0.91	5.31	0.98	1070	10.0
<b>and</b>	<b>261.00</b>	<b>287.00</b>	<b>26.00</b>	<b>0.39</b>	<b>9.47</b>	<b>0.51</b>	<b>612</b>	<b>3.6</b>
incl.	285.20	287.00	1.80	1.18	51.90	1.87	1500	14.1
PADDH-017	87.90	243.20	153.45	0.20	6.60	0.29	231	0.8
incl.	112.40	115.25	2.85	1.51	21.61	1.80	136	1.4
and	256.00	422.00	251.00	0.28	4.68	0.34	238	2.2
incl.	268.10	276.00	7.90	1.80	107.06	3.22	814	1.7
incl.	382.50	383.50	1.00	1.34	10.70	1.48	754	7.0
incl.	397.65	400.40	2.75	1.21	29.58	1.60	276	5.1
PADDH-018	59.00	149.00	90.00	0.35	10.54	0.49	<b>219</b>	<b>4.1</b>
incl.	67.00	71.00	4.00	1.20	21.75	1.49	159	3.5
incl.	103.00	105.60	3.60	1.21	61.38	2.03	755	5.1
incl.	126.00	128.00	2.00	1.01	20.60	1.28	151	9.0
incl.	145.00	147.00	2.00	1.64	3.80	1.69	252	2.0
<b>and</b>	<b>388.00</b>	<b>416.00</b>	<b>31.45</b>	<b>0.58</b>	<b>12.56</b>	<b>0.75</b>	<b>808</b>	<b>8.2</b>
incl.	392.00	396.00	4.00	1.59	41.15	2.14	1778	4.5
incl.	410.00	412.00	2.00	1.53	19.30	1.79	4129	19.0
PADDH-021	222.60	236.00	13.40	0.35	22.15	0.65	1826	1.0
PADDH-022	22.00	169.00	147.00	0.28	0.24	0.28	58	2.2
incl.	155.00	157.00	2.00	2.45	1.84	2.47	31	0.7
incl.	161.00	163.00	2.00	2.05	1.92	2.08	18	0.8
and	221.00	330.00	109.00	0.22	9.79	0.36	<b>169</b>	<b>16.7</b>
and	412.00	438.00	26.00	0.42	3.08	0.46	29	0.9
incl.	426.00	428.00	2.00	1.44	1.36	1.46	9	0.8

Hole No.	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Cu (ppm)	Mo (ppm)
<b>PADDH-023</b>	<b>5.00</b>	<b>281.00</b>	<b>276.00</b>	<b>0.41</b>	<b>6.74</b>	<b>0.50</b>	<b>175</b>	<b>1.7</b>
incl.	32.00	34.00	2.00	1.76	200.00	4.43	506	4.0
incl.	54.00	60.00	6.00	0.93	35.54	1.40	18	2.5
incl.	126.00	132.00	6.00	1.44	16.33	1.65	77	3.5
incl.	215.75	219.40	3.65	2.17	1566.05	23.05	8751	3.3
incl.	225.00	231.00	6.00	1.64	4.82	1.70	43	1.0
<b>and</b>	<b>378.00</b>	<b>432.00</b>	<b>54.00</b>	<b>0.86</b>	<b>9.67</b>	<b>0.99</b>	<b>96</b>	<b>15.7</b>
incl.	410.00	414.00	4.00	4.31	6.11	4.39	54	1.0
incl.	426.00	430.00	4.00	3.11	7.38	3.21	71	0.7
and	448.00	503.60	55.60	0.33	5.58	0.40	92	0.6
PADDH-024	41.00	43.00	2.00	1.07	63.70	1.92	148	1.1
and	53.00	55.00	2.00	10.60	13.05	10.77	36	1.3
and	102.00	104.00	2.00	1.61	25.80	1.96	119	3.0
and	262.00	264.00	2.00	2.07	4.84	2.13	30	0.3
<b>and</b>	<b>432.00</b>	<b>482.40</b>	<b>50.40</b>	<b>0.67</b>	<b>11.70</b>	<b>0.82</b>	<b>263</b>	<b>7.7</b>
incl.	436.00	438.00	2.00	1.00	41.80	1.56	494	11.1
incl.	469.00	471.00	2.00	3.01	158.00	5.12	2090	6.3
SA-18-01	122.00	124.00	2.00	2.69	1.00	2.70	19	6.0
and	306.00	309.00	3.00	1.70	5.10	1.77	15	9.0
and	511.00	556.00	45.00	0.40	2.35	0.43	113	9.7
<b>and</b>	<b>605.00</b>	<b>705.00</b>	<b>100.00</b>	<b>0.44</b>	<b>4.76</b>	<b>0.50</b>	<b>344</b>	<b>23.1</b>
incl.	680.30	683.10	2.80	1.68	54.30	2.40	2900	29.0

**Table 6.4 Significant drill intersections in the San Antonio legacy drill holes.**

Intervals above a cut-off of 0.15 g/t Au are listed. Maximum dilution 6.0-14.0 m depending on length of interval. Au equivalent (AuEq) calculated using a ratio of Au:Ag of 1:75 and assuming 100% recovery as the project is exploration stage and lacks metallurgical data. Ag is capped at 50 g/t in samples >10.0 m length to avoid grade smearing, but not in samples <10.0 m long which are veins and veinlets. Au does not have high grades and was not capped.

### 6.3.8 Sample Length / True Thickness

The drill intersections do not represent the true width of the mineralized zones. The drill targets were porphyry and disseminated to vein epithermal styles of mineralisation that require multiple holes to determine the geometry, width and thickness of the mineralised zones.

### 6.3.9 Comments on Section 6.3

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.

## 6.4 Sample Preparation, Analysis and Security

### 6.4.1 Sample Preparation, Analysis and Security

The methods used for preparation and analyses of the legacy samples are summarized in Table 6.5. All samples were analysed for Au by fire assay, and for Ag and multielements by 2 or 4 acid digestion and ICP. In some cases, Ag was analysed by aqua regia digestion and ICP.

Company	Laboratory	Method	Code	Procedure
Colombia Goldfields soils, rocks	Inspectorate, Medellin and Callao	Preparation		
		Au	FA/AA	Fire assay 30 g, AAS
		Au overlimit	FA/GRAV	Fire assay 30 g, gravimetry
		Ag	AQR/AA	Aqua regia digestion, AAS
		Multielements	ICP/AQR	Aqua regia digestion, ICP-AES
Colombia Goldfields soils, rocks	SGS, Medellin and Callao	Preparation		
		Au	FAA313	Fire assay 30 g, AAS
		Multielements	ICM40B	ICP-AES
Mineros rocks	ALS Chemex, Medellin and Callao	Preparation		Dry, crush to >70% passing 2 mm, riffle split 1000 g, pulverise to >85% passing 75 microns.
		Au	Au-AA25	Fire assay 30 g, AAS
		Multielements	ME-MS41	51 elements by aqua regia digestion, ICP-MS
		Multielements	ME-ICP41	35 elements by aqua regia digestion, ICP-AES
		Ag overlimit	Ag-AA46	Aqua regia digestion, AAS
		Zn overlimit	AA46	Aqua regia digestion, AAS
Mineros soils	ALS Chemex, Medellin and Callao	Preparation		Dry, screen to -180 microns, pulverise fines to 85% passing -75 microns.
		Au	Au-ICP22	
		Multielements	ME-MS41	51 elements by aqua regia digestion, ICP-MS

Company	Laboratory	Method	Code	Procedure
Mineros core phase 1	ALS Chemex, Bogota	Preparation		Dry, crush to >70% passing 2 mm, riffle split 1000 g, pulverise to >85% passing 75 microns.
		Au	Au-AA25	Fire assay 30 g, AAS
		Ag	Ag-AA45	Aqua regia digestion, AAS
		Multielements	ME-ICP41	35 elements by aqua regia digestion, ICP-AES
Mineros core phase 2	ALS Chemex, Medellin and Callao	Preparation		Dry, crush to >70% passing 2 mm, riffle split 1000 g, pulverise to >85% passing 75 microns.
		Au	Au-AA25	Fire assay 30 g, AAS
		Multielements	ME-MS41	51 elements by aqua regia digestion, ICP-MS
		Ag overlimit	Ag-AA46	Aqua regia digestion, AAS
		Ag overlimit	Ag-GRA21	Fire assay 30, gravimetry
		Cu, Pb, Zn overlimit	AA46	Aqua regia digestion, AAS
Mineros pulps	ALS Chemex, Medellin and Val d'Or, Quebec	Preparation		Pulp samples
		Au	Au-AA25	Fire assay 30 g, AAS
		Multielements	ME-ICP41	36 elements by aqua regia digestion, AAS
		Ag overlimit	Ag-OG46	Aqua regia digestion, AAS
		Pb, Zn overlimit	ME-OG46	Aqua regia digestion, AAS
Anglo American rocks	ALS Minerals, Medellin and Callao	Preparation		Dry, crush to >80% passing 2 mm, riffle split 1000 g, pulverise to >90% passing 106 microns.
		Au	Au-AA23	Fire assay 30 g, AAS
		Multielements	ME-MS41L	Aqua regia dissolution, ICP-MS
Rugby core	ALS Minerals, Medellin and Callao	Preparation		Dry, crush to >70% passing 2 mm, riffle split 1000 g, pulverise to >85% passing 75 microns.
		Au	Au-AA24	Fire assay 50 g, AAS
		Multielements	ME-ICP61	33 elements by 4 acid digestion, ICP-AES
		Multielements	ME-MS61	48 elements by 4 acid digestion, ICP-MS
Rugby soils	ALS Minerals, Medellin and Callao	Preparation		Dry, screen to -180 microns, crush fines to >70% passing 2 mm, riffle split 1000 g, pulverise to >85% passing 75 microns.
		Au	Au-AA23	Fire assay 30 g, AAS
		Multielements	ME-MS61	48 elements by 4 acid digestion, ICP-MS

Company	Laboratory	Method	Code	Procedure
		Cu overlimits	AA62	4 acid digestion, AAS
Rugby rocks	ALS Minerals, Medellin and Callao	Preparation		Dry, crush to >70% passing 2 mm, riffle split 250 g, pulverise to >85% passing 75 microns.
		Au	Au-AA23	Fire assay 30 g, AAS
		Multielements	ME-MS61	48 elements by 4 acid digestion, ICP-MS
		Ag, Cu, Pb, Zn overlimits	AA62	4 acid digestion, AAS
Rugby stream sediments	ALS Minerals, Medellin and Callao	Preparation		Dry, crush to -180 microns.
		Au	Au-AA23	Fire assay 30 g, AAS
		Multielements	ME-MS41L	Aqua regia digestion, ICP-MS
Rugby rocks, soils	Actlabs, Medellin and Ancaster, Ontario	Preparation	RX1	Dry, crush to >80% passing 2 mm, riffle split 250 g, and pulverise to >95% passing 105 µm.
		Au	1A2-30	Fire assay 30 g, AAS
		Au overlimit	AQ1	Aqua regia digestion, AAS
		Multielements	ME-MS61	4 acid digestion, ICP-AES, ICP-MS

**Table 6.5 Summary of the sample preparation and analyses methods of the legacy samples.**

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

The legacy samples were prepared and analysed at four laboratories:

- Inspectorate America Corporation at laboratories in Medellin and Callao, Peru, certified to ISO 9001:2000 and ISO 9002:1994 standards.
- SGS at laboratories in Medellin and Callao, certified to ISO 9001 and ISO/IEC 17025 standards.
- ALS Chemex, now called ALS Minerals, at laboratories in Bogota, Medellin, Callao and Val d'Or, Quebec, certified to ISO 9001-2015 and ISO/IEC 17025-2017 standards.
- Actlabs Colombia S.A.S. at a laboratory in Rionegro, Medellin, certified to ISO 9001-2008, and by the parent company Activation Laboratories Ltd., Ancaster, Ontario, certified to ISO/IEC 17025 (Actlabs),

Inspectorate, SGS, ALS Chemex / ALS Minerals and Actlabs are independent of Colombia Goldfields, Mineros, Anglo American and Rugby.

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

### 6.4.2.1 Colombia Goldfields

Colombia Goldfields inserted certified standard reference materials (CSRM), coarse blanks, field duplicates, coarse duplicates, fine duplicates and check samples in its sample batches but the full data is not available. The protocols are described by Lewis (2006) and Lewis & San Martin (2008).

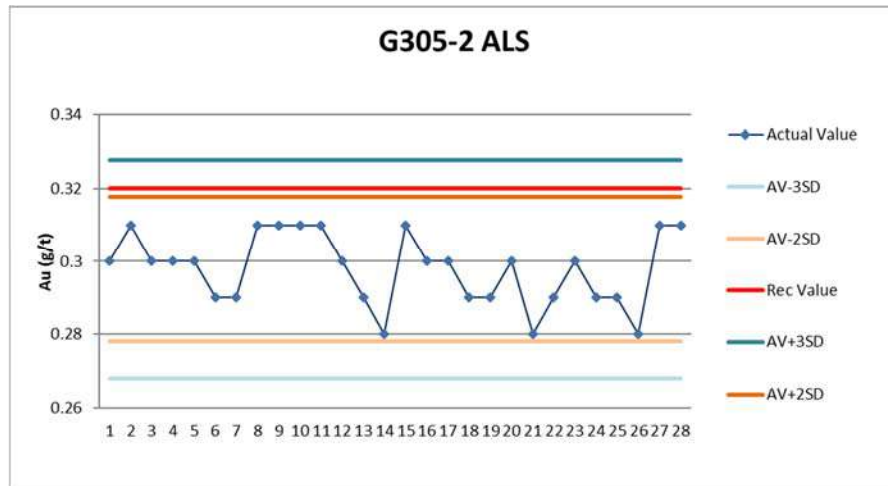
### 6.4.2.2 Mineros Drilling

Mineros inserted certified standard reference materials (CSRM), coarse blanks, field duplicates and check samples in the sample batches from its drilling programmes, as shown in Table 6.6. The CSRM were monitored for Au by scatter plots with performance gates of the average value of the data  $\pm 2SD$  and  $\pm 3SD$ ; examples are shown in Figure 6.10 to Figure 6.12. The average value of Au of the three CSRMs shows a bias compared to the recommended value of -3.0 to -6.9% in samples assayed by ALS Chemex; this is slightly higher than the industry standard of  $\pm 5\%$  accuracy and indicates that Au values were under-reported. The blank was monitored for Au by a scatter plot with reference to 5 times the lower limit of detection of the element, and showed acceptable results (Figure 6.13). Field duplicates were monitored for Au on scatter plots and show low variability. Check samples were monitored for Au on scatter plots and show good correlation and low variability. Mineros used similar QA-QC programmes for soil and rock sampling with partial but incomplete data available. No written protocol for QA-QC is available.

Type	Material	Position	No.	Acceptance
CSRM	G305-2, G306-1, G399-5 from Geostats Pty Ltd., Australia.	Random	148	Average +/- 2SD, 3SD
Coarse Blank	Not known	Not known	133	5x LLD
Field Duplicate	Quarter core(?)	Random	79	30% relative error
Check samples	Second pulp by primary lab analysed at secondary lab.	Random	126	
Total			486	

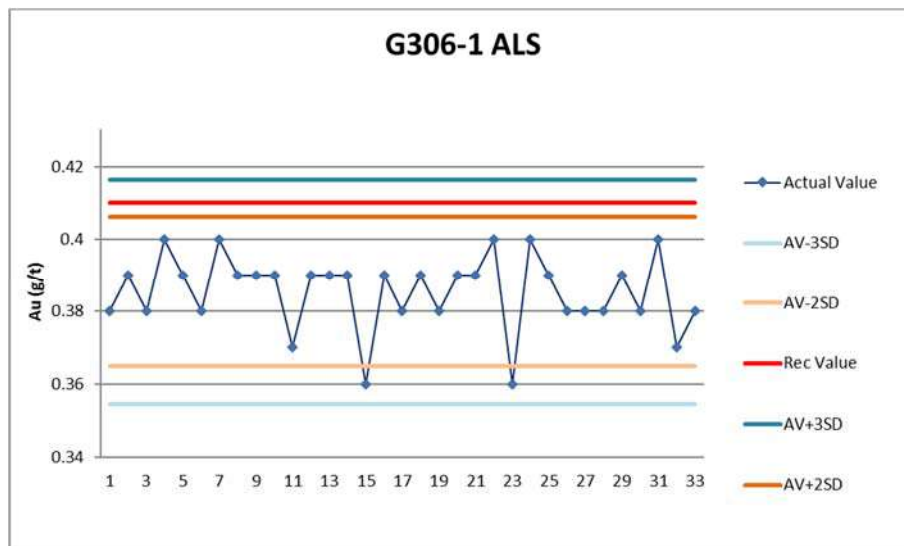
Table 6.6 QA-QC samples used by Mineros for the drilling programmes.





**Figure 6.10 Scatter plot of Au for CSRM G305-2 for Mineros drilling programme.**

The performance gates are the average and  $\pm 2SD$  and  $\pm 3SD$  of the data. The performance of the data is acceptable within these limits, but it lies below the recommended value, showing a negative bias in accuracy.



**Figure 6.11 Scatter plot of Au for CSRM G306-1 for Mineros drilling programme.**

The performance gates are the average and  $\pm 2SD$  and  $\pm 3SD$  of the data. The performance of the data is acceptable within these limits, but it lies below the recommended value, showing a negative bias in accuracy.

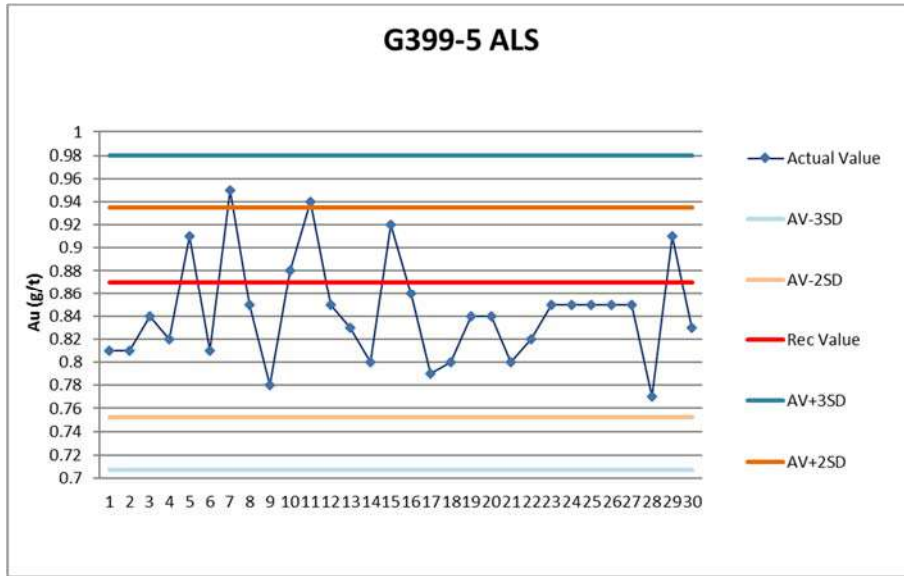


Figure 6.12 Scatter plot of Au for CSRM G399-5 for Mineros drilling programme.

The performance gates are the average and  $\pm 2SD$  and  $\pm 3SD$  of the data. The performance of the data is acceptable within these limits, but much of it lies below the recommended value, showing a negative bias in accuracy.

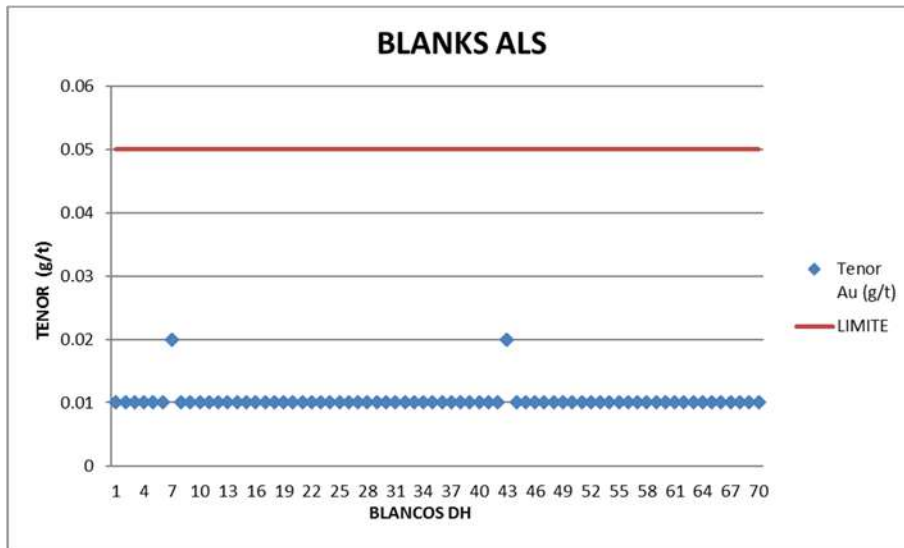


Figure 6.13 Scatter plot of Au for blanks for Mineros drilling.

### **6.4.2.3 Anglo American**

Anglo American collected 49 samples including 2 CSRM, 2 coarse blanks, 2 field duplicates, 2 coarse duplicates and 2 fine duplicates.

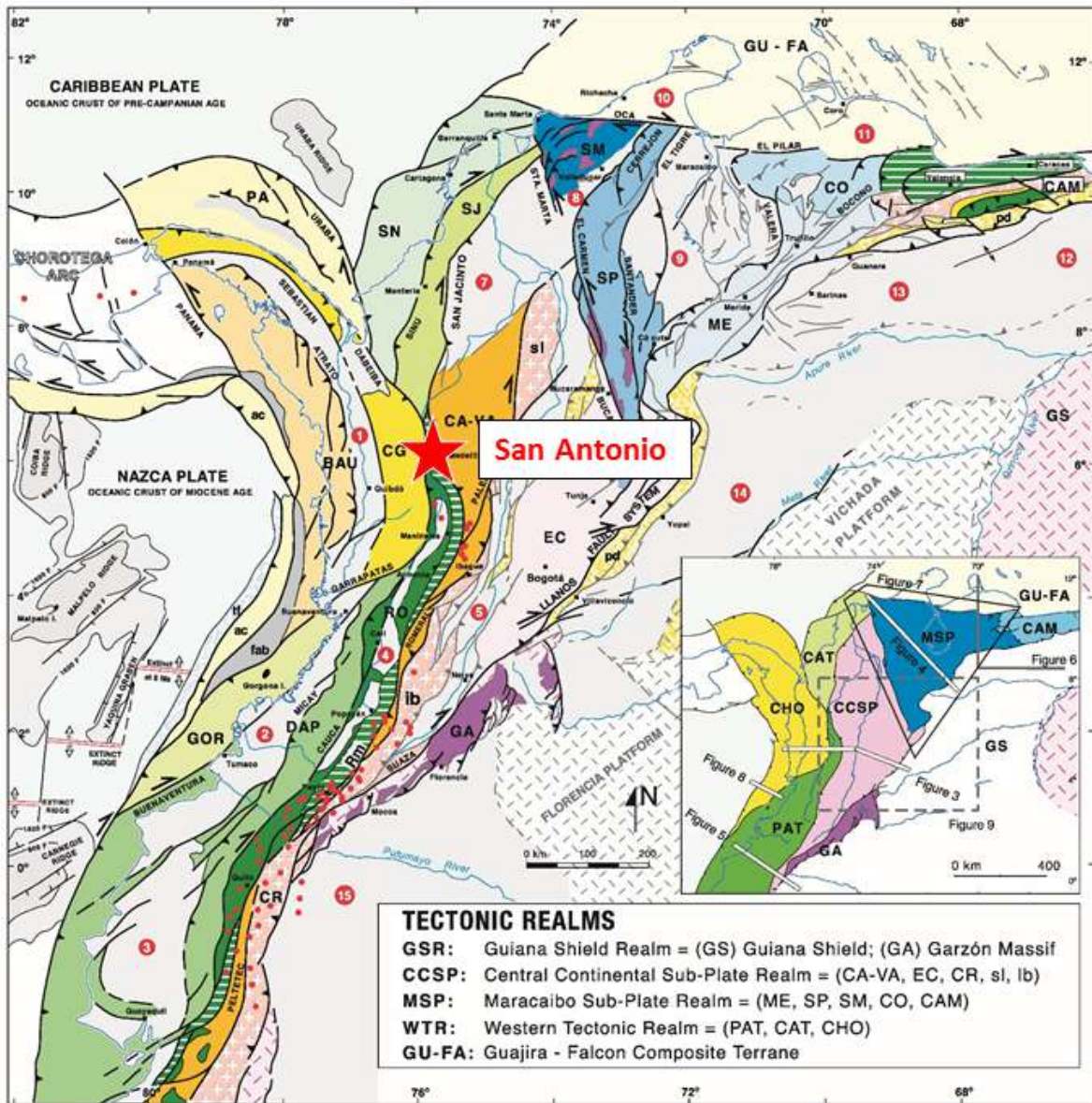
### **6.4.2.4 Rugby Mining**

The Rugby QA-QC protocol and data have not been found.

## **7 GEOLOGICAL SETTING AND MINERALIZATION**

### **7.1 Regional Geology**

The San Antonio Project is located on the western side of the Central Cordillera of the Colombian Andes, as shown in Figure 7.1. The project lies within 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 Central Cordillera is formed of Proterozoic and Paleozoic-age comprising metasediments, amphibolites and gneisses. 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. Neither of these formations crop out within the project area.



**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; lb = 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 mélangé; 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 San Antonio Project (Cediel et al., 2003).



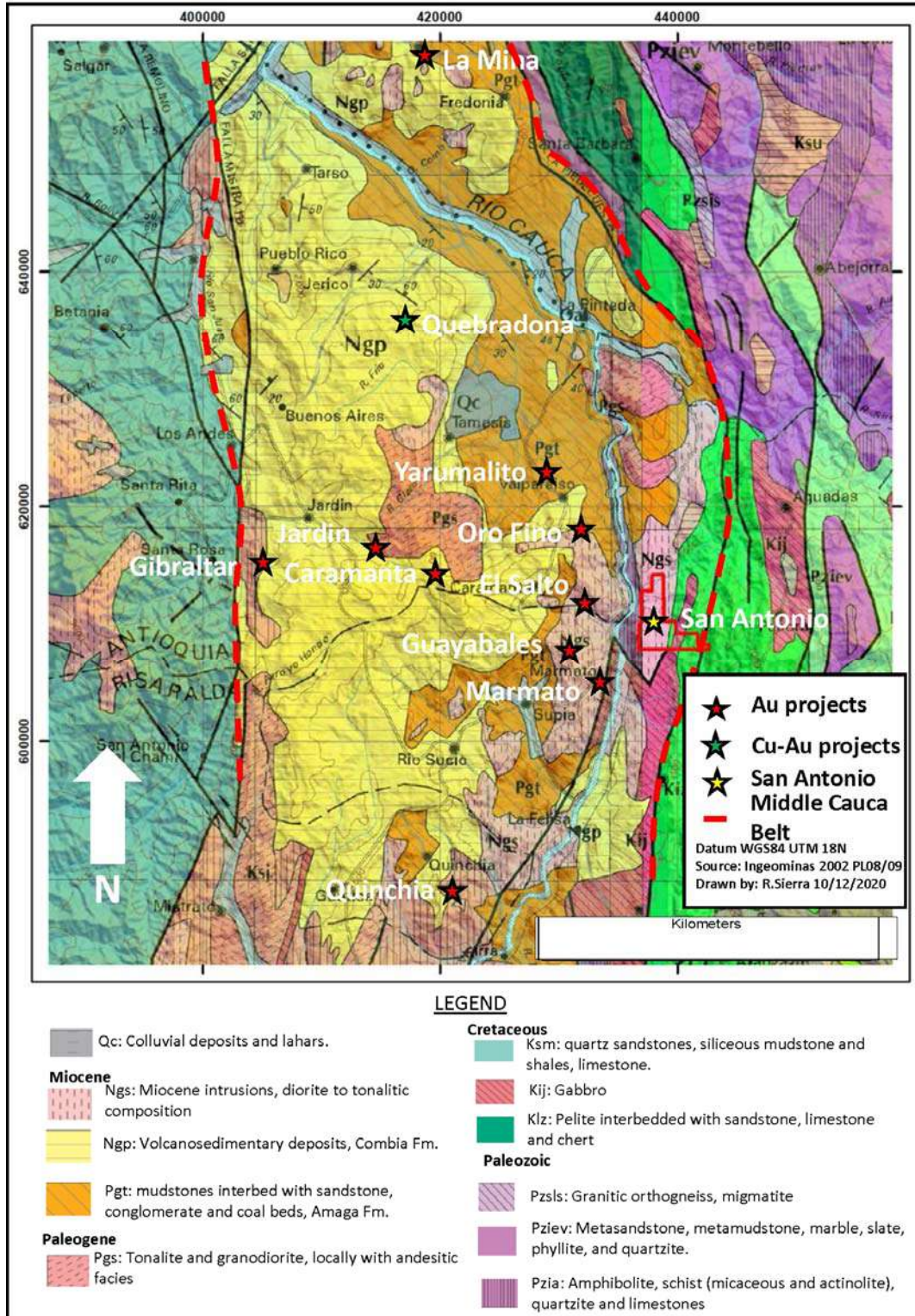


Figure 7.2 The geology and major gold deposits of the Middle Cauca Gold Belt showing the central eastern location of the San Antonio Project.

## 7.2 Local Geology

The geological map for the district is shown in Figure 7.2. The country rocks are metabasites with lower to upper greenschist facies metamorphism (biotite schist, chlorite schist and amphibolite), sericite schist, serpentinite and black, graphitic schist of the Late Jurassic to Early Cretaceous Arquia Complex. The schistosity strikes north-south to northwest and dips steeply to the west. To the west, sedimentary rocks of the Oligocene to lower Miocene Amagá Formation are unconformable on the schists; these have a basal conglomerate followed by sandstone with carbonaceous beds, carbonaceous mudstone and claystone with lenses of sandstone. This is overlain by volcano-sedimentary rocks of the late Miocene Combia Formation (age about 9 to 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 Belt coincides with the depocentre of the Combia Formation, which are the contemporaneous volcanic rocks related to and cut by the late Miocene porphyry intrusions and related gold-copper mineralisation.

## 7.3 Property Geology

### 7.3.1 Lithology

The geology of the San Antonio concession is shown in Figure 7.3 and the lithologies are summarized in Table 7.1. This is based on mapping by Collective Mining (Sierra & Largo, 2020; Marino, 2020; Sierra, 2021) and previous operators (Mineros, 2014; Baker et al., 2016), and petrographic descriptions from a thesis by Loaiza (2020). The country rocks are graphite schist and chlorite schist of the Arquia Complex. They are cross cut by an undated intrusive center of probable late Miocene age composed of a diorite stock elongated N-S with dimensions of about 5.0 km by up to 1.5 km wide. This is cross cut by quartz diorite porphyries, tonalite, intrusion breccias and hydrothermally-cemented breccias.

<b>Lithology</b>	<b>Description</b>
Rock flour breccia	Dykelets. Clasts angular to subangular with quartz veinlets. Matrix milled rock flour. Cuts hydrothermal breccia.
Hydrothermal Breccia	Small bodies cm to m. Clasts schist, diorite, quartz diorite. Cement pyrite, sericite; pyrite; sericite-chlorite.
Intrusion Breccia	Matrix diorite. Polymict, matrix to clast supported, subangular clasts of schist, diorite, igneous breccia.
Tonalite	White, porphyry, coarse grained, with plagioclase 30%, quartz 20% phenocrysts. Cross cuts schist, hornblendic quartz diorite porphyry.
Quartz Diorite, hornblendic	Light green, porphyry, coarse grained with plagioclase 30%, quartz 10%, hornblende 10%. Cuts schist, quartz diorite porphyry.
Quartz Diorite Porphyry	Phenocrysts plagioclase 30%, quartz 5-10%, biotite, hornblende. Medium grain size.
Diorite	Light to dark grey, porphyritic, crowded texture, medium to fine grained. Phenocrysts plagioclase, hornblende, biotite, minor quartz, disseminated magnetite.
Chlorite Schist	Chlorite schist.
Graphite Schist	Graphite schist.

**Table 7.1 Summary of the main lithologies in the San Antonio Project.**



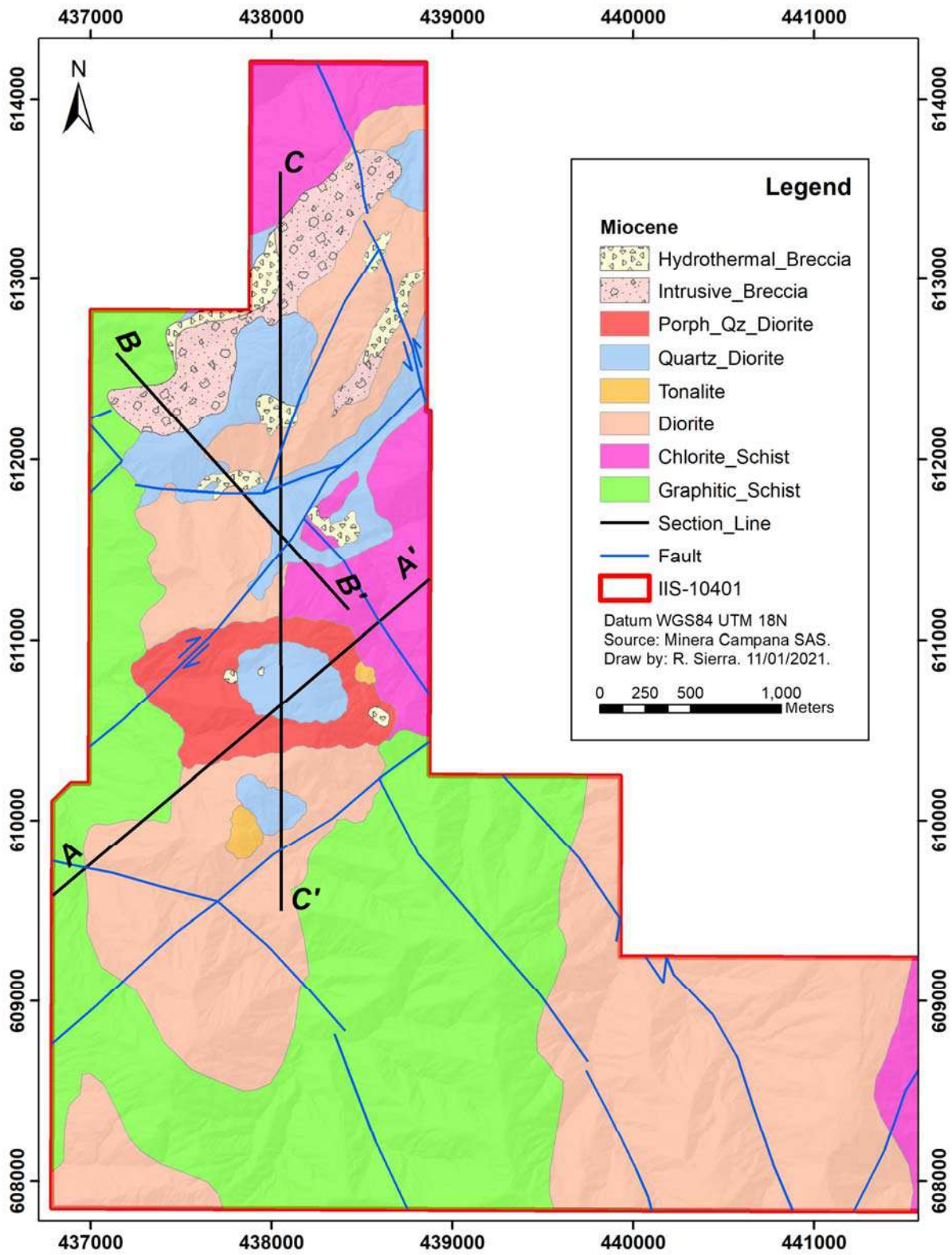


Figure 7.3 The geology of the San Antonio Project.

Graphitic schists are exposed in the south and the west of the San Antonio project in Papayal, El Hospital, El Muerto, Campana and La Estacion creeks, close to the Cauca River. The principal foliation trend is northeast with steep dip to the southeast direction. Chloritic schist outcrops in the western part of the concession in Azucenal and Campana creeks, with the same foliation trend. The schists have abundant metamorphic quartz sweat-out veins. The schists have undergone several phases of folding, and early quartz veins are tightly folded with a gently dipping axial plane. The schists have been assigned to the Cretaceous Arquia Complex.

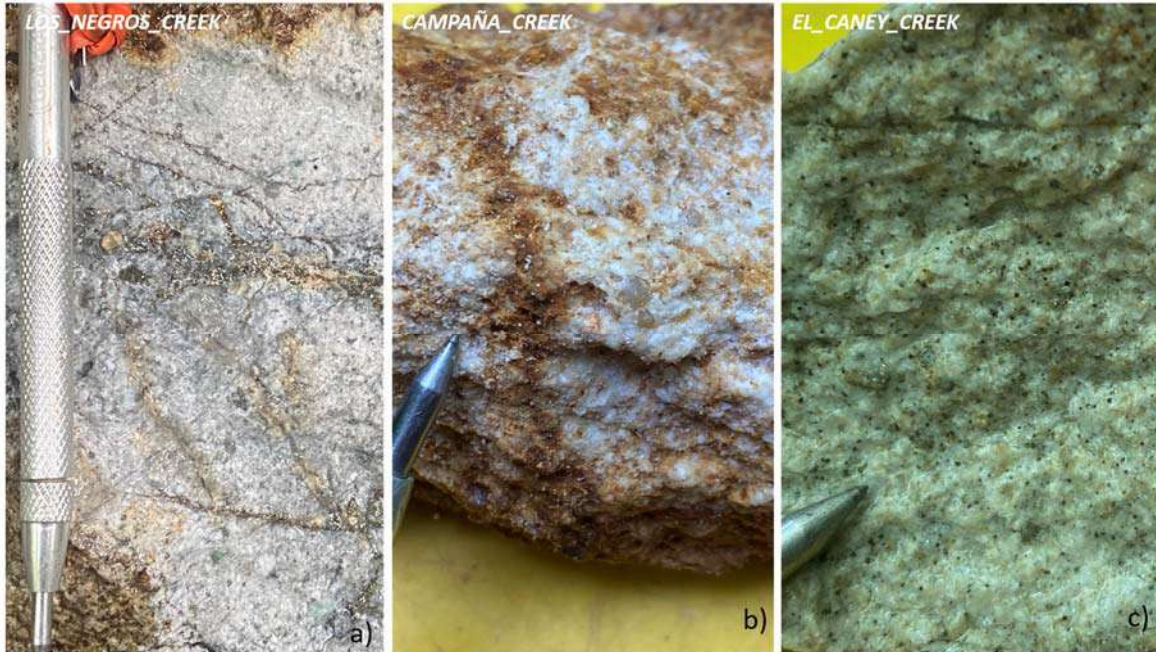
The diorite has a crowded porphyritic texture, medium to fine grain size with plagioclase, minor quartz, hornblende, biotite and disseminated primary magnetite (Figure 7.4). It intrudes graphitic and chloritic schist.



**Figure 7.4 a) Medium grained diorite; b) Fine to medium grained diorite.**

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 7.5). There are abundant sulphides up to 5% within the matrix. Secondary biotite was recognised at Hospital Creek, and albite alteration was observed in the thin sections of drill cores with clots of pyrite, chalcopyrite, molybdenite and magnetite. There is a leached zone above 1,200 masl with sericite-chlorite and >4% of the oxides hematite and jarosite.





**Figure 7.5 Quartz diorite porphyry of medium to fine grain size.**

The Hornblentic Quartz Diorite porphyry cross cuts the schists and Quartz Diorite porphyry, has a light green color, porphyritic texture, coarse grain size, and phenocrysts of plagioclase 30%, quartz 10% and hornblende 10% (Figure 7.6). It outcrops in El Muerto, El Hospital and Azucenal creeks in the center of the San Antonio concession.



**Figure 7.6 Hornblentic Quartz Diorite porphyry.**



The tonalite porphyry is white coloured and medium to coarse grained with phenocrysts of plagioclase 30% and quartz eyes 20% (Figure 7.7). It cross cuts schists and Hornblende Quartz Diorite porphyry. It outcrops in Azucenal creek and in the Piñones zone.



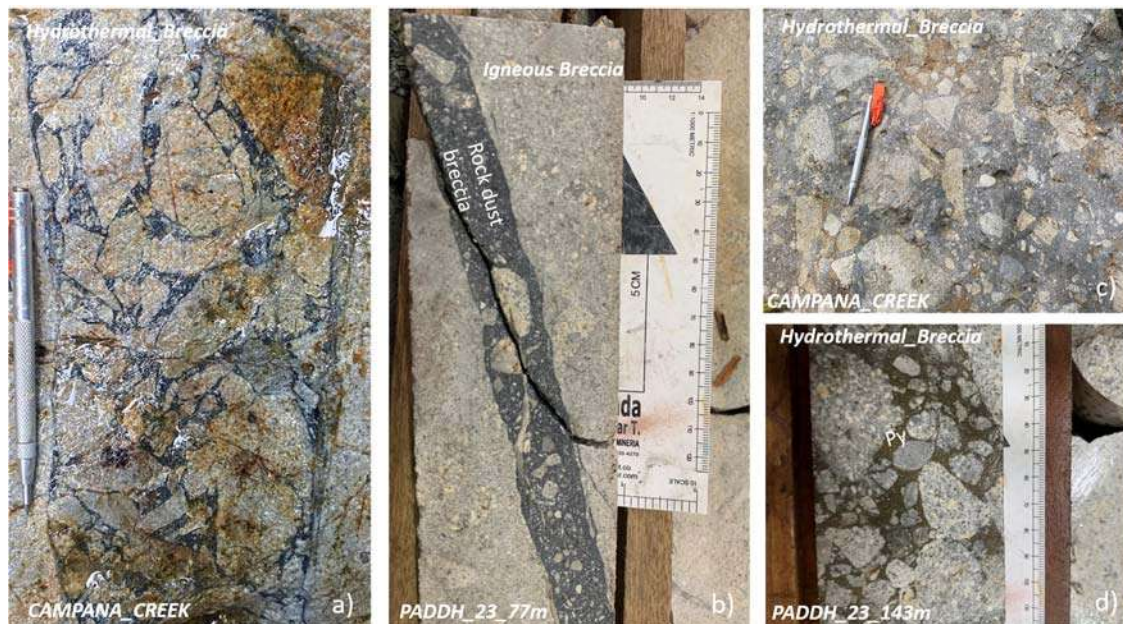
**Figure 7.7 Tonalite porphyry.**

The igneous matrix or intrusion breccia extends over a vertical interval between 700 to 1,200 masl (Figure 7.8). It outcrops northeast of the Cauca River, at La Garrucha and along of the old road between La Garrucha and Miraflores, and northeast of the concession. The matrix is composed of diorite. The breccia is polymictic, matrix to clast supported, with subangular fragments of schist, diorites and other igneous breccias. Several alteration phases have been identified including sericite-chlorite, sericite-smectite-illite, ankerite-calcite  $\pm$  gypsum, and epidote-chlorite; quartz veins are absent.



**Figure 7.8 Intrusion breccia.**  
PADDH-023, 44.0 m.

Hydrothermal breccias occur as centimetric to metric-sized bodies cutting schist, diorites and quartz diorite porphyry (Figure 7.9). They outcrop along Campana and El Muerto creeks, and on the old road between La Estacion and Miraflores. The cement is pyrite, sericite and chlorite. It is locally cut by a rock flour matrix breccia that has angular to subangular clasts with quartz veinlets. The hydrothermal breccia is affected by several alteration assemblages such as sericite-chlorite, sericite-illite-chlorite-smectite, calcite, gypsum, and pyrite.



**Figure 7.9 Hydrothermal cemented breccia, cemented by a) sulphides, b) igneous matrix breccia with sericitic alteration cut by rock flour breccia. c) cemented by sericite – chlorite. D) sulphides.**

### **7.3.2 Structure**

The structure of the San Antonio Project, shown in Figure 7.3, was mapped on surface and interpreted from satellite imagery, the digital elevation model and geophysical surveys. The dominant structures are NW and NE trending. In addition, an EW-trending fault separates the uplifted northern block from the downthrown southern block. The emplacement of the igneous and hydrothermal breccias and several porphyry intrusions appear to be controlled by the NE-trending faults whereas the NW and late EW structures are spatially associated with precious and base metal mineralisation.

### **7.3.3 Alteration and Mineralisation**

The alteration types at the San Antonio Project, defined by mapping, core logging and petrography (Loaiza, 2020), are advanced argillic, sericite-illite-smectite, sericite-chlorite, potassic alteration with quartz stockwork and sheeted veining, and propylitic. Mineralization was defined by mapping zones of relict sulphides at surface and by core logging. The distribution of alteration and mineralization on surface is shown in Figure 7.10 and Figure 7.11.



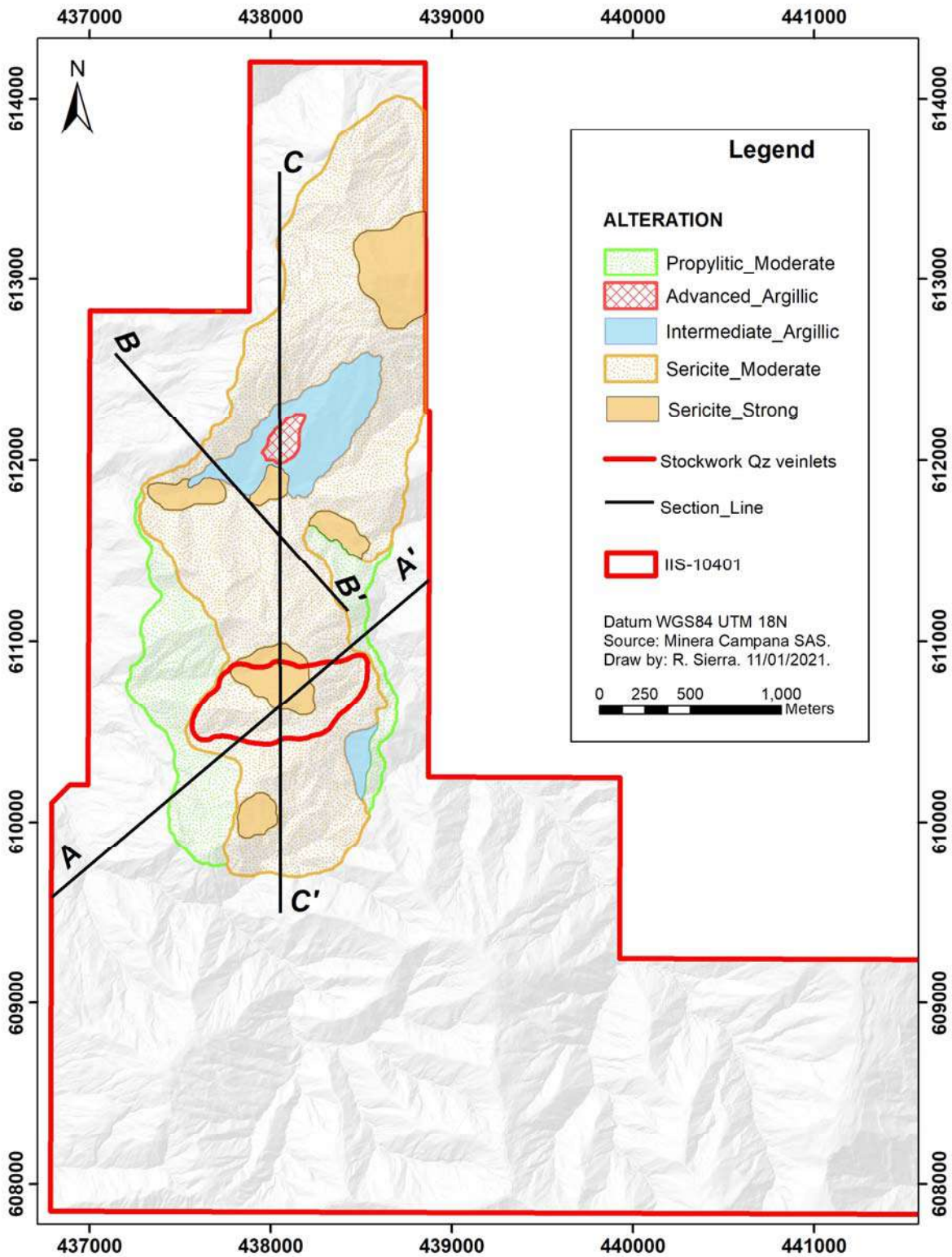


Figure 7.10 Map of the distribution of hydrothermal alteration at surface in the San Antonio Project.

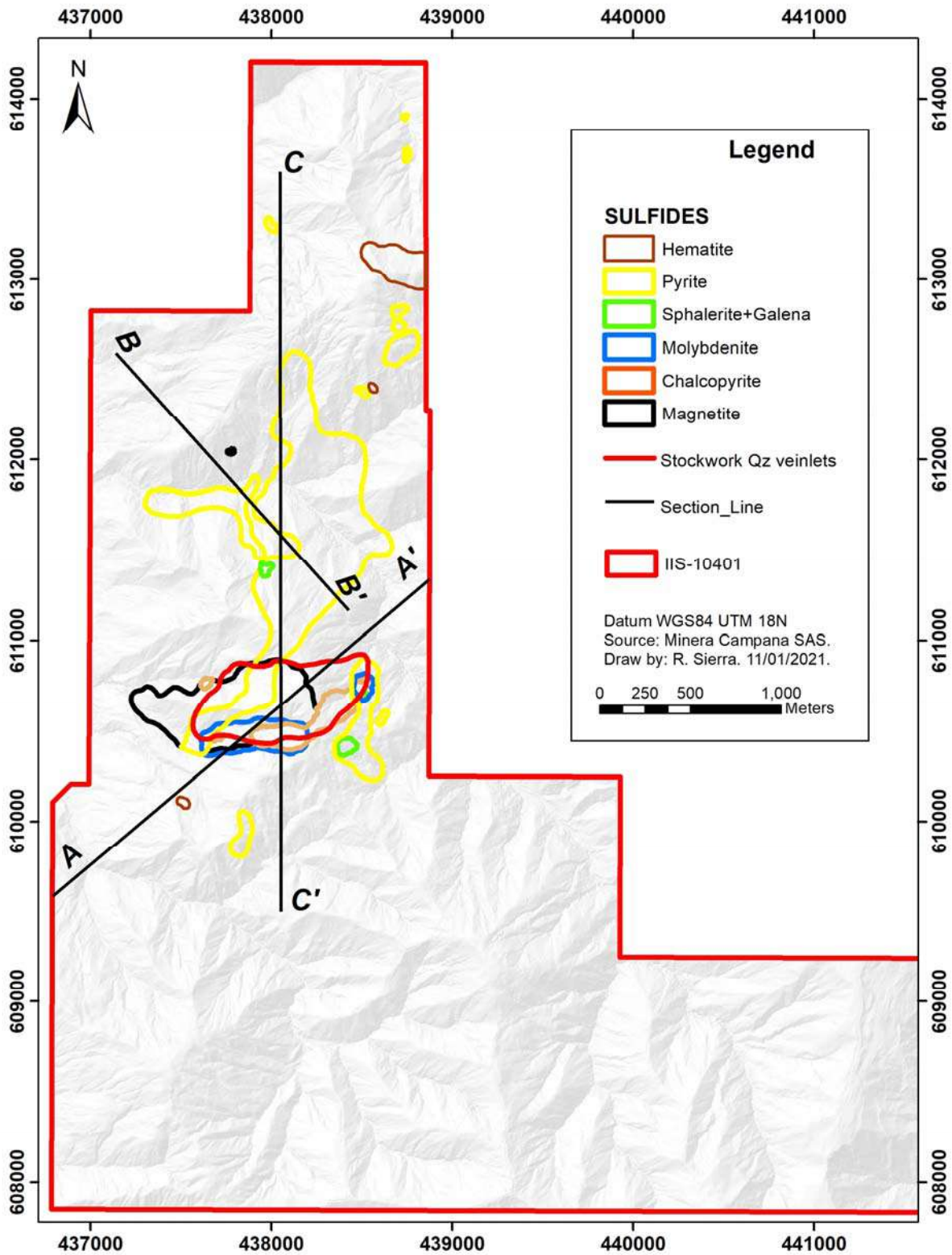


Figure 7.11 Map of the distribution of sulphide mineralisation in the San Antonio Project.



### 7.3.3.1 Potassic Alteration

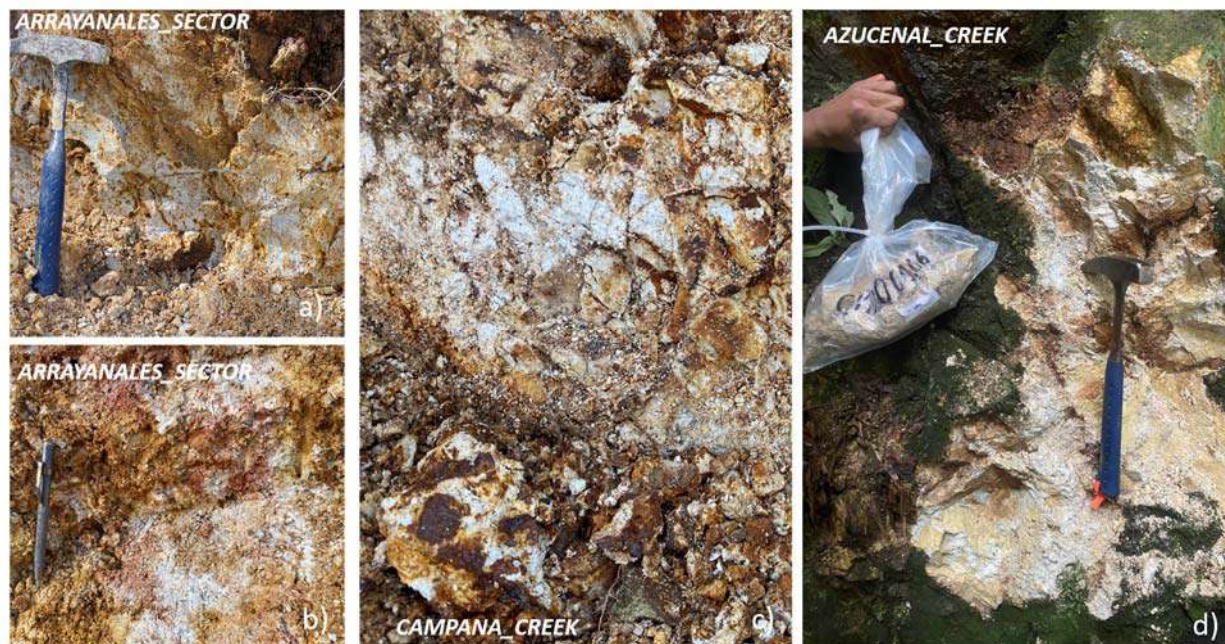
Potassic alteration characterized by secondary biotite and magnetite occurs from 580 m depth in hole SA-18-01 (Figure 7.12), and in holes PADDH-01, 05 and 06 associated with albite. Evidence for the former presence of potassic alteration occurs in El Hospital creek where there is pyrite-chalcopyrite-covellite in B veinlets overprinted by D veins and sericitic alteration. Likewise, the stockwork quartz veinlet zone in the Dollar Target is evidence for former potassic alteration that has been overprinted by sericitic alteration.



Figure 7.12 Strong biotite-magnetite alteration of diorite in SA-18-01 at 586.80 m.

### 7.3.3.2 Sericite Alteration

Moderate to strong, pervasive sericitic alteration is widely distributed in the concession with a NNE trend and affects the Diorite and Quartz Diorite porphyry at El Muerto, El Hospital and Azucenal creeks, the stockwork zone at Piñoles hill, and the Miraflores-Arrayanales sector in the north (Figure 7.13).



**Figure 7.13 Strong, pervasive sericite alteration and oxidation.**

#### 7.3.3.2.1 Mineralisation Dollar Target

A zone of 5-10% pyrite-magnetite occurs in the El Muerto and El Hospital creeks where it is related to a zone of abundant quartz veinlets in the form of a stockwork and sheeted vein zone in the quartz diorite porphyry with strong sericitic alteration (Figure 7.14, Figure 7.15), shown on a map in Figure 9.12. The structural trend of the quartz veins is NW, dipping 75-85° NE. The veinlet density is 30-40 veinlets per meter. The veinlets are composed of quartz-pyrite-magnetite.

A zone of 0.1-0.5% molybdenite-chalcopyrite-bornite-covellite was mapped in El Muerto, EL Hospital and the Azucenal creeks (Figure 7.16, Figure 7.17). These sulfides are associated with sugary quartz veinlets in hornblendic quartz diorite porphyry with propylitic alteration. The principal veinlet trend is NE, dipping to SE.



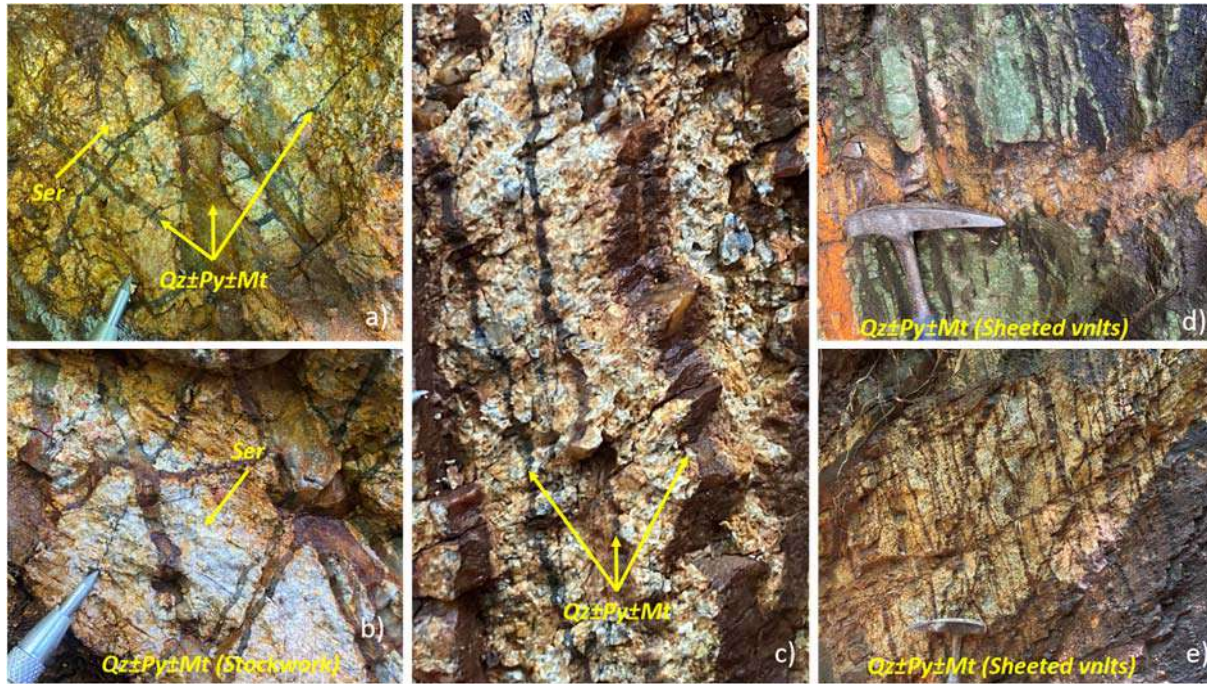


Figure 7.14 Sheeted veinlets of B, M and D-types, El Muerto Creek.

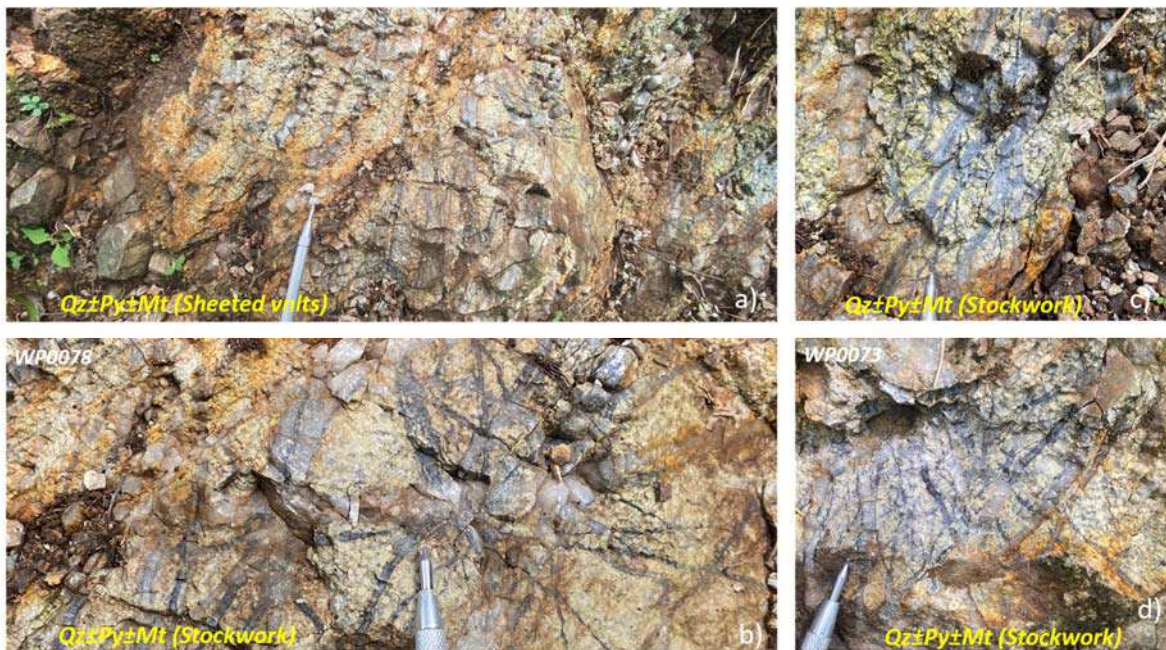


Figure 7.15 Stockwork of quartz veinlets. El Muerto Creek.





Figure 7.16 Veinlets of quartz-pyrite-chalcopyrite-molybdenite.

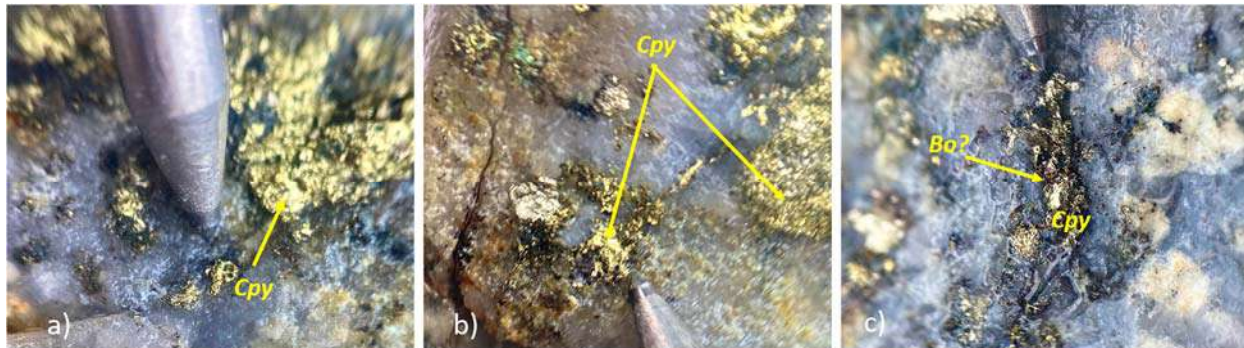


Figure 7.17 Quartz B veinlets with pyrite-molybdenite-bornite, El Hospital Creek.

In the south zone of the Dollar target, there is a medium density of quartz veinlets in El Hospital and Azucenal creeks, with 5-10 veinlets per meter in a sheeted vein array trending NE. The veinlets are composed of quartz-pyrite-molybdenite-chalcopyrite-bornite-covellite.

In the center zone, there is a low density of quartz veinlets in Campana, El Caney and Los Negros creeks, with 1-3 veinlets per meter in a sheeted veins array trending NW. The veinlets are composed of milky quartz-pyrite-sphalerite-galena-chalcopyrite.

### 7.3.3.3 Sericite-Illite-Smectite Alteration

Sericite-illite-smectite alteration is extensively developed within the medium grained diorite and occurs along Campana creek in the Pound Target in the north block, and around the central zone of quartz stockwork vein mineralization in the Dollar Target (Figure 7.18). In outcrop the altered rock is typically bleached, the biotites have been destroyed and the pyrite along fractures is oxidized to limonite. Epithermal veins with pyrite-sphalerite-galena-quartz-carbonate of 0.1 to 10 cm width outcrop in Campana and Papayal Creeks, and in drill holes PADDH-005, 017, 022, 023 and 024, associated with Au and Ag mineralization.

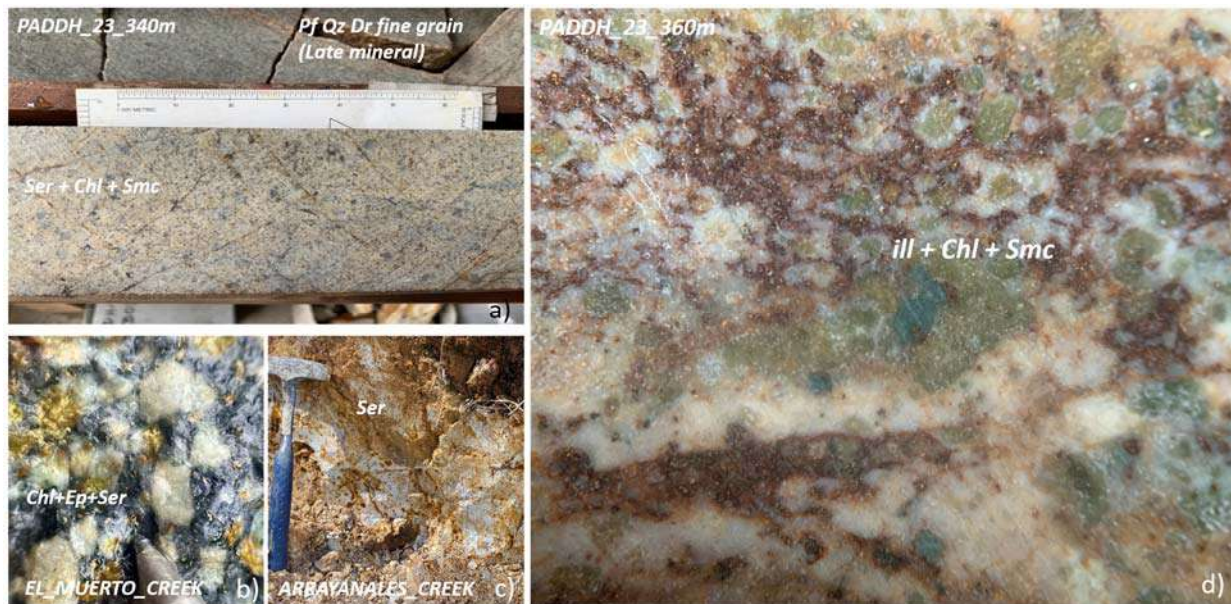


Figure 7.18 Sericite-illite-smectite alteration.

### 7.3.3.4 Advanced Argillic Alteration

Advanced argillic alteration occurs in the Pound Target in the north block in Campana and Los Negros creeks and La Estacion-Miraflores Road, with a NE trend. It affects the hydrothermal cemented breccias, with crackle and pebble textures, and the diorite host-rock. Petrography by Loaiza (2020) identified hydrothermal cemented breccias with pyrophyllite - dickite - kaolinite - corundum assemblages which grade transitionally at depth and laterally to sericite - illite - smectite alteration, with abundant pyrite, and locally tennantite, and veins with sphalerite - galena - stibnite, and specularite - hematite - gypsum.



### **7.3.3.5 Propylitic Alteration**

Propylitic alteration is observed in El Muerto, El Hospital and Azucenal creeks in the hornblende quartz diorite porphyry. This alteration is distributed in the eastern and western zones as halo to sericitic alteration.

### **7.3.3.6 Length, Width, Depth and Continuity of Mineralisation**

There is insufficient drilling so far to be able to quantify the length, width, depth and continuity of mineralisation at the San Antonio Project, which is an exploration-stage project for a bulk-mineable porphyry Au-Cu-Mo style deposit. Historical drilling has returned intersections that vary in length from 13.4 to 276.0 m with average grades of between 0.20 and 0.86 g/t Au and 1.06 to 22.15 g/t Ag (cut-off grade of 0.15 g/t Au; Table 6.4, Section 6.3.7). In addition, Collective Mining has defined three new drill targets (Section 9.9).

### **7.3.4 Conclusions**

At least two mineralized porphyry systems have been identified to date on the property: the Dollar Target stockwork zone in the centre of the license area and the Pound Target advanced argillic lithocap zone in the northern block. In addition, the COP target may overlie a concealed porphyry system. The targets are described in Section 9.9.

A porphyry system is exposed in the Dollar Target at El Muerto and El Hospital creeks and Piñoles hill. A quartz veinlet stockwork zone with pyrite and magnetite occurs. This is associated with sericite alteration that must overprint the former potassic alteration that was associated with the formation of the veinlets, and relics of potassic alteration are described. The zone is defined by a 5-10% pyrite envelope. Mineralisation is associated with diorite, quartz diorite porphyry and hydrothermal breccias. Zones of mineralization of quartz veinlets with pyrite, chalcopyrite, molybdenite, bornite and covellite, the latter probably supergene, occur within this.

The Pound Target in the north block is interpreted to be the root of the advanced argillic alteration lithocap of the porphyry with hydrothermal breccias and epithermal veins, down-faulted along an EW fault. A high temperature, deep pyrophyllite-dickite-corundum assemblage changes laterally to peripheral sericite-illite alteration. The south block is an uplifted block exposing the upper part of the porphyry system with the stockwork of quartz veinlets with pyrite, chalcopyrite and magnetite, and secondary biotite overprinted by phyllic alteration. It has anomalous surface geochemistry of Au, Cu and Mo.

The COP Target is located in the southern block and is defined by strong sericite altered diorite bodies in contact with chloritic schists and associated with soil anomalies for Au and Mo. The alteration and mineralisation may be related to a concealed, mineralised intrusion.

## 8 DEPOSIT TYPES

Alteration and mineralisation at the San Antonio Project are porphyry Au-Cu-Mo and epithermal Au-Ag-polymetallic style. The target is expected to be primary sulfides with no significant oxidation or enrichment.

Porphyry copper systems were reviewed by Sillitoe (2010) and a schematic deposit model is shown in Figure 8.1. Porphyry copper systems may contain porphyry Cu  $\pm$  Mo  $\pm$  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 alteration and mineralization in porphyry Cu 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  $\pm$  Au  $\pm$  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  $\pm$  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 alteration and mineralisation in the porphyry Cu deposits is zoned upward from barren, early sodic-calcic through potentially ore-grade potassic, chlorite-sericite, and sericitic, to advanced argillic, the last of these constituting the lithocaps, which may attain >1 km in thickness if unaffected by significant erosion. Low sulphidation-state chalcopyrite  $\pm$  bornite assemblages are characteristic of potassic zones, whereas higher sulphidation-state sulfides are generated progressively upwards as a result of temperature decline and the accompanying greater degrees of hydrolytic alteration, culminating in pyrite  $\pm$  enargite  $\pm$  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 at both the porphyry Cu and lithocap levels, mainly because many of them formed late in the evolution of systems.



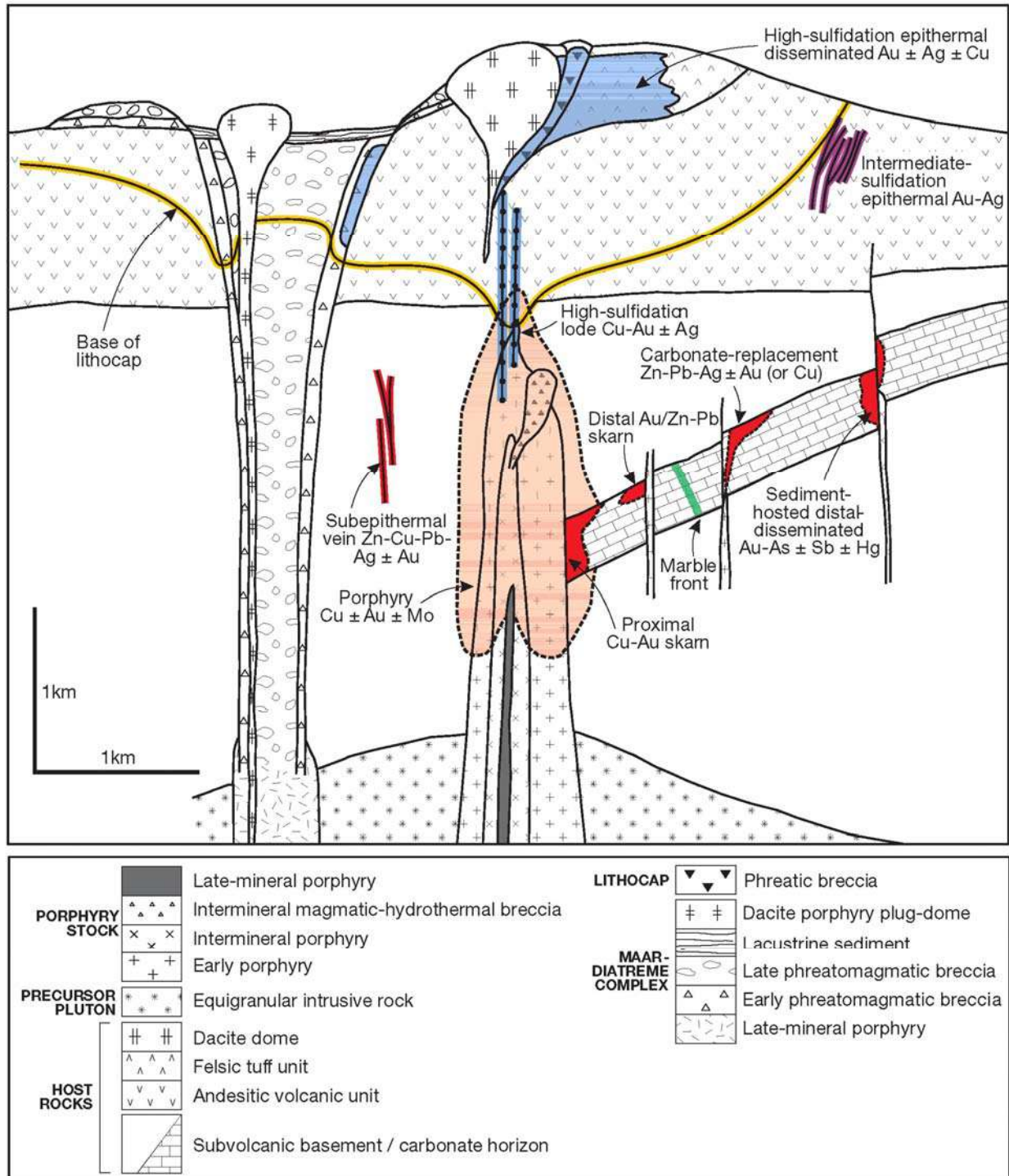


Figure 8.1 Porphyry system model (Sillitoe, 2010).

## 9 EXPLORATION

### 9.1 Exploration Summary

The exploration of the San Antonio 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 9.1. The work consisted of geological mapping, rock sampling, relogging of 16 drill holes, reprocessing of the magnetic survey, and a LIDAR survey. The significant results and interpretation of this information, combined with compilation and re-interpretation of the legacy data led to the definition of three porphyry/breccia targets that are described in Section 9.9.

Year	Company	Survey	Contractor	Units	Number
2020	Collective Mining	Rock sampling	None	samples	226
		Core relogging 16 holes	None	meters	5,523.00
		Geological mapping	None	km <sup>2</sup>	16.60
		Magnetic 3D MVI (Magnetisation Vector Inversion) modelling	Arce Geophysics	line km	59.15
		LIDAR survey (DEM, 1 m contours)		km <sup>2</sup>	30.22

**Table 9.1 Summary of exploration carried out by Collective Mining at the San Antonio Project.**

### 9.2 Topographical Surveys and Grids

Collective Mining carried out a LIDAR survey of the concession in 2020 to create a digital terrain model (DTM), a digital surface model (DSM) and a topographic map with 1 m contours.

### 9.3 Geological Mapping

Collective Mining carried out geological mapping of the concession and targets in 2020, as well as reviewing and compiling previous mapping, as reported in weekly reports, summary reports and other reports (e.g. Marino, 2020). The results are described in Section 7.3 and the targets in Section 9.9.

### 9.4 Petrography

Collective Mining has not carried out petrography as of the effective date of this technical report.

## **9.5 Stream Sediment Geochemistry**

Collective Mining has not carried out stream sediment sampling as of the effective date of this technical report.

## **9.6 Soil Geochemistry**

Collective Mining has not carried out any soil sampling of the project as of the effective date of this technical report.

## **9.7 Rock Geochemistry**

Collective Mining took 226 rock samples in 2020. 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 were marked with paint in lengths of 2.00 m and a continuous sample was taken using a hammer and chisel. The broken rock was collected on a plastic sheet and then placed in a sample bag that was numbered and sealed. Rock chip samples were taken in a similar manner but by taking a rock chip every approximately 10 cm, rather than a continuous channel. A sample description card was completed in the field for each sample with the location and description. Plots of the combined legacy and Collective Mining rock geochemistry for Au, Ag, Mo and Pb are shown in Figure 9.1 to Figure 9.4.

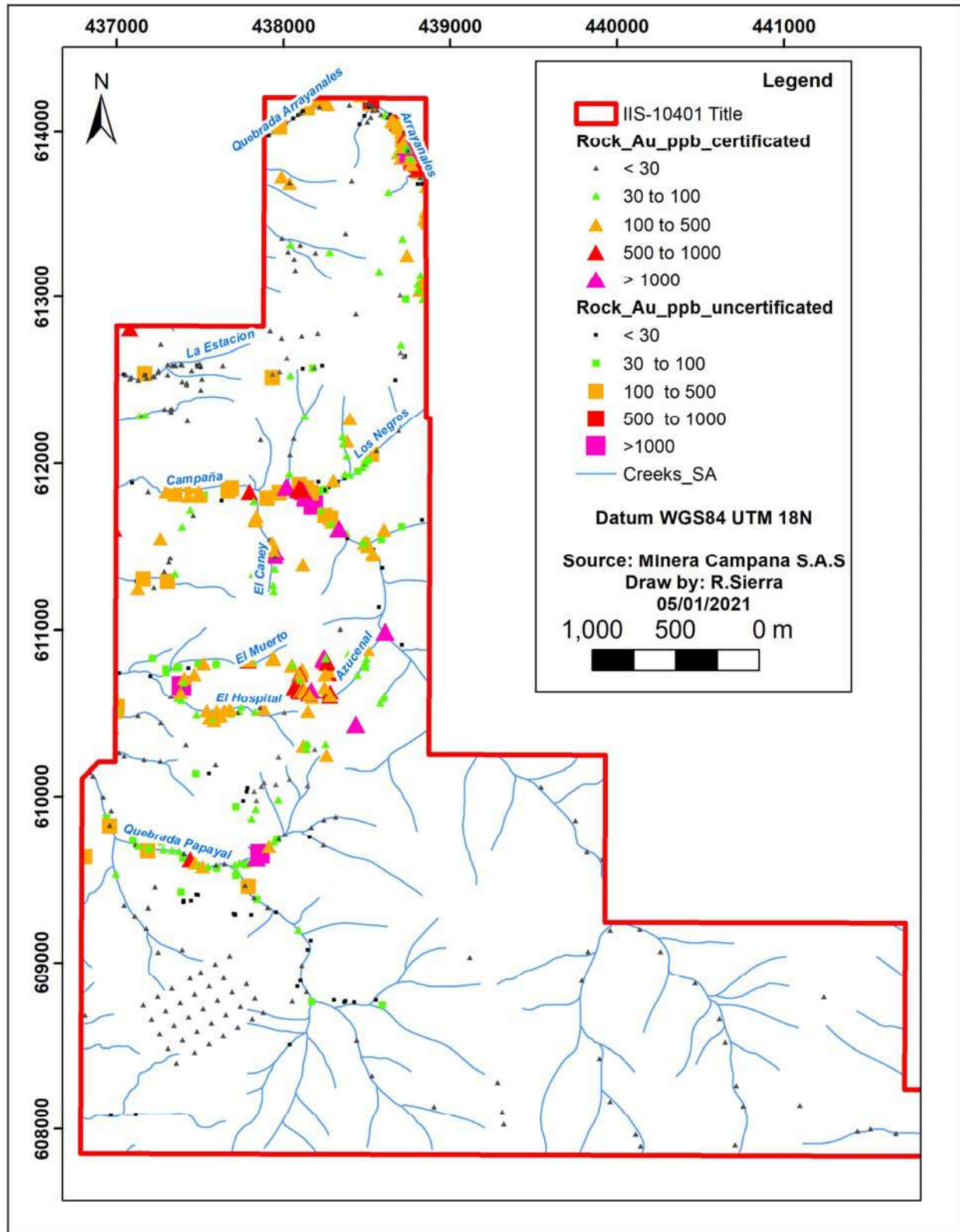


Figure 9.1 Rock geochemistry for Au.

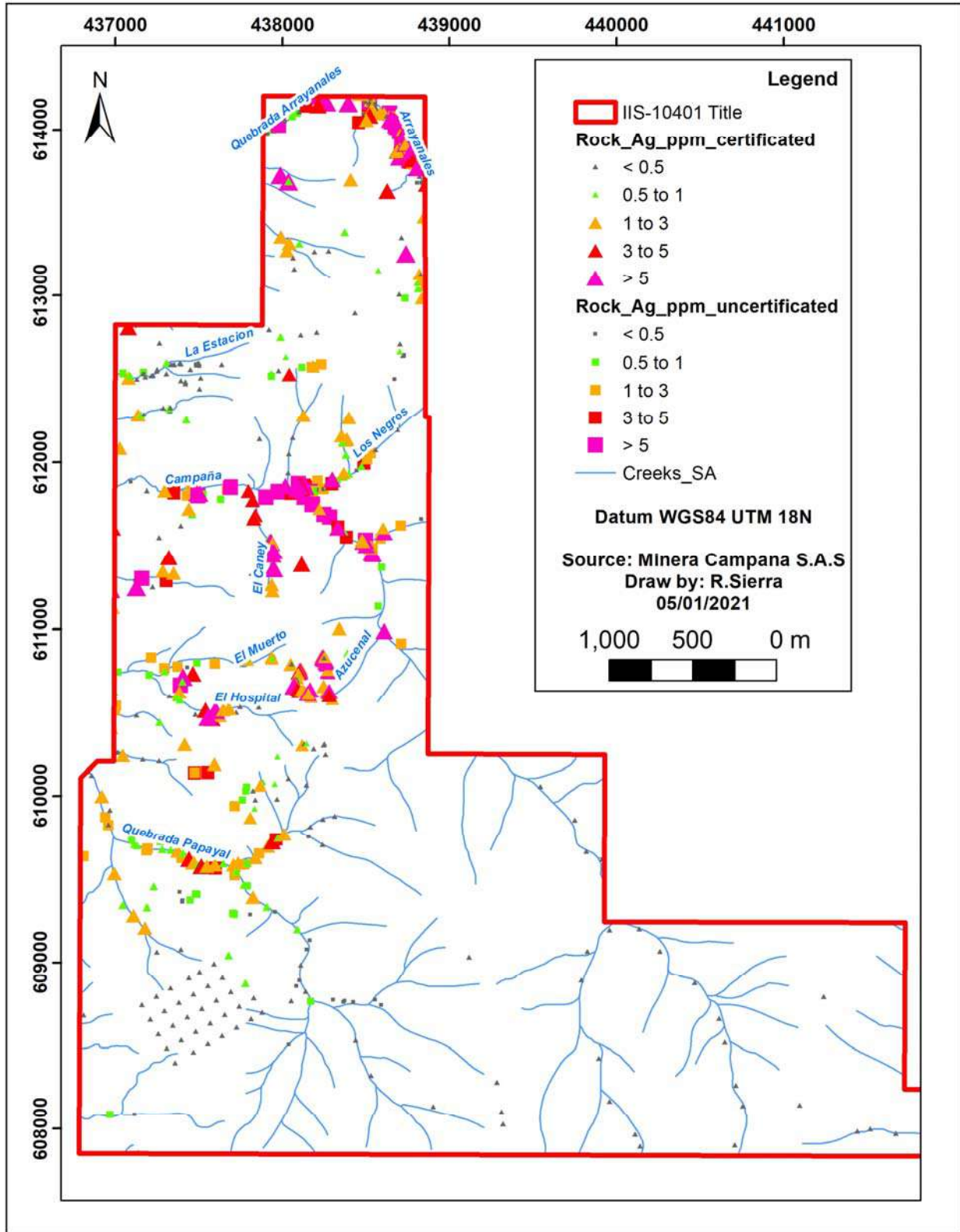


Figure 9.2 Rock geochemistry for Ag.



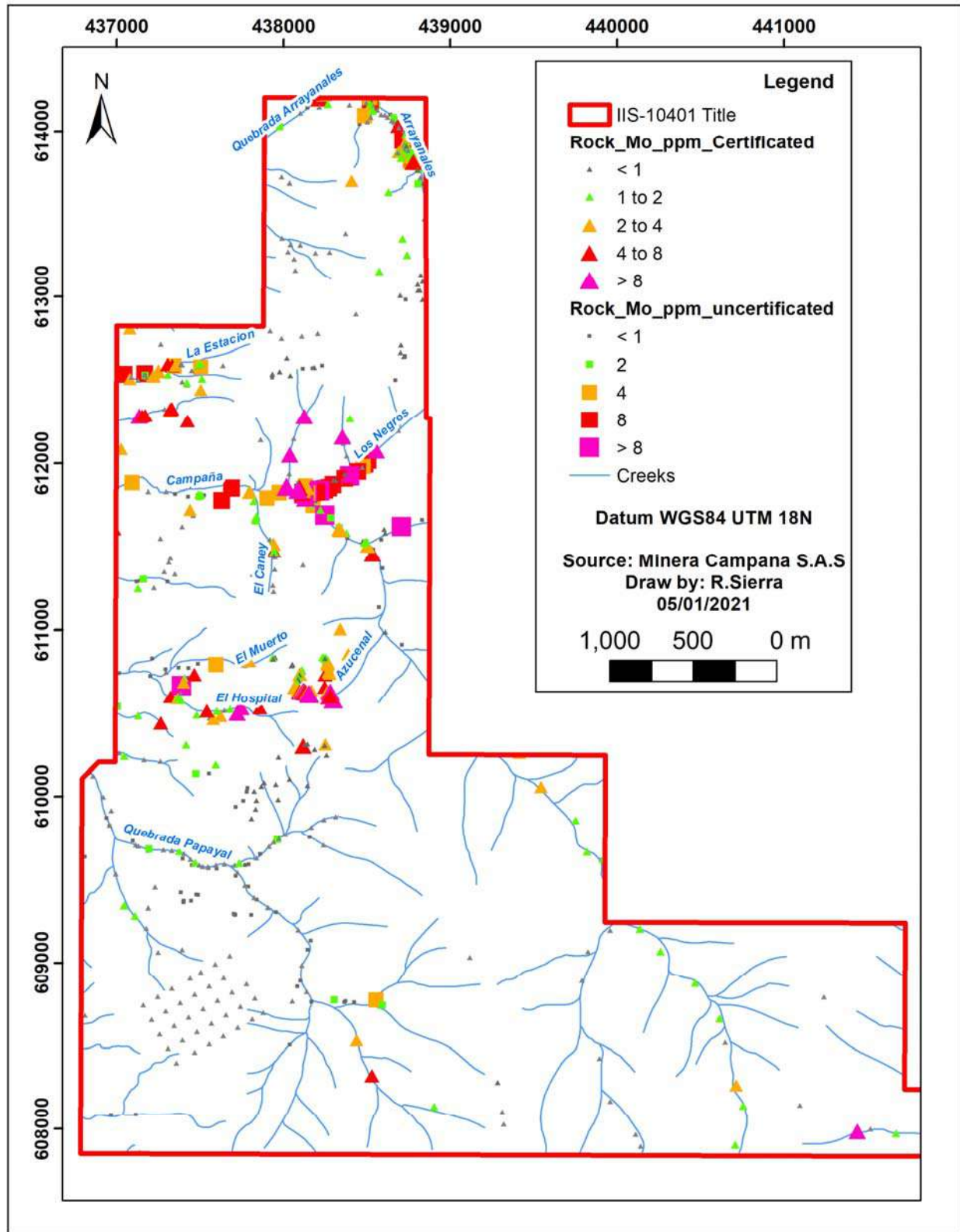


Figure 9.3 Rock geochemistry for Mo.

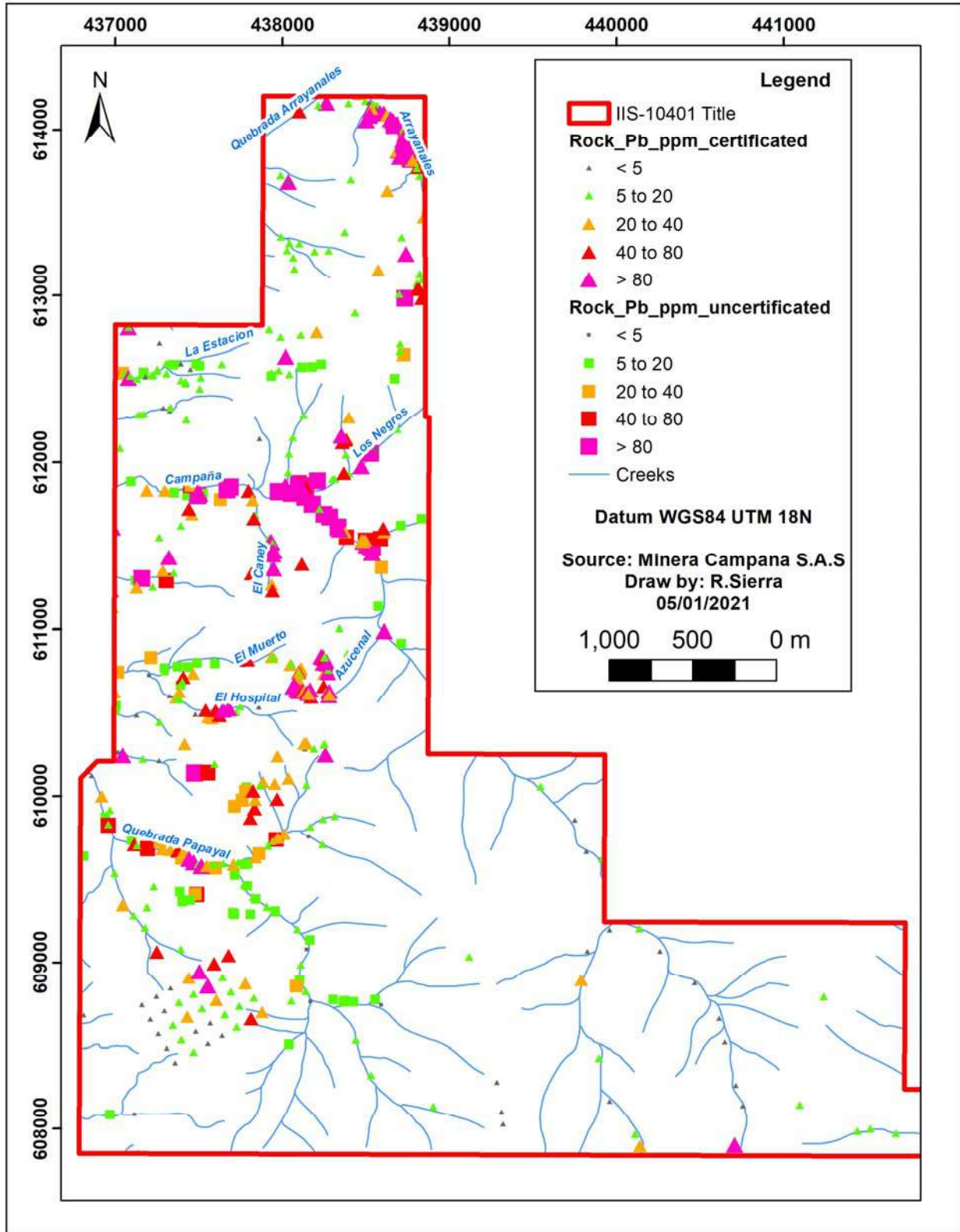


Figure 9.4 Rock geochemistry for Pb.

## 9.8 Geophysics

Collective Mining has not carried out any geophysical surveys as of the effective date of this technical report. The company contracted Arce Geophysics to reprocess the historical magnetic data and carry out three-dimensional magnetisation vector inversion (MVI) modelling, as shown in Figure 9.5 to Figure 9.7.

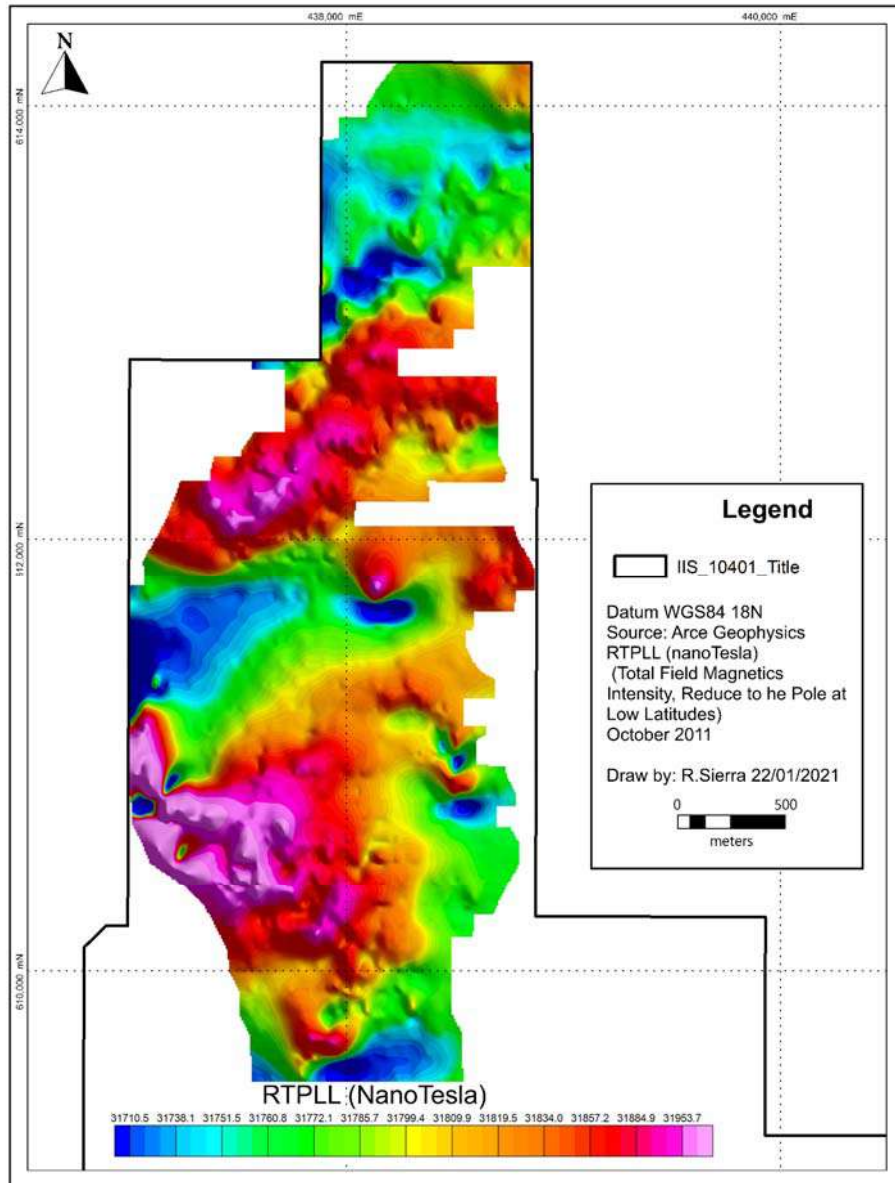


Figure 9.5 Total magnetic intensity map reduced to the pole.



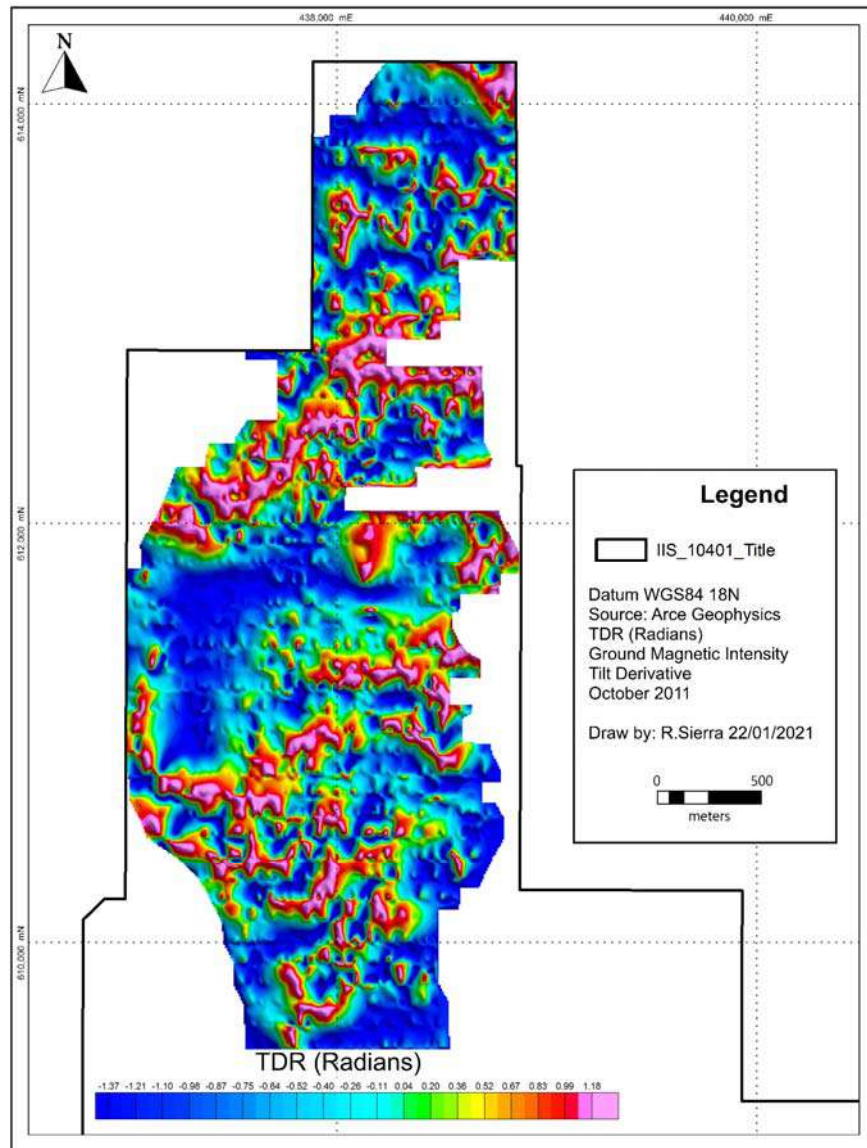
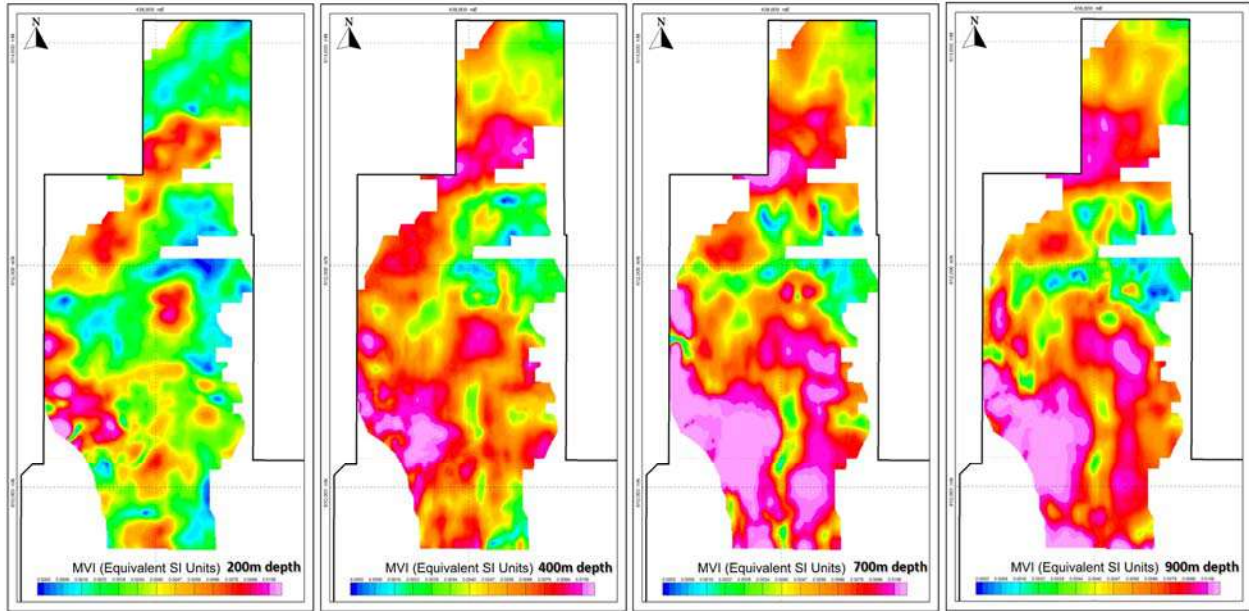


Figure 9.6 Total field magnetic intensity, tilt derivate (TDR)



MVI (Three-Dimensional Modeling), Ground Magnetometer Survey. Amplitude of magnetization to slices from left to right, at -200m, -400m, -700m and -900m

**Figure 9.7** Ground magnetometer survey, three dimensional MVI modelling depth slices from left to right, at -200 m, -400 m, -700 m and - 900 m.

## 9.9 Significant Results and Interpretation to Generate Drill Targets

Collective Mining has identified three drill targets that are shown in Figure 9.8 to Figure 9.10 based on the significant results and interpretation of both the legacy exploration information and the Collective Mining exploration information. The targets are described in this section.

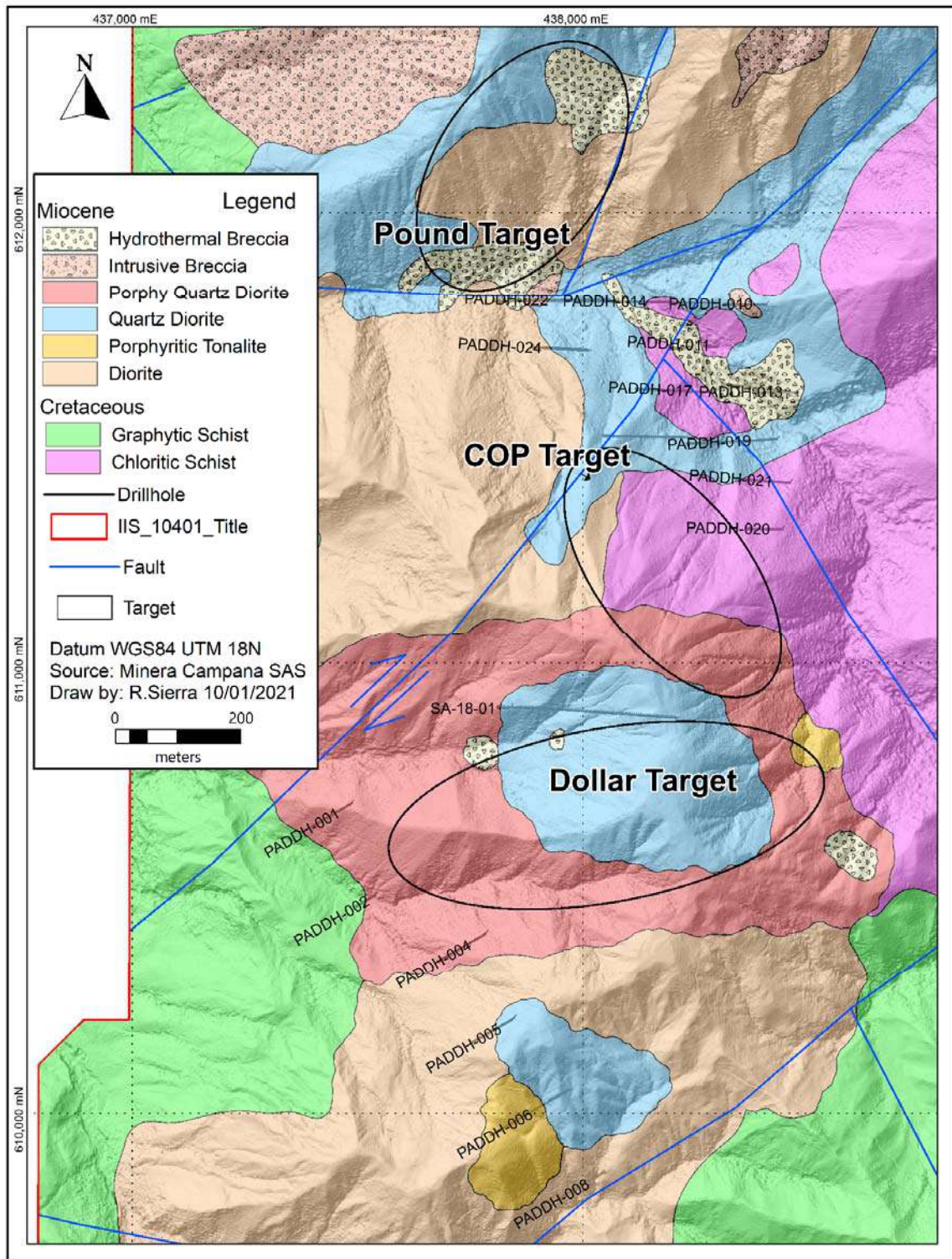


Figure 9.8 Target map showing geology and legacy drill holes.



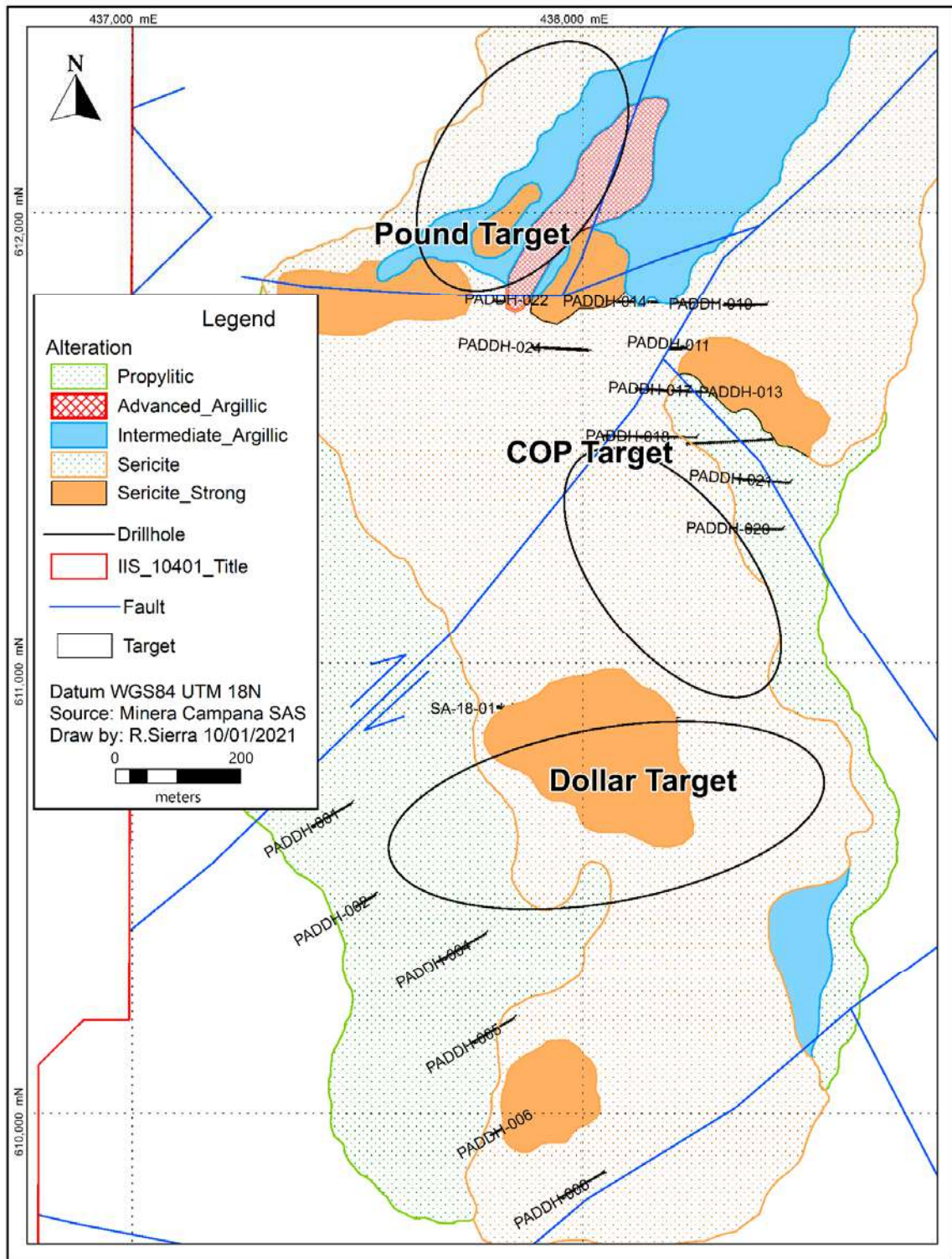


Figure 9.9 Alteration target map with legacy drill holes.

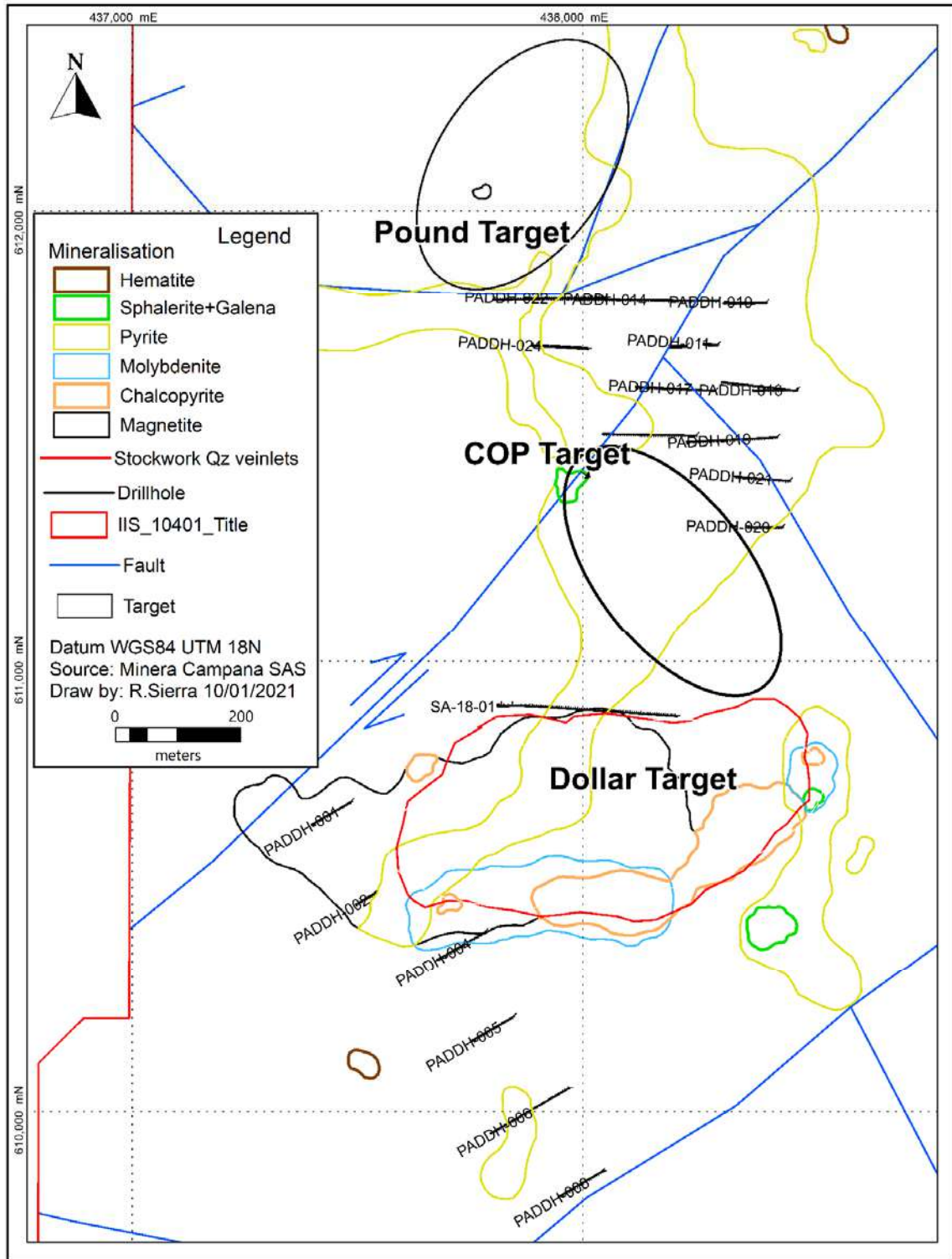


Figure 9.10 Mineralisation map with legacy drill holes.



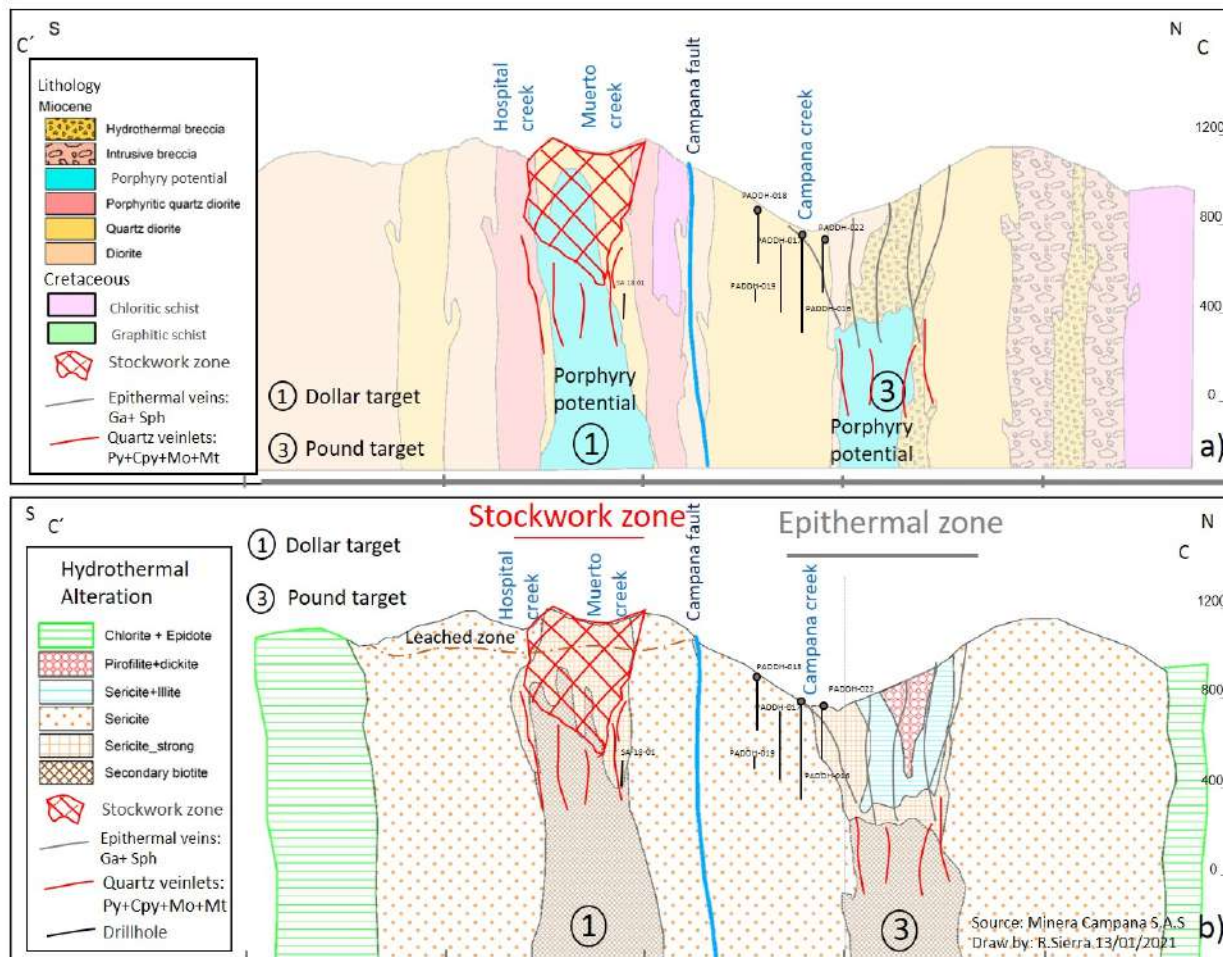


Figure 9.11 Long section C'-C looking west showing the Dollar and Pound Targets with a) Lithology and b) alteration and mineralisation.

### 9.9.1 Dollar Target

The Dollar Target is a porphyry Au-Cu target located on El Muerto-El Hospital creeks and Piñones hill in the south-central area (Figure 9.8, Figure 9.11). Intrusion of diorite, quartz diorite and tonalite porphyries cover an area of 1.2 km x 0.75 km. The host rock is a quartz diorite porphyry. An area of 570 m by 430 m hosts a high density stockwork of quartz B type veinlets that are overprinted by phyllic alteration with D veinlets of quartz-hematite within a sericitic halo (Figure 9.12). The iron oxides are derived from the oxidation of chalcopyrite, pyrite and magnetite. In the western part in El Muerto and El Hospital creeks, 300 m vertically below this exposure, there are high densities of B and M type veinlets of quartz – magnetite – chalcopyrite – molybdenite that trend NW and dip 75-85° NE and SW, and NE trending veins dipping 60-70° SE and NW. Disseminated chalcopyrite – pyrite and minor hydrothermal breccias with sulphide cement are also found in the creeks.

Surface rock channel values from Collective Mining sampling are 0.01 to 3.04 ppm Au with an average of 0.26 ppm (n=134) (Figure 9.14), 0.1 to >100 ppm Ag with an average of 5.5 ppm Ag (n=111), 1.9 – 469.0 ppm Cu with an average of 52.8 ppm Cu (n=111), and 0.1 – 17.3 ppm Mo with an average of 2.5 ppm Mo (n=111).

Soil sample values from historical sampling are <0.005 to 0.585 ppm Au with an average of 0.157 ppm Au (n=89) (Figure 9.14), 0.23 to 7.14 ppm Ag with an average of 1.46 ppm Ag (n=48), 3.5 – 368 ppm Cu with an average of 51.6 ppm Cu (n=47), and 0.15 – 97.7 ppm Mo with an average of 9.31 ppm Mo (n=47).

Surface gold and copper values in rock are interpreted to have leached or reduced due to the sericitic alteration overprint, and possibly by supergene oxidation to goethite, jarosite and hematite.

The Mineros Phase 1 drill programme of 9 holes was located on the southwestern side of this target area and tested epithermal veins but not the porphyry target (Figure 9.12). The Rugby drill hole SA-18-01 tested a magnetic high anomaly, but it was drilled north of the stockwork vein zone and did not intersect it. The magnetic inversion carried out by Collective Mining puts the magnetic high in a different position further to the west of the modelling undertaken by Rugby. The hole intersected 100.0 m from 605.0 m grading 0.44 g/t Au and 4.76 g/t Ag (0.50 g/t AuEq) with 0.034% Cu. This is related to an inter-mineral diorite and schists with potassic alteration (biotite, K-feldspar, magnetite) and sodic-calcic alteration (albite-epidote) with sparse AB veinlets of quartz-K feldspar-magnetite halo, B veinlets of quartz-K feldspar-magnetite with chalcopyrite and pyrite, and later D pyrite veinlets and crackle breccias with a sericite halo.

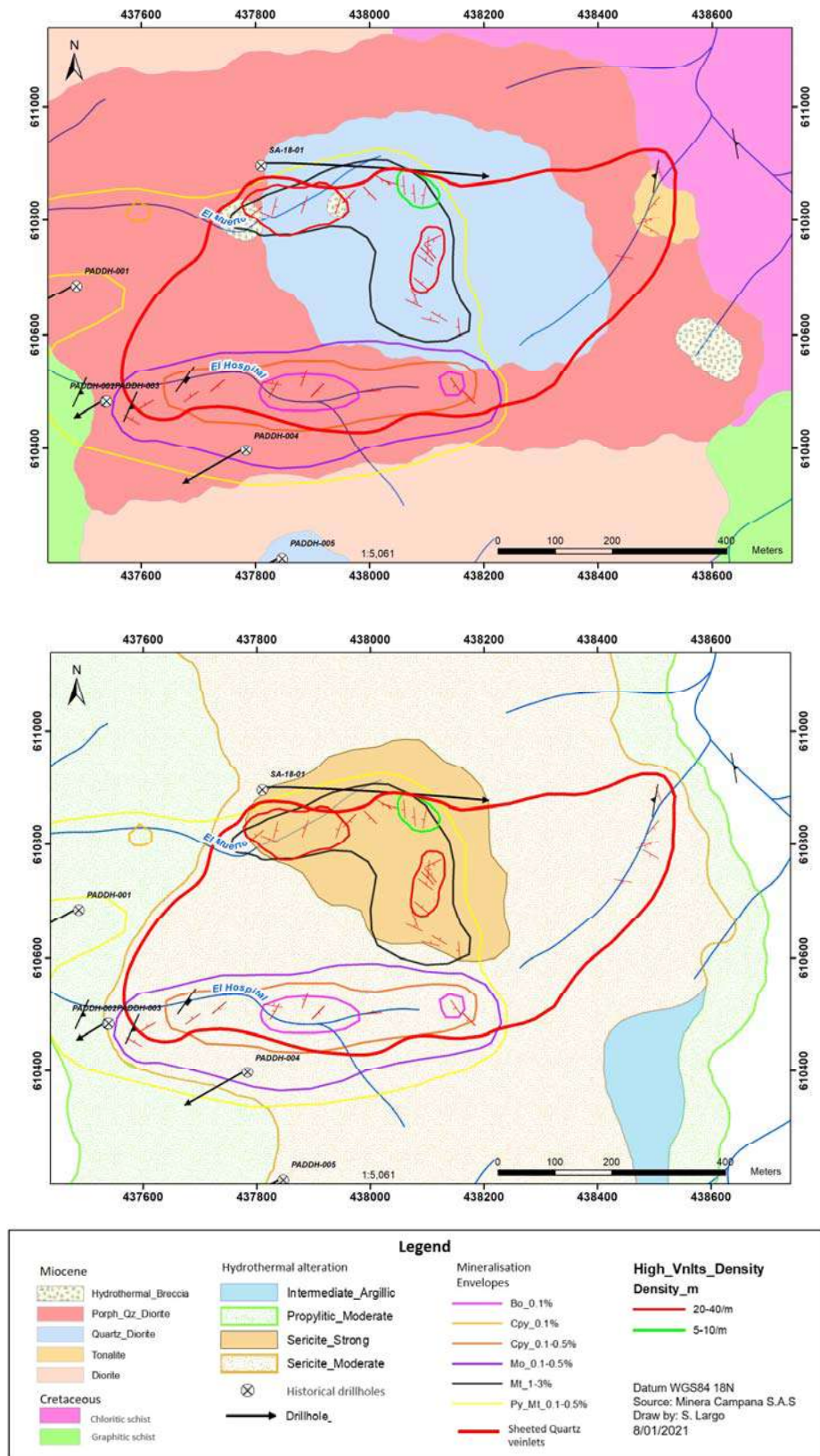


Figure 9.12 Geological and alteration-mineralisation maps of the Dollar Target.



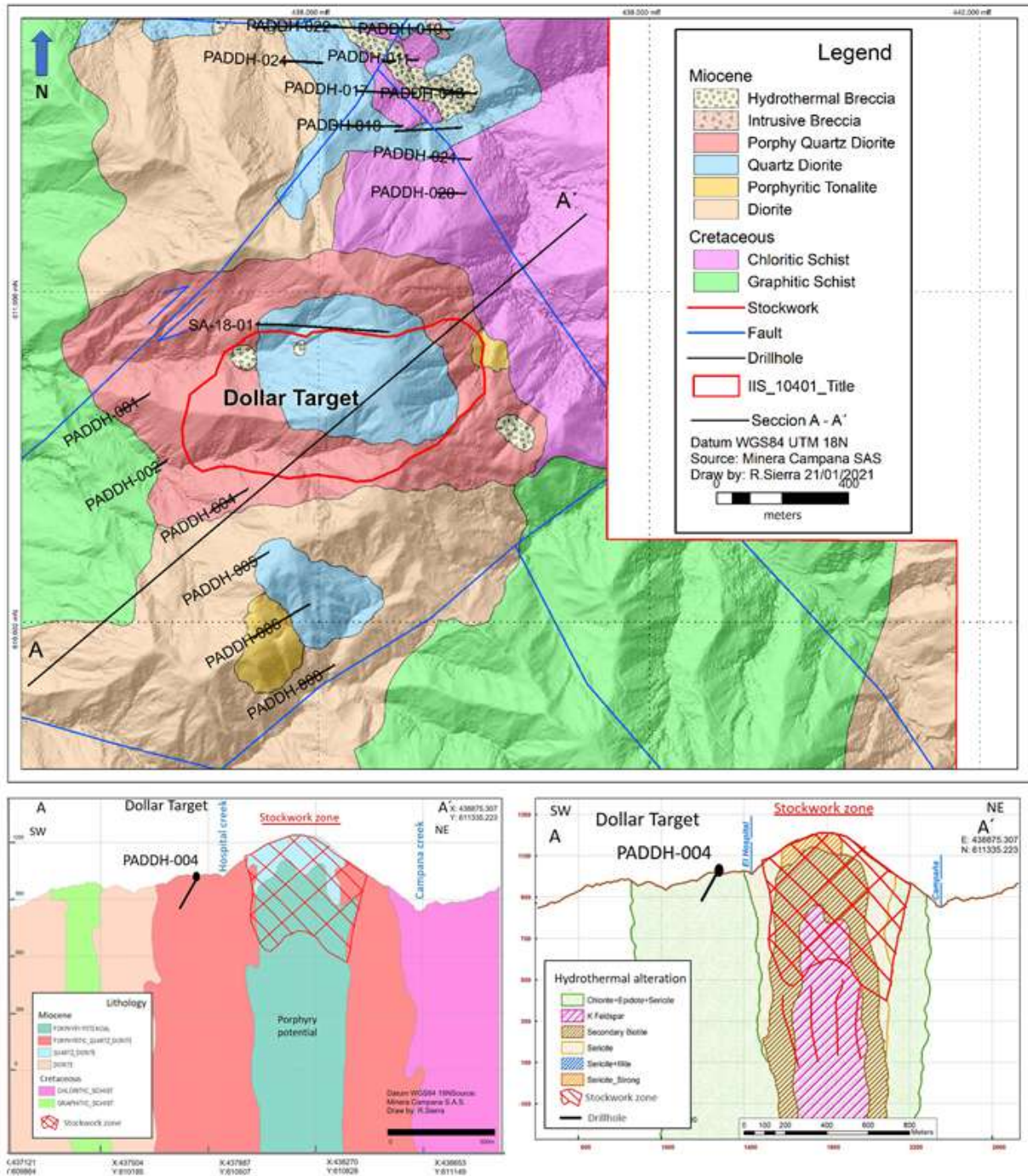


Figure 9.13 Geology and section A-A' of the Dollar Target.



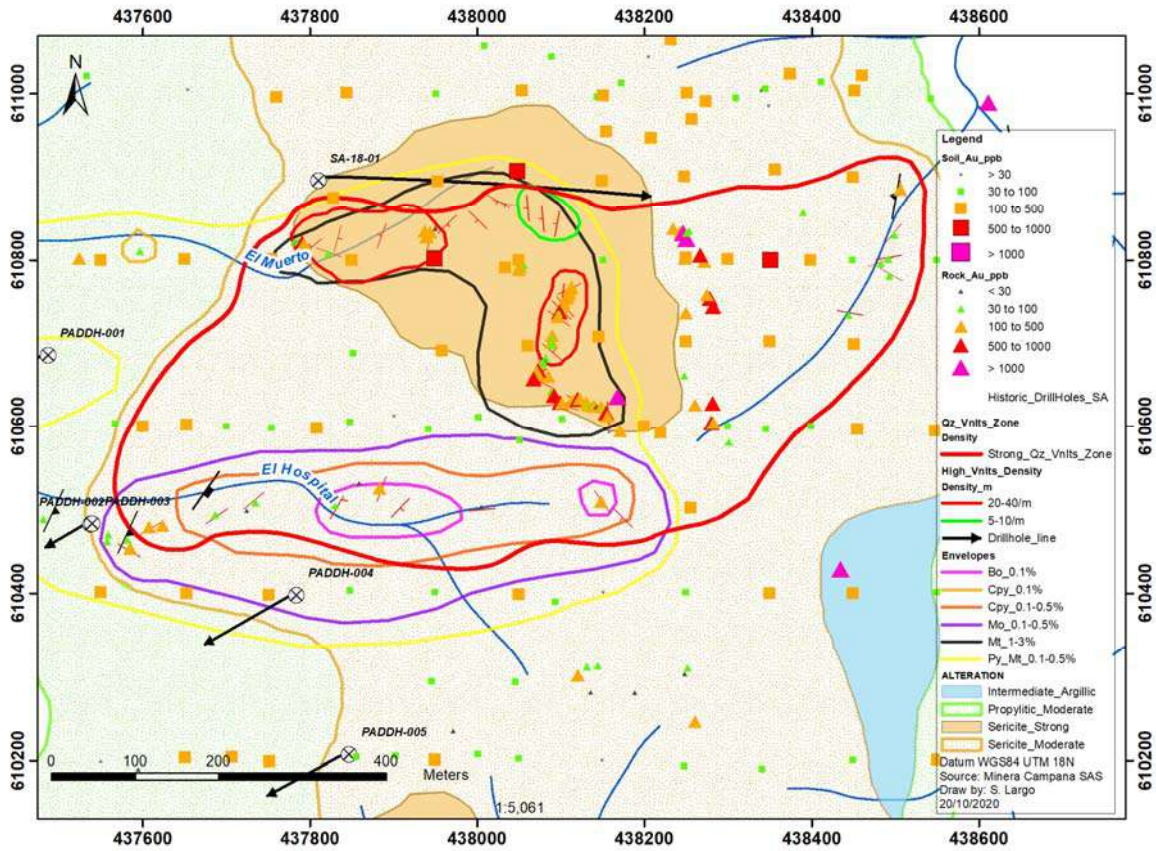


Figure 9.14 Rock and soil geochemistry for Au at the Dollar Target.

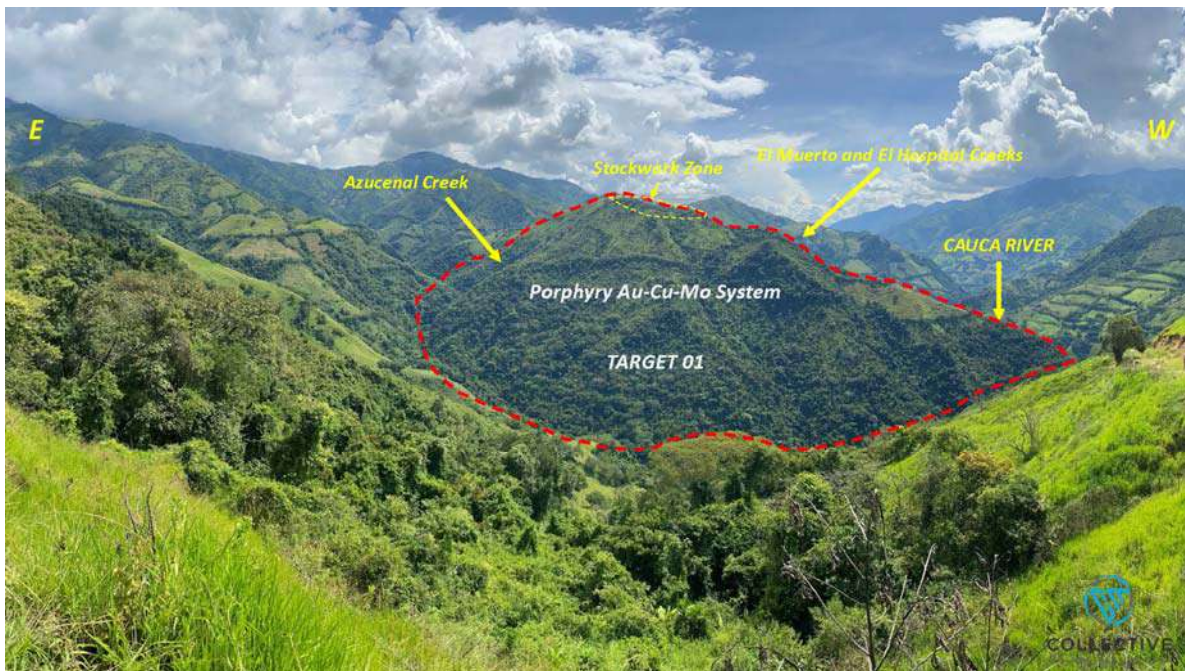


Figure 9.15 View of the Dollar Target looking south.



### 9.9.2 COP Target

The COP Target is located in the southern block and is defined by strong sericite altered diorite bodies in contact with chloritic schists in association with soil anomalies for gold and molybdenum over an area of 650 m by 350 m at surface (Figure 9.16, Figure 9.17). This anomalous zone is coincident with geophysical anomalies at 200 m depth of a magnetic high and IP chargeability and resistivity high signatures (Figure 9.18). The coincident soil anomalies include molybdenum values ranging from 1 ppm to 107.5 ppm (average 12.4 ppm, 38 samples) and gold values ranging from 0.0027 g/t to 2.74 g/t (Figure 6.1 to Figure 9.4). The surface soil and alteration observations are postulated to be fluid leakage from a concealed, mineralised intrusion. This target was not tested by the historical drill programmes.

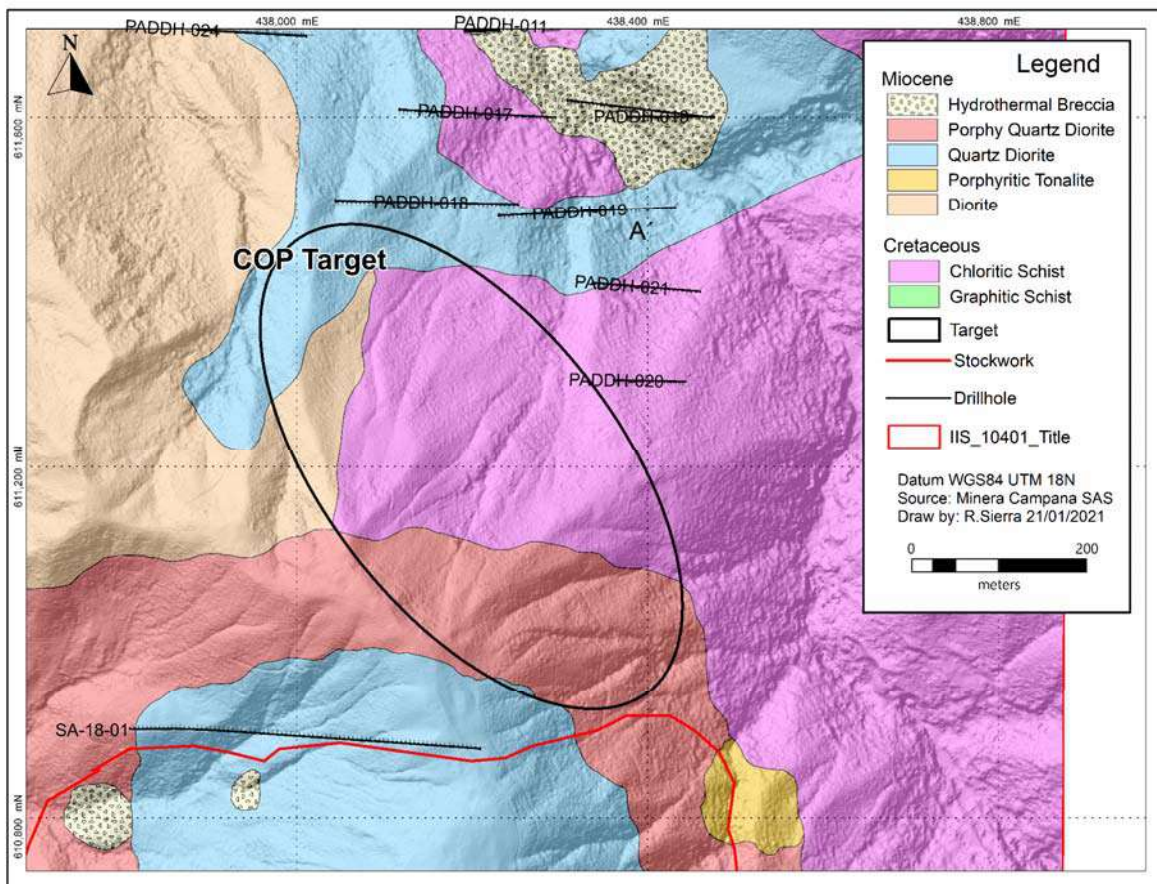


Figure 9.16 Geology of the COP Target.

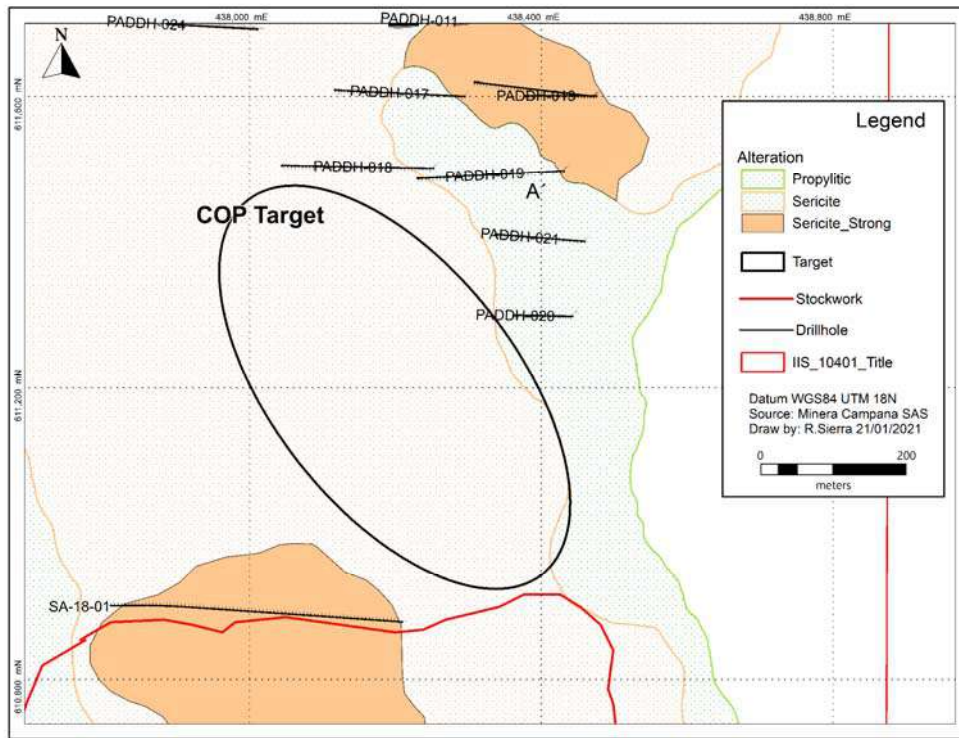


Figure 9.17 Alteration of the COP Target.

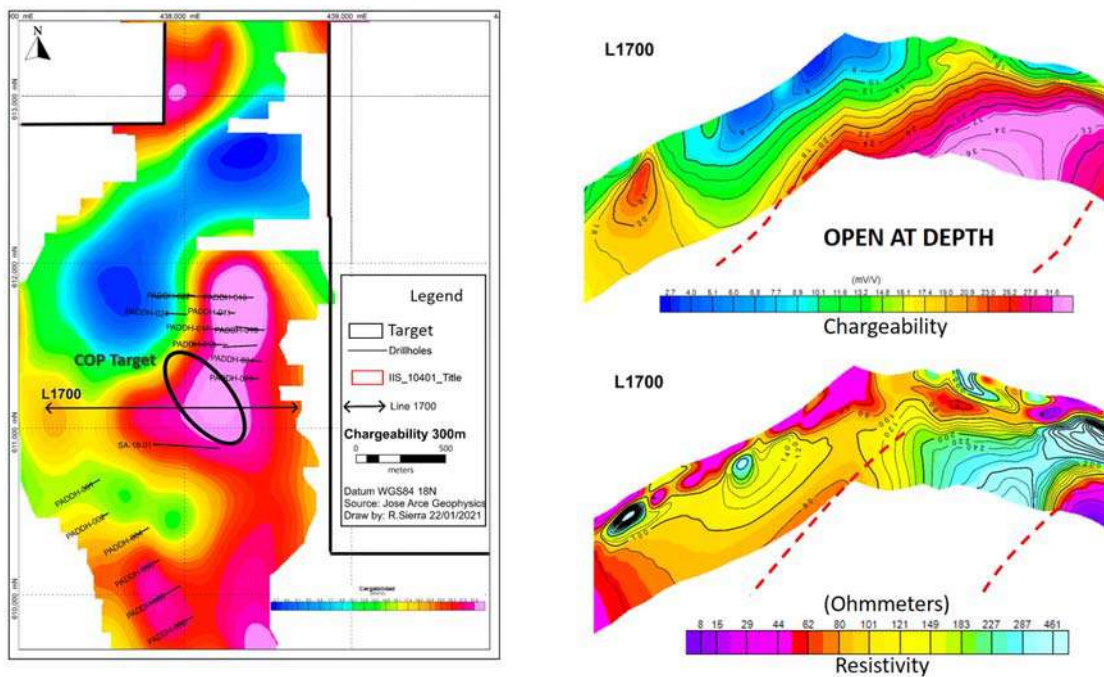


Figure 9.18 The COP Target chargeability anomaly at -300 m, and sections on line 1700 showing the chargeability and resistivity open at depth.

### 9.9.3 Pound Target

The Pound Target in the Northern block is defined by a NE trending area of 620 m by 375m hosting intermediate argillic and advanced argillic alteration of intrusion breccias, hydrothermal breccias and diorite intrusive bodies (Figure 9.19 to Figure 9.21) and a molybdenum soil anomaly (range 0.09 ppm to 11 ppm, average 3.3 ppm, 36 samples) (Figure 6.1 to Figure 9.4). The hydrothermal cemented breccia has a sericite and pyrite matrix with intrusive clasts and cross cuts the diorite bodies. The hydrothermal cemented breccias are overprinted by pyrophyllite - dickite - kaolinite – corundum assemblages which grade transitionally downwards and horizontally to sericite - illite – chlorite - smectite alteration. Late-stage epithermal veins and crackle breccias, generally with an W-E strike, are composed of quartz, sphalerite, galena, tennantite, pyrite, chalcopyrite, stibnite, gypsum, ankerite and calcite. Historical drilling on the southern periphery of this target area returned drill intercepts of 276.0 m grading 0.41 g/t Au and 6.74 g/t Ag (0.50 g/t AuEq; PADDH-023), 54.0 m grading 0.86 g/t Au and 9.67 g/t Ag (0.99 g/t AuEq; PADDH-023), and 50.4 m grading 0.67 g/t Au and 11.7 g/t Ag (0.82 g/t AuEq; PADDH-024) from hydrothermal breccia bodies associated with quartz diorite porphyry and polymetallic veins. Alteration assemblages at surface demonstrate a locus within the lower portion of the advanced argillic lithocap which grades laterally and downwards into intermediate argillic alteration assemblages. The target is a porphyry postulated to occur below the lithocap.



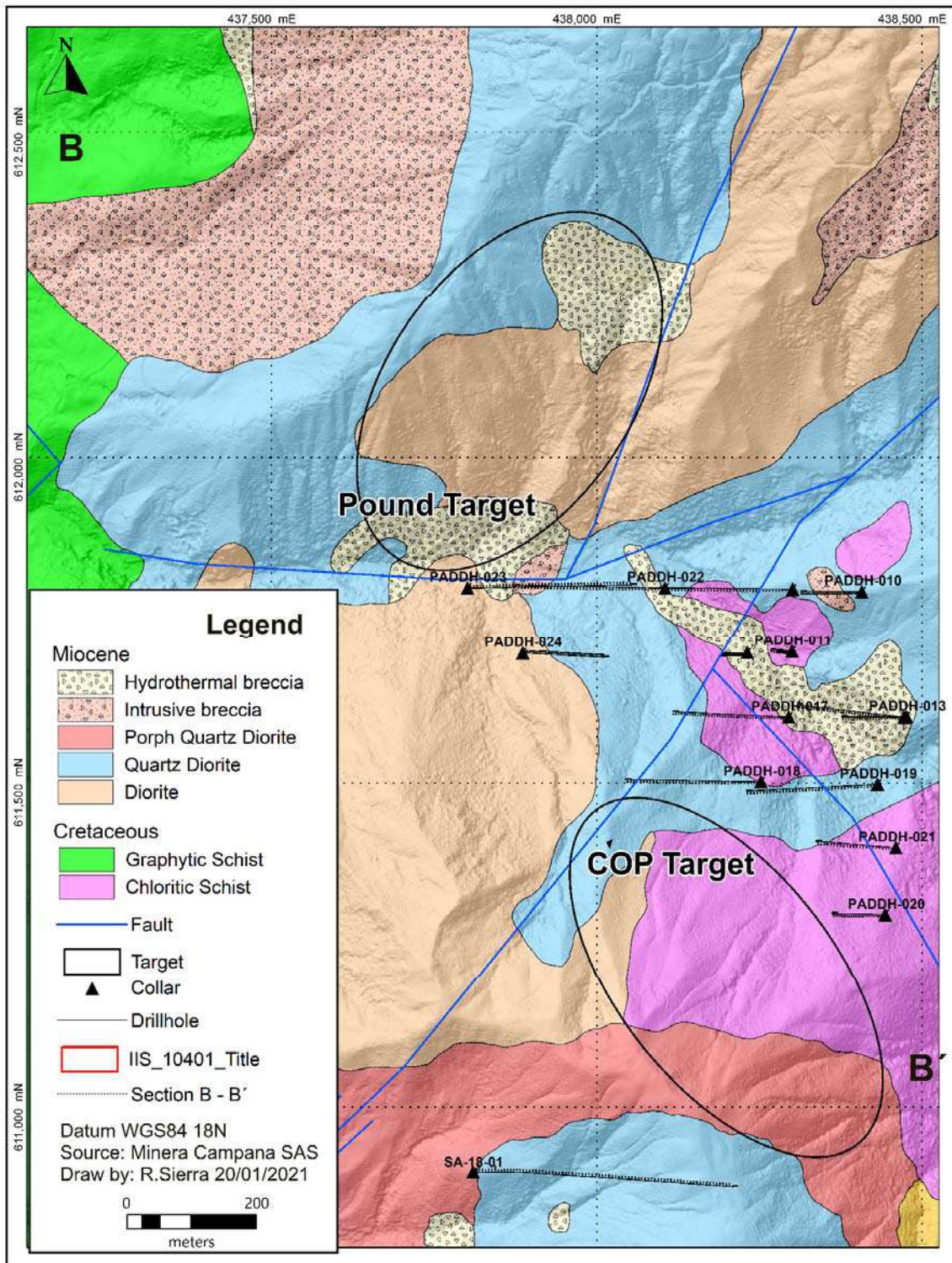


Figure 9.19 The geology of the Pound Target.

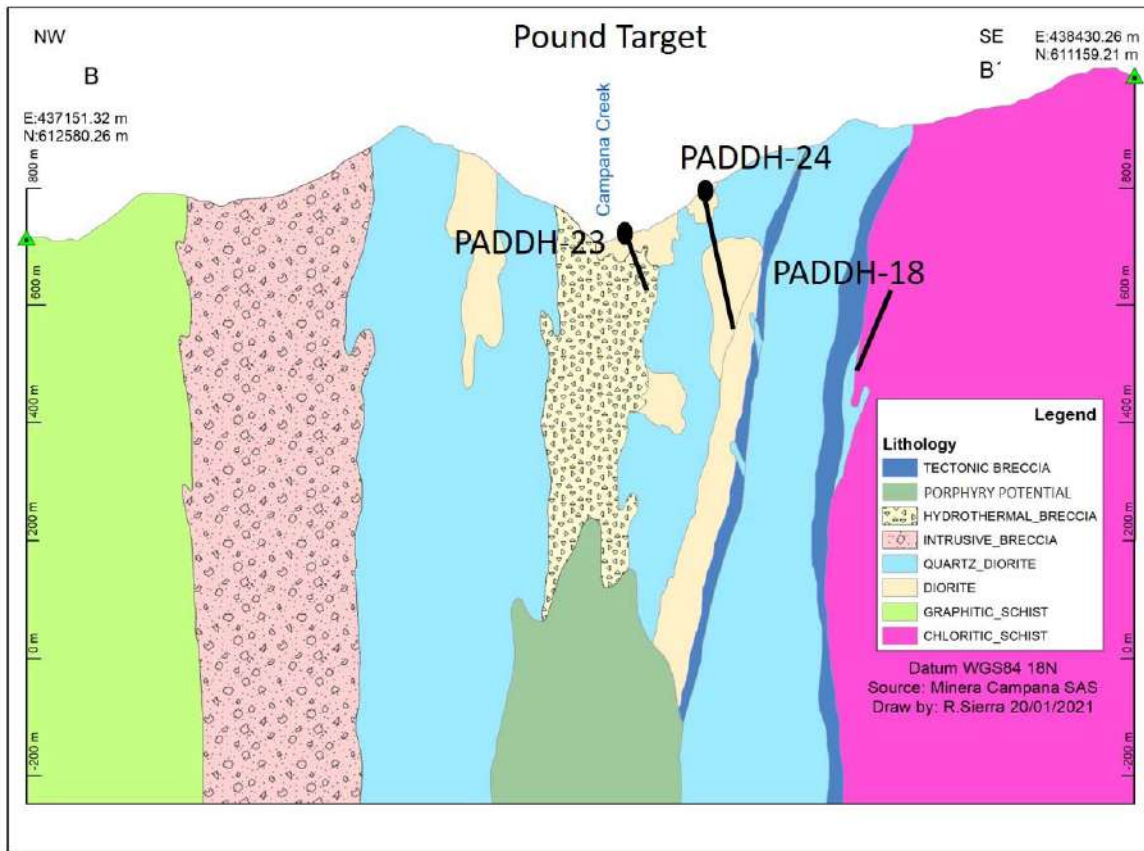


Figure 9.20 Geological cross section B-B' looking NE of the Pound Target.

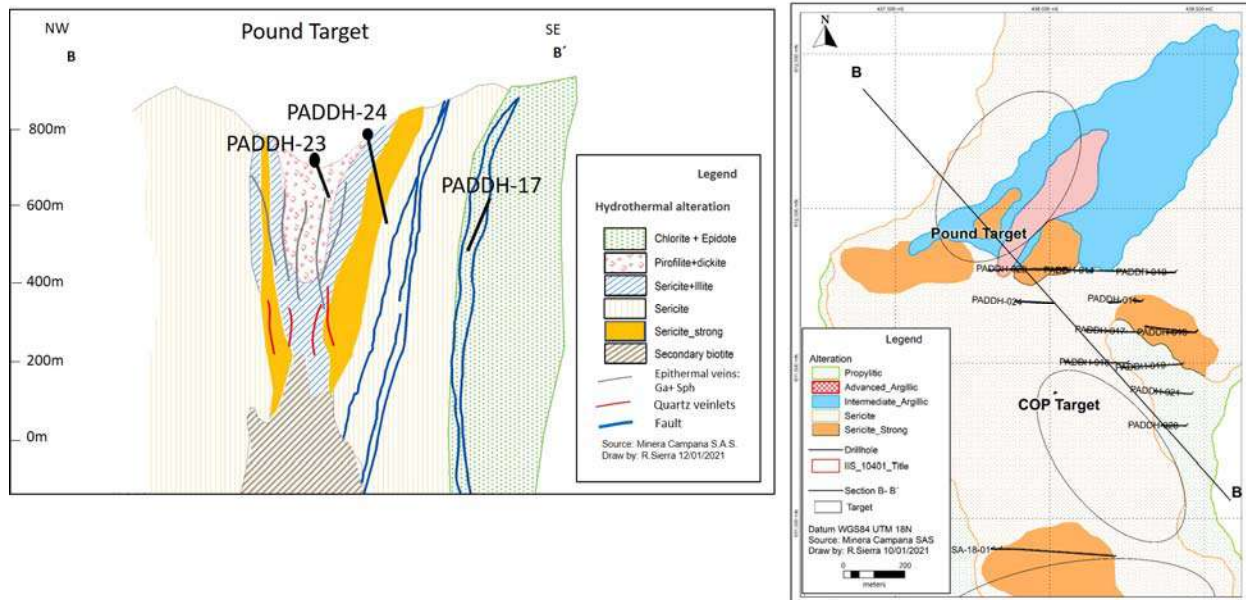


Figure 9.21 Cross section B-B' and map of alteration of the Pound Target.



## **9.10 Comments on Section 9**

Collective Mining reconstructed the database of legacy sampling based on laboratory certificates and inherited databases. The sampling protocols are not known but the sampling was carried out by known companies and is believed to have been done using standard industry procedures. Some of the laboratory certificates have been lost, in particular for soil samples. Despite these shortcomings, the samples are considered to be adequate for the purpose of planning future exploration, particularly as new rock sampling is carried out in areas of interest by Collective Mining in order to confirm the legacy results. 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. There are no factors in legacy samples, so far as can be determined, or the Collective Mining sampling that could have resulted in sample bias.

## **10 DRILLING**

Collective Mining has not carried out any drilling at the San Antonio Project as of the effective date of this Technical Report.

## 11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

### 11.1 Sample Preparation, Analysis and Security

The 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 by the parent company Activation Laboratories Ltd., Ancaster, Ontario, certified to ISO/IEC 17025 (Actlabs), using the methods shown in Table 11.1. Actlabs is independent of Collective Mining and POCML5.

Company	Laboratory	Method	Code	Procedure
Collective Mining	Actlabs, Medellin and Ancaster, Ontario	Preparation rocks	RX1	Dry, crush to >80% passing 2 mm, riffle split 250 g, and pulverise to >95% passing 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	UT-4M	42 elements by multiacid digestion, ICP-MS

**Table 11.1 Summary of the sample preparation and analyses methods of the Collective Mining samples.**

Collective Mining has a written protocol for sample security and chain of custody for all types of samples including stream sediment samples, soil samples, rock samples, mine samples and drill core, which is summarised as follows:

1. The stream sediment samples, soil samples, rock samples and mine samples are collected in the field by Collective Mining field assistants under the supervision and responsibility of a geologist.
2. The surface samples are transported by a Collective Mining driver and pick-up truck to the field camp or core logging facility where they are stored temporarily in a secure room.
3. Collective Mining takes custody of the core at the drill platform as soon as it is extracted from the core barrel under the supervision of a Collective Mining technical assistant.
4. The core boxes are taken from the drill platform to the nearest road by Collective Mining helpers and is guarded by the chief helper with a signed list of boxes.
5. The core boxes and box list are handed over to a Collective Mining driver and are transported by a company pick-up truck to the core logging and core store facility, where they are handed over to the geologist in charge.
6. The Collective Mining core store supervisor is responsible for the samples in the core store.
7. QAQC samples are inserted by the geologist responsible for QAQC who fills in a QAQC Surface Sample Sheet for surface samples or a QAQC Sample Sheet for core samples as

- appropriate, as well as a Laboratory Sample Sheet and a Laboratory Work Order. The samples are revised before packing.
8. The samples are packed into nylon sacks (maximum weight 20 kg) that are sealed with numbered plastic security tags and numbered.
  9. The samples are sent by company vehicle and driver with a security guard to the company exploration office in Medellin where the paperwork is revised by the QAQC Coordinator who signs the laboratory work order.
  10. The company driver takes the samples in the company vehicle to the Actlabs laboratory in Medellin
  11. The sample sacks are opened in the laboratory in the presence of the driver and a laboratory representative and checked against the Laboratory Sample Sheet and a Laboratory Work Order in order to check that the samples are complete. If there is a discrepancy the QAQC Coordinator is informed, the samples are returned to the office and an investigation is carried out. If the samples are in order, sample custody is handed over to Actlabs.
  12. After the free sample storage period at Actlabs expires, the sample pulps and rejects are returned to Collective Mining with a list, verified against the list, and transported by company driver and vehicle to the core store for storage.

## 11.2 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 shown in Table 11.2. A total of 24% QA-QC samples are inserted, which exceeds industry standards. The CSRM are monitored by scatter plots with performance gates with rejection if a sample is greater or lesser than the recommended value  $\pm 3SD$ , and a warning if two or more samples are between the recommended value  $\pm 2$  to  $\pm 3SD$ . Examples of plots are shown in Figure 11.1 and Figure 11.2 but there is little data so far. The blanks are monitored by a scatter plot with reference to 3 times the lower limit of detection of the element, with an example shown in Figure 11.3. Duplicates are monitored on scatter plots of original versus duplicate. Laboratory investigation and, if necessary reruns are pending for six CSRM samples that were out of limits for Ag, Cu and/or Au, and one coarse blank that failed for Cu. The field duplicates show a good correlation with only two outlier samples.

Type	Code	Material	Position	Rock, core %	Soils, seds %	Acceptance
CSRM	STD	HDTR01, PLSUL04, PLSUL09, PLSUL35, PLSUL38, M3A20 certified for Au, Ag, Cu, Pb, Zn, (Fe, S) by Target Rocks, Peru.	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.	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 11.2 QA-QC protocol of Collective Mining.

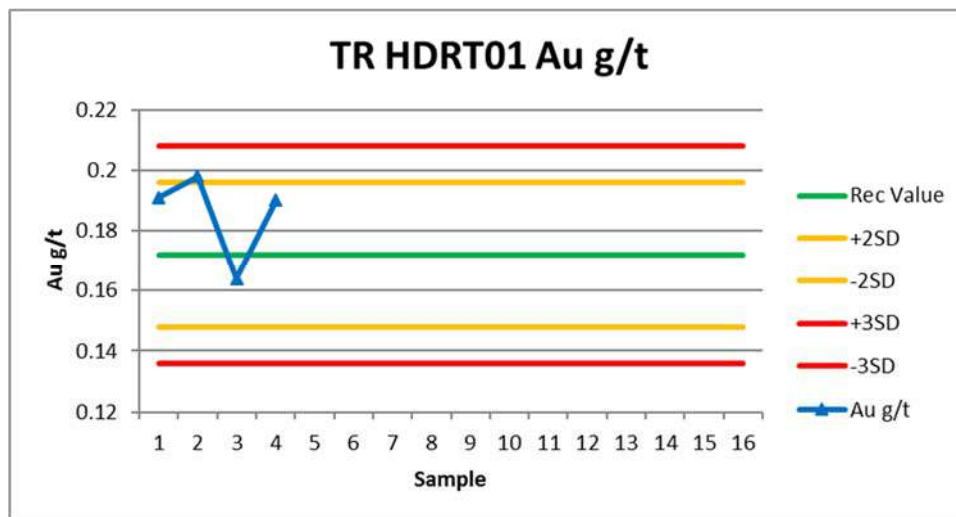


Figure 11.1 Scatter plot of CSRM HDRT01 for Au in rocks.

The plot shows that the Au analyses are within 2SD, with one sample just above +2SD, and are acceptable.



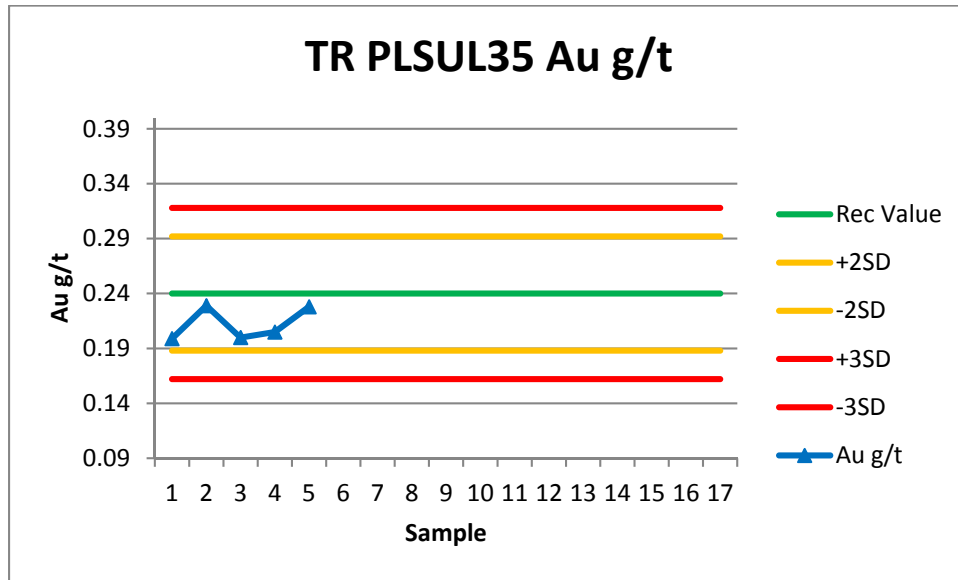


Figure 11.2 Scatter plot of CSRM PLSUL25 for Au in rocks.

The Au analyses have low variability between the recommended value and -2SD, and are acceptable.

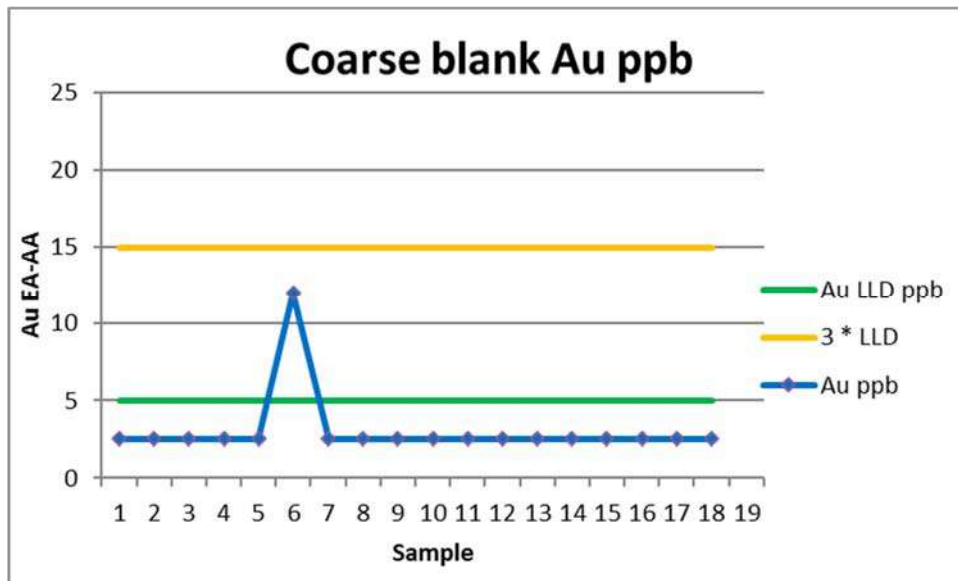


Figure 11.3 Scatter plot of Au in coarse blank for rock samples.

The samples are less than the lower limit of detection of 5 ppb (plotted as half of the value as 2.5 ppb) with one sample of 12 ppb which probably indicates slight contamination or carry-over during sample preparation; the value is less than three times the lower limit of detection, and the data are acceptable.

### **11.3 Comments on Section 11**

The sample preparation and analysis of the legacy samples, described in Section 6.4, were carried out by independent, certified laboratories 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 legacy surface geochemical data are used as an exploration guide by Collective Mining and new rock sampling is carried out in areas of interest. Collective Mining's sample preparation, analysis and chain of custody and QA-QC meet with current standard industry practise. The QP considers that the data are adequate for the purposes of this technical report.

## **12 DATA VERIFICATION**

### **12.1 Summary**

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

1. Visiting the main targets of the project in the field to examine the geology, alteration and mineralization.
2. Checking the location of one drill collar.
3. Taking check samples in the field.
4. Reviewing drill core from four Mineros holes (PADDH-10, PADDH-14, PADDH-22 and PADDH-23) and the Rugby hole (SA-18-01).
5. Revising the database and checking a percentage of the assay certificates
6. Reviewing the QA-QC.

### **12.2 Field Visit**

The author made a current personal inspection of the San Antonio Project on 21 to 26 October 2020. The main highway, Route 25, along the River Cauca valley from La Pintada to La Felisa was closed for road works, which meant taking long detours on back roads in order to access the project from Pácora rather than Supia. One day was spent in the field visiting the Dollar Target on Piñones Hill and El Muerto Creek in the central part of the concession, and the Arrayanales area near Miraflores in the northern part of the concession. One and a half days were then spent reviewing core from four Mineros holes (PADDH-23, PADDH-22, PADDH-10, PADDH-14) at a warehouse in Manizales, and half a day was spent examining the core of the Rugby drill hole (SA-18-01) at the company's field office in Supia.

For the field visit the project was accessed from the town of Pácora on the eastern side. A local road was taken to the southeastern part of the concession, then mules on trails within the concession. The area visited was the Dollar Target including the sheeted quartz veinlet zone exposed on Piñones Hill and the stockwork zone and breccias in El Muerto Creek. From the hill-top an overview was obtained of the Phase 2 drill hole locations in the Campana valley to the north, and of the COP and Pound Targets. The Arrayanales area in the northern part of the concession was later visited, with access by local roads through the village of Miraflores to the east of the concession.

### 12.3 Drill Collar Location

One drill collar was seen on the field visit. The location was checked by hand-held GPS and is within 3.0 m of that in the database, which is within the error of the GPS instrument (Table 12.1). There is a difference of 4 m in altitude. The collar is marked by a plastic tube but the hole number is not marked.

Drill Hole No.	Check WGS84 18N			Original WGS84 18N		
	Easting	Northing	Altitude	Easting	Northing	Altitude
SA-18-01	437813	610902	1072	437810	610900	1076

Table 12.1 Check of location of drill collar.

### 12.4 Check Sampling

Three check rock chip samples were collected in the field from the Cerro Piñones and El Muerto creek stockwork mineralised zones (Table 12.2). The samples were taken by the author to Medellin and were handed over to the manager of Actlabs Colombia S.A.S. The samples were prepared by crushing to 80% passing 2 mm, riffle splitting 250 g and pulverising the split to 95% passing 105 µm (method RX1), assayed for Au by fire assay of a 30 g sub-sample with AAS finish (method 1A2-30) at their laboratory in Rionegro, Medellin, and were analysed for multielements by 4-acid digestion and ICP-MS (method UT-4M or TD-MS) at their laboratory in Ancaster, Ontario. The results gave grades of 0.157-0.202 g/t Au, 0.4-3.8 ppm Ag, 14.1-35.8 ppm Cu, 1.8-1.9 ppm Mo, 7.4-22.6 ppm Pb and 45-88 ppm Zn (Table 12.2). The results are similar to samples taken in the same areas by Collective Mining and confirm the presence of anomalous gold mineralisation.

Sample No.	Easting WGS84	Northing WGS84	Altitude WGS84	Width (m)	Location	Description	Au ppm	Ag ppm	Cu ppm	Mo ppm	Pb ppm	Zn ppm
CM036	437937	610831	1059	0.3	Qda El Muerto	Clast supported breccia of dacite porphyry clasts with quartz veins cemented by Fe oxides. Clasts subangular, lapilli sized.	0.202	0.5	18.3	1.8	11.2	88
CM037	438111	610757	1209	2.0	Hill top path	Dacite porphyry with up to 50% quartz veining, sericite alteration, jarosite, hematite.	0.157	3.8	35.8	1.9	22.6	45
CM038	437937	610831	1059	2.0	Qda El Muerto	Dacite porphyry with up to 80% quartz veining, hematite after magnetite.	0.143	0.4	14.1	1.9	7.4	49

Table 12.2 Sample descriptions and results of check sampling for select elements at the San Antonio Project.

Analysed by Actlabs Ltd., reports no. COL20-1032 and A20-13986.

## 12.5 Drill Core

Drill core was reviewed from four of the Mineros drill holes (holes PADDH-10, PADDH-14, PADDH-22 and PADDH-23) and the Rugby drill hole (SA-18-01). The geology corresponds with the logs and the assays correspond with visible mineralization.

## 12.6 Database and Assay Certificates

The sample database of historical and Collective Mining data was supplied to the author in Access and Excel files with separate files for stream sediments, soils, rocks and drill core.

For the historical samples there are laboratory assay certificates in Adobe Acrobat files for 75% of the stream sediment samples, 13% of the soil samples, 67% of the rock samples and most of the drill core samples (with Excel laboratory reports for all core samples). There is a lower level of confidence in the data without assay certificates or laboratory reports. The assay certificates and Excel reports are complete for the Collective Mining sampling.

The author checked approximately 10% of the assay certificates and Excel reports against the databases and found no errors in the transcription of the analyses.

The author also checked the drill database by running checks for unusual sample intervals and for gaps in sample continuity, and found a number of errors of the following types:

1. An interval of no core recovery that was not shown in the database.
2. Wrong sample meterage that was traced by core photos to a wrongly marked core box.
3. Data entry errors of meterage.
4. Samples with no to (end) meterage.
5. Samples with the same from (start) and to (end) meterage.
6. A duplicated sample number, which proved to be a data entry error.
7. Missing assays for four samples; one was found out of sequence on another certificate, but three were not found on any certificate of core samples and it is concluded that either the samples were taken and not analysed, or they are on a certificate with a different type of sample (DH11438, DH15524, DH16281).
8. Two intervals of missing samples (PADDH-013, 0.00-28.85 m; PADDH-015, 0.00-225.00) that on checking core photos were noted to have not been sampled. In the first case this due to the interval being thick overburden with poor recovery. In the second case there was no core recovery for reasons unknown.



These errors were investigated and corrected, where possible, with Collective Mining's database geologist after checking core box photos and assay certificates; the original drill logs are not available.

## **12.7 QA-QC**

The QA-QC was revised by the author as described in Sections 6.4.2 and 11.2.

## **12.8 Comment**

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

### **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing or metallurgical testing has been carried out on the San Antonio Project.

## **14 MINERAL RESOURCE ESTIMATES**

There are no mineral resource estimates for the San Antonio 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

The San Antonio Project lies in the central part of the Middle Cauca Gold Belt. A summary of the mineral resources of the Middle Cauca Gold Belt is given in Table 15.1. 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 35 known porphyry deposits and occurrences in this part of the belt, including the San Antonio Project.

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		
Cerro Vetas (Titiribi)	Measured+Indicated	0.3	184.00	0.48		0.16	2.88		654	2
	Inferred	0.3	70.80	0.43		0.05	0.98		78	
Chisperos (Titiribi)	Indicated	0.3	62.10	0.48			0.97			
	Inferred	0.3	51.10	0.45			0.74			
NW Breccia (Titiribi)	Indicated	0.3	39.70	0.62			0.79			
	Inferred	0.3	86.00	0.56			1.54			
La Mina (La Cantera, Middle Zone)	Indicated	0.25	28.17	0.74	1.77	0.24	0.67	1.61	150	
	Inferred	0.25	12.39	0.65	1.75	0.27	0.26	0.70	73	
Nuevo Chaquiro	Measured	\$45/t NSR	57.90	0.58	6.40	1.10	1.09	11.92	1,406	
	Indicated	\$45/t NSR	203.77	0.47	5.64	0.89	3.08	36.93	3,981	
	Inferred	\$45/t NSR	340.43	0.27	4.03	0.57	2.97	44.10	4,290	
Yarumalito	Inferred	0.5	66.20	0.58		0.09	1.24		129	
Marmato	Measured+Indicated	1.3-1.9	39.40	3.20	8.70		4.09	11.05		6
	Inferred	1.3-1.9	26.40	2.60	4.40		2.17	3.73		
Batero Quinchia	Indicated	0.3	131.80	0.59	1.80	0.11	2.50	7.60	290	7
	Inferred	0.3	33.50	0.50	1.60	0.06	0.54	1.70	81	
Dosquebradas (Quinchia)	Inferred	0.5	20.21	0.71	0.70	0.06	0.46	0.43	25	
Miraflores (Quinchia)	Measured+Indicated	1.2	9.27	2.82	2.77		0.84	0.83		9
	Inferred	1.2	0.49	2.36	2.36		0.04	0.06		
La Colosa	Indicated	0.35	833.49	0.87			23.35			10
	Inferred	0.35	217.89	0.71			4.98			
<b>Total</b>	<b>Measured+Indicated</b>						<b>45.58</b>	<b>90.94</b>	<b>6,481.40</b>	
<b>Total</b>	<b>Inferred</b>						<b>21.94</b>	<b>76.94</b>	<b>4,675.90</b>	

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

Sources: 1) Jones et al., 2019. 2) Kantor & Cameron, 2016. 3) Wilson, 2016. 4, 10) AngloGold Ashanti Mineral Resource and Ore Reserve Report, 2019. 5) Mosher, 2020. 6) Parsons et al., 2020. 7) Evans et al., 2013. 8) Los Cerros Limited, Australian Stock Exchange (ASX) Announcement, 25-02-20. 9) Metminco Limited, ASX Announcement, 14-03-17.

Reporting codes: NI 43-101 (1, 2, 3, 5, 6, 7), JORC (8, 9), SAMREC (4, 10).

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 mineralisation on the San Antonio Project that is the subject of this Technical Report.

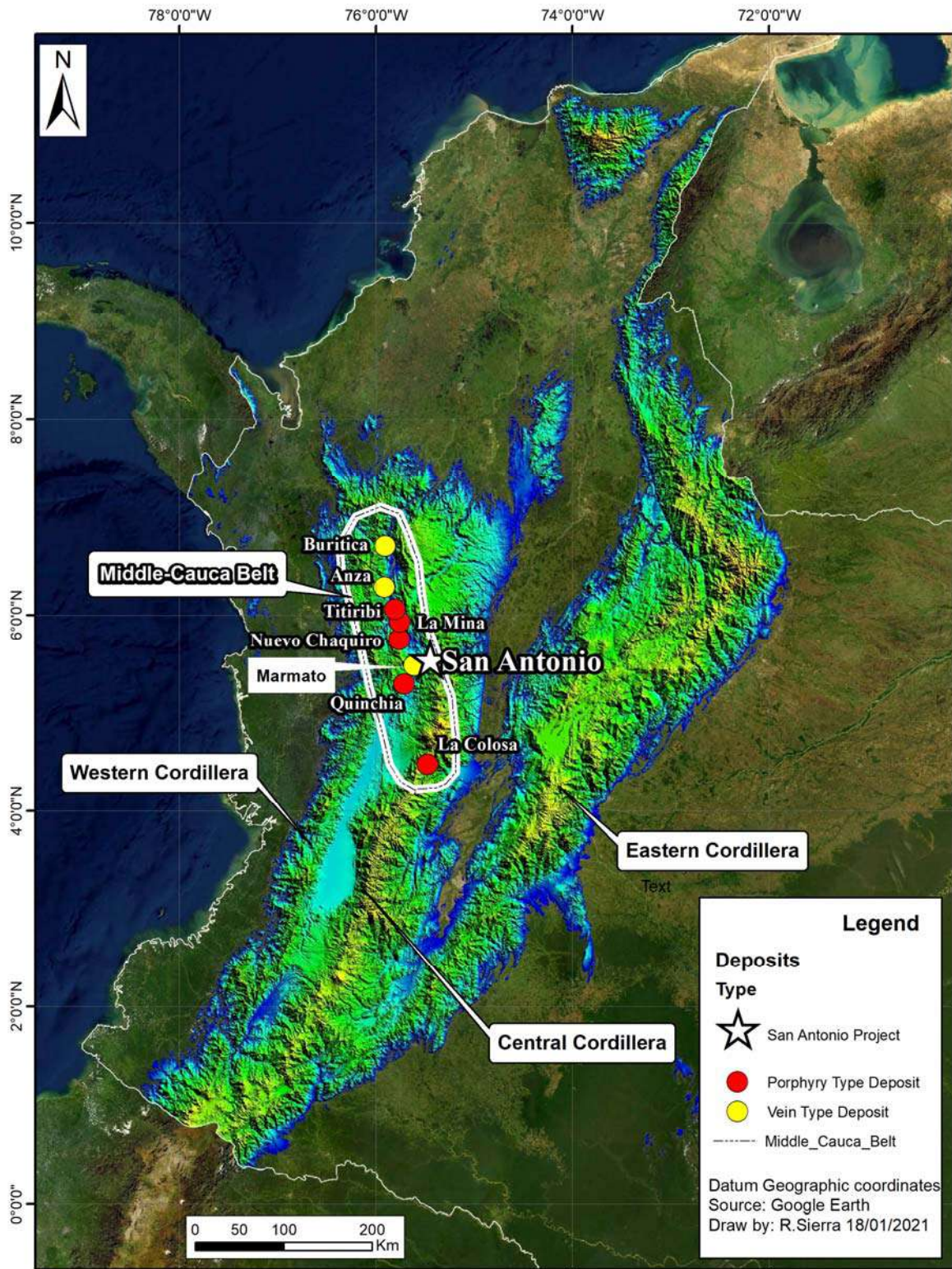


Figure 15.1 The principal Au deposits of the Middle Cauca Gold Belt.



The belt is described in regional studies of magmatism by Leal-Mejía et al. (2019) and of mineral deposits by Shaw et al. (2019). Mineralisation is related to clusters of porphyry stocks of late Miocene age (9-4 Ma, Leal-Mejía et al., 2019). Magmatism and mineralisation 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 briefly described as follows from north to south.

**Buriticá.** The Buriticá deposit is located at the north end of the belt, 135 km north-northwest of the San Antonio 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. 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 mineralisation on the San Antonio Project that is the subject of this Technical Report.

Mineralization is a porphyry-hosted, intermediate sulphidation epithermal or carbonate-base metal gold vein/breccia system with two vein systems, Yaraguá and Veta Sur. Mineralisation is hosted by the Buriticá Intrusive Complex that consists of andesite, diorite and monzodiorite porphyries and intrusive/hydrothermal breccia, dated at  $7.41 \pm 0.4$  Ma, which intruded the Upper Cretaceous Barroso Formation of volcanic and volcanoclastic 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 selvage to the carbonate-base and precious metal veins.

There are two main depositional stages of mineralisation, 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.

**Titiribi.** The Titiribi district, located about 65 km north-northwest of San Antonio, has been mined for high grade gold and silver in steep veins and shallow mantos in the El Zancudo intermediate sulphidation epithermal deposit since 1793 with estimated production of 1.5 to 2.0 Moz gold equivalent (Gallego & Akasaka, 2007; Redwood, 2010). It is currently being explored by Gran Colombia Gold Corp. and IAMGOLD Corporation. Porphyry Au-Cu mineralisation 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 mineralisation 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 mineral resources of 51.6 Mt grading 0.49 g/t Au and 0.17% Cu containing 0.82 Moz Au and 195.1 Milb Cu, indicated mineral resources of 234.2 Mt grading 0.51 g/t Au and 0.09% Cu containing 3.82 Moz Au and 459.3 Milb Cu, and inferred mineral resources of 207.9 Mt grading 0.49 g/t Au and 0.02% Cu containing 3.26 Moz Au and 77.9 Milb Cu (Kantor & Cameron, 2016). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralisation on the San Antonio Project that is the subject of this Technical Report.

**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 50 km north-northwest of San Antonio. Gold mineralisation 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). Bellhaven Copper & Gold Inc. estimated indicated resources of 28.2 Mt grading 0.74 g/t Au (0.67 Moz Au) and 0.24% Cu (150 Milb Cu), and inferred resources of 12.4 Mt grading 0.65 g/t Au (0.26 Moz Au) and 0.27% Cu (73 Milb) for La Cantera and Middle Zone deposits (Wilson, 2016). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralisation on the San Antonio Project that is the subject of this Technical Report. The deposit is now owned by GoldMining Inc.

**Quebradona / Nuevo Chaquiro.** 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 32 km northwest of San Antonio, 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 Ore Reserve Report, 2019). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralisation on the San Antonio Project that is the subject of this Technical Report.

**Caramanta / South Tamesis.** The Caramanta or South Tamesis porphyry district, located west of the town of Caramanta and about 15 km west of the San Antonio 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 Tamesis Stock. They were explored by Solvista Gold Corporation (O'Prey, 2014) and then IAMGOLD Corporation. Gold mineralisation is hosted by porphyry stocks, Combia Formation basalts, and coarse diorite of the Tamesis Stock dated at 7.2 Ma (U-Pb zircon, Leal-Mejía et al., 2019). There are no mineral resources.

**Yarumalito.** The Yarumalito porphyry Au deposit with epithermal gold veins is located about 11 km northwest of San Antonio. It is hosted by porphyry stocks dated at  $7.0 \pm 0.15$  and  $6.95 \pm 0.16$  Ma by U-Pb zircon, and Combia Formation andesites (Henrichs et al, 2014). It was explored by Colombian Mines Corporation (Thompson, 2006) and later 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 mineralisation on the San Antonio Project that is the subject of this Technical Report.

**Oro Fino, El Salto.** There are two porphyry gold prospects north of Marmato, the Oro Fino porphyry Au prospect, located about 7 km northeast of Marmato and about 3 km northwest of the San Antonio Project (Rennebaum & Redwood, 2011); and the El Salto porphyry Au prospect hosted by a diorite porphyry with phyllic alteration located 4.0 km north of Marmato and 4.0 km west of the San Antonio Project. Reconnaissance exploration was carried out by Colombia Goldfields Ltd. in 2006-08 (Lewis, 2006; Lewis & San Martin, 2008).

**Marmato.** The Marmato deposit, located about 6 km southwest of the San Antonio 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 39.4 Mt grading 3.2 g/t Au (4.1 Moz Au) and 8.7 g/t Ag (11.1 Moz Ag), and an inferred mineral resource of 26.4 Mt grading 2.6 g/t Au (2.2 Moz Au) and 4.4 g/t Ag (3.7 Moz Ag) (Parsons et al., 2020). These underground resources occur in veins and porphyry in the Upper Mine, in the Transition Zone, and in sheeted veinlets in the recently discovered Deeps Zone. However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralisation on the San Antonio 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 Gold Corporation produced 23,832 oz. of gold from the Upper Mine in 2020 and is planning a major underground mine expansion to exploit the Deeps Zone. Mineralisation 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  $6.576 \pm 0.075$  Ma and  $5.75 \pm 0.11$  Ma by LA-ICP-MS  $^{206}\text{Pb}/^{238}\text{U}$  on zircon. The age of mineralization was determined by  $^{40}\text{Ar}/^{39}\text{Ar}$  analyses of adularia in veins with plateau ages between  $6.95 \pm 0.02$  Ma and  $5.96 \pm 0.02$  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 et 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. Mineralisation is hosted by five dacitic to microgranodioritic porphyry intrusions called AP1 to AP5 dated between  $6.55 \pm 0.15$  Ma and  $5.74 \pm 0.14$  Ma by LA-ICP-MS  $^{206}\text{Pb}/^{238}\text{U}$  on zircon (Santacruz et al., 2021).

**Guayabales.** The Guayabales porphyry Au and epithermal Au vein system, located 3 km northwest of Marmato, was explored by Colombian Mines Corporation (Thompson, 2007) and is now being explored by Collective Mining. Potassic alteration (biotite-magnetite) is hosted by multi-phase diorite intrusions, schist and Combia Formation basalt wall rock.

**Gibraltar, Jardin.** The Gibraltar porphyry Au occurrence is located 5 km southwest of Jardin and 33 km west of the San Antonio Project, and has potassic alteration of a quartz diorite porphyry (author's observations). The Jardin porphyry occurrence is located about 6 km east-southeast of Jardin and 24 km west of the San Antonio Project, and mineralisation is hosted by Combia Formation basalts and intrusive porphyries (author's observations).

**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, about 12 km southwest of the San Antonio Project, and are the source of extensive alluvial gold deposits that were mined in the Supía River (Shaw et al., 2019).

**Quinchia** The Quinchia porphyry gold deposit cluster is located about 30 km southwest of the San Antonio Project. It includes the La Cumbre, Mandeval, Dosquebradas, Tesorito and Chuscal porphyry Au 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 mineralisation on the San Antonio Project that is the subject of this Technical Report.

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, 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). However, the author has been unable to verify the information in these reports and the information is not necessarily indicative of the mineralisation on the San Antonio Project that is the subject of this Technical Report.

**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 San Antonio 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 Ore Reserve Report, 2019). However, the author has been unable to verify the information in this report and the information is not necessarily indicative of the mineralisation on the San Antonio 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.

**Conclusion.** The San Antonio Project is situated 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 San Antonio Project.

## **16 OTHER RELEVANT DATA AND INFORMATION**

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

## 17 INTERPRETATION AND CONCLUSIONS

The San Antonio Project is located on the eastern side of the central part of Middle Cauca Gold Belt on the western flank of the Central Cordillera of Colombia, which is separated from the Western Cordillera by the River Cauca. This metallogenic belt of Late Miocene age is highly prospective for porphyry Au ± Cu and epithermal Au-Ag deposits. The principal deposits in the belt are the Buritica vein Au-Ag deposit (Zijin Mining Group Co. Ltd.), the Quebradona / Nuevo Chaquiro porphyry Au-Cu deposit (AngloGold Ashanti), the Marmato porphyry/reduced intrusion hosted Au-Ag deposit (Aris Gold Corporation), located 6 km southwest of San Antonio, and La Colosa porphyry Au deposit (AngloGold Ashanti).

The San Antonio 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 mineralisation in the belt is related to multiple clusters of Late Miocene porphyry intrusions of diorite to tonalite composition, and intrusive breccias.

The San Antonio Project has had historical exploration that includes extensive stream sediment, soil and rock sampling, geological mapping, ground geophysics (magnetics and IP), and 7,717 m of diamond drilling in 25 holes. Previous drilling did not test the porphyry targets due to being principally focused on vein systems. The single Rugby diamond drill hole drilled a magnetic anomaly related to an inter-mineral porphyry and basement schists.

Collective Mining has carried out geological mapping, rock sampling, 3D inversion modelling of magnetic data, a Lidar survey, core relogging, data compilation, geological interpretation and target definition.

The San Antonio concession displays alteration and vein characteristics which highlight near surface, porphyry potential. Mapping to date has demonstrated multiple porphyry events. There is a major EW structure that separates two blocks with different levels of intrusive and alteration exposure. In the southern block, surface copper, molybdenum and gold mineralisation is related to stockworks, sheeted vein systems, alteration and disseminated sulphide zones with a strong sericite overprint. In the northern block an epithermal vein system and advanced argillic lithocap hosts vertically continuous breccia bodies and lateral and vertical alteration zonation to peripheral sericite-illite alteration. These rocks reflect preservation of the shallow levels of the porphyry system.

San Antonio is a porphyry intrusive centre intruding basement schists with at least two known porphyry intrusions and the potential for others. Collective Mining has defined three targets called Dollar, COP and Pound.

The Dollar Target is an area of stockwork and sheeted vein systems hosted by diorite, quartz diorite and tonalite porphyries covering an area of 750 m by 1,200 m. It has a high density of porphyry-related quartz B and D veinlets in an area of 570 m by 430 m. Surface gold may have been leached from the system by a sericitic alteration overprint or reduced by supergene weathering. This target represents the potential apex of the porphyry system and has not been drill tested. The western area at lower elevation has high densities of B and M type veinlets of quartz – magnetite – chalcopyrite – molybdenite, disseminated chalcopyrite – pyrite, and minor hydrothermal breccias with sulphide cement. Hole SA-18-01 was drilled north of the stockwork vein zone and did not intersect it, but did intersect 100.0 m from 605.0 m grading 0.44 g/t Au and 4.76 g/t Ag (0.50 g/t AuEq) with 0.034% Cu. This is related to an inter-mineral diorite and schists with potassic alteration (biotite, K feldspar, magnetite) and minor sodic-calcic alteration (albite, epidote) with sparse AB and B veinlets with chalcopyrite and pyrite, and later D pyrite veinlets and crackle breccias with a sericite halo.

The COP Target is defined by strong sericite altered diorite bodies in contact with chloritic schists in association with soil anomalies for gold and molybdenum over an area of 650 m by 350 m at surface. This anomalous zone is coincident with geophysical anomalies at 200 m depth of a magnetic high and IP chargeability and resistivity highs. The coincident soil anomalies include Mo values ranging from 1 ppm to 107.5 ppm (average 12.4 ppm, 38 samples) and Au values ranging from 0.0027 g/t to 2.74 g/t. The soil anomalies and alteration are postulated to be fluid leakage from a concealed, mineralised intrusive. This target was not tested by historical drill programmes.

The Pound Target in the northern block is defined by a NE trending area of 620 m by 375 m hosting intermediate argillic and advanced argillic alteration of intrusion breccias, hydrothermal breccias and diorite intrusive bodies, with a low Mo soil anomaly (range 0.09 ppm to 11 ppm, average 3.3 ppm). The hydrothermally cemented breccia has a sericite and pyrite matrix with intrusive clasts and cross cuts the diorite bodies. The breccias are overprinted by a pyrophyllite - dickite - kaolinite – corundum assemblage which grades transitionally downwards and horizontally to sericite - illite – chlorite - smectite alteration. Late-stage epithermal veins and crackle breccias, generally with an W-E strike, are composed of quartz, sphalerite, galena, tennantite, pyrite, chalcopyrite, stibnite, gypsum, ankerite and calcite. Historical drilling on the southern periphery of this target area returned drill intercepts of 276.0 m grading 0.41 g/t Au and 6.74 g/t Ag (0.50 g/t AuEq; PADDH-023), 54.0 m grading 0.86 g/t Au and 9.67 g/t Ag (0.99 g/t AuEq; PADDH-023), and 50.4 m grading 0.67 g/t Au and 11.7 g/t Ag (0.82 g/t AuEq; PADDH-024) from hydrothermal breccia bodies associated with quartz diorite porphyry and polymetallic veins. Alteration assemblages at surface demonstrate a locus within the lower portion of the advanced argillic lithocap which grades laterally and downwards into intermediate argillic alteration assemblages. The target is a porphyry postulated to occur below the lithocap.

The San Antonio Project is located within an area with good infrastructure including a major highway, plenty of water, power grids and nearby rail and airport facilities. The area has no indigenous native communities or illegal mining activities.

The author concludes that the San Antonio Project is an exploration-stage project for porphyry gold - copper mineralisation. Three drill targets have been defined by Collective Mining.

The exploration programs carried out by Collective Mining and previous companies 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 San Antonio Project warrants further exploration of the three porphyry targets defined by Collective Mining: the Dollar, COP and Pound targets. A two phase exploration programme is recommended.

Phase 1 of the recommended exploration programme comprises additional geological mapping, rock chip and soil sampling, and 5,000 m of diamond drilling in 8 deep holes of 400 to 800 m length at the three targets. The estimated cost of the Phase 1 programme is US\$1,911,000. The estimated time is approximately one year including 4 months drilling with two drill rigs.

Phase 2 of the recommended exploration programme is conditional on positive results of the Phase 1 programme. The programme comprises additional rock chip and soil sampling, and 10,000 m of exploration diamond drilling, with the location and length of the holes to be determined based on the Phase 1 results. The estimated cost of the Phase 2 programme is US\$3,822,000. The estimated time is approximately one year including 8 months drilling with 2-3 drill rigs.

The budgets for Phases 1 and 2 are shown in Table 18.1. The total estimated cost is US\$5,733,000 and the time frame is approximately 2 years.

Item	Unit	Quantity	Unit Price (US\$)	Total (US\$)
<b>Phase 1</b>				
Drilling Phase 1	m	5,000	200	1,000,000
Assays	samples	5,000	50	250,000
Rock chip and soil sampling	samples	1,000	50	50,000
General and Administration (Geology department only)				351,000
Contingency				260,000
<b>Sub-total Phase 1</b>				<b>1,911,000</b>
<b>Phase 2</b>				
Drilling Phase 2	m	10,000	200	2,000,000
Assays	samples	10,000	50	500,000
Rock chip and soil sampling	samples	2,000	50	100,000
General and Administration (Geology department only)				702,000
Contingency				520,000
<b>Sub-total Phase 2</b>				<b>3,822,000</b>
<b>Grand Total</b>				<b>5,733,000</b>

**Table 18.1 Estimated budget for the recommended two-stage exploration programme on the San Antonio Project.**

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