NI 43-101 Technical Report on the
El Alacran Project
Department of Córdoba, Colombia

Prepared for:
Cordoba Minerals Corp.

Prepared by:
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Project Number:

191831

IMPORTANT NOTICE

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1.0 SUMMARY

1.1 Key Findings

The El Alacrán deposit hosts 36.1 Mt of Indicated Mineral Resources at 0.57% Cu and 0.26 g/t Au and 31.8 Mt of Inferred Mineral Resources at 0.52% Cu and 0.24 g/t Au at an 0.28% copper-equivalent (CuEq) cut-off. The Mineral Resources are summarized in Table 1-1.

Table 1-1: El Alacrán Mineral Resource Estimate prepared by Peter Oshust, P.Geo., Effective Date 20 February 2018

	CuEq		Grades			Contained Metal	
Classification	Cut-Off (%)	Tonnage (Mt)	CuEq (%)	Cu (%)	Au (g/t)	Cu (klbs)	Au (koz)
Indicated	0.28	36.1	0.72	0.57	0.26	454,000	300
Inferred	0.28	31.8	0.65	0.52	0.24	365,000	250

1. The Mineral Resources in this estimate were prepared following the Definition Standards for Mineral Resources and Mineral Reserves Prepared by the CIM Standing Committee on Reserve Definitions, Adopted by CIM Council on May 10, 2014.
2. Mineral resources are constrained within a conceptual pit shell developed using Whittle™ software. Assumptions used to prepare the conceptual pit include:
   - Metal prices - US$3.15/lb Cu, US$1,400/oz Au
   - Mining cost – US$2.00/t mined
   - Processing cost – US$12/t milled
   - G&A – US$1.25/t milled
   - Mining – 100% recovery, 0% dilution, 45° pit slope
   - Process recoveries - 70% for Au, 90% for Cu=>0.4%, 75% for Cu<0.4%
   - Freight and treatment cost - US$162/t concentrate
   - Payable metal - Cu 96%, Au 95%
   - Refining charges - US$0.085/lb Cu, US$5.50/oz Au
3. Cu Eq=Cu % + 0.504*Au g/t for Cu > 0.4%; CuEq=Cu% + 0.605*Au g/t for Cu < 0.4%
4. The CuEq cut-off is a marginal cut-off sufficient to cover US$12.00/t processing and $1.25/t G&A.

1.2 Property Description and Location

The El Alacrán property is located in the municipality of Puerto Libertador, Department of Córdoba, 390 km northwest of Bogotá and 170 km north of Medellin in Colombia. The property consists of 390 ha mining concession no. III-08021 (the El Alacrán property) and is valid until 30 June 2039 at which time it may be renewed for another 30 years. The El Alacrán property is held by Minerales Cordoba S.A.S., a wholly owned subsidiary of Cordoba Minerals Corp. and subject to an option contract with SOCIEDAD ORDINARIA DE MINAS OMNI (OMNI). The option contract terms include a US$1,000,000 payment due 27 February 2019 and a US$13,000,000 payment due 30 June 2020.

1.3 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

The El Alacrán property is assessable via a 70 km paved road from city of Caucasia to Puerto Libertador and then via a 21-km partially unsurfaced road to the exploration camp. The project core shack is accessible from camp via a 5 km unsurfaced road. Caucasia is easily accessible by road or by regular scheduled flights form Medellin.

The El Alacrán property is in the northern foothills of the Western Cordillera and the southern side of the Caribbean lowlands. Altitudes in the property area are between about 100 m and 350 m above mean sea level. The climate allows for mineral exploration and drilling year-round. The physiography of the project area is favourable for open pit mining with sufficient room for a processing plant, waste rock dumps, tailings storage, and other mine infrastructure. The district is expected to be able to supply the basic workforce for any future mining operation. Cordoba Minerals will need to acquire additional surface rights to support a mining operation.

1.4 History

Initial exploration on the El Alacrán property was carried out by Dual Resources Inc. between 1987-1989 and included pits, trenches, rock sampling, underground sampling, geological mapping and a ground magnetic survey, followed by 15 diamond drill holes totalling 2,408 m. A concession agreement was granted in 2009 to Sociedad Ordinaria de Minas Omni S.O.M. (Omni) and was subsequently optioned to Ashmont Resources Corp. in 2010. Ashmont carried out geological mapping, underground mapping and sampling, a ground magnetic survey, and 52 diamond drill holes totalling 13,429.45 m. Cordoba acquired the property and completed 3 diamond drill holes in 2015, 41 diamond drill holes in 2016, and 40 diamond drill holes in 2017.

Gold is mined artisanally at El Alacrán by the Asociacion de Mineros de El Alacrán (El Alacrán Miners Association) but there has been no industrial-scale mining production within the property.

1.5 Geological Setting, Mineralization, and Deposit Type

The El Alacrán property is located in an accreted oceanic terrane of the Western Cordillera and is underlain by Upper Cretaceous Barroso Formation basalt and the Penderisco Formation turbidites, chert and limestone. The oceanic terrane is separated from Paleozoic continental margin Cajamarca Group schists to the east by the Cauca-Romeral Fault Zone. The Barroso and Penderisco Formations are intruded by small granitoid plutons, dykes and sills recently dated as Late Cretaceous.

The El Alacrán copper-gold mineralization is hosted by a 550 m thick west-dipping mafic volcanic and metasedimentary-volcaniclastic sequence, capped by pre- to syn-mineral, sill-like diorite and felsic sub-volcanic bodies. Copper-gold mineralization occurs throughout the metasedimentary-volcaniclastic package, except the lower mafic rocks, and is most strongly developed in the mid to upper part of this package. Three main stages of hydrothermal alteration and mineralization are recognised; early magnetite stage; main copper-gold, sulphide-rich stage; late stage carbonate-base metal (CBM) style, auriferous veining.

The dominant mineralization at El Alacrán is the copper-gold sulphide rich mineralization which is concordant with host stratigraphy and intrusion contacts. Copper-gold mineralization comprises veins and disseminations of chalcopyrite-pyrite±pyrrhotite with quartz and carbonate and locally forms massive sulphides. Apatite is common. The copper-gold sulphide mineralization partially to completely replaces magnetite-stage alteration. Pyrrhotite dominates early copper-gold mineralization. A pyritic assemblage commonly overprints pyrrhotite, and much of the chalcopyrite apparently formed at this stage, associated with chlorite-carbonate±sericite and albitic alteration.

Several different deposit models have been proposed for El Alacrán deposit including banded iron formation, volcanogenic massive sulphide, skarn, and iron oxide copper-gold. Sillitoe (2018) concluded the El Alacrán deposit is a strata-bound replacement body of iron oxide-copper-gold (IOCG) type.

1.6 Exploration and Drilling

Cordoba completed 1:2,000 scale geological mapping, rock channel sampling, a 74-line km 100m spaced ground magnetic survey, and a 50 m x 100 m spaced soil survey that identified a 1,300 m by 800 m wide Cu and Au soil anomaly within the El Alacrán property.

Cordoba carried out a 5,700-line km helicopter-borne magnetic and radiometric survey and a 1,293-line km induced polarization survey over the Alacrán property and surrounding area. A chargeability high and resistivity low evident within the El Alacrán property corresponds with the mineralized ridge.

Diamond drilling at El Alacrán consists of 38,462 m in 151 HQ and NQ-diameter holes completed between 1987 and 2017. 52 holes drilled by Ashmont and 84 holes drilled by Cordoba are used to support the current resource estimate.

1.7 Sample Preparation, Analysis, Security, and Data Verification

All drill core samples were prepared by ALS Minerals in Medellin, Colombia and analyzed for Au by FAAA and Cu and 32 other elements by 4-acid digestion ICP-ES methods at ALS Minerals labs in Chile, Peru and Canada. The assaying was monitored using standards, blanks, duplicates, and check samples inserted into the sample stream by Ashmont and

Cordoba. The sampling and analytical results are considered reliable and suitable to support mineral resource estimation

1.8 Mineral Processing and Metallurgical Testing

Cordoba has not completed any metallurgical test work on the El Alacrán deposit. In 2012 Ashmont complete preliminary flotation test work on two composites prepared from 84 1m long ¼ core samples from 23 holes from the El Alacrán deposit. The Cu rougher recoveries ranged from 94.7% to 97.4% and Au recoveries ranged from 51.8% to 61.4% The rougher and cleaner recoveries indicate a flotation concentration operation is achievable with standard milling. However, the Cu and Au head grades of the composites are high relative to the average grade of the deposit and therefore the results may not be representative of the entire deposit.

1.9 Mineral Resources

Outlier analysis was undertaken on the original assay sample intervals grouped by major lithology. One extreme Au outlier value at 4,400 g/t was reduced to the next highest assay value of 56.9 g/t Au before outlier analysis was started. The final capping choices vary by lithology and range from 1.5 gpt to 11 gpt Au and 1% to 10% Cu. The capped and uncapped assay sample intervals were composited to 4 m regular intervals for the entire length of the holes.

A 5 x 10 x 5 m block size, sub-blocked to 2.5 x 5.0 x 2.5 m was chosen for the resource block model. The block model was flagged for lithological and structural domains from wireframes from Cordoba Mineral's Leapfrog model. The Cu and Au metal mineralization is not strictly controlled by the modelled lithological or structural boundaries. An indicator probability model was used as an alternative to grade shells to define these regions for grade estimation. Inverse distance interpolation to the third power (ID^3) was used for high-grade Cu and Au block grade estimation and Simple kriging (SK) was used for SG estimation. Limited sharing of composites was permitted across lithological and structural boundaries. The block grade estimates were validated using visual checks, statistical checks for global bias, swath plots for local bias, and HERCO grade-tonnage curves for change-of-support analysis. The model was calibrated to a 5x10x5 m SMU to reflect a possible mining selectivity for a 12,750 tonne per day (4.6 Mta) mining scenario.

Mineral resources have been assigned a block confidence classification based on drill hole spacing with consideration given to geological and grade continuity, and the quality of drill hole information. Blocks in an area with nominal drill hole spacing of 60 for the north area and 50 m for the south area were classified as Indicated. Blocks outside of the Indicated limits were assigned as Inferred resources if the nominal spacing was 150 m or less.

A conceptual pit shell was generated using Whittle software to constrain Mineral Resources in consideration of reasonable prospects of eventual economic analysis. Mineral Resources

are reported using a copper equivalent cut-off that took into consideration assumed metal prices and copper and gold recoveries. Copper recovery assumptions varied by grade.

1.10 Conclusions and Recommendations

Drilling at El Alacrán has led to the discovery of a hypogene Cu-Au intrusive-related carbonate-hosted, strata bound mineral deposit. The deposit has been delineated using appropriate drilling and sampling methods and laboratory analysis methods are accompanied by appropriated quality control monitoring. Geological logging has progressed with each phase of drilling and re-logging of core has been completed as new interpretations develop. The El Alacrán drill hole database and geological model is suitable to support a mineral resource estimate.

The El Alacrán Mineral Resources were prepared following CIM Definition Standards for Mineral Resources and Mineral Reserves. A two-stage high and low-grade estimation method accompanied by a probabilistic indicator model was used to improve grade constraint. The Mineral Resources were calibrated to a 5x10x5m SMU to reflect a possible mining selectivity for a 12,750 tonne per day mining scenario and were constrained in a conceptual pit prepared using Whittle software. The El Alacrán Mineral Resource Estimate is suitable to support a Preliminary Economic Assessment.

Outliers evident in the Ashmont QAQC database may introduce some error into the assay database. A double data entry error check has not been completed to confirm the database is reasonable free of transcription errors.

Metallurgical recovery assumptions used to constrain the mineral resource are fully not supported by test work.

There is a saprolitic horizon noted in drill logs that has not been modeled and could affect the reliability or confidence in the mineral resource.

The copper-gold mineralization at El Alacrán has been closed off by drilling to the south. The mineralized body abuts the northern diorite sill. Mineralization could continue farther north either in the hanging or footwall of the sill. Any northward extension would be blind targets and difficult to detect without additional step-out drilling.

Database validation and metallurgical test work programs recommended herein total $85,000.

2.0 INTRODUCTION

2.1 Terms of Reference

During December 2017 and January and February 2018, Amec Foster Wheeler, a Wood Company, prepared an updated Mineral Resource estimate for Cordoba Minerals Corp.'s El Alacrán Cu-Au deposit. The El Alacrán deposit is situated within Cordoba's San Matias exploration area in Colombia. The El Alacrán Mineral Resource update was based on geology and assay data from 130 diamond drill holes completed by Cordoba and previous operators between 2012 and 2017. The cut-off date for drill hole information was 15 December 2017. A geological model was provided by Cordoba on 18 December 2017. Wood personnel visited the property in December 2016 and October 2017. Wood prepared this Technical Report (Report) to support Cordoba's disclosure of the updated El Alacrán Mineral Resource statement as announced in a news release on 26 February 2018.

Cordoba has been performing regional exploration in the San Matias district of Colombia. This regional exploration work has been described in a Technical Report titled "Technical Report for the San Matias Porphyry Copper-Gold Project, Department of Córdoba, Republic of Colombia" prepared for Cordoba Minerals Corp and dated 30 November 2013. The El Alacrán project is a separate stand-alone project identified through the regional exploration program. The El Alacrán deposit hosts the only current mineral resource estimate within the San Matias district and forms the basis of this Report.

2.2 Qualified Persons

The following Wood personnel serve as the qualified persons as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1:

- Greg Kulla, P.Geo., Principal Geologist Amec Foster Wheeler
- Peter Oshust, P.Geo., Principal Geologist Amec Foster Wheeler

Greg Kulla visited the El Alacrán project site and Cordoba's office in Medellin between 5 December and 9 December 2016. Peter Oshust visited the El Alacrán project site for four days during the week ending 27 October 2017. Details of personal inspection on described in Section 12.1 of this Report.

2.3 Effective Dates

The effective date of the Mineral Resource estimate is 15 February 2018. The effective date of the Report is 10 April 2018

2.4 Information Sources and References

Reports and documents listed in Section 2.7, Section 3, and Section 27 of this Report were used to support preparation of the Report. Additional information was provided by Cordoba.

2.5 Previous Technical Reports

Previous technical reports prepared for the El Alacrán project include:

- Taylor, I., Redwood, S., 2017: Independent Technical Report and Resource Estimate on the El Alacrán Copper Gold Deposit: technical report prepared for Cordoba Minerals, effective date 27 October 2017
- Mosher, G., 2011: Technical Report on the El Alacrán Copper-Gold Property, Colombia: technical report prepared for Ashmont Resources Corp, effective date 20 February 2011(not published)

3.0 RELIANCE ON OTHER EXPERTS

3.1 Mineral Tenure, Surface Rights, Property Agreements and Royalties

The QPs have not independently reviewed ownership of the Project area and any underlying property agreements, mineral tenure, surface rights, or royalties. The QPs have fully relied upon, and disclaim responsibility for, information derived from Cordoba and legal experts retained by Cordoba for this information through the following document:

Letter from Gomez Pineda Abogados S.A.S dated 3 February 2018

Information from this letter has been used in Sections 4 of this Report

3.2 Environmental, Permitting, and Liability Issues

The QPs have fully relied upon, and disclaim responsibility for, information supplied by Cordoba staff and experts retained by Cordoba for information related to environmental permitting and social and community impacts as follows:

Letter from Gomez Pineda Abogados S.A.S dated 3 February 2018

Information from this letter has been used in Sections 4 of this Report.

Gómez Pineda Abogados S.A.S. ("GPA") is a law firm specialized in providing legal services and support in the real and financial economy. The team is composed by partner and associate lawyers' experts in mining law, administrative law, constitutional law, civil law, corporate law, transportation law, among others. GPA's partners have been practicing law for more than 25 years in their expertise areas. In mineral law in Colombia, GPA's partners, Maria Helena Gómez Pineda and Hernán David Martínez Gómez, have been working for more than 15 years, and rely on a team of legal experts in mineral tenures, administrative protection for disturbances, mining easements, and concession mining contracts, specifically in the providences of Antioquia and Córdoba.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The El Alacrán Property is in the Municipality of Puerto Libertador, Department of Córdoba, 390 km northwest of Bogotá, the capital of Colombia, 170 km north of Medellin, the capital of the Department of Antioquia and the second largest city in Colombia, and 112 km south of Montería, the capital of the Department of Córdoba. The El Alacrán deposit is centred at approximately 7°44'28" N, 75°44'07" W. See Figure 4-1.

4.2 Mineral Rights in Colombia

4.2.1 Colombia Mineral Title

The Colombian Constitution prescribes that subsoil and non-renewable resources are owned by the State, except rights acquired on mineral deposits granted by prior laws. Thus, their exploitation will result in royalties for the State. To develop the Constitutional rules, the Congress issued the Colombian Mining Code, in which it states that for exploitation of non-renewable resources the State may allow momentary concessions to private parties through a Mining Concession Agreement ("Concession"). The Concession does not transfer a property right over the minerals to the beneficiary "in situ", but establishes, exclusively and temporarily within the granted area, the existence of minerals to be appropriated by means of their extraction. In other words, the concessionaire only acquires the property right over the extracted minerals, not over the deposit.

The mining title, therefore, is a Concession Agreement between the State and a private entity in which the latter executes, at their own risk and account, the studies, exploration and exploitation works in a limited area, and acquires the right to ownership of extracted minerals in exchange for royalties.

Concessions are issued and supervised by the Ministry of Mines and Energy and the National Mining Agency ("Mining Authorities"), guided by the principle of 'first come, first served', according to which the individual that first applies for the concession should be entitled to the Mineral Rights. Mining Authorities, also, produce regulations and grant Mineral Rights to private parties. Concession Agreement areas are defined on a map with reference to a starting point with distances and bearings, or map coordinates.

Figure 4-1: Location map of El Alacrán Property Department of Córdoba, Colombia

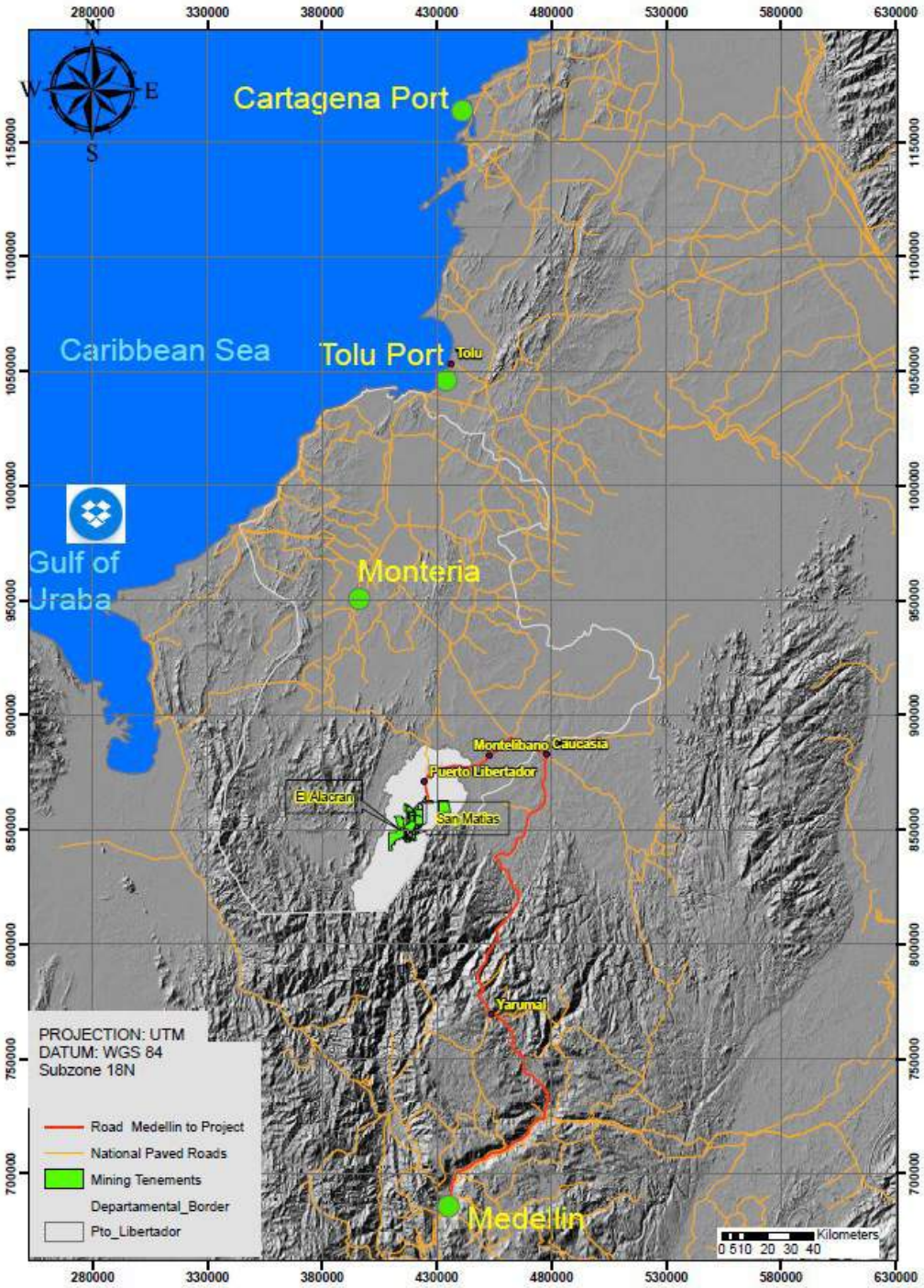


Figure provided by Cordoba Minerals

A concession Agreement has three phases:

Exploration Phase:

- Valid for 3 years plus up to 4 extensions of 2 years each, for a maximum of 11 years.
- Annual surface fee payments. A surface fee is a consideration to be paid to the State for using the surface, both during the exploration phase and construction and assembly phase. The first payment is due when the Concession Agreement is registered in the National Mining Registry ("NMR"). The NMR is a service for granting authenticity and publicity to acts and concessions related with constitution, conservation, exercise and limitation over mining exploration and exploitation rights. The surface tax varies with the size of the Concession Agreement and is currently approximately US$9/ha for areas up to 2,000 ha, approximately US$18/ha for areas between 2,000 and 5,000 ha, and approximately US$27/ha for areas above 5,000 ha.
- Requires an annual Environmental Mining Insurance Policy for 5% of the value of the planned exploration expenditure for the year. The insurance policy is an agreement entered into with an insurance company to ensure compliance of mining and environmental obligations, and the payment of fines or the unilateral termination of the Concession. The insurance policy is mandatory.
- Present a mine plan (PTO) and an Environmental Impact Study for the next phase.

Construction Phase:

- Valid for 3 years plus a 1-year extension.
- Annual surface fee 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.
- Environmental License issued on approval of Environmental Impact Study. Environmental Licence ("EL"): is permission granted by the Environmental Authority for the construction, assembly and exploitation phases. The decision to grant the permission is based, among others, on the Environmental Impact Study submitted by the concessionaire.

Exploitation Phase:

- Valid for 30 years minus the time taken in the exploration and construction phases, and is renewable for 30 years.
- An annual Environmental Mining Insurance Policy required equivalent to 10% of the estimated production in the PTO
- No annual surface taxes.
- Pay a royalty based on regulations at time of granting of the Contract.

Suspension of obligations is a permission given by the Mining Authority to temporarily interrupt the activities of exploration, construction and assembly, exploitation and production. The interruption must be justified by economic or technical reasons. If obligations are suspended, the surface fee is waived, but the insurance policy must be paid.

4.2.2 Colombia Environmental Regulations and Permitting

The Mining Law 685 of 2001 requires an annual Environmental-Mining Bond to be posted for each Concession Agreement. Cordoba Minerals has done this for each Concession Agreement. Exploration activities require an Environmental Management Plan (Plan de Manejo Ambiental or PMA), which has been submitted for each Concession Agreement and application.

At the end of the Exploration Phase an Environmental Impact Study (EIA) has to be presented if the concession is to proceed to the Construction Phase. This must be approved and an Environmental License issued before the Exploitation Phase can begin, subject to a PMA. In addition, exploitation requires a Permit for Springs, Forest Use Permit, Certificate of Vehicular Emissions, Emissions Permit, and River Course Occupation Permit.

Under Colombian mining and environmental laws, companies are responsible for any environmental remediation and any other environmental liabilities based on actions or omissions occurring from and after the entry into force and effect of the relevant Concession Agreement, even if such actions or omissions occurred at a time when a third party was the owner of the relevant mining title. On the other hand, companies are not responsible for any such remediation or liabilities based on actions or omissions occurring before the entry into force and effect of the relevant Concession Agreement, from historical mining by previous owners and operators, or based on the actions or omissions of third parties who carry out activities outside of the mining title (such as illegal miners).

4.2.3 Colombia Legal Access and Surface Rights

The granting of a Concession Agreement in Colombia does not include a legal right of surface access. The mining title grants a private entity a permission to study, explore and exploit a limited area in order to acquires the right to own the extracted minerals in exchange for royalties, but it does not grant surface rights per se. Thus, surface rights are independent of the mineral tenure. However, in Colombia mining is a public interest activity, which means that the holder of a mining title has the possibility of requesting expropriation over properties that may be indispensable for the development of the mining project. It may also give the titleholder the chance to request easements over properties located outside or inside the area covered by the mining title. Easements also can be established by agreement for the same term as the concession. An indeterminate number of parties hold the surface rights of the Mining Project.

4.2.4 Colombia Water Rights

Exploration activities require a Surficial Water Concession if a natural resource is required to be used, especially for drilling.

4.3 Cordoba Mineral Rights

4.3.1 El Alacrán Project Mineral Title

As of 30 January 2018, Cordoba's mineral rights are held by two wholly owned Cordoba subsidiaries, Minerales Cordoba S.A.S.(MCSAS) and Exploradora Cordóba S.A.S (EXSAS). MCSAS and EXSAS are appropriately registered to operate in the jurisdiction of the Republic of Colombia, and have the necessary corporate power and capacity to carry on their businesses as now conducted and to own its properties and assets. Particularly, MCSAS and EXSAS can subscribe and develop Concession Agreements as stated in its commercial purpose.

The El Alacrán mineral title consists of 1 concession agreements with a total area of 391.021 ha (Table 4-1). Total annual surface fees and insurance costs for the El Alacrán concession is currently COP$22,182,727 (currently approximately US$8,200).

Table 4-1: El Alacrán Mineral Title Concession

ID NUMBER	TITLE HOLDER	DATE OF REGISTRATION	CONCESSION EXPIRY DATE	AREA (HA)	FEES 2018 COP (surface fee + insurance policy)	INSURANCE POLICY AND SURFACE FEE IN FORCE AND UP TO DATE ON PAYMENT	OBLIGATION SUSPENDED OR SUSPENSION PENDING
III-08021	COBRE MINERALS S.A.S. (Title operator is Exploradora Córdoba S.A.S.)	1-Jul-09	30-Jun-39	391.021	$22.182.727††	YES	NO

†† Obligations are not suspended. For this title, surface fee is $10.182.727 COP and the estimated insurance policy for 2018 is $12.000.000 COP.

Cordoba's San Matias district concessions are shown in Figure 4-2. The black rectangle in centre is El Alacrán concession III-08021 which is the subject of this Technical Report. The El Alacrán concession is shown in Figure 4-3.

4.3.2 El Alacrán Agreements

There are two agreements over the mining tenures. An option contract agreement over the title III-08021 which covers the El Alacrán deposit, and a transfer promise of the resulting title of the mining area application PCB-08021.

Option Contract III-08021 On October 20, 2015, CORDOBA MINERALS CORP and MCSAS subscribed a letter of intent addressed to SOCIEDAD ORDINARIA DE MINAS OMNI and COMPAÑÍA MINERA EL ALACRÁN SAS, that established the intention of signing an option contract agreement over the title III-08021. SOCIEDAD ORDINARIA DE MINAS OMNI and COMPAÑÍA MINERA EL ALACRÁN SAS accepted the letter of intent on October 20, 2015. On February 27, 2016, the option contract over the title III-08021 was celebrated, between OMNI parties (SOCIEDAD ORDINARIA DE MINAS OMNI, COMPAÑÍA MINERA EL ALACRÁN SAS, CMH COLOMBIA SAS and COBRE MINERALS SAS) and CORDOBA parties (MCSAS, CORDOBA MINERALS SAS, EXSAS). Pursuant the option contract, the OMNI parties concede exclusively and irrevocably to the CORDOBA parties an option over the total shares of COBRE MINERAL SAS (100%), which currently is the titleholder of the Mining Title III-08021, if the conditions of the option are satisfied. On August 11, 2017, the parties certified that some conditions of the option were satisfied, since July 10, 2017. Three payments of USD$250,000 at the signing of the contract, on April 7, 2016, and on October 27, 2017.

a) Begin a perforation plan of 3,000 meters within the 90 days after the signing of the letter of intent.

b) Finish a perforation plan of 8,000 meters before February 27, 2018.

c) Grant a subscription option of 100,000 shares of CORDOBA MINERAL CORP to CMH COLOMBIA SAS.

Pending conditions are:

a) Keep the Concession Agreement III-08021 in force and good standing.

b) Submit a time extension request for the exploration phase before March 30, 2018, by MCSAS

c) Pay USD$1,000,000 to CMH COLOMBIA SAS on February 27, 2019.

d) Declaration (before June 30, 2019) that the option is going to be exercised in 2020 by CORDOBA parties, along whit a corporate warrant.

e) Present a Work Program to the Mining Authority before May 12, 2020.

f) Present an Environmental Impact Study to the Mining Authority before June 30, 2020.

g) Pay USD$13,000,000 to CMH COLOMBIA SAS on June 30, 2020

Pursuant the contract, there will be a 2% royalty of the Net Income for Production. Payments will be quarterly.

ACTIVOS MINEROS DE COLOMBIA SAS is the applicant of the Concession Agreement PCB-08021, for technical exploration and economic exploitation of ‘precious metals and their concentrates’, in the Municipality of Puerto Libertador, Córdoba. On May19, 2016, ACTIVOS MINEROS DE COLOMBIA SAS and MCSAS celebrated a transfer promise of the resulting title of the mining area application PCB-08021, that is going to be granted to the first.

Figure 4-2: Map of the Cordoba's San Matias District Concession Agreements

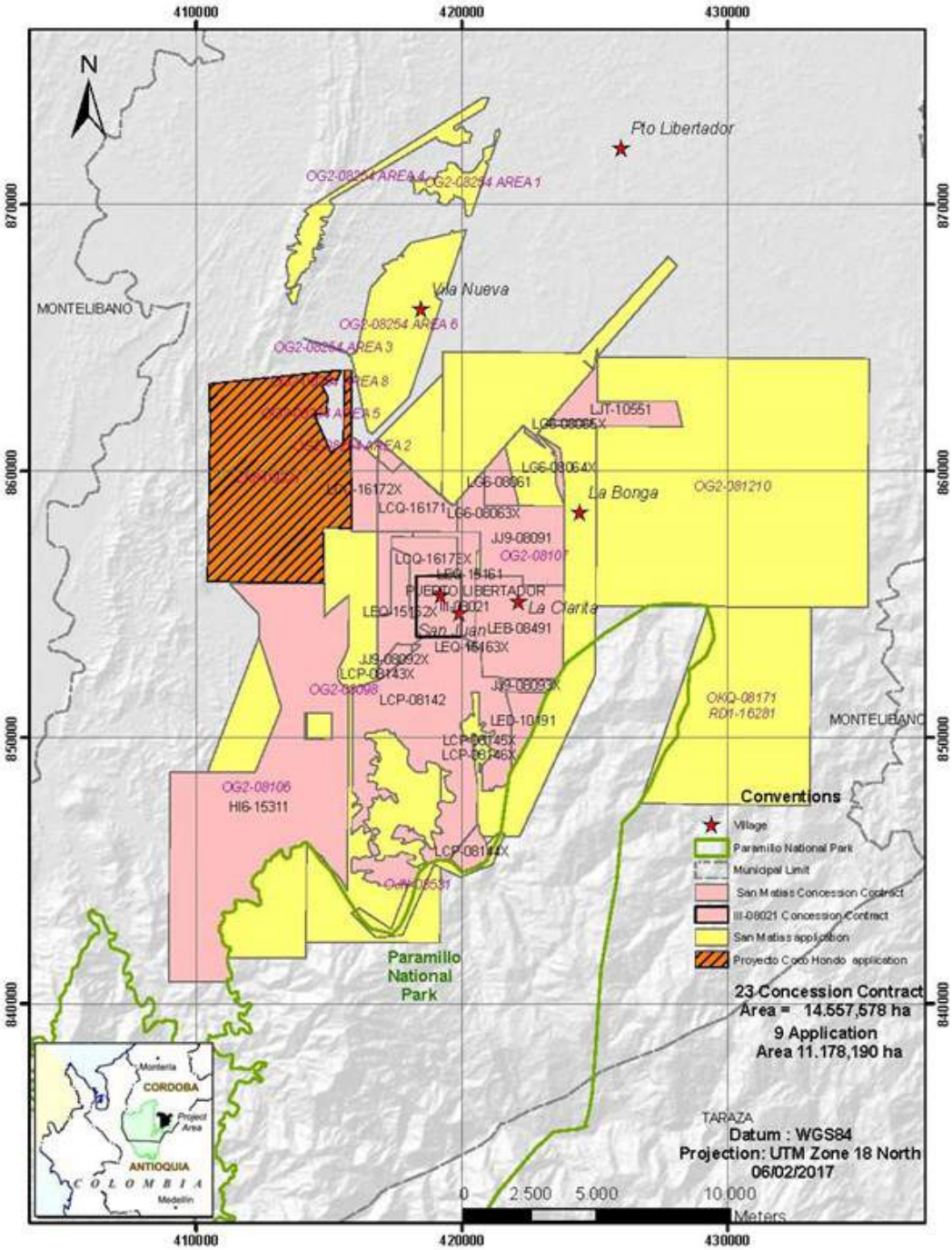


Figure provided by Cordoba Minerals.

Figure 4-3: Map of the El Alacrán Concession Agreement

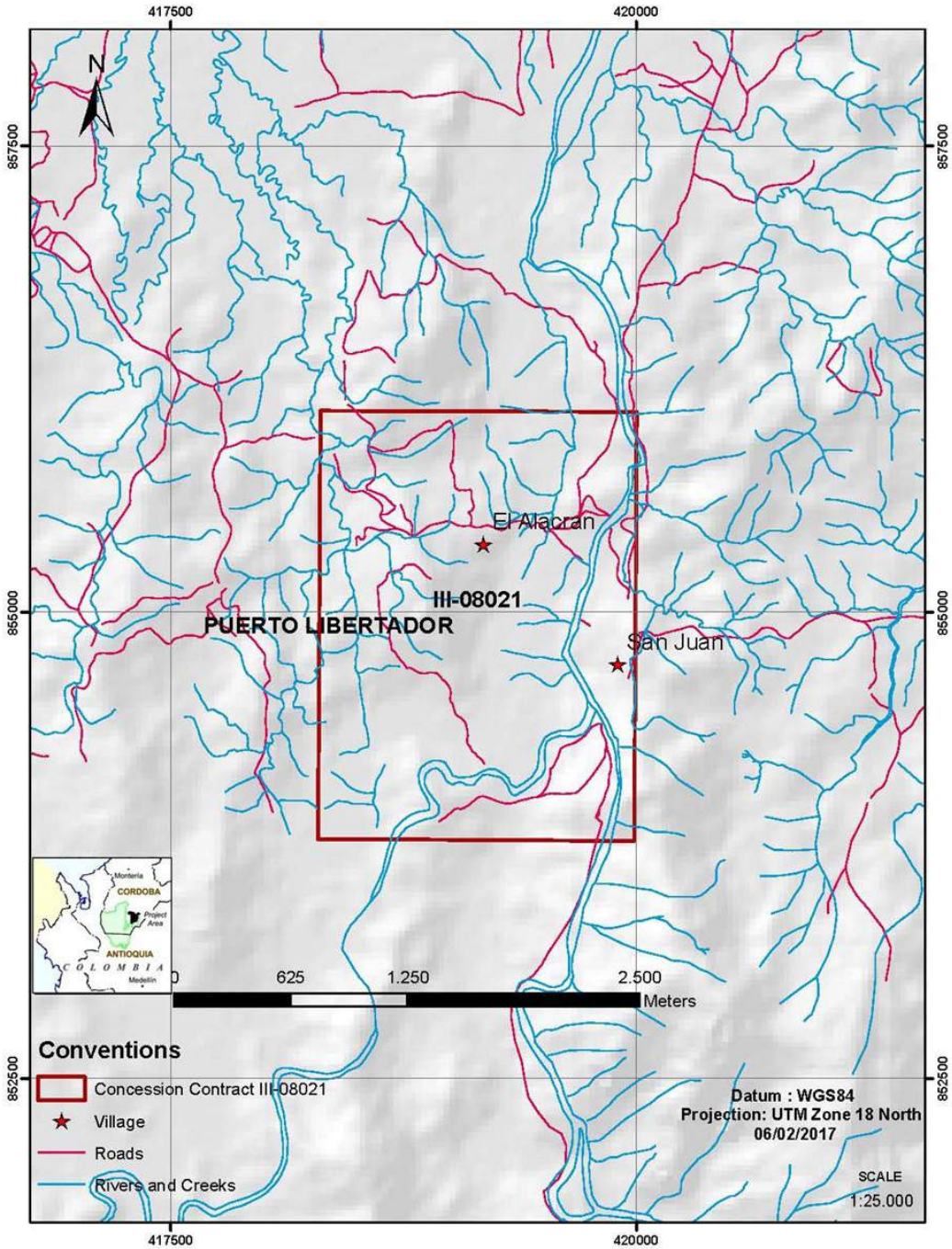


Figure provided by Cordoba Minerals

EXSAS is operating the Concession Agreement III-08021. The contract and the option expires on June 30, 2020.

4.3.3 Project Environment and Permitting Considerations

The Project has potential environmental liabilities due to informal artisanal mining in the past and the present by alluvial, open pit, hydraulic and underground mining activities, including:

- Surface disturbance and degradation including deforestation.
- Waste rock and tailings from mining operations.
- Possible contamination of soil and water by mercury, cyanide, arsenic, acid drainage, heavy metals and solids from artisanal mining operations.

The company has carried out environmental base line studies and monitoring since the start of the project.

The Paramillo National Natural Park, created in 1977, is located in the forested mountains on the south side of the San Matias Project. There is a buffer zone to the park in which mining operations are permitted subject to certain environmental restrictions.

The El Alacrán Project is located at low elevations and well below the altitude of the “páramo” (moorland) ecosystem where exploration and mining are prohibited. The páramo is defined as an ecosystem above 3,200 m altitude consisting of glaciated uplands with lakes and peat bogs.

4.3.4 Project Legal Access and Surface Rights

Cordoba, through MCSAS, has subscribed easement agreements for the exploration phase with the owners of the properties in the El Alacrán area. In addition, MCSAS is the titleholder of the surface rights of 5 properties. Other surface rights are held by private owners, possessors, and tenants, and the Republic of Colombia for the vacant land. In many cases, the vacant lands are occupied by third parties. Cordoba would need to make arrangements for compensation with local land owners or government for land use. MCSAS has subscribed purchase agreements of constructions and materials with the occupants of vacant lands. They do not hold any surface rights, but must be compensated for their goods, pursuant Colombian Civil Law.

4.3.5 Project Water Rights

Surficial Water Permits have been granted for drilling.

4.3.6 Project Social License Considerations

The San Pedro Indigenous Reserve is located on Concession Agreement LEQ-15161. There are also several indigenous communities in the project area, including on the El Alacrán area. The company has engaged in a process of Prior Consultation with them as stipulated by law.

Artisanal miners of the Asociación de Mineros del Alacrán are mining illegally at El Alacrán. The Asociación filed a lawsuit against Omni for annulment of the Concession Agreement in 2015 which the company considers having no legal basis and to be a very low risk. The company maintains a good relationship with the miners and the plan is that the miners will leave when the company builds a mine.

4.4 Comments on Section 4

Information from Cordoba and experts retained by Cordoba supports that Cordoba, through MCSAS and EXSAS, have the rights to acquire, hold, and transfer ownership in the listed mineral tenures. MCSAS and EXSAS have the rights to carry out exploration and exploitation with respect to the listed mineral tenures mineral rights held in the name of MCSAS are appropriately registered to MCSAS, are valid, and are in good standing. Based on the information provided, the mineral tenures are not subject to outstanding liens or encumbrances, and are not pledged in any way. To the extent known, there are no other significant factors and risks that may affect access, title or right or ability to perform work on the property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The El Alacrán Property is assessable via a 70-km paved road from city of Caucasia to Puerto Libertador and then via a 21-km partially unsurfaced road to the exploration camp. The project core shack is assessible from the camp via a 5 km unsurfaced road.

There are daily scheduled flights from Medellin to the city of Caucasia. There are also more frequent scheduled flights from Medellin and Bogota to the city of Montería. Monteria is 170 km by road from Puerto Libertador.

5.2 Climate

The property area has a tropical wet climate with an average temperature of 27.4°C and annual rainfall of approximately 2,228 mm. The highest rainfall is between May and September, with approximately 300 mm of rain in September. The driest month is January, with approximately 30 mm of rain. The warmest month is March with an average of 28.3°C. The coolest month is October with an average of 26.9°C.

5.3 Physiography

The property is in the northern foothills of the Western Cordillera and the southern side of the Caribbean lowlands where north-south trending mountains die out and pass under extensive plains with altitudes of less than 100 m. Altitudes in the property area are between about 100 m and 350 m above mean sea level. The project area is mostly within the tropical, premontane wet forest ecological zone.

Most of the original forest cover has been cleared. Land use is mainly for agriculture, cattle grazing and mining.

The project is situated in the Upper San Jorge river basin and lies between the north-flowing San Pedro River to the east and the north-flowing San Jorge River to the west. These are part of the Magdalena River system which drains into the Atlantic.

The Paramillo National Park is situated in the forested mountains to the southeast of the Property.

5.4 Local Resources and Infrastructure

There is a small field camp near the village of San Juan and a core shack near the village of El Alacrán. San Juan and El Alacrán provide general labour to support the San Matias exploration program. Hotel accommodation and field supplies are available in the towns of Puerto Libertador and Montelíbano.

There is an airstrip at Puerto Libertador which can be used by helicopters, and an airstrip at Montelíbano which can be used by both light aircraft and helicopters.

The Property is about 220 km due east of the Pacific Ocean and 115 km due east of the Gulf of Uraba on the Caribbean Sea. The nearest ports are at Tolú (220 km by road) and Cartagena (360 km by road) on the Atlantic Ocean. Caucasia is situated on the navigable Cauca River, part of the Magdalena River system which enters the Atlantic Ocean at Barranquilla. The nearest railway is at Medellin, 170 km to the south.

The national electricity grid supplies the towns of Puerto Libertador and Montelíbano and the Cerro Matoso mine. The national gas grid also supplies the Cerro Matoso mine. A major thermal power station was recently completed near Puerto Libertador, and uses locally mined sub-bituminous coal. The 414-megawatt (MW) project comprises two parts. The Gecelca 3 unit (164 MW) was brought online in September 2015.

5.5 Comments on Section 5

The climate allows for mineral exploration and drilling year-round. The district is expected to be able to supply the basic workforce for any future mining operation. The physiography of the project area is favourable for open pit mining with sufficient room for a processing plant, waste rock dumps, tailings storage, and other mine infrastructure. Cordoba Minerals will need to acquire additional surface rights to support a mining operation.

6.0 HISTORY

Exploration was carried out at El Alacrán by Dual Resources Inc. (Dual Resources), a Canadian junior company, in 1987-1989 with the Colombian consulting company Geotec Ltda. Exploration is described in reports by Vargas (1998, 2001, 2002, 2014) and Shaw (2002). The Dual Resources exploration program included pits, trenches, rock sampling, underground sampling, geological mapping and a ground magnetic survey, followed by 15 diamond drill holes for 2,407.75 m (holes SJ 1 to SJ 19). Dual Resources held the claims until 1994. The property was staked in 1995 by Sociedad Ordinaria de Minas Santa Gertudis and Sociedad Minera El Alacrán S.O.M., both private Colombian companies. No significant exploration work was carried out between 1995 and 2009. A Concession Agreement was granted in 2009 to Sociedad Ordinaria de Minas Omni S.O.M. (Omni) and was optioned in 2010 to Ashmont Resources Corp. (Ashmont), a private company based in Vancouver. Ashmont carried out geological mapping at 1:2,000 scale, underground mapping and sampling, a ground magnetic survey, and two programs of diamond drilling. Ashmont earned a 90% interest in the Concession Agreement which it held through Ashmont Omni S.A.S., ownership of which reverted to Omni on termination of the option and it was renamed Compañía Minera El Alacrán S.A.S. in 2014.

6.1 Historical Mineral Resource Estimates

Three Mineral Resource estimates were prepared for the El Alacrán deposit before Cordoba acquired the project. Vargas prepared a mineral resource estimate using the Dual Resources exploration data in 2002 (Vargas, 2002). Tetra Tech Wardrop prepared a resource estimate in 2012 based on the Dual Resources and first phase of 2011-12 drilling by Ashmont (Mosher, 2012). Vargas prepared a mineral resource estimate 2014 (Vargas, 2014).

Mining Associates prepared an El Alacrán mineral resource estimate for Cordoba Minerals in 2017 representing the first publicly disclosed resource estimate following the NI 43-101 Technical Report format.

6.2 Production

There has been no industrial-scale mining production within the San Matias property. Gold is mined artisanally at El Alacrán by the Asociacion de Mineros de El Alacrán (El Alacrán Miners Association). About 80 miners work in 30 shallow pits and adits and process material in numerous small stamp mills and small ball mills. Although the artisanal miners have no legal mining rights, Cordoba Minerals has a good relationship with the miners and has made an agreement such that they are allowed to keep mining until mine construction starts.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The El Alacrán property is located in an accreted oceanic terrane of the Western Cordillera, described as the Calima Terrane by Restrepo & Toussaint (1988), and as Terrane 4b in the most recent tectonic synthesis by Kennan & Pindell (2009). The host rocks likely belong to are the Upper Cretaceous Cañasgordas Group which is subdivided into the Barroso Formation of basalts, and the Penderisco Formation of turbidites, chert and limestone. The basalts and pelagic sediments formed on the ocean floor and are interpreted to be fragments of an oceanic plateau called the Caribbean Large Igneous Province which were transported from the west (Kennan & Pindell, 2009). The age of the plateau basalts is about 90 Ma (Turonian; Kennan & Pindell, 2009). On the eastern side, the oceanic terranes are separated from Paleozoic Cajamarca Group schists in the Central Cordillera or Tahami Terrane (Restrepo et. al, 1988), which represent the continental margin, by the Cauca-Romeral Fault Zone, also called San Jacinto Fault in the project area, which has large scale right lateral movement. The suture is marked by isolated outcrops of peridotite interpreted to be ophiolites, such as that which hosts the Cerro Matoso nickel laterite deposit, 25 km northeast of the San Matias Project (Gleeson et al., 2004). The age of the accretion is suggested between 75-73Ma (Villagómez, 2010; Spikings et al., 2015).

Small granitoid plutons of Upper Cretaceous to Early Eocene age pre- and post-date accretion (Kennan & Pindell, 2009). The San Matias Project is located close to the eastern edge of the oceanic terrane near to the San Jacinto Fault.

The Cajamarca and Cañasgordas Groups are overlain unconformably by Cenozoic age sediments the northern part of the San Matias Project. The sediments are accretionary prisms of Paleocene to Oligocene age forming the San Jacinto Fold Belt, and accretionary prisms of Oligocene to Pliocene age forming the Sinú Fold Belt to the west, as well as extensive Quaternary sediments (Cediel & Cáceres, 2000).

There are differences in the definition of some of the Western Cordillera terranes between different authors. Also, there is no consensus on the timing of the accretion of the defined oceanic terranes. The project location is shown on the widely used Geotec geological map of Colombia at 1:1 million scale in Figure 7-1.

Recent U-Pb and Re-Os dating realized by MDRU to Cordoba Minerals (Geocronology Report) obtained for the porphyry intrusion at Montiel and a molybdenite in the mineralization at El Alacrán, Late Cretaceous ages: 70.6 ± 1.4 Ma and 75.8 ± 0.4 Ma, respectively. This suggest a late cretaceous magmatism associated with the district mineralizing events. These ages are the first record of its type along the Calima Terrane being markedly younger to the cretaceous magmatism developed along the Calima Terrane. E.g the Buga Batholith (92-90Ma) and Jejenes Stock (ca. 85Ma) (Leal-Mejia, 2011).

These new ages would suggest the existence of an endowed late cretaceous metallogenic belt in this part of Colombia. Although it is not currently clear, possibly such belt was only developed within the San Jacinto Terrane (in the Cediel, 2003 Sense). The mineralization events developed along the San Jacinto Terrane may have occurred pre- or syn-accretion of the oceanic terrane to the NW continental margin (Manco-Parra,2018).

7.2 Local Geology

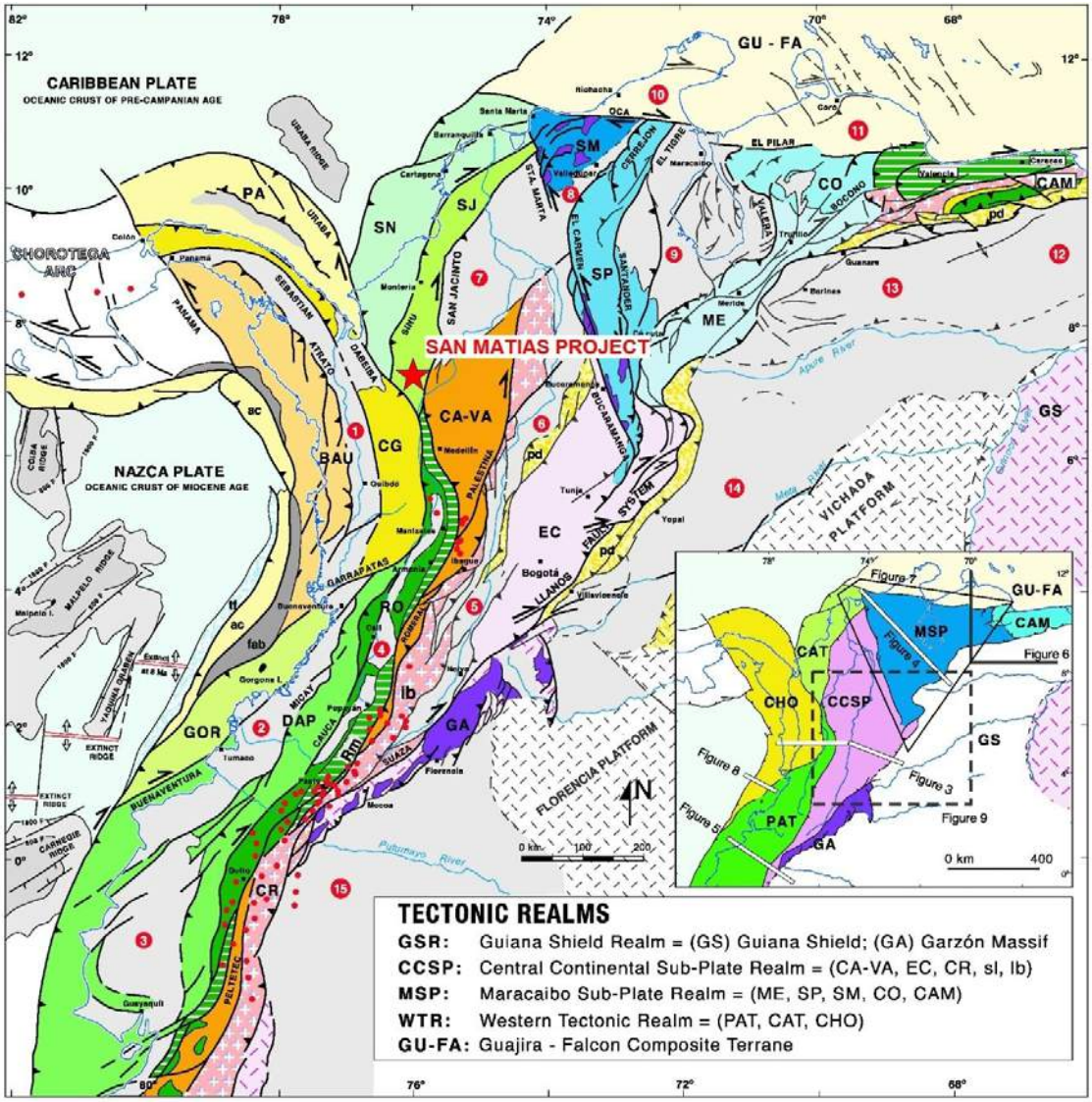
The San Matias exploration area is underlain mostly by three lithological domains: intrusive and porphyry rocks: volcanic rocks: and volcanoclastic rocks. All possibly belong to the early cretaceous age Barroso formation (Figure 7-2).

7.2.1 Intrusive and Porphyry Rocks

Magmatism in the San Matias district is interpreted as part of the pre-accretionary magmatic arc developed in the Calima Terrane (Manco et., al 2018). Most of the intrusive rocks are spatially located along the eastern side of the San Pedro River Lineament. Mineralogically the intrusive and porphyry rocks in the area vary in composition from diorite, tonalite, and tonalite porphyry. In general, the rock is medium to fine-grained (0.5-2 mm) plagioclase, hornblende and minor biotite and quartz. According to lithogeochemical patterns the intrusions along the San Matias district can be grouped into four main suites (Manco-Parra, et. al,).

San Matias-La Jagua Suite: Tonalite to tonalitic porphyry. These rocks present marked Nb, Ta, Ti anomalies in a Chondrite Norm Diagram (Thompson, 1982). Also, present is a major contrast between enrichment of LILE in comparison with the depletion on HFSE (Heavy rare earths). Rocks from this suite are the most metal endowed and are related with the occurrence of porphyry-style mineralization in the area.

Figure 7-1: Regional Tectonic Setting



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

Modified from Cediel et al., 2003.

San Jorge Suite: Diorite to gabbro diorites with anomalous Nb and Ta and positive to flat Ti anomaly. These Rocks do not present a marked differentiation between the LILE and HSFE and present a positive anomaly of Eu. This suggest, immature arc setting given the subduction firm with a weak differentiation process.

Betesta-Mina Escondida Suite: fine to medium-grained hornblende diorite with marked Nb, Ta negative anomalies, and not pronounced Ti anomalies. In a N MORB Norm diagram (Sun & McDonough 1989) these rocks fall below 1 (normalized value) and exhibit an intermediate differentiation between the LILES and HFSE. They also don't exhibit the positive Eu anomaly in comparison to the San Jorge Suite. This suggest more differentiation process under subduction.

San Pedro-Costa Rica Suite: These rocks vary between pyroxene diorite to quartz diorite. Rocks from this suite show an enrichment in LILE but not in expenses of depletion of HFSE. In both elements are relatively enriched, suggesting enriched-MORB signatures.

7.2.2 Volcanic Rocks

The volcanic rocks correspond to aphyric andesite and basalt with variations to andesite porphyry, composed mostly of phenocrysts of plagioclase and augite.

7.2.3 Volcanoclastic Rocks

The volcanoclastic sequence can be divided into 4 groups

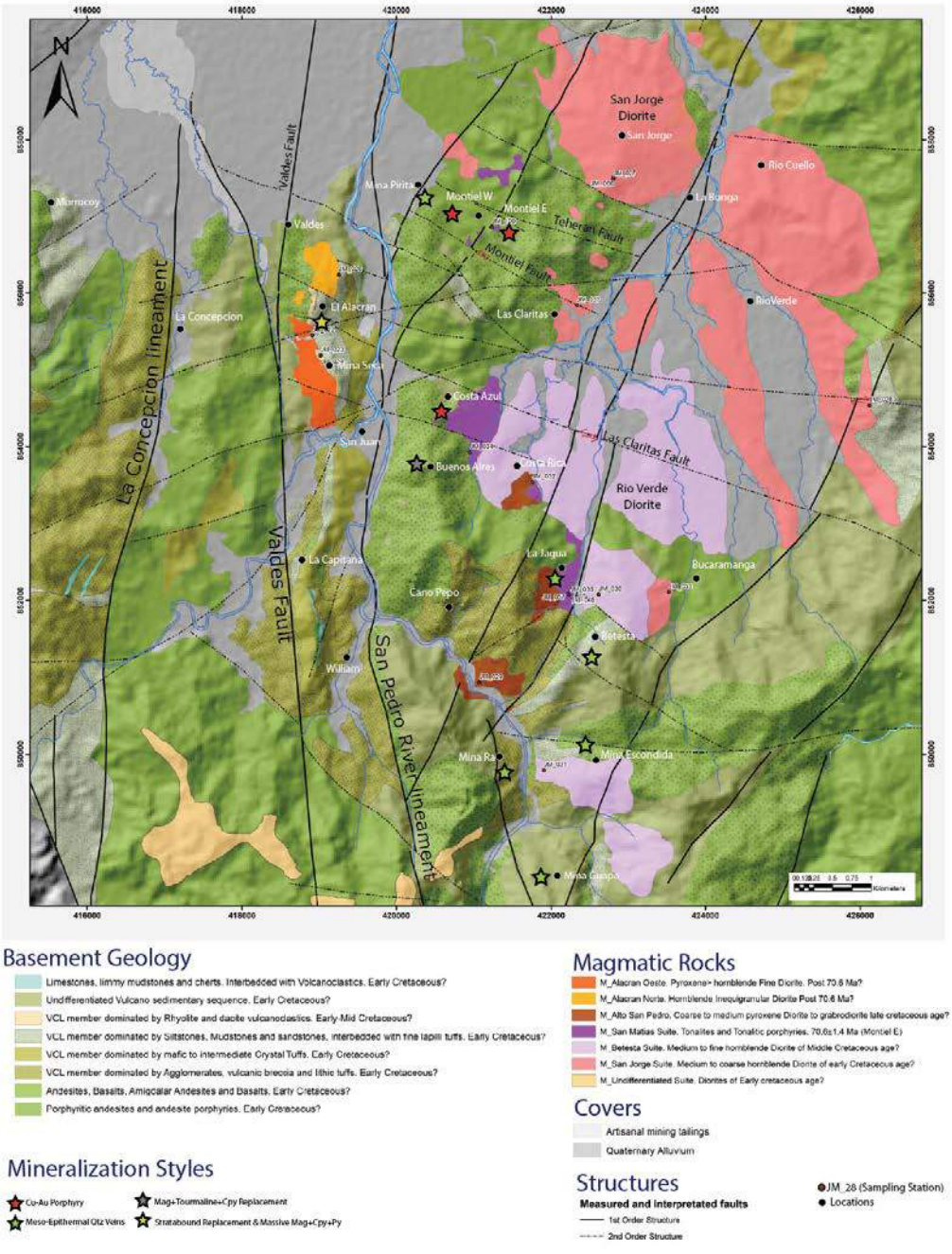
1. Coarse-grained member: volcanic agglomerate and volcanic breccia and lithic tuff with size fragments than can surpass 5 mm in length.

2. Medium-grained member: (>1 mm) volcaniclastics dominated by crystal tuffs.

3. Fine-grained sedimentary member: coarse to fine laminated siltstone and mudstone with interlayering of levels of fine tuff and fine lithic tuff. The rocks in this member are interlayered with fossiliferous marlstone and muddy limestone.

4. Acid volcanic rocks: rhyolite and dacite volcanic breccia that varies to medium and fine dacite tuff. This member possesses visible quartz and potassic feldspar groundmass.

Figure 7-2: San Matias District Geological Map



7.3 Deposit Geology

The El Alacrán copper-gold mineralization is hosted by a west-dipping Cretaceous succession comprising mafic volcanic rocks overlain by a metasedimentary-volcaniclastic sequence and capped by pre- to syn-mineral, sill-like diorite and felsic sub-volcanic bodies. The sequence is about 550 m thick and the sills are about 200 m thick. The El Alacrán concession scale surface geology is shown in Figure 7-3 and was made by Cordoba geologists from core logging and lithogeochemistry, together with soil geochemistry and outcrop mapping, with faults inferred from ground magnetics and apparent displacements in the 3D geological model. Strong alteration associated with mineralization makes the recognition of protoliths difficult.

Copper-gold mineralization occurs throughout the metasedimentary-volcaniclastic package, except the lower mafics, and is most strongly developed in the mid to upper part of this package. The mineralized zones are known as Mina Norte (North Mine) to the north of the east-draining valley where El Alacrán artisanal miners' village is located, and Mina Seca (Dry Mine) to the south.

7.3.1 Lithostratigraphy

Lithological units in the El Alacrán area can be broadly divided into 3 main stratigraphy units, from top to bottom, Unit 1, Unit 2 and Unit 3.

Unit 1 (Acid volcanic rocks): Dacite to rhyolite tuff that comprise a series lithologies with textural variations such as fine tuff, breccia tuff and massive porphyritic rhyolite. The logging criteria for this unit is the occurrence of visible quartz. This unit lies in the hanging wall of the ore-hosted units and can be distinguished by Al/Ti >45. This unit extends up to 400 m in a north-south direction.

Unit 2 (Volcano-sedimentary rocks): six different volcanic facies are distinguished using textural criteria and other distinctive characteristics that included composition, geometry, volcanic or sedimentary structures. They correspond to (MudSil), (TufL), (VBx), (Lim) (SBx), and (TufD). Alteration and mineralization affect this entire unit. The following descriptions are mostly related to observations from drill hole ACD042 where the rock is relatively unaltered. Except where strongly mineralized this succession is geochemically distinguishable by higher Al/Ti, lower Cr/Al and relatively low Ni and Co compared with the underlying mafic succession (Unit 3).

- MudSil: fine-grained, fine-laminated mudstone to siltstone. This unit varies in carbonate content as well in carbonaceous content varying from usually calcareous gray mudstone to non-calcareous carbonaceous mudstones (black mudstone in the deeper levels of the sequence. The black mudstones present hematitic oxidation. The nature of this oxidation is not constrained. Also present are fiamme tuff (TufD) interbeddings.

- Lim: massive, non-graded, bioclast-bearing limy mudstone or Marlstone. The sequence exhibits a marked separation between the fossiliferous, calcareous sedimentation in the upper levels and non-calcareous, rich-carbonaceous, and siliceous at the bottom.

- TufL: medium-grained lapilli tuff with monomictic to polymictic fragments of rocks. The fragments sizes vary from 1 mm up to 2 cm. The matrix generally is composed of a mixture of ash and fine lapilli size material.

- TufD: a medium to fine grained, non-vesicular lapilli tuff that exhibits massive to slightly flow banding textures and partial to advanced welding.

- VBx: non-stratified monomictic breccia with clast sizes surpassing 2 cm in diameter. In some examples this varies to TufL possibly denoting an autobreccia and/or hyaloclastite facie, usually present in the lower part of the sequence.

Unit 3 (Mafic Volcanoclastic rocks): the lowest stratigraphic units in the El Alacrán area, Unit 3 consist of interlayered mafic to intermediate volcanic rocks, fragmental or volcaniclastic rocks locally showing remnants of vitroclastic and peperitic textures and lesser silty epiclastic or fine grained tuffaceous sediments. The base of the mafic-dominated succession is not encountered in the project area and its stratigraphic thickness exceeds 300 m. Within the mafic unit, at least six coherent subunits (TufA, TufM, TufP, TufF+TufL) can be recognized by textures and by their distinctive low Al/Ti and high Cr/Al ratios, plus their Ni, Co and Nb contents.

- TufF: coarse to fine laminated fine-grained tuff. Texturally this facie is not differentiable from the fine tuffs presents in Unit 2, however a marked difference is observed in the Mg content in comparison with the fine tuffs of Unit 2.

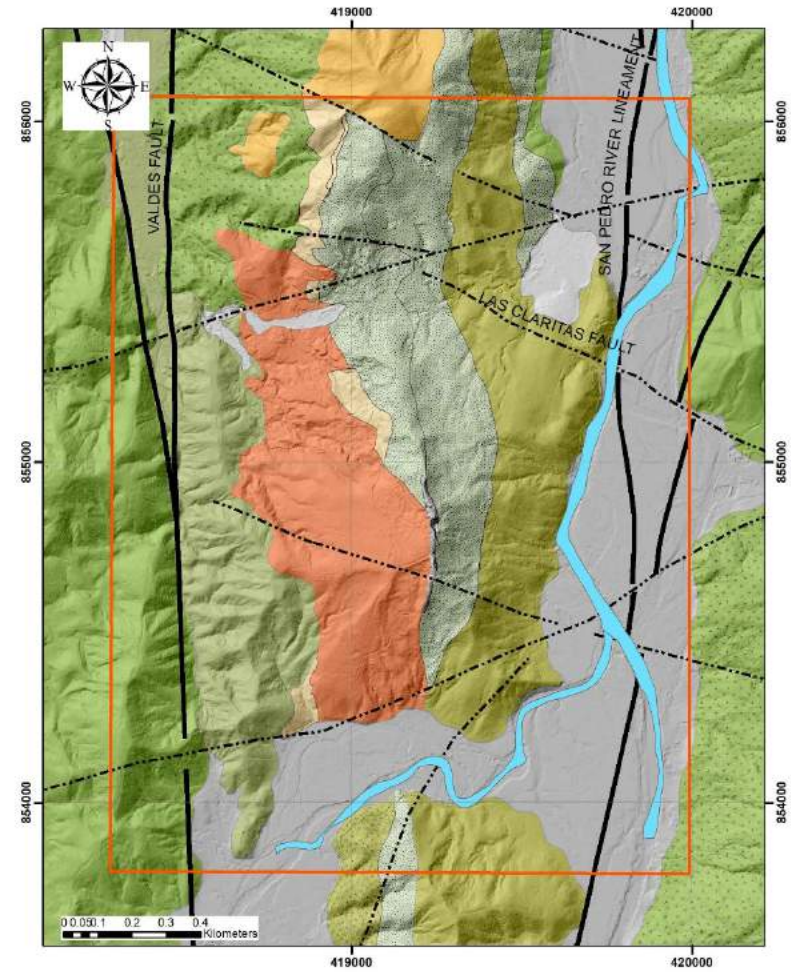
- TufM: coherent andesitic to basaltic rock with variable crystal sizes from 1 mm to 2 mm, usually composed of plagioclase.

- TufA: amygdala andesitic basalt with amygdals that vary from 1 mm to 1 cm. These vesicles are filled with a back material, possibly devitrified glass.

- TufP: peperite possibly formed in the contact of coherent lava with unconsolidated ash tuff and sediments in subaqueous conditions.

- TufF+TufL: a succession of interbedded poorly sorted lithic tuffs with laminated fine-grained tuff.

Figure 7-3: El Alacrán Geology Map



Structures

- 1st Order Structure
- 2nd Order Structure
- M_Alacran Oeste. Pyroxene> hornblende Fine Diorite. Post 70.6 Ma?
- M_Alacran Norte. Pyroxene Inequigranular Diorite Post 70.6 Ma?
- Artisanal mining tailings
- QuaternaryAlluvium
- Limestones, limmy mudstones and cherts. Interbedded with Volcanoclastics. Early Cretaceous?
- Undifferentiated Vulcano sedimentary sequence. Early Cretaceous?
- VCL member dominated by Rhyolite and dacite vulcanoclastics. Early-Mid Cretaceous?
- VCL member dominated by Siltstones, Mudstones and sandstones, interbedded with fine lapilli tuffs. Early Cretaceous?
- VCL member dominated by mafic to intermediate Crystal Tuffs. Early Cretaceous?
- VCL member dominated by Agglomerates, vulcanic breccia and lithic tuffs. Early Cretaceous?
- Andesites, Basalts, Amigdalar Andesites and Basalts. Early Cretaceous?
- Porphyritic andesites and andesite porphyries. Early Cretaceous?
- Tenement Boundary

Figure by Cordoba 2017

Figure 7-4 to Figure 7-6 show photos of some of the characteristic of Units 1, 2, and 3. A stratigraphic column for the El Alacrán area is shown in Figure 7-7.

Figure 7-4: Unit 1 Highlights (Acid Volcanic Rocks)

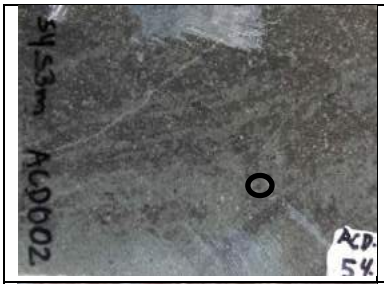
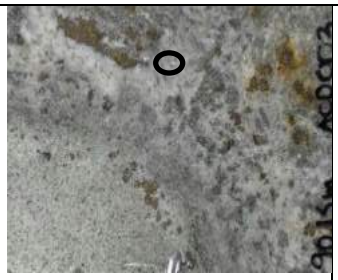
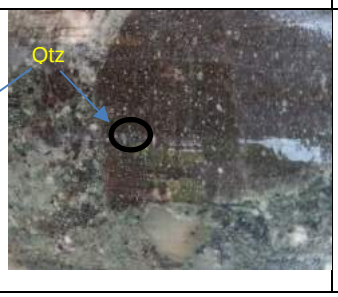
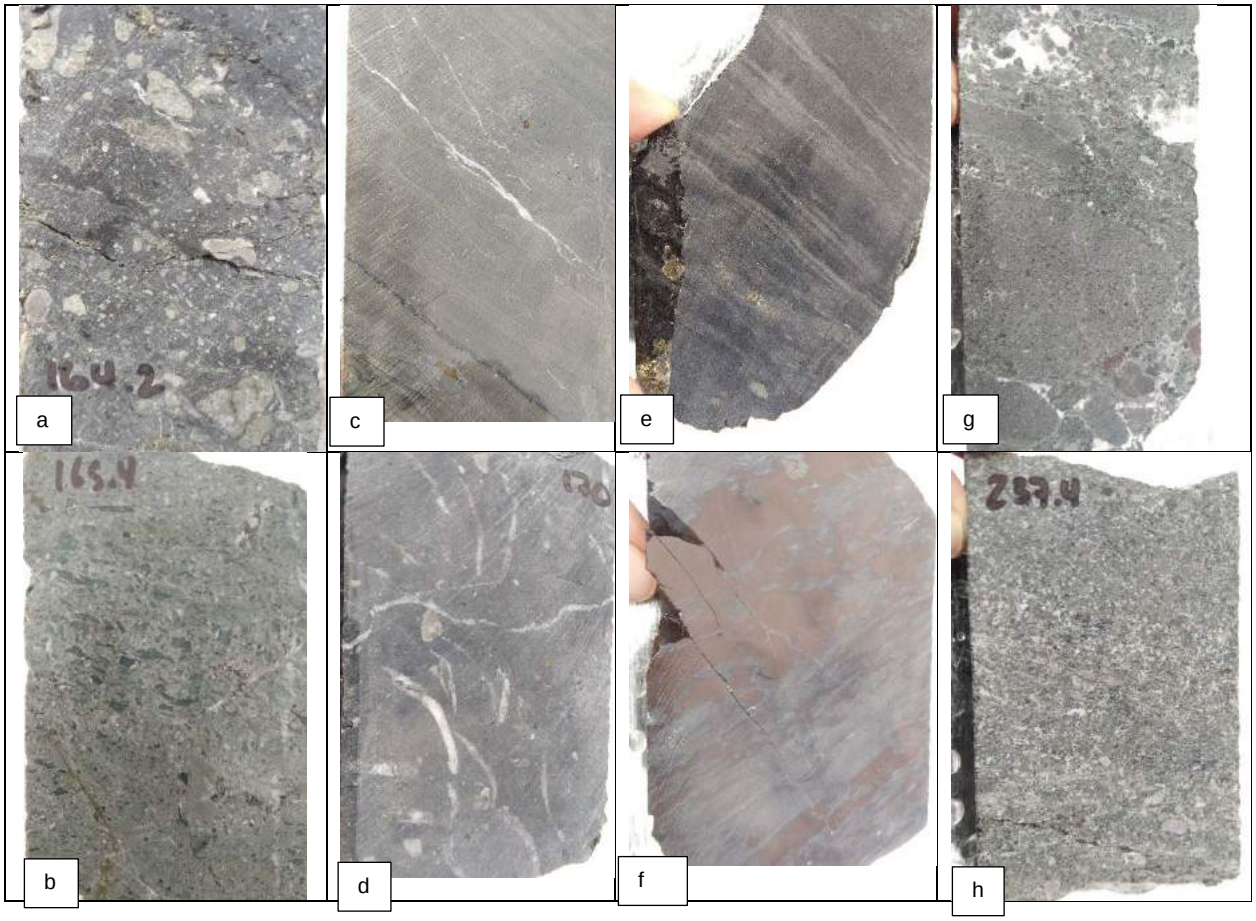
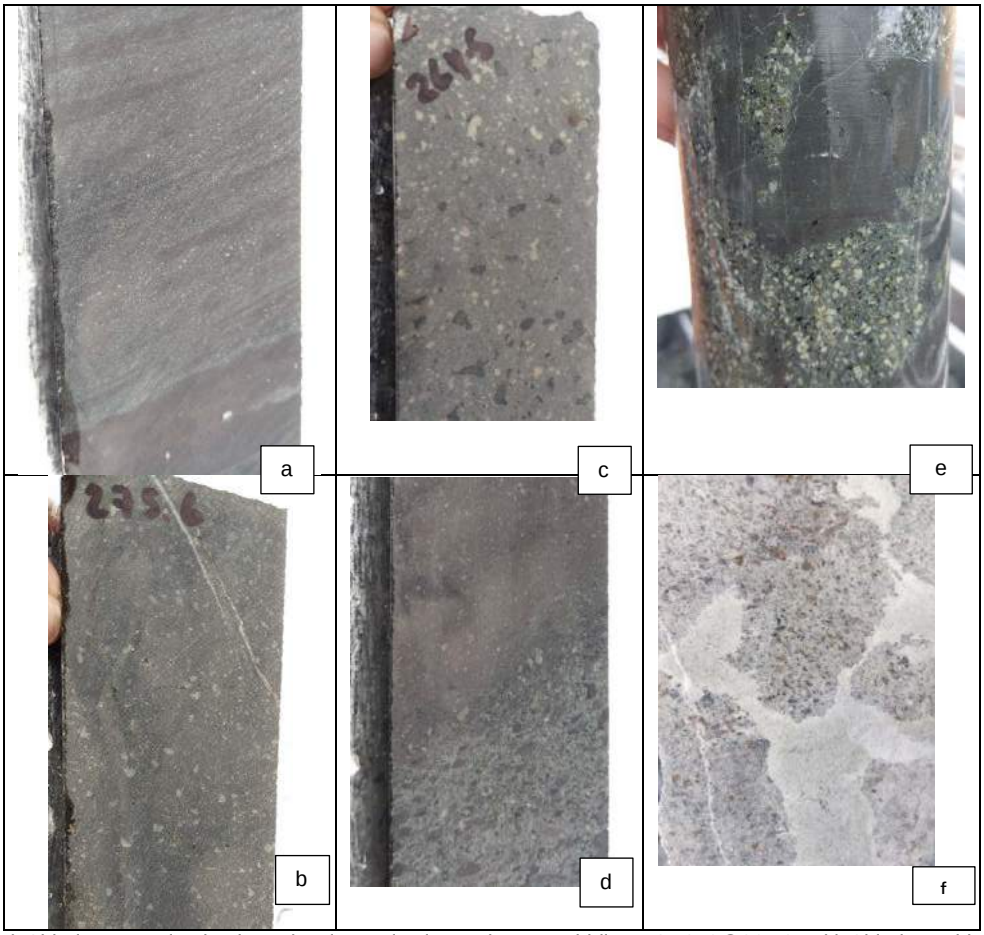
		Rhyolite Tuff (**TufR**): Textures present in the TufR. They vary from porphyrytic to fine grained tuff and volcanic breccia. Left: ACD002@45.3m Fine Tuff Right: ACD003@90.15m Rhyolite-Dacite Autobreccia
		Note in all of them the presence of quartz crystals, along with a brownish and green pale alteration. Left: ASA01@119m Porphyritic Rhyolite Right: ASA04@169m Rhyolite Breccia

Figure 7-5: Unit 2 Highlights (Volcano-sedimentary Rocks)



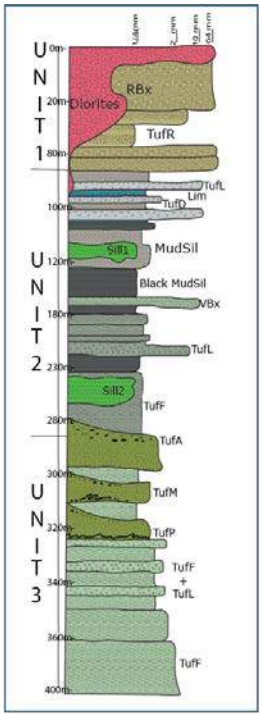
a) Matrix supported, monomictic sedimentary-breccia ACD042@164.2m b) Fiamme Tuff with fragments of mudstone ACD042@165.4m c) Laminated mudstone ACD042@167m d) Fossiliferous limestone ACD042@170m e) Laminated black mudstone ACD042@176.7m f) Hematized, laminated black mudstone ACD042@191.9m g) Chlorite, laminated, volcanic monomictic Breccia ACD042@211.67m h) Chlorite, Weak laminated, Lithic? Tuff ACD042@237.4m

Figure 7-6: Unit 3 Highlights (Mafic Volcanoclastic Rocks)



a) Chlorite-Hematite, laminated, volcanoclastic sandstone turbidite, ACD042@261.2m. b) Chlorite-Epidote, Plagioclase crysts andesite. Occasionally toward the contacts it presents some dark amygdaloidal devitrified volcanic glass, c) ACD042@264.5m. d) Chlorite-Hematite, laminated, interbedding of lithic tuff with some ash tuff up to 30cm ACD042@337.5m. e and f) Peperite textures of coherent lava (TufM) into unconsolidated ash sediments

Figure 7-7: El Alacrán Lithostratigraphic Column



7.3.2 Intrusions

Intrusions are recognized at El Alacrán by their hypabyssal igneous textures in core and surface mapping and by their high Al/Ti (>25), low Nb/Al (<4), low Zr/Al & Cr/Al and other geochemical features consistent with intermediate igneous rocks. Petrographic and geochemical characterization of the El Alacrán intrusions show two different end-member magmatic sources:

Alacrán Norte Diorite: Occurs in northern-most El Alacrán where it intrudes and/or is faulted against the metasedimentary-volcanic succession. This corresponds to a medium grained holocrystalline rock with an inequigranular to porphyritic texture. It is composed mostly of a plagioclase rich groundmass (40%), augite phenocrysts (~18%) and < 5% primary quartz. The phenocrysts sizes are up to 3.5mm length in the pyroxene and 2mm in the plagioclase. Most of the amphibole in the diorite was interpreted by (Manco-Parra, 2018) as a regional diuretic alteration product from the pyroxenes. The main alteration is silicification (18%) and a mixture of saussurite in plagioclase (10%) and chlorite after pyroxene (5%). It has primary magnetite ~1,5% and very low content of disseminated pyrite (~0.5%). According to the trace elements patterns this diorite corresponds to an unfractionated, tholeiitic affinity diorite. These can be grouped in the San Jorge Magmatic Suite.

Alacrán Oeste Diorite: Occurs in the west of the El Alacrán system and present ratios of (Al/Ti 25-35 and 35-45). This diorite intrudes the metasedimentary-volcaniclastic succession in a broadly north-south zone up to 2 km long. The eastern contacts of these diorites generally dip moderately to steeply west, broadly concordant with the stratigraphy, but locally discordant.

Petrographically, this unit corresponds to a medium-grained holocrystalline rock, with inequigranular distribution, composed mostly of plagioclase (32%), clinopyroxene (7%), quartz (4%) and hornblende (4%) with sizes between 0.25- 2.5mm. Alteration is medium to weak and is represented by silicification (28%), chlorite (15%) and sericite + carbonate (~2%). Primary magnetite is widespread in the entire sample about 2%. Mineralization is almost absent, just represented by traces of disseminated pyrite accompanied by chlorite. According to trace elements patterns this unit corresponds to a fractionated, calc-alkaline affinity, that can be grouped in the Betesta-Mina Escondida Suite.

7.3.3 Sills

Further to the east the latter succession is intruded by up to five andesitic sills, that can be grouped according to the alteration and mineralogy into Sill 1 and Sill 2. These sills are lenticular in form and locally up to 20 m in thickness. Intrusions have not yet been observed in the Unit 3. The sills correspond to fine and medium-grained holocrystalline, porphyritic andesite with 50-90% groundmass and phenocrysts composed of plagioclase (~13%) and pyroxene-hornblende (<7%). phenocrysts sizes vary from 2mm to 2.5 mm in length. Alteration varies from intermediate albitized in Sill 1, to pervasive albitized in Sill 2. Based on the trace elements patterns the andesitic subvolcanic sills can be discriminated and related to the same two magmatic end-members in the deposit, where Sill 1 group belongs to the Oeste Alacrán Diorite and Sill 2 correlates with the Norte Alacrán Diorite.

7.3.4 Structure

The Cretaceous succession of the El Alacrán area is situated on the moderately dipping western limb of a faulted, regional anticlinorial zone with N-S to NNW trending axial surfaces, which is cored further to the east by mafic and ultramafic rocks correlated with the Cañasgordas Group, and by dismembered Cretaceous ophiolites. Mesoscopic folds observed in outcrop and drilling are responsible for local changes in dip, are shallowly plunging and are inferred to represent parasitic folds syn-kinematic with the regional post-Cretaceous deformation. This deformation was of relatively low strain and produced a steep, weak cleavage in the Cretaceous metasediments at lower greenschist facies metamorphic grades. As noted above, intrusive activity is inferred to postdate this regional deformation.

Cenozoic successions to north and west of El Alacrán generally dip shallowly and are folded about N-S to NNE- axes. The Cenozoic successions are faulted against or unconformably overly the Cretaceous succession and are inferred to have been eroded from the El Alacrán area.

Sets of steeply dipping WNW, ENE and ~E-W faults transect the El Alacrán area and are mapped from their topographic expressions and inferred from ground magnetics and aeromagnetic images. In the area of the El Alacrán deposit, the E-W faults are post-mineral and displace lithostratigraphic and mineralized packages by less than 50 metres.

7.4 Mineralization

Three main stages of hydrothermal alteration and mineralization are distinguished on the basis of structural and textural overprinting relations, from oldest to youngest:

i) Early magnetite stage;

ii) Main copper-gold, sulphide-rich stage;

iii) Late stage carbonate-base metal (CBM) style, auriferous veining.

7.4.1 Magnetite stage

The largest magnetite-quartz rich zones (where not overprinted by iron-rich sulphides) are in the west of the El Alacrán mineralized system in the Mina Seca (south-central) area. These zones strike approximately N-S and dip moderately-to steeply west, and are broadly concordant with the layered volcaniclastic succession and external contacts of dioritic intrusion around which the main magnetite-rich bodies are clustered. Individual magnetite-rich bodies may persist along several hundred meters of strike length, and the western magnetite-rich zones over strike lengths of around 700 m (between 854900N and 855600N) over a depth range in excess of 200 m.

Locally assaying more than 40% Fe, the magnetite-rich bodies commonly exhibit a banded appearance caused by alternations of magnetite, quartz and apatite-rich zones, the former commonly showing magnetite replacing bladed minerals (hematite and/or actinolite). Magnetite-rich zones are enriched in V, Co, Ni and P compared with their Al, Sc and Ti contents and exhibit high V/Sc in high-Fe rocks. Except where veined and partially replaced by sulphides, the magnetite-rich bodies are copper and sulphur poor. Their low Al, Ti & Sc contents compared with adjacent lithologies indicate that the magnetite-rich zones were dilatant, in other words the magnetite and quartz may have been deposited by open space filling. Major and trace element geochemistry is consistent with formation from relatively high temperature, saline hydrothermal (probably magmatic) fluids in intrusion-proximal situations.

To the north in the Mina Norte area (and to the east in Mina Seca), iron-enrichment (>10% Fe) is evident in the volcaniclastic package but rarely in the underlying mafic rocks and also locally overprints intrusions. Zones of iron-enrichment are broadly concordant with layering but locally broaden over strike and dip extents of 50 to 100 m. In Mina Norte Fe contents rarely exceed 20% and the high V/Sc and marked dilation, characteristic of the magnetite rich-zones in Mina Seca, are uncommon. The highest Fe contents in Mina Norte are

associated with zones of relatively massive sulphide (pyrite-pyrrhotite) but these and other sulphide-rich zones locally exhibit remnants of magnetite. The northerly and easterly zones of iron-enrichment are interpreted as largely replacement of host rocks with lesser dilation than evident in the Mina Seca magnetite-rich zones. However, iron-enrichment may occur at hydrothermal sulphide stages.

7.4.2 Copper-gold sulphide stage

Hypogene copper-gold mineralization, in Mina Norte and eastern Mina Seca, takes the form of lenticular zones with broadly north-south strikes that dip moderately to the west, broadly concordant with host stratigraphy and intrusion contacts. The copper-gold zones, however, locally broaden in vertical and horizontal around steep N-S surfaces and these broader zones and high-grade subzones plunge relatively shallowly. Copper-gold zones are largely restricted to the main volcaniclastic package, although drilling has intersected mineralization in the upper part of the mafic package in northern and central El Alacrán.

Copper-gold mineralization comprises veins and disseminations of chalcopyrite-pyrite ± pyrrhotite with quartz and carbonate and locally forms massive sulphides. Apatite is common. Gold correlates with copper and molybdenum. Ni, Co, Cr, LREE and P are typically enriched to highly enriched in sulphide-mineralized zones.

Drill core scale and petrographic observations show that copper-gold sulphide mineralization forms veins and partially to completely replaces magnetite-stage alteration. Pyrrhotite dominates early copper-gold mineralization and may be intergrown with or partially replace actinolitic amphibole. The pyritic assemblage commonly overprints pyrrhotite, and much of the chalcopyrite apparently formed at this stage, associated with chlorite-carbonate ± sericite alteration. This alteration is magnesian and sodic-calcic, apparently phyllic (sericitic) alteration in its later stages.

In western Mina Seca copper-gold mineralization generally exhibits high Au/Cu and some high-grade gold (>5g/t gold) intercepts exhibit low copper values. These gold-rich zones commonly occur in and around the magnetite-rich bodies. The gold-rich zones are characterized by anomalous arsenic and molybdenum but exhibit low zinc contents and commonly lack carbonates; the main sulphide is pyrrhotite, partially overprinted by pyrite.

7.4.3 Carbonate-base metal (CBM) vein stage

In Mina Norte sphalerite-rich, pyrite-carbonate-quartz veins are more widely distributed than in Mina Seca. Such CBM veins are generally auriferous and may carry high grade gold e.g. 14 g/t Au over 3 m (ACD-009), and 4,440 g/t Au over 0.9 m (ACD-036) associated with visible gold. The CBM veins overprint the copper-gold stage mineralization and maybe somewhat discordant to this mineralization. Their orientations are not yet confidently established. These veins seem to be cut by a later arsenopyrite-carbonate-gold veins.

7.5 Geological Model

A geological model was developed in Leapfrog 3D by Cordoba Minerals geologists. A 3D view of the Leapfrog model and typical cross sections are shown in Figure 7-8 to Figure 7-11. The cross sections show modeled lithological units and copper and gold in drill holes. Extensive drill core re-logging was done throughout 2017 to refine the geological model, especially a series of marker units.

The Leapfrog model contains three main volcano-sedimentary packages; from hanging wall to footwall: Unit 1, Unit 2, and Unit 3, and late diorite intrusions. Several marker units were identified and carefully traced for many meters on strike. The marker units include the fossiliferous limestone (Lim) and fiamme tuff (TufD_Fiame) in Unit 2 and the amygdaloidal tuff (TufA) in Unit 3 near the boundary of Unit 2.

There is evidence of many structural offsets of marker horizons from minor to significant on a deposit scale. Three faults were identified and modelled. The locations of the marker horizons in Unit 2 and the offsets observed is shown in Figure 7-12. The most dominant structure is the Faul3_NEE fault which marks the boundary between the north and south areas of the deposit. The north area was known as the Mina Norte and the south was known as the Mina Sur in earlier reports. Fault repetition of Unit 1 and Unit 2 is implied for approximately 400 m on strike in the north area along an structure known as Fault7_NS. Offset of a marker unit is observed across the third modelled fault, Fault_Block_NW.

A massive to semi massive magnetite horizon observed in outcrop and core can be traced through the entire southern portion of the deposit though it becomes discontinuous in the northern portion of the deposit. The magnetite horizon was not included in the current geological model.

CBM veins intersected by drilling and associated with very high-grade Au mineralization were not included in the current geological model due to the low resolution of the drill hole spacing relative to the narrow veins. Further investigation into these features may allow for better local prediction of Au grades within the deposit.

Figure 7-8: El Alacrán 3-D geological and grade model

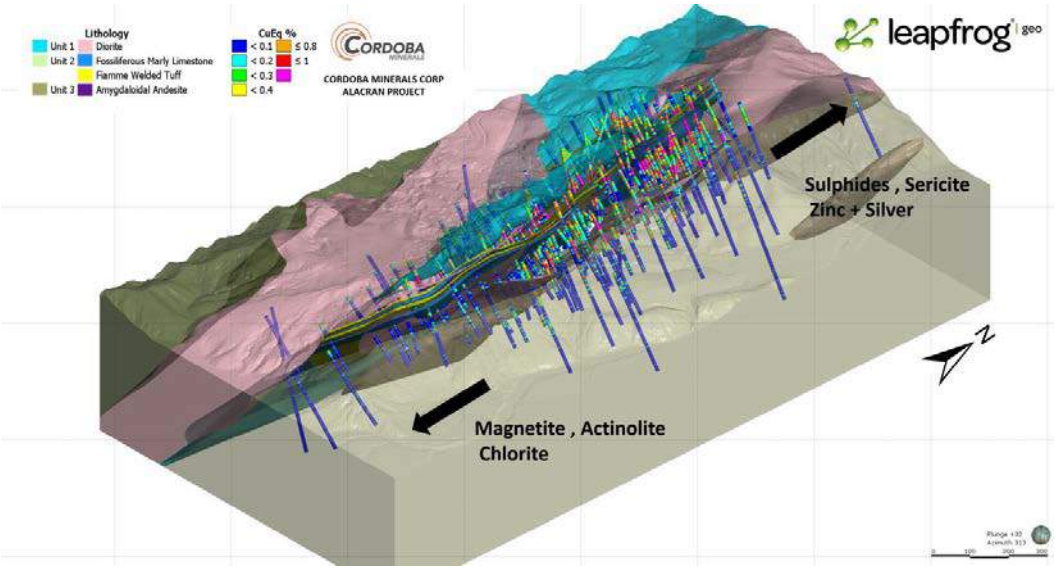


Figure from Cordoba Minerals 2018

Figure 7-9: El Alacrán Long Section 419,050 East

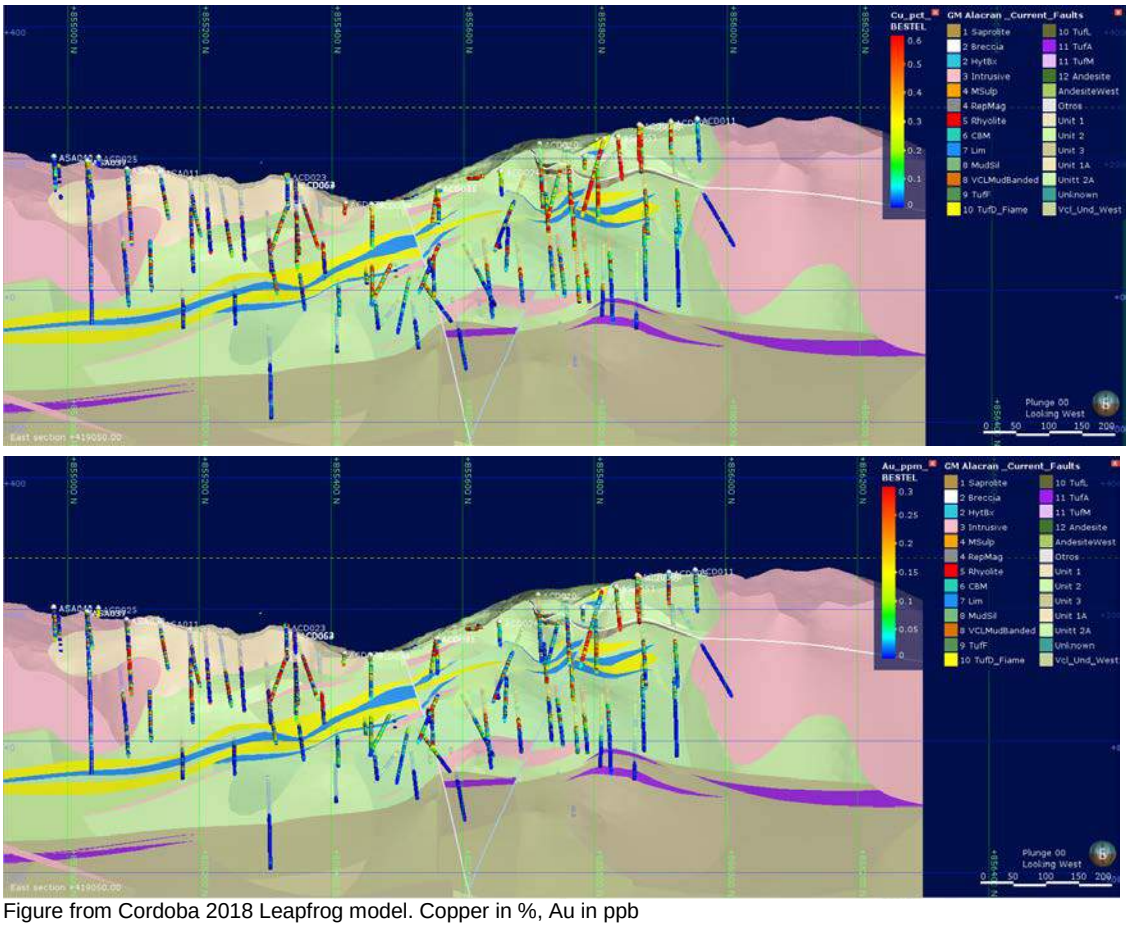


Figure from Cordoba 2018 Leapfrog model. Copper in %, Au in ppb

Figure 7-10: El Alacrán Cross Section 855,300 North

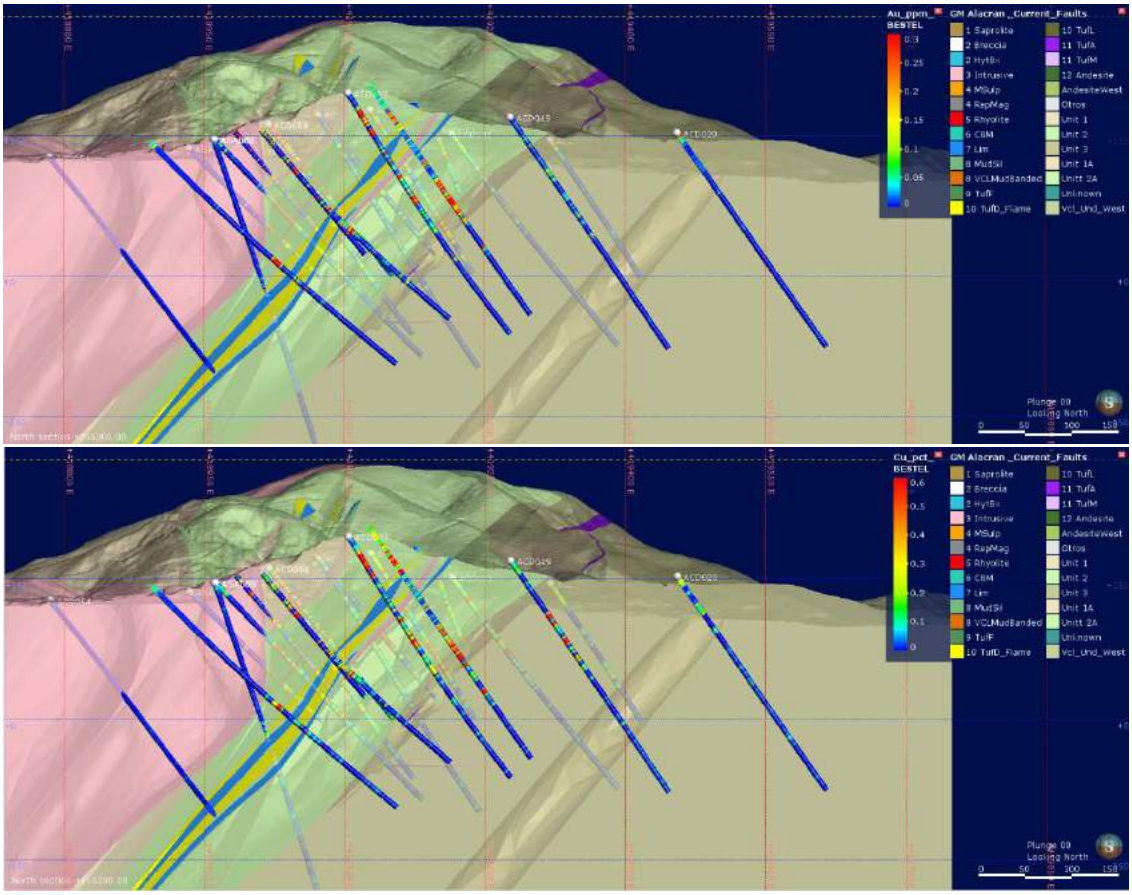


Figure from Cordoba 2018 Leapfrog model. Copper in %, Au in ppb

Figure 7-11: El Alacrán Cross Section 855,750 North

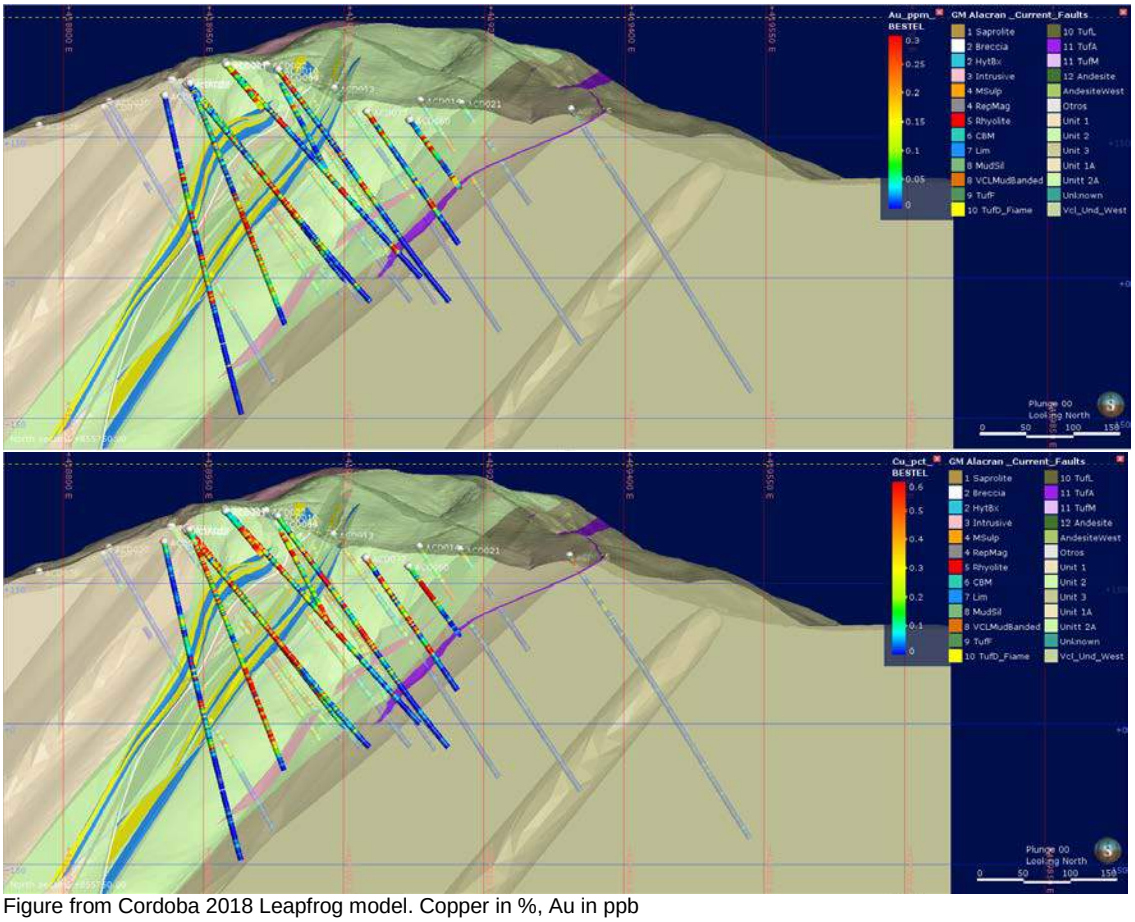
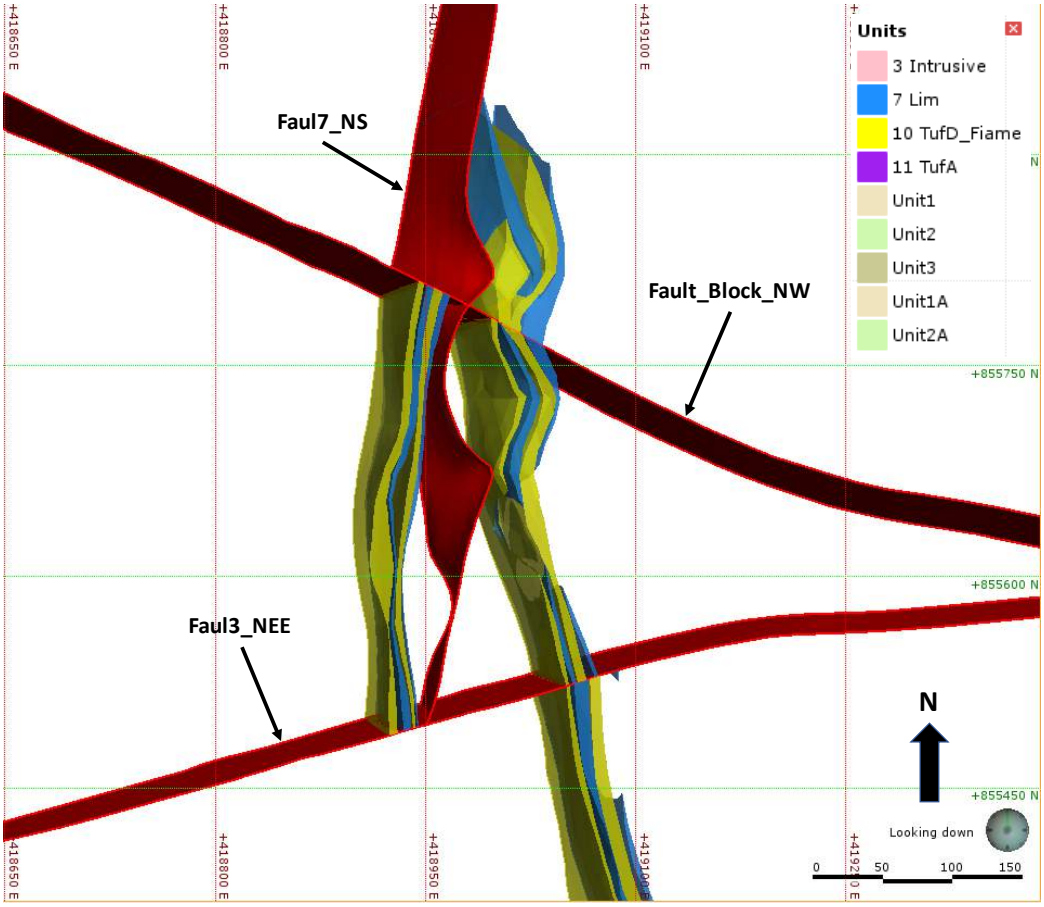


Figure from Cordoba 2018 Leapfrog model. Copper in %, Au in ppb

Figure 7-12: Locations of the Modelled Faults and Unit 2 Marker Horizons



Unit 2 marker units - fossiliferous limestone (blue); fiame tuff (yellow)

8.0 DEPOSIT TYPES

Several different deposit models have been proposed for El Alacrán deposit including banded iron formation, volcanogenic massive sulphide, skarn, and iron oxide copper-gold. Sillitoe (2018) concluded the El Alacrán deposit is a strata-bound replacement body of iron oxide-copper-gold (IOCG) type using the following criteria:

- Close spatial, temporal and probable genetic association with diorite and diorite porphyry intrusions.
- Alteration-mineralization zoning from proximal actinolite-magnetite to distal sericite-pyrrhotite, and apparent absence of prograde skarn mineralogy.
- Abundance of hydrothermal apatite, giving rise to 1000-5000 ppm P values, a mineral not common in skarn and carbonate-replacement deposits.
- The distinctive Cu-Au-Co-Mo-U geochemical signature, similar to that of the Chilean IOCG deposits.
- Abundance of mushketovite (magnetite pseudomorphs after specular hematite), common in the deeper parts of IOCG deposits but uncommon in other deposit types.
- Apart from local silicification of mudstone horizons, the prospect lacks hydrothermal quartz, a defining feature of IOCG deposits.
- The coarsely crystalline calcite in the late zinc-copper veins is a characteristic texture in late and/or distal parts of IOCG deposits elsewhere, particularly in Chile, but not in low- or intermediate-sulphidation epithermal veins.

9.0 EXPLORATION

9.1 Topography

Cordoba Minerals acquired high resolution ALOS PALSAR satellite radar imagery for the San Matias project area. And carried out a LIDAR survey of El Alacrán area to generate a high resolution digital elevation model and topographic contour map.

9.2 Geological Mapping

Geological mapping of the El Alacrán concession was carried out at 1:2,000 scale. Interpretation was aided by soil sampling, sectional interpretation of drill holes and lithogeochemistry.

9.3 Geochemical Sampling

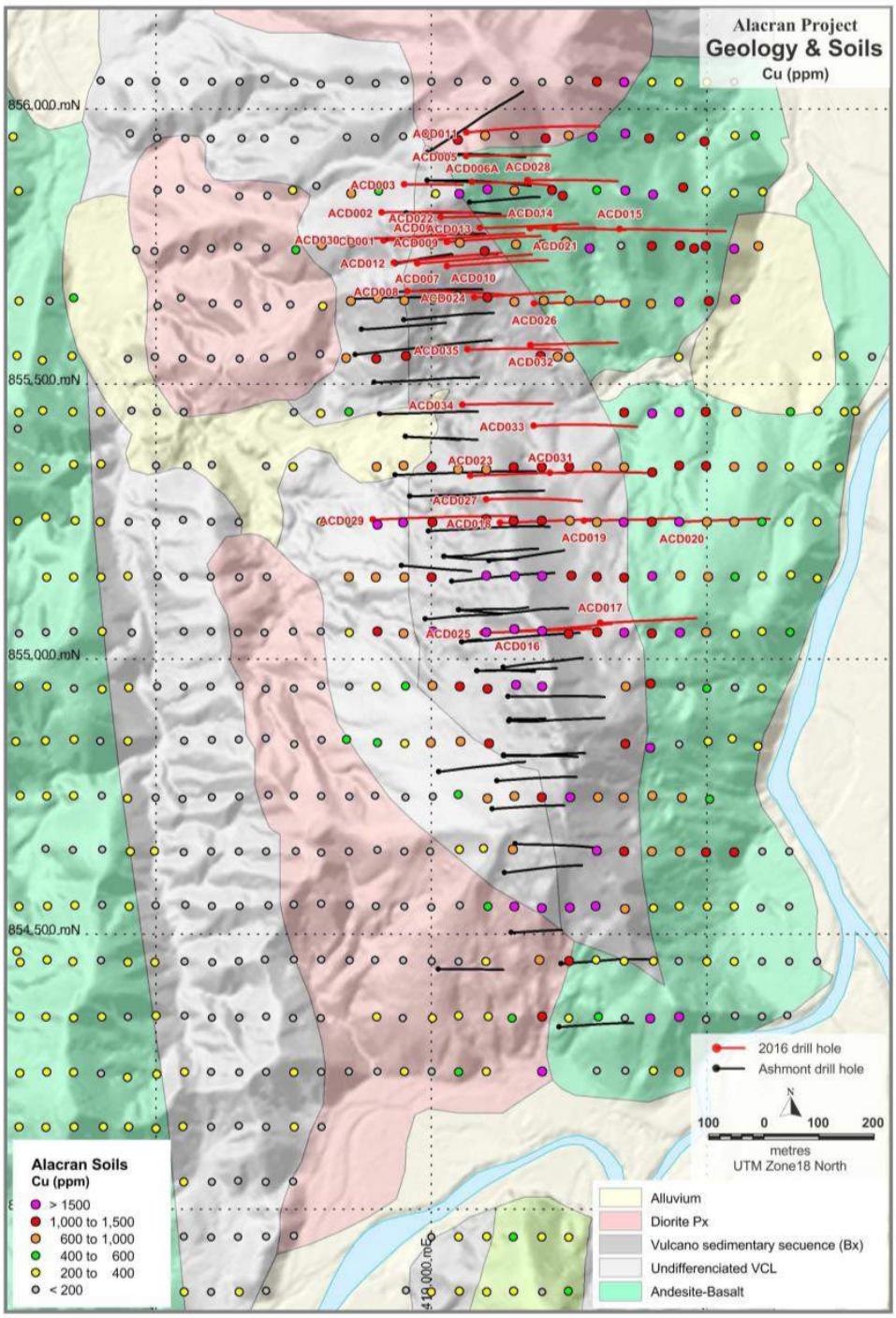
9.3.1 Rock Geochemistry

Cordoba Minerals carried out rock channel sampling in the artisanal mines. Samples were taken by hammer and chisel in continuous channels with each sample being about 1.0 m long by 0.3 m wide.

9.3.2 Soil Geochemistry

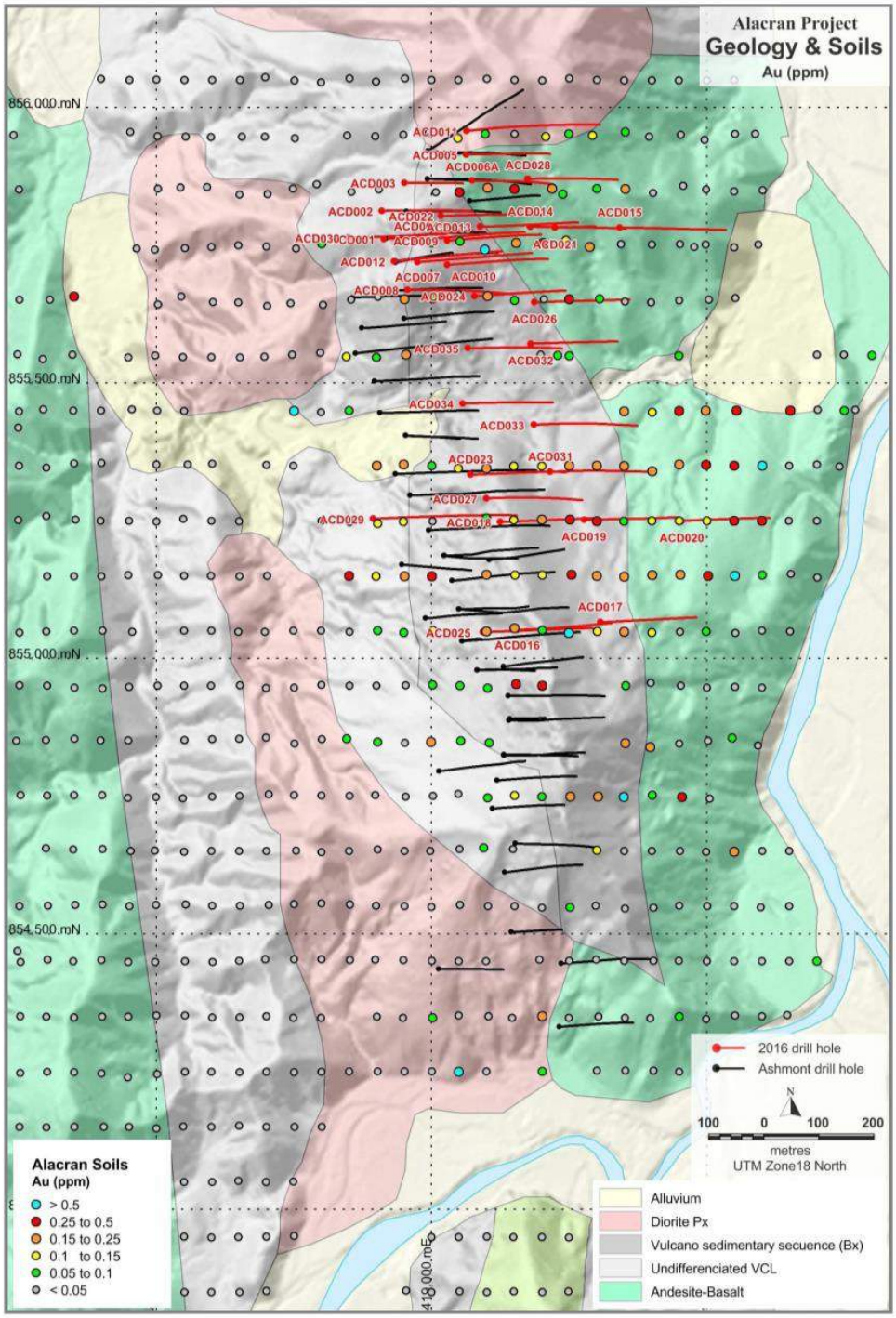
Cordoba Minerals carried out a soil survey at El Alacrán in 2016. Samples were spaced at 50 m on E- W grid lines 100 m apart. Samples were taken of the B horizon with an auger at an average depth of 1.0-1.5 m. The entire soil sample was collected with no sieving in the field or laboratory. This identified a 1,300 m N-S by 800 m wide soil anomaly of Cu (Figure 9-1) and Au (Figure 9-2) on the eastern side of El Alacrán.

Figure 9-1: El Alacrán Cu in soils



Map by Cordoba Minerals, December 2016. Map datum is WGS84. Drill hole traces shown predate the 2017 drill program

Figure 9-2: El Alacrán Au in soils



Map by Cordoba Minerals, December 2016. Map datum is WGS84. Drill hole traces shown predate the 2017 drill program

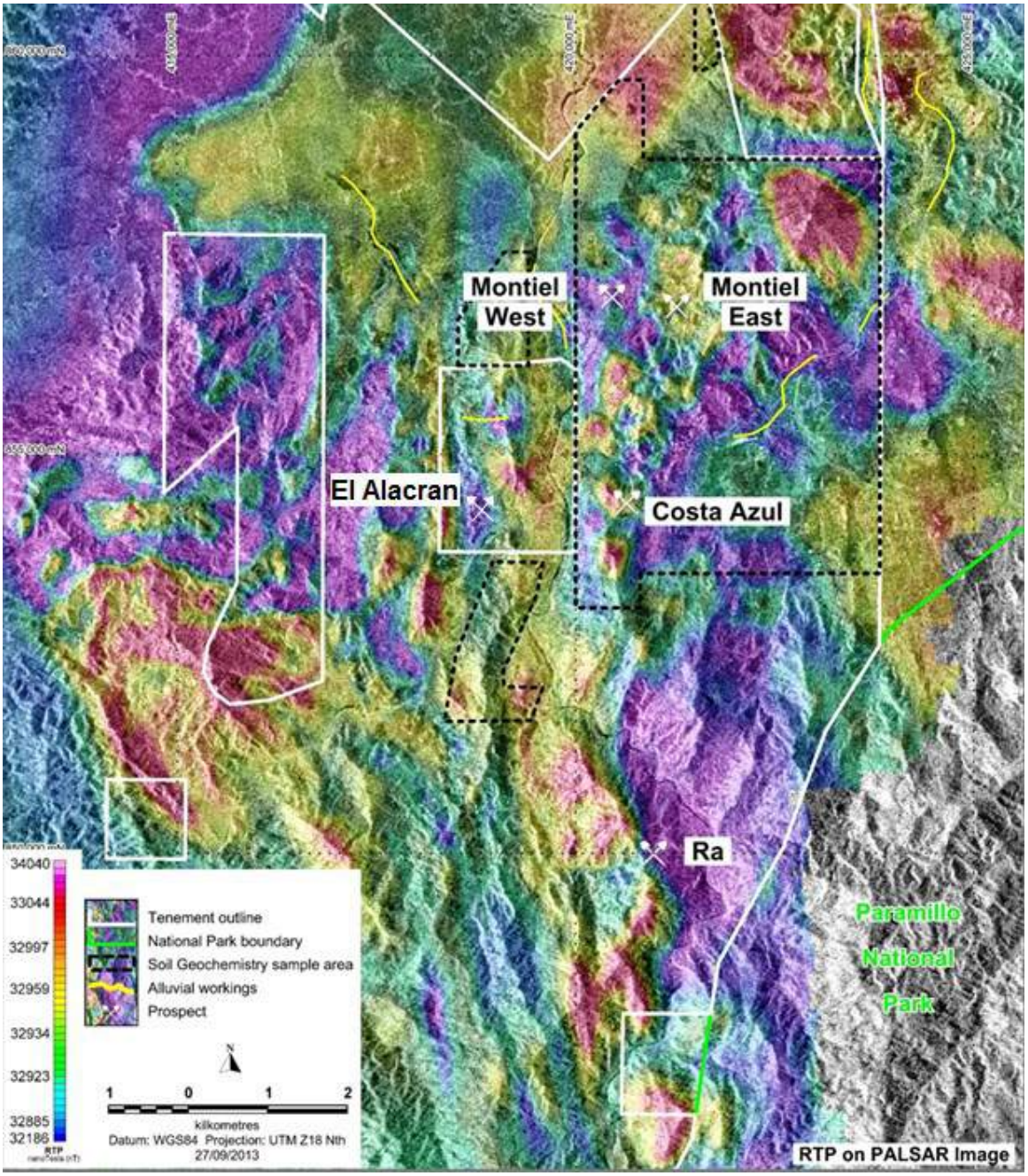
9.4 Geophysics

9.4.1 Helicopter Magnetic and Radiometric Surveys

Helicopter-borne magnetic and radiometric surveys were carried out of the San Matias Project in 2011 and 2012. Both surveys were carried out by MPX Geophysics Ltd., Canada (MPX) and are described in reports by MPX (2011, 2012). The 2011 survey was 1,310-line km over an area of 216 km^2 with a terrain clearance of 70 m. The flight lines were oriented E-W and spaced 200 m apart, with N-S tie lines every 2,000 m. The 2012 survey was 4,408.6-line km over an area of 785 km^2 with a terrain clearance of 30 m. The flight lines were oriented E-W and spaced 200 m apart, with N-S tie lines every 2,000 m.

An area over the Montiel targets east of Alacrán was flown with flight lines at 100 m spacing and tie lines 1,000 m apart. An image of the aeromagnetic survey over the central part of the project is shown in Figure 9-3.

Figure 9-3: Sam Matias Reduced to Pole Aeromagnetic map on digital elevation model



Map by Cordoba Minerals, December 2016. Map datum is WGS84.

9.4.2 Ground Magnetic Surveys

Ground magnetic surveys were carried out over the El Alacrán area in 2011 and 2016. The 2011 survey was carried out by Mibex SAS Colombia. The survey was carried out on 100m E-W lines with readings every 10 m.

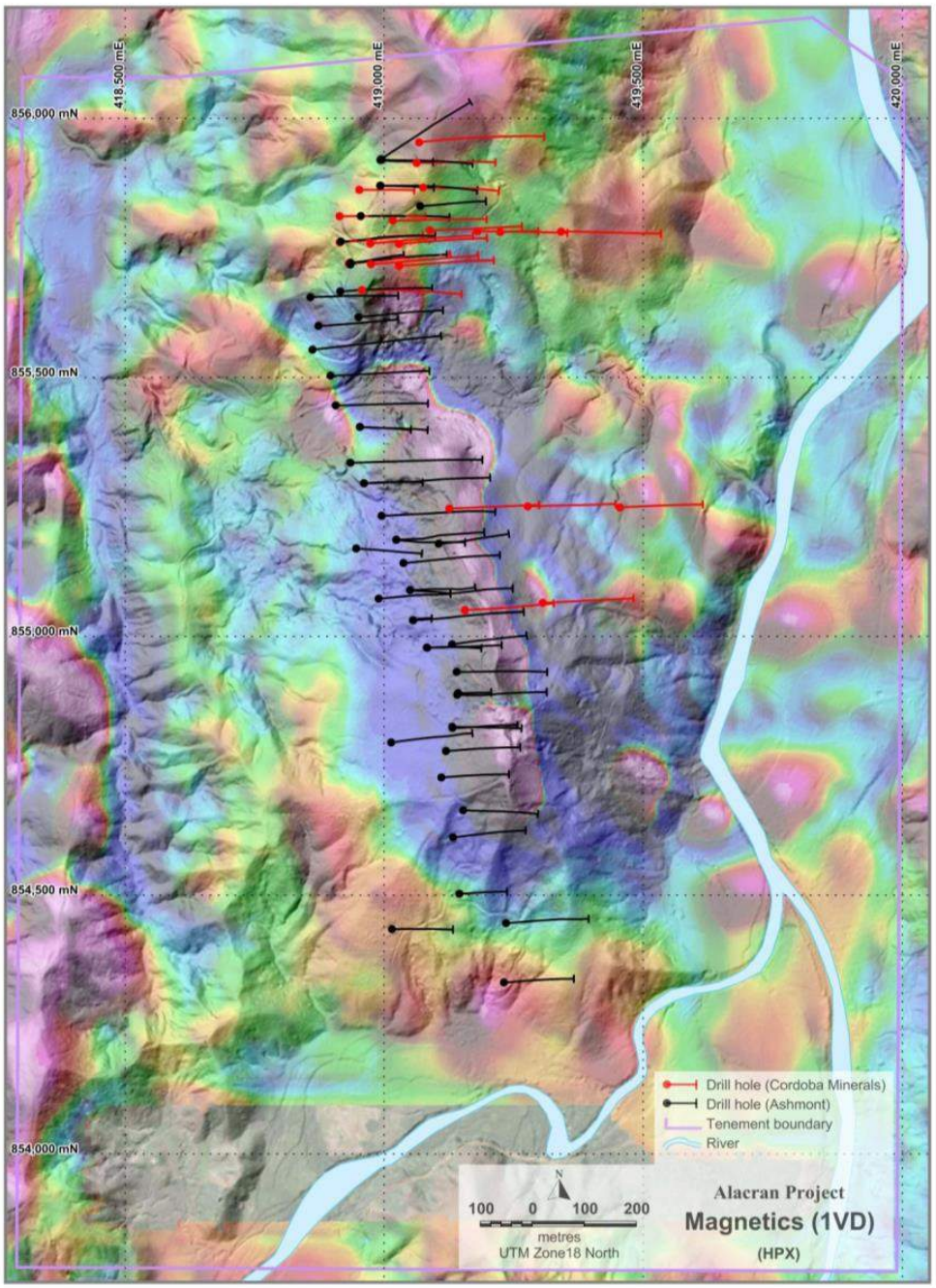
The 2016 survey was carried out by the company. The survey was made on 47 E-W lines of 1,680 m length spaced at 50 m, with continuous readings every 5 seconds. The first vertical derivative magnetic image of the 2016 survey is shown in Figure 9-4.

9.4.3 Typhoon IP and EM Survey

Induced polarization (IP) and time domain electromagnetic (TDEM) surveys were carried out using the Typhoon™ system over the San Matias Project in two phases in 2016. Typhoon™ is a proprietary, high powered, three-dimensional, induced polarization and electromagnetic system with a high signal-to-noise ratio which is owned and operated by HPX. The Phase 1 IP survey covered an area of about 7.5 km^2 (370.4-line km) and Phase 2 an area of 16.4 km^2 (923.0-line km). Lines were 100 m apart with stations at 50-100 m intervals. The survey was carried out by S.J. Geophysics Ltd of Vancouver using a Volterra acquisition system, with the Typhoon 2 transmitter supplied and operated by HPX. The IP survey was a 3D pole pole-dipole system. Three-dimensional conductivity and chargeability models were generated by Computational Geosciences Inc., Vancouver. The results show several zones of high chargeability. A chargeability high and resistivity low at El Alacrán correspond with the mineralized ridge. The chargeability map is shown in Figure 9-5.

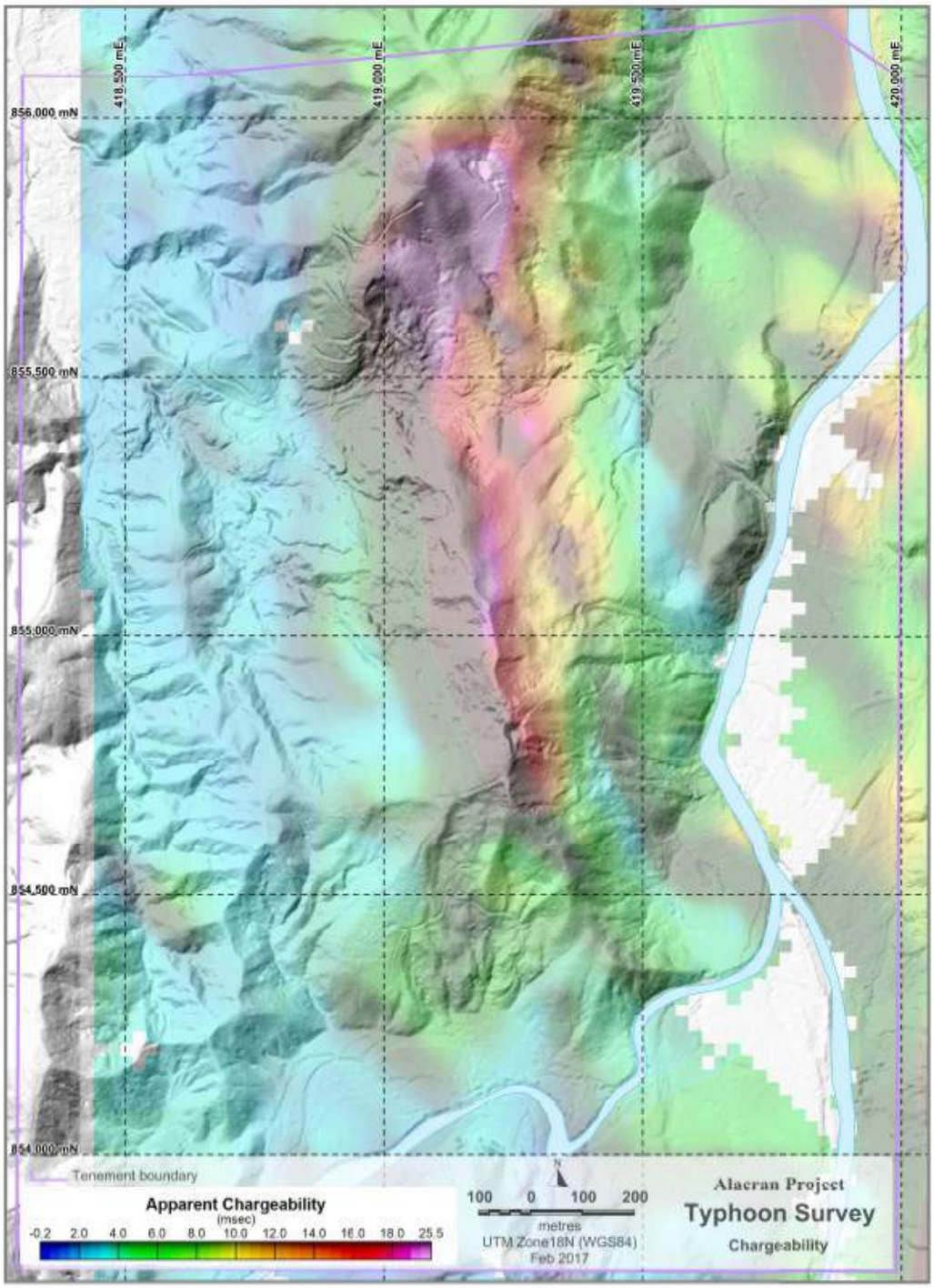
The EM survey was carried out as a test over 8.05-line km in Phase 1. It was concluded that EM is unlikely to be an effective and reliable tool for mapping mineralization in this area, and that IP is the preferred geophysical targeting method.

Figure 9-4: 2016 El Alacrán First Vertical Derivative Ground Magnetic Survey



Map by Cordoba Minerals, December 2016.Map datum is WGS84. Drill hole traces shown predate the 2017 drill program

Figure 9-5: El Alacrán Chargeability Map at 0 m Elevation (about 200 m depth).



Map by Cordoba Minerals, December 2016. Map datum is WGS84.

10.0 DRILLING

Diamond drilling at El Alacrán consists of 38,462 m in 151 HQ and NQ-diameter holes completed between 1987 and 2017 (Table 10-1) Figure 10-1 shows drill collar locations by drill campaign.

Table 10-1: Drill Hole Summary

Year	Operator	Hole Prefix	Number of Holes	Hole Diameter	Length (m)
1987	Dual	SJ	15	NQ	2,584
2011-2012	Ashmont	ASA	52	HQ	13,459
2015	Cordoba	ACD	3	HQ	877
2016	Cordoba	ACD	41	HQ/NQ	11,805
2017	Cordoba	ACD	40	HQ/NQ	9,738
	Total		151		38,462

Figure 10-1: El Alacrán Drill Plan Summary

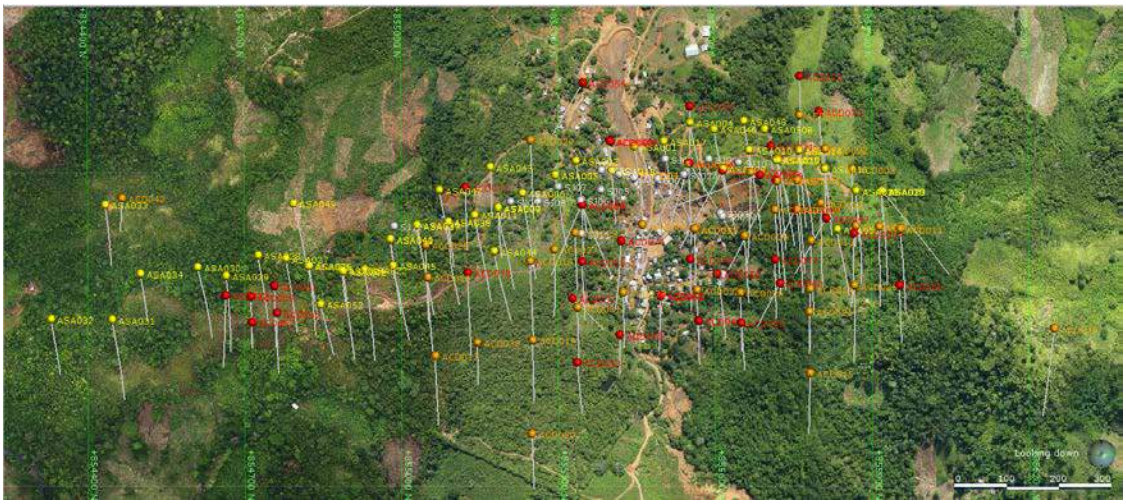


Figure from Cordoba's 2018 Leapfrog Database. North is to right

10.1 Dual Resources Drilling

Dual Resources holes were drilled on 20 m to 45 m centres generally at an azimuth of 085° and a dip of -50°. Collar locations were originally reported in Bogota West Prime Geodetic System coordinates and later translated or resurveyed in WGS 84 UTM Zone 18N coordinates. Documentation describing the collar survey method is not available.

Dual Resources holes have not been surveyed down hole and archived drill core is not available.

10.2 Ashmont Drilling

Ashmont holes were generally drilled on 50 m centres at azimuths ranging from 50° to 85° and dips ranging from -45° to -80°. Most were drilled at an azimuth of 80° and a dip of 50°. Collar locations were originally reported in Bogota West Prime Geodetic System coordinates and later resurveyed in WGS 84 UTM Zone 18N coordinates using differential GPS methods.

The down hole survey method is unknown but it is likely a single shot magnetic tool was used. The Ashmont holes have from 1 to 8 down hole surveys per hole spaced at approximately 50 m intervals.

The core was photographed prior to sampling. It was then logged geologically and geotechnically. Core was measured for recovery and RQD and then was marked for sampling in 1.0 m intervals. Lithological and mineralisation contacts were ignored when marking up samples. Data collection was done on paper forms and observations were subsequently transferred to an Excel database.

10.3 Cordoba drilling

Cordoba generally in-fill drilled on 50m centres at azimuths ranging from 45° to 245° and dips ranging from -45° to -85°. Most were drilled at an azimuth of 80° and dip of -50° to -60°. Collar locations were surveyed in WGS 84 UTM Zone 18N coordinates using differential GPS methods.

A north seeking gyroscopic tool was used for most surveys. A Reflex EZ-Trac multi-shot magnetic tool was used for 4 holes. The Cordoba holes have from 24 to 147 down hole surveys per hole spaced at 3 m intervals.

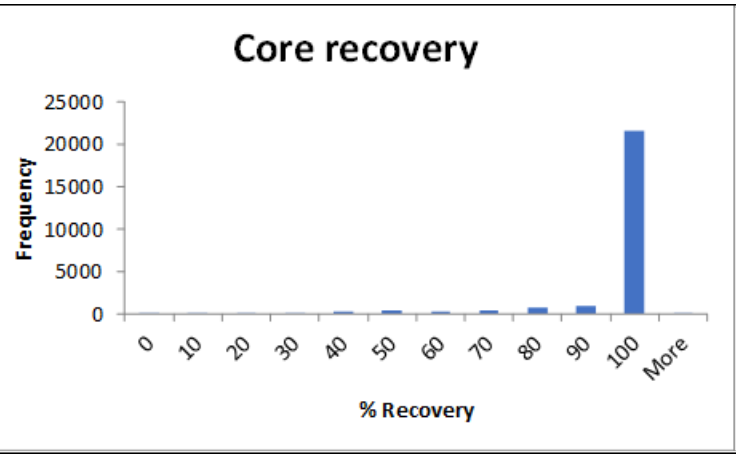
At the core shack the core boxes were cleaned, fully labelled, photographed, and geotechnical and geological logs made. Logs were made initially on paper and later directly in an on-line acQuire database. Sample intervals were marked with a nominal length of 1.0 m ignoring lithological or mineralisation contacts.

10.4 Core Recovery

The current El Alacrán database has core recovery measurements for 81 Cordoba holes and 2 Ashmont holes. Core recovery is generally good at 95%. Similar high core recovery was observed for Ashmont drill holes inspected during the QP site visits. Core recovery is summarized in Figure 10-2.

Figure 10-2: El Alacrán Core Recovery

Mean %	95
Median %	100
Mode %	100
Standard Deviation	12
Range %	100
Minimum %	0
Maximum %	100
Count	1124



10.5 Core Logging

Cordoba geological logging included recording lithology, alteration, mineralization, oxidation, structure, and magnetic susceptibility. In 2017 Cordoba re-logged most of the Ashmont holes to align observations made for Cordoba holes. The current El Alacrán database has 35 unique lithology types in 8 lithological units. The alteration database has 18 unique alteration codes. Chlorite, biotite, albite, silica, and sericite are the most common logged alteration types. There are 18 unique minerals recorded in the current database. Pyrite and chalcopyrite are the most common.

10.6 Density

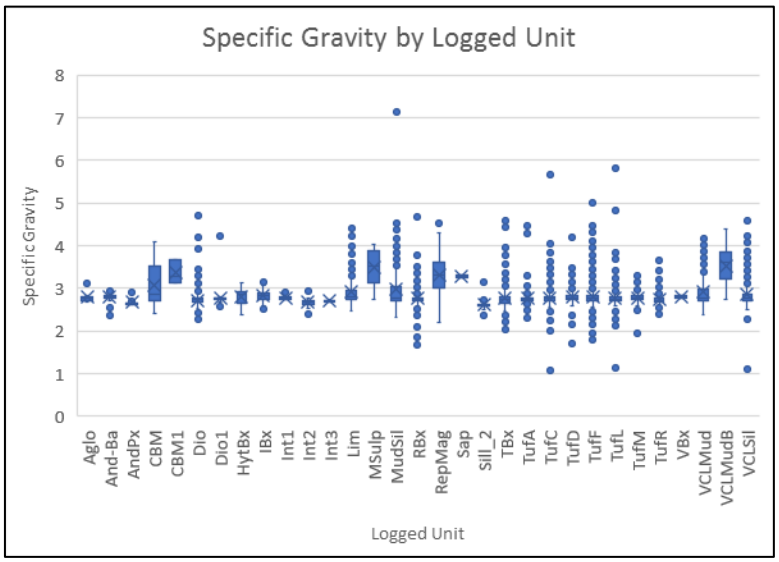
Cordoba has collected 12,064 water immersion specific gravity (SG) measurements from 87 Ashmont (ASA) and Cordoba (ACD) drill holes (Table 10-2). In addition, Cordoba made 492 SG checks by wax-coat water immersion methods and 224 SG checks by pycnometer method. Water immersion measurements were made by Cordoba personnel at site. Wax-coat water immersion and Pycnometer measurements were made at commercial laboratories. Measurements were made using 10 to 15 cm lengths of half core. The water immersion and wax coat water immersion pair measurements compare well indicating minimal bias in the uncoated water immersion measurements. There is a large scatter between water immersion and pycnometer paired measurements.

Table 10-2: El Alacrán Specific Gravity Measurements

Hole	Count of holes	Count of SG Measurement by Water Immersion	Count of SG Measurements by Wax Coat Water Immersion	Count of SG Measurement by Pycnometer
ACD	71	9,516	344	216
ASA	16	2,548	148	8
Total	87	12,064	492	224

A box and whiskers plot for water immersion specific gravity measurements by logged units is shown in Table 10-3. Application of SG in the mineral resource estimate is discussed in Section 14.0 of this Report.

Table 10-3: El Alacrán Specific Gravity Statistics



10.7 Exploration potential

The copper-gold mineralization at El Alacrán has been closed off by drilling to the south, whereas northwards the mineralized body abuts the northern diorite sill. There is a possibility that the mineralization could continue farther north either in the hanging- or footwall of the sill. There is currently no reported anomalous surface geochemistry, implying that any northward extension would have to be subsurface and, hence, difficult to detect without additional step-out drilling.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Sample Preparation and Analysis

11.1.1 Ashmont

Core was split with a mechanical splitter. One half was placed in pre-marked plastic sample bags and the other half was returned to the core box. The core was weighed prior to sampling and the bagged samples were weighed after splitting to ensure that the splits approximate half the core. Sample bags were sealed to ensure sample integrity.

All samples were prepared by ALS Minerals in Medellin, Colombia. ALS Minerals is a laboratory certified to International Standards ISO/IEC 17025:2005 and ISO 9001:2015. The samples were dried, crushed to 70% passing 2 mm, riffle split and a 250 g split pulverized to 85% passing 75 microns.

Sample analysis was done at ALS Minerals laboratories in Chile, Peru and Canada. Gold was analyzed by fire assay on a 50 g aliquot with an AAS finish (method Au-AA24). Samples above the upper limit of detection of 10.0 ppm were reanalysed by fire assay on a 50 g aliquot with a gravimetric finish (method ME-GRA22). Multi-elements were analyzed by 4 acid digestion of a 0.25 g sample with ICP emission spectrometry finish for 33 elements (method ME-ICP61). Samples above the upper detection limit of 10,000 ppm Cu were reanalyzed by 4 acid digestion with ICP-AES finish (method Cu-OG62).

11.1.2 Cordoba

Core samples were numbered using consecutive sample numbers, with a sample label stuck to the core box with hole number and the sample interval. The core was cut lengthwise by a diamond saw along a cut line marked by a geologist. One half of the sample was put in a plastic sample bag, double-bagged, labelled and sealed with a cable tie, and the other half returned to the core box for reference. Fabric bags, also sealed by cable tie, were used to hold about 4 samples each for transportation.

All samples were prepared and analyzed by ALS Minerals in Medellin, Colombia. The samples were dried, crushed to 70% passing 2 mm, riffle split and a 1 kg split pulverized to 85% passing 75 microns.

Sample analysis was done at the ALS laboratory in El Callao, Lima, Peru. Gold was analyzed by fire assay on a 50 g aliquot with an AAS finish (method Au-AA24). Samples above the upper limit of detection of 10.0 ppm were reanalysed by fire assay on a 50 g aliquot with a gravimetric finish (method Au-GRA22). Multi-elements were analyzed by 4 acid digestion of a 0.25 g sample with ICP emission spectrometry (ICP-AES) finish for 48 elements (method ME-MS61). Samples with grades above the 2,000 ppm copper were reanalyzed by 4 acid

digestion with ICP-AES finish (method Cu-OG62). Samples above the upper limit of detection for Ag (100 ppm), Zn (10,000 ppm) and S (10.0%) were reanalyzed by 4 acid digestion with ICP-AES finish (methods Ag-OG62, Zn-OG62, S-OG62).

11.2 Quality Assurance

11.2.1 Ashmont

Ashmont inserted one of three certified standard reference materials for every 13 samples, one coarse blank or fine blank every 50 samples, one half core duplicate for every 40 samples, one coarse reject duplicate or pulp duplicate every 20 samples. The company also analysed duplicates at a second laboratory, Acme Analytical Laboratories Colombia S.A.S. Documentation summarizing the Ashmont QAQC monitoring procedures and responses to failures has not been located. Amec Foster Wheeler reviewed the Ashmont QC results in 2018.

Standards

Ashmont submitted 752 CRMs as part of its QAQC process. The review of CRM results identified 19 sample swaps or laboratory failures for Au results and 2 failures for Cu results. It is unknown how Ashmont resolved the observed failures. After exclusion of failures the CRM results indicate no significant bias is evident for Cu results. A -6.8% Au bias indicated for Oreas 66a is slightly greater than a ±5% bias range typically accepted for mineral resource estimation. This bias has not been confirmed but may result in a slight under prediction of Au grades in grade estimation. CRM results are summarized in Table 11-1 and Figure 11-1. The Ashmont database also includes results for an unidentified standard. These were nor reviewed.

Table 11-1: Ashmont CRM Results Summary

STANDARD	Count	BV Au (ppm)	Mean AuAA24 ppm	Mean AuGRA22 ppm	Bias	BV Cu (ppm)	Mean Cu MEMS61 ppm	Bias
Oreas 502	220	0.491	0.479		-2.5%	7,550	7,535	-0.2%
Oreas 66a	266	1.237	1.152		-6.8%	120	125	4.2%
Oreas 12a	266	11.79		11.877	0.7%			

After exclusion of 21 Au and 2 Cu results

Blanks

Ashmont submitted 265 coarse blanks as part of its program QAQC process. The review of results identified several swaps or failures. After exclusion of these outliers Au and Cu results show no significant carry over (Figure 11-2 and Figure 11-3). Figure 11-13 demonstrates the

coarse blank is not sufficiently devoid of Cu relative to the MEMS 61 lower detection limit. This does not impact the current assessment.

Figure 11-1: Ashmont CRM Oreas 66a Au Results

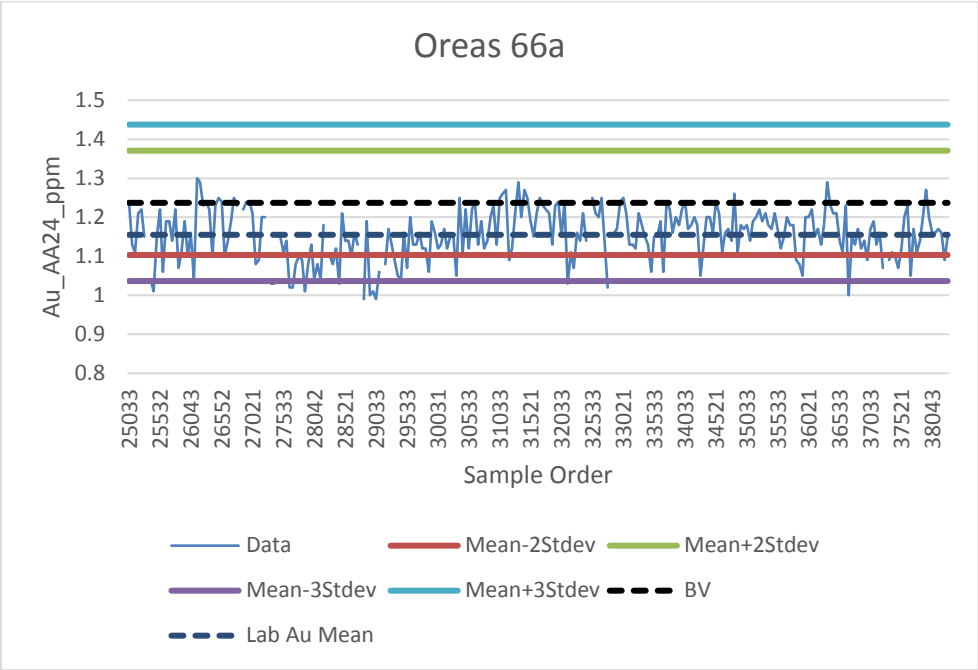


Figure 11-2: Ashmont Coarse Blank Au Results

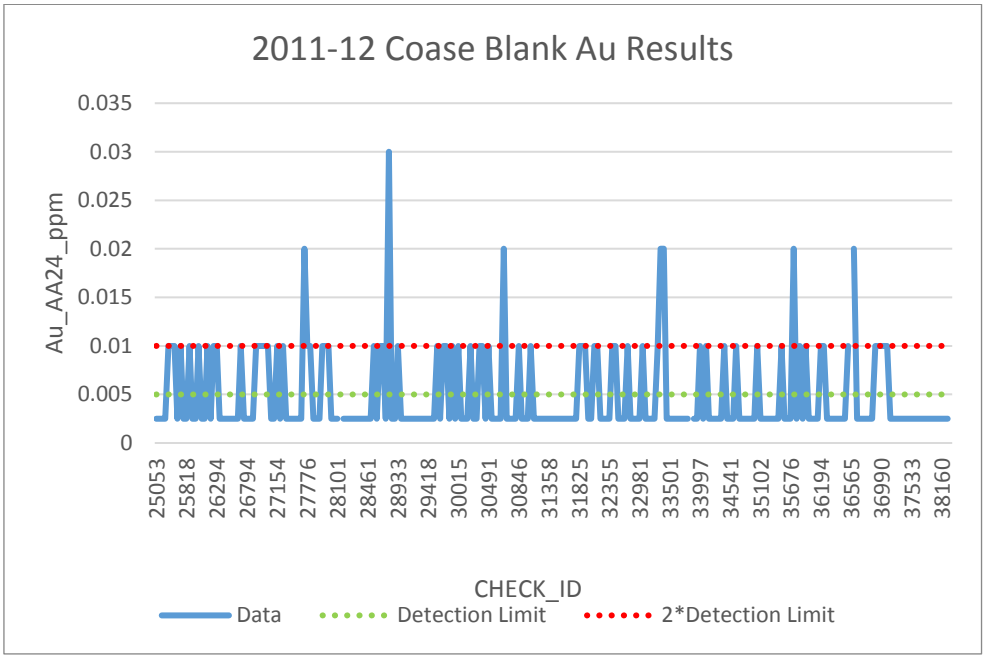
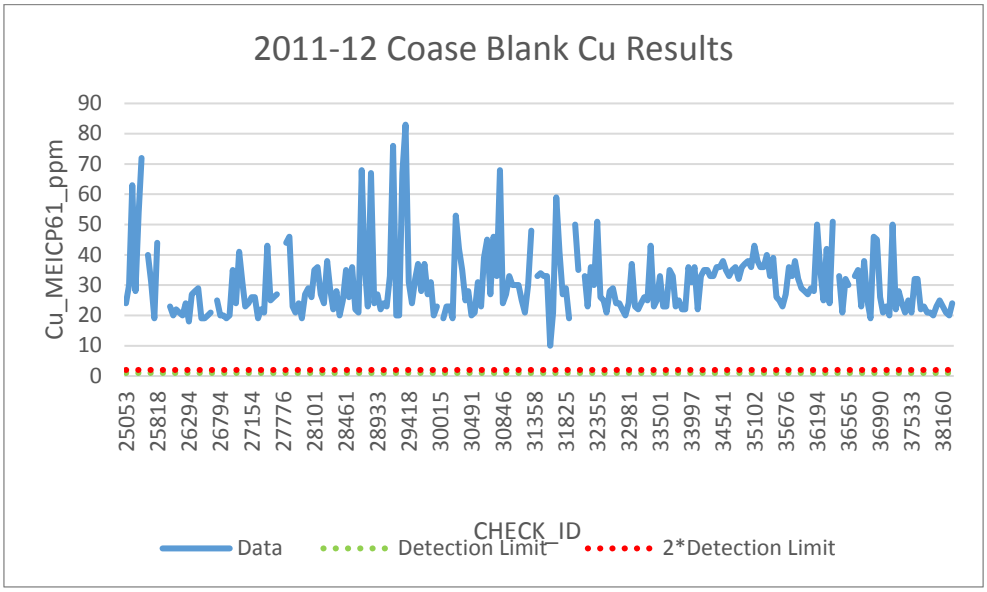


Figure 11-3: Ashmont Coarse Blank Cu Results



Duplicates

Ashmont submitted 692 field, coarse reject, and pulp duplicates as part of their QAQC process. The results show high variability for Au results. Field duplicate pair Cu results also show high variability. Coarse Reject and Pulp duplicate pair Cu results show good agreement. Table 11-2 summarizes the variability expressed in terms of Absolute Relative Difference.

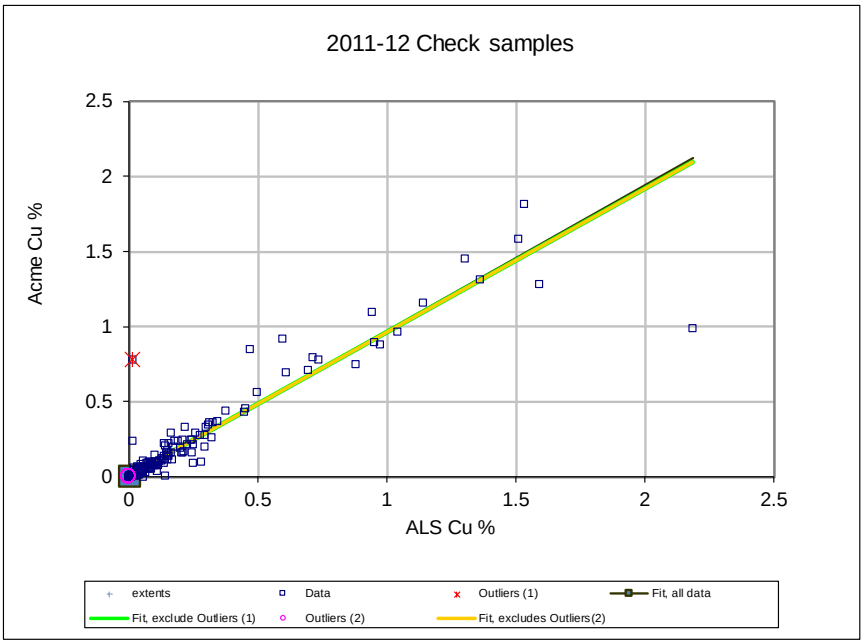
Table 11-2: Ashmont Duplicate Pair Result Summary

Method	Field (Percent of pairs with ARD < 30%)	Coarse Reject (Percent of pairs with ARD < 20%)	Pulp (Percent of pairs with ARD < 10%)
Au AA24 ppm	56%	47%	42%
Cu MEICP61 ppm	64%	93%	93%

Checks

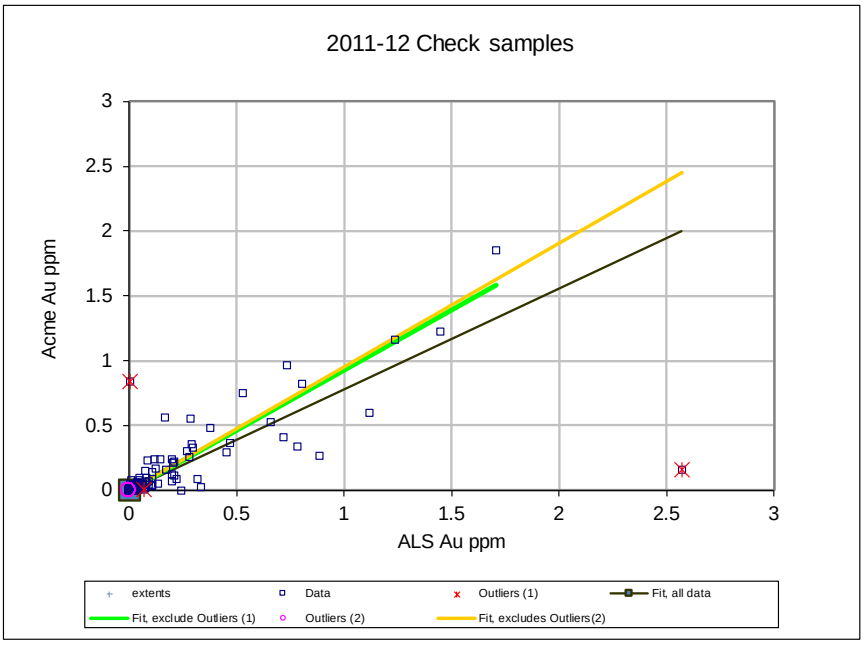
Ashmont submitted 264 pulp samples to Acme Laboratories for secondary analysis. The Au and Cu results show good correlation and no significant bias after excluding a few outliers (Figure 11-4 and Figure 11-5).

Figure 11-4: Ashmont Check Sample Cu Results



	All Data	Excluding Outliers (1)
N	264	263
Percent Rejected	0.0%	0.4%
R squared	0.87	0.90
R	0.94	0.95
slope m	0.97	0.96
intercept b	0.01	0.01
error in slope	0.02	0.02
error in intercept	0.01	0.01
Bias	3%	4%

Figure 11-5: Ashmont Check Sample Au Results



	All Data	Excluding Outliers (1)
N	264	261
Percent Rejected	0.0%	1.1%
R squared	0.55	0.85
R	0.74	0.92
slope m	0.77	0.93
intercept b	0.01	0.00
error in slope	0.03	0.02
error in intercept	0.02	0.02
Bias	23%	7%

There is no QAQC information for drill holes ASA042 to ASA051. There is no record is of any re-assaying related to identified failures. There does not appear to be any CRM checks for Cu-OG62 results. Cu_OG62 results are generally greater than 1% Cu and represent approximately 3% of Ashmont assay results. These issues should be investigated further.

11.2.2 Cordoba

Cordoba inserted one of 5 certified standard reference materials, one coarse blank and one field duplicate in every batch of 25 samples. The company has a dedicated QAQC geologist who monitors the analytical results on receipt and produces written and graphic monthly reports.

Standards

Cordoba submitted 374 CRMs in 2016 and 235 CRMs in 2017 as part of their QAQC process. The CRM results are summarized in Table 11-3 and Table 11-4 and Figure 11-6 and Figure 11-7. No significant biases are evident.

Table 11-3: Cordoba 2016 CRM Result Summary

STANDARD	Count	BV Au (ppm)	Mean Au AA24 (ppm)	Bias	BV Cu (ppm)	Mean Cu MEMS61 (ppm)	Bias	BV Cu (%)	Mean Cu OG62 (%)	Bias
501b	113	0.248	0.243	-2.2%	2,600	2,597	-0.1%	0.26	0.26	0.0%
502b	65	0.495	0.480	-3.1%	7,730	7,648	-1.1%	0.77	0.76	-1.5%
503b	108	0.695	0.682	-1.8%	5,310	5,263	-0.9%	0.53	0.52	-1.6%
504b	61	1.61	1.580	-1.9%	11,100	10,000	-9.9%	1.11	1.09	-2.0%
CDN-CM-35	27	0.324	0.318	-1.8%	2,430	2,450	0.8%	0.24	0.25	2.5%

The -9.9% bias for 504b Cu MEMS is superseded by Cu OG62 results

Table 11-4: Cordoba 2017 CRM Result Summary

STANDARD	Count	BV Au (ppm)	Mean Au AA24 (ppm)	Bias	BV Cu (ppm)	Mean Cu MEMS61 (ppm)	Bias	BV Cu (%)	Mean Cu OG62 (%)	Bias
501b	60	0.248	0.244	-1.7%	2,600	2,588	-0.5%	0.26	0.26	0.0%
502b	47	0.495	0.482	-2.7%	7,730	7,621	-1.4%	0.77	0.76	-1.6%
503b	35	0.695	0.683	-1.8%	5,310	5,226	-1.6%	0.53	0.52	-1.8%
504b	43	1.61	1.581	-1.8%	11,100	10,000	-9.9%	1.11	1.11	-0.4%
CDN-CM-35	50	0.324	0.321	-1.0%	2,430	2,442	0.5%	0.24	0.25	2.4%

The -9.9% bias for 504b Cu MEMS is superseded by Cu OG62 results

Figure 11-6: Cordoba 2017 CRM Au Result Summary

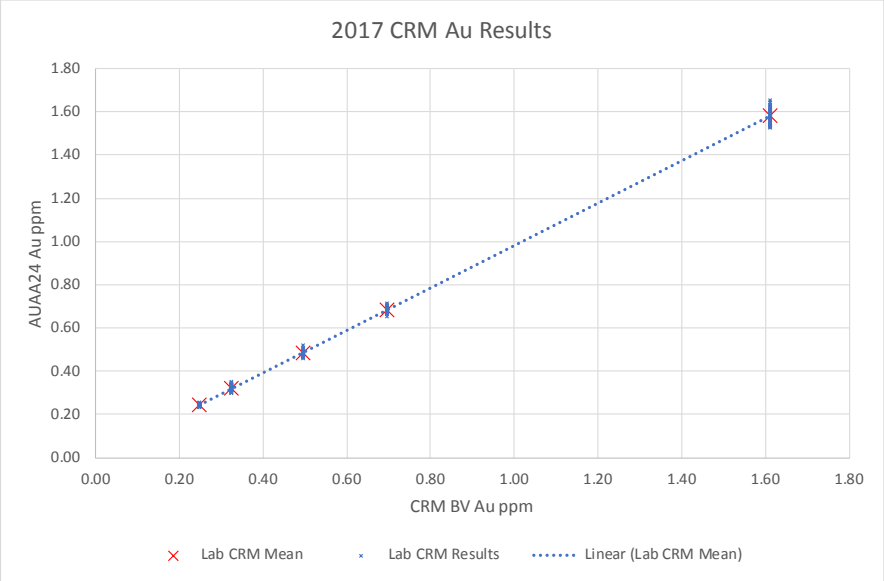
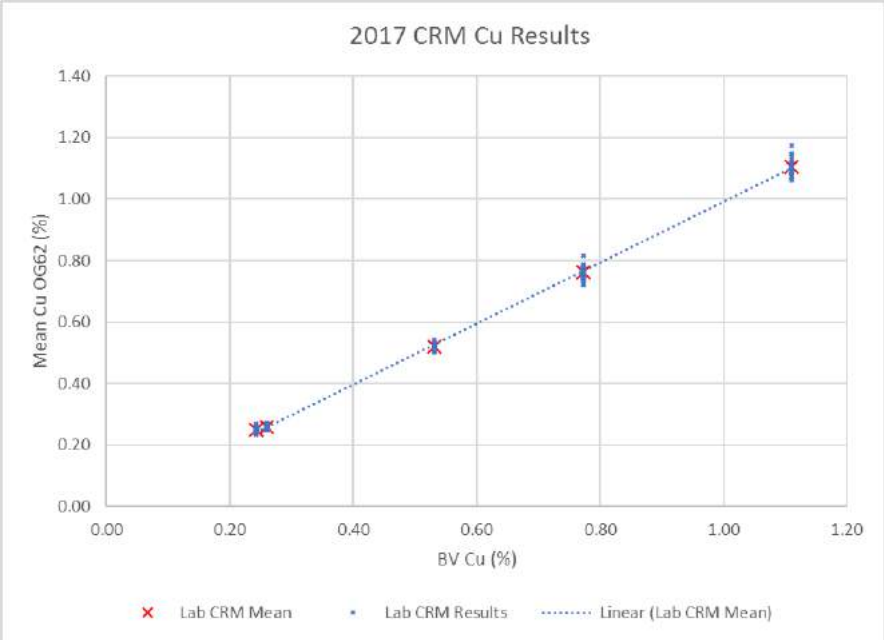


Figure 11-7: Cordoba 2017 CRM Cu Result Summary



Blanks

Cordoba submitted 160 coarse blanks in 2016 and 248 in 2017 as part of its QAQC process. No significant carry over is evident (Figure 11-10 to Figure 11-11). Figures 11-9 and 11-11 demonstrate the coarse blank is not sufficiently devoid of Cu relative to the MEMS 61 lower detection limit. This does not impact the current assessment.

Figure 11-8: Cordoba 2016 Field Blank Au Results

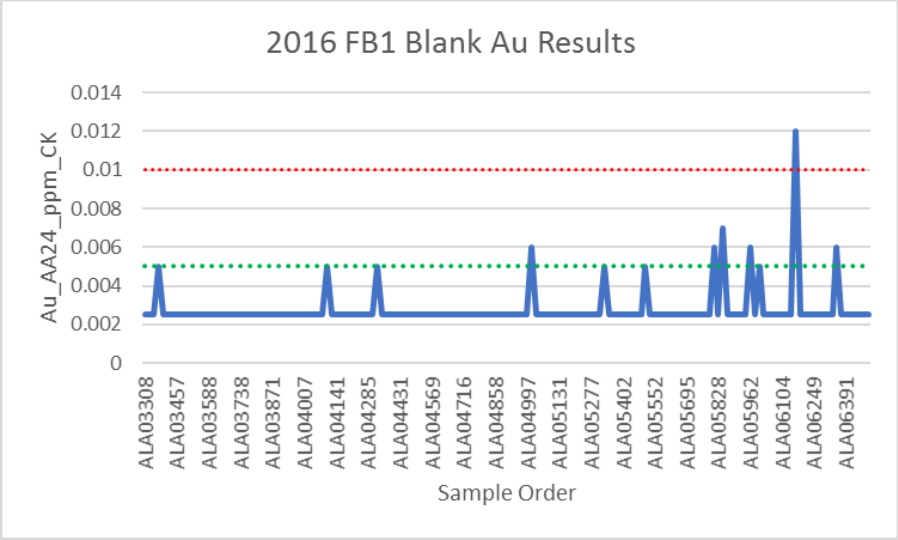


Figure 11-9: Cordoba 2016 Field Blank Cu Results

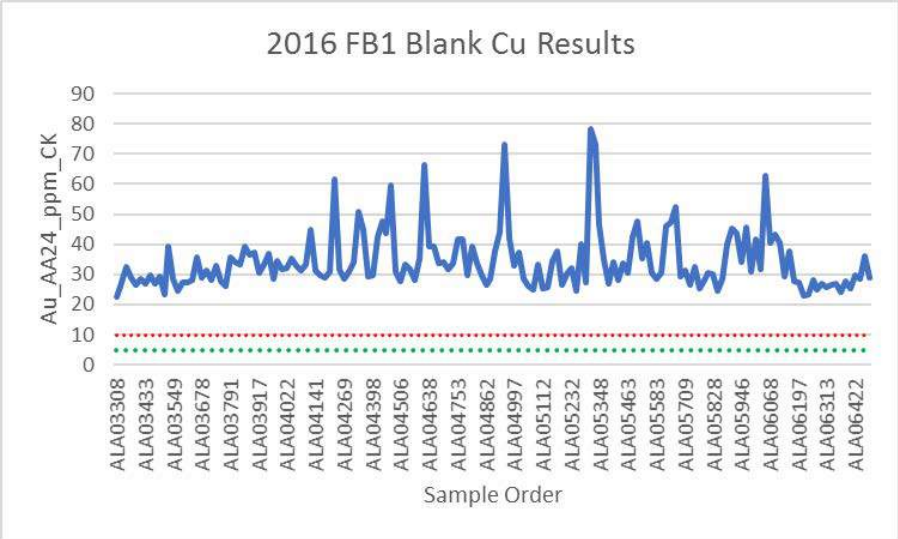


Figure 11-10: Cordoba 2017 Field Blank Au Results

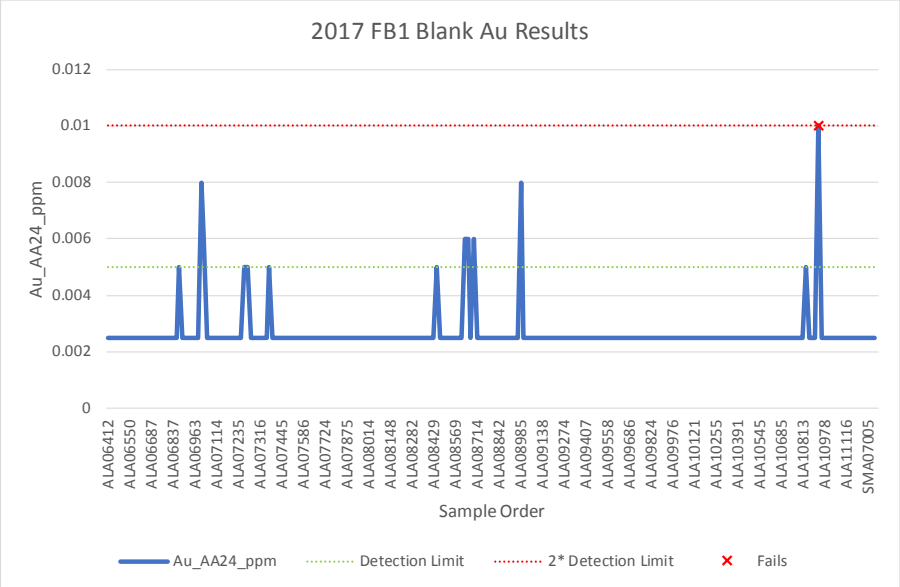
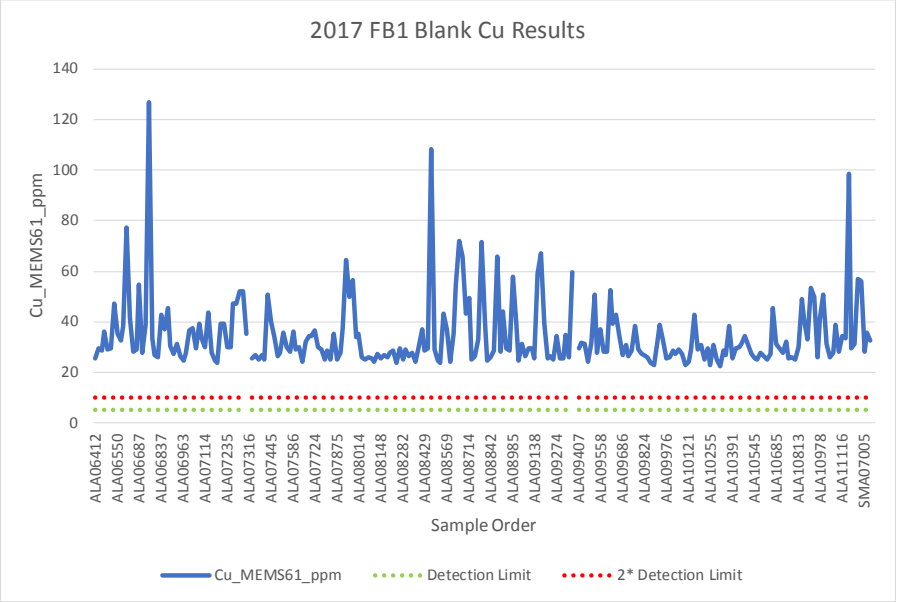


Figure 11-11: Cordoba 2017 Field Blank Cu Results



Duplicates

Cordoba submitted 234 field duplicates in 2016 and 75 in 2017 as part of their QAQC process. Field duplicate pair results show high variability for Cu and Au results. Table 11-5 summarizes the variability expressed in terms of Absolute Relative Difference.

Table 11-5: Cordoba 2016-17 Duplicate Pair Summary

Method	Field Duplicate (Percent of pairs with ARD < 30%)
Au AA24 ppm	34%
Cu MEMS61 ppm	55%
Cu OG62 pct	55%

The variability in the field duplicates may be attributable to natural variability of mineralization but can also be a result of poor sampling practice. In a review in 2016 Sketchley observed a serious water shortage issue that resulted in a thick muddy coating on some cut core and a potential for significant contamination. The importance of adequate flushing was pointed out to the operator.

Sketchley (2016) examined the precision issue by comparing fire assay methods and initiating screen metallic assays and concluded that the significant amount of scatter present above 0.2 g/t Au indicates the presence of coarse gold. The scatter is more pronounced for 30g fire assay compared to 50g. When values above 1 g/t are excluded, a reverse effect tends to be exhibited. In a follow-up investigation by Sketchley in 2018 the heterogeneity of gold was evaluated by conducting gold grain size fraction analyses on material known to exhibit coarse gold heterogeneity issues. He concluded two groups of gold grain sizes are present in the test samples: finer than about 105 microns (140 mesh); and coarser than 105 microns (140 mesh). They roughly correspond to non-liberation and liberation of gold during routine pulverizing procedure in a laboratory. Sketchley recommends in order to maintain a desired level of reproducibility the grade and size of analytical samples containing coarse gold must be greater than specified thresholds to ensure at least 20 gold particles per analytical sample. Samples with coarse gold lower than specified thresholds would be expected to exhibit a nugget effect, which could be overcome by doing pre-concentration such as screen metallic assays.

Cordoba reviewed core for 15 field duplicate pairs in an effort to determine a source of variability and conclude the variations in the results of duplicates are due mostly to the heterogeneity of the deposit. Second and infrequent is a matter of bad sampling such as ignoring geological contacts in areas of high fracturing. Only one case does not seem to have a geological explanation for the disparate results.

Checks

Check samples have been submitted for the 2017 drill program but the results were not available as of the writing of this report. Based on the CRM results no significant between-laboratory bias is expected.

11.3 Sample Security

11.3.1 Ashmont

The Ashmont drill core was stored in metal core boxes by Ashmont in a store in Monteria and was transported to Cordoba Minerals' secure core store and core logging shack at El Alacrán when it acquired the project. The sample rejects and pulps were stored by Ashmont in a store in Puerto Libertador and were likewise transferred to the El Alacrán core store by Cordoba Minerals.

11.3.2 Cordoba

Drill core from each run was placed in metal core boxes by the drillers. Core boxes were taken from the rig to the core shack by company vehicle. Samples were securely stored in the core shack at El Alacrán were then transported by courier to the laboratory in Medellin. All remaining core is stored at Cordoba's secure core logging facility.

11.4 Comments on Section 11

The nature, extent, and results of the sample preparation, security, and analytical procedures, and the quality control procedures employed, and quality assurance actions taken by Cordoba provide adequate confidence in the drill hole data collection and processing. There is an indication of the presence of possible sample swaps or laboratory failures in the Ashmont database and no documentation describing how these issues were monitored and addressed. There is also a possible low bias for Au grades greater than 1 gpt. These issues are not expected to have a material impact on the results of the Mineral Resource estimate but should be examined in more detail and resolved where possible.

Poor Cu and Au precision observed in Ashmont and Cordoba field samples is assumed a result of geological heterogeneity. A larger sample size or screen metallic assays for gold is recommended for any future sampling.

12.0 DATA VERIFICATION

12.1 Site Visit

Mr. Greg Kulla visited the site and Cordoba's office in Medellin between 5 December and 9 December 2016. During this visit Mr. Kulla reviewed drilling, sampling, and QA/QC procedures, and inspected drill core, core photos, core logs, and QA/QC reports and specific gravity measurement procedures. He also made spot checks comparing drill hole database results with original drill collar, down hole survey, lithology, and assay results. He also reviewed the quality control sample results supporting the Ashmont and Cordoba drill hole database. No significant issues were identified during the site visit or through the database review.

Peter Oshust, P.Geo, an employee of Amec Foster Wheeler, visited the El Alacrán project site for four days during the week ending 27 October 2017. While on-site, he inspected on-going core drilling at two sites, and core handling, logging, density measurement, and grade sampling procedures. He verified the logged lithology to the witness core for seven holes. He also verified 10 recently completed drill hole collar locations using had-held GPS. He made field inspections of the mineralization exposed by artisanal miners and the limited geology outcroppings. The site visit also afforded the opportunity for Mr. Oshust to observe the data management and geological modelling methods. Mr. Oshust reviewed the Leapfrog model in 3D and on vertical section and plan view maps.

The drill hole database is reasonable free of errors and supported by independent quality control checks. The geological model is reasonable and honours the input data. The database and the model are suitable for supporting mineral resource estimation.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

A conceptual SAG and ball mill grinding circuit, followed by conventional sulphide flotation producing a Cu-Au concentrate is proposed for the El Alacrán deposit. In 2012 Ashmont had Minpro Ltda of Santiago Chile complete preliminary flotation test work on two El Alacrán composites. Cordoba has not completed any metallurgical test work on the El Alacrán deposit.

13.2 Sample Collection

Ashmont collected 84 1m long ¼ core samples from 23 holes distributed across the length of the El Alacrán deposit. 40.2 kg were collected from the northern area of the deposit and 40.0 kg were collected from the southern area. These samples were used to prepare Composite 1 (North area) and Composite 2 (South area). The North area composite had an average grade of 0.50 gpt Au and 1.30 % Cu. The South area composite had an average grade of 1.33 gpt Au and 1.25 % Cu (Table 13-1).

Table 13-1: Composite Summary

	Wt (kg)	Cu %	Au gpt
Composite 1	40.18	1.30	0.50
Composite 2	40	1.25	1.33

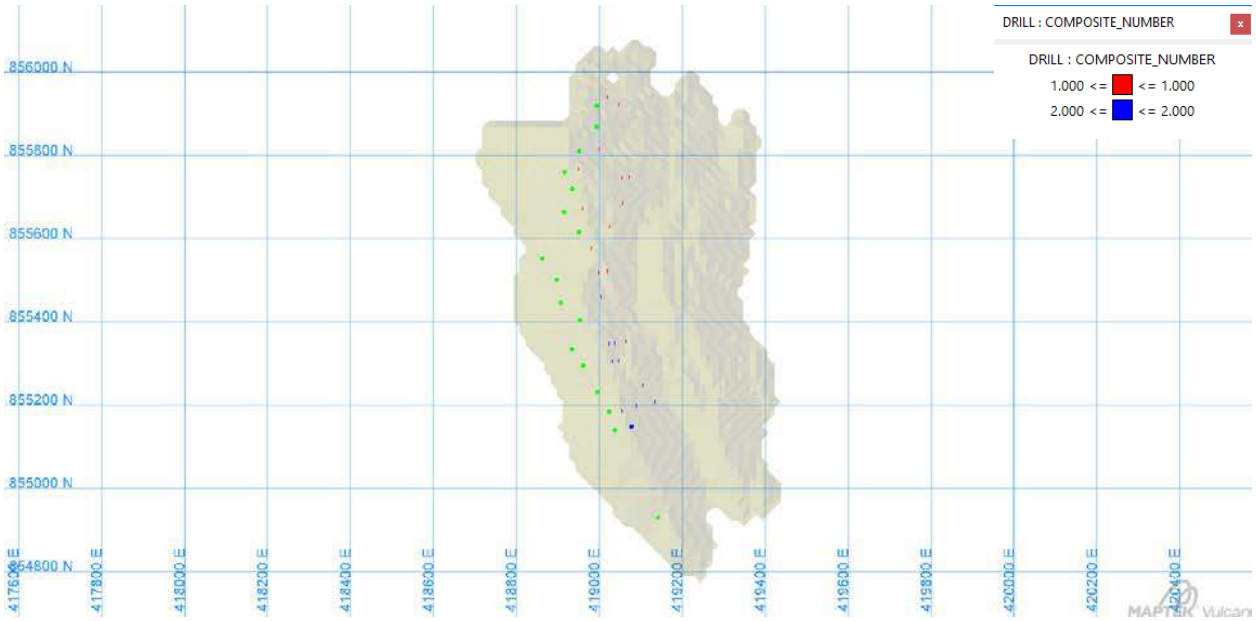
The location of individual samples comprising the two composites are shown in Figure 13-1 and Figure 13-2.

13.3 Sample Preparation

Before compositing, Minpro dried the samples at 50 °C and crushed them to 80 % passing 3.35 mm (6 Mesh). Equal-weight samples were then composited and homogenized by a minimum of three successive passes through a splitter. After homogenization 1 kg sub-sample packages were prepared for the flotation test work. Test work included time determinations of grinding, fixed-time flotation tests for the rougher stage and open cycle flotation tests for cleaner stage.

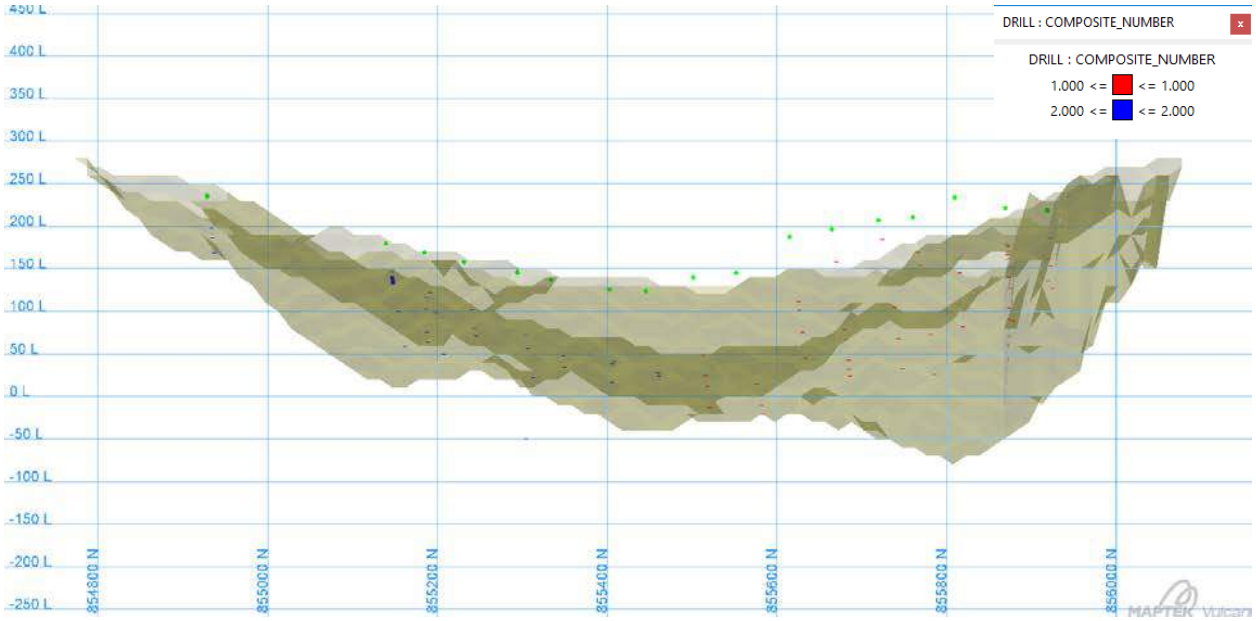
The sub-samples were pulverized to 80% passing 0.15mm (100Mesh) before undergoing 2-stage rougher and 5-stage cleaner testing. Rougher and cleaner Cu and Au recoveries are summarised in Table 13-2 and Table 13-3. Zn, Pb and Hg recoveries were also assessed and showed low recoveries.

Figure 13-1: Composite Sample Location Plan View



Light brown area represents conceptual pit used to constrain the mineral resources

Figure 13-2: Composite Sample Location Long Section



Light brown area represents conceptual pit used to constrain the mineral resources

Table 13-2: Composite 1 Test Work Summary

Composite 1	Cu %	Au gpt	Cumulative Time (min)	Recovery (%Cu)	Cumulative Cu Recovery (%Cu)	Recovery (%Au)	Cumulative Au Recovery (% Au)
Assayed head grade	1.24	0.75					
Calculated head grade	1.22	0.53					
			0	0	0.0%	0	0.0%
Ro Stage 1			2	30.35%	30.4%	20.63%	20.6%
Ro Stage 2			20	64.34%	94.7%	51.78%	72.4%
Tails							
			0	0.00%	0.0%		
Cleaner Stage 1			1	9.63%	9.6%		
Cleaner Stage 2			2	7.48%	17.1%		
Cleaner Stage 3			4	16.26%	33.4%		
Cleaner Stage 4			8	24.51%	57.9%		
Cleaner Stage 5			16	32.86%	90.7%		

Table 13-3: Composite 2 Test Work Summary

Composite 2	Cu %	Au gpt	Cumulative Time (min)	Recovery (%Cu)	Cumulative Cu Recovery (%Cu)	Recovery (%Au)	Cumulative Au Recovery (% Au)
Assayed head grade	1.24	1.72					
Calculated head grade	1.18	1.9					
			0	0	0.0%	0	0.0%
Ro Stage 1			2	53.63%	53.6%	32.57%	32.6%
Ro Stage 2			20	43.79%	97.4%	64.88%	97.5%
Tails							
				0.00%	0.0%		
Cleaner Stage 1			1	10.76%	10.8%		
Cleaner Stage 2			2	7.19%	18.0%		
Cleaner Stage 3			4	12.92%	30.9%		
Cleaner Stage 4			8	19.87%	50.7%		
Cleaner Stage 5			16	34.94%	85.7%		

Magnetic separation test work completed demonstrated Composite 2 has a significantly larger magnetic mass than Composite 1 (34.8% versus 2.9%).

13.4 Conclusions

The Cu and Au rougher recoveries of Composites 1 and 2 are good and do not differ significantly. The Rougher and cleaner recoveries indicate a flotation concentration operation is achievable with standard milling. The preliminary test work did not identify any

processing factors or deleterious elements that could have a significant effect on potential economic extraction of Cu and Au. However, the Cu and Au head grades of Composite 1 and 2 are high compared to the average grade of the deposit and therefore the results may not be representative of the entire deposit. The 2-stage rougher tests do not provide enough information to produce a reliable recovery curve.

14.0 MINERAL RESOURCE ESTIMATES

The El Alacrán Mineral Resource is reported using the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves (Table 14-1). The Qualified Person responsible for the estimates is Mr. Peter Oshust, P.Geo., an Amec Foster Wheeler employee. The estimates have an effective date of 20 February 2018.

The El Alacrán deposit hosts 36.1 Mt of Indicated Mineral Resources at 0.57% Cu and 0.26 g/t Au and 31.8 Mt of Inferred Mineral Resources at 0.52% Cu and 0.24 g/t Au at an 0.28% copper-equivalent (CuEq) cut-off. The Mineral Resources are summarized in Table 14-1.

Table 14-1: El Alacrán Mineral Resource Estimate prepared by Peter Oshust, P.Geo., Effective Date 20 February 2018

	CuEq		Grades			Contained Metal	
Classification	Cut-Off	Tonnage	CuEq	Cu	Au	Cu	Au
	(%)	(Mt)	(%)	(%)	(g/t)	(klbs)	(koz)
Indicated	0.28	36.1	0.72	0.57	0.26	454,000	300
Inferred	0.28	31.8	0.65	0.52	0.24	365,000	250

1. The Mineral Resources in this estimate were prepared following the Definition Standards For Mineral Resources and Mineral Reserves Prepared by the CIM Standing Committee on Reserve Definitions, Adopted by CIM Council on May 10, 2014.
2. Mineral resources are constrained within a conceptual pit shell developed using Whittle™ software. Assumptions used to prepare the conceptual pit include:

   - Metal prices - US$3.15/lb Cu, US$1,400/oz Au
   - Mining cost – US$2.00/t mined
   - Processing cost – US$12/t milled
   - G&A – US$1.25/t milled
   - Mining – 100% recovery, 0% dilution, 45° pit slope
   - Process recoveries - 70% for Au, 90% for Cu=>0.4%, 75% for Cu<0.4%
   - Freight and treatment cost - US$162/t concentrate
   - Payable metal - Cu 96%, Au 95%
   - Refining charges - US$0.085/lb Cu, US$5.50/oz Au

3. Cu Eq=Cu % + 0.504*Au g/t for Cu > 0.4%; CuEq=Cu% + 0.605*Au g/t for Cu < 0.4%
4. The CuEq cut-off is a marginal cut-off sufficient to cover US$12.00/t processing and $1.25/t G&A.

Areas of uncertainty that could materially affect the mineral resource estimates include the following:

- Future test work may show that the metallurgical recovery assumptions for Cu and Au are incorrect. The recovery assumptions used are based on results of metallurgical recovery test work of two composites with grades greater than 1.0% Cu. There is no current metallurgical test work to support the impact of grade variability on metallurgical recovery.

- Future test work may show pit slope assumptions are incorrect. RQD measurements were collected from drill core during logging but there is no geotechnical analysis to support the current pit slope assumptions.

Three recently drilled holes not assayed as of the drill hole database cut-off date targeted down-dip mineralization potential along the western margin of the deposit. CuEq grades above cut-off have been estimated into the blocks in these areas. It is possible these holes are non-mineralized and if so then a minor reduction in the tonnes may be required. These holes should be assayed to determine if estimated grades are supported.

14.1 Drill hole Database

Assay data is available for 130 of the completed holes. At the resource estimate database cut-off date assays were pending for three recently drilled holes on the western margin of the deposit-area. Three other holes are short-length holes without assays. The database also contains 15 holes drilled by Dual Resources and 29 tunnels by artisanal miners that were excluded from modelling and analysis due to the lack of quality control.

14.2 Exploratory Data Analysis

The multi-element assay database contains over 27,000 samples of generally 2 m lengths. The economic metals are Cu and Au. Several other minor grade elements of interest were included in the resource model update including: Ag, Co, As, Fe, and S. The database also contains just over 10,500 specific gravity (SG) measurements.

14.2.1 Compositing

The assay sample intervals were composited to 4 m regular intervals for the entire length of the holes. Short-length composites at the ends of the holes were retained. Short-length composites less than 2 m were stitched onto the previous composite interval. An exploratory data analysis (EDA) envelope was defined to limit the number of distal low-grade composites so as not to skew the analysis. There are just over 7,900 4 m Cu and Au composites in the EDA envelope.

14.2.2 Composited Cu Grade Distribution

The Cu mineralization is stronger and is more pervasive across lithological boundaries in the north than in the south area. The north area mean Cu grades are higher than in the south area. The Cu mineralization shows greater tendency to be strata bound in the south area. Figure 14-1 shows in plan view the distribution and intensity of the Cu grade composites. The north area and south area Cu grade histograms and statistics are shown in Figure 14-2.

Figure 14-1: Map of Drill Holes Showing the Distribution of Cu Grade Composites

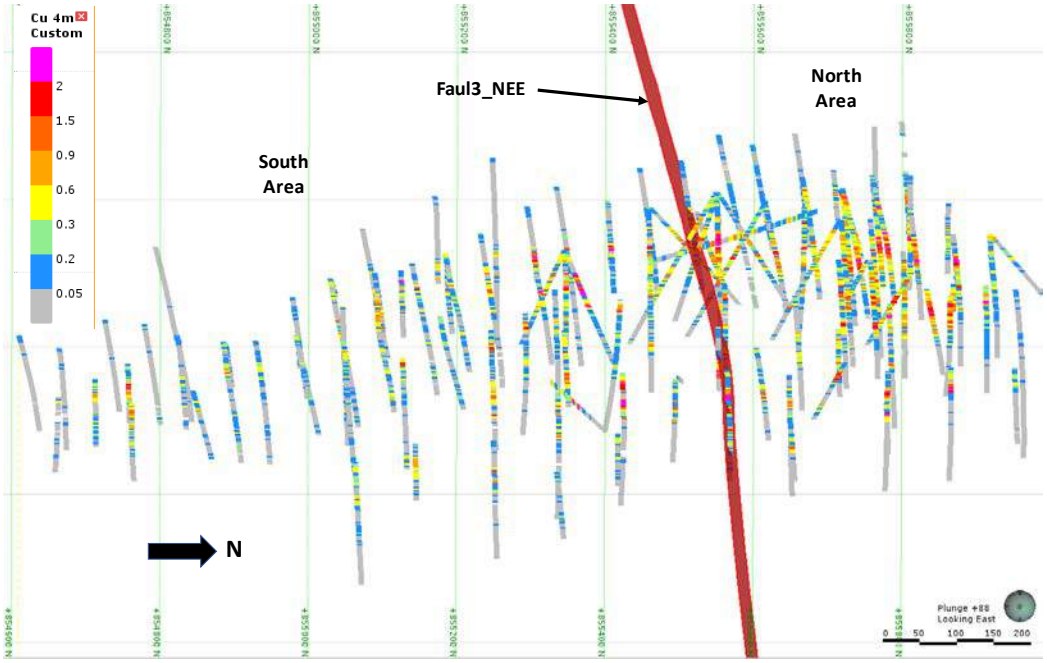
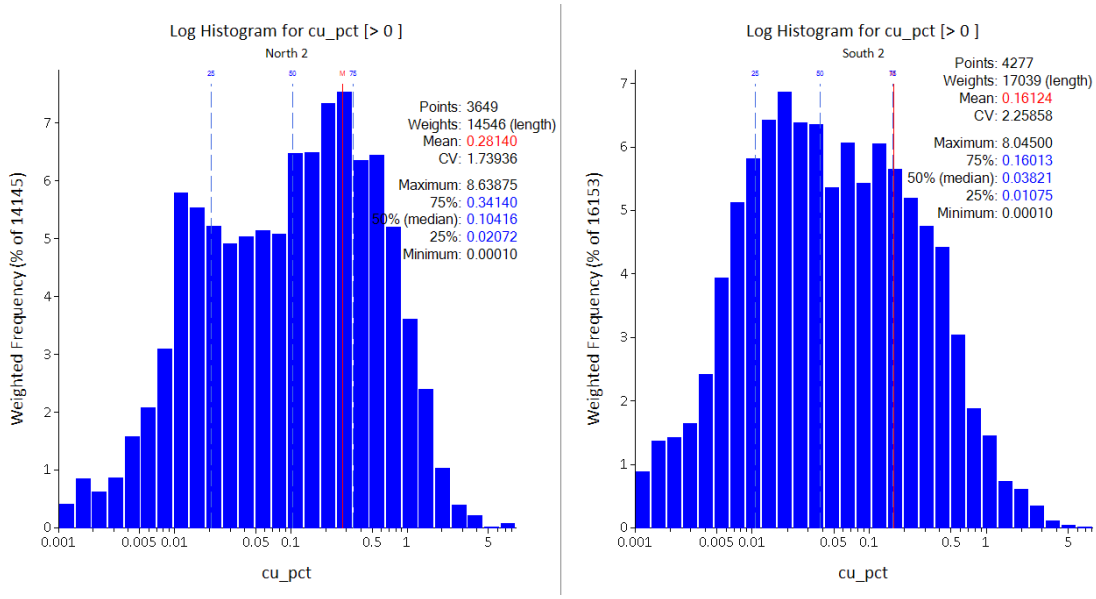


Figure 14-2: Cu Composite Grade Histograms for the North and South Areas



Box-and-Whisker Plots showing the Cu composite grade distributions by modelled lithology are shown in Figure 14-3 and Figure 14-4. The box-and-whisker plots show that the Cu

mineralization is highest in Unit 2. However, mineralization occurs in all three lithological packages.

Figure 14-3: Box-and-Whisker Plots for North Area Composited Cu by Lithology

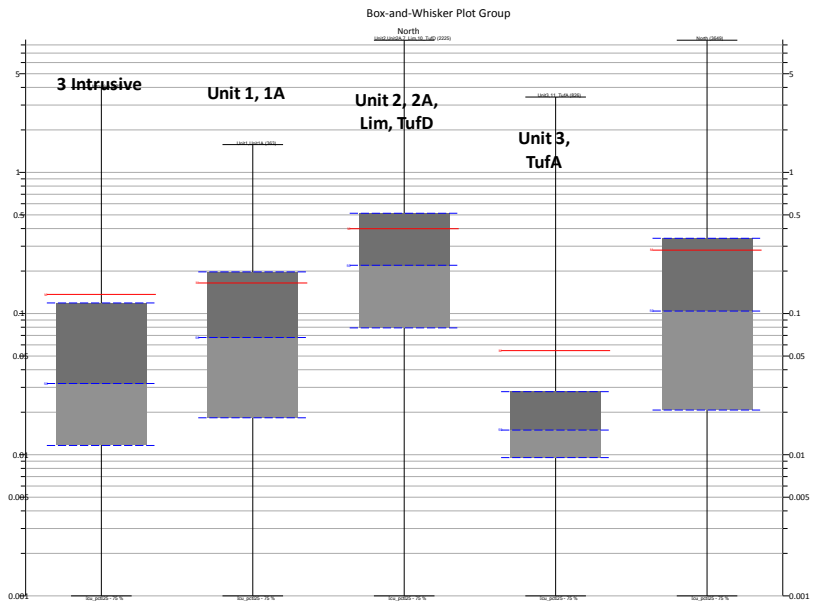
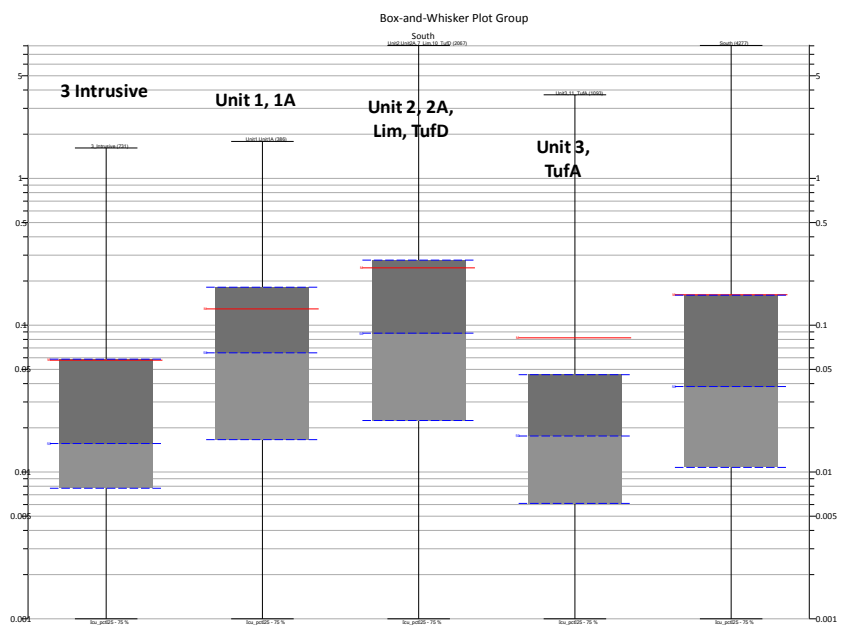


Figure 14-4: Box-and-Whisker Plots for South Area Composited Cu by Lithology



14.2.3 Composited Au Grade Distribution

Au mineralization is stronger and more continuous in the north than in the south area. The north area average Au grades are much higher than in the south area but are also somewhat skewed by high grade outliers. The Au mineralization also shows a greater tendency to be strata bound in the south area. Figure 14-5 shows in plan view the distribution and intensity of the Au grade composites. The north area and south area Au grade histograms and statistics are shown in Figure 14-6.

Figure 14-5: Map of Drill Holes Showing the Distribution of Au Grade Composites

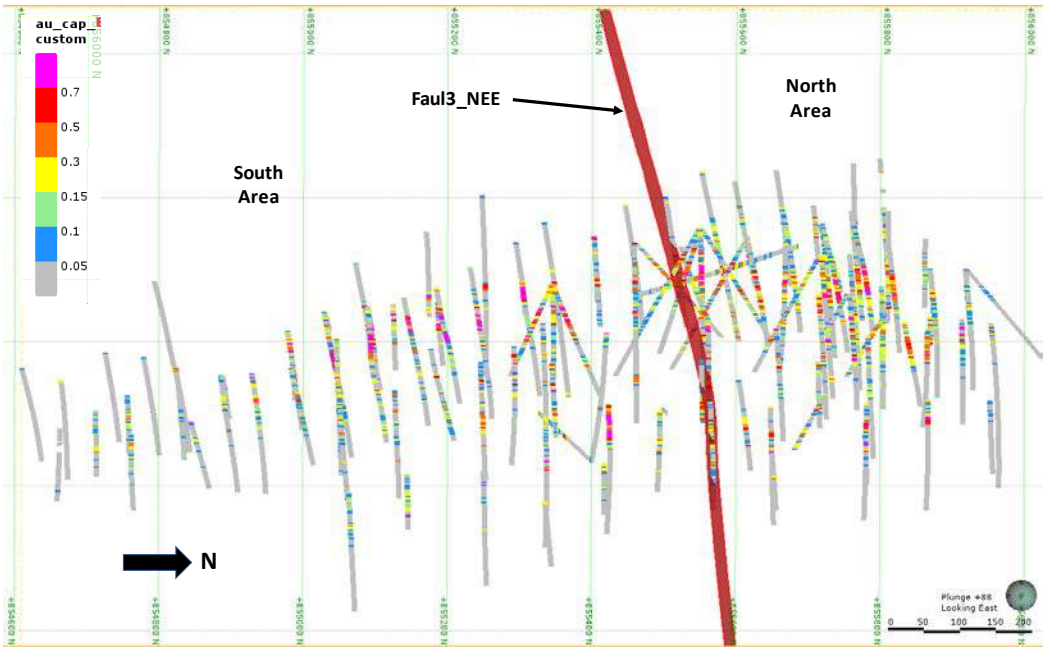
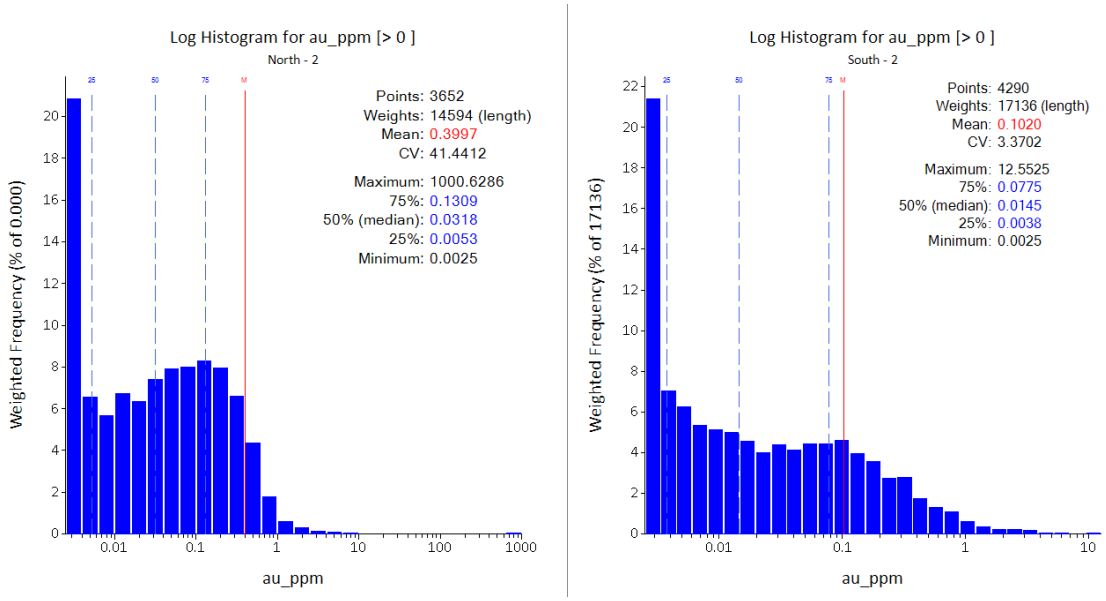


Figure 14-6: Au Composite Grade Histograms for the North and South Areas



Box-and-Whisker Plots showing the Au composite grade distributions by modelled lithology are shown in Figure 14-7 and Figure 14-8. As with Cu, the box-and-whisker plots show that the mean Au mineralization is highest in Unit 2. However, mineralization occurs in all three lithological packages. The highest Au mineralization occurs in a CBM vein in the diorite intrusive (3_Intrusive).

Figure 14-7: Box-and-Whisker Plots for North Area Composited Au by Lithology

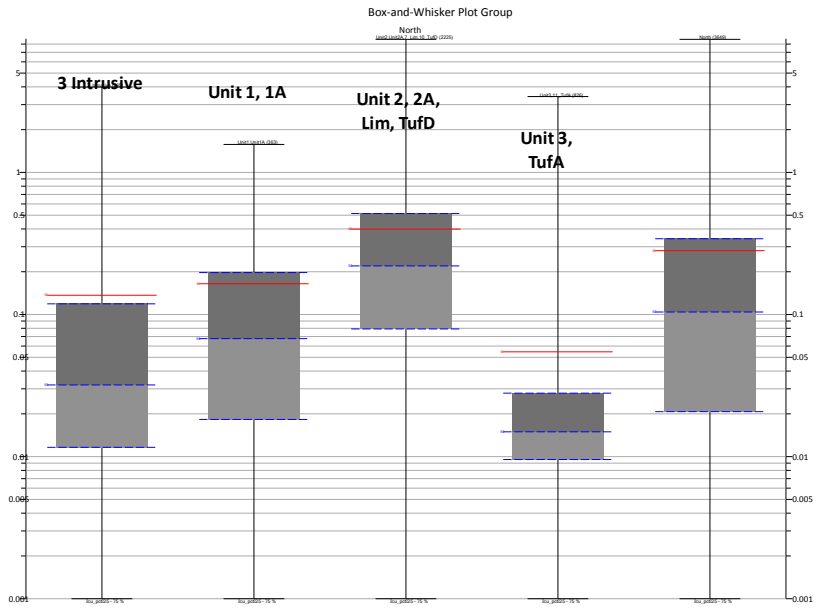
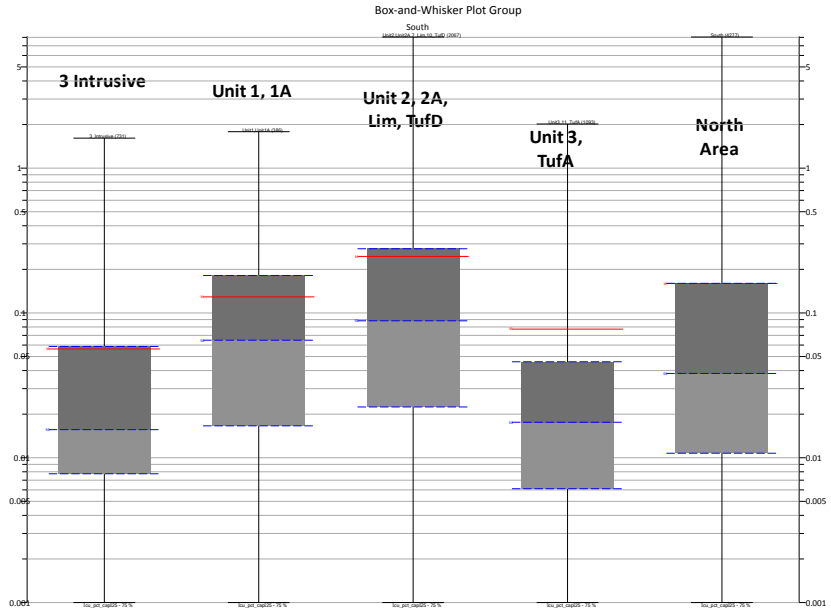


Figure 14-8: Box-and-Whisker Plots for South Area Composited Au by Lithology



14.2.4 Outlier Analysis and Capping

The variability in the Cu and Au assay sample grade distributions is high as seen in the coefficients of variation (CV) which are typically much greater than 1.0 which indicates the need for Outlier analysis. Outlier analysis showed that capping is justified to prevent the extrapolation of high grade outliers in the block grade model.

Outlier analysis was undertaken on the original assay sample intervals prior to compositing. The assays were grouped by major lithology for the analysis. One extreme Au outlier value at 4,400 g/t was reduced to the next highest assay value of 56.9 g/t Au to prevent skewing the outlier analysis. Amec Foster Wheeler selected capping thresholds after analyzing four types of charts: indicator threshold, decile plots, histograms, and probability plots. The number of composites capped was also taken into consideration. The final capping choices are presented in Table 14-2.

Table 14-2: Summary of Metal Grade Capping Choices

Metal	Unit	Unit 1 + 1A	North Unit2+2A, Lim, TufD	South Unit2+2A, Lim, TufD	Unit3, TufA	3_Intrusive
Au	g/t	11	3	5	1.5	2
Cu	%	10	5	6	2.3	1
Ag	g/t	100	60	50	25	9
As	ppm	1500	2500	400	200	130
Co	ppm	300	600	800	300	230
Fe	%	40	38	48	25	23
S	%	10	15	10	10	8

14.3 Block Grade Estimation

A 5x10x5 m block size was chosen for the resource block model to reflect a possible mining selectivity for a 12,750 tonne per day (4.6 Mta) mining scenario. This level of selectivity in the model will provide flexibility for mine planners to assess different selectivity scenarios during future studies. The resource block model was sub blocked to 2.5 x 5.0 x 2.5 m to maintain geological resolution. The block grade model was flagged for lithological and structural domains from wireframes from the Cordoba Mineral's geological model.

Inverse distance interpolation to the third power (ID^3) was used for high-grade Cu and Au indicator probability modelling and block grade estimation. Ordinary kriging (OK) was used for Specific Gravity (SG or density) indicator probability modeling and OK and Simple kriging (SK) was used for SG estimation; SK was used for the final estimation pass for density. The average sample density for each estimation domain was used as the SK stationary mean.

14.3.1 High Grade Indicator Probability Models

The Cu and Au metal mineralization is preferentially strata bound, however, the mineralization is not strictly controlled by the modelled lithological or structural boundaries. An indicator probability model was used as an alternative to grade shells to define these regions for grade estimation.

An indicator threshold for the probability model was selected from the grade composites of the combined Unit 2 and Unit 2A lithological domains. The indicator thresholds were chosen based on CVs determined for portions of the grade distribution above and below a range of grade cut-offs. The grade composites were assigned an indicator of 1 if the composite grade was above the threshold or 0 if below.

An indicator threshold of 0.25% Cu was chosen based on the CVs and with taking into consideration the assumed economic grade cut-off. Two indicator thresholds for Au were chosen, 0.10 g/t Au for the north area and 0.15 g/t Au for the south area, based on the intersection of the CV curves above and below cut-offs.

Correlograms were calculated and modelled for the indicators as well as the 4.0 m grade composites. The indicator block values were estimated using ID^3 to produce the probability (P_ik) models of block grades being above the indicator threshold. The Cu and Au block grades above the indicator threshold (HG) and below the threshold (LG) were estimated using ID^3. The HG and LG models were then merged by weighting by the probability model:

Final Block Grade = P_ik x HG + (1 – P_ik) x LG

Limited sharing of composites (firm estimation boundaries) was permitted across lithological and structural boundaries. The sharing distances were determined from the analysis of contact plots showing the contrast in mean grades across the boundary.

14.3.2 Block Model Validation

The block grade estimates were validated using several methods:

- Visual checks on vertical sections and plan views
- Statistical checks for global bias
- Swath plots for local bias
- HERCO grade-tonnage curves for change-of-support analysis

The block grade estimates passed all validation checks and are considered reasonable and suitable for mine planning.

CuEq, Cu and Au block grade maps are shown in Figure 14-9 to Figure 14-20.

Figure 14-9: CuEq Block Grade Model Map at 102.5 RL ± 7.5 m

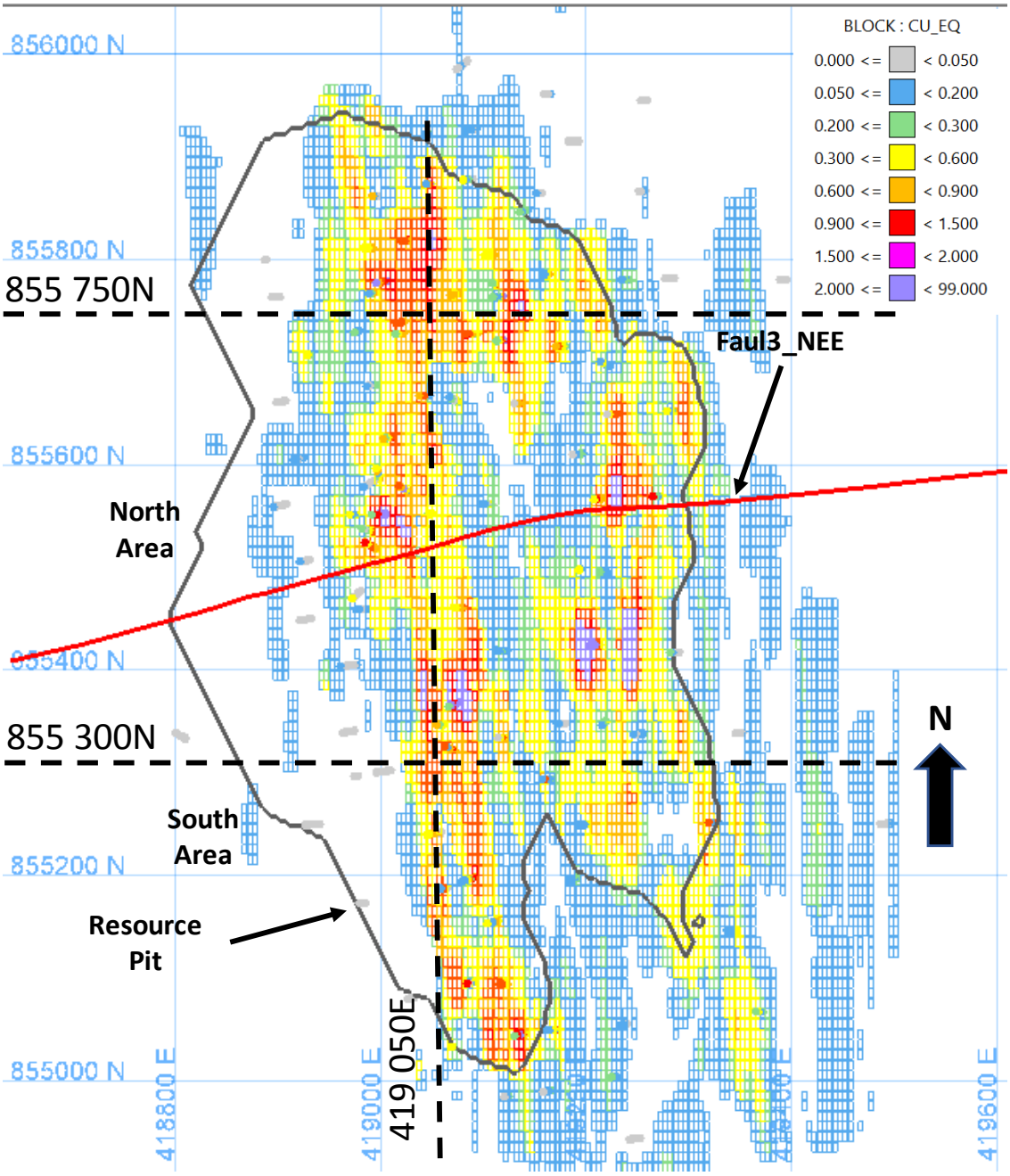


Figure 14-10: CuEq Block Grade Map at 855,750 N ± 25 m

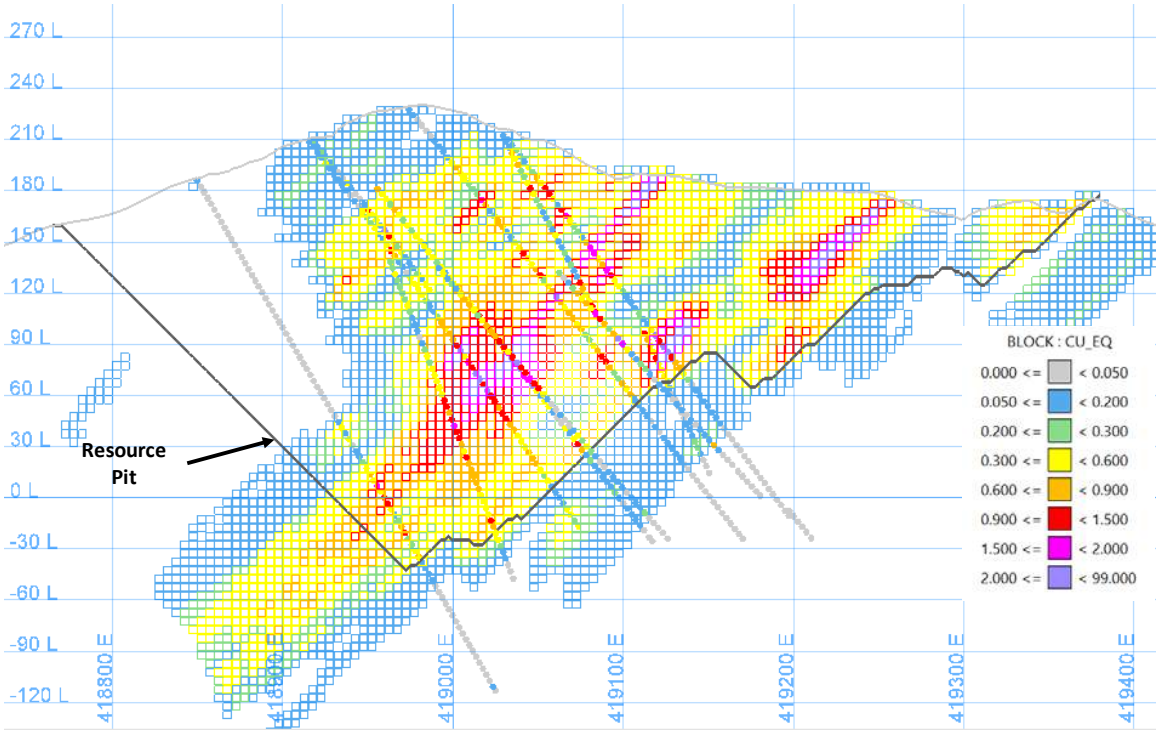


Figure 14-11: CuEq Block Grade Map at 855,300 N ± 25 m

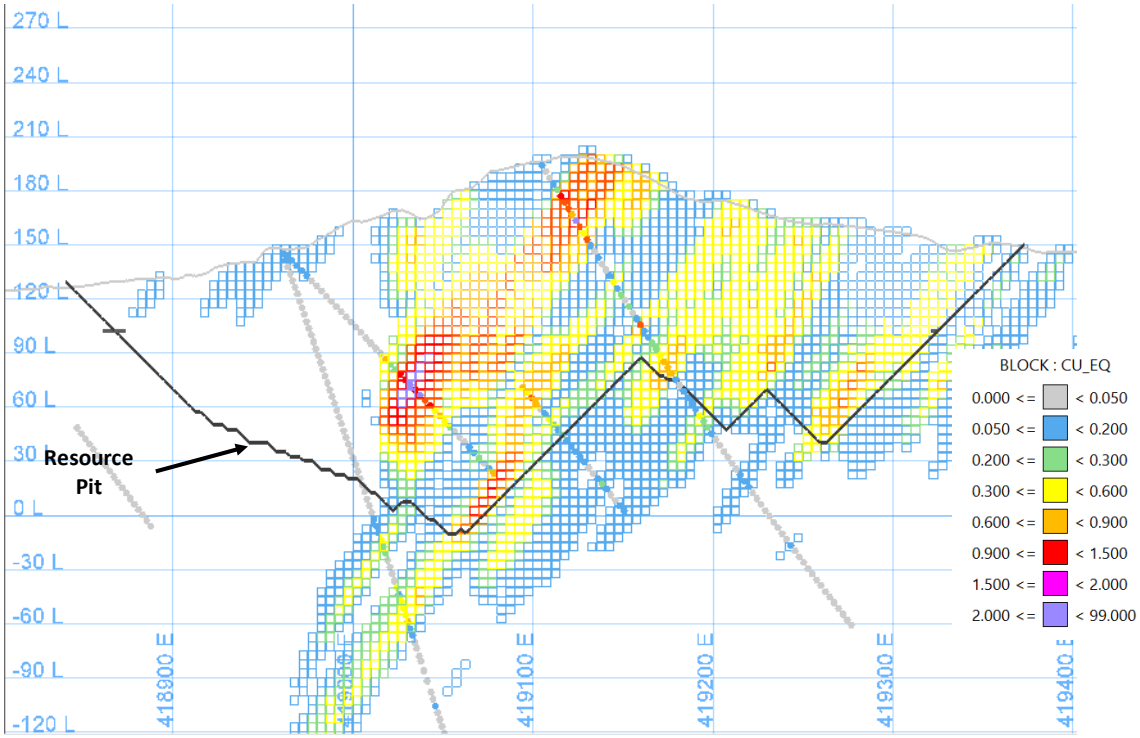


Figure 14-12: CuEq Block Grade Map at 419,050 E ± 12.5 m

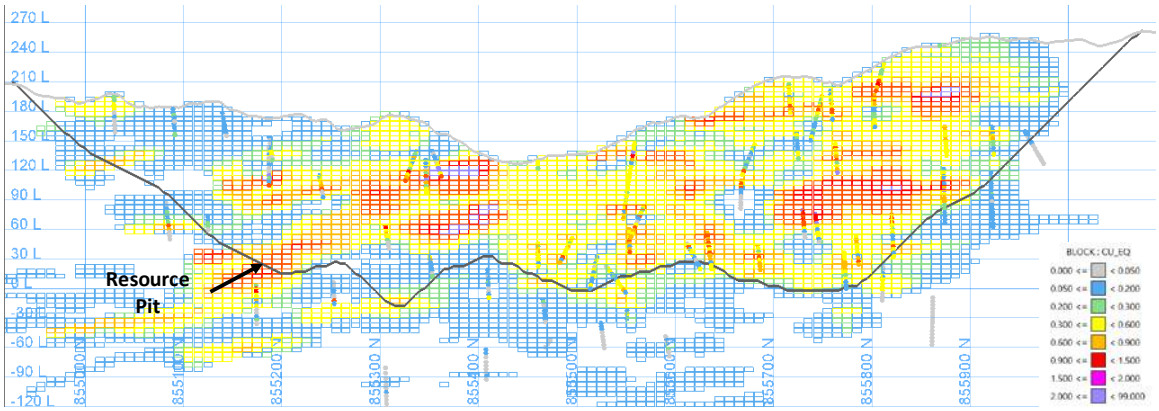


Figure 14-13: Cu Block Grade Model Map at 102.5 RL ± 7.5 m

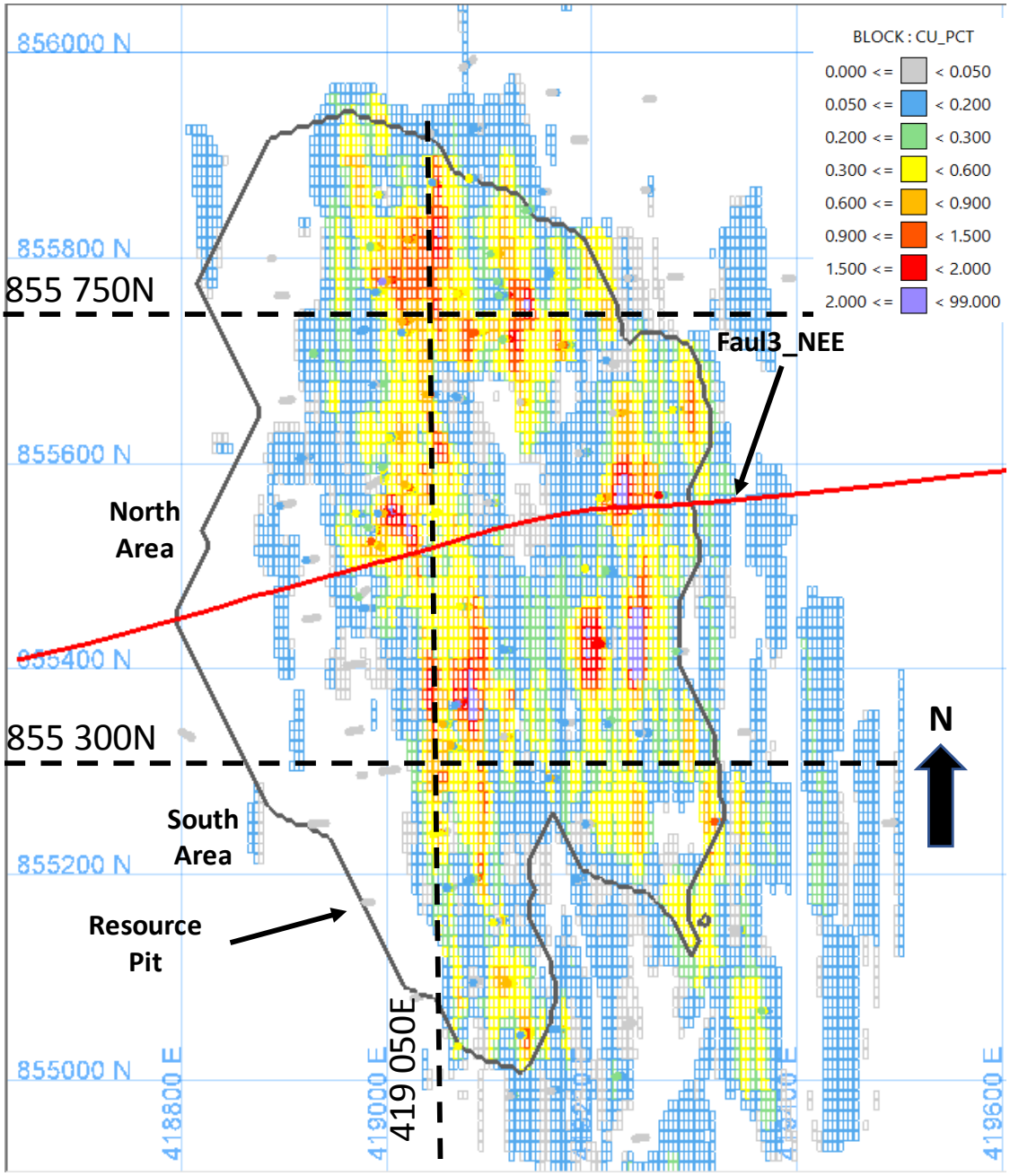


Figure 14-14: Cu Block Grade Map at 855,750 N ± 25 m

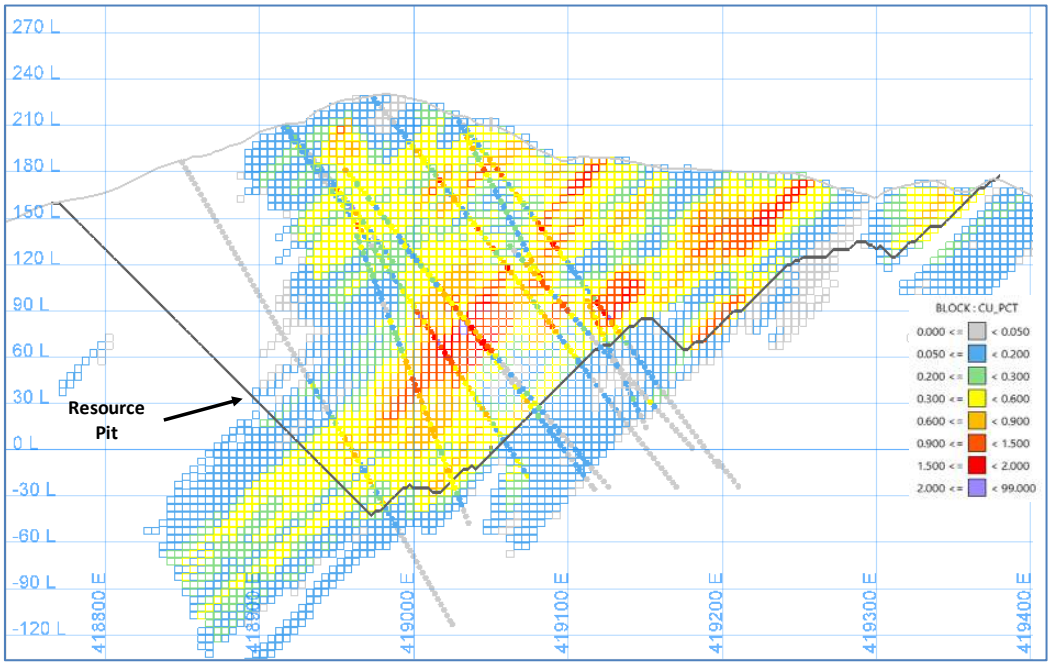


Figure 14-15: Cu Block Grade Map at 855,300 N ± 25 m

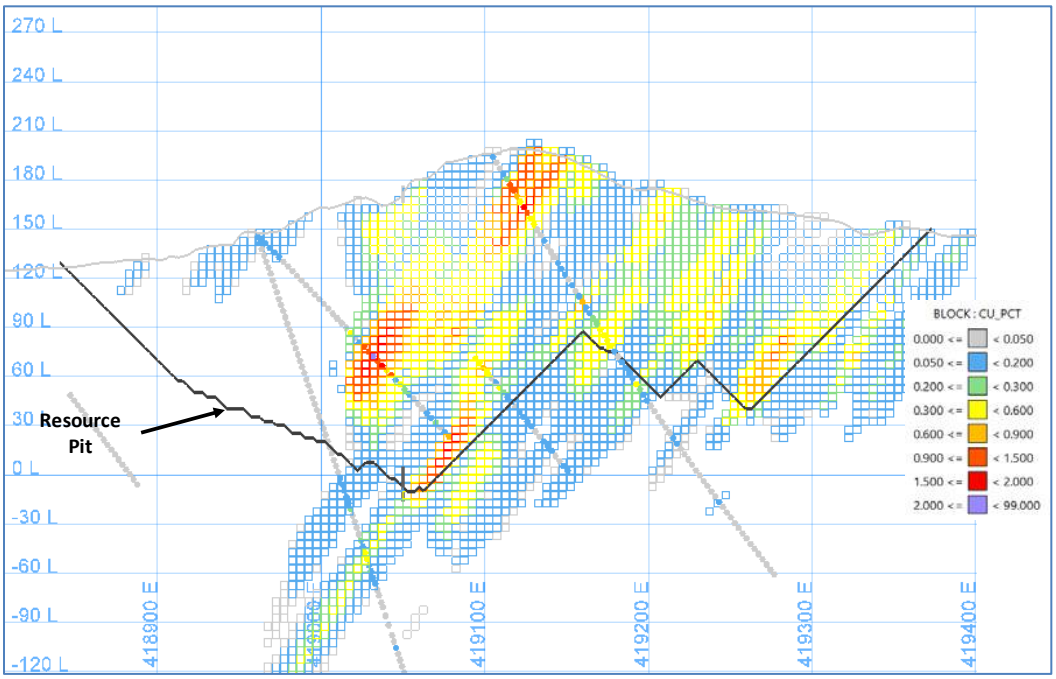


Figure 14-16: Cu Block Grade Map at 419,050 E ± 12.5 m

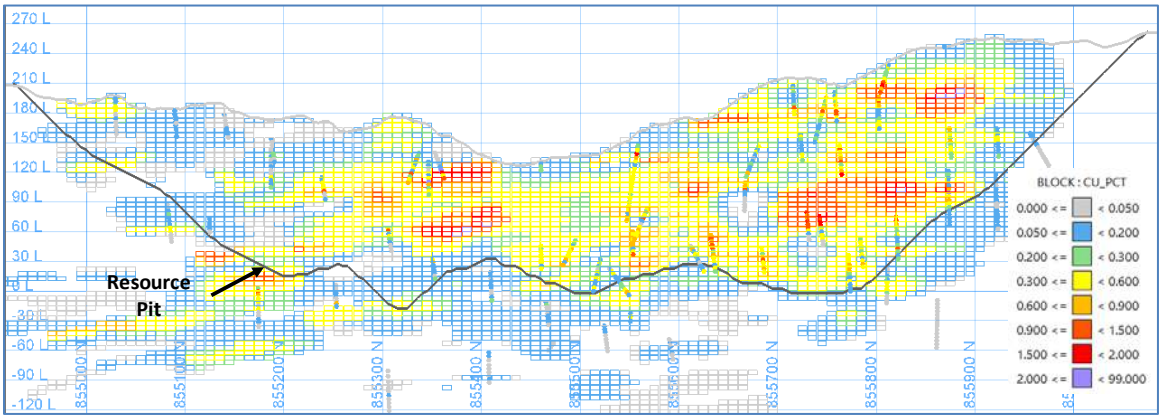


Figure 14-17: Au Block Grade Model Map at 102.5 RL ± 7.5 m

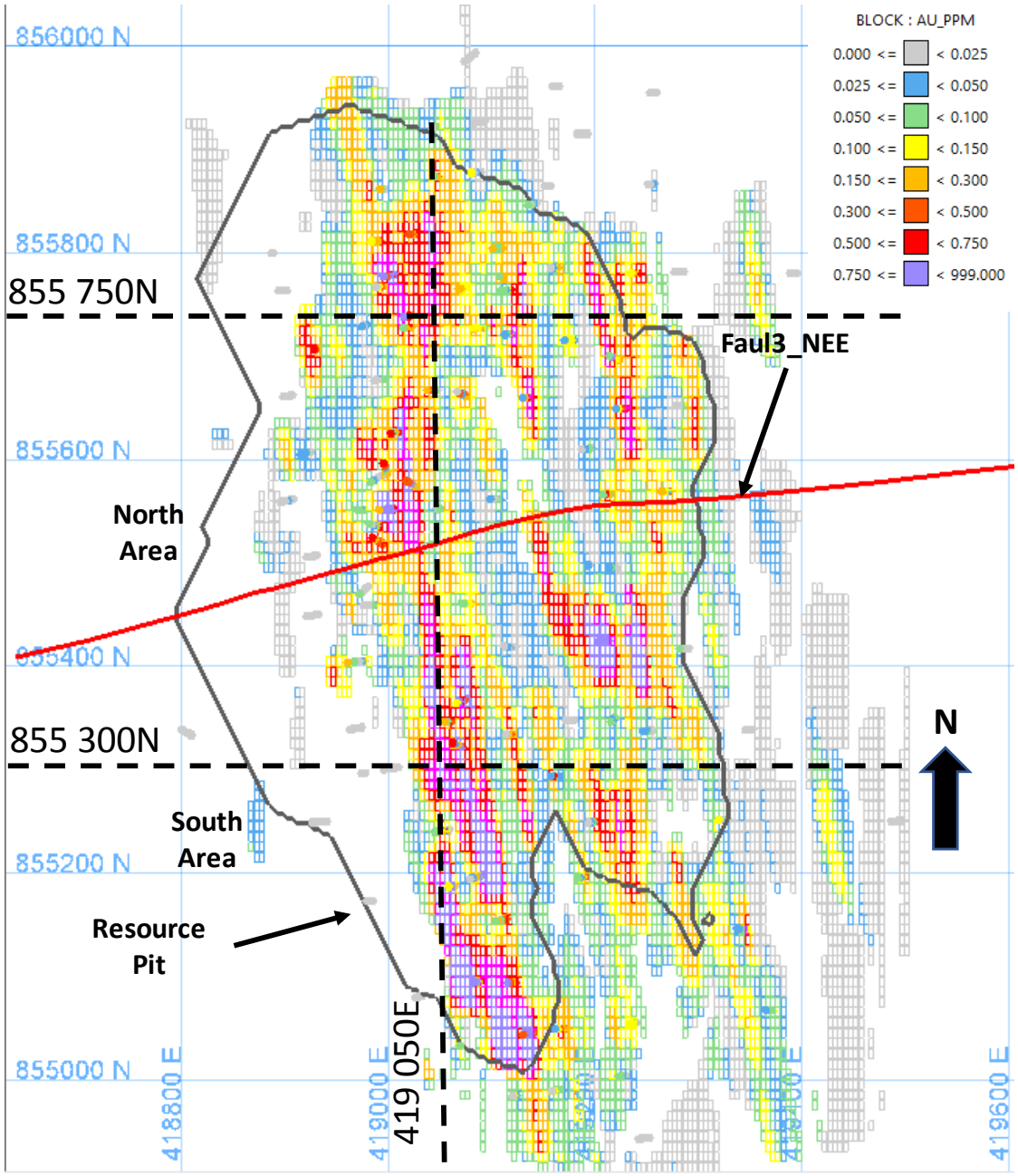


Figure 14-18: Au Block Grade Map at 855,750 N ± 25 m

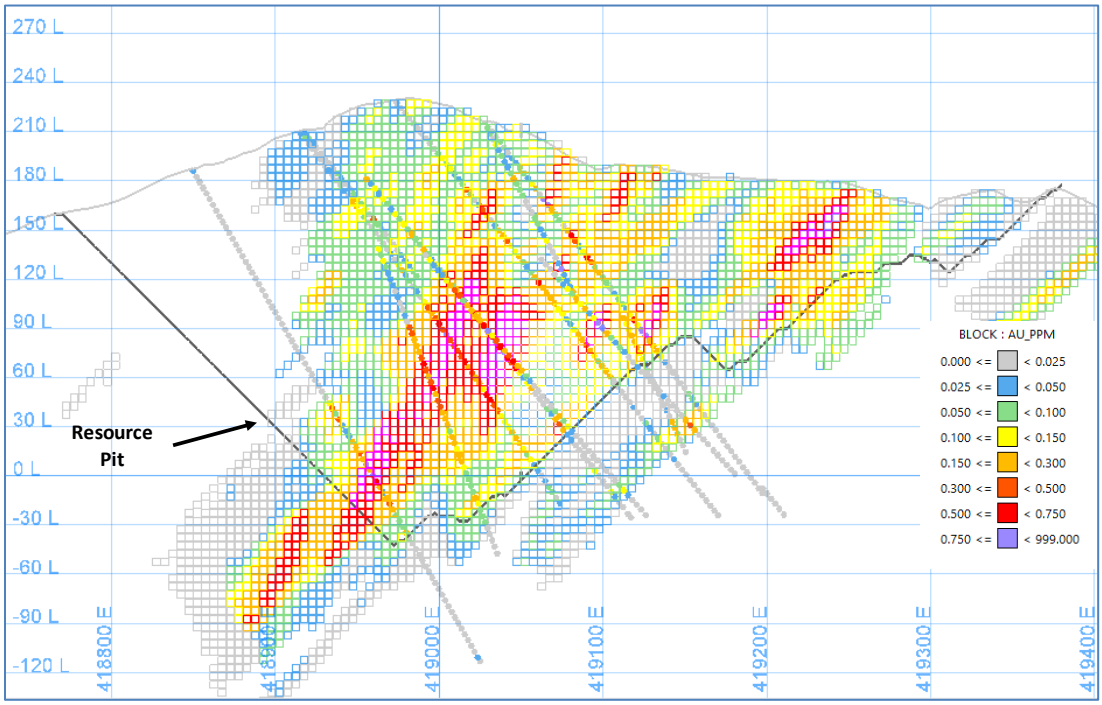


Figure 14-19: Au Block Grade Map at 855,300 N ± 25 m

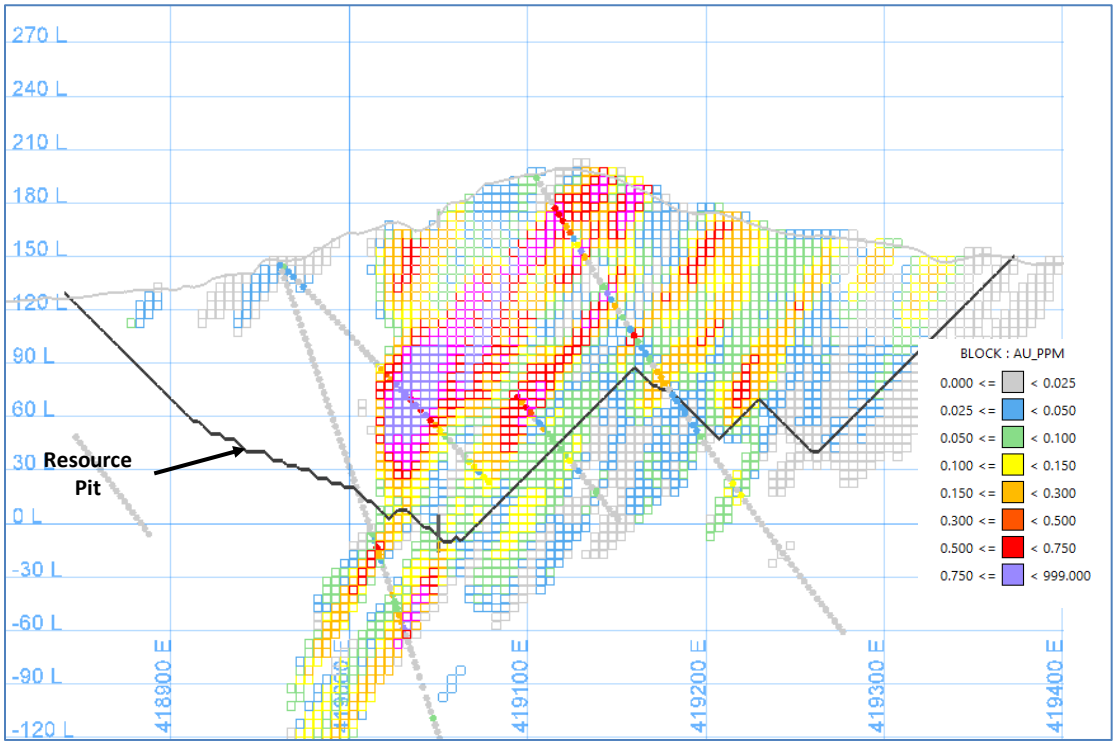
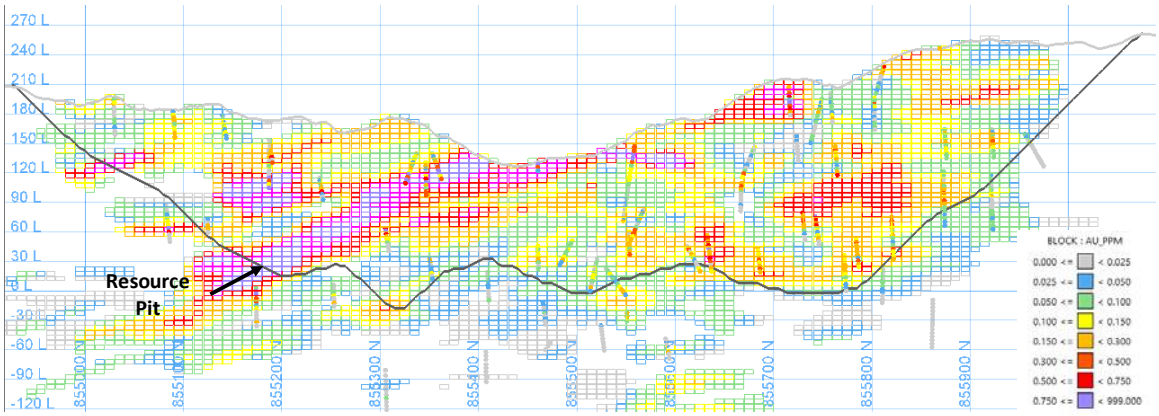


Figure 14-20: Au Block Grade Map at 419,050 E ± 12.5 m



14.4 Copper Equivalency

Copper and gold grades, prices, and metal recoveries were used to develop the following CuEq formula.

CuEq % = Cu % + AuRevFactor * Au g/t

where:

- AuRevFactor = AuRev/CuRev
- AuRev = (AuRec*AuPrice/oz) / 31.1035
- CuRev = (CuRec*CuPrice/lb) * 2204.62
- AuRec = Au Recovery %
- CuRec = Cu Recovery %

The assumed metal prices are US$3.15/lb for copper and US$1,400/oz for gold. The metal recovery assumptions are:

- CuRec = 70% if Cu < 0.4%
- CuRec = 90% if Cu ≥ 0.4%
- AuRec = 70%

A block CuEq grade calculation formula is:

- If Cu < 0.4 then CuEq = Cu + (0.605 x Au) else
- If Cu ≥ 0.4 then CuEq = Cu + (0.504 x Au)

14.5 Drill Hole Spacing Study

A drill hole spacing study (DHSS) was undertaken to establish the drill hole spacing (distance between holes) required to support confidence interval targets at a given production rate for estimated contained metal. The DHSS is based on:

- A CuEq metal indicator
- Assumed ore mining production rate of 12,750 t/day
- A confidence interval based on ordinary kriging variance

For Indicated resources, the target confidence interval is ±15% on predicted metal 90% of the time on an annual production volume. This confidence interval is achieved when drill hole spacing is approximately 60 m in the north area and 50 m in the south area. The difference in spacing may be attributed to the different styles and variability of mineralization observed in the north and south as described above.

14.6 Classification

Mineral resources have been assigned a block confidence classification based on drill hole spacing with consideration given to geological and grade continuity, and the quality of drill hole information.

Blocks in an area with nominal drill hole spacing of 60 for the north area and 50 m for the south area were classified as Indicated. Blocks outside of the Indicated limits were assigned as Inferred resources if the nominal spacing was 150 m or less. Nearly all blocks inside the resource pit are classified as Indicated or Inferred. Nominal spacing around the blocks was established using calculations based on the distance from the block centroid to the three nearest drill holes. Isolated Indicated blocks surrounded by Inferred blocks were manually assigned to Inferred and vise versa.

Mineral resource block confidence maps on plan view and vertical sections are shown in Figure 14-21 to Figure 14-24.

Figure 14-21: Block Classification Map at 102.5 RL ± 7.5 m

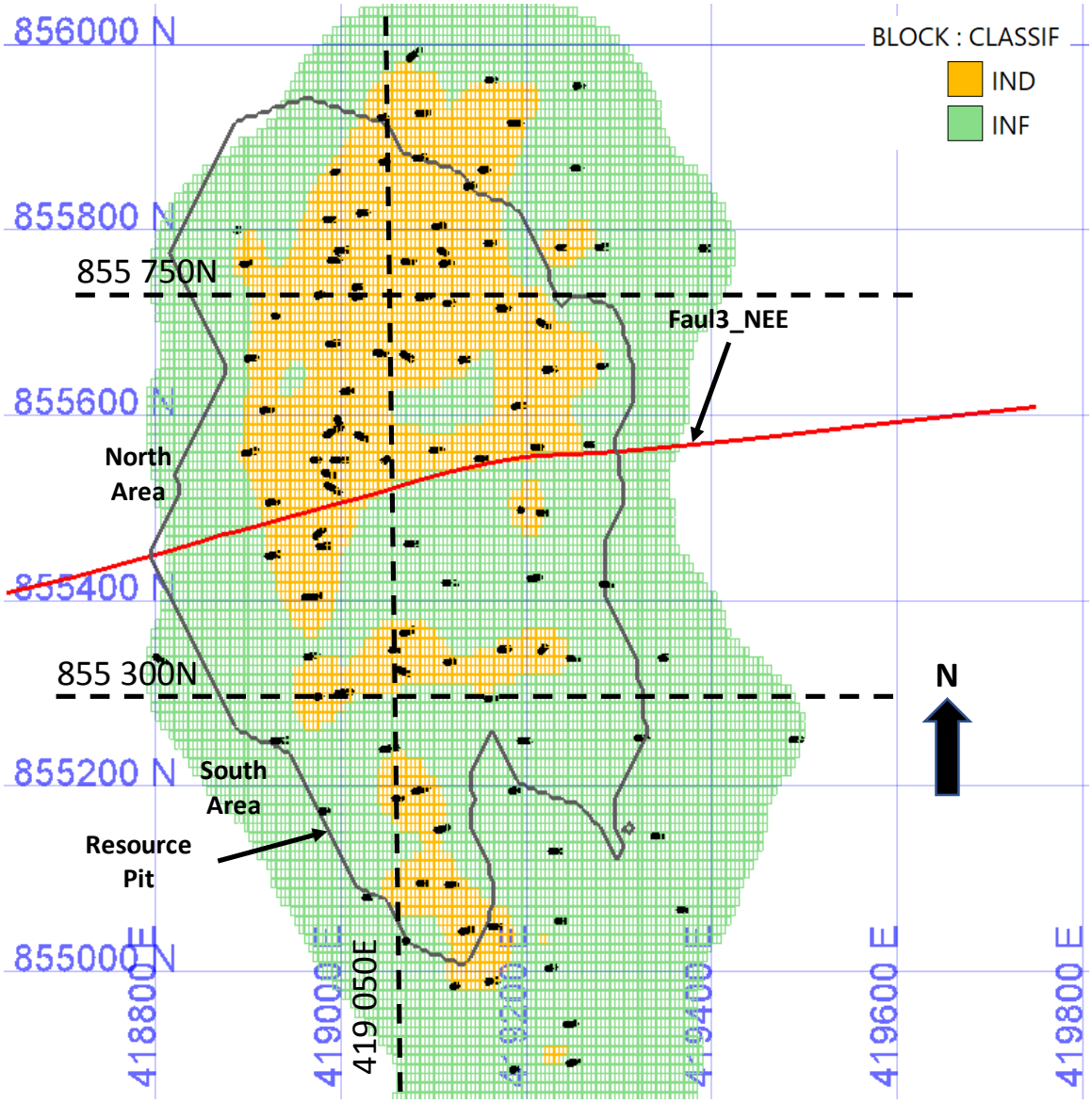


Figure 14-22: Block Classification Map at 855,750N ± 25m

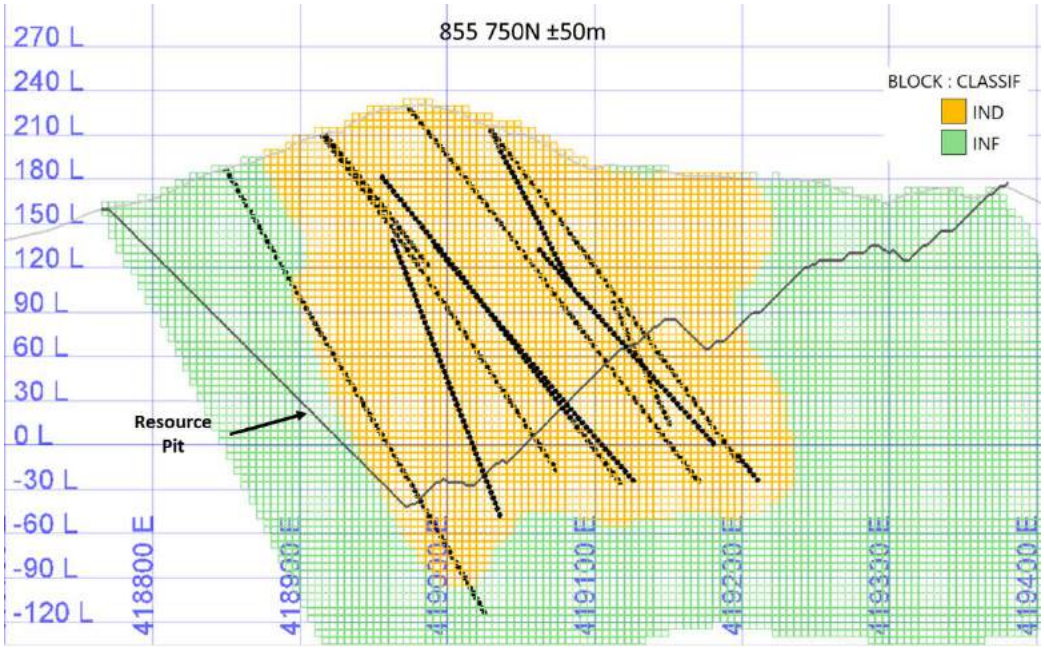


Figure 14-23: Block Classification Map at 855, 300N ± 25m

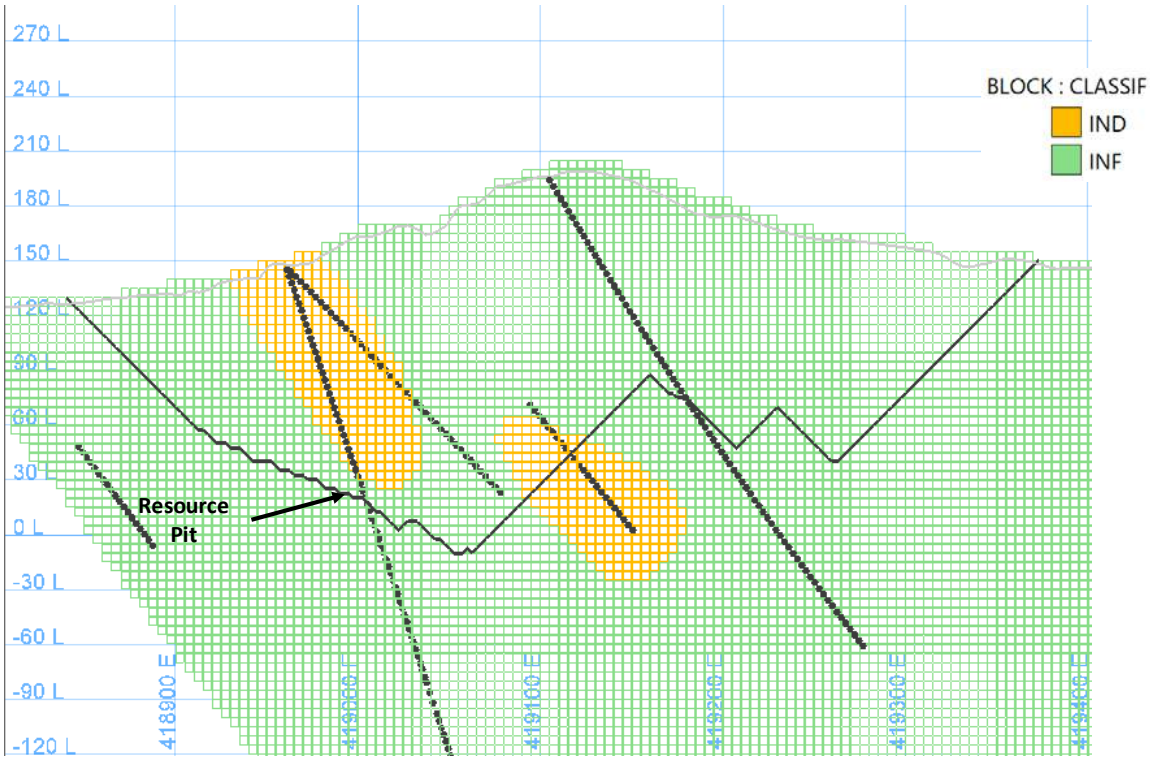
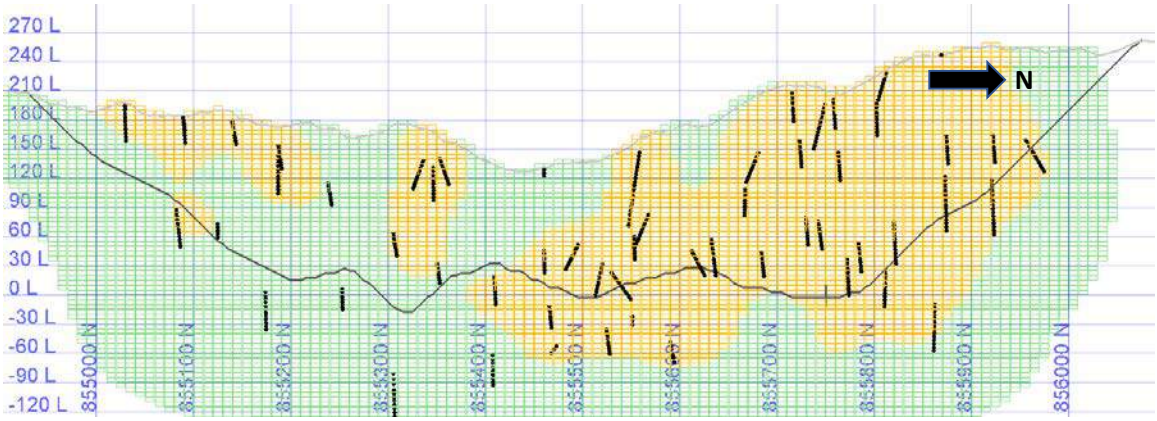


Figure 14-24: Block Classification Map at 419 050E ± 12.5m



14.7 Reasonable Prospects of Eventual Economic Extraction

A conceptual pit shell was generated using Whittle software to constrain Mineral Resources. The parameters used to define the conceptual pit shell are provided in Table 14-3.

Table 14-3: Input Parameters to Conceptual Pit Shell

Description	Units	Value	Comments
Metal Prices			
Copper	US$/lb	3.15	For resource definition only
Gold	US$/oz	1,400	For resource definition only
Mining Dilution	%	0%	Zero grade
Mining Recovery	%	100%	
Resource Categories		MII	Inferred
Process Recovery			
Copper (Cu >= 0.4%)	%	90%	
Copper (Cu < 0.4%)	%	75%	
Gold	%	70%	
Pit Slopes	degrees	45°	
Mining Costs			
Base	US$/t	2.00	
Incremental	US$/t/bench		
Processing Cost			
Operating Cost	US$/t milled	12.00	
G&A	US$/t milled	1.25	
Sustaining Capital	US$/t milled	-	
Closure Cost	US$/t milled	-	
Sales Cost			
Wet Concentrate	%	8%	
Payable Cu	%	96%	
Payable Au	%	95%	
Freight mine to port	US$/t conc	32.00	
Freight port to smelter	US$/t conc	45.00	
Treatment Charge	US$/t conc	85.00	
Cu Refining Charge	US$/lb	0.085	
Au Refining Charge	US$/oz	5.50	

14.8 Mineral Resource Sensitivity to Reporting Cut-off

Table 14-4 is a table showing the sensitivity of the Mineral Resource estimate to variations in the CuEq cut-off grade. The reporting base case of 0.28% CuEq is highlighted in bold text.

Table 14-4: Mineral Resource Sensitivity to CuEq Reporting Cut-off

Classification	CuEq Cut-Off (%)	Tonnage (Mt)	Grades CuEq (%)	Cu (%)	Au (g/t)	Contained Metal Cu (klbs)	Au (koz)
Indicated	0.20	42.5	0.64	0.51	0.24	478,000	330
	0.22	40.9	0.66	0.53	0.24	478,000	320
	0.24	39.3	0.68	0.54	0.25	467,000	320
	0.26	37.7	0.70	0.56	0.26	465,000	310
	0.28	**36.1**	**0.72**	**0.57**	**0.26**	**454,000**	**300**
	0.30	34.6	0.73	0.59	0.27	450,000	300
	0.32	33.0	0.75	0.61	0.28	444,000	300
	0.35	30.9	0.78	0.63	0.29	429,000	290
	0.40	27.6	0.83	0.67	0.31	407,000	270
Inferred	0.20	41.2	0.56	0.44	0.21	400,000	280
	0.22	38.7	0.58	0.46	0.22	392,000	270
	0.24	36.3	0.60	0.48	0.23	384,000	270
	0.26	34.0	0.63	0.50	0.23	375,000	250
	0.28	**31.8**	**0.65**	**0.52**	**0.24**	**365,000**	**250**
	0.30	29.9	0.68	0.54	0.25	356,000	240
	0.32	28.1	0.70	0.56	0.26	346,000	230
	0.35	25.6	0.73	0.59	0.27	333,000	220
	0.40	22.0	0.79	0.64	0.29	310,000	210

15.0 MINERAL RESERVE ESTIMATES

Not Applicable

16.0 MINING METHODS

Not Applicable

17.0 RECOVERY METHODS

Not Applicable

18.0 PROJECT INFRASTUCTURE

Not Applicable

19.0 MARKET STUDIES AND CONTRACTS

Not Applicable

20.0 ENVIRONMENTAL STUDIES. PERMITTING AND SOCIAL OR COMMUNITY IMPACT

Not Applicable

21.0 CAPITAL AND OPERATING COSTS

Not Applicable

22.0 ECONOMIC ANALYSIS

Not Applicable

23.0 ADJACENT PROPERTIES

Not Applicable

24.0 OTHER RELEVANT DATA AND INFORMATION

Not Applicable

25.0 INTERPRETATION AND CONCLUSIONS

Drilling by Cordoba and its predecessors has led to the discovery of a hypogene Cu-Au intrusive-related carbonate-hosted, strata bound mineral deposit. The deposit has been delineated using appropriate drilling methods, collar and down-hole survey methods, and sampling and laboratory analysis methods accompanied by appropriated quality control monitoring. Cordoba has validated data by resurveying many of the drill hole collars, completing several twin drill holes, and completed independent checks of specific gravity measurements. Cordoba has monitored the quality control results of their drill program and addressed issues when encountered. Geological logging has progressed with each phase of drilling and re-logging of core has been completed as new interpretations develop. This work has led to a drill hole database and geological model that is suitable for supporting the El Alacrán Mineral Resource estimate.

Preliminary process recovery test work completed by its predecessor indicates a flotation concentration operation may be achievable with standard milling.

The El Alacrán Mineral Resources were prepared following CIM Definition Standards for Mineral Resources and Mineral Reserves Prepared by the CIM Standing Committee on Reserve Definitions, Adopted by CIM Council on May 10, 2014. Grade capping has limited the influence of very high-grade outliers related to narrow discontinuous mineralized intersections. A two-stage high and low-grade estimation method accompanied by a probabilistic indicator model was used to improve grade constraint, in particular the higher grades. The Mineral Resources were calibrated to a 5x10x5m SMU to reflect a possible mining selectivity for a 12,750 tonne per day mining scenario and were constrained in a conceptual pit prepared using Whittle software. The El Alacrán Mineral Resource Estimate is suitable to support a Preliminary Economic Assessment.

Sample swaps or assay failures evident in the Ashmont QAQC database have not been validated and if they were not appropriately addressed may have introduced some error into the assay database. A double data entry error check has not been completed to confirm the database is reasonable free of transcription errors.

The Cu and Au head grades used for the metallurgical test work are high compared to the average grade of the deposit and therefore the results may not be representative of the entire deposit and metallurgical recovery assumptions used to constrain the mineral resource are not supported by test work.

There is a saprolitic horizon noted in drill logs that has not been modeled and has been treated as fresh rock in the current resource estimate. Saprolite would typically have different metallurgical and geotechnical characteristics. These issues could affect the reliability or confidence in the mineral resource.

Other than what is discussed in this Report there are no other known factors or issues that might materially affect the mineral resource estimate other than normal risks faced by mining projects in Columbia.

The copper-gold mineralization at El Alacrán has been closed off by drilling to the south. The mineralized body abuts the northern diorite sill. Mineralization could continue farther north either in the hanging- or footwall of the sill. Any northward extension would have to be subsurface and difficult to detect without additional step-out drilling.

26.0 RECOMMENDATIONS

The following work programs are recommended:

- The drill hole database requires additional validation. The drill collar, down hole survey, assay, and density tables should be checked for transcription errors by comparing a randomly selected 5% of each table with original records. Cost for this work is estimated at $15,000.

- Outliers in the Ashmont QAQC database should be investigated to determine if they are swaps or laboratory fails and then corrected. Laboratory failures should be corrected by resubmitting a selection of samples surrounding the failure QC sample. Cost for this work is estimated at $20,000.

- Rougher test work on a variety of grades is recommended as is some comminution test work. Rougher test work should assess a range of grades from 0.25% Cu to 1% Cu and 0.1 to 2 gpt. The following is recommended for comminution:

    - 2 x Crush CWi: At least 10 pieces of -3” + 2” material (at least 20 pieces recommended)

    - 2 x Rod RWi: 15kg of -1/2” ore

    - 5 x Ball BWI: 10kg of -3mm material

    - 5 x Abrasion index test: 2kg at -3/4” + ½” material

    - 5 x SMC tests: About 100 particles cut from the quarter core or from -32+27mm material size range (each of the SMC tests)

Cost for this test work is estimated at $50,000.

27.0 REFERENCES

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28.0 QP CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

I, Gregory Kenneth (Greg) Kulla, P.Geo. am employed as a Principal Geologist with Amec Foster Wheeler Americas Ltd., a Wood Company (Amec Foster Wheeler)

This certificate applies to the technical report titled "NI 43-101 Technical Report on the El Alacrán Project, Department of Cordoba, Colombia", that has an effective date of 10 April, 2018 (the "technical report").

I am a member of the Engineers and Geoscientists British Columbia. I graduated from the University of British Columbia with a Bachelor of Science in Geology degree in 1988.

I have practiced my profession continuously since 1988 and have been involved in exploration, interpretation, geological modelling, and deposit evaluation of precious and base metal deposit assessments globally.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I visited the El Alacrán property 5 to 9 December 2016.

I am responsible for Sections 1 to 13 and Sections 15 to 27 of the technical report.

I am independent of Cordoba Minerals Corp. as independence is described by Section 1.5 of NI 43–101.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated: 10 April 2018

"Signed and sealed"

Greg Kulla, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

I, Peter Oshust, P.Geo. am employed as a Principal Geologist with Amec Foster Wheeler Americas Ltd., a Wood Company (Amec Foster Wheeler).

This certificate applies to the technical report titled "NI 43-101 Technical Report on the El Alacran Project, Department of Cordoba, Colombia", that has an effective date of 10 April 2018 (the "technical report").

I am a member of Engineers and Geoscientists British Columbia and of the Association of Professional Geoscientists of Ontario. I graduated from Brandon University with a Bachelor of Science (Specialist) degree in Geology and Economics in 1987.

I have practiced in my profession since 1987 and have been involved in geological modelling, and resource estimation for base and precious metals and diamond deposits across North America and in South America and Asia, since 2001.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I visited the El Alacran property 23 to 27 October 2017.

I am responsible for Sections 1, 14, and 25 of the technical report.

I am independent of Cordoba Minerals Corp. as independence is described by Section 1.5 of NI 43–101.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.

Dated: 10 April 2018

"Signed and sealed"

Peter Oshust, P.Geo.