A TECHNICAL REPORT ON AN UPDATED MINERAL RESOURCE ESTIMATE FOR THE ALPALA DEPOSIT, CASCABEL PROJECT, NORTHERN ECUADOR

Prepared For

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EXECUTIVE SUMMARY
A TECHNICAL REPORT ON AN UPDATED MINERAL RESOURCE ESTIMATE FOR THE ALPALA DEPOSIT, CASCABEL PROJECT, NORTHERN ECUADOR

1 INTRODUCTION

The focus of this report is the updated Mineral Resource estimate ("MRE") for the Alpala porphyry copper-gold deposit which is located within the southern half of the 50sq.km Cascabel Project in Northern Ecuador. The Cascabel Project is 100% owned by Exploraciones Novomining S.A. (ENSA); a jointly owned Company which is 85% owned and operated by SolGold plc ("SolGold"), a Brisbane based mineral exploration company, and 15% owned by Cornerstone Capital Resources Inc, an Ontario based explorer.

The Alpala deposit occurs near the overlap of Eocene and Miocene porphyry belts within the northern section of the Andean Copper Belt that extends from Colombia through Ecuador and Peru, into Chile and Argentina. The deposit formed in the Eocene (~39 Ma; Garwin et al., 2015), which is similar in age to the well-known La Escondida and El Abra deposits in Chile (Cunningham et al., 2008).

Historical exploration of the project area, undertaken from 1980 to 2011, highlighted widespread geochemical anomalism in stream pan-concentrates, stream sediments and rock chips over a 9sq.km area in the northern half of the license area. Previous explorers focused on the source of gold, copper, lead and zinc in stream sediments, which led to the location of gold-bearing, polymetallic epithermal quartz veins in streams that flank the northern periphery of the Alpala deposit.

SolGold took an interest in the tenement, signed a deal with Cornerstone and assumed management of the project in April 2012. The Alpala deposit was discovered by Solgold geologists in May 2012, during reconnaissance mapping which located an 80m-wide zone of copper and gold bearing, dominantly sheeted and stockwork porphyry-style quartz veining in Apala Creek.

The project has now been developed to an advanced level of exploration with a thorough and systematic approach adopted by SolGold. Work completed by Solgold at Cascabel to date includes:

- field work programs of reconnaissance mapping, rock chip sampling and rock-saw channel sampling;
- Anaconda style geological and structural mapping at 1:2000, 1:500 and 2:200 scales;
- multi-element grid soil geochemical surveys, including spectral analysis of the grid soil samples and resultant clay-mica alteration zonation mapping;

- a heli-borne magnetic survey (November 2012), deep penetration Orion 3D IP survey (August 2014), a ground magnetic survey (May 2017), and an extended hybrid deep penetration Spartan-Orion hybrid 3DIP and magneto telluric survey (August 2017);
- a Lidar survey (planned for Dec 2018);
- an ongoing 133,576m of diamond core drilling, comprising 128 diamond drillholes, utilising up to 12 man-portable and track mounted diamond drill rigs; and

SRK Exploration Services completed a maiden MRE for Alpala with an effective date of 18 December 2017 ("MRE#1").

Following a substantial drilling programme in 2018, SRK Exploration Services and SRK Consulting UK (collectively "SRK") produced an updated MRE ("MRE#2") which has an effective date of 7 November 2018, and is presented in this report.

2 GEOLOGY AND MINERALISATION

The Eocene Alpala porphyry deposit lies in a zone of overlap between the Eocene and Miocene Andean porphyry belts that extend from Colombia through Ecuador and Peru into Chile and Argentina. The basement rocks consist of tholeiitic basalts of the Dagua-Piñon Terrane, an oceanic plateau that is believed to have accreted to South America in the Late Cretaceous. The magmatism in northern Ecuador and southern Colombia is characterised by the lack of a well-developed arc and erratic pluton distribution. This suggests a low-angle subduction environment, conducive to compression and porphyry mineralisation.

Submarine arc volcanism deposited the volcano-sedimentary rock sequence of the Macuchi Formation during the Palaeocene through the Eocene, followed by the sub-aerial deposition of volcanic and volcaniclastic rocks of the San Juan de Lachas Formation during the Oligocene to mid-Miocene. Late Eocene to Miocene age plutons and stocks of hornblende-bearing diorite, quartz diorite and tonalite form major intrusive complexes, known as the Santiago batholith (Eocene) and Apuela batholith (Miocene). The Alpuela batholith hosts the Late Miocene Junin (Llurimagua) copper-molybdenum porphyry deposit.

The Toachi Fault Zone is a major north-northeast trending structure that separates Eocene magmatism to the west from Miocene magmatism to the east. The TFZ cuts though both the Macuchi and San Juan de Lachas Formations and juxtaposes these sequences against Cretaceous sedimentary rock units.

The major rock types of the Cascabel tenement consist of Cretaceous siltstones and minor sandstones that are unconformably overlain by a Tertiary sequence of andesitic lavas and volcano-sedimentary rocks. A series of Middle- to Late-Eocene (Bartonian) hornblende-bearing diorites, quartz diorites and tonalities intrude the volcano-sedimentary sequence and form plutons, stocks and dykes. At least six major phases of intrusion have been delineated based on composition and relative timing-relationships with porphyry-related vein-stages. Diamond drilling to date has defined a northwest-trending, steeply northeast-dipping dike-stock intrusive complex that extends more than 2000 m northwest by 1000 m northeast and exceeds 2000 m in height.

The porphyry-related vein types and paragenesis at Alpala indicate a systematic progression in time. Early-stage veins contain quartz and / or magnetite. Planar and through-going, B-type quartz veins cross-cut the early vein types and consist of quartz-magnetite-chalcopyrite. At least two stages of B-type veins are recognized, with magnetite more abundant in early B_1 veins and chalcopyrite more common in the later B_2 veins. The B-type veins contain the majority of the copper and gold in the deposit. Chalcopyrite-rich, C-type veins contain rare to minor bornite and cross-cut earlier vein types. The C-type veins contain significant amounts of metal but constitute a small volume-portion of the drill-core. The B- and C-type veins are spatially associated with intrusions that show variable feldspar-destructive, sericite-chlorite±clay overprinting of biotite-actinolite and chlorite-epidote alteration mineral assemblages.

Late-stage, pyritic D-type veins with quartz-sericite-pyrite selvedges contain chalcopyrite, minor bornite and locally, molybdenite. Many of the later vein types re-open earlier vein stages and contain anhydrite. Late-stage hydrothermal-matrix breccia bodies cut the volcanic host-rocks and the intrusions, typically post-date sericite-chlorite±clay alteration and are locally cut by pyritic D-type veins and anhydrite veins.

The earliest formed copper sulphide minerals observed in drill-core consists of abundant chalcopyrite and rare bornite in B-type veins. Chalcopyrite most commonly forms after, and surrounds, cubic and massive pyrite in C- and D-type veins. It also occurs in anhydrite-rich veins and B-type veins that have been re-opened by later vein types. Late-stage bornite is in textural equilibrium with pyrite and chalcopyrite in C- and D-type veins, which suggest that these later-stage veins formed at a lower temperature and a higher sulfidation state than chalcopyrite and rare bornite in early-stage B-type veins.

There is a very strong correlation between the abundance of B-type veins and copper-gold grades. which are highest within the pre-mineral diorite (D10) and syn-mineral quartz diorite (QD10) bodies. Raw assay statistics also highlight these two bodies as being the primary host rocks.

3 DRILLING

Following the granting of the Environmental Licence on 27 August 2013, SolGold commenced diamond drilling on 1 September 2013, and has drilled 133,576m of drill core to date. The drill program commenced with 2 man-portable drill rigs in 2013 and eventually expanded to a fleet of 12 man-portable and track mounted drill rigs contracted from three different drilling contractors.

In December 2017, the maiden Mineral Resource Estimate (MRE#1) was completed from 62,525.6m of drilling from drillholes 1-38.

The updated MRE (MRE#2) reported herein, was estimated from 133,576 m of drilling from drillholes 1-75, and 262 rock-saw channel samples from surface exposure trenches.

Drilling has produced PQ, HQ and NQ core with core recovery for the program averaging 97.97%. Drillholes average approximately 1’450m depth, with nine holes exceeding 2’000m depth, and a deepest drillhole depth of 2457m.

Due to topographic constraints, drill site locations are limited, and multiple drillholes have been drilled from most drill sites. Numerous secondary “daughter” holes have been drilled off “parent” holes utilising directional core drilling steering technology with multiple branches achieved off a single parent hole. This has resulted in variable intersection angles ranging from vertical to sub-horizontal (-12degrees), with an average hole dip of approximately -70.6 degrees.

Downhole surveys were initially recorded every 50m downhole (for drillholes 1 to 25) after which downhole survey spacing was reduced to 30m for normal drilling, and a minimum of 1.0 m for deviation drilling when performing corrections or starting daughter holes.

Drill core has been logged in detail providing data on individual intrusion lithologies and details of mineralising style.

Phase 4 drilling is now underway, with a primary focus on further resource growth. The company believes that there remains strong potential for further growth with the 2019 drilling campaign to continue to expand the deposit where mineralisation remains open at grades >0.7% CuEq, towards the southeast, northwest, north and to shallower levels along the western margin of the deposit.

From SRK’s review during their technical site visits, the drilling at Alpala has been conducted in a professional manner using industry best practices and has produced core of sufficient quality and recovery to be used in Mineral Resource estimation.

4 SAMPLE PREPARATION AND ANALYSIS

The assaying of drill core and channel samples collected during SolGold’s exploration programmes have been performed by three laboratories; ACME, Vancouver, ALS Geochemistry, Lima and Met-Solve, British Columbia.

Following a review of the sample preparation, chain of custody and data security procedures and assaying methods employed by SolGold, SRK is of the opinion that they are consistent with industry best practices and suitable for use in a MRE.

5 DATA VERIFICATION AND TECHNICAL SITE VISIT

SolGold conducts routine validation of sample results from drilling using certified reference material, blanks and duplicate samples. SRK has assessed these results and is of the opinion that assay data for the drilling and sampling has appropriate accuracy and precision.

In accordance with National Instrument 43-101 guidelines, Mr James Gilbertson and Mr Martin Pittuck of SRK both visited the Cascabel project from 27 to 31 October 2017 and Mr Pittuck again between 27 and 29 January 2018. SRK was given full access to relevant data and conducted discussions with SolGold personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store and analyse historical and current exploration data. During this technical site visit SRK conducted a database validation which confirmed that SolGold’s approach is reasonable and appropriate.

6 MINERAL RESOURCES AND RESERVES

MRE#2 comprises 2,050 Mt grading 0.60% copper equivalent ("CuEq") of Indicated Mineral Resources for a contained metal content of 8.4 Mt copper ("Cu") and 19.4 Moz gold ("Au"), and 900 Mt grading 0.35% CuEq of Inferred Mineral Resources for 2.5 Mt Cu and 3.8 Moz Au, using a 0.2% CuEq cut-off grade (Table 6.1).

Mineral Reserves have not been declared at this time.

Table 6.1: Alpala Mineral Resource statement effective 07 November 2018*

Cut off Grade (% CuEq)	Resource Category	Tonnage (Mt)	Grade			Contained Metal		
			Cu (%)	Au (g/t)	CuEq (%)	Cu (Mt)	Au (Moz)	CuEq (Mt)
0.2	Indicated	2,050	0.41	0.29	0.60	8.4	19.4	12.2
0.2	Inferred	900	0.27	0.13	0.35	2.5	3.8	3.2

Notes:

1. *Mr. Martin Pittuck, CEng, MIMMM, FGS, is responsible for this Mineral Resource statement and is an "independent qualified person" as such term is defined in NI 43-101*
2. *Mineral Resource is reported using a cut-off grade of 0.2% copper equivalent calculated using [copper grade (%)] + [gold grade (g/t) x 0.63]*
3. *Mineral Resource is considered to have reasonable prospects for eventual economic extraction by underground mass mining such as block caving*
4. *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability*
5. *The statement uses the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves (May 2014) as required by NI 43-101.*
6. *MRE is reported on 100 percent basis*

Within the deposit and included in the above total MRE figures, a higher-grade core exists, totalling 400 Mt grading 1.49% CuEq of Indicated Mineral Resources for a contained metal content of 3.6 Mt Cu and 11.9 Moz gold Au, and 20 Mt grading 1.05% CuEq of Inferred Mineral Resources for a contained metal content of 0.2Mt Cu and 0.4 Moz gold Au, using a 0.9% CuEq cut-off (Table 6.2).

Table 6.2 Alpala Mineral Resource statement effective 07 November 2018, expressed by a range in copper equivalent cut-off grades*

Classification	CuEq Cut-off	Tonnes (Mt)	Grade			Metal		
			Cu (%)	Au (g/t)	CuEq (%)	Cu (Mt)	Au (Moz)	CuEq (Mt)
Indicated	0.1	2,460	0.36	0.26	0.52	8.9	20.2	12.9
	0.15	2,290	0.38	0.27	0.55	8.8	19.9	12.7
	0.2	2,050	0.41	0.29	0.60	8.4	19.4	12.2
	0.3	1,500	0.49	0.37	0.73	7.4	17.8	10.9
	0.45	810	0.66	0.57	1.03	5.4	15.0	8.3
	0.7	490	0.84	0.83	1.37	4.1	13.0	6.7
	0.9	400	0.90	0.93	1.49	3.6	11.9	5.9
	1.1	200	1.13	1.36	1.99	2.2	8.7	3.9
	1.5	120	1.35	1.77	2.47	1.7	7.0	3.0
Inferred	0.1	1,380	0.22	0.11	0.28	3.0	4.7	3.9
	0.15	1,140	0.24	0.12	0.32	2.8	4.3	3.6
	0.2	900	0.27	0.13	0.35	2.5	3.8	3.2
	0.3	490	0.34	0.16	0.45	1.7	2.5	2.2
	0.45	150	0.49	0.26	0.65	0.7	1.2	1.0
	0.7	50	0.67	0.41	0.93	0.4	0.7	0.5
	0.9	20	0.72	0.52	1.05	0.2	0.4	0.2
	1.1	10	0.76	0.70	1.20	0.1	0.1	0.1
	1.5	-	-	-	-	-	-	-

**Note: refer to the Notes under Table 6.1 for description and qualifications that pertain to the resource statement.*

The November 2018 MRE update (MRE#2) is reported using a cut-off grade of 0.2% copper-equivalent (CuEq) which SolGold and SRK Consulting consider to be reasonable, reflecting the potential for economic extraction by high production rate mass mining methods such as block caving. The central portions of the deposit present an opportunity for early extraction of higher grade material.

The updated resource estimate represents an increase in the overall reported resource of 108% (by metal content) from 7.4Mt CuEq in Dec 2017 Maiden MRE (MRE#1) using at 0.3% CuEq cut-off, to the current 15.4 Mt CuEq using a 0.2% CuEq cut-off.

7 MINERAL PROCESSING AND METALLURGICAL TESTING

A limited amount of metallurgical test work has been conducted reflecting the current stage of development at the Cascabel Project. Mineralogical investigations have identified chalcopyrite as the dominant copper mineral with minor amounts of bornite also present. Pyrite and magnetite are common ore constituents. Molybdenite is reported, however there is no information to indicate whether it is present at potentially economic levels.

In 2014, three composite samples predominantly representing mineralised diorite sourced from a single drillhole were submitted for flotation roughing and open cleaning flotation test work at Inspectorate Metallurgical Division (“IMD”).

Between 2014 and 2018, 36 polished sections were analysed by a variety of petrographic methods to characterise the copper, gold and silver deportment in the deposit, with emphasis on the grain size, texture, composition and characteristics of all the major metallic minerals. Chalcopyrite forms free grains from ~1 to 500 µm in altered host rock. Chalcopyrite forms partial to complete rims around pyrite, and pyrite locally contains inclusions of chalcopyrite and bornite that are commonly less than 10 µm in diameter. Free gold and electrum occur as discrete grains, which range from 1 to 50 µm, within and along the grain boundaries of chalcopyrite and to a lesser extent, pyrite, bornite and rarely magnetite.

The mineralogy and initial flotation results indicate that the flotation performance aligns with similar chalcopyrite dominant porphyry deposits and that recovery functions for copper, gold and silver from analogous mines are a reasonable approximation of performance at Alpala.

At the time of writing (December 2018), metallurgical test program is underway at ALS Metallurgical Laboratories, Kamloops, Canada. The program consists of comminution tests including SAG Mill Comminution (“SMC”), Bond Ball Mill Work Index (“BWI”) and Bond Abrasion Index (“Ai”), flotation optimisation with some locked cycle tests and rougher kinetic tests on specified composites.

8 CONCLUSIONS AND RECOMMENDATIONS

The Alpala deposit comprises a high-grade copper-gold porphyry deposit centred on the intersection of northeast and northwest striking structural trends. The intensity of copper and gold mineralisation is greatest in the QD10 quartz diorite bodies and proximal parts of the D10 diorite to microdiorite bodies. Stronger mineralisation also propagates along the steep dipping structures that provided the original pathways for the intrusions, for some distance above the dyke tips (apical margins).

SRK notes that the mineralisation currently remains open in some directions, particularly along strike and down plunge to the northwest of the deposit.

The updated estimate for Alpala, MRE#2, comprises 2,050 Mt grading 0.60% CuEq of Indicated Mineral Resources for a contained metal content of 8.4 Mt Cu and 19.4 Moz Au and 900 Mt grading 0.35% CuEq of Inferred Mineral Resources for 2.5 Mt Cu and 3.8 Moz Au, using a 0.2% CuEq cut-off grade.

Within the deposit and included in the figures above, a higher-grade core exists totalling 400 Mt grading 1.49% CuEq (Indicated) and 20 Mt grading 1.05% CuEq (Inferred) using a 0.9% CuEq cut-off. This highlights the reasonable prospects for eventual economic extraction by underground mass mining methods such as block caving.

The MRE forms the basis of the Preliminary Economic Assessment ("PEA"), which is currently underway and is due to be completed in early 2019.

Following a review of SolGold's current exploration and development plans, SRK recommend a continued exploration programme over the next 12 months (until the end of 2019) and up to a Prefeasibility Study level decision point that includes further core drilling and geotechnical and metallurgical drilling and test programs.

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A TECHNICAL REPORT ON AN UPDATED MINERAL RESOURCE ESTIMATE FOR THE ALPALA DEPOSIT, CASCABEL PROJECT, NORTHERN ECUADOR

2 INTRODUCTION AND TERMS OF REFERENCE

SRK Exploration Limited ("SRK ES") and SRK Consulting Limited ("SRK UK"), (collectively "SRK") have been requested by SolGold plc. ("SolGold", or the "Company"), a mineral exploration and development company currently listed on the London Stock Exchange ("LSE") and the Toronto Stock Exchange ("TSX"), to prepare a Mineral Resource estimate ("MRE") and Technical Report on the Alpala Deposit ("Alpala") situated within SolGold's 85% owned Cascabel Licence. The remaining 15% is held by Cornerstone Capital Resources Inc ("Cornerstone").

The Mineral Resource statement herein was prepared in accordance with the terminology, definitions and guidelines given in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and has been reported in accordance with National Instrument 43-101 ("NI 43-101"). The effective date of this Mineral Resource statement and this report is 07 November 2018.

The CIM reporting code is a national reporting organisation that is aligned with the Committee for Mineral Reserves International Reporting Standards ("CRIRSCO") who promote international best practise in the reporting of mineral exploration results, Mineral Resources and Mineral Reserves.

The Alpala Project is an advanced stage exploration project, located within SolGold's Cascabel Licence in Ecuador. The licence is located approximately 200 km north-west of Ecuador's Capital City, Quito.

2.1 Scope of Work

The scope of work, as defined in a letter of engagement executed on 14 September 2018 between SolGold and SRK includes

- the review of a geological model and grade block model undertaken by SolGold for the copper and gold mineralisation delineated by drilling at Alpala,
- classification of the MRE; and
- the preparation of a Technical Report in compliance with National Instrument 43-101 and Form 43-101F1 guidelines.

2.2 Source of Information

This report is based on drilling information provided to SRK with a cut-off date of 7 November 2018 and on additional information provided by SolGold throughout the course of SRK's investigations until mid-November 2018. SRK has no reason to doubt the reliability of the information provided by SolGold.

SRK has been supplied with technical reports and geological information by SolGold. SRK's report is based upon:

- discussions with directors, employees and consultants of SolGold;
- access to key personnel within SolGold, for discussion and enquiry;
- a review of data collection procedures and protocols, including the methodologies applied in determining assays and measurements;
- a review of existing reports and correspondence with SolGold's technical consultants
- data files, most recently provided 07 November 2018 by SolGold to SRK as follows:
    - drillhole database, including collar, survey, geology, density and assay;
    - QAQC data including details on duplicates, blanks and certified reference material;
    - Geological and block models; and;
    - Files relating to MRE parameters and outputs.

2.3 Work Programme

The exploration database has been compiled and maintained by SolGold and was reviewed by SRK. The 3D geological model and outlines for the porphyry mineralisation were constructed by SolGold using a method developed in conjunction with SRK. The 3D model has been built up from two-dimensional geological interpretations on cross sections and bench plans and honours the drilling information in 3D. SRK conducted an interim review of the model in September 2018 and a full review of the model during the months of October and November 2018, with reporting completed during the month of December 2018.

2.4 Requirement, Structure and Compliance

The standard adopted for the reporting of Mineral Resources in this Technical Report is the CIM code. This Technical Report has been prepared under the direction of Mr James Gilbertson and Mr Martin Pittuck (the "QP"s), as defined in the NI 43-101 Companion Policy ("43-101CP") who assume overall professional responsibility for the MRE.

The Technical Report is published by SRK UK, the commissioned entity, and accordingly SRK UK assumes responsibility for this Technical Report and declares that it has taken all reasonable care to ensure that the information contained in this report is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import. This Technical Report has been prepared in accordance with the requirements and guidelines as included in: NI 43-101, Form 43-101F1 and the Companion Policy 43-101CP.

2.5 Qualifications of SRK

The SRK Group comprises of more than 1,400 professionals, offering expertise in a wide range of resource engineering disciplines. The independence of the SRK Group is ensured by the fact that it holds no equity in any project it investigates and that its ownership rests solely with its staff. These facts permit SRK to provide its clients with conflict-free and objective recommendations. SRK has a proven track record in undertaking independent assessments of mineral resources and mineral reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies, and financial institutions worldwide. Through its work with a large number of major international mining companies, the SRK Group has established a reputation for providing valuable consultancy services to the global mining industry.

The Technical Report and Mineral Resource statement herein is reported by Mr Martin Pittuck (MSc, CEng, FGS, MIMMM) of SRK UK, who is a Qualified Person as defined in NI 43-101 and who is independent of SolGold. Mr Pittuck has over 20 years broad geological experience in a wide range of commodities and geological settings. His work covers 3D geological interpretation and modelling, exploration data review, resource block modelling, geostatistical and statistical analysis, resource reporting to international codes, mine design and grade control optimisation, reserve optimisation and scheduling.

The review of the exploration and data collection procedures was overseen by Mr James Gilbertson (MSc, CGeol - Geological Society of London) who is a Qualified Person as defined in NI 43-101 and who is independent of SolGold. Mr Gilbertson is Managing Director of SRK ES, and Principal Consultant with over 18 years' experience in mineral exploration, resource estimation and mineral project evaluation.

2.6 Site Visit

In accordance with international best practices, Mr Martin Pittuck and Mr James Gilbertson visited the Alpala Project between 26 and 31 October 2017 and again between 27 and 29 January 2018, accompanied by Benn Whistler of SolGold.

The purpose of the site visit was to review the digitisation of the exploration database and validation procedures, review exploration procedures, define geological modelling procedures, examine drill core, interview project personnel and collect all relevant information for the preparation of an MRE and the compilation of a technical report. During the visit, a particular attention was given to the treatment and validation of historical drilling data.

The site visit was also aimed at investigating the geological and structural controls on the distribution of the gold mineralisation in order to aid the construction of three-dimensional (3D) mineralisation domains.

SRK was given full access to relevant data and conducted discussions with SolGold personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store and analyse historical and current exploration data.

2.7 Limitations, Reliance on SRK, Declaration, Consent, Copyright

SRK's opinion, effective as of 07 November 2018, is based on information collected by SRK throughout the course of its investigations, which in turn reflect various technical and economic conditions at the time of writing. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results may be significantly more or less favourable.

This report may include technical information that requires subsequent calculations to derive sub-totals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, SRK does not consider them to be material.

SRK has confirmed that the data reported herein are within the licence boundaries given below. SRK has not, however, conducted any legal due diligence on the ownership of the licences themselves.

SRK has not undertaken any detailed investigations into the legal status of the project nor any potential environmental issues and liabilities the project may have at this stage.

SRK is not aware of any other information that would materially impact on the findings and conclusions of the report. SRK was informed by SolGold that there are no known litigations potentially affecting the Alpala Deposit or the wider Cascabel Licence.

SRK is not an insider, associate or an affiliate of SolGold, and neither SRK nor any affiliate has acted as advisor to SolGold, its subsidiaries or its affiliates in connection with this project. The results of the technical review by SRK are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

Except as specifically required by law, SRK does not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this Technical Report or statements contained herein, required by and given solely for the purpose of complying with the mandate as outlined in this Technical Report and compliance with NI 43-101. SRK has no reason to believe that any material facts have been withheld by SolGold.

2.8 Acknowledgement

SRK would like to acknowledge the support and collaboration provided by SolGold personnel, particularly Benn Whistler and Steve Garwin, for this assignment. Their collaboration was greatly appreciated and instrumental to the success of this project.

3 RELIANCE ON OTHER EXPERTS

SRK's opinion is based on information provided by SolGold and their consultants and associates. SRK was reliant upon such information and, where possible, SRK has verified the data provided independently and completed a site visit to review physical evidence for the deposit.

SolGold contracted the services of Dr Steve Garwin, as their Chief Technical Advisor, to provide expert direction in the identification of the mineralisation systems at Alpala and the implementation of detailed mapping and core logging strategies. His input covers the local and deposit scale geology as well as providing advice into the 3D modelling of the deposit. Steve has worked in the exploration industry for over 28 years and is considered an authority on porphyry, epithermal and Carlin-style mineralisation in the circum-Pacific region and is suitably experienced in methods of structural geology and geochemistry towards gold and base-metals exploration.

Greg Harbort of Wood Plc ("Wood") has provided a review of the metallurgical testwork conducted to date and SRK has relied on the expertise of Wood when considering relevant parameters to be used in the cut-off grade. Wood has provided the description in Section 13 of this report.

Petrographic studies have been conducted by Applied Petrologic Services and Research during 2013-2015 and Dr. Roger Taylor from 2015 through 2018; these are summarised in Section 9.6.1.

Mineralogy studies have been undertaken by Dr. Janet Muhling from 2014 through 2018; these are summarised in Section 9.6.2.

Some of the reports used by SRK in the creation of this Technical Report are authored by persons who are not recognised as independent Qualified Persons as defined by National Instrument 43-101. In this case SRK has relied upon the professional measures used by the companies who completed the work. The information in those reports is assumed to be accurate based on the data review conducted by the authors.

SRK has not performed an independent verification of land title and tenure information as summarised in Section 4.3 of this report. SRK did not verify the legality of any underlying agreement(s) that may exist concerning the licences or other agreement(s) between third parties but has relied on Xavier Rosal of Corral Rosales Carmigniani Perez ("CRCP") as legal advisor to SolGold. The reliance applies solely to the legal status of the rights disclosed in Section 4.3 below.

SRK was informed by SolGold that there are no known litigations potentially affecting the Alpala Deposit.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Introduction

The following sections describe the main attributes of the property in terms of geography and tenure. SRK is unaware of any other significant factors and risks that may affect access, title or the right or ability to perform work on the property.

4.2 Location

The Cascabel Project is located within the Imbabura province of northern Ecuador, approximately 100 km north of the capital Quito and 50 km north-northwest of the provincial capital, Ibarra (Figure 4-1). The northern border of the project lies approximately 20 km south of the Colombia-Ecuador border, and 75 km southeast of San Lorenzo, located on Ecuador's pacific coast.

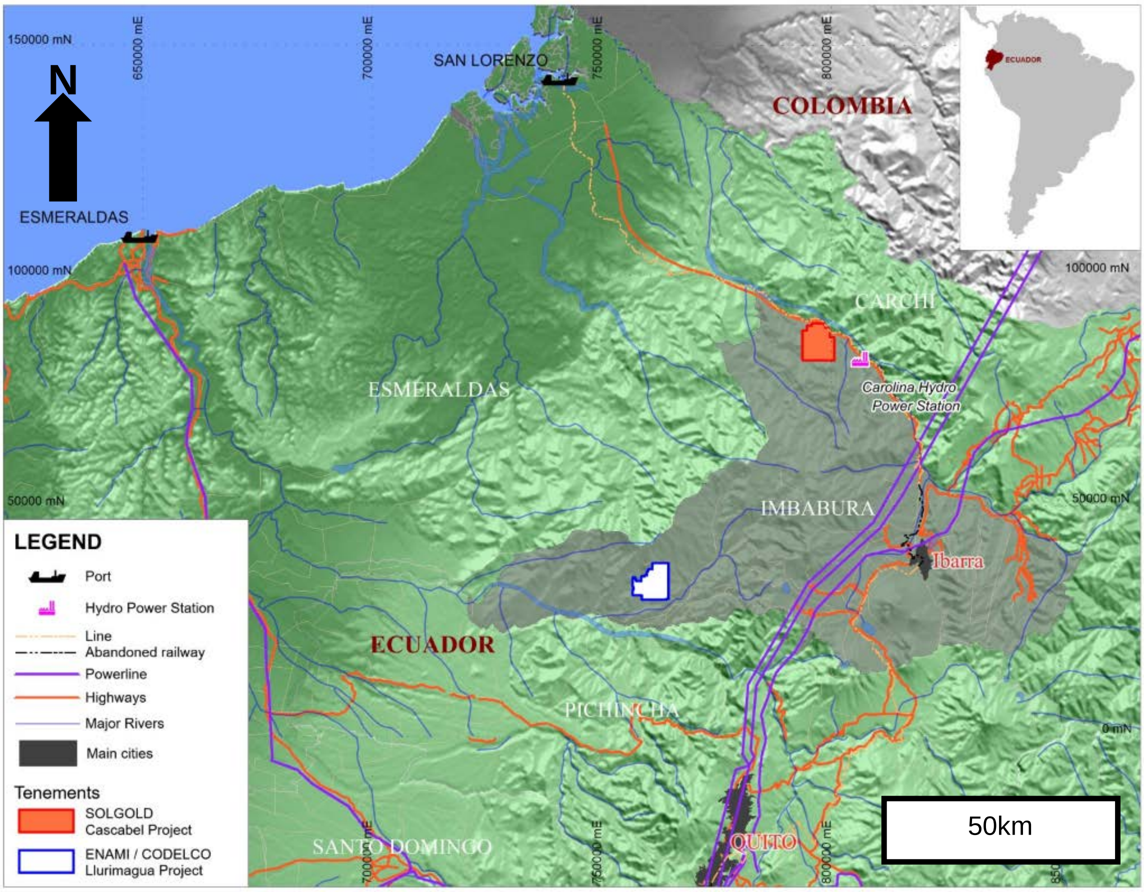


Figure 4-1: Location Map (Source: SolGold, 2018)

4.3 Mineral Tenure

The current mining license was granted in March 2011, under name "Cascabel" with ID number 402288 and is valid for 25 years.

The licence was initially issued to Santa Barbara Resources Ltd. on 12 January 2007 and was subsequently sold to Cornerstone Capital Resources Ltd in July 2011 via a subsidiary, Exploraciones Novomining S.A (ENSA). In May 2012, SolGold plc entered into a Joint Venture with Cornerstone to explore the Cascabel licence. Exploraciones Novomining S.A., is currently jointly owned by SolGold (85%) and Cornerstone Capital Resources (15%).

The Ecuador Mining cadastre classifies the Cascabel licence area as a single area under cadastral code 402288. The license area covers 4979 hectares (4.5 km^2) and is registered as an Advanced Exploration Licence for metallic minerals, with gold listed as the primary commodity.

The license area is recorded under both political and geographical datums, being PSAD57 and WGS84 UTM17N respectively (Table 4-1 and Figure 4-2)

Table 4-1: Cascabel Licence Boundary Coordinates

Vertice ID	Province	Territory	Parish	Sector
	Imbabura	Ibarra	Carolina/Lita	Rocafuerte
	Datum: PSAD57		Datum: WGS84 UTM 17N	
	X	Y	X	Y
PP	796,000	10,090,000	795,741.8	89,623.3
PP01	798,700	10,090,000	798,441.8	89,623.3
PP02	798,700	10,089,700	798,441.8	89,323.3
PP03	799,000	10,089,700	798,741.8	89,323.3
PP04	799,000	10,089,000	798,741.8	88,623.3
PP05	799,700	10,089,000	799,441.8	88,623.3
PP06	799,700	10,088,600	799,441.8	88,223.3
PP07	800,000	10,088,600	799,741.8	88,223.3
PP08	800,000	10,087,000	799,741.8	86,623.3
PP09	801,000	10,087,000	800,741.8	86,623.3
PP10	801,000	10,082,000	800,741.8	81,623.3
PP11	794,000	10,082,000	793,741.8	81,623.3
PP12	794,000	10,088,500	793,741.8	88,123.3
PP13	795,000	10,088,500	794,741.8	88,123.3
PP14	795,000	10,089,500	794,741.8	89,123.3
PP15	796,000	10,089,500	795,741.8	89,123.3

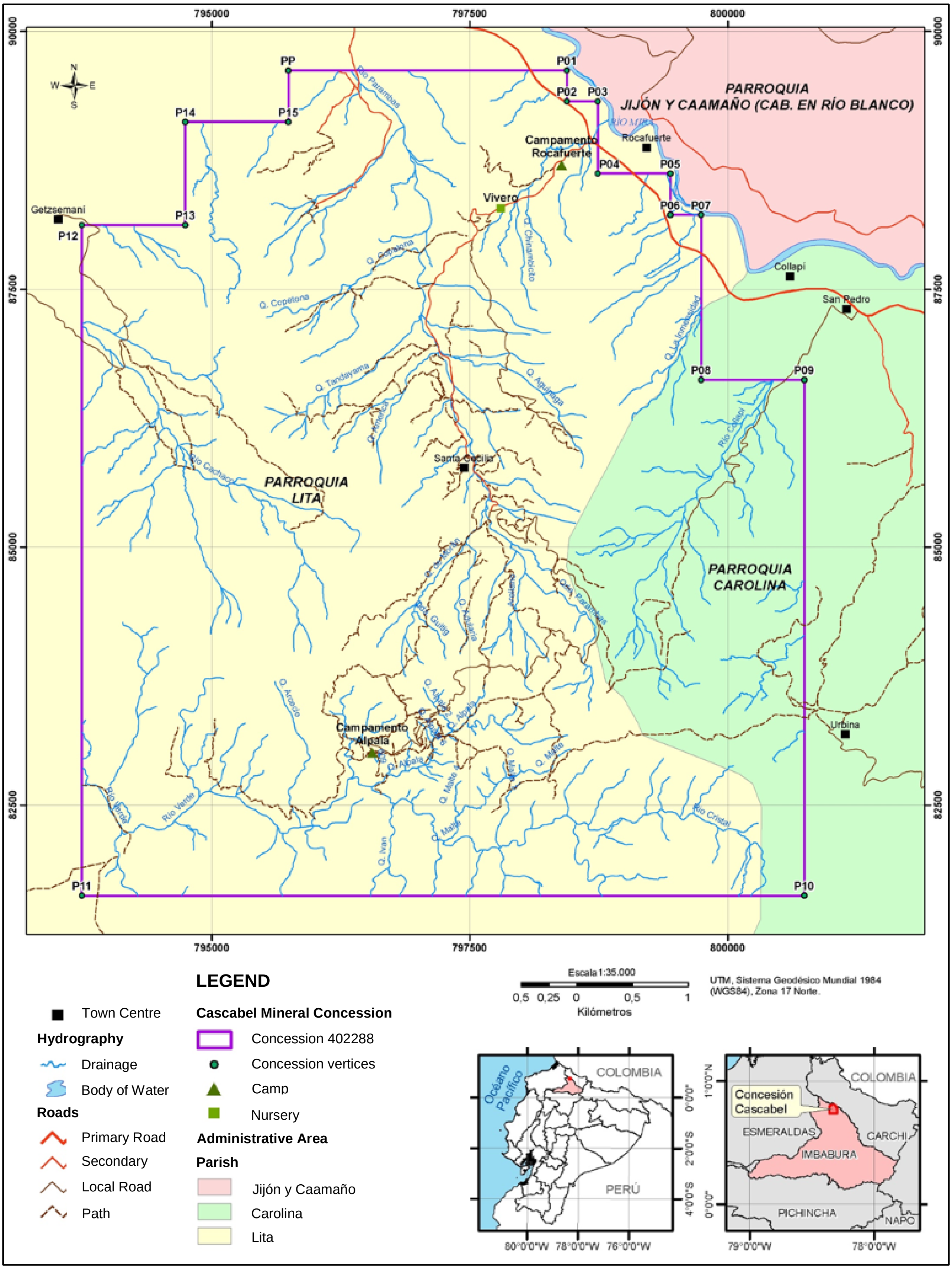


Figure 4-2: Location and vertices of the Cascabel tenement (ID 402288) (Source: SolGold, 2018)

4.4 Underlying Agreements

As part of the terms of the sale of the property by Santa Barbara Resources in 2012, an option to purchase 2 per cent. of the net smelter return (the "NSR") was retained by Santa Barbara Resources. The NSR is the gross amount received from the sale of ores, concentrates or precipitates process for the mine less the fair market costs of smelting, refining, sampling, charges and penalties for treatment and testing and less the fair market costs of handling, transporting, securing and insuring that material. Santa Barbara Resources is entitled to the purchase of 1 per cent. NSR for US$1,000,000 within 3 months of the completion of a bankable feasibility report, and a further 1 per cent. NSR for US$3,000,000 within 3 months of a decision made by the owners to mine the projects. Since the dissolution of Santa Barbara Resources in 2015, this option has been held by a third-party agent in trust for the benefit of the prior shareholders of Santa Barbara Resources.

4.5 Licences and Authorisations

Regulatory licenses and authorisations currently related to the Cascabel Project include:

- Registration of the Cascabel Mining Title for Advanced Exploration under Code 402288. and approved by the Ministry of Natural Resources, Mines North Sub-secretariat, Ecuador - MRNNR-SRM, and the Mining Regulations and Control Agency of Ecuador - ARCOMM).
- Environmental License under Mining Title Code 402288. (Ministry of the Environment, Ecuador).
- Water Licensing approved by the National Secretariat of Water of the Republic of Ecuador (SENAGU).
- Fuel Licensing approved by the Hydrocarbon Regulation and Control Agency ("ARCH")
- ANEXO 2.5. Copia de la Declaración Juramentada
- Certificate of Compliance with Employers Obligations (Ecuadorian Social Security Institute).

All licenses listed above remain current and no additional licences beyond the granted licenses above are required to undertake exploration within the Cascabel licence.

An extension to the current advanced exploration area was granted in 2016 to allow drilling of the Aguinaga deposit.

SolGold have entered into Land Access Agreements to all areas of the Cascabel Project concession with proprietors and maintains strong working relationships with all stakeholders.

4.6 Environmental Considerations

Exploration and mining activities in Ecuador are subject to provisions of the Mining Act, 2009. According to the Mining Act, the holders of mining licences must obtain and submit environmental studies to prevent, mitigate, control and repair the environmental and social impact resulting from such activities.

The Environmental Department of the Ministry of Energy and Mines is responsible for the approval of the environmental studies of the Project. According to the Environmental Regulation for Mining Activities, the required environmental studies are:

- Environmental Impact Preliminary Evaluation (“EIPA”). The EIPA is a general environmental study which describes the environmental components, project activities, potential environmental effects, and planned prevention, correction, and/or mitigation measures.
- Environmental Impact Assessment (“EIA”), The EIA is a detailed, multidisciplinary technical study which identifies and evaluates the potential negative environmental effects and details specific preventative or corrective measures for the effects.
- Environmental Audit (“EA”). The EA provides a means of assessing and controlling the measures proposed in the EIA and legal framework.

In August 2013, an Environmental Licence for advanced exploration including drilling was issued by the Ecuadorean Ministry of Environment. SolGold has commenced acquisition of landholdings in the Cascabel project area in anticipation of infrastructure requirements for the project development. As of the 30th of November 2018 Solgold, has purchased 686 hectares, with negotiations ongoing on other properties.

SRK has not carried out any legal due diligence relating to the Environmental Licence. There are no existing environmental liabilities on the property

4.7 Mineral Rights in Ecuador

Mining in Ecuador is mainly governed by the Mining Act (“MA”), issued on 29 January 2009 and the General Regulation of the Mining Act (“GRMA”), issued on 16 November 2009, which regulates activity as a whole. The MA and GRMA recognise, regulate, and classify mining activities depending on production levels, namely: large-scale mining; medium-scale mining; small-scale mining; and artisanal mining.

To conduct exploration in Ecuador, a mining licence must be granted by the Ministry of Mining and registered with the respective mining registry managed by the Agency for Regulation and Control of Mining (“ARCOM” (Agencia de Regulacion y Control Minero)). The term of a mining licence is 25 years and is renewable for similar periods upon request by the licence holder. Once the licence has been granted, exploration may be conducted for a four-year term, which is identified as the initial exploration period and governed by Article 6.

The holder of the licence is entitled to request a further four-year period from the Ministry of Mines, under Article 7, to proceed with advanced exploration. At this point, part of the exploration licence will be relinquished, although there is no legislated minimum area to be dropped. The Ministry will process this application provided the company has met the minimum investment commitment during the initial exploration stage and submitted a plan of activities and minimum expenditures contemplated under the advanced exploration stage.

Other aspects of the Mining Act that are considered to be pertinent are described as follows;

Regarding taxation and royalties – Mining companies are subject to a Windfall Tax (Extraordinary Income), equivalent to 70% of the gross amounts obtained from the sale of minerals at a higher price than the base price established in the Mining Exploitation Contract.

The holder of the licence is also subject to other taxes, payments and contributions such as:

- Income Tax – 22% of profits
- Labour Profit Sharing Tax – 15% (12% to the State and 3% to employees in the case of large-scale mining, and 10% to the State and 5% to employees in the case of medium- and small-scale mining)
- Value Added Tax – 14%
- Municipal taxes and contributions, social security contributions
- Annual conservation fee that the holder of the licence shall pay for each mining hectare by March each year – This equates to 2.5% of the government mandate "basic salary", currently US$366, per hectare of the mining licence for the initial exploration period. This doubles to 5% of the basic salary per hectare for the advanced exploration and economic evaluation periods, and doubles again to 10% during the operational phase of the mining licence.

In addition to the taxes outlined above, the holder of the licence must pay to the State a royalty of no less than 5% of the value of all sales, and no more than 8% for the sale of gold, silver and copper (large-scale mining). For medium- and small-scale mining, the royalty is 4% and 3% respectively, while artisanal mining is not subject to royalties.

Regarding surface rights – The holder of a mining licence has an easement over the surface land in order to duly exercise its mining rights. The rights emanating from this easement include, among others, the right to occupy certain areas for constructions required for mining activities, as well as rights related to waterways, railways, landing strips, ramps, transport belts, and electrical installations. The easement must be registered in the mining registry managed by the ARCOM.

The owner of the surface land is entitled to receive payment from the holder of the mining licence for the easement granted. In certain cases, the easement rights, including terms and conditions, are expressly agreed to in contracts executed between the holder of the licence and the owner of the surface land. If no agreement is reached, ARCOM may order the creation of the easement and determine the mandatory payments due to the owner of the land.

SRK understand that SolGold holds all required permits and easements to operate across the Alpala deposit.

In August 2013, an Environmental Licence for advanced exploration including drilling was issued by the Ecuadorean Ministry of Environment.

On July 26, 2013, the National Water Secretariat for the Mira Hydrographic Demarcation resolved to grant ENSA the right to exploit the waters of River Mira, to be used during the execution of the advanced mining exploration period at the Cascabel Project. The water concession is valid for a renewable term of ten years. The water intake shall be used in mining and industrial exploration activities within the area authorised by the Ministry of Mines. ENSA shall pay US$0.0039 per cubic metre to the National Water Secretariat.

Two Concessions for the Use and Consumption of Industrial Water been granted for the Cascabel Project for advanced exploration activities. These ten-year licenses were approved in July 2013 and August 2017. The combined concessions allow extraction from a maximum of 14 points or water sources (water collection points are included for use in advanced exploration activities and for use in camps); and an authorized flow rate of 1.5 l/s for each point.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Cascabel Project is easily accessible from Quito, the Capital city of Ecuador. International flights regularly arrive and depart from Mariscal Sucre International airport, 18 km east of Quito, from major carriers including KLM, Qantas, American Airlines and Lufthansa. From Quito, the Project is accessible via the multi-lane E35 Pan-American Highway to Ibarra (approximately 100 km) and connected to the northern margin of the licence (approximately 90 km) via the sealed two lane E10 highway that runs along the Rio Mira river valley. Driving time to the project offices at Rocafuerte is approximately 3.0 hours.

Access to Alpala Camp within the Cascabel licence is via Carmen Road, a maintained two-lane dirt road from Rocafuerte Offices through Santa Cecilia village, to Carmen, The main exploration prospects within Cascabel are accessible via a series of maintained single lane dirt roads, as well as single lane 4x4 tracks and hiking trails off the Carmen road. Alpala Camp is approximately 12 km or 40 minutes' drive from the Rocafuerte offices.

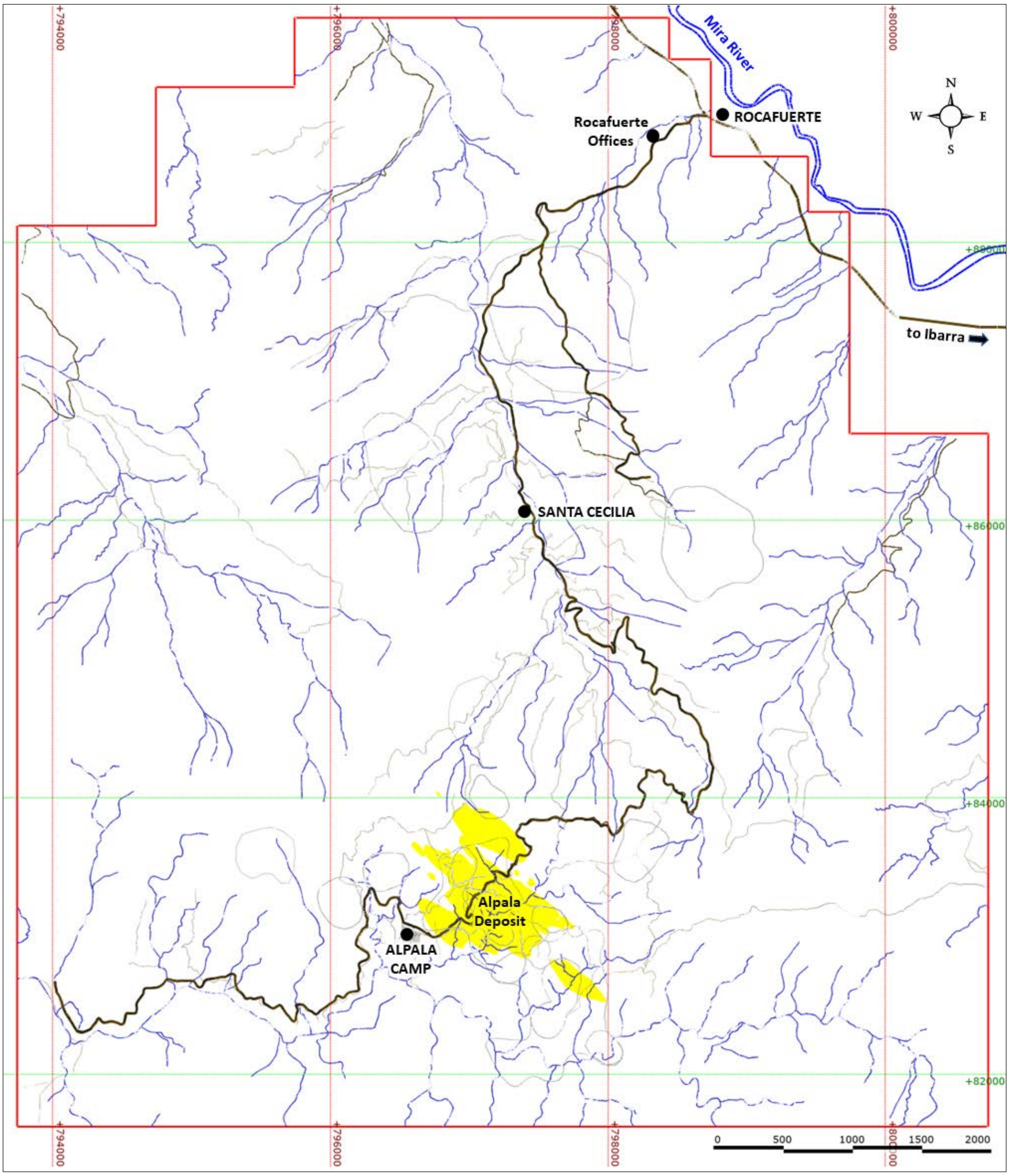


Figure 5-1: Major Access Roads (black) and Tracks (grey) for the Cascabel Project (Source: SolGold, 2016)

5.2 Local Resources and Infrastructure

The property is largely undeveloped, containing only three small settlements, Santa Cecilia Village Rocafuerte Base Camp and Alpala Camp. Three further settlements lie proximal to the project area at San Pedro, Urbina and Cachaco.

Infrastructure in the region and throughout Ecuador is generally good, with road access, power, water, skilled labour and unskilled labour all readily available in the local area. A two-lane sealed highway (E10) connecting the cities of Ibarra and San Lorenzo runs along the northern margin of the property, and a further multi-lane highway (E15) provides a link further south to the port city of Esmeraldas. A multi-lane highway (Pan-American E35) links Ibarra and the capital Quito. (Figure 5-2).

Power generation in Ecuador is dominated by hydro-electric, with 18 power plants across the state. Currently eight new hydroelectric dams are under construction in Ecuador, with the first completed in April 2016. Once fully operational, this power station is set to generate 1,500 MW, with Ecuador aiming for 86% of electricity needs to be met by hydropower in 2020.

A small hydro-electric site is located at Carolinas to the south east of the licence (Figure 5-2). Its current design capacity is unknown.

Over 400 Ecuadorians are employed by Exploraciones Novomining.S.A (ENSA), including over 40 geologists, and over 150 full time staff, with a further 190 non-permanent persons working on the project.

Local labour is often available from Rocafuerte and surrounding settlements. Other services and goods can often be procured from the surrounding settlements, with further options available at Ibarra or Quito.

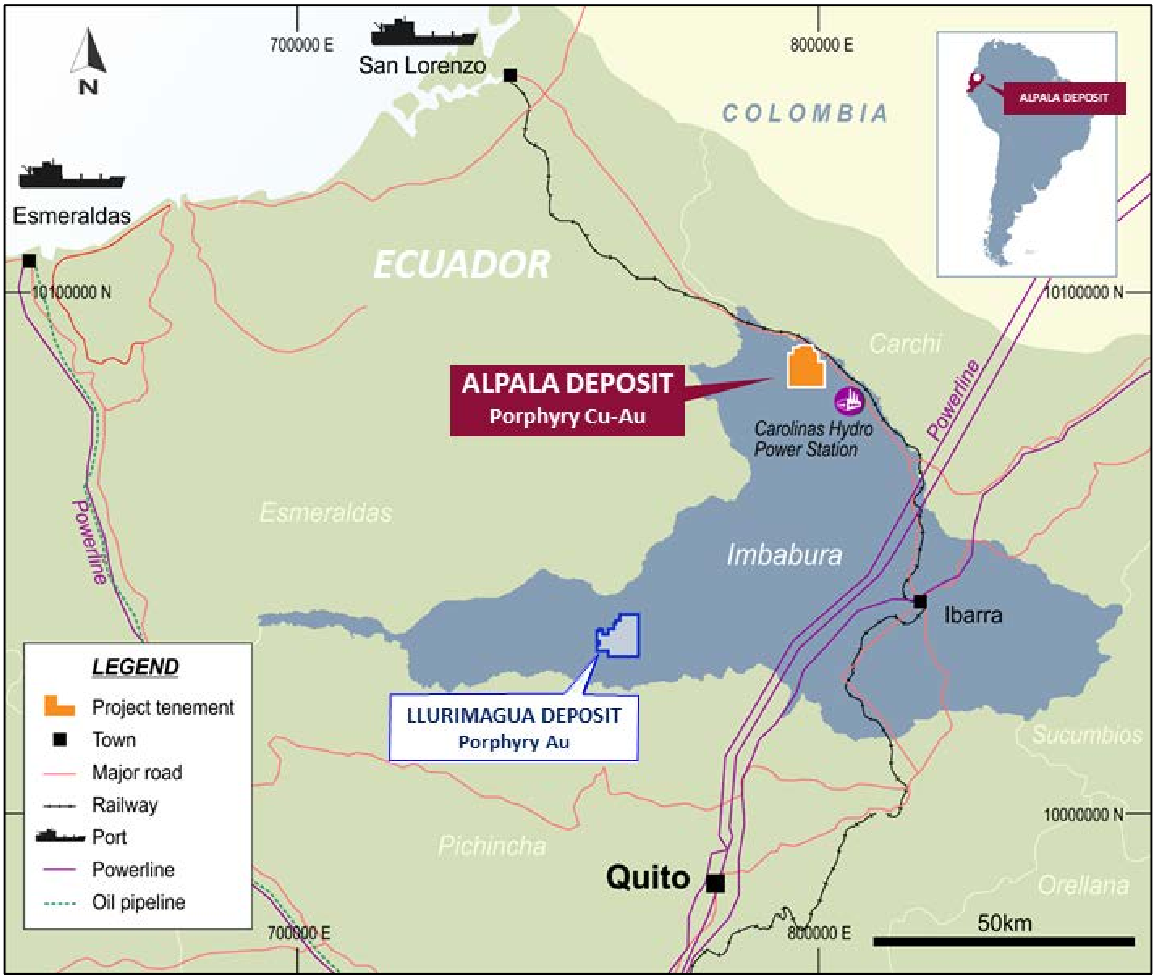


Figure 5-2: Local Infrastructure in the Vicinity of the Cascabel Project (Source: SolGold, 2016)

Preliminary infrastructure reviews and facilities are currently being assessed in preparation for completion of a Preliminary Economic Assessment ("PEA") of the Cascabel project. Infrastructure facilities are being reviewed for an underground bulk mining operation, surface processing facilities, tailings storage facilities ("TSF") and auxiliary site and off-site facilities and may include:

- a processing plant that will produce copper concentrates and gold doré;

- multi-billion tonne capacity TSF and associated infrastructure;
- construction of accommodation camps and other surface facilities;
- port facilities to ship concentrate;
- a concentrate pipeline from Cascabel process plant to port;
- power and water supply systems;
- communication systems, and
- internal roads

Ecuador is evolving rapidly in terms of infrastructure and development, with 10 renewed and 13 operating nationwide airports, of which 4 are international. Ecuador has more than 966 km of state railways, linking highlands and coastal regions and is mainly used for tourism purposes. The port system comprises seven state ports and ten private docks, specialized in general cargo and oil., The three major ports include Guayaquil, Manta, and Bolívar. The Ministry of Transport and Public Works contribute to national development through the formulation of policies, regulations, plans, programs and projects to ensure a National Intermodal and Multimodal Transport, based on a international quality transport network standards, aligned with economic, social, environmental guidelines and the national development plan.

5.3 Climate

Based on long term data from regional stations operated by the National Weather and Hydrology Institute (Insitituto Nacional de Meteorología e Hidrología, or INAMHI), the climate of the Project area is characterized by humid weather, with a bi-modal rainy season, having peaks in December and March, each with rainfall in excess of 200 mm on average. Total average rainfall for the region is approximately 1,500 mm. The Alpala camp receives substantially higher rainfall than Rocafuerte, due to the orographic effect of its mountainous location. The driest month is July with less than 30mm of rain on average.

The climate in the mountainous regions of Ecuador is typically cooler than coastal parts of the country due to the altitude. The Alpala camp lies at approximately 1750m RL, and nightly temperatures can drop below 9°C. Rocafuerte lies at approximately 800m RL and is often significantly warmer than Alpala.

Regionally, temperatures do not fluctuate greatly throughout the year. Average annual temperature is approximately 17ºC, with maxima in excess of 30ºC, and minima typically around 10 ºC.

5.4 Physiography

Ecuador comprises three main physical regions: The Costa (coastal region), the Sierra (highland region) and the Oriente (eastern region). A central graben called the inter-Andean graben effectively divides the Sierra region into the Cordillera Real (Eastern Cordillera) and the Cordillera Occidental (Western Cordillera). The Cascabel Project area is located on the lower western foothills of the Cordillera Occidental, within the tropical-savannah climate zone of Ecuador.

The topography is moderate to steep, with elevations of 750 m in the valley bottom to 2,200 m in the higher exploration zones, incised by dendritic drainage complexes within the tributary watersheds of the Mira River basin.

The Project area is characterized as having a patchwork of remnant mature tropical forest interspersed with disturbed forest and cleared/agricultural land. The nearest protected area is the Cotacachi Cayapas Ecological Reserve, which lies approximately 20 kilometres to the southwest, and is well outside of the Mira River catchment and watershed.

The topography of the project area is moderate to steep (Figure 5-3) with elevations rising from 750 to 2,140 m above sea level. The rugged terrain is incised by four large drainage complexes. Vegetation is tropical forest with a well-developed soil horizon up to 10m thick in parts.

Figure 5-3: Typical Landscape in the Cascabel Project Area (Source: SRK, 2017)

5.5 Location of Mine Facilities

Areas suitable for the location of mine facilities including tailings storage areas, waste rock disposal and processing plant are currently under consideration by SolGold. However, no details have been provided at this time.

6 HISTORY

6.1 Introduction

Previous exploration of the project area, extending from 1980 to 2011, focussed on the source of gold, copper, lead and zinc in stream sediments, which led to the location of gold-bearing, polymetallic epithermal quartz veins in streams that flank the Alpala deposit. SolGold Plc. took an interest in the tenement, signed a deal with Cornerstone and assumed management of the project in April 2012. In May 2012, reconnaissance mapping located an ~80 m wide zone of copper- and gold-bearing, sheeted, porphyry-style quartz veins in Apala Creek.

Table 6-1: Summary of ownership history and key activities

Period	Company	Major activities advancing Cascabel Project
1980-1984	Ecuadorian Institute of Mining (INEMIN) in JV with Codelco (Chile) through the Llurimagua JV.	Noroccidente Project
1984-1985	INEMIN & Belgium-Ecuadorian Mission (BEM)	Preliminary inspections
1986	INEMIN (ex-DGGM) & Rio Tinto Zinc Corporation	Western Cordillera I: analyses of samples from anomalies Parambas and Morán rivers and extensions identified in previous INMEM/BEM study
1988-1991	Lumina Gold (ODIN Mining & Exploration)	Preliminary stream sediment sampling
1991-1997	Japan International Cooperation Agency	Discovered porphyries that intrude the Apuela batholith at Junin - in the same belt of mineralisation as the Cascabel licence (proximal to but not including Cascabel)
1998 - 2000	Government of Ecuador	Western Cordillera II: Definition of geochemical provinces within the Western Cordillera including Cascabel as part of a Cu-Pb-Zn-Ag-Au epithermal deposit.
1998-2000	INEMIN	EMDEC Project (Ecuadorian Mining Development & Environmental Control Project)- 1
2008-2011	Santa Barbara Copper and Gold (SBCG)	Stream Sediment & Rock Sampling (Indicated presence of nearby porphyry system)
2011-2012	Cornerstone Capital Resources (CCR)	Stream sediment, pan-con, rock chip sampling (93 samples)
2012-Present	Exploraciones Novomining SA (ENSA) (SolGold 85% & CCR 15%)	**May 2012**: Alpala discovery outcrop found. Immediate follow-up field programs soil/rock chip/rock-saw channel sampling Anaconda mapping Soil spectral mapping – coarse fragments in soils **Nov 2012**: Geophysics (ongoing) **Aug 2013**: Environmental licence received from MAE **Sep 2013**: Drilling commences at Alpala (ongoing) Hole 5 marks the discovery of the high-grade world-class Alpala porphyry copper-gold deposit **Dec 2017**: Mineral Resource Estimate #1 announced **Nov 2018**: Mineral Resource Estimate #2 announced

6.2 Noroccidente Project (1980 - 1984)

The first exploration undertaken over the Cascabel Project and surrounding areas was through an initiative of the General Director of Geology and Mines ("DGGM") called the Noroccidente Project. The project targeted the mineral resources in the northern provinces of Carchi, part of Esmeraldas and Imbabura. Work involved 1:500,000 scale regional geology mapping and the collection of 822 stream sediment samples which were analysed by atomic absorption spectroscopy ("AAS") for gold, silver, copper, zinc and lead. This work identified 10 anomalies, including the Junín copper-molybdenum porphyry mineral property currently owned by Empresa Nacional Minera del Ecuador ("Enami") in JV with Codelco (Chiule) through the Llurimagua Joint Venture.

The National Government of Ecuador signed a technical assistance agreement with the Government of Belgium to undertake exploration work over each of the anomalies detected, including the Parambas River (partly within the Cascabel Licence) and to expand regional exploration (DGGM, 1980). The Cascabel project was originally named the Parambas Project.

6.3 Belgian Cooperation Project (1984 - 1985)

A cooperative agreement between the Belgian Mission and the Ecuadorian Institute of Mining ("INEMIN", ex-DGGM) resulted in geological, geochemical and geophysical investigations being carried out for VMS (Volcanogenic-massive sulphide) and porphyry Cu mineralisation. This exploration covered the Cascabel licence and surrounding areas.

Stockworks, veins and disseminated sulphides, and sulphosalts were discovered over a number of sites. Only the Junín, Parambas (Cascabel) and Zarapullo occurrences were deemed to have economic potential.

6.4 Western Cordillera I (1986)

Through an agreement between INEMIN (ex-DGGM) and the Rio Tinto Zinc Corporation (RTZ), selected samples collected from previously determined anomalies (Parambas and Morán rivers) and their extensions were reanalysed using Inductively Coupled Plasma ("ICP") for 29 elements.

The samples had been historically collected during exploration projects sponsored by the United Nations and with technical assistance from the United Kingdom and cooperation with Belgium.

Some exploration and sampling to the west of Junín (outside the current Cascabel licence area) was undertaken where additional samples were collected for analysis by RTZ. A database was compiled containing 9,120 samples (INEMIN, 1990).

6.5 Lumina Gold Corp (Formally Odin Mining and Exploration Ltd). (1988-1991)

Lumina Gold Corp conducted limited stream sediment sampling in the Cascabel licence area and surrounding areas. Anomalous Cu, Pb, Zn, and Ag results were obtained in an area controlled by mainly propylitic alteration. Despite this, Odin did not continue its work and the licence was returned to the Ecuadorian State (Silva and Rosero, 2011).

6.6 Japan International Cooperation Agency (1991-1997)

Detailed exploration studies were conducted by the Japan International Cooperation Agency - Metal Mining Agency of Japan ("JICA-MMAJ") in Junín area proximal but, not including, the Cascabel licence and discovered porphyries that intrude the Apuela batholith.

They concluded that the mineralisation is associated with zones of sericitic alteration and facies of granodioritic porphyries. Using the available geological data, preliminary mineral resource estimates were made for Junín which indicated 982 Mt at 0.89% Cu, 0.04% Mo and 0.01 g/t Au with a 0.4% Cu cut-off grade (Gribble, 2004). Whilst not adjacent, the Junín deposit is regionally in the same belt of mineralisation as the Cascabel licence (JICA, 1998). SRK cautions that Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

6.7 Western Cordillera II (1998 - 2000)

Under the Mining Development and Environmental Control Project ("PRODEMINCA") along the Western Cordillera, the Government of Ecuador collected 15,175 stream sediment samples.

Samples were analysed by ICP for 38 elements. Spatial and geochemical analysis of this data led to the definition of geochemical provinces within the Western Cordillera.

The Parambas sector, which contains the Cascabel licence, within the framework of this project was considered as a Cu-Pb-Zn-Ag-Au epithermal deposit, consisting of irregular veins in an area of propylitic alteration and locally siliceous. The mineralisation may be related to the volcanic activity of the San Juan de Lachas Unit (Boland *et al*., 2000).

6.8 Santa Barbara Copper and Gold SA (2008 - 2011)

The private company Santa Bárbara Copper and Gold S.A. (SBCG) applied for the Cascabel licence from the Ecuadorian State, along with other licences and in 2008, submitted an environmental impact study to the Ministry of the Environment. Stream silt surveys and other prospecting identified widespread geochemical anomalism.

6.9 Cornerstone Capital Resource (2011 – 2012)

Cornerstone Capital Resources ("Cornerstone") through a subsidiary Exploraciones Novomining SA ("ENSA") purchased the property from SBCG in February 2011 and conducted regional geochemical exploration and reconnaissance mapping programmes. This work identified widespread Cu-Au-Mo-Pb-Zn-Ag geochemical anomalism in the Parambas, Cristal and Cachaco catchments, and discovered porphyry-related stockwork veins in the Alpala, Moran, Tandayama and America creeks.

In May 2012, SolGold plc entered into a Joint Venture with Cornerstone to explore the Cascabel licence.

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 Regional Geology

The accretionary terranes around the Cascabel licence are considered to hold significant potential for hosting economic porphyry systems due to the combination of terrane accretion and compressional tectonics, shallow subduction, crustal scale sutures and calc-alkaline magmatism.

At the regional scale, the Cascabel Project lies within the Western Tectonic Realm ("WTR") of Ecuador and Colombia according to Cedial *et al*. (2003) and within the Cordillera Occidental of northern Ecuador. The Western Tectonic Realm of Ecuador and Colombia comprises the three composite terrane assemblages: PAT (Pacific assemblage), CHO (Choco arc) and CAT (Caribbean terranes) as shown in Figure 7-1. Within the Pacific composite terrane assemblage ("PAT") there are three terranes, from east to west: Romeral ("RO"), Dagua-Pinon ("DAP") and Gorgona ("GOR") terranes. The Dagua-Pinon terrane ("DAP") is correlated with the Pinon and Macuchi terranes of western Ecuador.

Complete characterisation of the terranes of the WTR, including their exact boundaries and times of collision with the continent, is not well known. However, all litho-tectonic terranes of the WTR contain fragments of Pacific oceanic plateaus, aseismic ridges, intra-oceanic island arcs and/or ophiolites (i.e. obducted oceanic crust). All terranes were developed in or on oceanic basement and all are allochthonous with respect to continental South America.

In the PAT, the RO terrane contains ultramafic complexes, ophiolite sequences and oceanic sediments of probable Jurassic to early Cretaceous age. The Romeral terrane is traced southward into Ecuador where it underlies the western margin of the Cordillera Real and much of the Inter-Andean depression beneath extensive Miocene, Pliocene and recent volcanic cover.

To the west of the Romeral terrane, the Dagua-Pinon terrane, hosting the Cascabel Project is dominated by basaltic rocks of tholeiitic mid-oceanic ridge basalt ("MORB") affinity, and sequences of flyschoid siliciclastic sediments (including chert, siltstone and greywacke). These are thought to be accreted fragments of oceanic crust, aseismic ridges and oceanic plateaus. Several I-type calc-alkaline batholiths and plutons ranging from tonalitic to granodioritic composition and of Palaeocene to Miocene age intrude the DAP terrane along its entire length (Cedial *et al*., 2003). These are the plutons that are responsible for porphyry mineralisation within the Dagua-Pinon terrane and host the Junín and Cascabel porphyry deposits.

The GOR terrane (Figure 7-1) lies further west, mostly offshore. It comprises a more recently accreted oceanic plateau.

The tectonic building blocks that comprise this northwest margin of South America are bound by north-northeast-trending crustal-scale faults or sutures. Strike-slip structures are the dominant structural pattern. In the vicinity of the Cascabel Project, the principal terrane boundary is the Cauca-Pujili fault system which forms the suture between the Romeral terrane and the Dagua-Pinon terrane. This is a major fault system which in detail comprises several strands; several of which pass near or through the Cascabel Project (e.g. the Toachi Fault). In Colombia, the Cauca fault system is well exposed for much of its length, and where its' kinematics are that of a dextral strike-slip fault. The fault is poorly exposed in northern Ecuador due to Pliocene and Quaternary volcanic and sedimentary cover in the Inter-Andean depression, however, the presence of ophiolite along the extension of this fault zone (i.e. the Pujili Fault) southwest of Quito attests to its role as a major terrane suture. In northern Ecuador the Cauca Fault is referred to as the Pujili Fault.

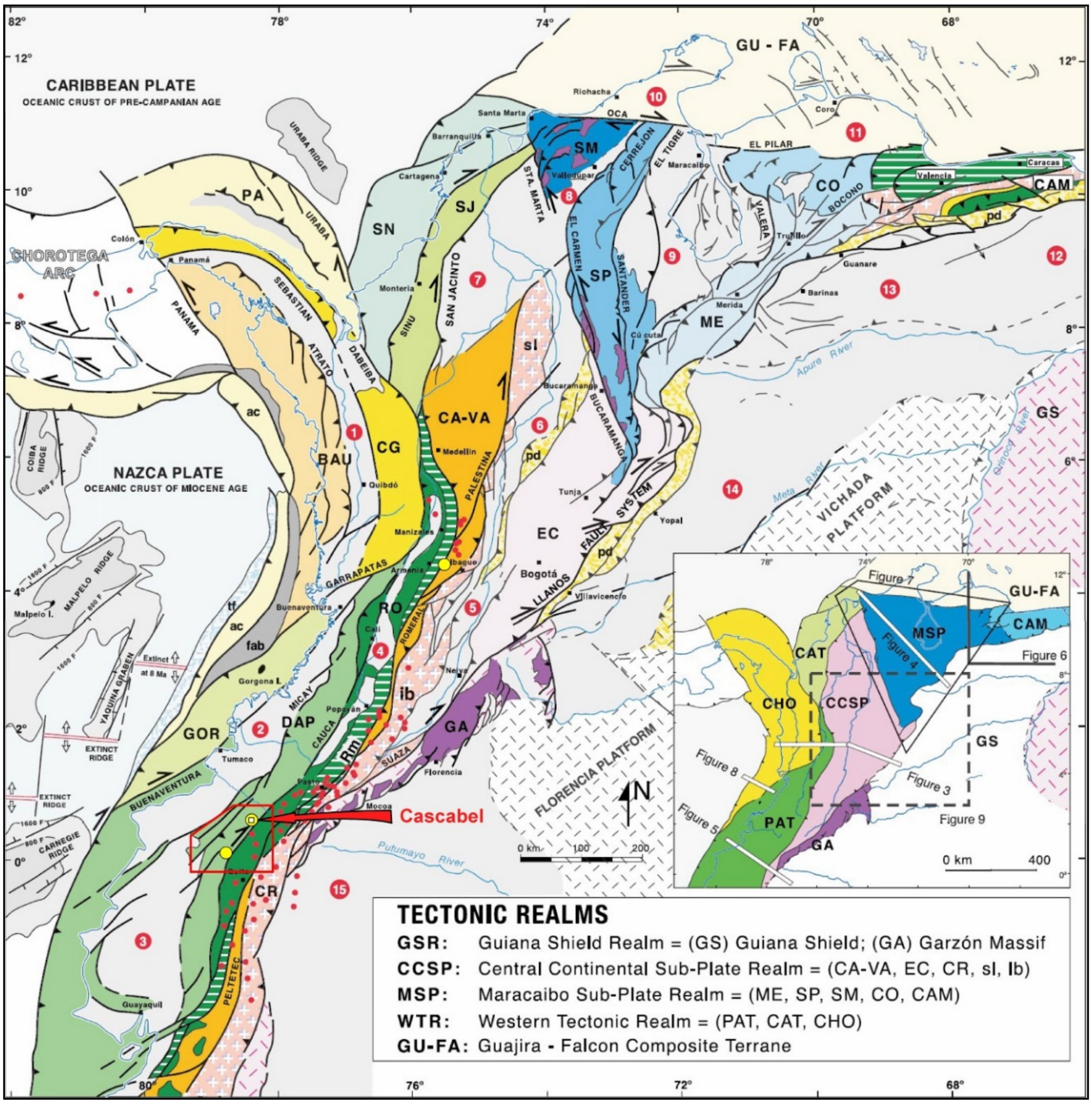


Figure 7-1: Regional Tectonic Elements of Northern Ecuador and Colombia (Source: Cedial et al., 2003)

Subduction-related calc-alkaline magmatism of tonalitic to quartz dioritic composition affected the Dagua-Pinon terrane between 44 Ma and 13 Ma (Piedrancha, Rio Santiago, Apuela, Anchicaya Batholiths and the Arboledus Stock), as well as the Romeral Terrane (Suarez, Piedrasentada and San Cristobal Plutons in southern Colombia). This magmatism in northern Ecuador and southern Colombia is characterised by the lack of a well-developed arc and with erratic pluton distribution. This suggests a low-angle subduction environment, conducive to compression and porphyry mineralisation. There is a general eastward migration of magmatic focus from the Dagua-Pinon terrane to the Romeral terrane, suggesting final approach of the Gorgona oceanic plateau as subduction progressively shallowed due to the increasingly buoyant nature of crust entering the subduction zone.

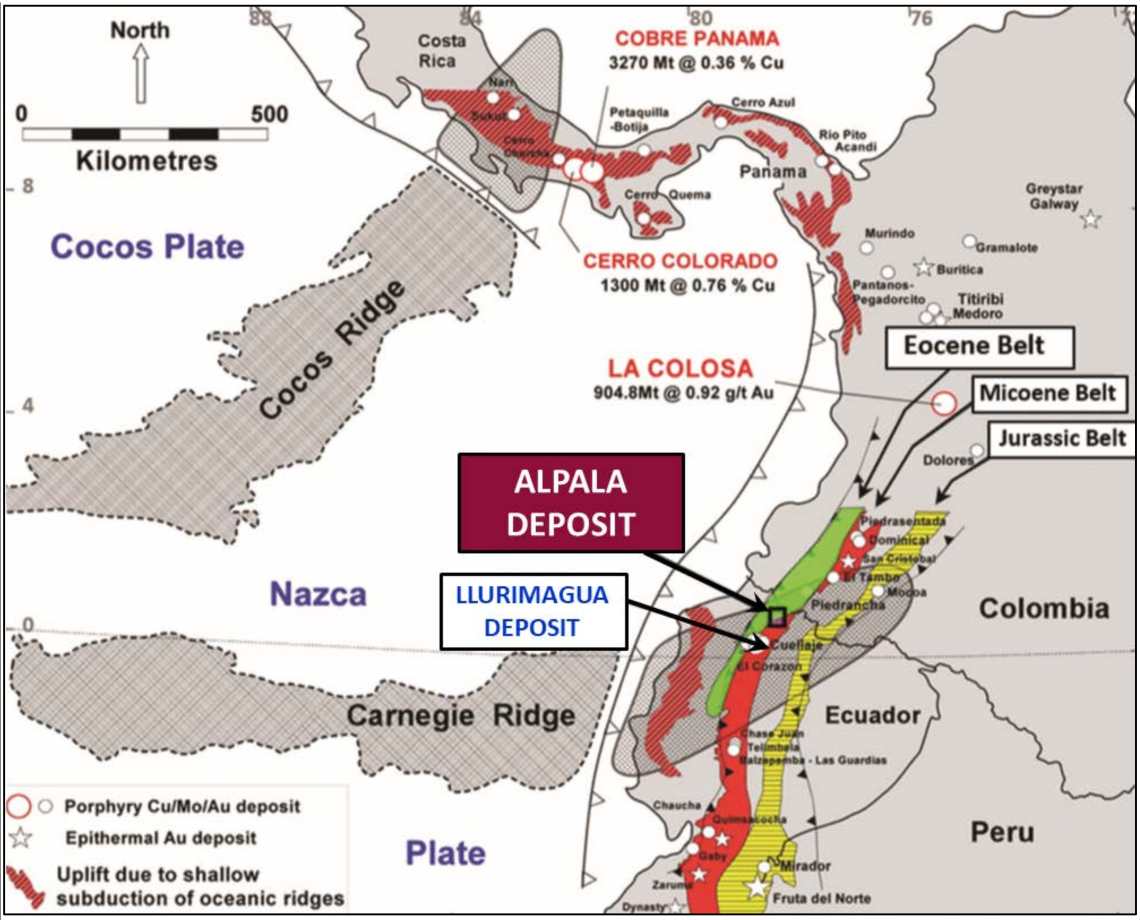


Figure 7-2: Regional Tectonic Elements of Colombia and Northern Ecuador Showing the Subducting Carnegie Ridge (Source: SolGold 2017)

In addition to the long history of transpressive compression in the Cascabel region as recorded by the docking of the RO, DAP and GOR terranes, more recent cause for ongoing tectonic compression (an important requirement for forming porphyry systems) is the shallow buoyant subduction of the Carnegie Ridge (post 8 Ma), whose eastward subducted projection is interpreted by Gutscher *et al*. (2003) to extend beneath the Ecuador-Colombia border and underlie the area of the Cascabel Project (Figure 7-2).

7.2 Local Geology – Cascabel Licence

Figure 7-3 illustrates the geology of the region around and southwest of Cascabel. The Cascabel Project lies along the western foothills of the Western Cordillera. The Caucha-Pujili Fault zone is defined by the series of sub-parallel structures located midway between Otavalo and the Apuela Batholith. The Toachi Fault is a major structure that is sub-parallel to the Cauca-Pujili Fault Zone and is mapped near the El Corazon deposit on the southwest side of the Apuela Batholith. The mapped extension of the northeast-trending Toachi Fault, to the northeast of the Apuela Batholith, runs through the Cascabel Project and several kilometres west of Chical (Figure 7-3).

Magmatism in northern Ecuador is typified by the lack of a well-developed volcanic arc and with erratic pluton distribution consistent with shallow subduction systems. There is a crude migration of the focus of magnetism from west to east reflecting post Eocene shoaling of the subducting Farallon plate. The Santiago Batholith shown in Figure 7-3 is Eocene in age. In contrast, the Apuela Batholith (which hosts the Junín porphyry deposit) is of younger (Miocene) age, and the intrusive complexes south of Cascabel, and at Chical, are also interpreted to be Miocene age (Figure 7-3), an important time for porphyry formation in Ecuador. This belt of Miocene age intrusives extends into southern Colombia and hosts the porphyry deposits at Piedrasentada-Dominical (Miocene), El Tambo (Miocene) and Piedrancha (Eocene) (Sillitoe, 1982).

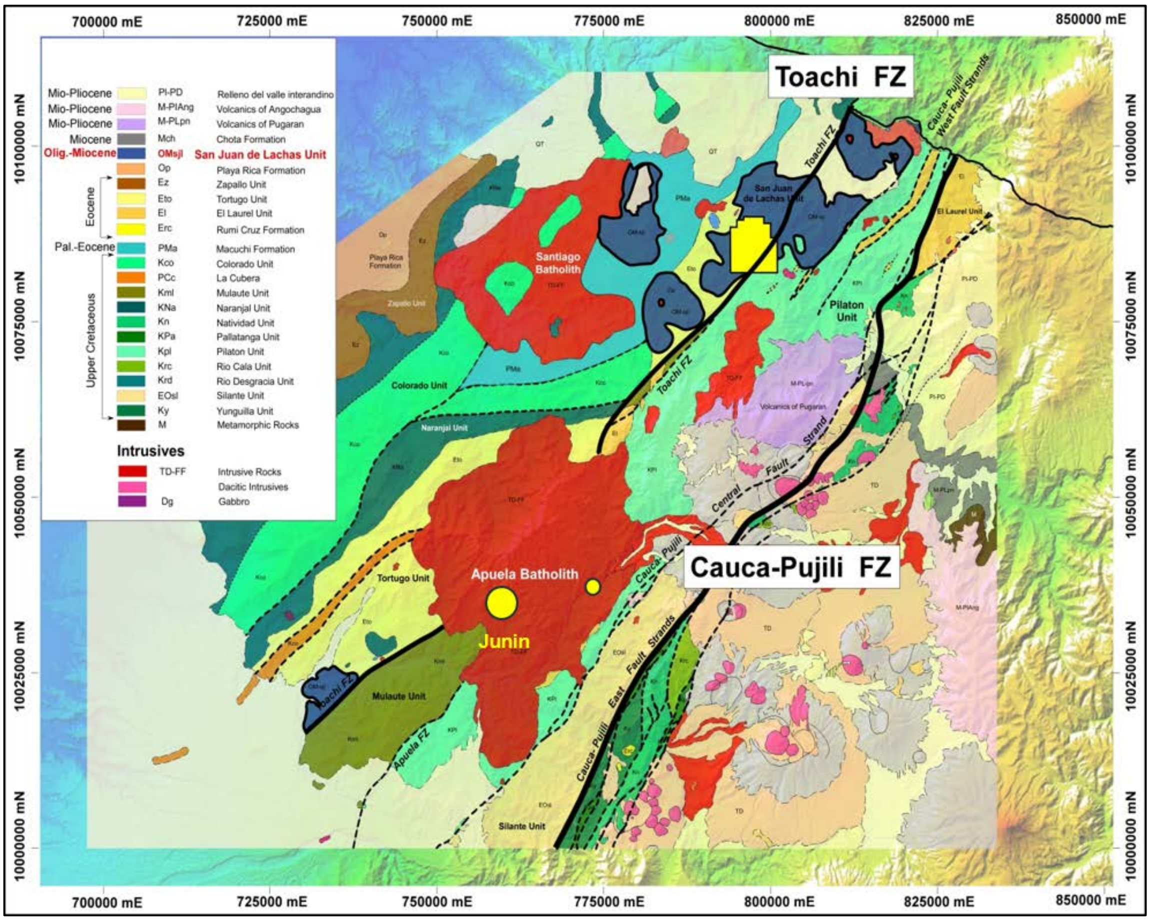


Figure 7-3: Regional Geology Around and Southwest of the Cascabel Licence (Source: Rohrlach 2012)*

**Note: The Cascabel license area is shown by the yellow polygon and the Junin (Llurimarga) Cu-Mo porphyry deposit is indicated by the large yellow circle.*

The Apuela Batholith sits astride the Toachi fault and likely intruded along the fault plane (Figure 7-3). This structure is consequently inferred to penetrate to or near the base of the crust, facilitating mid-to-upper crustal emplacement of batholiths, including the Apuela Batholith. The Apuela Batholith comprises a nested series of intrusions that include quartz porphyry, granodioritic porphyries and diorite porphyry, all of which are different intrusive facies of the larger composite batholith.

The principal deposits and prospects in the region are:

- Junín (Llurimarga) - Empresa Nacional Minera del Ecuador (Enami): Porphyry Cu-Mo (982 Mt @ 0.89% Cu, 0.04% Mo, 0.01 g/t Au – Inferred, 0.4% Cu cut-off grade) (Gribble, 2004)
- Cuellaje: Pb-Zn-Ag occurrence near the east border of the Apuela Batholith is related to a porphyry Cu system (Graves, 2012).
- El Corazon – Skeena Resources (50%): Epithermal Au, Ag, Cu vein system and siliceous hydrothermal breccias (Skeena Resources, 2006).
- Rio Amarillo: Au, Ag, Cu occurrence related to epithermal veins and porphyritic intrusions. A Cu skarn is reported at Rio Amarillo (Graves 2012).

SRK cautions that these prospects do not necessarily constitute the same deposit style or mineralisation behaviour as seen at Alpala, but rather illustrate the overall mineralisation prospectivity of the region. Further, SRK cautions that Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

The geology of the Cascabel Project on the northwest side of the Toachi Fault comprises a series of relatively small to modest size stocks. These small stocks together with the abundance of Tertiary andesitic volcanic and volcaniclastic rocks, suggest limited amounts of erosion since intrusion emplacement. In contrast, to the southeast of the Toachi Fault, the distribution of the intrusions are more extensive and there is an abundance of Cretaceous sedimentary rocks, which suggests a deeper level of erosion than to the northwest.

Structural mapping by Cornerstone at Cascabel as well as interpretation by Rohrlach of more regional Digital Elevation Model ("DEM") data within the 5 km Area of Interest ("AOI"), reveal a series of four major northwest-trending faults.

These second-order northwest-trending structures are likely to exhibit important controls on mineralisation at Cascabel, where they control the northwest-trending zone of clay-mica alteration, and also further south where regional stream sediment Au anomalism appears to be crudely controlled by northwest-trending structures. Third-order NNW-trending structures may also play an important role in localising mineralisation

7.3 Alpala Deposit Geology

7.3.1 Introduction

The Alpala group is a roughly northwest trending porphyry cluster located in the south of the Cascabel licence and has been the primary focus for exploration under SolGold, hosting all the drilling to date. The diamond drilling has defined a northwesterly-trending, steeply northeast-dipping, dyke-stock complex of diorite to quartz diorite intrusions that extends more than 2,000 m northwest by 1,000 m northeast and exceeds 2,000 m in height.

7.3.2 Lithologies and Faults

The intrusions are typically equigranular to sub-porphyritic, hornblende-bearing intrusions of Eocene (Bartonian) age and are hosted by a sequence of andesitic volcaniclastic rocks, lavas and volcano-sedimentary rocks. A total of six major phases of intrusion have been defined by SolGold geologists on the basis of composition and relative timing-relationships with porphyry-related vein-stages from observations at surface and within the drill core. Each of these subsequent intrusions have either introduced mineralising fluids into the Alpala system, remobilised existing mineralisation or contributed to localised overprinting and destruction of the pre-existing mineralisation. Thin-section petrography reveals the presence of very fine-grained quartz in the groundmass of the intrusions, which suggests compositions that range from quartz diorite to tonalite. However, the intrusive rock types are classified on the basis of observations made by the field geologist with a 20x hand-lens (Garwin et al., 2017).

The D10 diorite to microdiorite forms the first phase of intrusive activity introduced into the volcanic- and volcaniclastic-host rocks, guided along steeply dipping fault networks orientated northwest, north-northwest, north and less commonly, northeast. The D10 intrusions are interpreted to have been emplaced pre-mineralisation but nevertheless contain significant intersections of mineralisation particularly close to later QD10 dykes.

The QD10 quartz diorite consists of at least five tabular, northwesterly-striking, dyke-like bodies that coalesce at depth, which are characterized by unidirectional solidification textures (UST) along their apical margins. The UST zones discovered to date extend up to 50 vertical meters and consist of coarse-grained, prismatic quartz and magnetite. The QD10 dykes have intruded along the same structure network as the D10, cross cutting or re-opening the D10 intrusive contacts. The QD10 is thickest in the core of the deposit, at depths of around 1,400 m below the surface from where it forms dykes extending upwards. The QD10 has been identified as an early stage main mineralising phase of intrusion and is the main copper and gold bearing lithology. The highest-grade drill intersections are found in the QD10. Radiometric U-Pb SHRIMP dates on zircons return 39.4 $\pm$ 0.6 Ma (2 σ) for the early mineralisation QD10 quartz diorite intrusion (Armstrong, 2016).

The D15/IM diorite stock and QD15 quartz diorite dykes are intra-mineralisation intrusive phases. Although these intrusions have been interpreted to play a minor role in introducing mineralising fluids into the system, both the D15/IM and the QD15 may have contributed to significant remobilisation of mineralisation. The ID15/M in particular, is the most extensive intrusive lithology in the Alpala deposit and forms a large plutonic stock at the base of the system with multiple finger-like structures persisting into the shallower parts of the deposit, significantly disrupting the continuity of the mineralised D10 and QD10. Intra-mineralisation tonalite dykes (T15) have also been observed in drill-core.

D20/LM and QD20/LM QD are late-mineralisation diorite stock and quartz diorite dyke intrusions which have not been found to carry any significant grade; these postdate and cross cut earlier mineralisation. Radiometric U-Pb SHRIMP dates on zircons return 38.7 $\pm$ 0.6 Ma (2 σ) for a late-mineralisation QD20 dike (Armstrong, 2015).

The geometry of the various lithologies and intrusive bodies at Alpala is now well understood and has been modelled from the completed drilling demonstrating 3D continuity. Table 7-1 provides and summary of the main intrusions in chronological order. A series of later stage post mineralisation ("PM") barren intrusions have also been identified as well as an extensive zone of hydrothermal brecciation along the northeastern flank of the deposit. Minor intersections of mineralisation have been identified within the breccia, attributed to quartz vein-bearing clasts of mineralised diorite.

Table 7-1: Relative Timing of the Volcanic Rocks and Six Main Intrusive Phases Identified at Alpala

Lithology	V	D10	QD10	QD15	D15/IM	D20/LM	QD20/LM QD
Relative Timing	0	1	2	3	4	5	6
Lithology	Macuchi volcanics & volcaniclastics	Sub-porphyritic fine-med Diorite	Porphyritic Qtz-Diorite	Porphyritic Qtz-Diorite	Fine grained Diorite	Porphyritic Diorite	Porphyritic Qtz-Diorite
Veining	All vein types	All vein types	All vein types, Abundant B1, B2 and C	Minor B1, Common B2 & later veins	Common D, Occasional B1 and B2	Rare B, Abundant D	No B or C, Abundant D
Distinguishing features	-	-	Unidirectional solidification textures (UST)	-	-	-	-

Three major steeply-dipping to sub-vertical sets of faults are recognized in the Alpala system, showing strike-directions of northwest, north-northwest and less commonly, northeast. The amounts of post-mineralisation offset along these faults are believed to be small.

SolGold has undertaken the 3D geological modelling of the Alpala lithologies based on the lithological logging, cross sectional and bench plan diagrams developed on site, SRK provided initial guidance and recently conducted a detailed review of the geological and grade models. A 3D fault model has also been created by SolGold.

7.3.3 Porphyry-Related Vein Stages

The porphyry-related vein types and paragenesis at Alpala indicate a systematic progression in time (Garwin et al., 2017) and have been described by SolGold using the nomenclature originated by Gustafson and Hunt (1975) as follows and illustrated in Figure 7-4 and Figure 7-5:

- Following the formation of UST textures within the apical margins, early-stage, minor and wavy AB-type quartz veins deficient in sulphide minerals are followed by magnetite (M) veinlets.
- Planar and through-going, B-type quartz veins cross-cut the early vein types and consist of quartz-magnetite-chalcopyrite. At least two stages of B-type veins are recognised at Alpala, with magnetite more abundant in early B1 veins and chalcopyrite more common in the later B2 veins. The B-type veins contain the majority of the copper and gold in the deposit.
- Chalcopyrite-rich, C-type veins contain rare to minor bornite and cross-cut earlier vein types. The C-type veins contain significant amounts of metal but constitute a small volume-portion of the drill-core. The B- and C-type veins are spatially associated with intrusions that show variable feldspar-destructive, sericite-chlorite±clay overprinting of biotite, actinolite and chlorite-epidote alteration mineral assemblages.

- D-type veins with quartz-sericite-pyrite selvages contain chalcopyrite, minor bornite and locally, molybdenite. Many of the later vein stages exploit and re-open earlier vein stages. A Re-Os date on molybdenite in a D-type vein that cuts a late-mineralisation diorite dike indicates 38.6 $\pm$ 0.2 Ma (2 σ). Anhydrite is a common constituent of late-stage veins.
- Late-stage hydrothermal-matrix breccia bodies and volumetrically small igneous-matrix breccias, including pebble dykes, typically post-date sericite-chlorite$\pm$clay alteration and are locally cut by pyritic D-type veins and anhydrite veins. The breccias post-date the volcanic host rocks and intrusions.

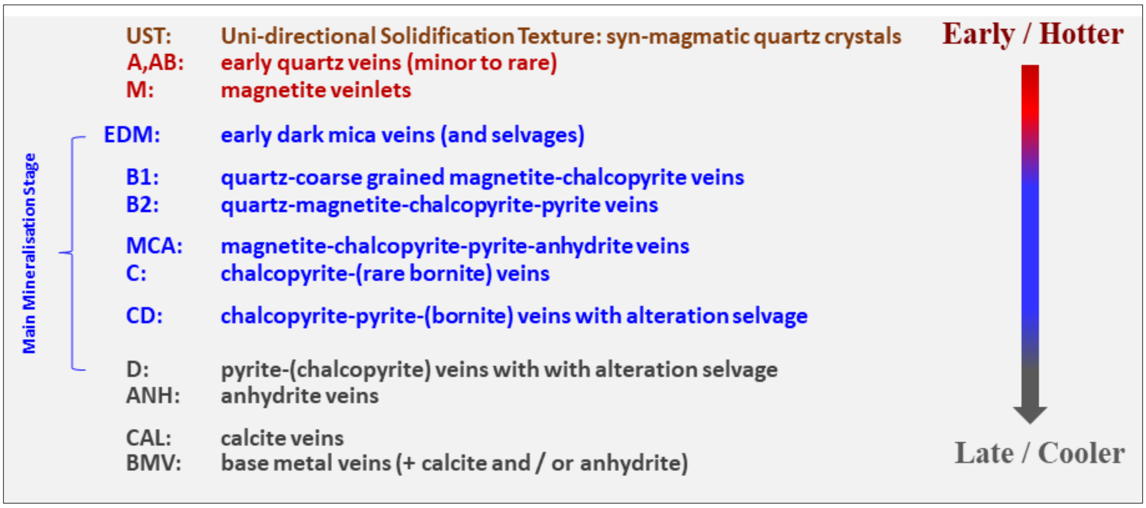


Figure 7-4: Paragenesis of the Porphyry-Related Vein Types at Alpala (Source: SolGold, 2017)*

**Notes: Later vein-stages can re-open earlier vein stages / Anhydrite occurs over wide temperature range / A, AB veins and EDM veins are uncommon / EDM veins preferentially mineralised by later Cpy*

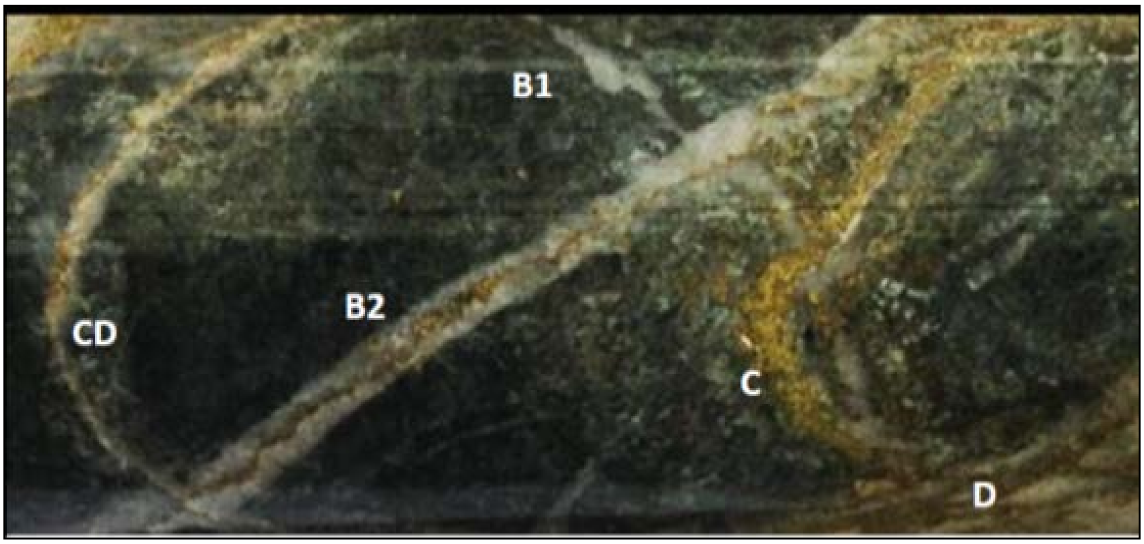


Figure 7-5: Example Cross Cutting Relationships Observed in Alpala Core (Source: SolGold, 2014)*

**Note: B1 cut by B2, cut by C cut by CD cut by D vein*

7.3.4 Mineralisation

Mineralisation is seen across the six main intrusive bodies and the porphyry-related vein types to a varying degree. Early-formed hydrothermal magnetite occurs within early AB- and B1-type veins, and as monomineralic veinlets, disseminated grains and replacements of hornblende. Magnetite is variably converted to metallic haematite and pyrite in the upper part of the deposit where chlorite-epidote altered intrusions and volcaniclastic rocks are moderately to strongly affected by feldspar-destructive alteration, (Garwin *et al*., 2017).

The earliest formed sulphide mineral observed in drill-core consists of abundant chalcopyrite and rare bornite in B-type veins. Chalcopyrite most commonly forms after, and surrounds, cubic and massive pyrite in C- and D-type veins. It also occurs in anhydrite-rich veins and B-type veins that have been re-opened by later vein types. Late-stage bornite is in textural equilibrium with pyrite and chalcopyrite in C- and D-type veins, which suggests that these later-stage veins formed at a lower temperature and a higher sulphidation state than chalcopyrite in early-stage B-type veins (Einaudi *et al*., 2003).

Scanning Electron Microscopy (SEM) techniques including Backscattered Electron (BSE) imaging and Energy Dispersive X-ray Spectroscopy (EDS) indicate that gold occurs as discrete grains of electrum (typically 65% to 85% Au) that range from 1 to 50 microns in diameter (Muhling, 2014, 2015 and 2018). The electrum grains occur within chalcopyrite, bornite, pyrite and rarely quartz and anhydrite. Grains of low-Ag gold (>90% Au) that are 1 to 3 microns in diameter are associated with sulphide grains and occur locally within silicate minerals (Muhling, 2017).

The bulk of the copper mineralisation is hosted within the B-veins (Figure 7-6). Chalcopyrite-rich, C-type sulphide veins also contain significant amounts of metal and may be associated with elevated gold grades. Mineralising fluids are believed to have been introduced during the emplacement of the QD10 and to a less extent the QD15 intrusive. These defined two broad mineralising events at Alpala.

Quartz- and sulphide-vein abundances are recorded by SolGold during core logging and allow for the correlation with the final assay grades (Figure 7-7). This correlation illustrates a strong important to B-type veining to the mineralising system, particularly below 2% Cu. Therefore B-type vein abundance can be used as an analogy for the mineralisation boundaries during modelling.

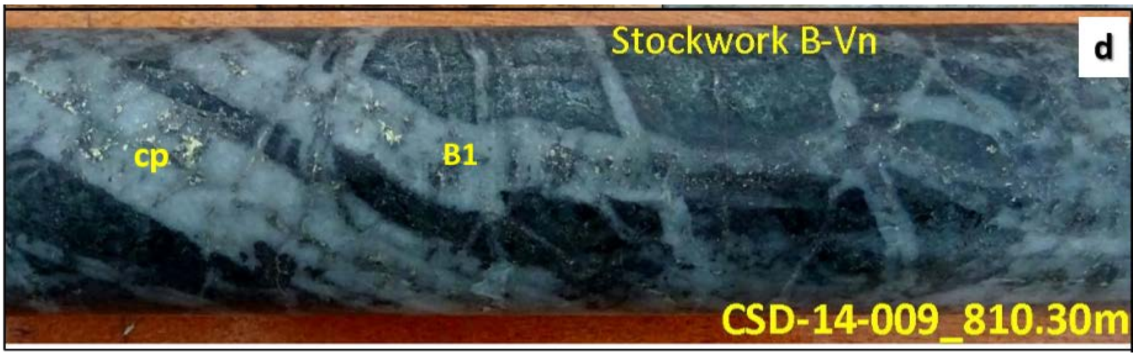


Figure 7-6: Magnetite-bearing B1 quartz vein stockwork with clots of chalcopyrite (cp) (Source: Garwin *et al*., 2017)

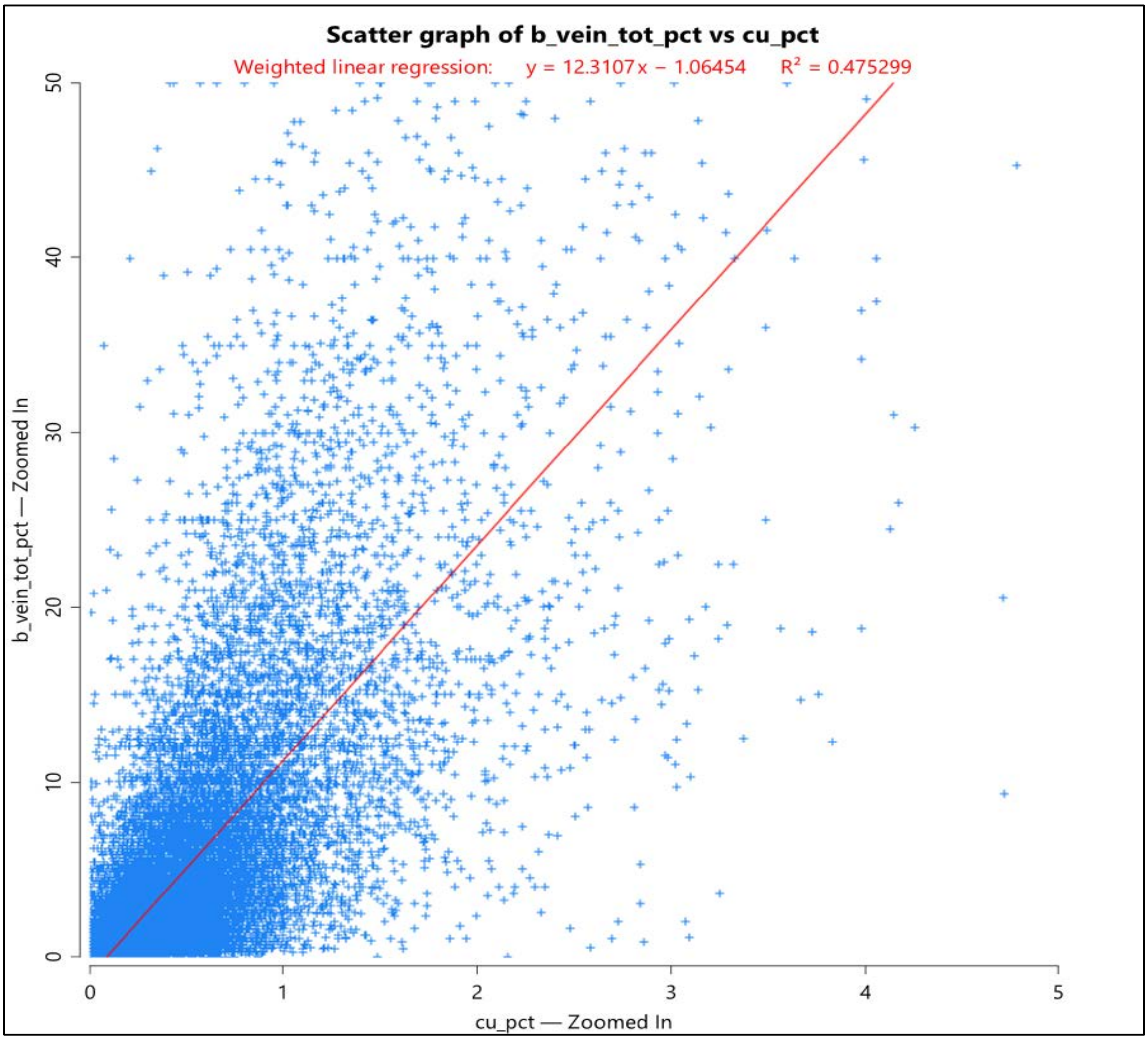


Figure 7-7: Correlation Statistics between B-Vein Abundance and Final Cu Assay Grade (Source: SRK, 2018)

SolGold has undertaken 3D geological modelling of the Alpala mineralisation based on the sample assay information and B- and C-vein abundance logging as described further in Section 14.4.

7.3.5 Petrographic Studies

Petrographic studies have been conducted by Applied Petrologic Services and Research during 2013-2015 and Dr. Roger Taylor from 2015 through 2018. The main conclusions from the integration of this work with the detailed logging of diamond drill-core by ENSA geologists work are summarised in Sections 7.3.2 – 7.3.4.

7.3.6 Hydrothermal Alteration

The varying styles of hydrothermal alteration in the tenement area are illustrated in Figure 7-8, which represents the integration of Anaconda mapping with TerraSpec™ results from soil and deep-auger samples. Chlorite- and epidote-bearing propylitic assemblages occur proximal to distal to the major porphyry centres of the Alpala cluster, Aguinaga and Tandayama-America. The Alpala porphyry cluster targets, Trivinio and Carmen are associated with quartz-sericite/paragonite±illite (phyllic) zones. Dickite- and pyrophyllite-bearing clay (advanced argillic) alteration occurs over the southernmost part of Alpala Central, Hematite Hill and Alpala East, South and SE. Aguinaga and Tandayama are characterized mostly by kaolinite-illite-smectite (argillic) alteration that overprints small zones of biotite (potassic-) alteration that are surrounded by epidote-propylitic alteration. The sphalerite- and chalcopyrite-bearing epithermal quartz veins hosted by phyllic and propylitic altered volcanic rocks in the Parambas, Carmen and Cachaco areas are inferred to be the distal expression of a porphyry centre(s).

The relationships of hydrothermal alteration to intrusion stages and vein types in the Alpala deposit are described in Section 7.3.3.

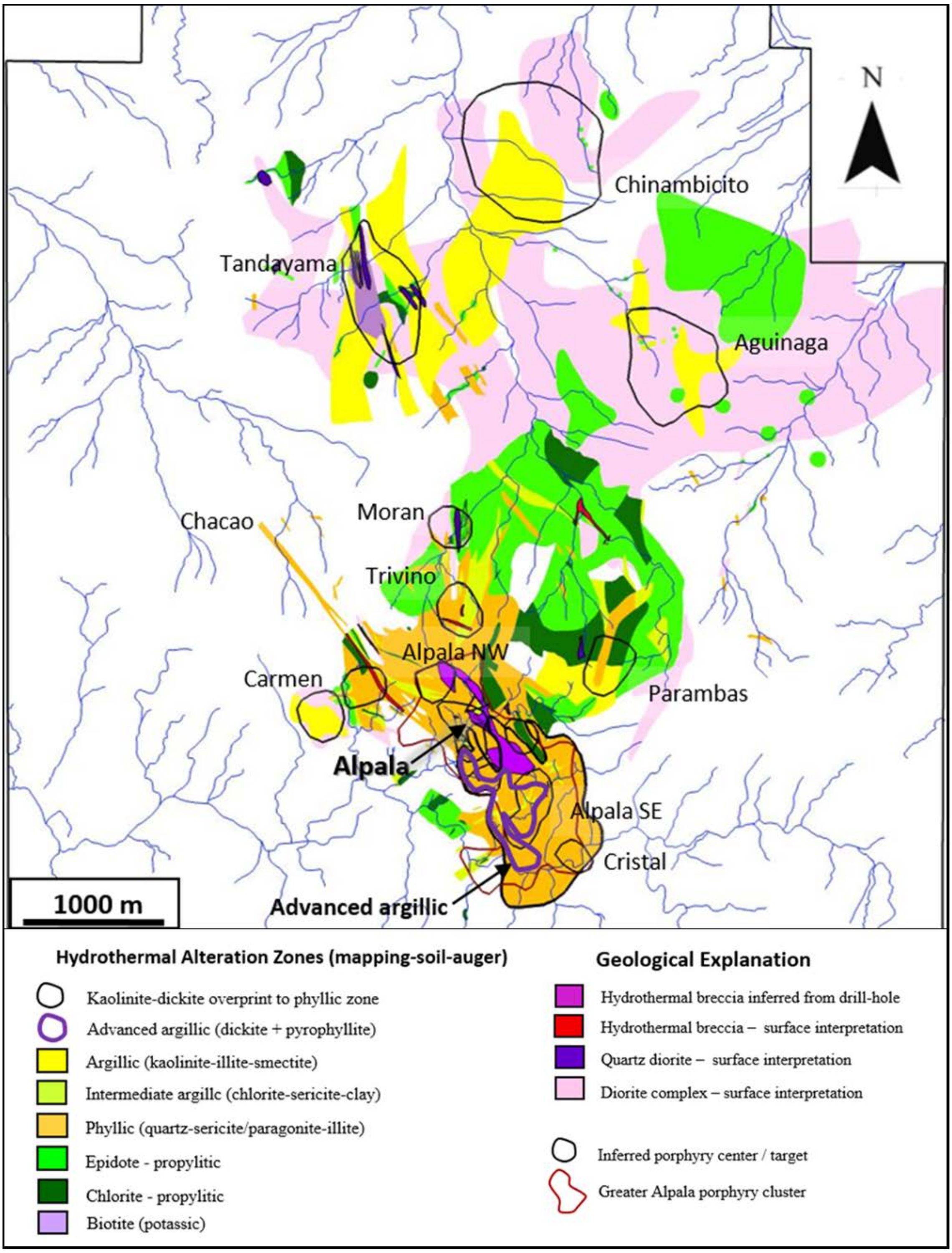


Figure 7-8: Surface Expression of Hydrothermal Alteration Across the Cascabel Licence (Source: Garwin et al., 2017)

7.3.7 Intrusive Genetic Model

A simplified schematic intrusive and vein paragenesis model for the formation of the Alpala deposit has been developed with SolGold and is given in Figure 7-9 in which the top half shows the deposit in plan-view and the lower half shows the deposit in section, looking northwest.

The earliest intrusion, the D10, was intruded, probably along a north-westerly structure accounting for the elongated shape, into the host andesite volcanics, to form the host rock sequence for the deposut (Figure 7-9 A). The main phase of mineralisation was subsequently emplaced through the intrusion of dyke-like syn-mineral QD10 intrusions, resulting in AB, B1 and B2 and C veining, (B). Mineralising fluids sourced from the high-grade apophyses of these intrusions, displaying Unidirectional Solidification Textures (UST), would further intrude upwards into the D10. Due to the high density of these saline fluids, the mineralisation would also intrude downwards along the apical margins.

A second weaker stage of mineralisation was introduced through the later intrusion of intra-mineral QD15, D15 and minor T15 bodies, which locally exploited the intrusive contacts of earlier intrusions (C). This now composite intrusive body was again intruded on the north-eastern side by a late stage hydrothermal breccia which continued through to the current topographical surface (D).

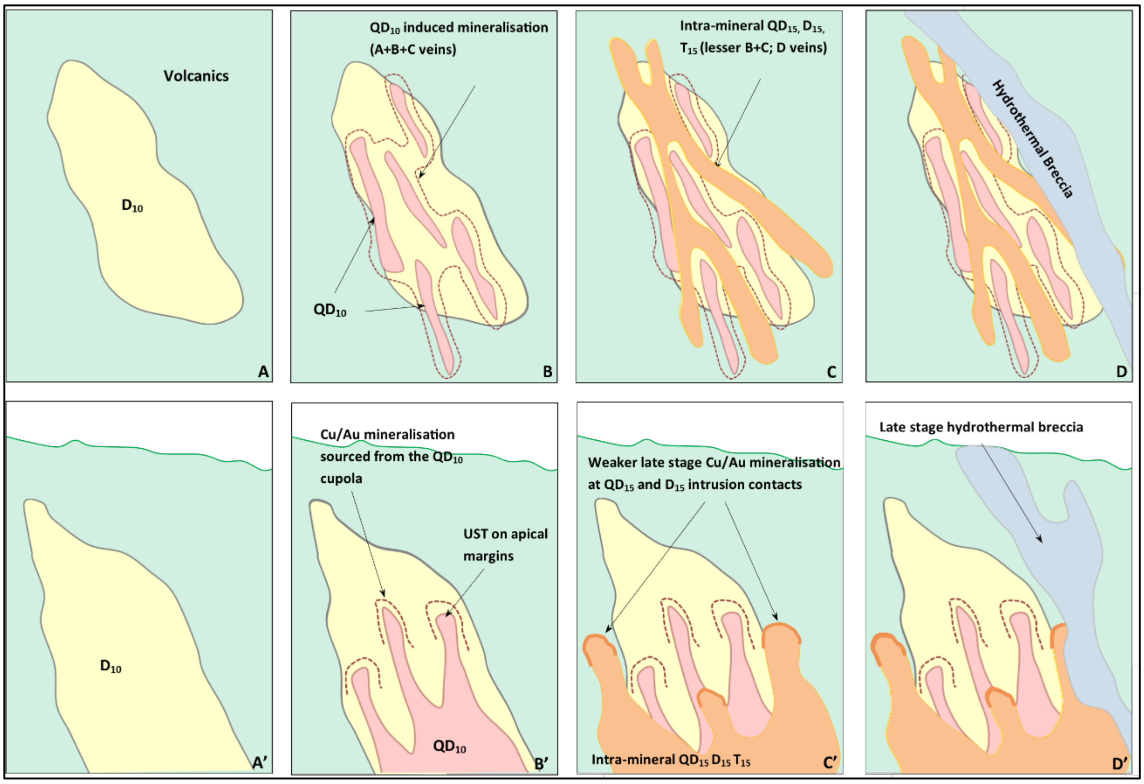


Figure 7-9: Schematic Evolution of Alpala Intrusive Stages and Relative Vein Paragenesis (Source: SRK, 2017)

7.3.8 Structural Geology

The structural model for the Alpala deposit is in its early stages. Geological mapping, topographical and geophysical data suggest that the intrusive centres are localized by the confluence between northwest trending deep seated structures and northeast and north-trending structural corridors that cross the Cascabel Project (Figure 7-10).

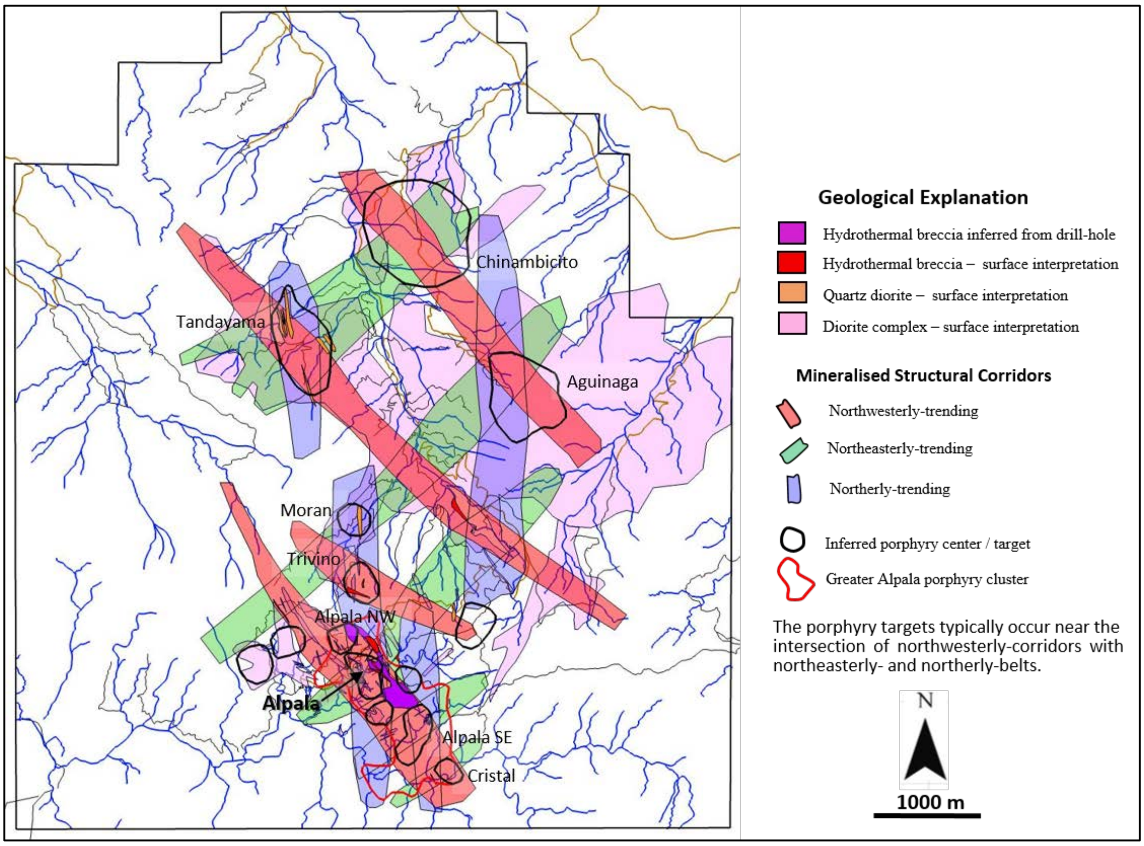


Figure 7-10: Cascabel tenement distribution of intrusions, mineralized corridors and copper-gold target areas (Source: Garwin *et al*., 2017)

Surface mapping, drill core orientation and subsequent structural measurements further indicate that veining is also aligned to these trends (Figure 7-11), which has also influenced the distribution of the Alpala intrusions. The late-stage post-mineralisation QD20 quartz diorite dykes preferentially intrudes along northeast-trending structures.

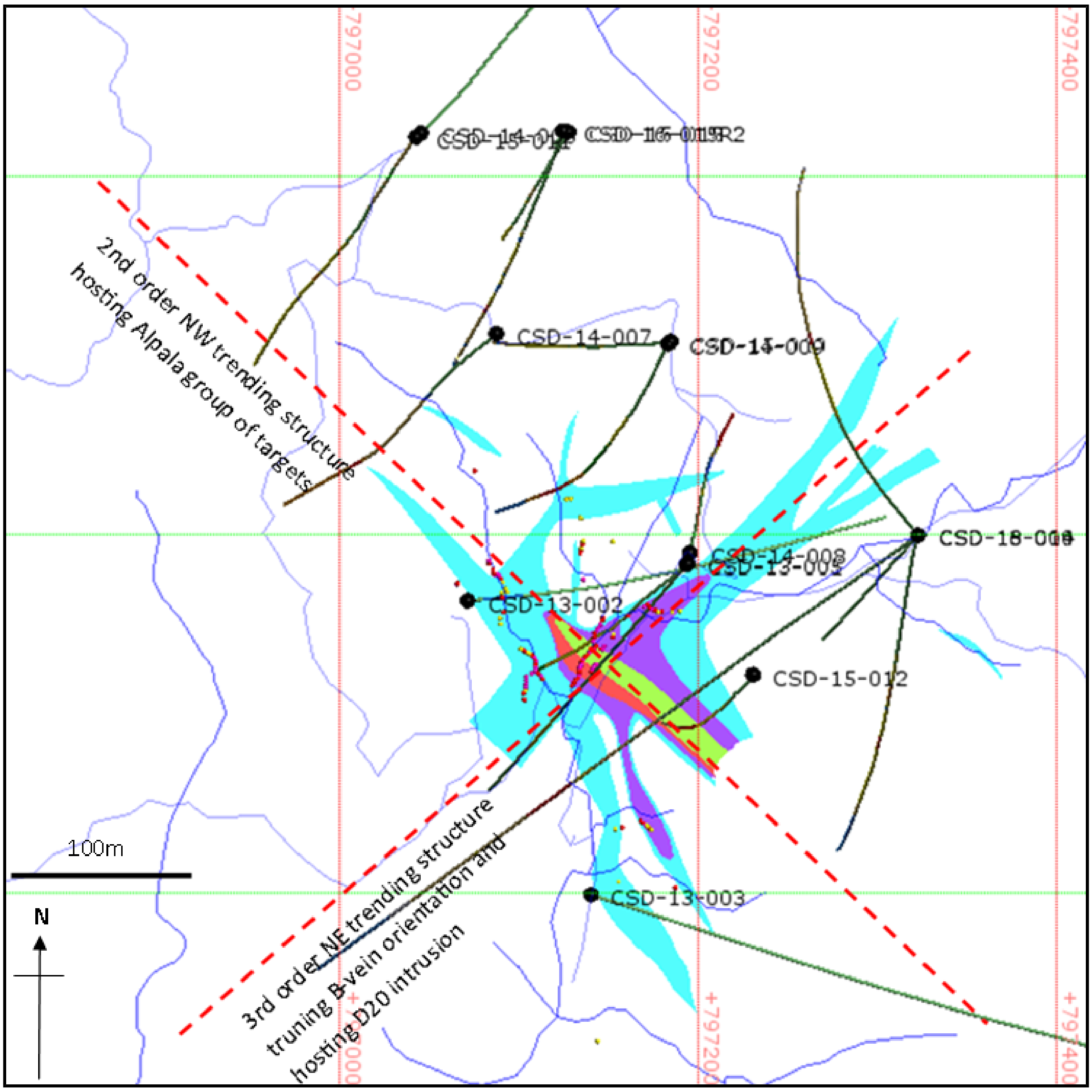


Figure 7-11: Surface B-Vein Intensities across Alpala Central Illustrating the Intersection between the NW and NE trending structures (Source: SolGold, 2017)*

**Note: B-Vein intensities = light blue = 0.5 to 2%; purple = 2 to 5%; red = 5 to 20%; green > 20% B-veins*

8 DEPOSIT TYPES

As with much of the composite terrane across South America, the Western Tectonic Realm (Cedial et al., 2003) of Ecuador and Colombia hosts multiple intrusion related systems. These are hosted within a linear belt that extends from southern Chile right through to Ecuador and beyond. These bodies host the largest concentrations of copper in the world and numerous deposits are in active mining operations. This geological setting is associated with the following mineral deposit types:

- Porphyry copper - related to the early stages of magmatism;
- Epithermal gold, low- and high-sulphidation - associated with volcanic regions above porphyry systems; and
- Polymetallic skarn - related to hydrothermal fluid flow from granite stocks through pervious, reactive limestone.

The mineralisation observed at surface and in the drill core at the Alpala Deposit is considered as a classic porphyry copper + gold system and exploration has been designed with this interpretation in mind.

8.1 Porphyry Copper Systems

Porphyry systems are major metalliferous sources and can host a number of different deposits. These include porphyry deposits centred on the parent intrusion, and skarns (copper and more distal lead/zinc and/or gold), carbonate replacement and sediment hosted gold with increasing distances from the parent intrusion. High sulphidation epithermal deposits may also occur within the lithocaps as shown in Figure 8-1. Copper porphyry mineralisation forms as sequences of quartz-bearing veinlets and disseminated wall rock between vein sets. These tend to define large tonnage, low-grade bodies of copper ± gold ± molybdenum.

These systems tend to be Mesozoic or Cenozoic in age and hosted in linear belts related to composite plutons and convergent plate boundaries either within continental magmatic arcs or island arcs in association with subduction zones or post-collision volcanism. This type of deposit forms at relatively shallow depths of 1 to 4 km and relate to fluid supply to magma chambers forming vertical elongate stocks or dyke swarms (Sillitoe, 2010). Several discrete stocks are often emplaced in one area resulting in clusters or structurally controlled alignments comprising several generations of intermediate to felsic porphyry intrusions.

In terms of host rock alteration; porphyry copper deposits tend to be upwardly zoned from barren to early sodic-calcic, potassic, chlorite-sericite and finally to advanced argillic. Progressive cooling in the system often results in a characteristic overprinting of these alteration assemblages in a process termed as telescoping.

The Andean Porphyry belt is a well-documented linear belt that hosts many known copper porphyry deposits as well as epithermal concentrations of gold, copper and silver. The belt extends from southern Chile and Argentina in the south to Equator and Colombia in the north.

Within this metallogenic belt, these porphyry and epithermal deposits are often located at the intersection between belt and intra-arc fault zones. Examples of porphyry and epithermal deposits within this belt are shown in Figure 8-2. The majority of these deposits formed during the Miocene; the same era as the intrusive stock-works within the Cascabel Project.

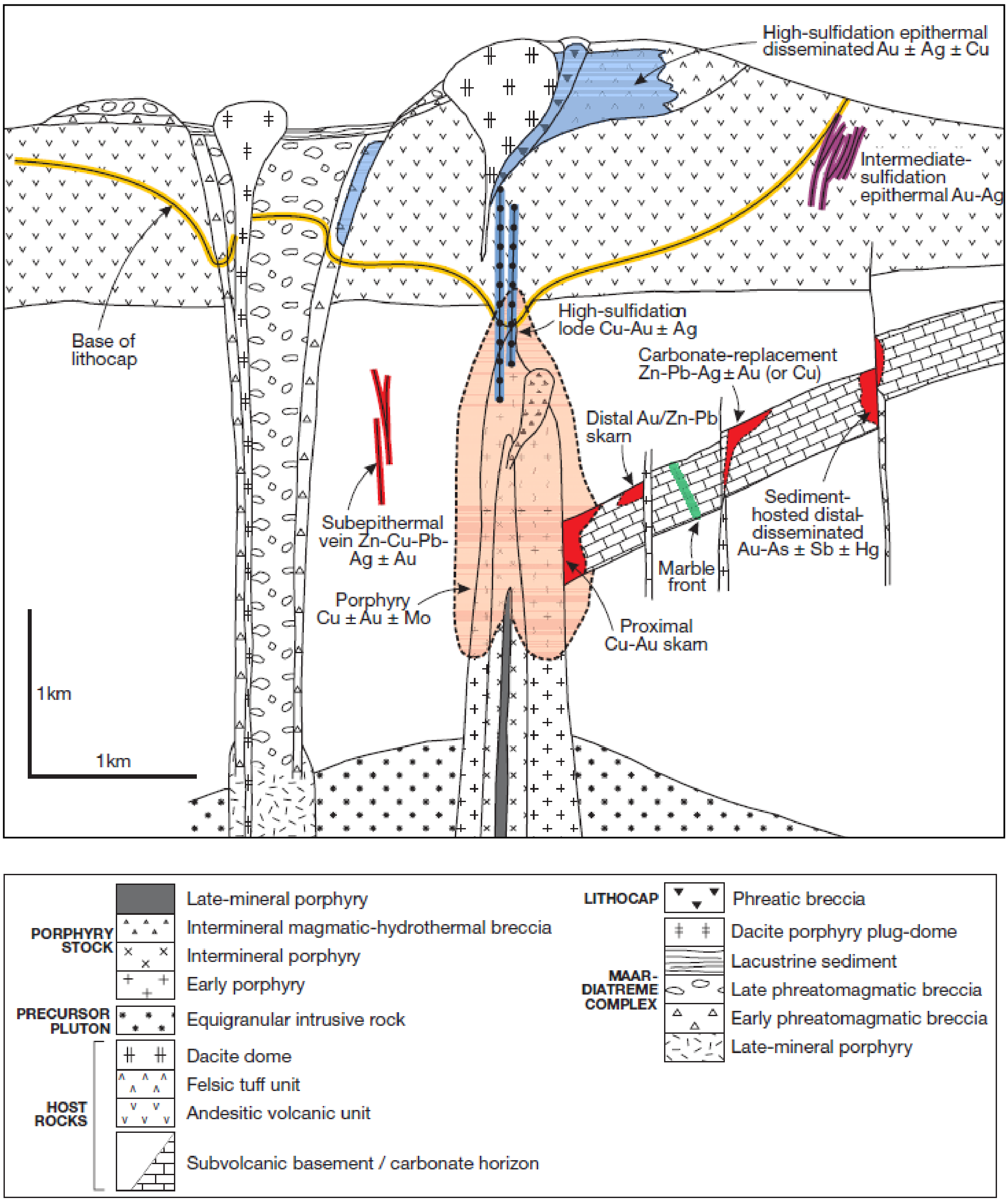


Figure 8-1: Schematic of an Idealised Copper Porphyry Deposit Illustrating the Classic Generic Model and Possible Related Deposit Types (Source: Sillitoe, 2010)

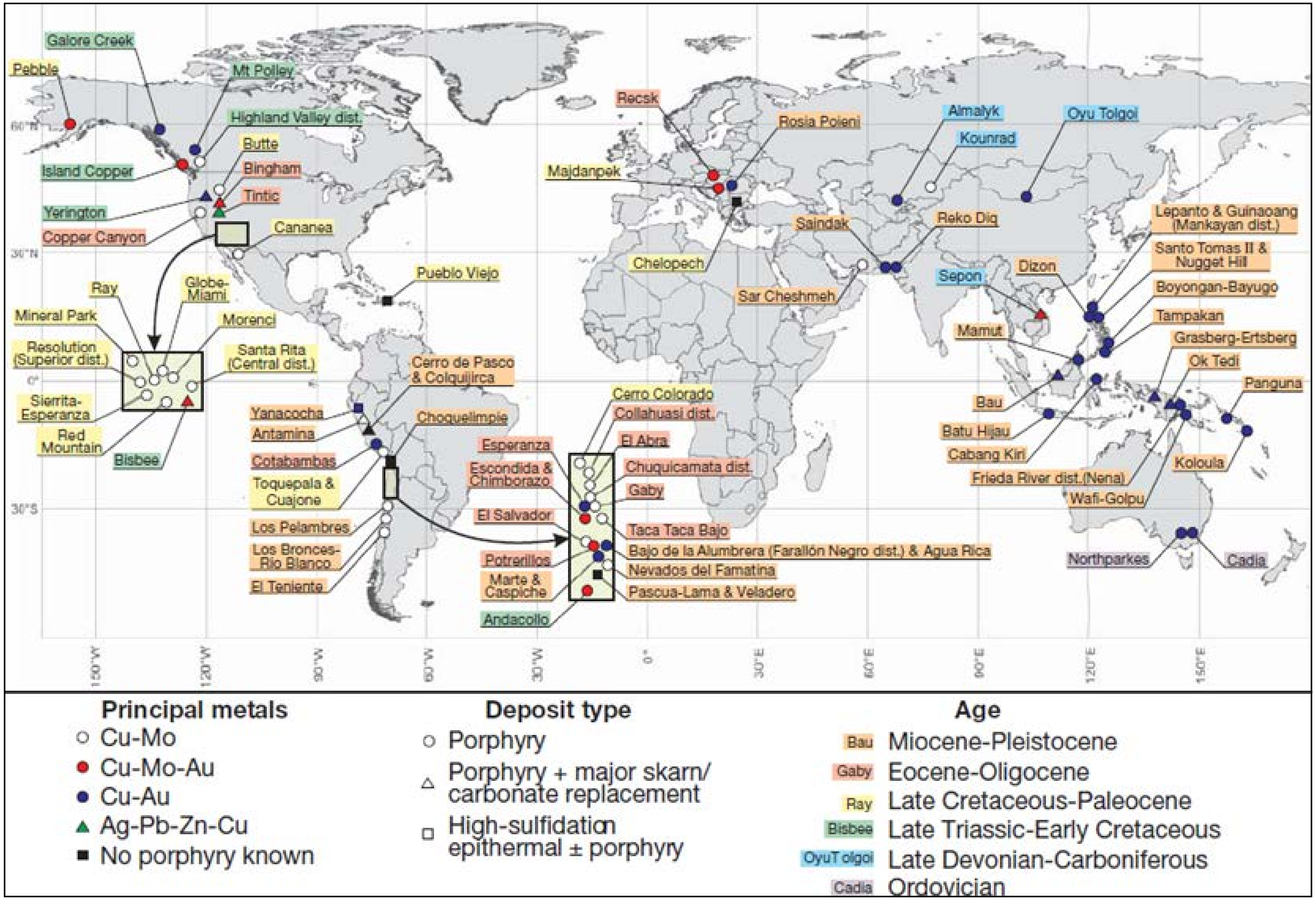


Figure 8-2: **Distribution of Copper Porphyry Deposits and their Documented Ages (Source: Sillitoe, 2010)**

9 EXPLORATION

9.1 Introduction

SolGold's exploration has initially targeted the licence as a whole as well as specifically targeting a number of the priority prospects within the licence.

Recent exploration at the Cascabel Project began with the acquisition of the project by Cornerstone Capital Resources from Santa Barbara Copper and Gold S.A. in 2011.

Cornerstone expanded on preliminary exploration carried out in the 1980s by completing reconnaissance mapping alongside stream-sediment, panned concentrate and rock chip sampling campaigns in June to July 2011. The early Cornerstone exploration identified Cu-Au-Mo and Pb-Zn-As rock chip anomalies, as well as Cu-Mo-Au stream sediment anomalies, while concluding that copper was consistently anomalous and that a high-proportion of rock chip samples contain >1 g/t Au.

SolGold assumed technical management of the project following the signing of an Earn-in Agreement with Cornerstone in April 2012 and the first systematic exploration commenced at Cascabel in May 2012.

SolGold's exploration began with reconnaissance rock chip and channel sampling in conjunction with multi element soil geochemistry studies taking in approximately 3,000 samples across 30 km^2.

A heli-borne magnetic survey was conducted in November 2012 across the 50 km^2 licence.

Following the receipt of an Environmental Licence in August 2013, drilling commenced at Alpala in September 2013. To date (07 November 2018) 133,576 m of drilling across 128 drillholes (including 75 primary holes, 34 daughter holes, 8 re-drills and 11 over-runs) has been completed at Alpala.

In August 2014 a deep penetration 3D IP Orion survey was conducted over a 15 km^2 area of the Cascabel Project.

SolGold has completed geological mapping, soil sampling, rock saw channel sampling, geochemical and spectral alteration mapping over 25 km^2, along with an additional 9 km^2 of Induced Polarisation and 14 km^2 Magnetotelluric "Orion" surveys over the Alpala cluster and other targets at Aguinaga, Parambas, Tandayama-America, Moran and Chinambicito.

This exploration activity has identified several corridors of Cu-Au mineralisation, as indicated by the distribution of copper-bearing quartz veins, sulphide veinlets and fractures. Three major orientations exist, northwesterly, northerly and northeasterly, which are similar to the orientations expressed by the intrusions and faults.

Alpala is the most advanced of the Cascabel prospects and has been the subject of geological mapping, soil and rock geochemical sampling and heli-borne geophysical surveys. This exploration work quickly moved towards detailed trenching/channel sampling of the exposed mineralisation within the Alpala creek system and then ultimately to the current core drilling programme as discussed in Section 10. Exploration has extended out along strike to incorporate areas of Alpala Northwest and Southeast.

9.2 Grids and Surveys

The grid that is used for all coordinates is WGS 84 / UTM zone 17N (EPSG:32617). No local grids have been used for the project.

9.2.1 Ground Control Points

Three permanent first order ground control points (JW001, JW002, JW003), have been used on the Cascabel Project since early 2014. The three ground control points were installed using a differential DGPS and are marked by solid concrete plinths (Figure 9-1). The control points were taken installed and calibrated following the procedure of the "Manual of Technical Specifications - Geodetic Surveys - Horizontal Control" of the Geographic Military Institute of Ecuador.

Table 9-1: Ground Control Points – First order stations

Name	Code	Northing*	Easting*	Elevation*	Type	Observations
JW001	GPS	83083.479	796513.326	1618.787	Cement Plinth	Alpala Base Camp
JW002	GPS	86101.640	797442.985	1177.234	Cement Plinth	Santa Cecilia Village
JW003	GPS	88636.474	798297.722	887.243	Cement Plinth	Rocafuerte Base Camp

***Reference System WGS84 UTM17N

Figure 9-1: Example of Ground Control Point JW001 installed at Rocafuerte

9.2.2 LiDAR Surveys

A 3D airborne laser scanning, light detection and ranging LIDAR topographic survey was completed in November 2018 by SAI - Serviços Aéreos Industrias. Processing and approval of final data is underway and final data is expected to be available for use in early January 2019.

Six ground control points (SAI01-06) were installed using a differential DGPS (Figure 9-2) and marked by solid concrete plinths. The control points were taken installed and calibrated following the procedure of the "Manual of Technical Specifications - Geodetic Surveys - Horizontal Control" of the Geographic Military Institute of Ecuador.

Table 9-2: Ground Control Points – Lidar survey, First order stations

Control Point	Easting	Northing	Elevation	Lidar Elevation	Laser Accuracy	Location
SAI01	798238.854	88690.707	876.8019	876.83	-0,0281	Rocafuerte
SAI02	799599.791	87950.746	847.6342	847.68	-0,0458	San Pedro
SAI03	801160.14	83199.218	1636.9805	1636.99	-0,0095	Urbina
SAI04	797657.063	85628.262	1235.6697	1235.69	-0,0203	Santa Cecilia
SAI05	797657.063	86742.07	1164.1025	1164.12	-0,0175	Aguinaga
SAI06	794156.312	82299.485	1324.8054	1324.84	-0,0346	Rio Cristal

9.2.3 Database Re-projection

PSAD 56 Re-projection to WGS84 UTM17N

Topographic information (topographic contours, streams, roads towns) the initial magnetics survey, and a number of historical datasets originally obtained in PSAD56 UTM Zone 17N coordinate system were re-projected to WGS84 UTM Zone 17N early in the project. All data and databases used on the project uses WGS84 UTM17N coordinate system.

DTM RL Re-projection

Drillhole locations are initially positioned by handhold GPS before HSE clearance and site preparation. Once a drillhole collar has commenced, qualified surveyors from SolGold Topographic team pick up using differential GPS equipment tied into ground control points.

Surveyed coordinates provided by licensed surveyors using differential GPS have been used for all drillhole collars. Positioning is provided in WGS 84/UTM zone 17N coordinates and loaded into the geological database. There are no database re-projections.

The SIGTIERRAS data has been used for planning of infrastructure for this study, and for illustrative purposes to show the topography in relation to drilling. This data is provided by the Ministerio De Agricultura y Ganadieria (National Information System Rural Lands and Technological Infrastructure), the digital elevation model has been derived from aerial photographs and has a spatial resolution of 10m. The Ministerio De Agricultura y Ganadieria website describes this information as:

> *The digital terrain model (DTM) is a continuous surface that represents the heights of the earth's surface and is obtained from aerial photographs taken by SIGTIERRAS. It has a spatial resolution of 3m for the Sierra region, 4m for the Costa region and 5m for the Amazon region and an altimetric precision of 1.5m in the Coast and Sierra, and 3m in the Amazon. It is presented as TIFF files with dimensions equivalent to the 1: 5K sheets generated by the Military Geographical Institute (IGM), of approximately 5.3 km2. About 43,800 TIFF files cover approximately 88% of the surface of Ecuador. It is available for download through the web application in the version of 10m of spatial resolution -resample-. The MDT generated in the project has been completed with MDT from other sources to obtain a better coverage. A 50 m version is also available that was used to calculate accessibility models at the national continental level. The full resolution MDT can be requested in offices. (www.metadatos.sigtierras.gob.ec. (2018)).*

The version cited above with the 10m spatial resolution was the basis of the DTM. A surface was generated from the published contours in PSAD56 UTM Zone 17 N. This surface was then re-projected to WGS84 UTM Zone 17N. Discrepancies were identified between this surface and the differential GPS coordinates of drillhole collars, trenches and other surveyed points.

A correction factor was determined by fitting the surface to the survey points. The best fit of the data showed the more accurate survey pickups plotted on average of 60m below the published survey data. This correction was then applied to the surface as a constant shift of –60m from the published value. With the correction applied, differences in accuracy between the two datasets are still seen in the data. The maximum difference between the surveyed collars and the new corrected surface is 18m. These differences between will be rectified with the LiDAR survey due by the end of the year.

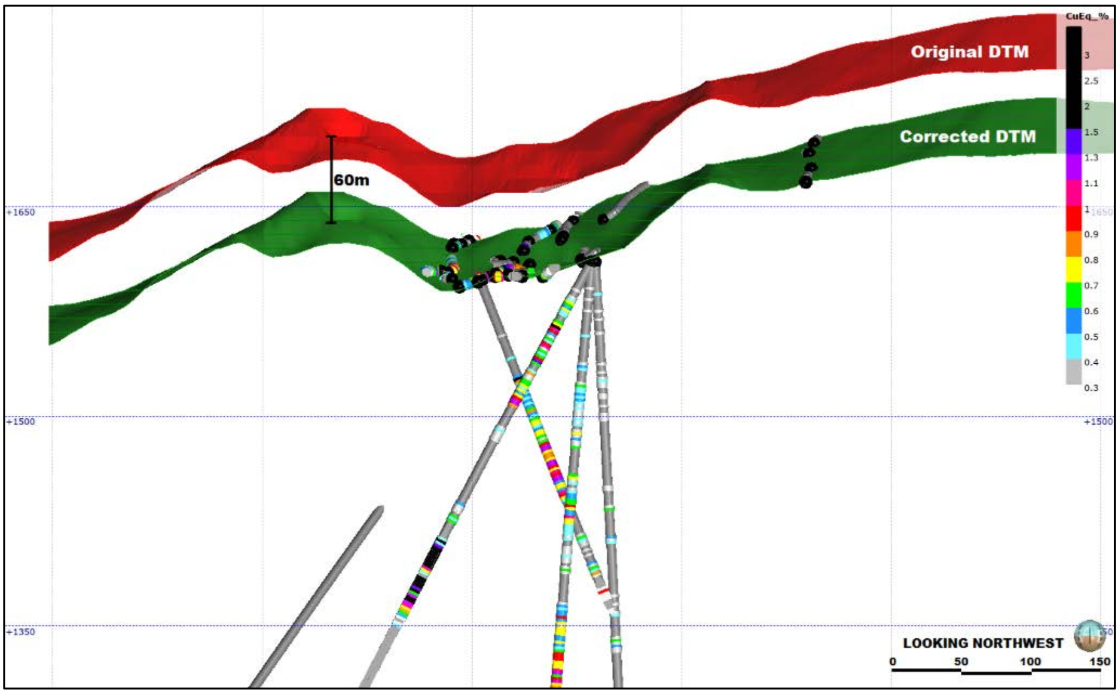


Figure 9-2: Example section showing corrected DTM following re-projection of -60mRL, resulting in close fit to drillhole collars and rock-saw channel collars obtained using DGPS

Rock-saw Channel Sample RL Re-projection

The rock saw channel (trench) sampling data has been re-projected to the corrected topographic surface discussed above. All trench collars have been surveyed by DGPS and trench traces have been pressed to the corrected topographic surface. As these are near surface samples, slight variations in elevation between the surveyed locations and the surface meant that the channel samples were in some cases entirely above the corrected topographic surface. The geological modelling package excluded the samples on this basis. To ensure rock saw channel sampling was considered in the model, the collars (starting point) captured by differential GPS was pressed to the topographic surface. The process of this shift is to plot the collar using the surveyed easting and northing and project the RL onto the survey surface. The other sample intervals along the channel used the azimuth, bearing and distance recorded with the sample information. These samples will be corrected to the LiDAR surface when this is available for future estimates.

9.3 Geological Mapping

Building on past 1:10,000 scale mapping of the project area, the SolGold field teams continue to perform 1:500-, 1:1,000- and 1:2,000-scale, “Anaconda” style geological mapping over the tenement area and updates to the local geology map remain on-going. This mapping targets the identification of alteration styles as well as porphyry vein style mineralisation in outcrops. The process is limited by the degree of cover and the deep tropical weathering experienced across the region.

9.4 Geochemical Sampling

Amongst the first exploration techniques employed on the Cascabel Project was geochemical sampling of steam sediment, soil and rock which built on historical programmes discussed in Section 6.

Table 9-3: Geochemical samples taken from the Cascabel project by type

Sample Type	Samples
Pan Concentrate	223
Stream Sediment	94
Rock (rock chips and grabs)	423
Soil (hand dug and shallow auger)	3287
Soil (Deep Auger)	545
Rock-saw Channel Samples (Trench)	1,434

9.4.1 Soil Orientation Survey

In order to support the soil geochemical sampling programmes, an orientation survey was carried out from August 2012 to January 2013. This survey involved the collection of six samples per sample site, with two samples from each of the A, B and C soil horizons, for a total of 1,420 soil samples. The two samples collected from each horizon enabled sieving to two size fractions for analysis: -80 mesh and -230 mesh. Each sieved fraction was dissolved in the laboratory using the same four-acid digestion prior to analysis.

Based on the orientation soil results, the conclusion reached was that the C-horizon yielded the greatest contrast between anomaly and background, and that the C-horizon should be targeted in future soil sampling campaigns at Cascabel.

9.4.2 Soil Geochemical Sampling

Following the results of this orientation survey, C-horizon samples were taken on a 200 x 100 m grid from August 2014 and sieved to -80 mesh in the laboratory. The grid was later in-filled to a density of 100 x 100 m over priority areas until February 2016. The samples were collected on a grid trending 045°, principally orthogonal to the strike of the dominant structures in the licence area. Soil samples were principally collected by hand auger from a depth of 1 to 2 m.

Between 2012 and 2016 almost 3,300 soils samples were collected over the Cascabel Project area producing coincident molybdenum, gold and copper/zinc ratio in soil anomalies across a number of inferred porphyry centres (Figure 9-3).

TerraSpec™ analysis of the coarse residues from soil samples was undertaken to assist in mapping hydrothermal alteration mineral in zones of variable clay-mica alteration. This technique worked especially well at the Alpala cluster, where it identified zoned neutral- to acid-alteration assemblages over an area of 2.5 x 1 km (Rohrlach *et al*. 2015). This zoning with respect to the discovery outcrop was interpreted to indicate proximal illite (phengite), passing upwards and outwards through kaolinite into dickite and pyrophyllite. This distribution of hydrothermal alteration deduced from the soils was inferred to represent the structurally controlled roots of a lithocap above the Alpala porphyry system(s) (Garwin *et al*., 2017).

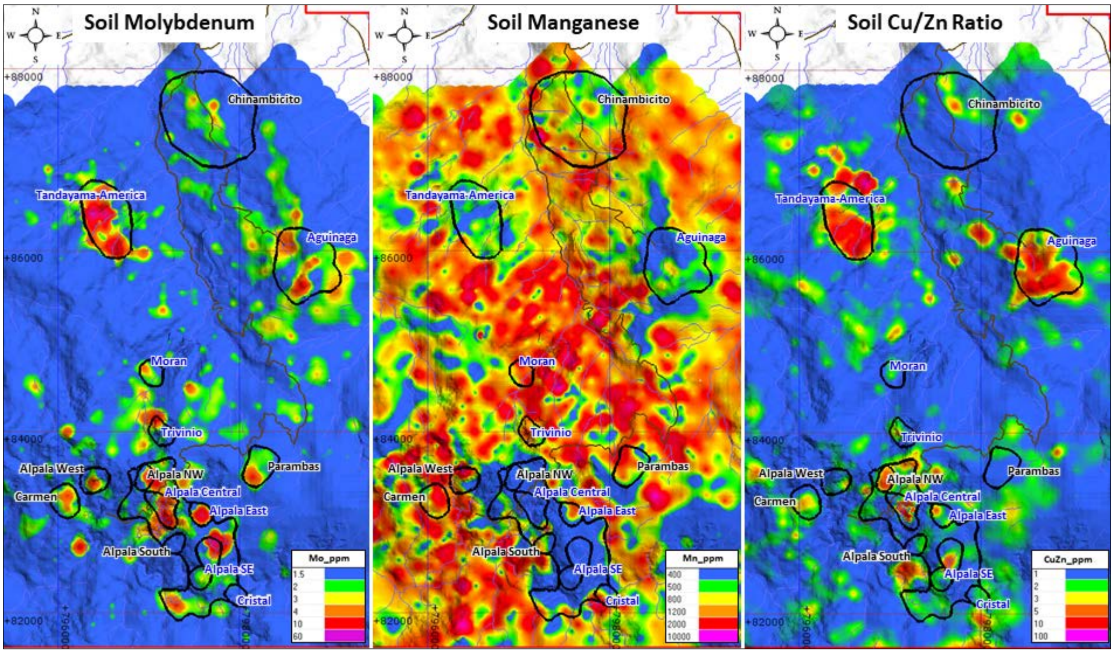


Figure 9-3: Summary of soil geochemical results for the Cascabel tenement, showing molybdenum, manganese and Cu/Zn (Source: SolGold, 2017)

9.4.3 Rock chip sampling

A total of 423 rock chip and grab samples have been taken across the Alpala prospect to identify and define the surface mineralisation and geology ahead of further, more detailed channel sampling.

9.5 Geophysics

9.5.1 Licence-wide Magnetics

A helicopter-borne magnetics and radiometric survey was flown over the entire Cascabel tenement in November 2012, using a line spacing of 100 m. The flight lines were oriented north-south. The reduced to the pole images from this data identified a magnetic high / low complex that is broadly coincident with the >1.4 ppm molybdenum soil anomaly that is centred on the Alpala cluster.

Three-dimensional inversion modelling of the interpreted intrusives at Alpala and the surrounding prospects, based on the helicopter flown magnetic data was conducted by SolGold in 2014 at which time the drill programme was at an early stage. Images of the 3D model in the Alpala area are shown in Figure 9-4. These data were correlated with the TerraSpec surface alteration data in an attempt to understand the characteristics of the host intrusives and the potential location for economic mineralisation.

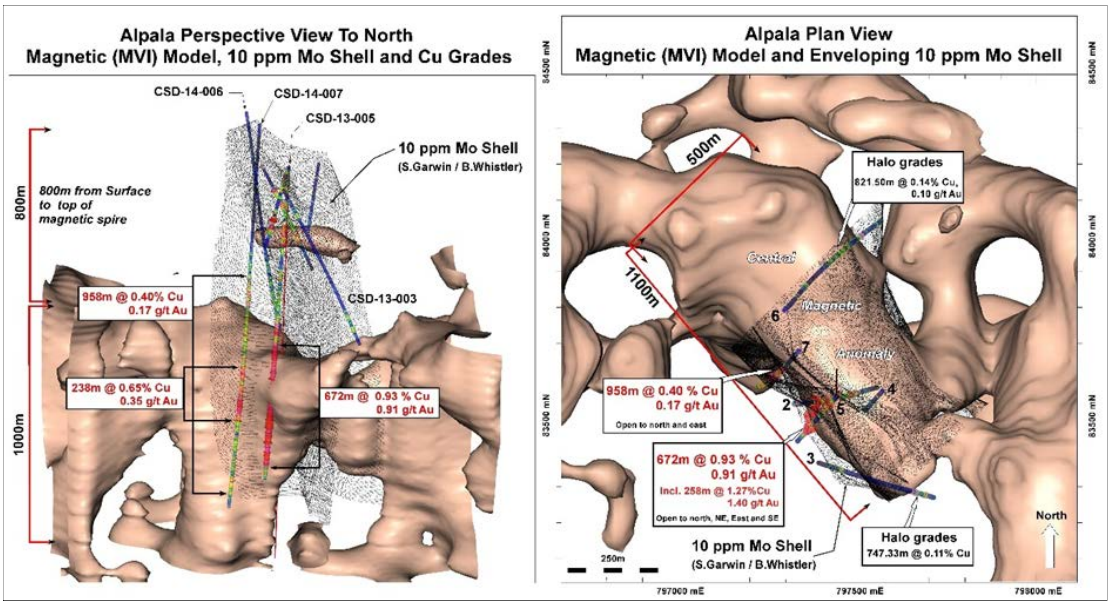


Figure 9-4: Magnetic (MVI) model for the Alpala area (Source: Rohrlach et al., 2015)

9.5.2 Orion – IP / 3DMT survey (2014)

A deep penetration Orion – IP/3DMT survey was completed over approximately 15 km^2 in the tenement area during August 2014. The 2D and 3D modelling of this electrical data show large volumes of high chargeability (>60 milliseconds), inferred to be related to pyrite, to lie above and adjacent to the Alpala drill area and to the southeast, beneath the neutral- to acid-alteration lithocap inferred from the TerraSpec soil analyses. A deep magneto-telluric ("MT") conductor (<120 ohm-meters to depths >2000 m), ~750 m in diameter, is centred west of the Alpala drill area and encompasses the majority of the drillholes completed to date.

9.5.3 Ground magnetics survey and Spartan – IP / 3DMT survey (2017)

A ground magnetic survey was completed over about 30 km^2 of the Cascabel tenement in April 2017. In total, 650 km of total-field magnetic data were acquired from east-west oriented lines spaced every 50 m. The reduced to the pole image for the ground magenetics data shows a major zone of magnetite-destruction to occur over much of the Alpala porphyry cluster. This zone of magnetite-destruction is related to intense hydrothermal (phyllic and advanced argillic) alteration that has converted magnetite to pyrite (+hematite) and chalcopyrite from surface to depths of more than 750 m, as determined from drilling. Below this depth, high-grade copper and gold mineralisation occurs with magnetite-rich, hydrothermally altered intrusions. The surface projection of the copper equivalent models for 0.7 % and 1.0 % coincide with the zone of magnetite-destruction, which suggests that similar high-grade mineralisation may exist along strike in areas where magnetite-destructive alteration occurs. The significant amounts of copper and gold in Hole 24 at Alpala Southeast indicates that copper mineralisation is related to the eastern margin of the zone of magnetite-destruction.

The 3D magnetic inversion ("MVI") models based on the ground magnetic data in the Alpala region mostly coincide with subsurface mineralised envelopes and reveal a northwest trending line of significant magnetic bodies at Moran, Trivinio, Alpala Northwest, and Alpala Central. The central body defined by the 3D MVI models coincides with the 1.0% copper equivalent model at Alpala Central and defines the current growing exploration target confirmed by drilling. Pits and Trenches

9.5.4 Rock Saw Channel Sampling

A programme of channel sampling has been conducted across Alpala in 2012 and 2013, resulting in 702 samples from 84 channels. These have focussed on the surface expression of the intense B-veining and alteration observed within the Alpala creek system. After marking out a roughly 5 cm wide channel along the base of these outcrops in such a way to ensure continual sampling, a 5 cm deep channel is cut with the use of a rock saw to ensure that consistent samples are taken. Examples of this channel sampling are shown in Figure 9-5. The total number of these rock saw channels at the time of writing is 1,434 samples from 263 channels taken from across the project area.

Samples were taken on average every two metres although final sample lengths varied from 0.35 to 2.7 m.

At Alpala, most of the sample channels have been along drainages over an area of approximately 250 m x 200 m of erosional exposures of quartz stockwork veins. Zones of moderate-to-high density sheeted and stockwork quartz veining are associated with the highest grades. The highlights of these trenches are:

- TH46 45.64m @ 0.81 g/t Au, 0.59% Cu.
- TH56A 56.93m @ 1.16 g/t Au, 0.34% Cu.
- TH57 45.50m @ 0.46 g/t Au, 0.25% Cu.
- TH64A 54.73m @ 0.21 g/t Au, 0.17% Cu.

These channel results provided an inferred margin of a mineralised porphyry system and allowed SolGold to plan the first targeted core drillholes into the Alpala system. These are discussed in Section 10.

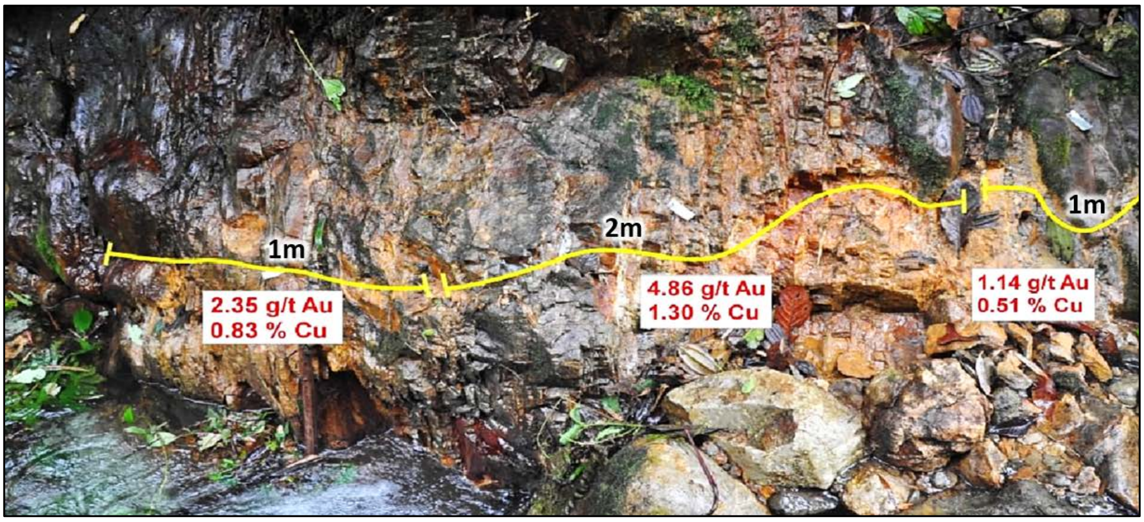


Figure 9-5: Alpala Creek discovery outcrop of porphyry-style quartz veins showing copper-gold rock-channel sample results (Source: Garwin et al., 2017)

9.6 Petrology, Mineralogy, and Research Studies

9.6.1 Petrographic Studies

Petrographic studies have been conducted by Applied Petrologic Services and Research during 2013-2015 and Dr. Roger Taylor from 2015 through 2018. The main conclusions from the integration of this work with the detailed logging of diamond drill-core by ENSA geologists work can be summarised as follows.

- More than six major phases of intrusion are delineated on the basis of composition and relative timing-relationships with porphyry-related vein-stages. Thin-section petrography reveals the presence of very fine-grained quartz in the groundmass of the intrusions, which suggests compositions that range from quartz diorite to tonalite. However, the intrusive rock types are classified on the basis of observations made by the field geologist with a 20x hand-lens.
- The porphyry-related vein types and paragenesis indicate a systematic progression in time and are described using the nomenclature established by Gustafson and Hunt (1975). Early-stage, minor and wavy AB-type quartz veins deficient in sulphide minerals are followed by magnetite (M) veinlets. These vein types post-date the formation of the USTs. Planar and through-going, B-type quartz veins cross-cut the early vein types and consist of quartz-magnetite-chalcopyrite. At least two stages of B-type veins are recognized, with magnetite more abundant in early B_1 veins and chalcopyrite more common in the later B_2 veins. The B-type veins contain the majority of the copper and gold in the deposit. Chalcopyrite-rich, C-type veins contain rare to minor bornite and cross-cut earlier vein types. The C-type veins contain significant amounts of metal but constitute a small volume-portion of the drill-core. The B- and C-type veins are spatially associated with intrusions that show variable feldspar-destructive, sericite-chlorite±clay overprinting of biotite-actinolite and chlorite-epidote alteration mineral assemblages.
- Late-stage, pyritic D-type veins with quartz-sericite-pyrite selvedges contain chalcopyrite, minor bornite and locally, molybdenite. Many of the later vein stages exploit and re-open earlier vein stages. Anhydrite is a common vein constituent as it is deposited over a wide range of temperatures and re-opens earlier vein stages. Late-stage hydrothermal-matrix breccia bodies and volumetrically small igneous-matrix breccias, including pebble-dikes, typically post-date sericite-chlorite±clay alteration and are locally cut by pyritic D-type veins and anhydrite veins. The breccia bodies cut the volcanic host-rocks and the pre, early- and intra-mineralisation intrusions.

9.6.2 Mineralogy

Mineralogy studies have been undertaken by Dr. Janet Muhling from 2014 through 2018. Scanning Electron Microscopy ("SEM") techniques including Backscattered Electron ("BSE") imaging and Energy Dispersive X-ray Spectroscopy ("EDS") indicate that the primary copper minerals are chalcopyrite and bornite.

Early-formed, hydrothermal magnetite occurs within early AB- and B_1-type veins, and as monomineralic veinlets, disseminated grains and replacements of hornblende. Magnetite is variably converted to metallic hematite and pyrite in the upper part of the deposit where chlorite-epidote altered intrusions and volcaniclastic rocks are moderately to strongly affected by feldspar-destructive alteration. The earliest formed copper sulphide minerals observed in drill-core consists of abundant chalcopyrite and rare bornite in B-type veins. Chalcopyrite most commonly forms after, and surrounds, cubic and massive pyrite in C- and D-type veins. It also occurs in anhydrite-rich veins and B-type veins that have been re-opened by later vein types. Late-stage bornite is in textural equilibrium with pyrite and chalcopyrite in C- and D-type veins, which suggest that these later-stage veins formed at a lower temperature and a higher sulphidation state than chalcopyrite in early-stage B-type veins (Einaudi et al., 2003).

Gold occurs as discrete grains of electrum (typically 65% to 85% Au) that range from 1 to 50 microns in diameter (Muhling, 2014, 2015 and 2018). The electrum grains occur within chalcopyrite, bornite, pyrite and rarely quartz and anhydrite. Grains of low-Ag gold (>90% Au) that are 1 to 3 microns in diameter are associated with sulphide grains and occur locally within silicate minerals (Muhling, 2017).

10 DRILLING

10.1 Introduction

SolGold commenced diamond drilling on 1 September 2013. A total of 133,576m of drilling has been completed at the project, and 3 distinct phases of drilling have been completed thus far.

Table 10-1: Total drilling completed at Alpala as of 30 October 2018*

Phase	Period	Drill Fleet	Drill Holes	Phase Meterage	Cumulative Meterage	Description
1	01Sep13 - 06Jun16	2	1-17	23,670.04	23,670.04	Exploration and Reconnaissance drilling
2	07Jun16 - 18Dec17	10	18-38	38,855.56	62,525.60	Maiden Resource Drilling (MRE#1)
3	19Dec17 - 07Nov18	12	39-75	71,050.40	133,576.00	Resource Update Drilling (MRE#2)
4	in progress	12	In progress	In progress	In progress	Resource growth and Pre-Feasibility Requirements

Note: the total amount of meters quoted in MRE#1 was 53,616 m which relates to the meterage that had been assayed at the effective date for MRE#1.

10.1.1 Phase 1 Drilling: Exploration and Reconnaissance drilling

Phase 1 drilling focussed on extending the discovery outcrop, of sheeted and stockwork "B" type quartz veins in Alpala Creek, both at depth and along strike towards the northwest. Phase 1 drilling utilised 2 HP man-portable machines to complete 17 drillholes and 2 re-drills (CSD-13-001 to CSD-16-017) for a total 23,670.04m of drilling. Drillholes were inclined at angles between -60 to -87° towards the southeast and provided relatively steep intersection angles into the northwest trending Alpala body which dips approximately –78° towards northeast. Initial results indicated that a mineralised copper-gold porphyry system exists at depth and that this mineralisation is intimately related to the sheeted and stockwork veining seen at surface. The first phase of drilling concluded on 6th June 2016 following completion of a detailed review of geological interpretations at Alpala,

10.1.2 Phase 2 Drilling: Maiden Resource Drilling (MRE#1)

Phase 2 drilling focused on drilling the further define the extent of the mineralisation at Alpala and into the northwest and southeast extensions to allow for a maiden Mineral Resource estimate to be calculated. Phase 2 drilling utilised 7 HP man-portable rigs, 2 Titeline track mounted rigs and 1 x Hytec track mounted rigs to complete holes 18-38, and partially complete holes 29, 32-D2, 33-D1, 34-D1, and holes 35-38. The second phase of drilling concluded on 18th December 2017 ahead of completion of the Maiden MRE (MRE#1). MRE#1 was completed from an overall 62,525.6 m of drilling.

10.1.3 Phase 3 Drilling: Resource Update Drilling (MRE#2)

Phase 3 drilling focused on extending and upgrading the existing Alpala resource, with drill targeting focussed on infill drilling of the high grade core of the deposit, as well as resource extension drilling both along and across the main northwest trend of the deposit. Phase 3 drilling utilised 7 HP man-portable rigs, 3 Titeline track mounted rigs and 2 x Hytec track mounted rigs to complete drilling of Hole 74 and partially complete hole 75. Phase 3 drilling was completed on the 7 of November, 2018 ahead of the updated MRE (MRE#2).

MRE#2 was estimated from a total of 133,576m of drilling comprising 128 diamond drillholes, including 75 drillholes (Holes 1-75), 34 daughter holes, 8 re-drills, and 11 over-runs.

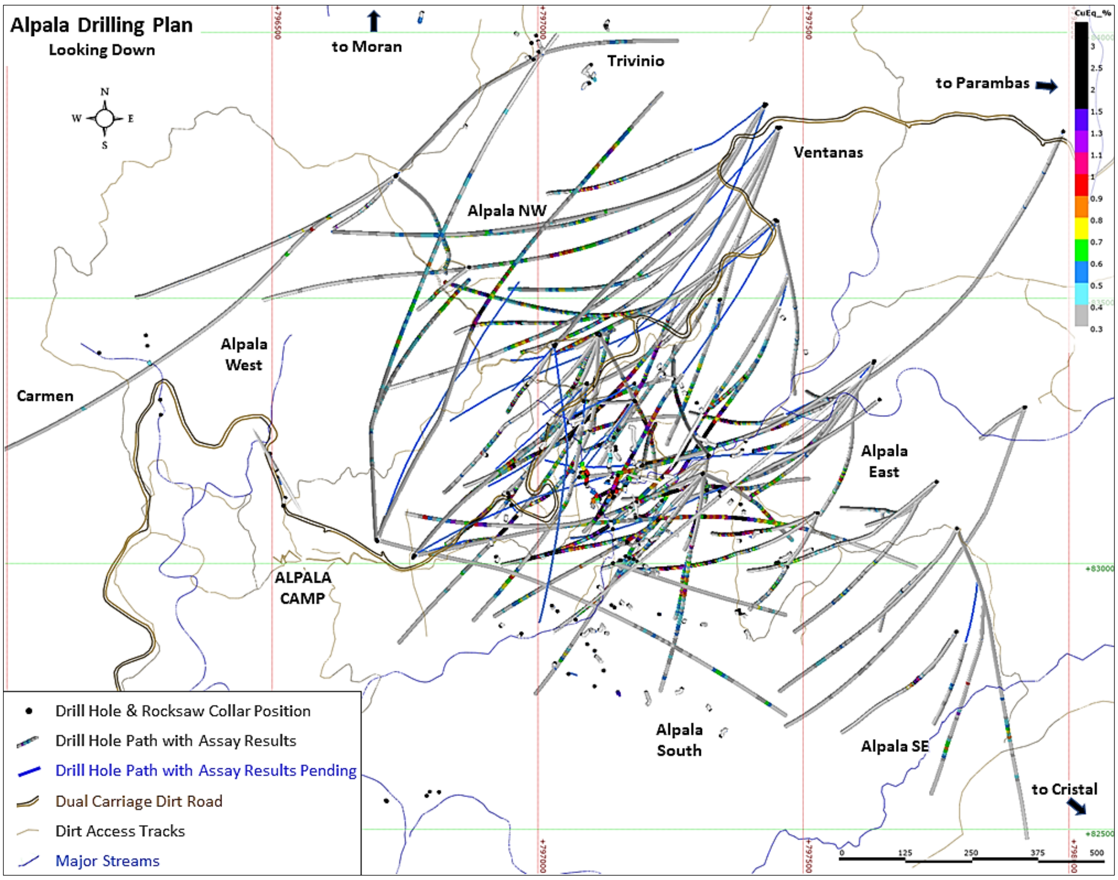


Figure 10-1: Drillhole Plan of all drillholes and rock-saw channels showing copper equivalent assay results, intervals awaiting assay results are coloured blue (Source; SolGold, 2018)

10.2 Collar Surveys

Azimuth and dip of the drill rig setup are measured and checked by SolGold ahead of the start of all drillholes.

Collar locations are initially positioned using hand-held GPS units and then picked up by professional surveyors after drilling has been completed (Figure 10-2).

Figure 10-2: Example Final Collar Position – CSD-13-001 (Source: SRK ES, 2016)

10.3 Downhole Surveys

A Single Shot Reflex Ezi-Gyro system is used to provide a down hole survey upon completion of each drillhole. Readings are taken by the drilling contractors at 30 m intervals and provided to the SolGold geology team. Any deflection of more than 10 degrees in dip or azimuth within a 30 m interval, is resurveyed.

Where daughter holes are drilled, a magnetic survey tool integrated into the steerable Devico tool is used at 1 m intervals to steer the hole onto the new azimuth/dip.

10.4 Diamond Drilling Procedures

During SRK's site visit in October 2017 and January 2018, the drilling being performed by contractors and managed by SolGold's geological team, was observed. Three drilling contractors are undertaking the drilling: HP, Titeline and Hy-tech.

HP drill rigs are custom made Hydracore man-portable rigs with a maximum capacity drilling at PQ diameter (85.0 mm core.) to 300 m depth, HQ (63.5 mm core) to 1000 m, NQ (47.6 mm core) to 1900 m, or BQ (36.4 mm core) to 2400 m.

Titeline use ‘880 UDR’ drill rigs capable of drilling NQ to 3000 m.

Hy-tech employ Tech 5000 drill rigs capable of drilling NQ to 3400 m.

A Devico DeviDrill steerable wireline core barrel is used to drill daughter holes from a parent. The DeviDrill tool has an NQ (47.6 mm core) size and is capable of drilling up to 3000m depth. The tool has a maximum deviation of 20° per 30 m, however a maximum deviation of 9° per 30 m is recommended.

Drill pads, water sumps and rain shelters are constructed by SolGold field teams at each site under the supervision of the contractors, Figure 10-3.

All drilling is undertaken using Diamond Core (“DC”) triple tube at either PQ3 (83.0 mm core), HQ3 (61.1 mm core) or NQ3 (45.0 mm core) core size.

Core is produced in 3 m core runs and placed into wooden core boxes. Core recoveries are recorded at the drill site. Core boxes are then transported to the main project office for logging and sampling. Cut wooden blocks are placed at the end of each run to record drill depths.

Core orientation is performed at 30 m intervals using a Reflex ACT III Ezi-Ori system.

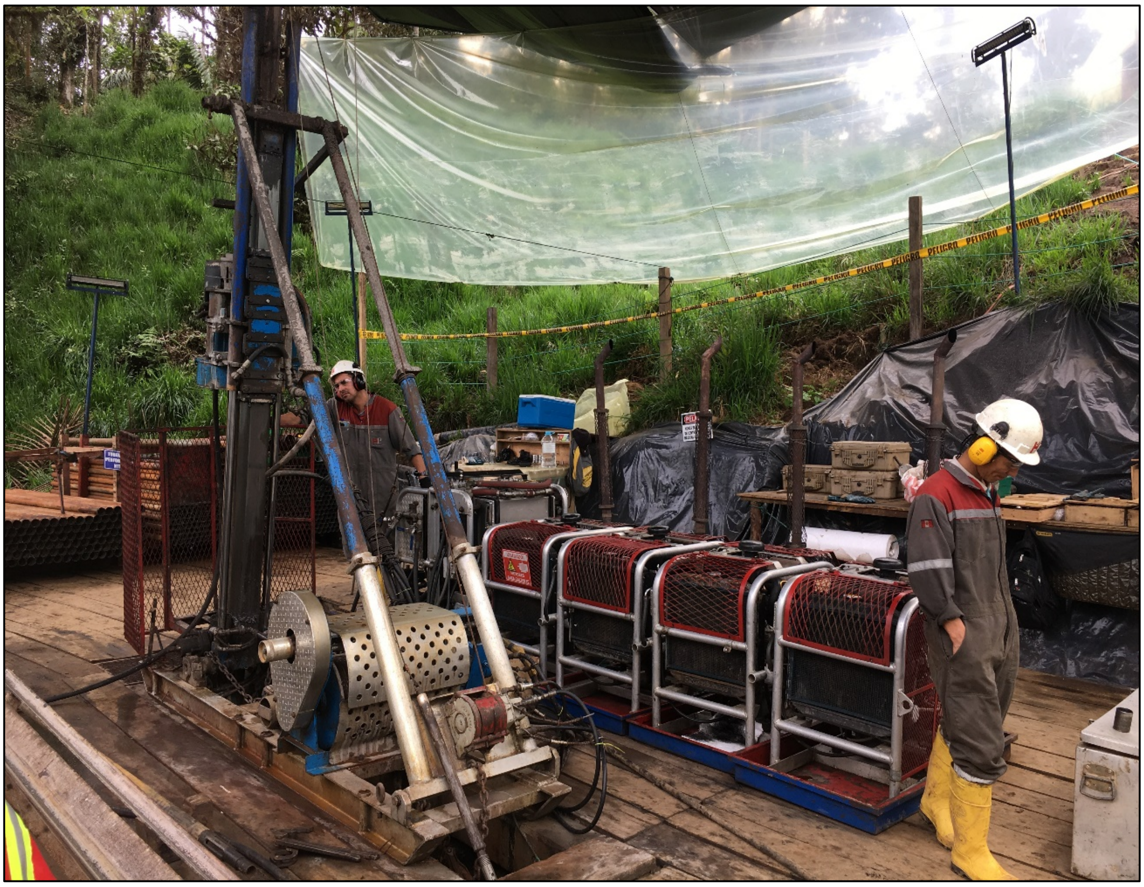


Figure 10-3: Diamond Drillhole Location CSD-17-031

10.5 Core Recovery

SRK has reviewed the drill core recovery results and found that recovery is good with average recoveries of 97.5% being achieved. Areas of low recovery are noted to be restricted to single sample intervals with no discernible spatial relationship or within the upper 10 m of each drillhole.

10.6 Core Storage

Core is labelled and photographed ahead of being transported from the drill sites by 4x4 vehicles to the project office site at Rocafuerte where it is, logged and sampled. All core from the Alpala project is stored at the camp under cover, alongside the logging area.

Figure 10-4: Core storage at the Rocafuerte facility

10.7 SRK Comments

From SRK's review during their technical site visits, the drilling at Alpala has been conducted in a professional manner using industry best practices and has produced core of sufficient quality and recovery to be used in a future Mineral Resource estimation. SRK is unaware of any material factors that would impact the accuracy and reliability of the sample results.

The initial spread and design of the drillholes was limited by access and topography hence the use of man-portable rigs. This has resulted in some low intersection angles of the mineralised body which is not uncommon when drilling a steeply dipping porphyry deposit. With the introduction of the further rigs and the use of the Devico device, SolGold have been able to better target the mineralisation at Alpala. SolGold also achieve a high degree of control over this complex multi-contractor drilling programme through the use of their own independent foreman.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Introduction

The following section outlines the sample preparation and assay procedures and protocols employed by SolGold.

11.2 Sampling Methods

11.2.1 Core Sample Selection and Mark-up

Prior to cutting and collection of samples, all core is marked up for sampling. A standard sampling interval of 2 m has been selected by SolGold although smaller samples may be taken in significant zones (≥25 cm) of massive sulphide. In these situations, the massive sulphide zone is sampled to its margins, and the sampling interval returned to even number depth intervals (e.g. 2 m, 4 m, 6 m) as soon as possible after the interval. All core is submitted for assay.

11.2.2 Core Sawing

Before cutting, all core is marked up by a geologist or competent core technician, ensuring that representative half core is created.

Four petrol driven core saws are operated at the Rocafuerte exploration camp (Figure 11-1), alongside the logging facility; all core is split longitudinally. Following splitting, all core is returned to the core trays prior to being selected for sampling. Intervals of highly broken core that may be washed away by the water supply are wrapped in plastic and/or masking tape to increase the retention of fines. Intervals of extremely broken or fragmented core, or clay rich core, are left in the core tray without sawing, and split during sampling by cleaver and spatula.

Figure 11-1: Core Cutting Facilities at Rocafuerte (Source: SolGold, 2018)

11.2.3 Sample Collection

Half core is sampled, including coarse and fine rock fragments. Where there is significant fine material, a trowel is used to ensure that no less than 50% of the fines are included in the sample. All material is placed into high strength plastic sample bags, which are in turn placed into calico sample bags. Sample numbers are written on the exterior of the plastic bags with a waterproof marker, and a corresponding barcoded plastic sample ticket placed into each plastic bag.

11.2.4 Magnetic Susceptibility Analysis

Following sampling of the core, magnetic susceptibility measurements are taken of the half core samples over the length of each hole at two metre intervals. All measurements are taken using a KT-10 Magnetic Susceptibility Meter, manufactured by Terraplus (Figure 11-2).

Figure 11-2: Magnetic susceptibility analysis (Source: SolGold, 2018)

11.2.5 Channel Sampling

Channel samples taken with the use of a rock saw are collected at either 1 or 2 m intervals, bagged and labelled using the same procedures as detailed for drill core.

11.3 Metallurgical Sampling

Selected half HQ core samples were composited into metallurgical samples. Individual half core samples were individually vacuum sealed in a plastic sleeve. Three samples are placed in a second bag and vacuum sealed. These samples are then placed in bubble wrap to prevent splitting samples during transport. Composite samples were placed in plastic drums for shipping (Figure 11-3).

Figure 11-3: Metallurgical sampling (Source: SolGold, 2018)

11.4 Density Determinations

Specific gravity analysis was historically conducted on roughly 10 cm pieces of whole core taken every core box; however, this was subsequently changed to one piece of half core taken every 25 m. The density has been measured using a wax sealed method immersed in water. Core is sawed orthogonally to provide smooth ended core-cylinders, before being placed into a small drying oven for 1 hour at 225°C. Core is then weighed to provide mass of dried, unwaxed core in air (Measurement A). Dried core is then coated in wax, before a second measurement of the mass of waxed core in air (Measurement B). Waxed core is then submerged in water, and again weighed to provide mass of submerged, waxed core (Measurement C). Specific gravity is then calculated using the expression below, assuming that the density of paraffin wax is 0.914 g/cm^3.

$$SG = \frac{A}{[B - C] - [B - A]/0.914}$$

The current project database contains 9,150 specific gravity measurements.

11.5 Analytical and Test Laboratories

Analyses of SolGold exploration samples have been performed by different laboratories over the life of the project, Table 11-1. All laboratories are independent of SolGold and Cornerstone and are accredited laboratories for the analysis methods used.

Table 11-1: Historic lab usage

LABCODE	Sample type	Start	End	Preparation	Analyses
ACME	Core Rock Chip Sediment Soil Trench	Jul 2012	Aug 2016	Luis Aucay and Asociados, Cuenca	ACME Vancouver
METSOLVE	Core Rock Chip Trench	Apr 2016	Aug 2016	Luis Aucay and Asociados, Cuenca	Met-Solve Vancouver
ALS	Core Rock Chip Trench Metallurgical	Oct 2014	Present	ALS Quito	ALS Lima ALS Vancouver (for Metallurgical sampling)
Inspectorate	Cross-check Duplicates (Pulps/Crush)	Jul 2017	Present	N/A	Inspectorate Lima

11.6 Sample Preparation and Analysis

11.6.1 ACME Laboratory

At the ACME Laboratory in Cuenca, all rock, channel and drill core samples are prepared using standard rock preparation procedures (ACME Code: R200-250/ PRP70-250) including crushing (1kg to ≥70% passing 10 mesh (2mm)), splitting (split to 250g) and pulverising (≥85% passing 200 mesh (75 µm)).

Prepared samples are then assayed by ACME Laboratories in Vancouver using three methods.

- Au by lead collection fire assay with AAS (atomic adsorption spectrometry) on a 30g sample (FA430/G601);
- Multi-acid digest ICP with ES (emission spectrometry) finish for 35 elements on a 0.25g aliquot (MA300/1E); and;
- Multi-acid digest ICP with ES finish for 23 elements on a 0.25g aliquot (MA370/7TD) (for over limits Ag, Cu, Pb, Zn samples).

Method MA300 is only partial for some S-, Cr- and Ba- bearing minerals and some oxides of Al, Hf, Mn, Sn, Ta and Zr. Volatilisation during fuming may result in some loss of As, Sb and Au.

In summary

- Ag, As, Au, Cu, Sb were analysed by MA300, 4AD and 1E methods
- Cu were also analysed by 7TD and MA370 methods
- Au was analysed by FA, FA430, G6 methods

Soil Samples

Soil samples submitted to ACME undergo SS80 preparation (Dry at 60˚C; sieve 100 g to -80 mesh), followed by AQ201 Aqua Regia 1:1:1 digestion ICP-MS analysis for 36 elements.

11.6.2 ALS Laboratories

Samples sent to ALS Laboratories in Quito are prepared by crushing (CRU-31), logging (LOG-22), weighing (LOG-24), pulverisation of 1 kg to 85% passing 75 µm (PUL-32) and splitting (SPL-21), before being transferred to a new sample bag (TRA-21) and re-weighed.

Prepared samples are then dispatched to ALS Lima, Peru for assaying.

A variety of methods have been used for analysis of rock, channel and drillcore samples by ALS:

- 4 acid digest ICP with MS finish for 48 elements on a 0.25g aliquot (ME-MS61);
- 4 acid digest ICP with AES finish for 33 elements on a 0.25g aliquot (ME-ICP61);
- Aqua-regia digest ICP with MS finish for 51 elements on a 0.5g aliquot (ME-MS41);
- Au by lead collection fire assay with AAS finish on a 30g sample (Au-AA23);
- Au by lead collection fire assay with gravimetric finish on a 30 g sample (GRA-21)
- Ag by aqua-regia digestion and AAS finish on a 0.5g sample (Ag-AA46);
- Cu by aqua-regia digestion with AAS finish on a 0.5g sample (Cu-AA46) (Over limits Cu); and;
- Cu by four acid digestion and AAS finish on a 0.4 g sample (Cu-AA62) (Over limits Cu).

In summary:

- Ag, As, Cu, Sb were analysed by MEICP61, MEMS41, MEMS61, 4AD.
- Cu over-grade was analysed by AA46, AA62.
- Au was analysed by AA23, FA, MEICP61, MEMS41.

Data reported from an aqua-regia digestion should be considered as representing only the leachable portion of the particular analyte.

Additionally, all samples submitted to ALS Laboratories have been scanned for hyper-spectral mineralogy, combining TerraSpec ©, 4HR scanning and aiSIRIS™ interpretation (HYP-PKG).

11.6.3 Met-Solve Laboratories

Samples submitted to Met-Solve laboratories first undergo sample preparation at ACME's laboratory in Cuenca as detailed above.

Samples are the dispatched to Met-Solve laboratories in Langley, British Columbia for assay by two methods:

- Au by lead collection fire assay with AAS finish on a 30g sample (FAS-111); and;
- 4 acid digest ICP with AES (Atomic Emission Spectrometry) or MS finish on a 0.2 g aliquot with a 0.2 g aliquot (IMS-230/ICF-6Cu – Ore grade).

In summary:

- Ag, As, Cu, Sb were analysed by IMS230 and 4AD methods
- Cu was also analysed by FAS111

- Au was analysed by FAS415, FAS111, FA methods

11.6.4 Bureau Veritas (Peru)

External umpire check assays were undertaken by Bureau Veritas (Peru) via their Quito office. The analyses of pulps used the following methods:

- 50g Lead Collection Fire Assay Fusion - AAS Finish 50 (FA450)
- 4 Acid digestion ICP-MS analysis 0.25 (4A200)
- 4 Acid Digest AAS Finish (MA402)

In summary:

- Ag, As, Cu, Sb were analysed by 4A200
- Cu was also analysed by MA402
- Au was analysed by FA450

Databases

All geological and sample analysis data is managed in the AcQuire geological database. AcQuire uses SQL Server as its database allowing security to be applied at both the database and application levels. Restricted access to the database.

- 3 dedicated database geologists manage the database including QAQC of data and imports;
- 2 additional geologists are responsible for managing the Terraspec™ information;
- Direct entry of Geotech and SG information is undertaken by technicians in the core shed; and;
- Read only access through a web application to the database through preconfigured views.

The data integrity is also enforced through the database structure. There are numerous rules in the form of parent child relationships, primary keys, field validations, and triggers that are standard in the database that along with business rules set up in for example in import procedures that combine to ensure that valid data is stored correctly. Examples include:

- Sample Id uniqueness;
- Prevention of overlapping intervals;
- Prevention of information extending beyond depth of hole; and;
- Separation of samples from QAQC analysis and descriptions.

Data collection has been configured to ensure minimum manual entry of information – reducing the potential to introduce errors. Invalid data is flagged and must be corrected before it can be stored.

Data is provided from geologists or laboratories in predefined templates. Data is loaded using import procedures designed specifically for those templates. This ensures that the data is loaded correctly and consistently independent of the operator performing the data load.

The main steps in the dataflow relating to sample and lab analyses are:

- Sample intervals and the Sample ID (unique identifier) is imported from sample cut sheets created with the geological log. Duplicates, standards and blanks are also recorded at this time;
- After loading of interval and sample information, despatch information is then created in acQuire and provided as a hard copy to accompany the samples to the lab. A despatch report is also generated from acQuire and emailed to the lab using a lab specific template;
- Lab emails the results to the recipients: Project Manager, Database team (3 personnel);
- Database manager places in a directory for loading;
- Returned data is compared with the original despatch – ensuring data has been received for the samples that were despatched. This also acts as a check to ensure that Sample Ids are consistent with those that were sent;
- Analysis data is loaded to the database via lab job number with a pending status – this status ensures that data is not available for export or to users generally, but data is stored in the database;
- QAQC assessment of the lab job is performed. This includes an assessment of performance of the lab in analysis of duplicates, standards and blanks using scatter plots and line plots; and;
- On acceptance of the lab job, the assays are accepted in the database, and data is available to users.

11.7 Sample Security

Samples are packaged on site by SolGold and have been dispatched periodically to one of the three assaying laboratories via two sample preparation laboratories in either Cuenca or Quito though the history of the drilling programme. Sample security and dispatch forms are completed for each shipment documenting the number and type of samples to be received by the laboratory. A SolGold driver transports the samples to either the ACME preparation laboratory in Cuenca (ACME or Met-Solve assaying), or the ALS preparation laboratory in Quito (ALS assaying).

11.8 Sample Storage

The Rocafuerte core facility is located in a secured compound with dedicated undercover processing and storage areas (Figure 11-4). After logging and cutting samples are bagged, and magnetic susceptibility readings taken in the sample area (Figure 11-5). Samples remain here until they are despatched.

Core is stored in stacked core boxes available for review and future sample requirements. Pulps are held at the laboratory for 90 days, then transported to the SolGold facility in Quito (Figure 11-6).

Figure 11-4: Core storage (Source: SolGold, 2018)

Figure 11-5: Geotech and sampling area (Source: SolGold, 2018)

Figure 11-6: Pulp storage (Source: SolGold, 2018)

11.9 SRK Comments

Following a review of the sample preparation, sample and data security procedures and assaying employed by SolGold, SRK is of the opinion that they are consistent with industry best practices and suitable for a project at this level of exploration.

12 DATA VERIFICATION

12.1 Verifications by SolGold

SolGold routinely undertakes data verification as part of the on-going exploration programme. Checks completed include validation for all tabulated data, including collar and down-hole survey, sampling information, assay and lithology interval data. Validation of sample results from the latest phase of drilling uses standards, blanks and duplicate samples inserted routinely into each batch submitted to the laboratory to a percentage of 8.7%, Table 12-1.

Table 12-1: Summary of QAQC samples

Sampling Programme	Total	(%)	Comment
Normal samples	**66,739**	**90.5**	
Pulverised certified blanks	**1821**	**2.5**	
OREAS 22d	305	0.4	Gold Blank from Ore Research and Exploration
OREAS 22e	873	1.2	Gold blank from Ore Research and Exploration
CDN-BL-10	114	0.2	Blank from CDN Resource Laboratories
Coarse certified blanks	**529**	**0.7**	
OREAS C27c	529	0.7	Gold blank from Ore Research and Exploration
Certified Reference Material	**1616**	**2.2**	
CDN-CM-17	51	0.1	CM-17 from CDN Resource Laboratories
CDN-ME-19	61	0.1	CM-19 from CDN Resource Laboratories
OREAS 501b	394	0.5	CRM-501b from Ore Research and Exploration
OREAS 501c	345	0.5	CRM-501c from Ore Research and Exploration
OREAS 502b	359	0.5	CRM-502b from Ore Research and Exploration
OREAS 502c	221	0.3	CRM-502c from Ore Research and Exploration
OREAS 504b	185	0.3	CRM-504b from Ore Research and Exploration
Field duplicates	**2432**	**3.3**	
Coarse duplicates	**0**	**0.0**	
Pulp duplicates	**0**	**0.0**	
Lab duplicates	**1644**	**2.2**	
Total QC Samples	**6984**	**9.5**	
Total Samples	**73,723**	**100**	

Figure 12-1 and Figure 12-2 show the performance and usage of the most commonly used CRMs by date and by laboratory.

The charts below demonstrate that the CRMs typically perform well however it also highlights several examples of possible sample switches or miss labelled CRMs. Examples of the mislabelled CRMs are two points of OREAS 504b (red) plotting in OREAS 502b (orange) in Figure 12-1 and one point of OREAS 501b (green) plotting in OREAS 504b (red) in Figure 12-2.

There are further examples within each of the CRMs data populations which have been discussed in detail below, overall however SRK does not consider these CRM swaps to be a material concern.

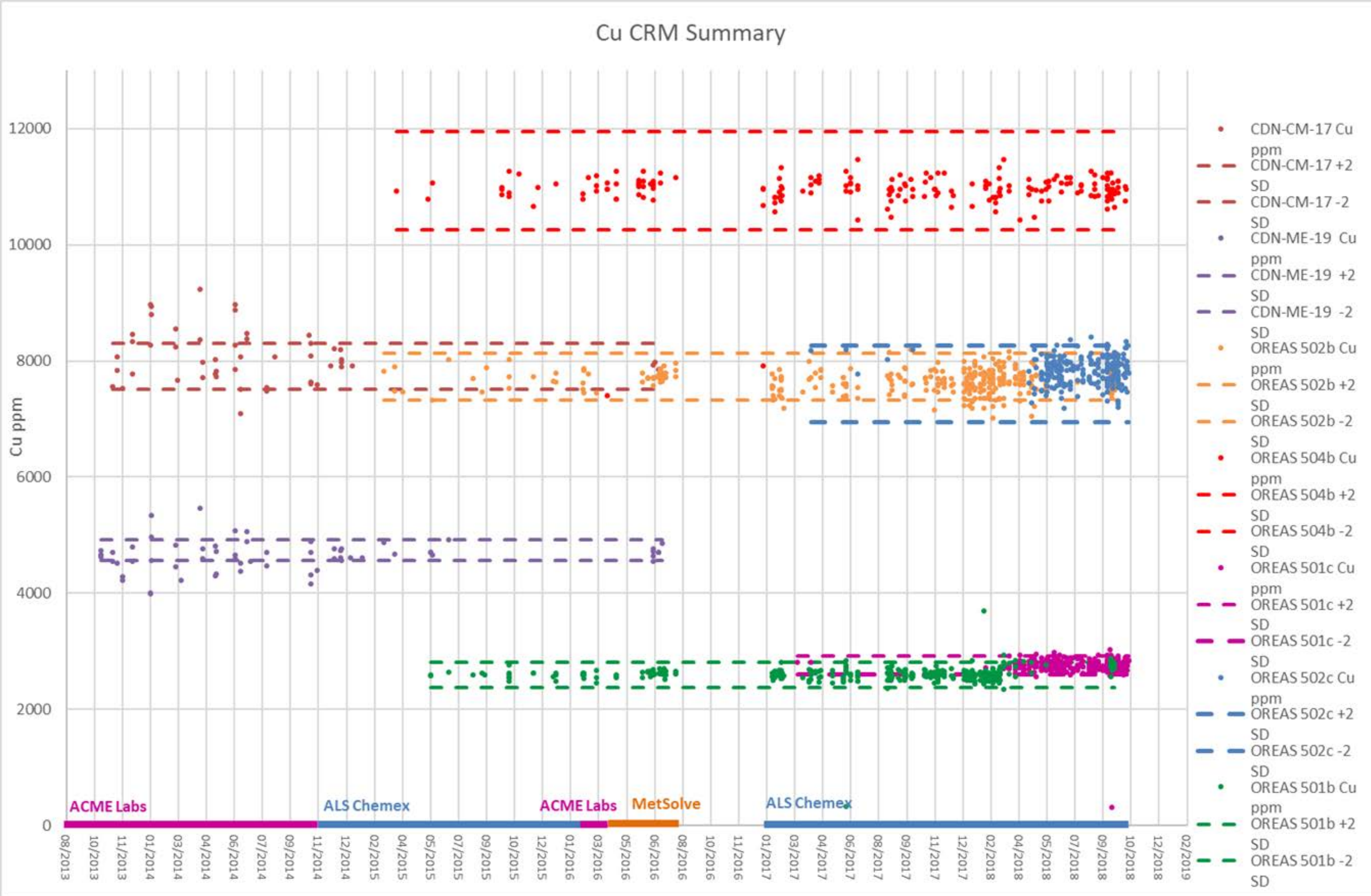


Figure 12-1: Summary of CRM copper results by lab and date

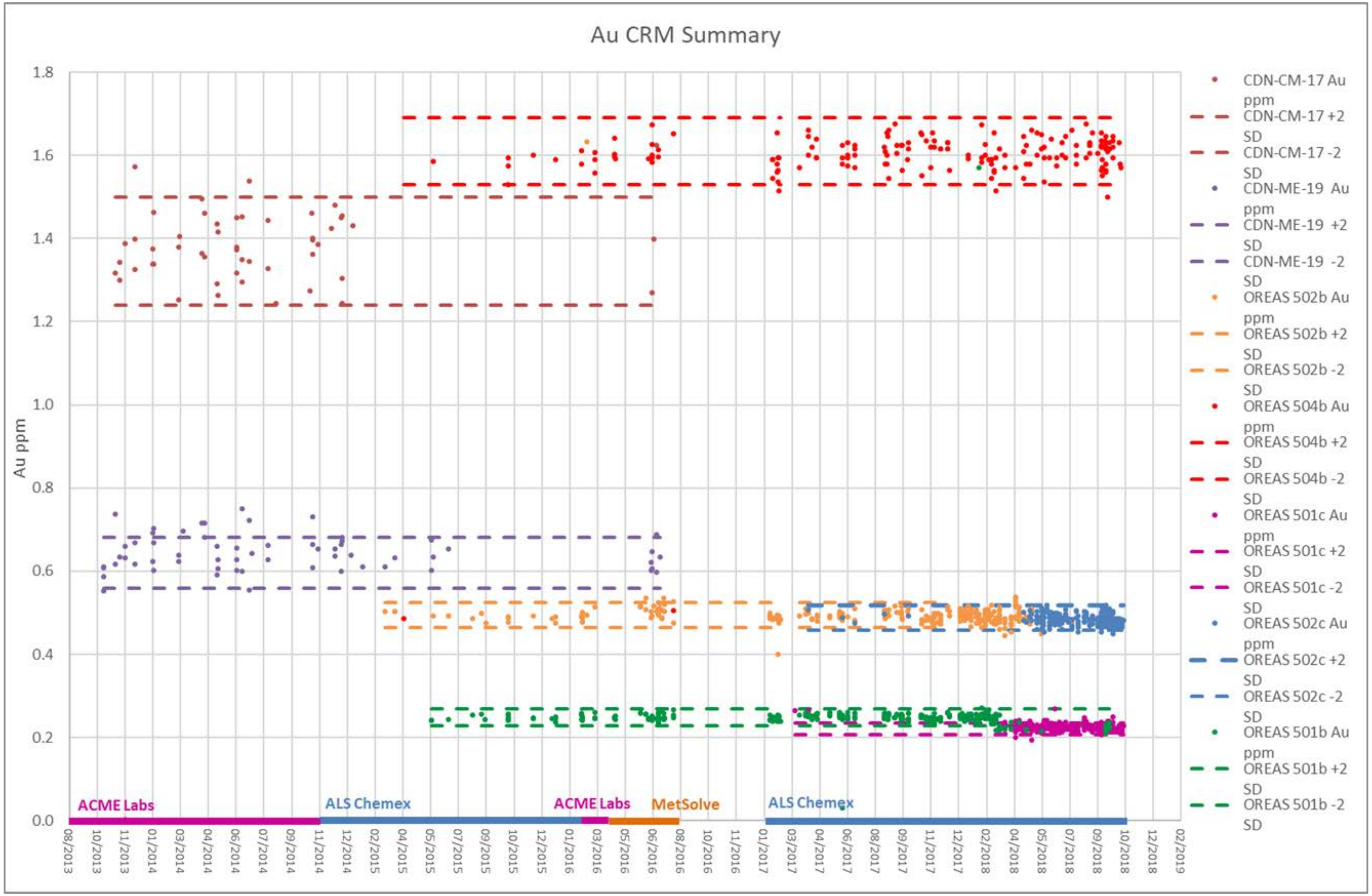


Figure 12-2: Summary of Au CRM results by laboratory and date

12.1.1 Sample Quality Assurance and Quality Control Programmes

A routine quality assurance and quality control ("QAQC") programme has been implemented by SolGold to monitor the on-going quality of the analytical database. This programme is set out for all geologists in a standard sampling protocols document and involves the insertion of:

- Certified Blanks – every 50th sample and at the start of every drillhole;
- Certified Reference Material ("CRMs" or standards) – from Ore Research and Exploration, Australia ("OREAS"), - inserted every 50th sample; and
- Field Duplicates – two sets of ¼ core are sampled and inserted as every 30th sample.

12.1.2 Certified Reference Materials

Since the start of the drilling at Alpala, SolGold has introduced seven different CRMs into the analysis sample stream, sourced from CDN Resource Laboratories Ltd., Canada ("CDN"), between October 2013 and July 2016 and Ore Research and Exploration, Australia ("OREAS") between March 2015 and the present. A total of 1,616 CRMs have been inserted into the sample stream to date.

The certified limits for the respective CRMs are provided in Table 12-2 below.

Table 12-2: Certified Reference Material Summary Details

QAQC_ID	Au g/t	Cu ppm	Mo ppm	Ag g/t	Pb ppm	Zn ppm
CDN-CM-17	1.37	7910	750	14.4	-	-
CDN-ME-19	0.62	4740	-	103	9800	7500
OREAS 501b	0.248	2600	99	0.778	23.0	89.0
OREAS 501c	0.221	2760	97	0.461	21.5	81.0
OREAS 502b	0.495	7730	238	2.09	31.5	134
OREAS 502c	0.488	7830	226	0.779	23.5	109
OREAS 504b	1.61	11100	499	3.07	26.2	108

SRK has reviewed the results for each of the seven CRMs in relation to copper and gold as well as molybdenum values when possible. The OREAS samples performed adequately, reporting values within three standard deviations. The subsections below discuss each of the OREAS CRMs and highlight SRK's observations on their performance.

OREAS 501b

OREAS 501b has been used between May 2015 and September 2018. Broadly, the dataset has performed well, with only three samples of the 394 plotting outside of three standard deviations. Two of these are represented on both the gold and the copper plots and are likely to be sample switches, sample D119070 appears to be CRM OREAS 504b and sample D236050 could be a blank or normal sample.

For a small proportion of the dataset, a clear and consistent under-reporting of gold and over-reporting of copper can be observed in OREAS 501b from February 2018 onwards as shown in Figure 12-3 to Figure 12-5. The step in these results post-February 2018 suggests an error in the sample labelling on-site. The combined results in Figure 12-1and Figure 12-2, clearly illustrate SRK's opinion that the samples submitted as OREAS 501b from February onwards are likely to have actually been OREAS 501c.

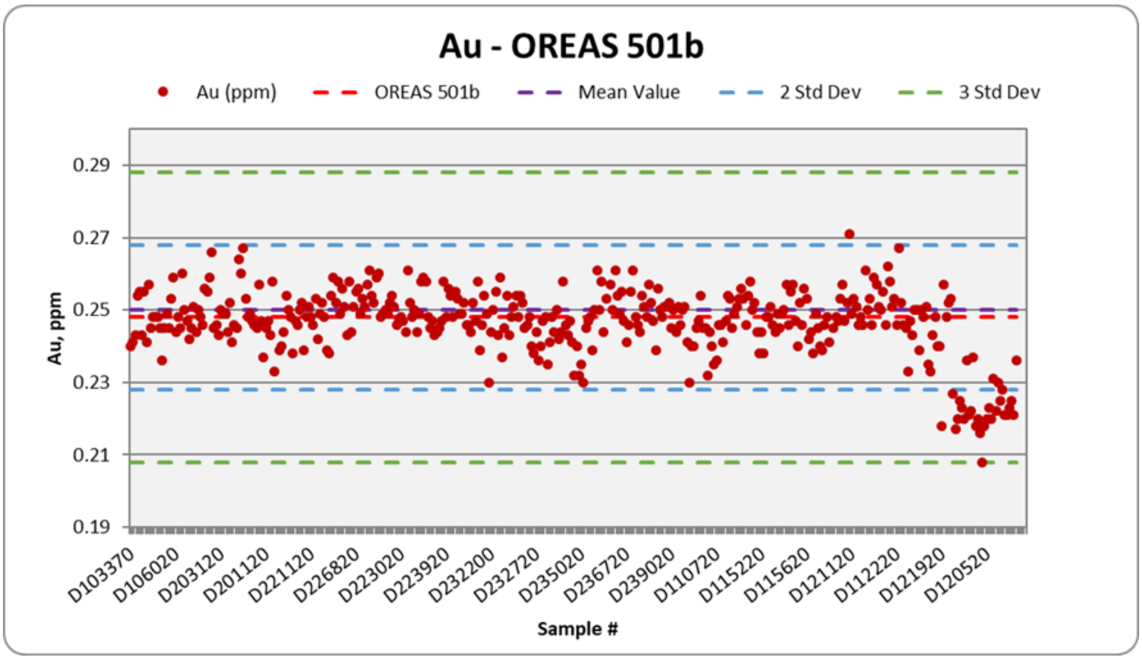


Figure 12-3: OREAS 501b plot for Au (ppm) by sample number*

**Note: under-reporting of gold clear at far right of the plot*

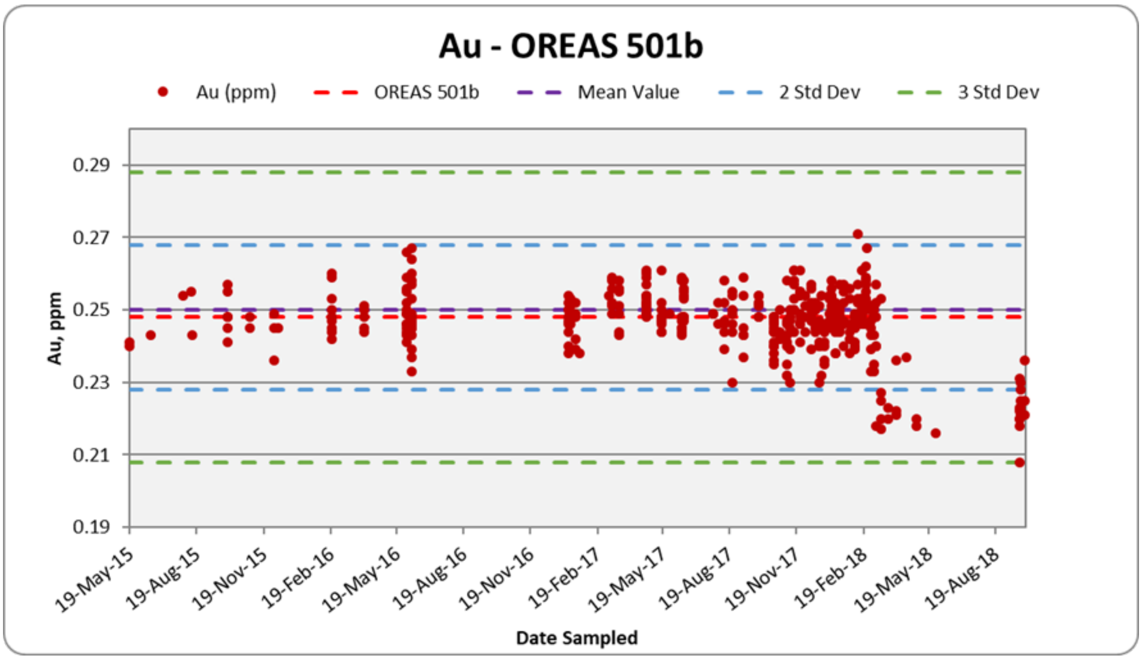


Figure 12-4: OREAS 501b plot for Au (ppm) by date sampled

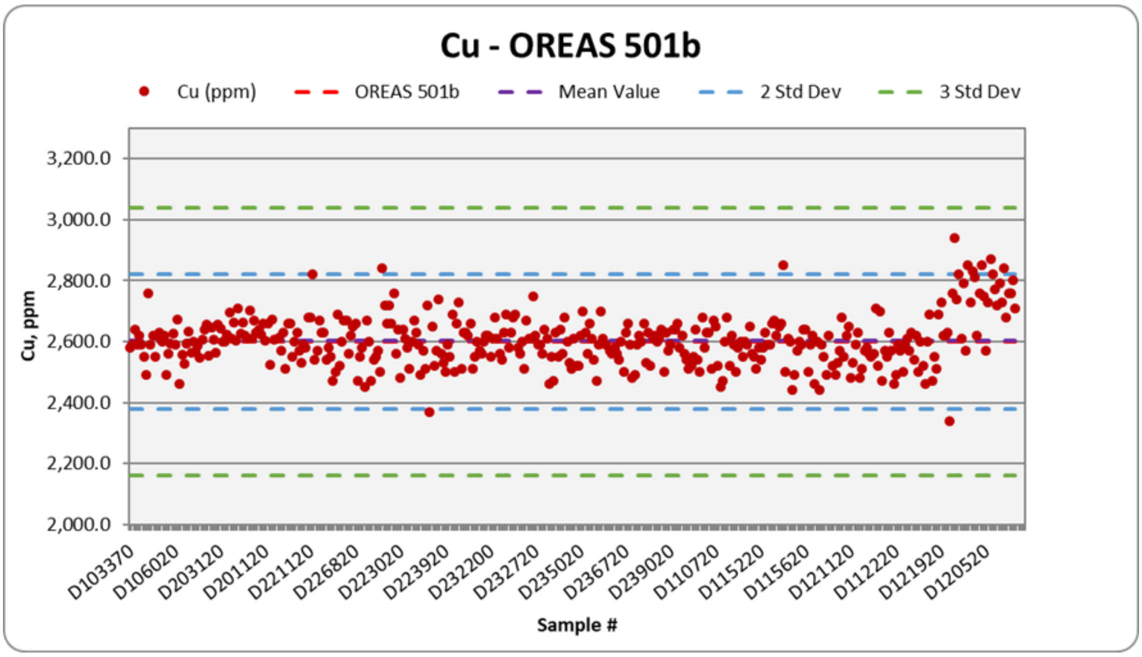
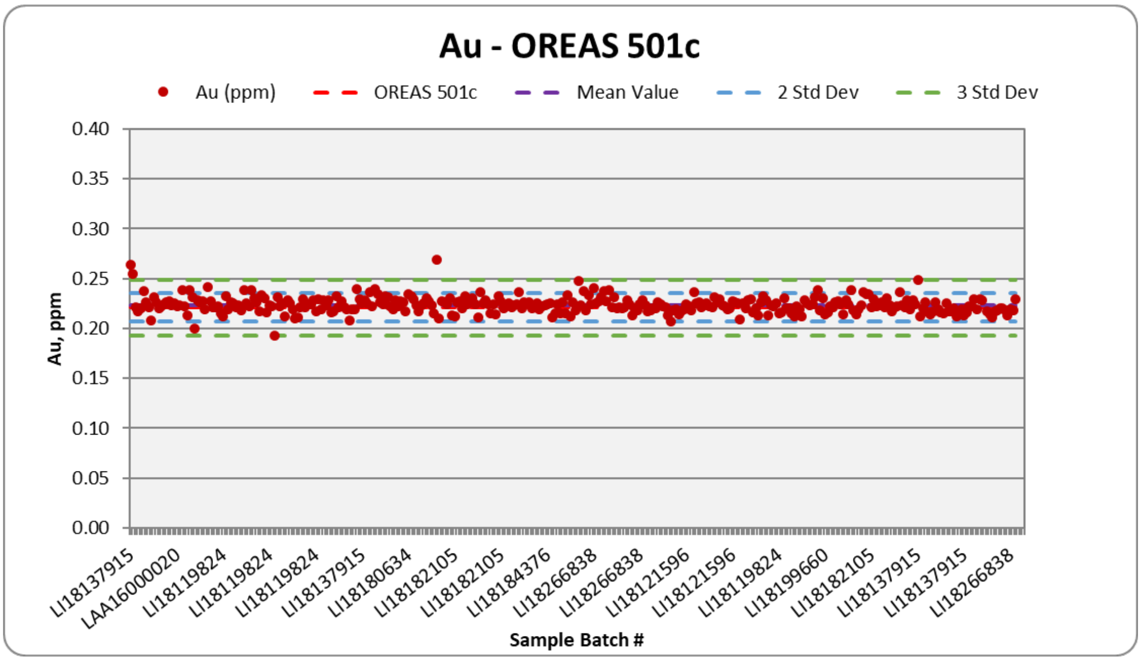


Figure 12-5: OREAS 501b plot for Cu (ppm) by sample number

OREAS 501c

OREAS 501c demonstrated several assayed gold and copper grades falling outside of three standard deviations. Batches since July 2018 have all reported values within 3 standard deviations of the mean as shown in Figure 12-6.



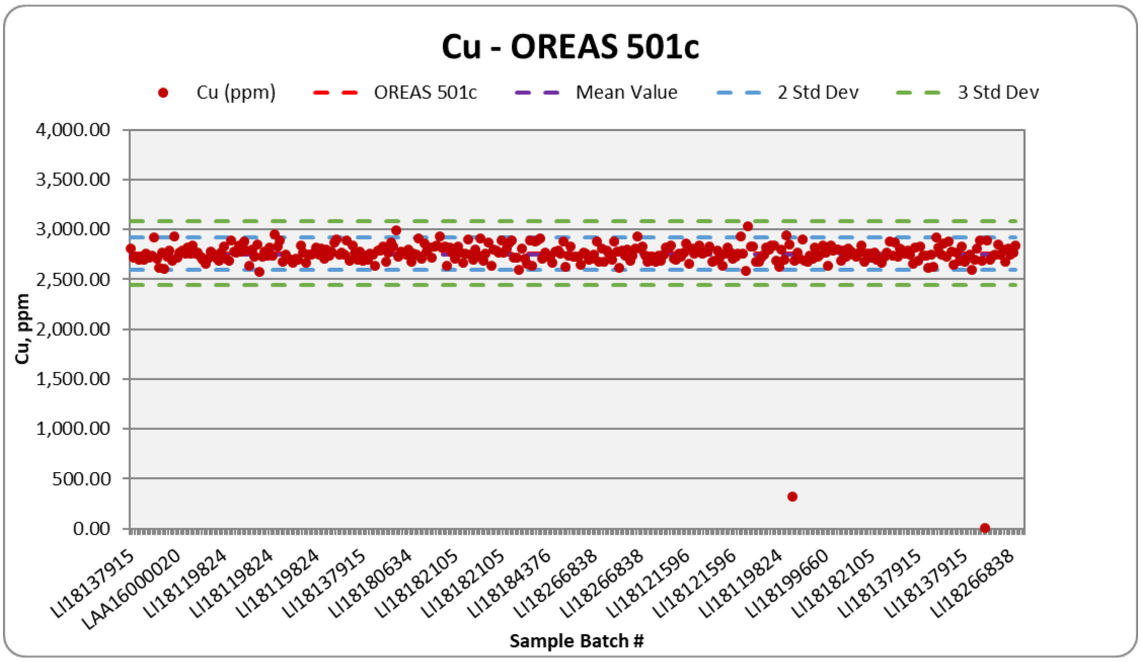
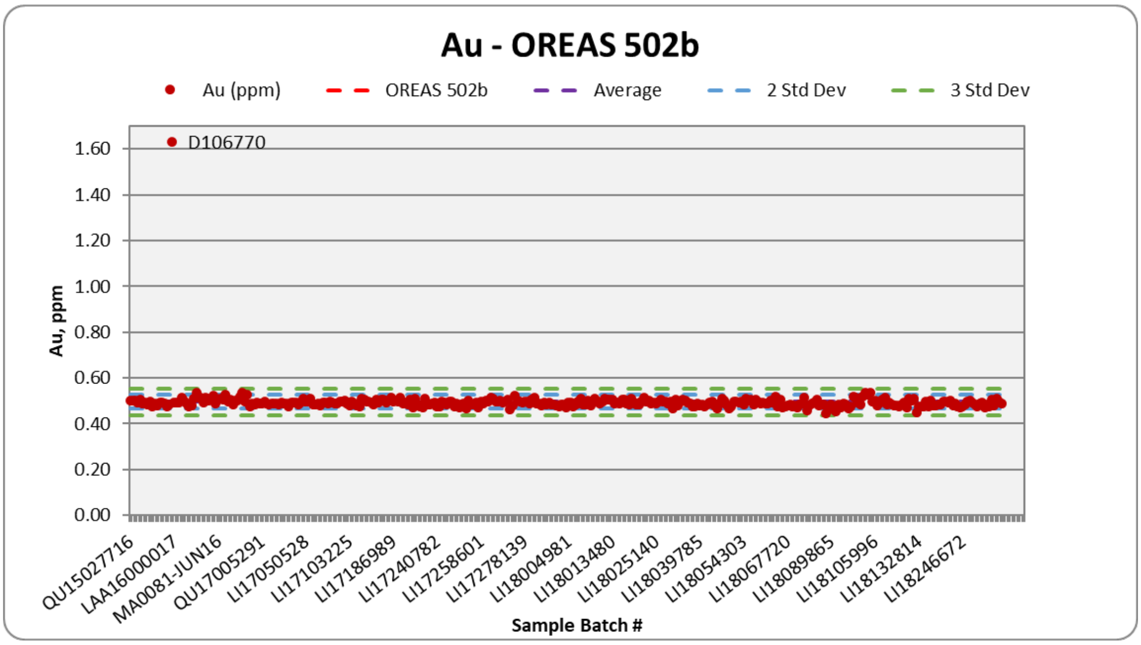


Figure 12-6: OREAS 501c plot for Au (ppm) by date and Cu (ppm) by sample batch

OREAS 502b

OREAS 502b has performed well with all but two samples plotting within three standard deviations. D106770 appears to be a CRM switch with OREAS 504b as shown in Figure 12-7.



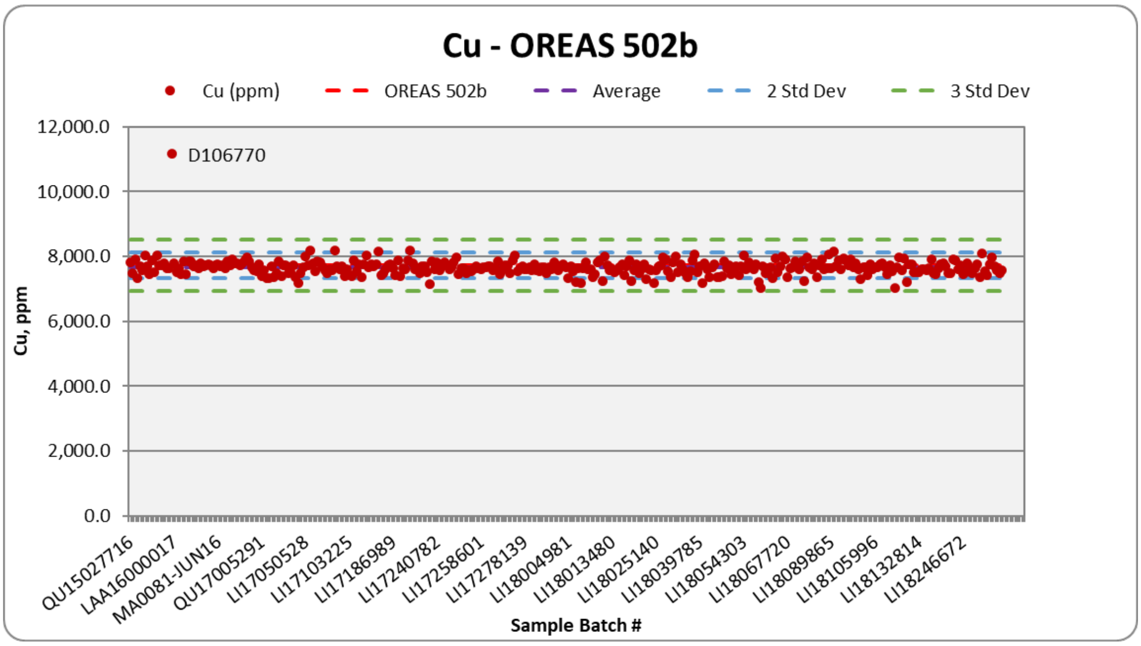
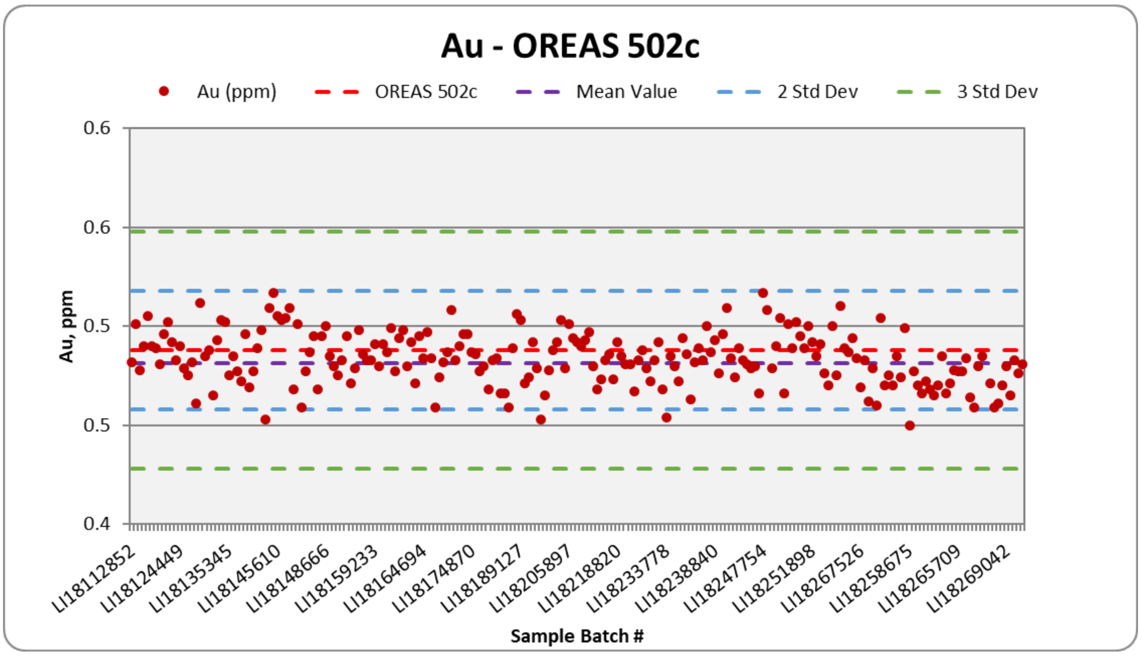


Figure 12-7: OREAS 502b plot for Au (ppm) and Cu (ppm) by sample batch

OREAS 502c

OREAS 502c has performed well with all but one copper result plotting within three standard deviations. D247470 appears to be a blank or normal sample switch. A slight under-reporting bias has been observed in gold as demonstrated in Figure 12-8.



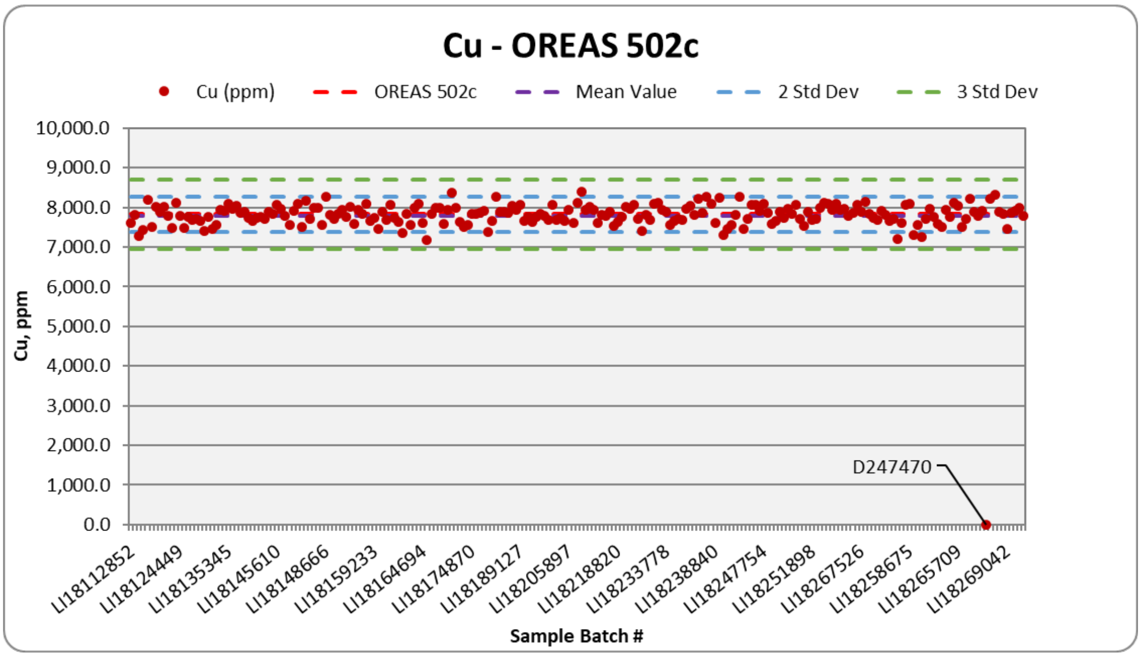
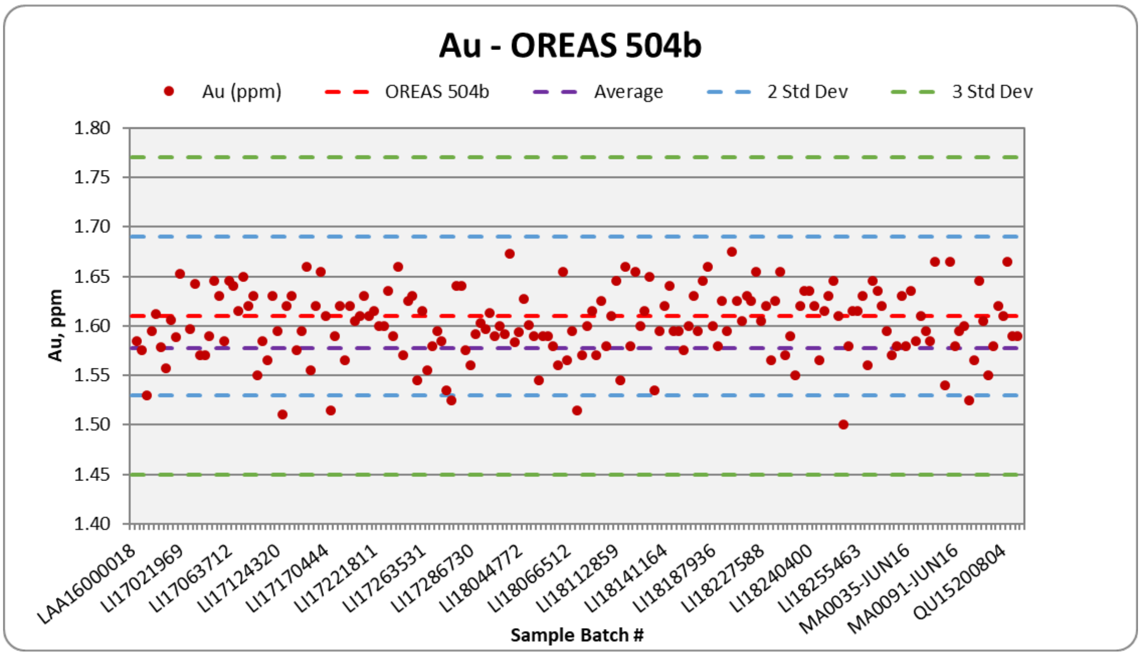


Figure 12-8: OREAS 502c plot of Au (ppm) by sample batch*

**Note: showing a slight under-reporting of the mean gold value (purple dashed line) and OREAS 502c plot for copper showing possible sample switch.*

OREAS 504b

OREAS 504b plots well but with a slight under-reporting of gold and four samples plotting outside of three standard deviations which appear to be CRM switches with OREAS 502b as illustrated in Figure 12-9.



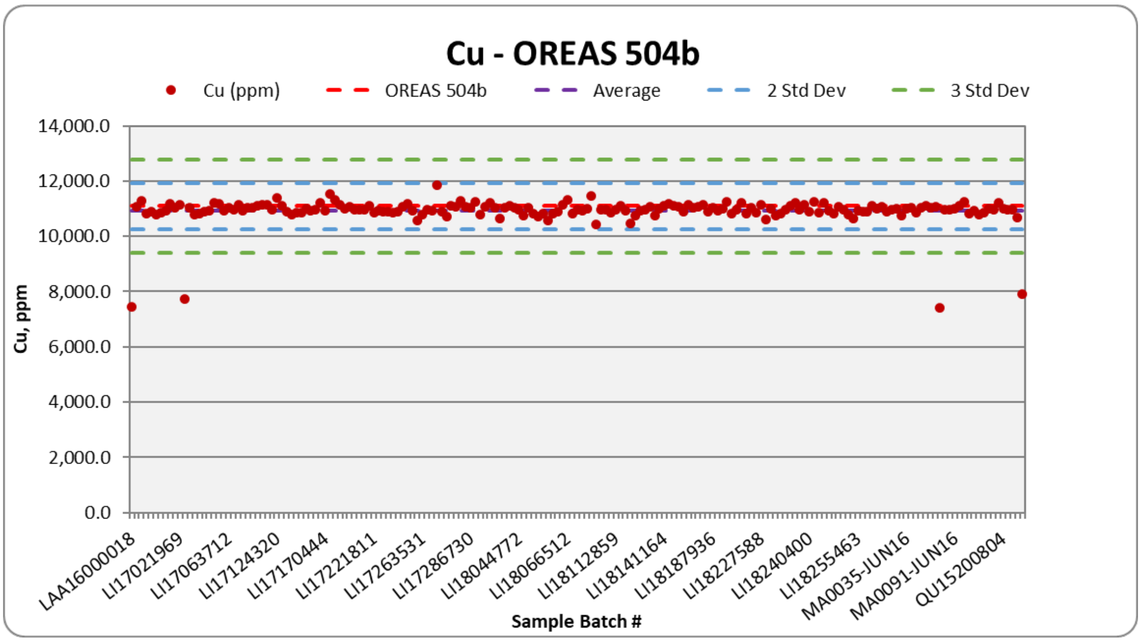
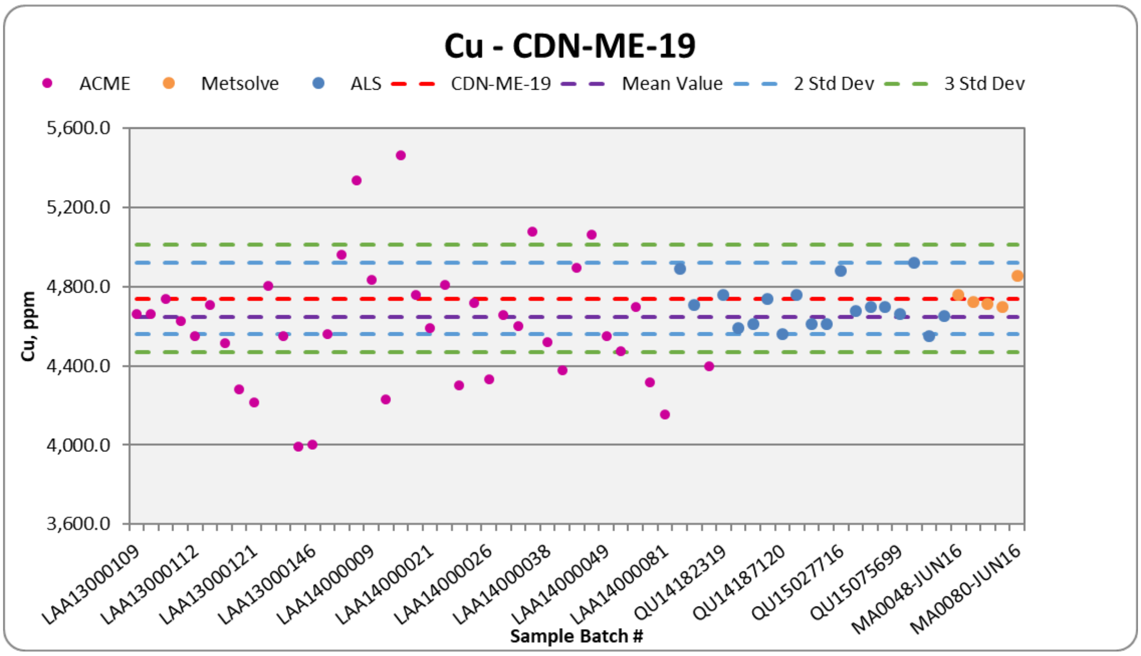


Figure 12-9: OREAS 504b plot of Au (ppm) and Cu (ppm) by sample batch*

**Note: showing a slight under-reporting of the mean value (purple dashed line) and possible CRM switches for Cu.*

CDN CRMs

The two CDN CRMs used from the start of the drilling through to completion of hole CSD-15-011 show initially poor precision in both copper and gold; however, this has improved with time after changing laboratory as shown in Figure 12-10 and Figure 12-11.



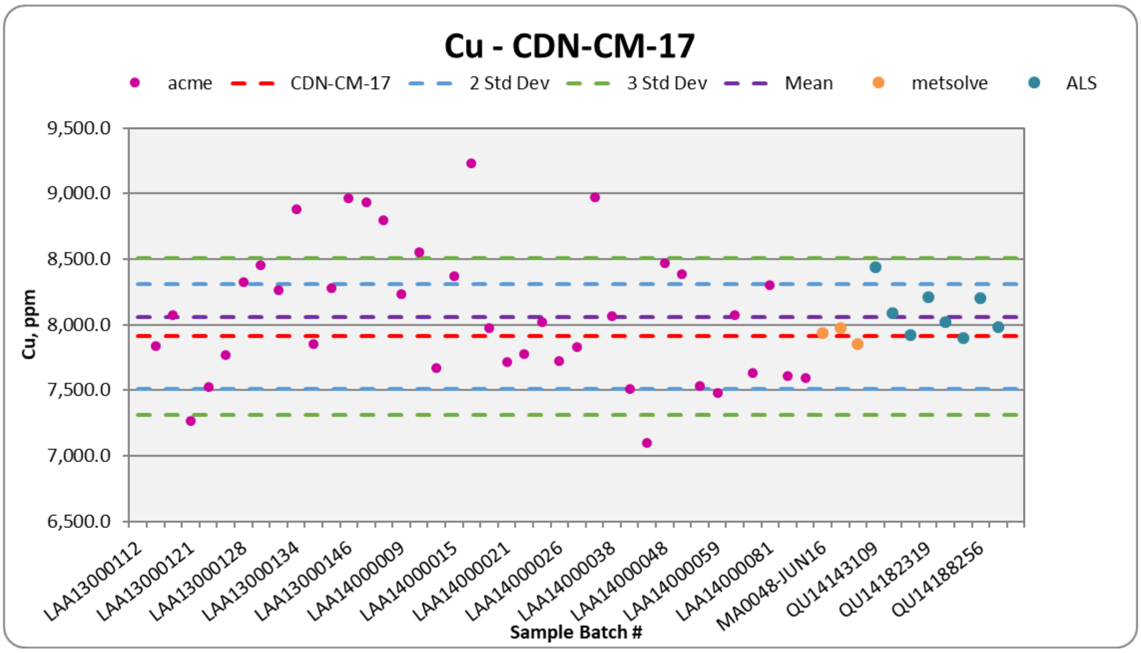
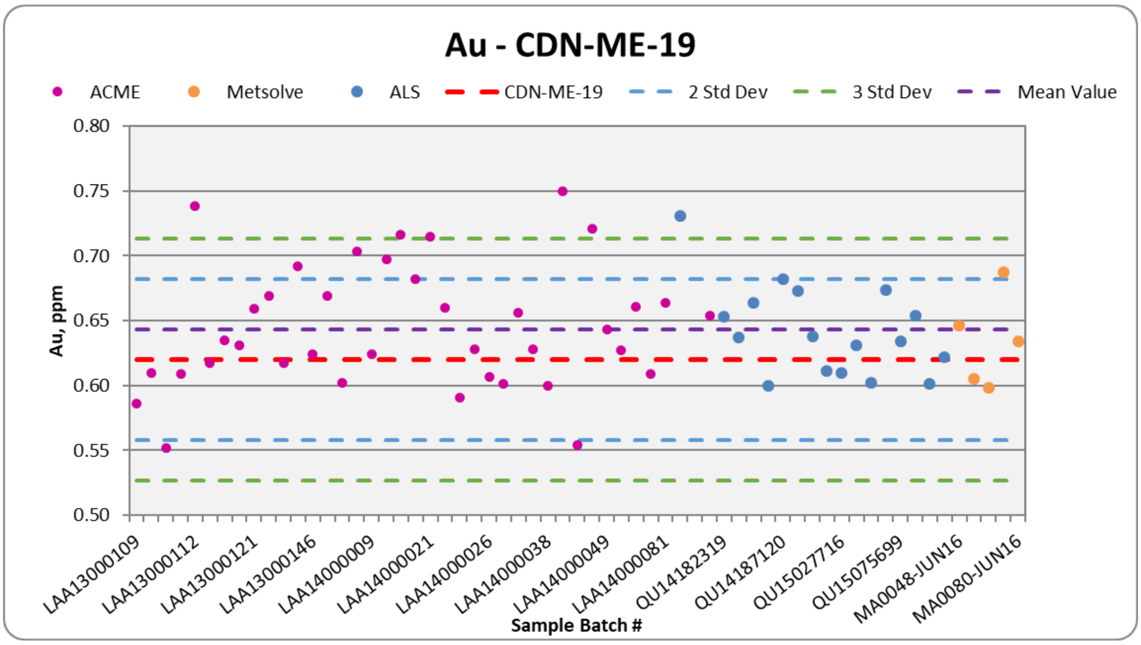


Figure 12-10: Above – Copper results from CRM CDN-ME-19. Below – Copper Results from CDN-CM-17



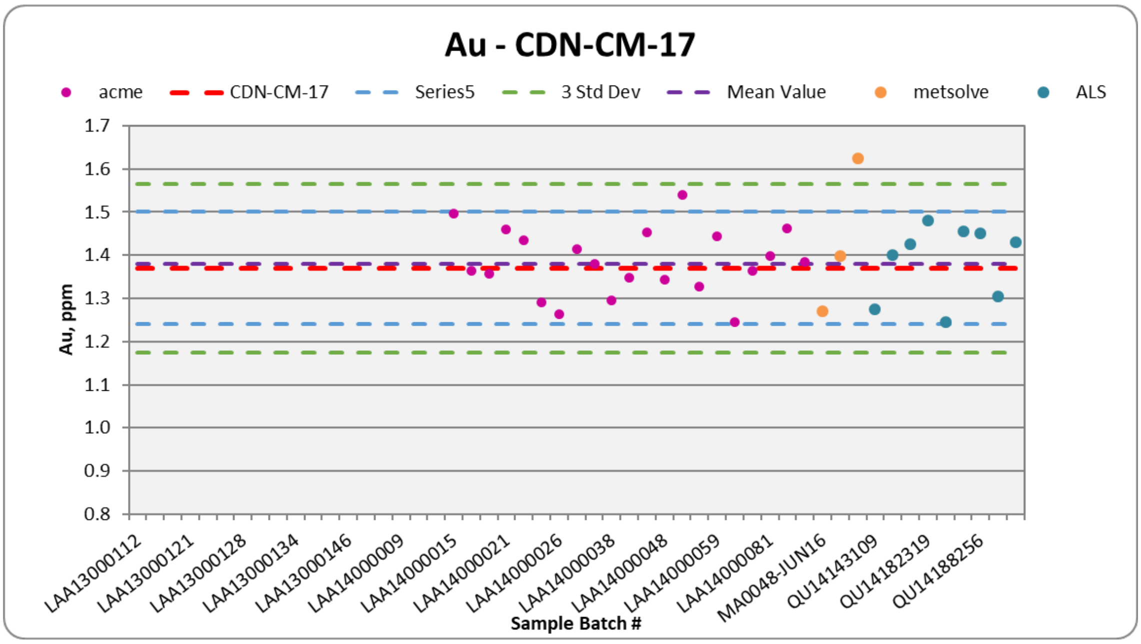


Figure 12-11: Above – Gold results from CRM CDN-ME-19. Below – Gold Results from CDN-CM-17

Whilst there is an improvement in CRM performance coincident with the change in labs, further investigation of these early results suggests that the variation in assay value was caused by problems with the CRM material because re-assays of samples from the early affected batches shows a strong correlation between ACME and umpire laboratory which suggests laboratory precision was not an issue.

SRK is therefore satisfied that in general, the standards demonstrate an acceptable degree of accuracy at the assaying laboratories and the poorer performance from the ACME laboratory, which has now been addressed with the change in laboratory and CRMs, has not introduced a bias into the results.

12.1.3 Blanks

Certified blank material sourced from CDN and OREAS has been inserted into the sample stream at a frequency of 2.5%. The majority of blanks used are pulped, but more recently coarse blanks have been introduced (OREAS C27c). The certified limits for the blank material are presented in Table 12-3. A total of 1,821 blanks have been inserted into the sample stream at Alpala.

SRK has reviewed the blank material for gold and copper results only.

Table 12-3: Certified Blank Summary Details

QAQC ID	Au g/t	Cu ppm	Mo ppm	Ag g/t	Pb ppm	Zn ppm
CDN-BL-10	0.01	-	-	-	-	-
OREAS 22d	0.001	9.23	2.36	-	0.72	6.70
OREAS 22e	0.001	7.97	1.05	-	<1	4.33
OREAS C27c	0.002	7.49	3.64	0.235	27.9	118

The OREAS 22d and 22e are certified quartz sand pulps to which 0.5% iron oxide has been added and are specifically sold as 'low background gold blank material' (<0.001 ppm Au). OREAS C27c is a rhyodacite blank chip certified reference material with gold reported as <2 ppb Au (0.002 ppm Au).

SRK considers coarse blank material such as OREAS C27c preferable to pulp blank material because coarse blank samples undergo sample preparation at the laboratory the in the same manner as the regular samples, thus highlighting potential contamination resulting from the crushing and pulverising process.

CDN-BL-10 is a blank granitic material with low gold values (<0.01 ppm Au). It also contains low-level copper values, but which have not been certified.

The OREAS blanks have typically performed well with 96.4% of 22d, 93.8% of 22e and 92.4% of C27c samples reporting values at or lower than the detection limit of 0.005 ppm Au. The range of values over detection within the 22d data set has a maximum of 0.009 ppm Au, which is considered non-material.

Blank material 22e and C27c however, have seven sample results over 0.1 ppm Au and up to a maximum of 0.494 ppm Au which are very high and warranted investigation. SRK has identified that the samples in question reside in batches from between 07 September to the 17 October 2018, as shown in Figure 12-13. In most cases, the samples in question are isolated incidents within the batches but SRK notes that two of these samples reside in batch LI18266835 in which 0.223 ppm Au is reported for blank 22e and 0.217 ppm Au is reported for blank C27c.

SolGold recognised and addressed the issues with the laboratory and consequently the laboratory has changed their control procedures to improve or solve this issue. SRK notes that the issue is evident in results from both pulp blanks and coarse bllanks. Since pulp blanks do not undergo sample preparation they are unlikely to become contaminated and so these high grade blank results may be due to swapping of blanks with CRMs during sample dispatch at site and recommends this should also be investigated.

CDN-BL-10 did not perform well with 70.8% of the samples above 0.005 ppm Au with only one sample above 0.1 ppm Au. SRK notes that these blanks have not been used since 2016.

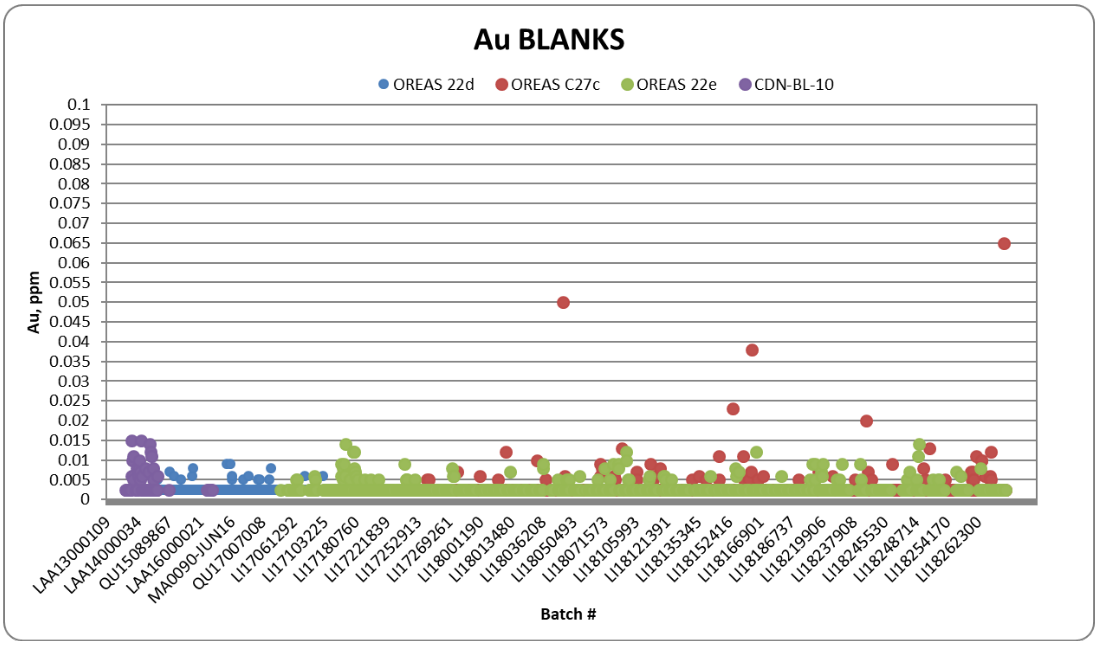


Figure 12-12: Gold blank results (ppm) by batch number (capped at 0.1 ppm Au)

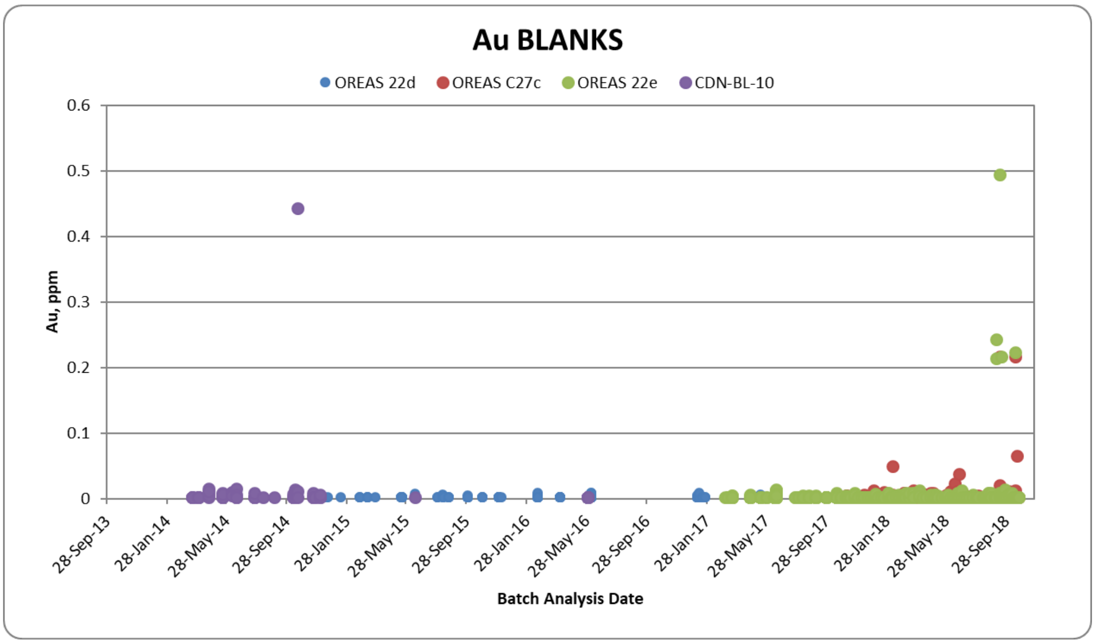


Figure 12-13: Gold blank results (ppm) by batch date

The OREAS 22d and 22e blanks have performed moderately well for copper with 93.4% of 22d and 88.2% of 22e samples reporting values within the mean plus three standard deviations. OREAS C27c performed poorly for copper with only 48.8% of the samples reporting within the mean plus three standard deviations (Figure 12-14). The copper results from CDN-BL-10 show a consistent low value however due to the copper value not being certified for the material and its inerrant value being clearly above detection limit for the analytical method, the interpretation of these results is limited.

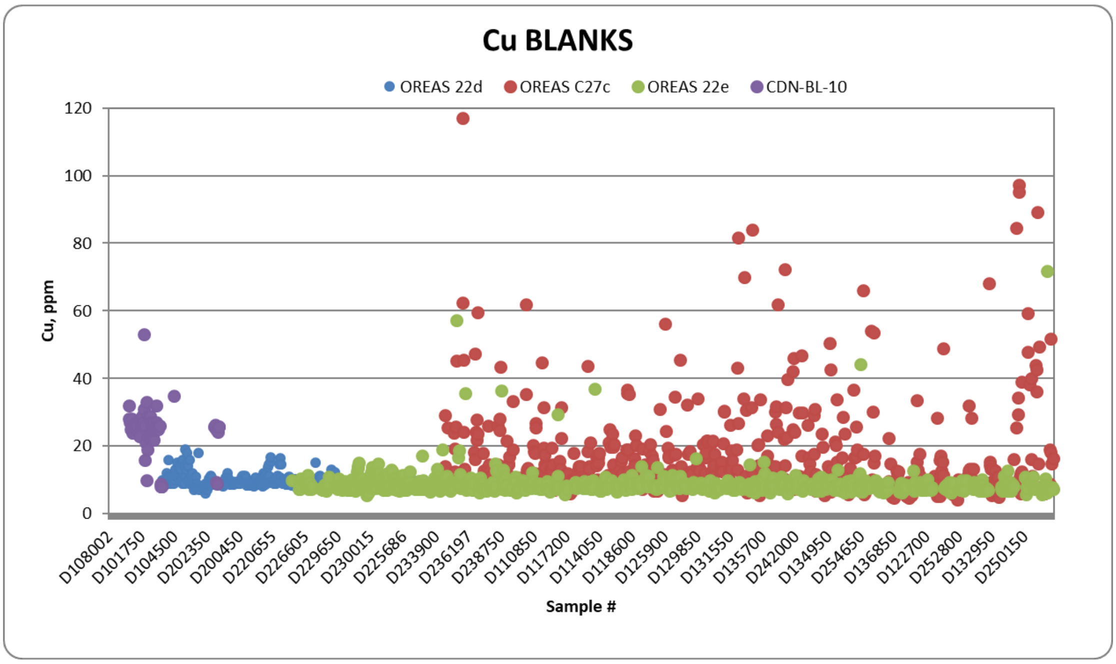


Figure 12-14: Copper blank results (ppm) by sample number

Several high copper results have been identified within the data set up to a maximum value of 7,910 ppm Cu. The high copper grades belong to the same samples that have high gold grades mentioned above which supports the conclusion that these are sample switches (Figure 12-15).

As mentioned with the CRM review, while all due care should be taken to ensure sample switches do not occur, SRK does not consider these inconsistencies to materially influence the results of the regular samples. Attention should be paid to ensure that sample switches are not repeated in future work.

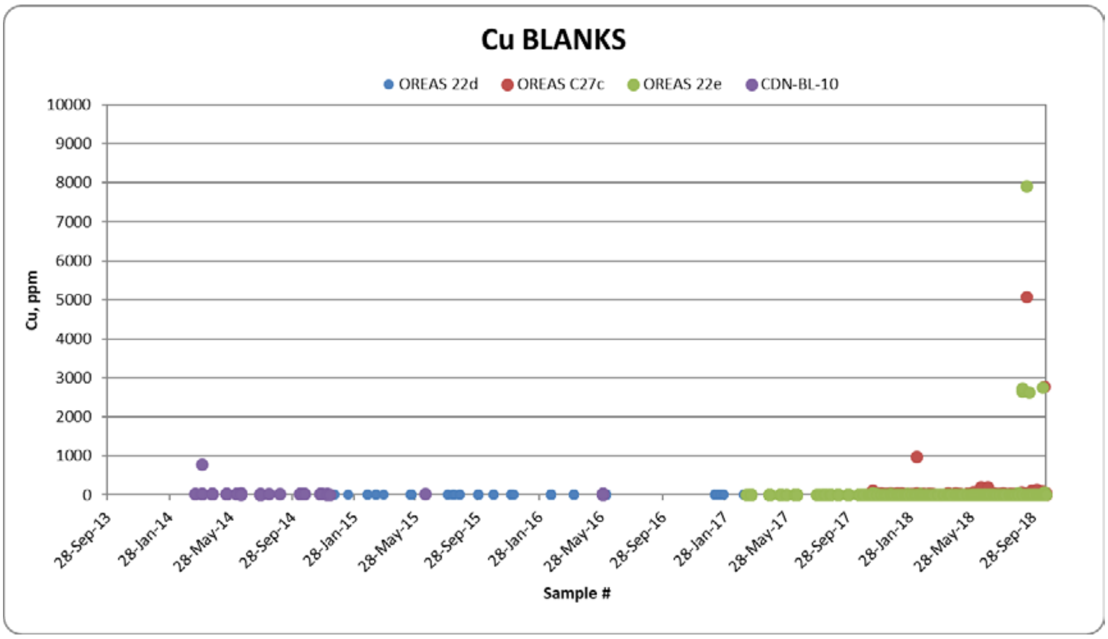


Figure 12-15: Copper blank results (ppm) by batch date

It is SRK's opinion that the blanks have typically performed well despite a small number of possible sample switches. A total of 93.1% of the samples plot at or below the detection limit for gold and within reasonable limits for copper. OREAS' blank material is considered more appropriate than CDN for this style of deposit. OREAS 22d and 22e clearly perform well, specifically in relation to gold however the inclusion of a coarse blank material is also advantageous when testing the sample preparation facilities. Despite the range in copper and to some extent gold results, it is SRK's opinion that these are of a low level and do not suggest significant levels of contamination if any.

SRK recommends further round robin tested coarse blank material such as a limestone, granite or pure silica sand product be included to complement the OREAS blank materials.

12.1.4 Field Duplicates

For intervals of core that are assigned as a field duplicate sample, two ¼ core samples are submitted concurrently to serve as a field duplicate pair.

To date, 2,432 field duplicates have been collected at an average of around 20 per hole, resulting in a frequency of 3.4% of the sample stream.

There is a good correlation between the parent and field duplicate assay results for copper and gold. The limited outliers for copper do not correlate with outliers for gold. The limited outliers within duplicates are considered to be a reflect small-scale geological variability, especially with respect to gold. Plots for parent and field duplicate comparisons for copper and gold are presented in Figure 12-16 and Figure 12-17.

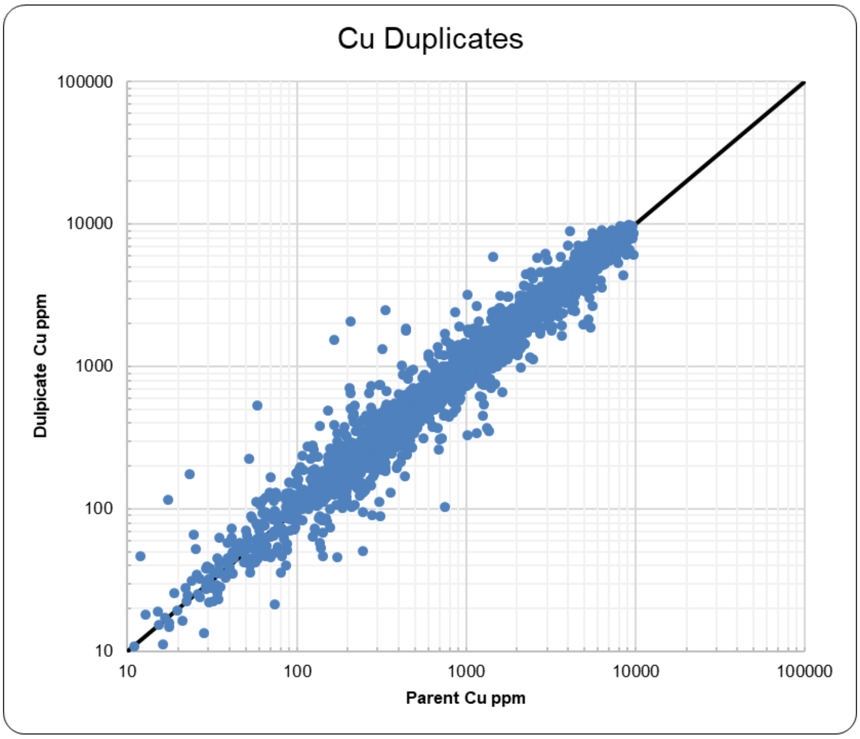


Figure 12-16: Comparison of field duplicate results for Copper (ppm)

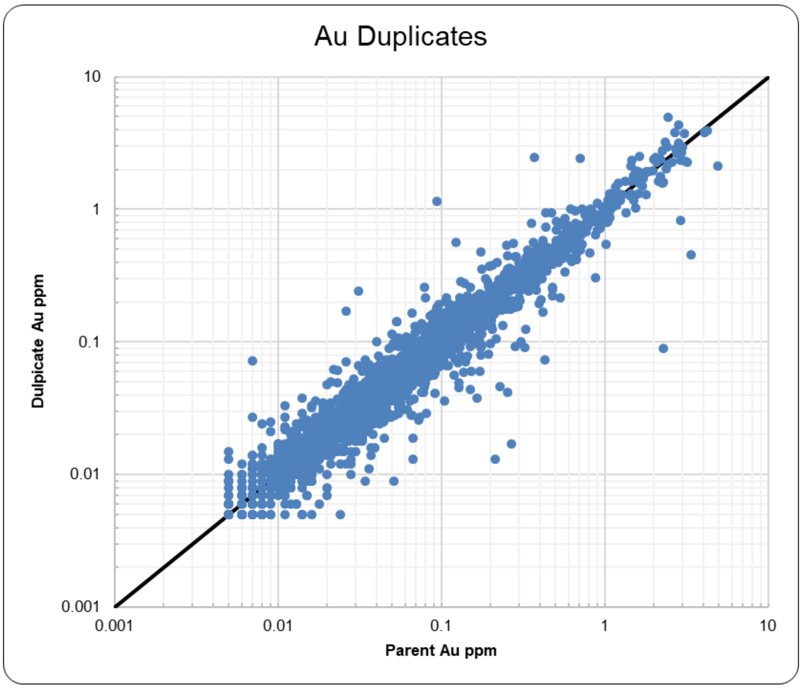


Figure 12-17: Comparison of field duplicate results for gold (ppm)

12.1.5 Pulp Duplicates

Solgold has not submitted any pulp return samples as pulp duplicate samples for re-assayed by the same laboratory. This is typically conducted to analysis the repeatability of the results based on the laboratories calibration. It is recommended that sample suites of around 5% of the total population, selected to spanning the full distribution of grade ranges, be re-submitted. SRK recommend that a periodic pulp duplicate analysis programme is undertaken as part of the on-going QAQC review process.

12.1.6 Inter-Laboratory Comparisons

ACME vs Met-Solve (May 2016)

A comparison of drillhole sample analysis between ACME and Met-Solve laboratories was conducted by SolGold in May 2016, using samples from drillhole CSD-16-016. The results of the comparison on copper and gold are presented in Figure 12-18 to Figure 12-21, below.

The outcome of the laboratory comparison illustrates that there is a strong positive correlation between results from ACME and Met-Solve.

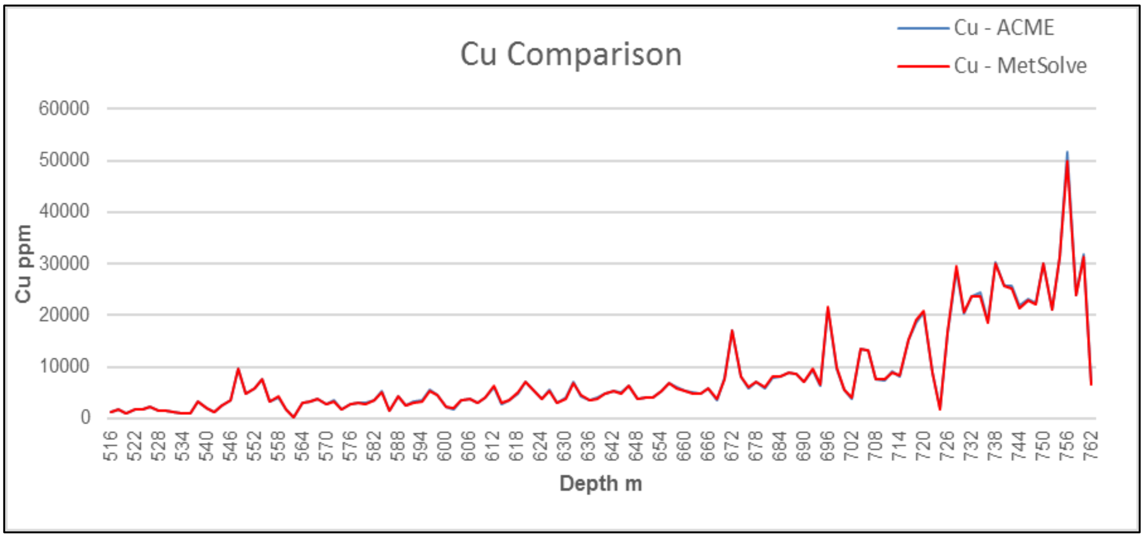


Figure 12-18: Copper (ppm) assay comparison between Met-Solve and ACME laboratories through drillhole CSD-16-016

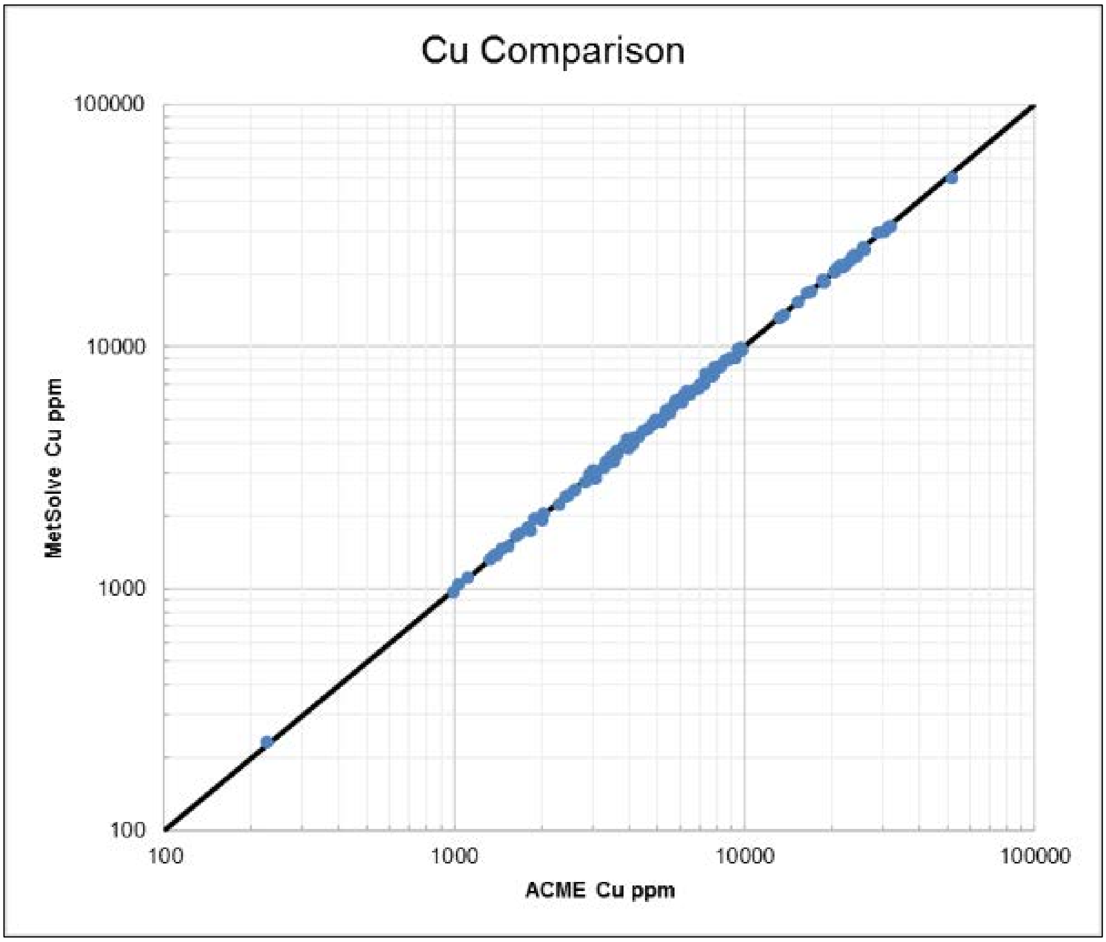


Figure 12-19: Plot of Copper (ppm) Assay Results; ACME vs Met-Solve Laboratories

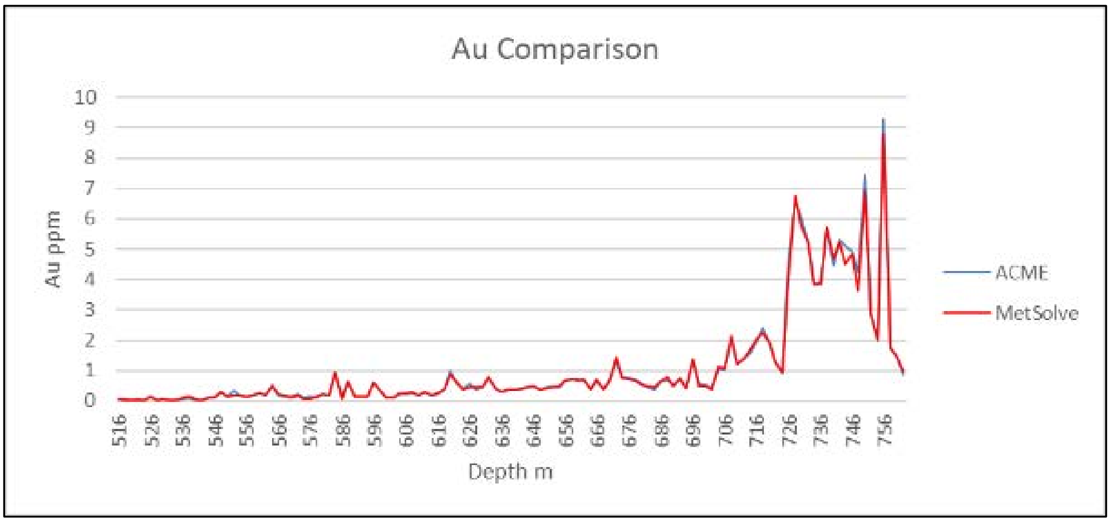


Figure 12-20: Gold (ppm) Assay Comparison between Met-Solve and ACME Laboratories through Drillhole CSD-16-016

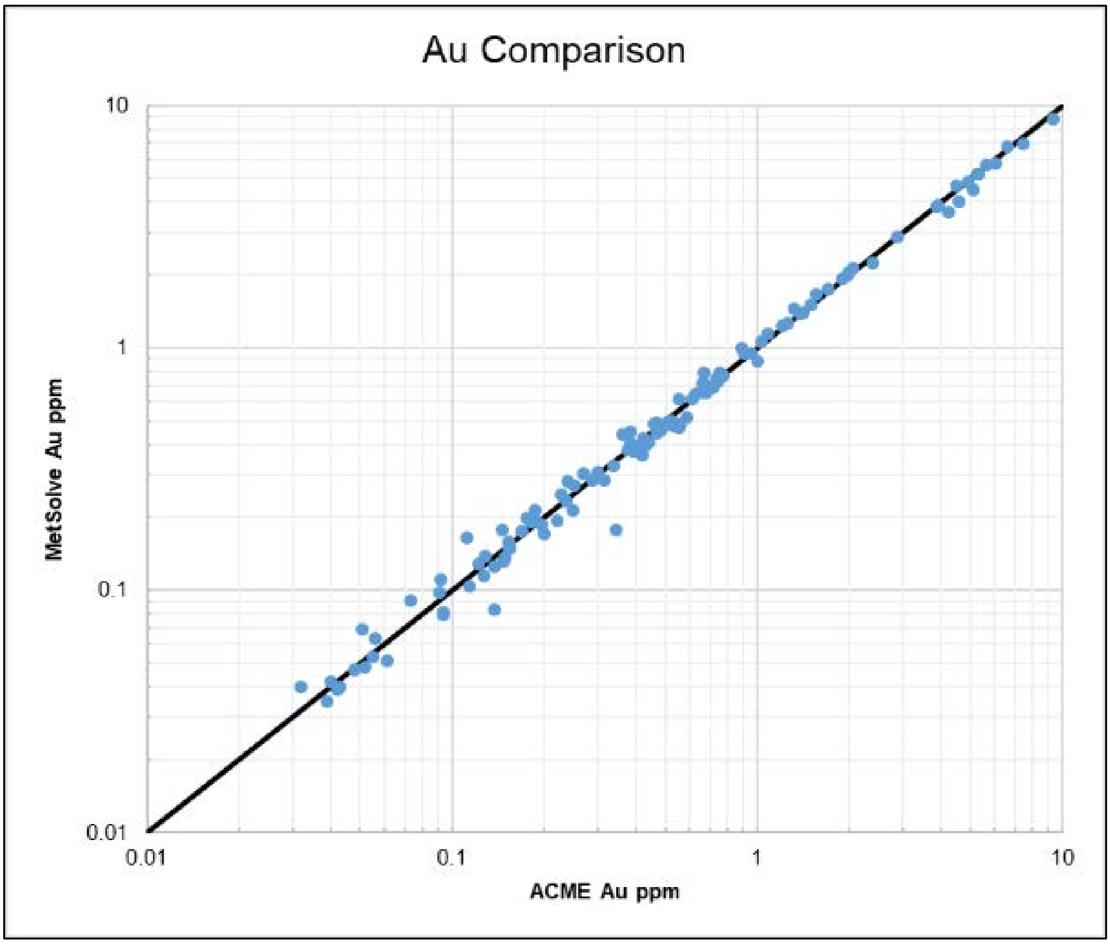


Figure 12-21: Plot of Gold (ppm) Assay Results; ACME vs Met-Solve Laboratories

ACME vs Met-Solve (April 2016)

A comparative assay of 64 samples from three holes (CSD-14-008, CSD-15-010, CSD-13-005) between ACME and Met-Solve was completed in April 2016. The results of the analysis show generally well-correlated results; however, results are generally slightly higher in copper and gold for Met-Solve samples. No CRMs or blanks were included in the comparison.

ACME vs ALS (December 2014)

A comparison of drillhole sample assays from ACME and ALS was completed in December 2014. Check analysis included samples from CSD-14-006, CSD-13-003 and CSD-13-005 where some certified reference samples and blanks have recorded anomalous results. The results of the comparison show a strong correlation between the two analyses, with the CRM and blank samples performing well within two standard deviations of certified values.

ALS vs Inspectorate (Bureau Veritas) (December 2017)

Seventy-nine samples have been re-assayed by Inspectorate in December 2017. These samples came from between 968 and 1050 m in drillhole CSD-17-028 and included three certified reference material samples. Comparison of results shows a strong positive trend, with all certified materials performing well.

12.2 Verifications by SRK

12.2.1 Site Visit

In accordance with international best practices, Mr James Gilbertson of SRK Exploration and Mr Martin Pittuck of SRK (UK) visited the Alpala Project between 26 and 31 October 2017, accompanied by Benn Whistler of SolGold. Mr Pittuck also visited site between 27 and 29 January 2018.

The purpose of the site visits was to review the digitisation of the exploration database and validation procedures, review exploration procedures, define geological modelling procedures, examine drill core, interview project personnel, and collect all relevant information for the preparation of a revised mineral resource model and the compilation of a technical report. During the visit, particular attention was given to the treatment and validation of historical drilling data.

The site visits were also aimed at investigating the geological and structural controls on the distribution of the gold mineralisation in order to aid the construction of three-dimensional gold mineralisation domains.

SRK was given full access to relevant data and conducted interviews with SolGold personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store and analyse historical and current exploration data. There were no limitations placed on SRK's verification procedures.

12.2.2 Verification of Sample Database

SRK completed a phase of data validation on the digital sample database supplied by SolGold which included a search for sample overlaps, duplicate or absent samples, anomalous assay and survey results; no material issues were identified in the final sample database.

12.3 SRK Comments

SRK has reviewed the data collection methodologies during the technical site visits and has undertaken a review of the assay and geology database provided by SolGold.

Assessment of the current QAQC data indicates the assay data for the drilling and sampling to date has appropriate accuracy and precision.

SRK recommends that future sample QAQC programmes are extended to increase insertion frequency to 15% and that the following are employed:

- Coarse blanks continued to be inserted;
- Pulp duplicates are inserted as well as field duplicates;
- Additional round robin tested coarse material (such as limestone, granite or pure silica sand) is sourced and tested for use as blanks;
- Batch LI18266835 should be reviewed further following two failed blanks showing significantly high gold grades (0.223 ppm Au & 0.217 ppm Au);
- Additional periodic check assay programmes are employed where stored pulps are selected in a way that honours the original statistical spread of assays and are re-assayed at a separated umpire laboratory.

- QAQC is assessed on a batch-by-batch basis when results are received, and problems flagged and addressed with the assay lab immediately.

SRK's database validation suggests that SolGold's approach is reasonable and appropriate. Notwithstanding this, SRK recommends that batches affected by the early poor performance of the CDN CRMs are re-assayed to confirm the original assay values. These samples should be dispatched with new OREAS CRM, as these have been shown to perform well.

SRK is of the opinion that all data is of sufficient quality for inclusion in a Mineral Resource estimate.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Historical Metallurgical Testwork

An initial testwork program was conducted in 2014 by the Inspectorate Metallurgical Division, Bureau Veritas Commodities Canada Ltd, under the supervision of SolGold.

The testwork was limited to flotation roughing and open cleaning flotation tests on three composites. Table 13-1 provides a summary of the composites tested.

Table 13-1: Samples Tested in Bureau Veritas, 2014 Test Program

Composite	Hole ID	From Depth (m)	To Depth (m)	Assay g/t Au	Assay % Cu	Assay % S
1	CSD-13-005	802	850	1.08	1.05	2.43
2	CSD-13-005	934	982	0.54	0.67	5.95
3	CSD-13-005	1098	1146	2.21	1.80	7.57

Optimum conditions for composite 1 were a 129 µm flotation feed P80, 80 g/t potassium amyl xanthate and 40 g/t A3418, natural pH, no concentrate regrind and a two stage cleaner circuit. This achieved a copper recovery of 79.5%, a gold recovery of 81.0%, with a concentrate grade of 21.1% Cu.

Tests on composite 2 did not produce optimised performance. A 128 µm flotation feed P80, 80 g/t potassium amyl xanthate and 40 g/t A3418, natural pH, with a concentrate regrind to 33 µm and a two stage cleaner circuit only produced a final concentrate grade of 10.5% Cu. This was achieved at a copper recover of 84.3% and a gold recovery of 84.1%.

Optimum conditions for composite 3 were a 130 µm flotation feed P80, 80 g/t potassium amyl xanthate and 40 g/t A3418, natural pH, a concentrate regrind to 43 µm and a two stage cleaner circuit. This achieved a copper recovery of 81.1%, a gold recovery of 81.1%, with a concentrate grade of 20.3% Cu.

13.2 Mineral Characterisation

As described in Sections 7.3.4 and 9.6.2, between 2014 and 2018, 36 polished sections were submitted for examination by SEM techniques BSE imaging and EDS. The aim of the investigation was to determine the sites of copper, gold (and silver) in the samples, with emphasis on the grain sizes, textures, compositions and characteristics of all the major metallic minerals. Of particular importance was the location of gold, either within the lattice of sulphide minerals or as free grains.

Chalcopyrite is the dominant copper mineral, with varying amounts of bornite. Chalcopyrite forms free grains from ~1 to 500 µm in altered host rock. Partial chalcopyrite rimming of pyrite, as well as chalcopyrite and bornite inclusions in pyrite exist, typically below 10 µm in size.

Grains of free gold exist, ranging in size from ~1 to 50 µm. In most cases the gold is included in chalcopyrite, pyrite or bornite.

13.3 On-going Testwork

A metallurgical test program is currently underway (as of the effective date of the Mineral Resource statement) at ALS Metallurgical Laboratories, Kamloops, Canada. The laboratory program consisted of sample preparation and composite formation, comminution tests including SMC, Bond Ball Mill Work Index ("BWI") and Bond Abrasion Index ("Ai"), flotation optimisation and locked cycle tests on specified composites and rougher kinetic tests.

Selected half HQ core was grouped into comminution and flotation samples, with twenty sets of comminution tests and twenty rougher kinetic flotation variability tests conducted. The sample was also used to form three master composites for process optimisation and locked cycle tests. The composites were designated as:

- High copper – high gold (HC-HG)
- Intermediate copper – high gold (IC-HG)
- Low copper – intermediate gold (LC-IG)

13.3.1 Sample Selection

The core selection was governed by the following to ensure representative samples were selected:

- vertical section representing copper mineralogy;
- selection of samples radiating from the vertical selection;
- selection of lithology and alteration type;
- representative selection of copper and gold grade for the higher grade central core of the deposit;
- selection of magnetic susceptibility readings; and;
- selection of RQD values.

Continuous core runs within the drillholes that met the sample selection criteria were identified by physical inspection copper-gold assays and/or core logs, verified by core photographs. From the available suitable core, a sample set that provided broad spatial representation and is relevant to the likely mine plan and potential viability for the resource were selected. A skeleton 10 cm sample every 2 m interval was retained in the core trays. In addition, core used for prior specific gravity testing was retained in the core trays. Details on the samples tested are given in Table 13-2.

Table 13-2: Sample Selection for 2018 Test Program

Met Sample Numbers	Hole ID	Ore Interval (from)	Ore Interval (to)	Ore Interval (m)	Cu (%)	Au (g/t)	Master Composite
MET001	CSD-18-041-D1-D2	1168	1192	24	0.78	0.60	Low copper - Intermediate gold
MET002	CSD-18-041-D1-D2	1310	1334	24	0.70	1.17	Low copper - Intermediate gold
MET003	CSD-18-041-D1-D2	1580	1604	24	0.81	0.79	Low copper - Intermediate gold
MET004	CSD-18-043	1200	1224	24	1.20	1.50	Intermediate copper - High gold
MET005	CSD-18-043	1224	1248	24	1.60	1.67	High copper - High gold
MET006	CSD-18-055R	1320	1344	24	2.37	3.34	High copper - High gold
MET007	CSD-18-055R	1344	1368	24	2.61	4.08	High copper - High gold
MET008	CSD-18-055R	1368	1392	24	1.84	2.24	High copper - High gold
MET009	CSD-18-057	960	984	24	0.64	0.90	Low copper - Intermediate gold
MET010	CSD-18-057	984	1008	24	0.60	0.91	Low copper - Intermediate gold
MET011	CSD-18-057	1008	1032	24	2.40	5.40	High copper - High gold
MET012	CSD-18-057	1032	1056	24	1.99	3.69	High copper - High gold
MET013	CSD-18-057	1056	1080	24	0.99	2.11	Intermediate copper - High gold
MET014	CSD-18-057	1080	1104	24	1.39	3.43	Intermediate copper - High gold
MET015	CSD-18-057	1104	1128	24	1.40	3.24	Intermediate copper - High gold
MET016	CSD-18-057	1128	1152	24	1.16	2.18	Intermediate copper - High gold
MET017	CSD-18-057	1152	1176	24	1.20	2.58	Intermediate copper - High gold
MET018	CSD-18-057	1176	1200	24	0.71	1.18	Low copper - Intermediate gold
MET019	CSD-18-060	810	834	24	0.60	0.19	Low copper - Intermediate gold
MET020	CSD-18-060	834	858	24	0.87	0.34	Low copper - Intermediate gold

13.3.2 Initial Results

Initial flotation results have been received for rougher kinetic tests at a P_{80} flotation feed grind size of 150 µm, at natural pH, 11.5 minutes residence, using potassium amyl xanthate ("PAX") as the collector. A summary of the results achieved is given in Table 13-3.

Table 13-3: Initial flotation results

Product	Weight	Assay		Distribution %	
(LC-IG)	%	% Cu	g/t Au	Cu	Au
Feed	100.0	0.76	0.86	100	100
Concentrate	12.6	5.69	5.95	94.0	87.7
Product	Weight	Assay		Distribution %	
(IC-HG)	%	% Cu	g/t Au	Cu	Au
Feed	100.0	1.20	2.49	100	100
Concentrate	14.8	7.86	15.9	96.5	93.9
Product	Weight	Assay		Distribution %	
(HC-HG)	%	% Cu	g/t Au	Cu	Au
Feed	100.0	1.98	3.01	100	100
Concentrate	15.6	12.3	17.9	96.8	92.7

Both the mineralogy and initial flotation results indicate the flotation performance aligns with similar chalcopyrite dominant porphyry deposits. The following recovery functions for copper, gold and silver are considered to be a reasonable approximation of performance:

Copper recovery to concentrate equation:

$$Cu\ Recovery = \frac{95 \times (1 + 15 \times Cu_f)}{(1 + 15 \times Cu_f) + (1 - e^{-15 \times Cu_f})}$$

Gold recovery to concentrate equation:

$$Au\ Recovery = 9.8 + 0.8 \times Cu_{Rec}$$

Silver recovery to concentrate equation:

$$Ag\ Recovery = Au\ Recovery$$

As only limited flotation cleaning tests have been conducted, conservative recoveries of pyrite and non- sulphide gangue ("NSG") were assumed to estimate final concentrate grade. There were:

- Pyrite Recovery to Concentrate – 25%; and;
- NSG Recovery to Concentrate – 1%.

No analysis of final concentrate has been conducted. A review of core assay data indicates that there will not be penalties for deleterious assays in the concentrates produced.

14 MINERAL RESOURCE ESTIMATE

14.1 Introduction

The Mineral Resource statement presented herein is reported from an updated MRE prepared for the Alpala deposit in accordance with CIM and NI 43-101. This MRE is an update to the previously reported maiden MRE effective December 2017 (reported in January 2018).

This update, prepared by the Company and verified by SRK, was estimated from 68,173 assays, with 66,739 assays representing diamond drill core samples, and 1,434 assays representing rock-saw channel samples cut from surface rock exposures. Drill core samples were obtained from total of 133,576m of drilling comprising 128 diamond drillholes, including 75 drillholes (holes 1-75), 34 daughter holes, 8 re-drills, and 11 over-runs, and represents full assay data from holes 1-67 and partial assay data received from holes 68 to 75. Rock-saw samples were obtained from 2743m of rock-saw cuts from 262 surface rock exposure trenches. In contrast, the December 2017 Maiden MRE was estimated from 26,814 assays obtained from 53,616m of drilling comprising 45 drillholes (holes 1-33) including 10 daughter holes and 5 re-drills.

The MRE was reviewed and verified by Mr Martin Pittuck, CEng, FGS, MIMMM an “independent qualified person” as defined in NI 43-101. The Effective Date of the Mineral Resource statement is 07 November 2018.

This section describes the MRE methodology and summarises the key assumptions considered by SRK. In the opinion of SRK, the Mineral Resource statement reported herein is a reasonable representation of the Alpala deposit based on current sampling data. The Mineral Resource has been estimated using generally accepted CIM “Estimation of Mineral Resource and Mineral Reserves Best Practices” guidelines (2014). Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into Mineral Reserve.

To the best of SRK’s knowledge, there are no environmental, permitting, legal, title, tax, socio-economic, market, political or other relevant factors that would affect the Mineral Resource presented in this Technical Report.

SolGold supplied SRK with an export of the geological database, available geological interpretations and geological model which were reviewed and validated by SRK. SRK is of the opinion that the information supplied is sufficiently reliable to interpret with confidence the boundaries for copper and gold mineralisation and that the assay data is sufficiently reliable to support the MRE.

SolGold used Leapfrog Geo Version 4.3 Modelling Software (“Leapfrog”) was used for geological modelling, geostatistical analysis (variography) and block modelling. SRK used X10-Geo (“X10”) and Snowdon Supervisor Version 8.7 software for was used for statistical analysis. Datamine Studio Version 3 (“Datamine”) was used to generate a check block model estimate and tabulate the Mineral Resource statement.

14.2 Resource Estimation Procedures

The Mineral Resource estimation methodology involved the following procedures:

- database compilation and verification;
- construction of wireframe models for the lithologies described in Section 6;
- construction of wireframe models for the mineralisation extents;
- definition of resource estimation domains;
- data conditioning (compositing and capping review) for statistical analysis;
- geostatistical analysis (variography);
- block modelling and grade estimation;
- resource classification and validation;
- assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades; and;
- preparation of the Mineral Resource statement.

14.3 Resource Database

SRK was supplied with a Microsoft Excel format database, which had been exported from SolGold’s main database as maintained on site. The data was checked and cleaned to some extent to ensure all interval information was entered correctly and to ensure no erroneous values affected the estimate. SRK is satisfied with the quality of the database for use in the construction of the geological model and associated MRE.

The lithological information was a simplified version of the detailed logging performed on site, providing grouped lithological codes which gave sufficient information for 3D modelling.

A log of vein type and intensity was also provided along with individual vein orientations.

A multi-element assay database was produced for the 2 m core samples. These were composited to 10 m lengths to assist with visualisation in the modelling software. In addition, surface channel sampling information from trenches with copper and gold assays were used to supplement the drilling data for 3D interpretation of the mineralisation.

A database of density readings was provided which recorded determinations taken at 20 m intervals or better for the majority of the core.

14.4 3D Lithological and Mineralisation Modelling

14.4.1 Lithological Model

Based on the genetic understanding of the deposit and the drill core logs prepared by SolGold, SRK and SolGold have jointly developed a 3D model of the multi-phase intrusions. The earlier, better mineralised phases were modelled as they would have formed originally; this allowed good confidence to be gained in the original geometry and continuity of these well mineralised bodies before their continuity was interrupted by subsequent intrusion of later phases each of which was progressively less well mineralised. The resultant lithological domains are complex in places but nevertheless have a logical genetic process underlying them to explain much of the complexity that presents itself today. The lithological domains, in order of age, comprise:

- Pre-mineral Volcano-sedimentary host rocks (V);
- Early mineralised Diorite 10 and Quartz Diorite 10 (D10 and QD10);
- Intra-mineral Diorite 15 and Quartz Diorite 15 (IM and QD15);
- Late-mineral Diorite 20 and Quartz Diorite 20 (LM and LM QD);
- Post-mineral dykes (PM); and;
- Hydrothermal breccia (BX).

Figure 14-1 below shows the resultant lithological domains in plan view and on cross-sections in Figure 14-2, Figure 14-3 and Figure 14-4.

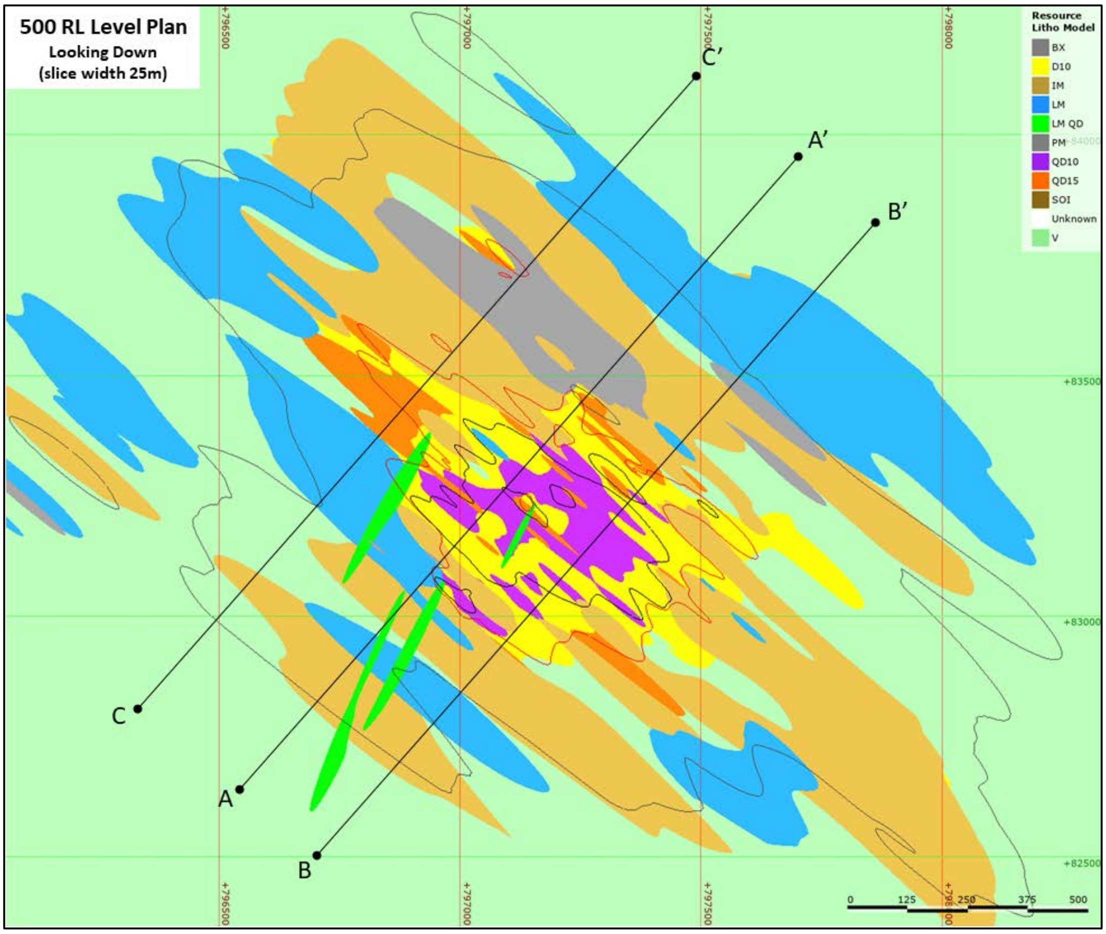


Figure 14-1: Level plan (500 masl) through the Alpala deposit showing lithology model and cross-section locations

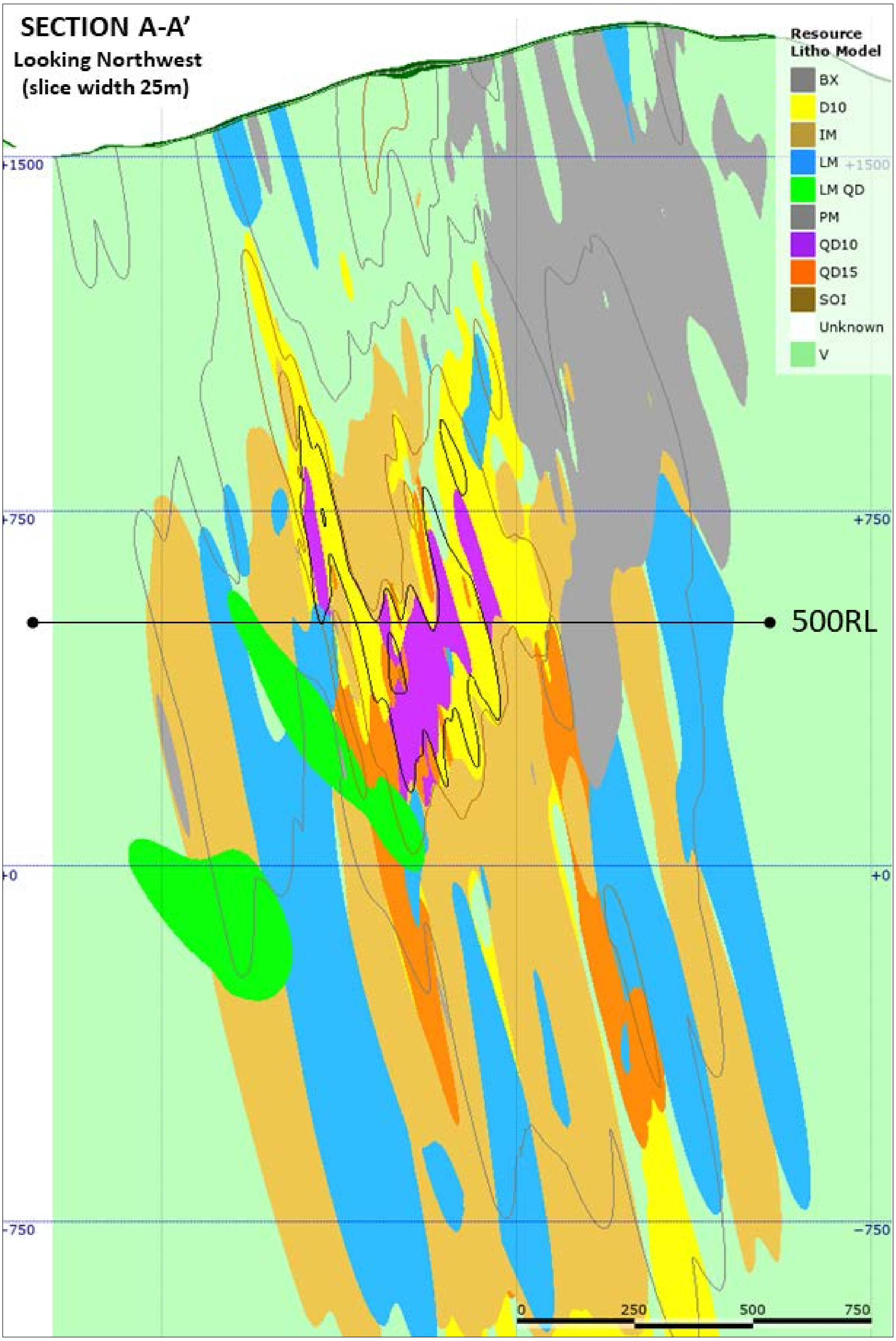


Figure 14-2: Cross section A-A' looking northwest

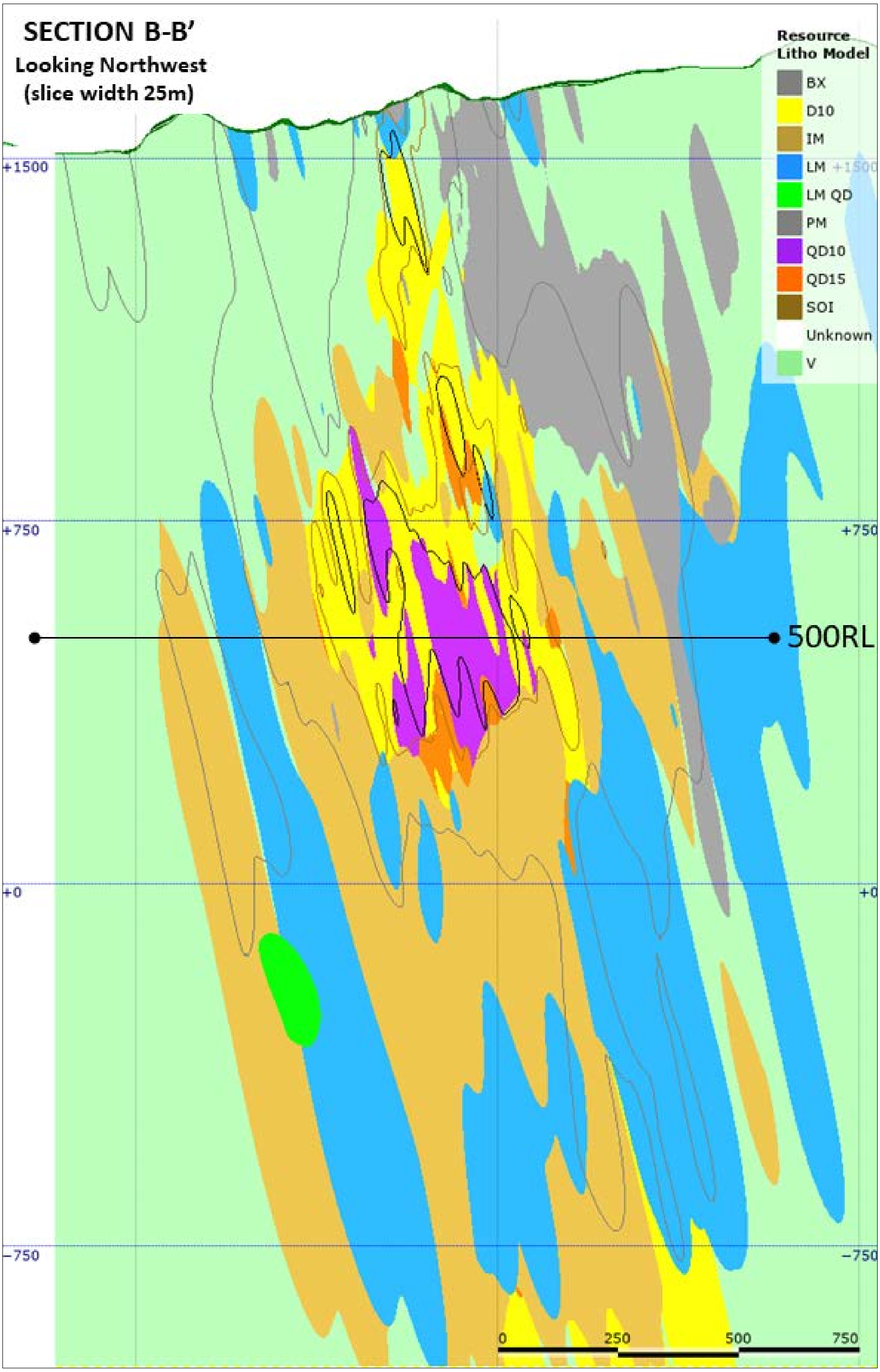


Figure 14-3: Cross section B-B' looking northwest

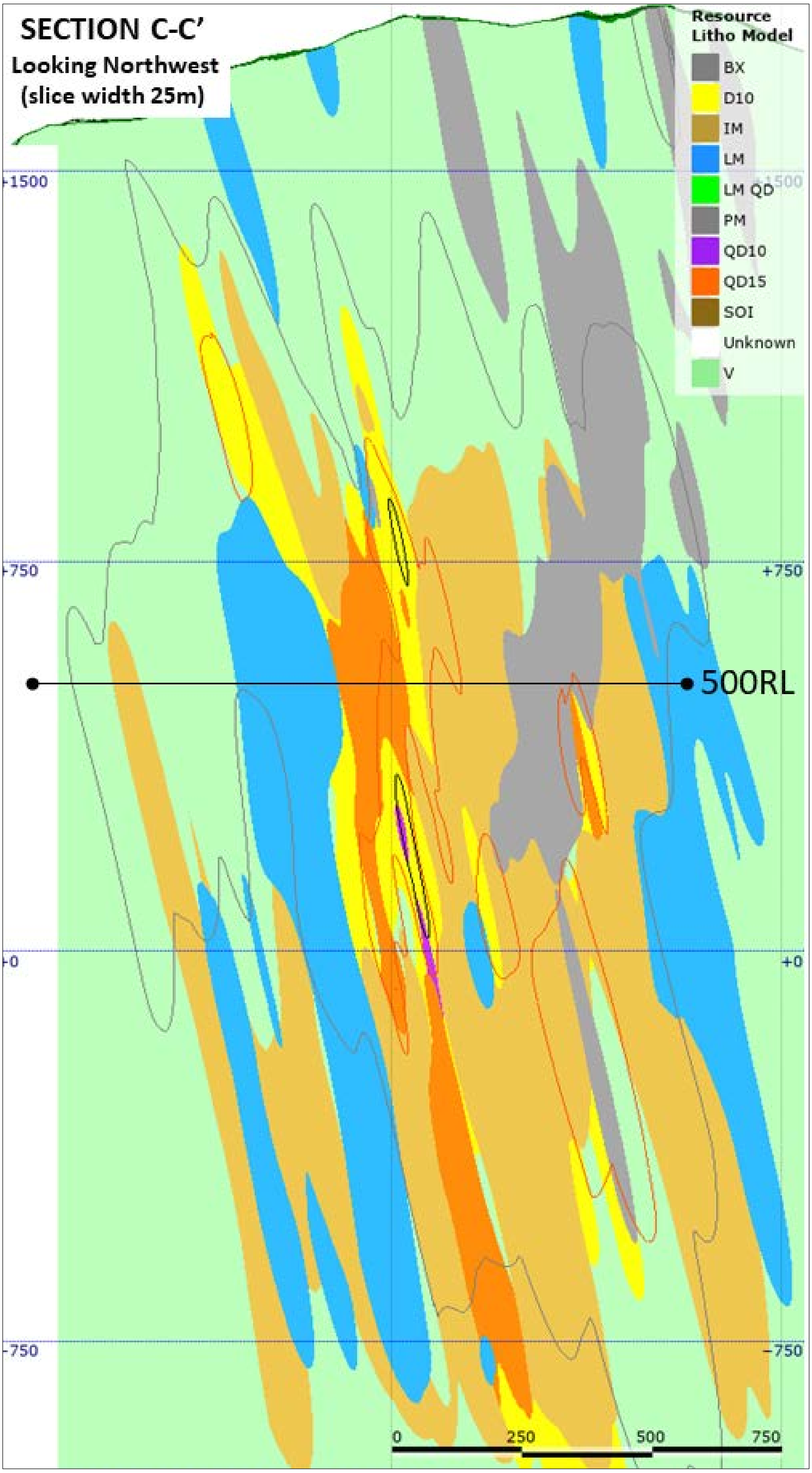


Figure 14-4: Cross section C-C' looking northwest

Most of the intrusion phases have a similar dominant dip and strike to each other; this was used to elongate the wireframes to ensure that intersections from adjacent drillholes joined together correctly and that the extensions of the model beyond the drilled area were pushed in an appropriate direction. For each intrusion wireframe, the shape was fine-tuned using manually digitised polylines to connect neighbouring intersections where necessary and to ensure successful realisation of the multiple thin steep dipping dyke interpretation and to manage the often very low drilling intersection angles.

Alteration assemblages have been modelled for use in the on-going geotechnical engineering technical work as part of the PEA; however, they were not used as part of the MRE process. There are very few post-mineralisation faults encountered in the drill core, none of those encountered lie on the same plane and therefore no attempt was made to model any post mineralisation faulting.

The majority of core is fresh rock, therefore there was no need to model weathering domains; the thin layer of soils logged at surface currently has not been modelled as it is considered immaterial to the Mineral Resource.

14.4.2 Mineralisation Model

The intensity of mineralised veining is stronger inside of and in proximity to the mineralising intrusions but also stronger near the steep dipping structures that provided the original pathways for the intrusions, for some distance above the dyke tips. Veining is also noted to be focussed in the parting planes at the contacts of intrusions with each other and the host volcano-sedimentary rocks.

As a result of the arrangement of different intrusion lithologies and the pre-existing structures affecting the source and propagation of mineralisation, there was generally a concentric zonation of copper and gold grades with the higher-grade core, centred on the remnant early intrusions, fingering upward into the overlying host rocks.

Mineralisation domains have been developed based on concentric modelling of vein intensity and copper equivalent ("CuEq") grade calculated using [copper grade (%)] + [gold grade (g/t) x 0.63] based on the following general criteria:

- Low-grade - where CuEq exceeds 0.15%;
- medium-grade - where B vein intensity exceeds 4% or CuEq grade exceeds 0.7%; and;
- high-grade - where CuEq grade exceeds 1.5%.

The mineralisation domains shown in Figure 14-5, Figure 14-6, Figure 14-7 and Figure 14-8 were created using grade data from only the Volcanics, the D10, the QD10 and the IM dykes, ignoring any influence from later intrusions; the objective being to envisage the mineralisation before it was later affected by the later lower grade intrusions and breccia. The concentric mineralisation shells so created were later interrupted by low-grade dykes and breccias and this has been captured in subsequent stages of the geological model development.

The geological model domains are a combination of the lithologies and the concentric grade zones so that the original concentric grade distribution can be modelled as well as the later low-grade dykes and breccias which overprint this.

The low-grade mineralised domain defines a lobate-lens shape with a 2,450 m strike extent dipping sub-vertically to the northeast with a width of up to 800 m; it spans a 1,900 m vertical interval from the relatively small mineralised outcrop at around 1,650 masl to the current base of mineralisation at -250 masl. The mineralisation has a distinct, relatively high-grade keel plunging to the northwest as shown in Figure 14-9.

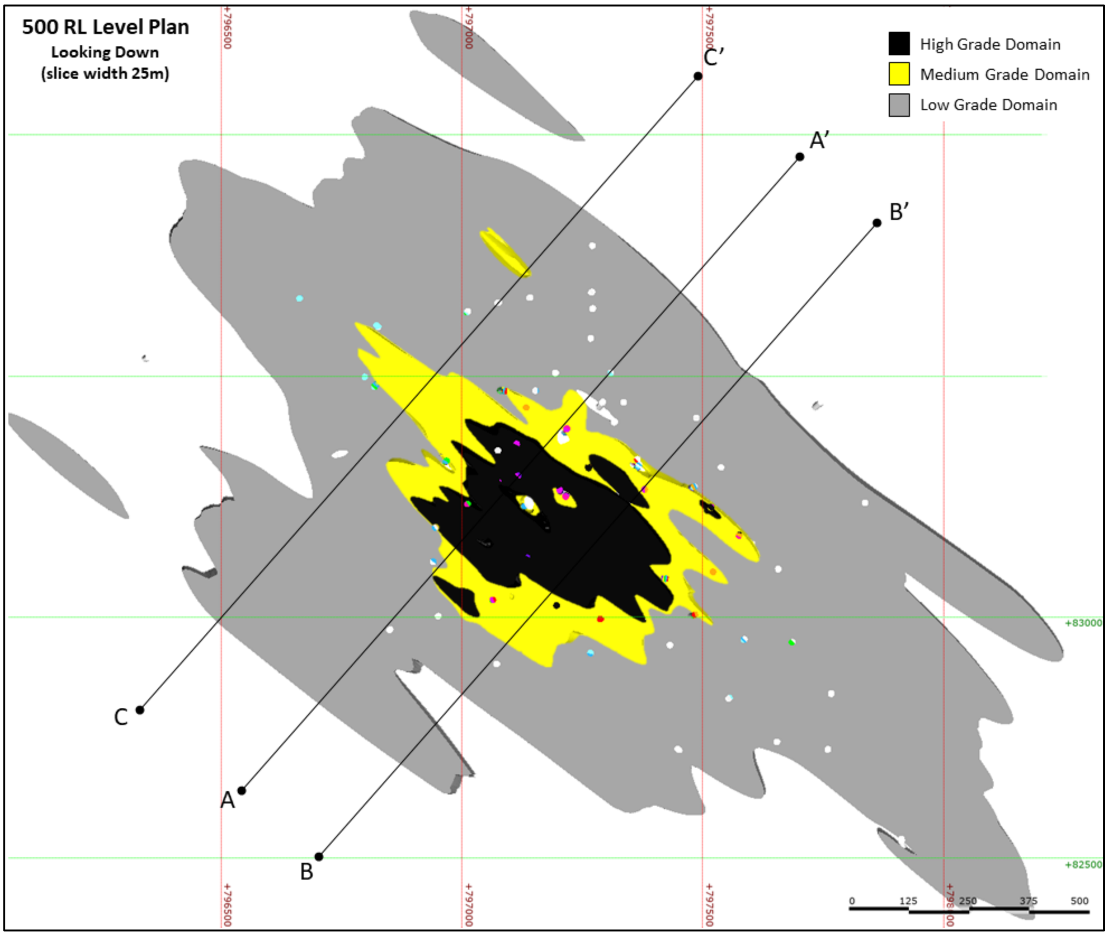


Figure 14-5: Level plan (500 masl) through the Alpala deposit showing grade domains

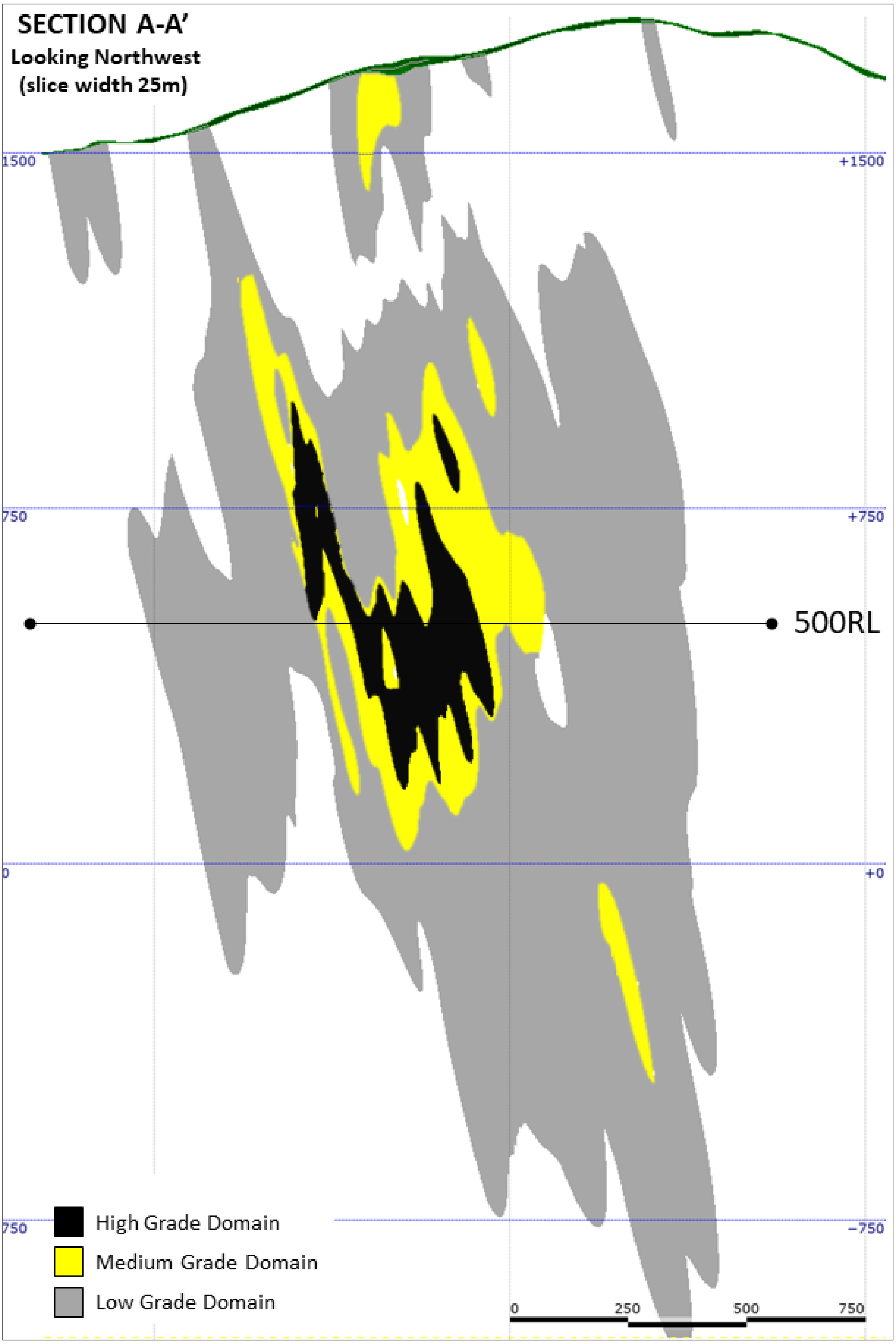


Figure 14-6: Section A-A' through the Alpala deposit showing grade domains

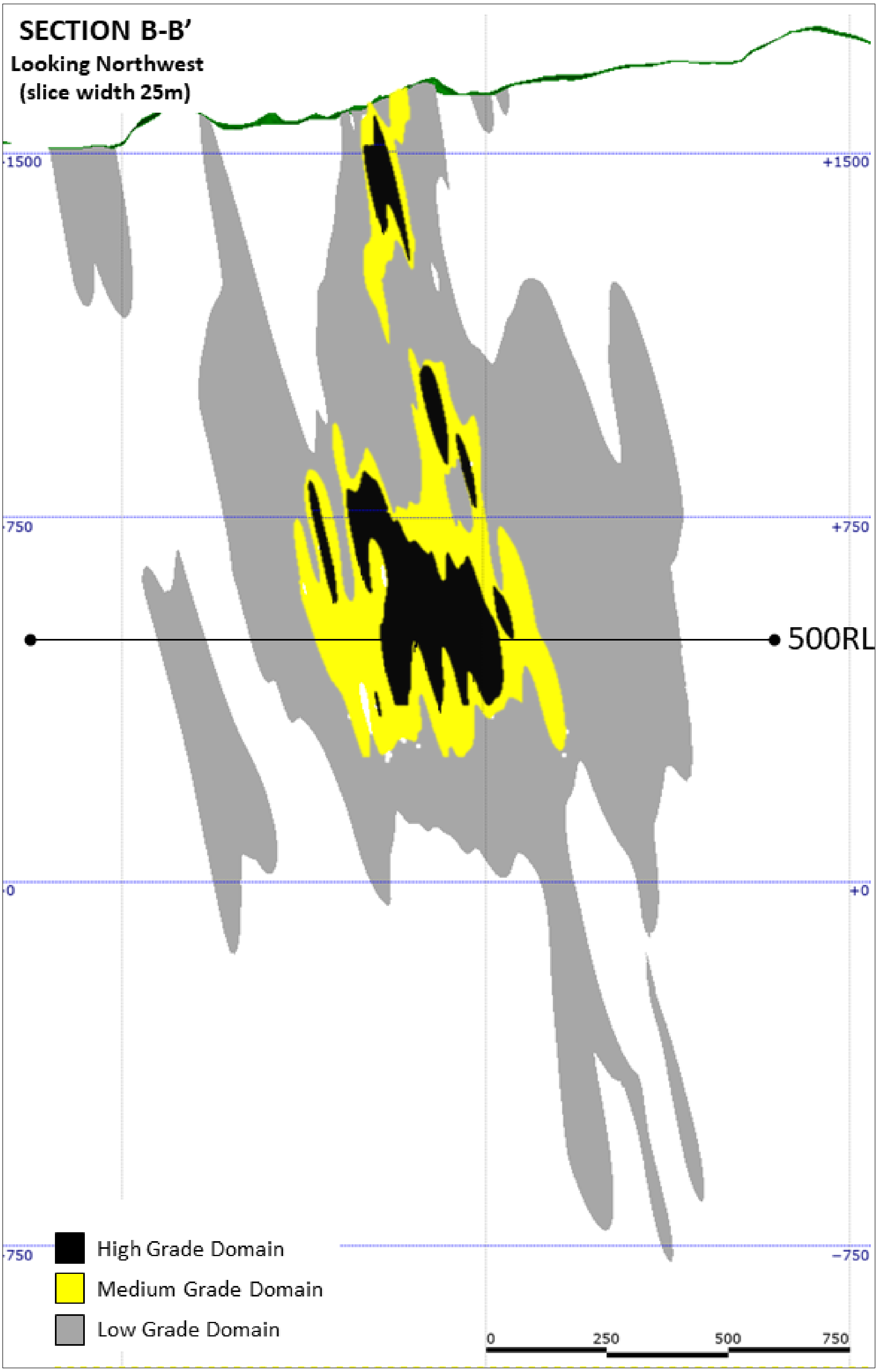


Figure 14-7: Section B-B' through the Alpala deposit showing grade domains

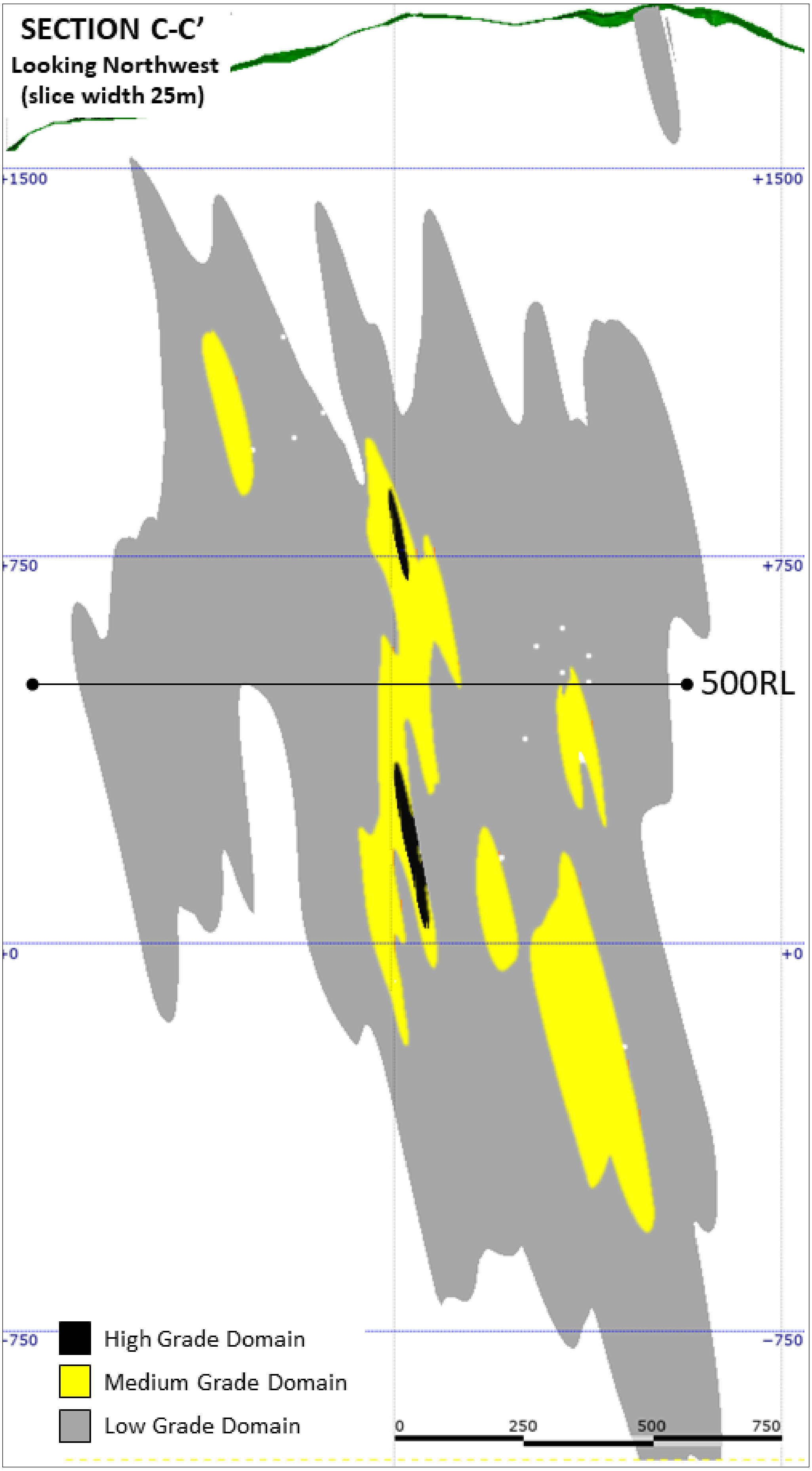


Figure 14-8: Section C-C' through the Alpala deposit showing grade domains

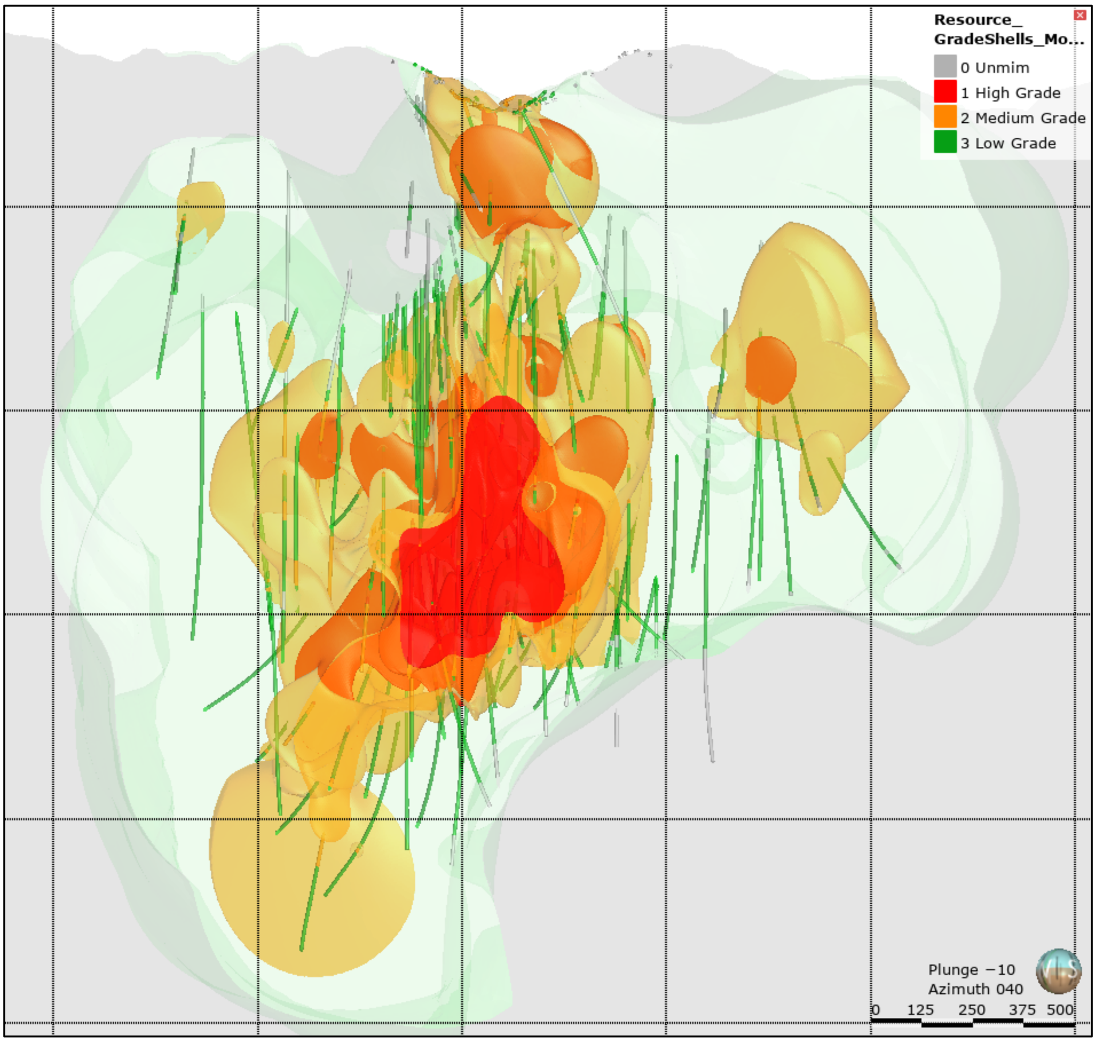


Figure 14-9: 3D image of the mineralisation model looking northeast

14.4.3 Domain Coding

The drillholes were coded based on the 3D domains that resulted from combining the lithological and mineralisation models. Thirty-six (36) possible domains were defined and are presented in Table 14-1 below.

Table 14-1: Model Domains and Codes

Lithological Domain and LITHCODE	Mineralisation Domains			
	Unmineralised MINCODE 0	Low-grade MINCODE 1	Medium Grade MINCODE 2	High-grade MINCODE 3
100 = V	100	101	102	103
200 = D10	200	201	202	203
300 = QD10	300	301	302	303
400 = QD15	400	401	402	403
500 = IM	500	501	502	503
600 = LM	600	601	602	603
700 = LMQD	700	701	702	703
800 = PM	800	801	802	803
900 = BX	900	901	902	903

14.5 Statistical Analysis

14.5.1 Domain Evaluation

A statistical analysis was undertaken on the domain-coded 10m-composited drillhole data to determine which of the domains are viable for grade estimation and to assess how best to recombine the domains for subsequent analysis and estimation. The statistical analysis was based on general statistical characteristics (mean, variance etc.), and histograms, probability plots and box-and-whisker plots.

Log-histograms for copper and gold in all domains combined are displayed in Figure 14-10 and Figure 14-11. A natural population break can be seen, particularly in the copper data. The various populations evident in these histograms need to be dealt with separately when block modelling.

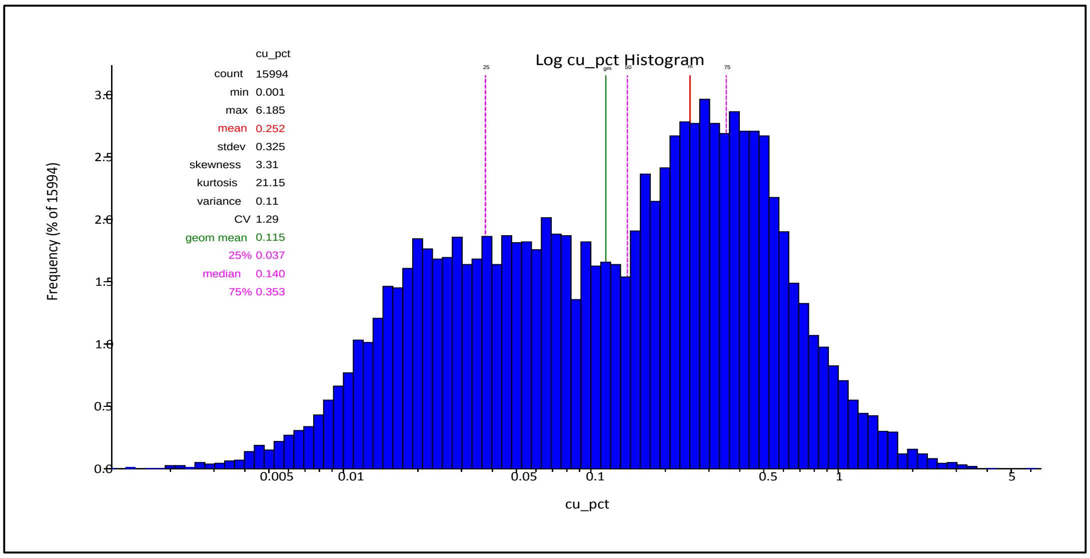


Figure 14-10: Histogram of Copper (%) for all composited drillhole intervals

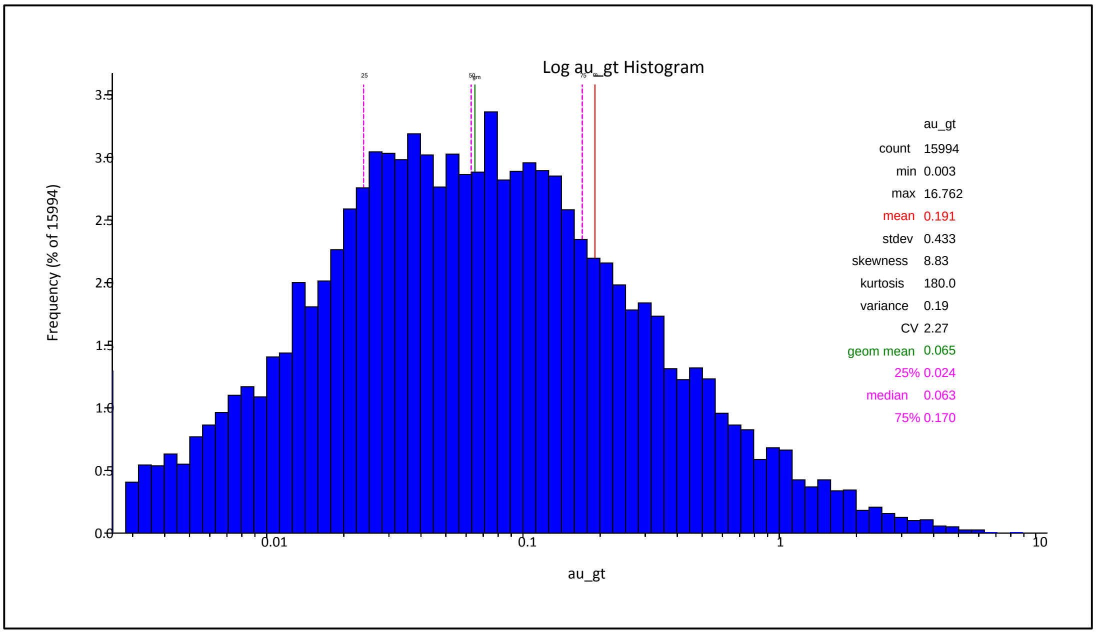


Figure 14-11: Histogram of Gold (g/t or ppm) for all composited drillhole intervals

Mineralisation Domains

Figure 14-12 through to Figure 14-15, present histograms for the different mineralisation domains (MINCODE) and clearly show how grade populations have been effectively separated just by the concentric mineralisation domaining. The gold histograms do not show such a clear population break, however, the mineralisation modelling clearly shows the good correlation between elevated copper and gold grades, as displayed in the scatter plot in Figure 14-16. SRK notes that the ratio of gold over copper is highest in the core of the deposit and that the ratio gradually reduces outwards towards the low-grade edge of the deposit.

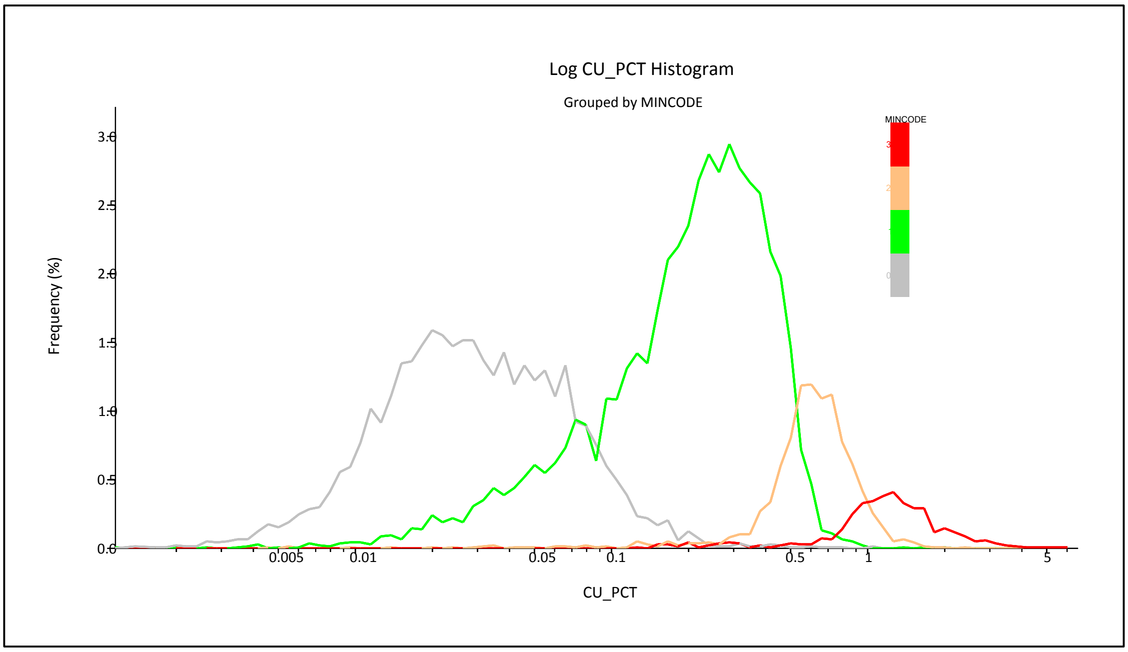


Figure 14-12: Histogram of Cu (%) for composites split by mineralisation code (MINCODE)

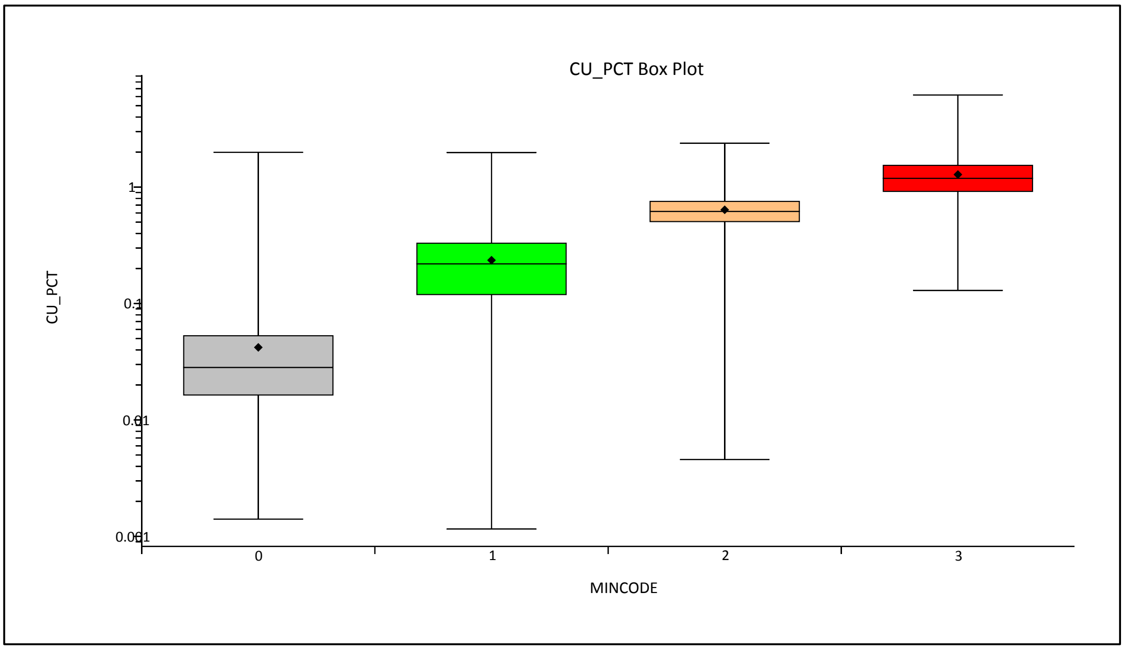


Figure 14-13: Box-and-whisker plots of Cu (%) for composites split by mineralisation code (MINCODE)

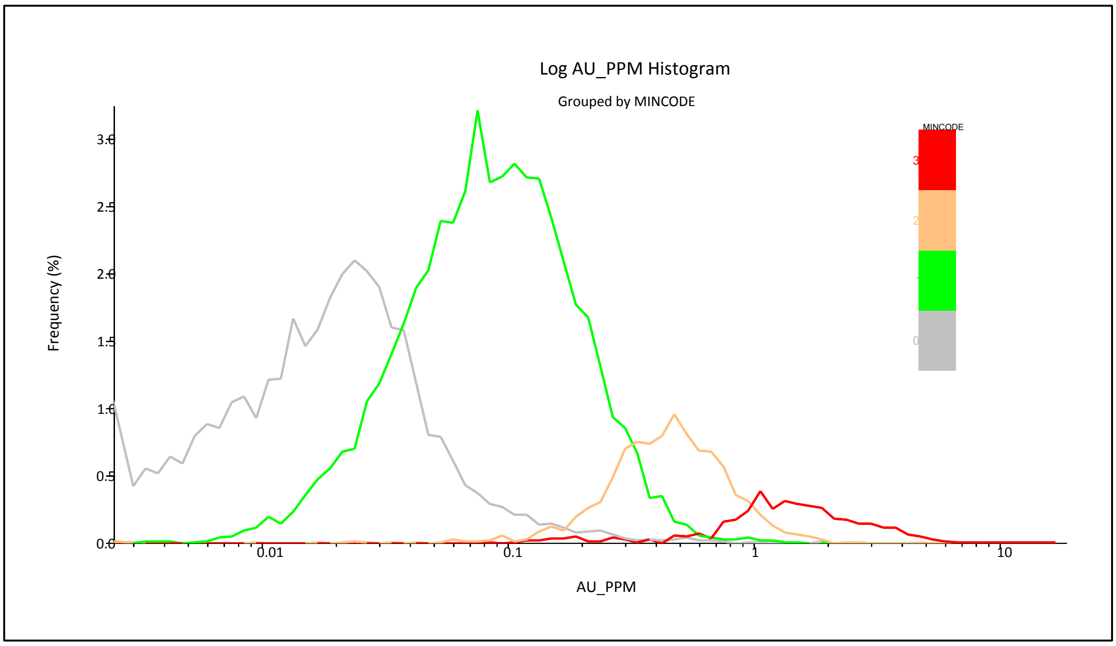


Figure 14-14: Histogram of Au (g/t or ppm) for composites split by mineralisation code (MINCODE)

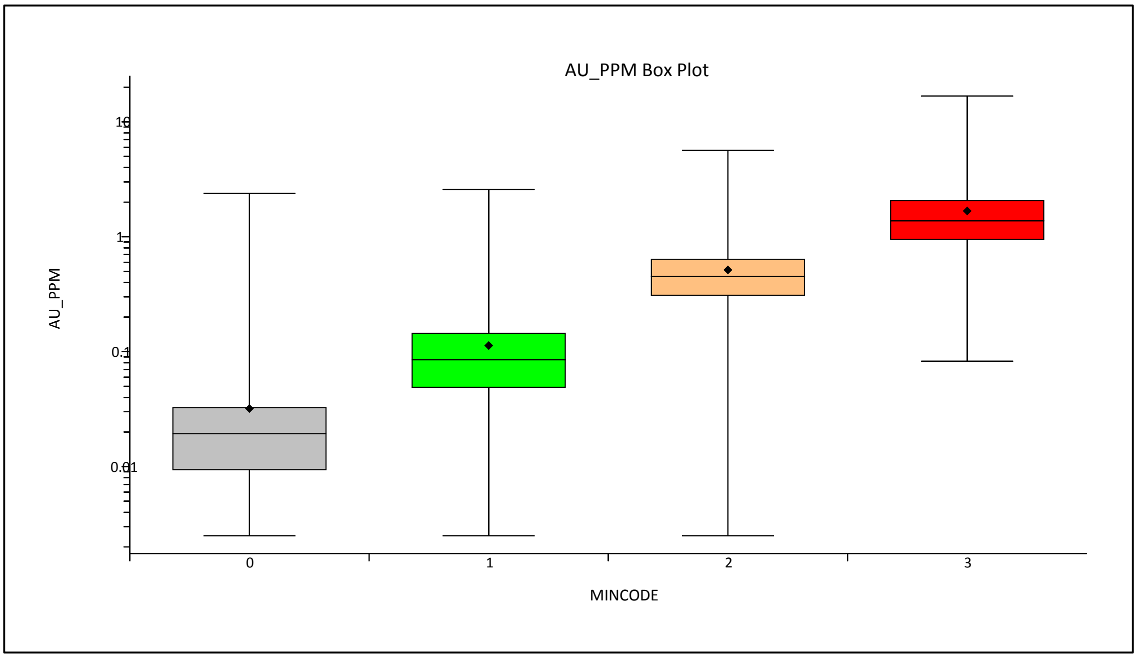


Figure 14-15: Box-and-whisker plots of Au (g/t or ppm) composites split by mineralisation code (MINCODE)

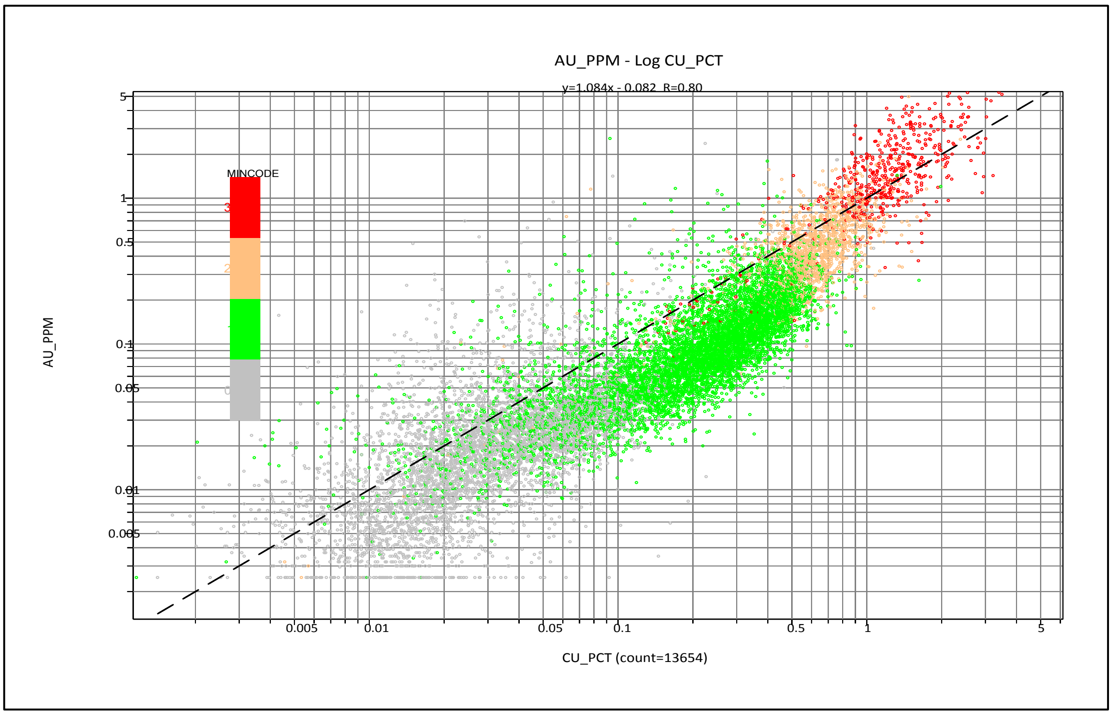


Figure 14-16: Scatter plot Gold (g/t or ppm) and Copper (%) values in composites coloured by mineralisation code (MINCODE)

Lithological Domains

Box-and-whisker plots for copper and gold in each of the lithological domains (not split by mineralisation domain) are shown in Figure 14-17 and Figure 14-18; the LITHCODE codes are sequential in terms of age of emplacement, details are provided in Table 14-1. The plots show that the lithologies have distinctly different grade populations, and a large spread of grades. This provides further support for utilising a combined lithology and mineralisation domain approach for the grade estimation.

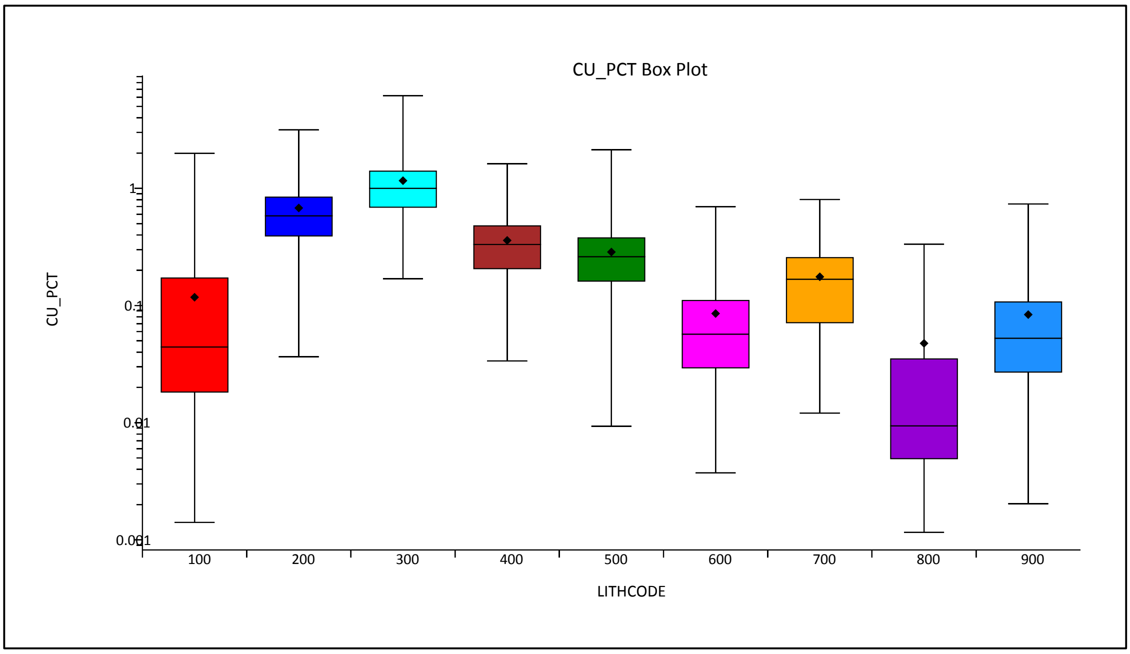


Figure 14-17: Box-and-whisker plots of Cu (%) for composites split by lithology code (LITHCODE)

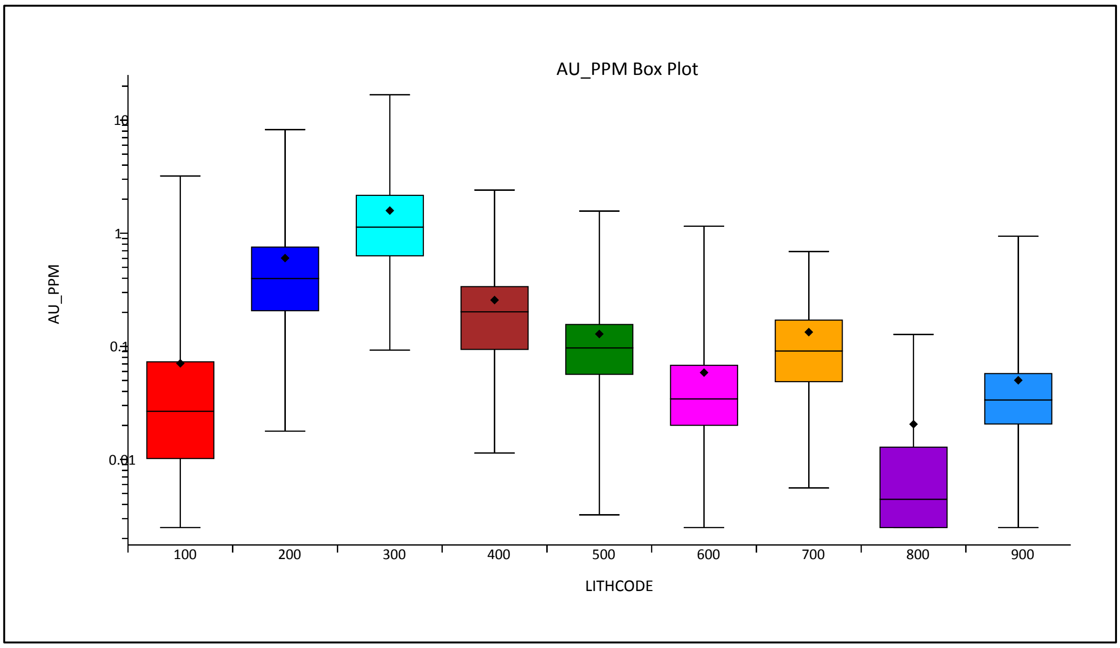


Figure 14-18: Box-and-whisker plots of Au (g/t or ppm) for composites split by lithology code (LITHCODE)

From the box-and-whisker plots, it is clear that the host volcanics have the largest range of grades with only a small proportion exceeding 0.2% copper. The QD10 is most strongly mineralised followed by D10 and QD15. The later intrusion phases are on a progressively less well mineralised trend except for LMQD which is distinctly higher than the trend. The breccia is youngest but not the least mineralised, this is due to some mineralised clasts being incorporated in the breccia.

Combined Mineralisation and Lithology Domains

The statistics for each of the combined domains are provided in Table 14-2; due to the large number of histograms produced, they are not provided here, however box-and-whisker plots are shown in Figure 14-19 and Figure 14-20 for copper and gold. In general, most combined domains exhibited a positively-skewed log-normal distribution for both copper and gold, as expected for the style of mineralisation. The higher-grade domains showed populations exhibiting more normal distributions. The coefficient of variation (CoV = standard deviation / mean) values are generally low (<1), demonstrating successful domaining (low spread of values).

Table 14-2: Statistics of composited drillholes by combined domain

Domain	Assay	No. Samples	Min Grade	Max Grade	Mean Grade	Stand Dev	CoV
100	Cu (%)	2818	0.001408	1.99	0.04	0.06	1.75
	Au (g/t)	2818	0.0025	2.38	0.03	0.09	3.02
101	Cu (%)	1621	0.007178	0.94	0.22	0.14	0.62
	Au (g/t)	1621	0.0044	2.57	0.11	0.12	1.10
102	Cu (%)	105	0.023312	1.38	0.57	0.22	0.39
	Au (g/t)	105	0.0598	1.54	0.50	0.28	0.57
103	Cu (%)	7	0.40328	1.72	1.03	0.45	0.44
	Au (g/t)	7	0.1448	3.21	1.36	0.99	0.73
200	Cu (%)	1	0.3284	0.33	0.33		
	Au (g/t)	1	0.2266	0.23	0.23		
201	Cu (%)	558	0.03654	1.62	0.36	0.14	0.40
	Au (g/t)	558	0.0178	1.80	0.20	0.14	0.70
202	Cu (%)	706	0.048542	2.38	0.69	0.24	0.34
	Au (g/t)	706	0.0626	5.63	0.58	0.40	0.69
203	Cu (%)	273	0.1568	3.16	1.31	0.50	0.38
	Au (g/t)	273	0.1818	8.26	1.50	0.95	0.63
301	Cu (%)	5	0.1692	0.51	0.33	0.12	0.37
	Au (g/t)	5	0.0926	0.26	0.20	0.06	0.30
302	Cu (%)	132	0.19734	1.39	0.70	0.20	0.29
	Au (g/t)	132	0.1608	1.75	0.61	0.26	0.42
303	Cu (%)	211	0.47478	6.18	1.47	0.70	0.47
	Au (g/t)	211	0.5232	16.76	2.23	1.53	0.69
400	Cu (%)	15	0.04024	0.11	0.07	0.02	0.28
	Au (g/t)	15	0.0152	0.05	0.03	0.01	0.31
401	Cu (%)	369	0.03364	0.91	0.29	0.14	0.48
	Au (g/t)	369	0.0114	0.68	0.17	0.11	0.66
402	Cu (%)	130	0.1625	1.17	0.56	0.17	0.30
	Au (g/t)	130	0.1386	2.41	0.47	0.26	0.54
403	Cu (%)	10	0.4656	1.62	0.79	0.33	0.42
	Au (g/t)	10	0.4892	1.67	0.96	0.40	0.41
500	Cu (%)	262	0.009327	0.43	0.07	0.04	0.62
	Au (g/t)	262	0.003241	0.43	0.03	0.04	1.14
501	Cu (%)	2643	0.011026	1.98	0.28	0.14	0.49
	Au (g/t)	2643	0.0036	1.44	0.12	0.09	0.77
502	Cu (%)	206	0.205704	1.30	0.64	0.18	0.29
	Au (g/t)	206	0.1206	1.57	0.38	0.17	0.44
503	Cu (%)	6	0.49056	2.13	0.98	0.57	0.58
	Au (g/t)	6	0.3574	1.42	0.78	0.38	0.48
600	Cu (%)	540	0.003728	0.46	0.04	0.04	0.94
	Au (g/t)	540	0.0025	0.70	0.04	0.06	1.50
601	Cu (%)	479	0.012759	0.70	0.13	0.10	0.75
	Au (g/t)	479	0.0025	1.06	0.07	0.09	1.21
602	Cu (%)	27	0.01377	0.27	0.11	0.07	0.64
	Au (g/t)	27	0.009	1.15	0.13	0.19	1.42
603	Cu (%)	11	0.1552	0.37	0.24	0.06	0.25
	Au (g/t)	11	0.1196	0.38	0.22	0.08	0.36
700	Cu (%)	23	0.012084	0.09	0.05	0.02	0.46
	Au (g/t)	23	0.0056	0.24	0.05	0.06	1.12
701	Cu (%)	40	0.03336	0.32	0.17	0.08	0.47
	Au (g/t)	40	0.0148	0.54	0.09	0.08	0.90
702	Cu (%)	10	0.03279	0.80	0.30	0.20	0.66
	Au (g/t)	10	0.068	0.69	0.28	0.17	0.59
703	Cu (%)	26	0.12972	0.37	0.24	0.07	0.28
	Au (g/t)	26	0.0826	0.56	0.21	0.11	0.52
800	Cu (%)	3	0.003344	0.04	0.02	0.02	1.03
	Au (g/t)	3	0.0073	0.04	0.02	0.01	0.70
801	Cu (%)	5	0.001158	0.04	0.02	0.01	0.64
	Au (g/t)	5	0.0025	0.01	0.01	0.00	0.67
802	Cu (%)	6	0.00457	0.33	0.08	0.12	1.45
	Au (g/t)	6	0.0025	0.13	0.03	0.05	1.44
900	Cu (%)	1250	0.002186	0.32	0.05	0.04	0.80
	Au (g/t)	1250	0.0025	0.94	0.03	0.04	1.19
901	Cu (%)	1136	0.002034	0.74	0.12	0.10	0.81
	Au (g/t)	1136	0.0032	0.92	0.07	0.07	1.01
902	Cu (%)	20	0.067252	0.59	0.31	0.18	0.59
	Au (g/t)	20	0.0234	0.43	0.19	0.11	0.61

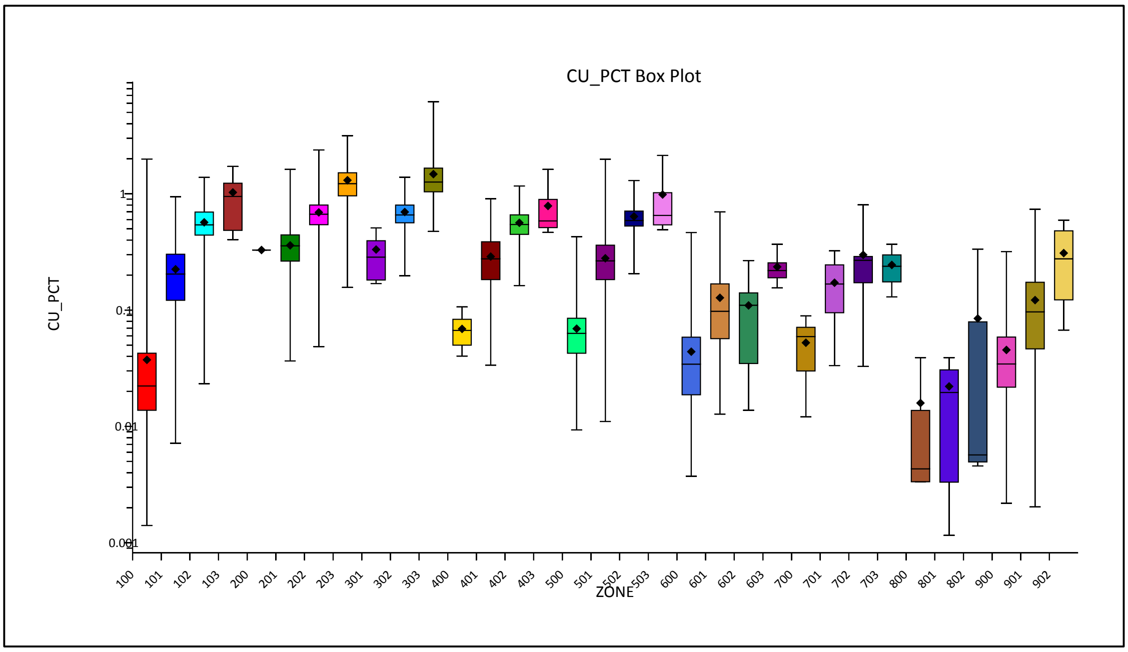


Figure 14-19: Box-and-whisker plots of Copper (%) for composites split by combined domain

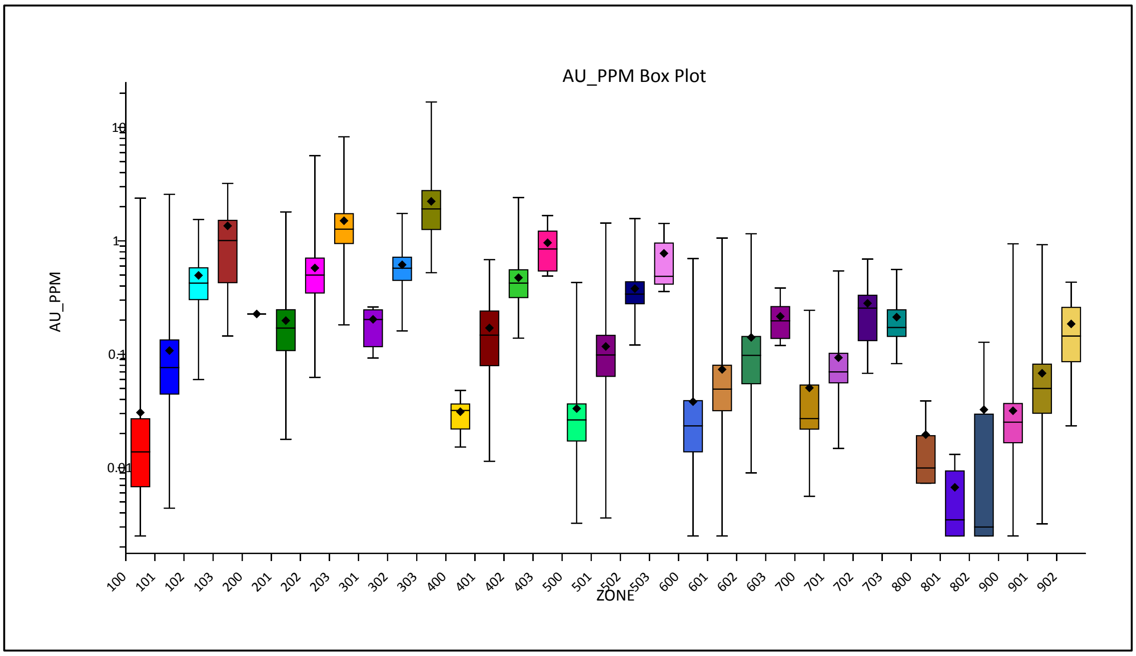


Figure 14-20: Box-and-whisker plots of Gold (g/t) for composites split by combined domain

14.5.2 Final Estimation Domain Coding

Due to the complexity of the interactions and cross-cutting nature between the intrusive phases, a number of domains are relatively small and have a limited number of samples, which would not represent viable domains for grade estimation on their own. These domains have been merged with larger domains and following the analysis above, domains were further grouped on the basis of mineralisation event timing and statistical characteristics to form estimation domains (KZONE) to be used in the grade estimation. The final kriging domains (KZONE) and their contributing domains are shown in Table 14-3.

Table 14-3 Grouped lithological and mineralisation and KZONE values

<table>
<tr><th rowspan="2">Lithological Domains</th><th colspan="4">Mineralisation Domains</th></tr>
<tr><th>Unmineralised</th><th>Low-grade</th><th>Medium Grade</th><th>High-grade</th></tr>
<tr><td>V</td><td rowspan="9">0</td><td>1</td><td>2</td><td rowspan="2">3</td></tr>
<tr><td>D10</td><td>4</td><td>5</td></tr>
<tr><td>QD10</td><td colspan="2">6</td><td>7</td></tr>
<tr><td>QD15</td><td rowspan="2">8</td><td colspan="2" rowspan="2">9</td></tr>
<tr><td>IM</td></tr>
<tr><td>LM</td><td colspan="3" rowspan="2">10</td></tr>
<tr><td>LMQD</td></tr>
<tr><td>PM</td><td colspan="2" rowspan="2"></td><td rowspan="2">N/A</td></tr>
<tr><td>BX</td></tr>
</table>

The declustered composited sample statistics from the resulting kriging domains are provided in Table 14-4, with box-and-whisker plots and probability plots shown in Figure 14-21, Figure 14-22, Figure 14-23 and Figure 14-24 respectively. The results show that each of the populations are approximately log-normal with reasonable CoV values (standard deviation divided by the mean) allowing for robust grade estimation for each kriging domain.

Histograms for copper and gold for each KZONE are provided in Appendix B.

Table 14-4 Statistics of rotated declustered* composited drillholes by kriging domain (KZONE)

KZONE	Assay	No. Samples	Min Grade	Max Grade	Mean Grade	Stand Dev	CoV
0	Cu (%)	2818	0.001408	1.99	0.04	0.07	1.98
	Au (g/t)	2818	0.0025	2.38	0.03	0.09	2.61
1	Cu (%)	1621	0.007178	0.94	0.22	0.14	0.63
	Au (g/t)	1621	0.0044	2.57	0.10	0.10	0.99
2	Cu (%)	105	0.023312	1.38	0.55	0.24	0.43
	Au (g/t)	105	0.0598	1.54	0.47	0.28	0.60
3	Cu (%)	280	0.1568	3.16	1.29	0.50	0.39
	Au (g/t)	280	0.1448	8.26	1.39	0.91	0.66
4	Cu (%)	558	0.03654	1.62	0.36	0.14	0.40
	Au (g/t)	558	0.0178	1.80	0.20	0.14	0.68
5	Cu (%)	706	0.048542	2.38	0.69	0.23	0.34
	Au (g/t)	706	0.0626	5.63	0.55	0.40	0.73
6	Cu (%)	137	0.1692	1.39	0.72	0.25	0.35
	Au (g/t)	137	0.0926	1.75	0.55	0.26	0.47
7	Cu (%)	211	0.47478	6.18	1.55	0.73	0.47
	Au (g/t)	211	0.5232	16.76	2.08	1.32	0.64
8	Cu (%)	3012	0.011026	1.98	0.26	0.14	0.53
	Au (g/t)	3012	0.0036	1.44	0.12	0.09	0.78
9	Cu (%)	352	0.1625	2.13	0.63	0.20	0.32
	Au (g/t)	352	0.1206	2.41	0.41	0.21	0.51
10	Cu (%)	1760	0.001158	0.80	0.13	0.10	0.79
	Au (g/t)	1760	0.0025	1.15	0.07	0.08	1.09

**Note: Samples declustered using a rotated grid of 150mX by 10mY by 10mZ*

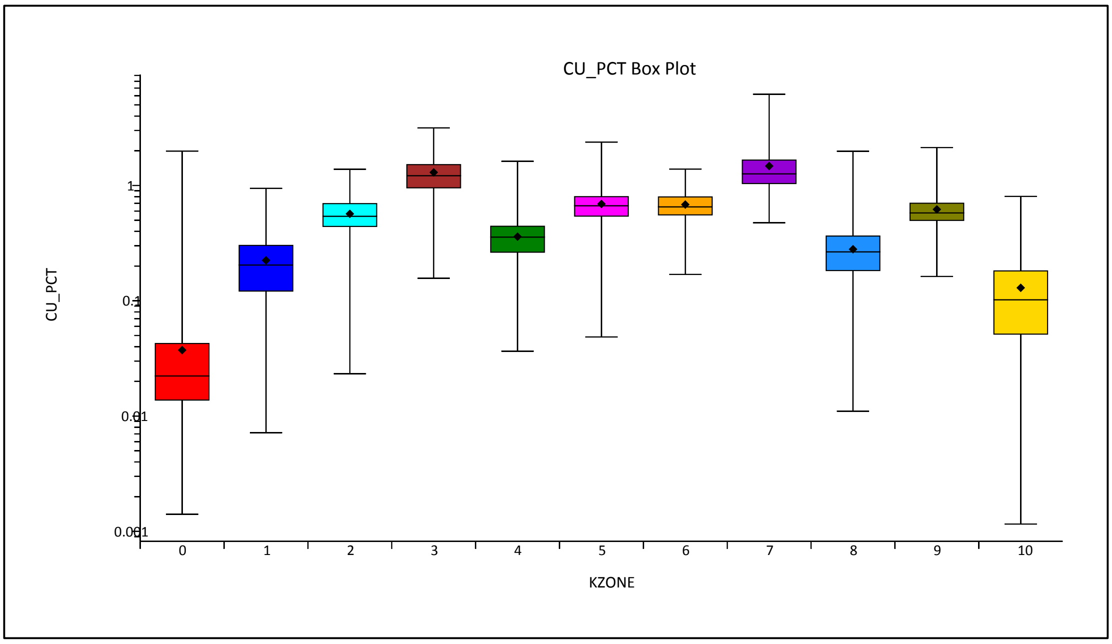


Figure 14-21 Box-and-whisker plots of Cu (%) for composites split by KZONE

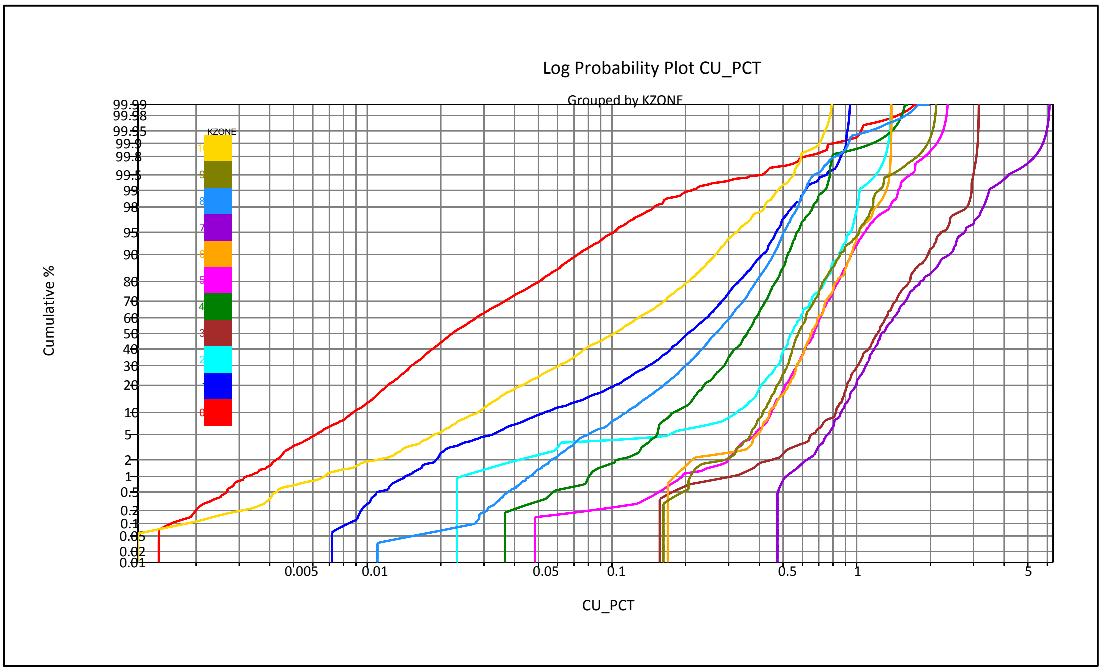


Figure 14-22: Log probability plots of Cu (%) for composites split by KZONE

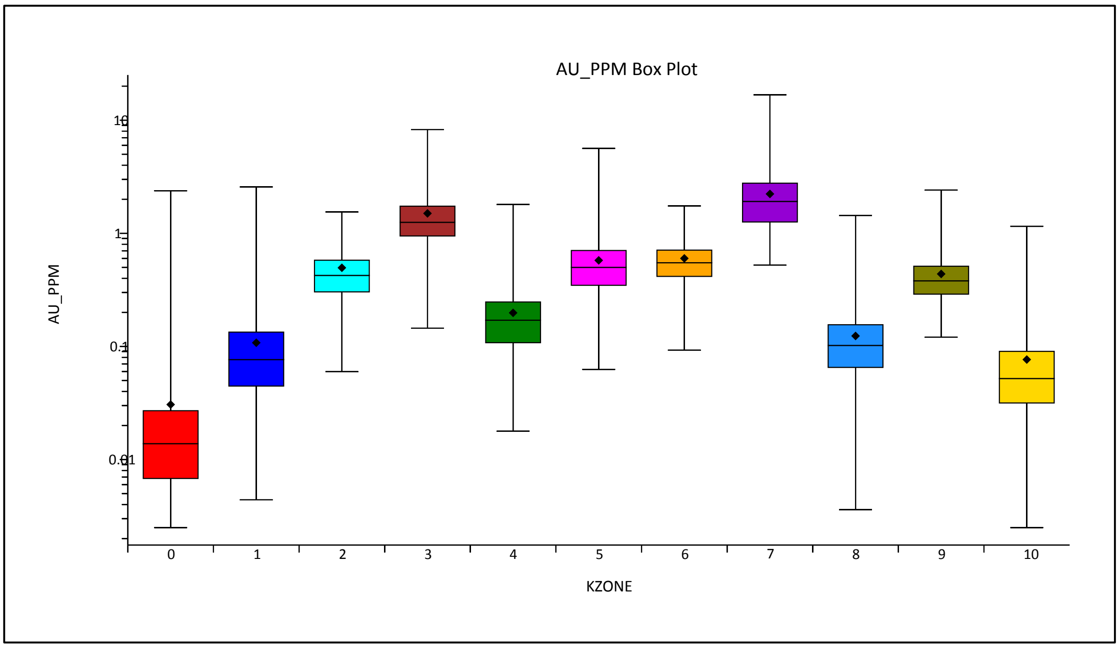


Figure 14-23: Box-and-whisker plots of Au (g/t) for composites split by KZONE

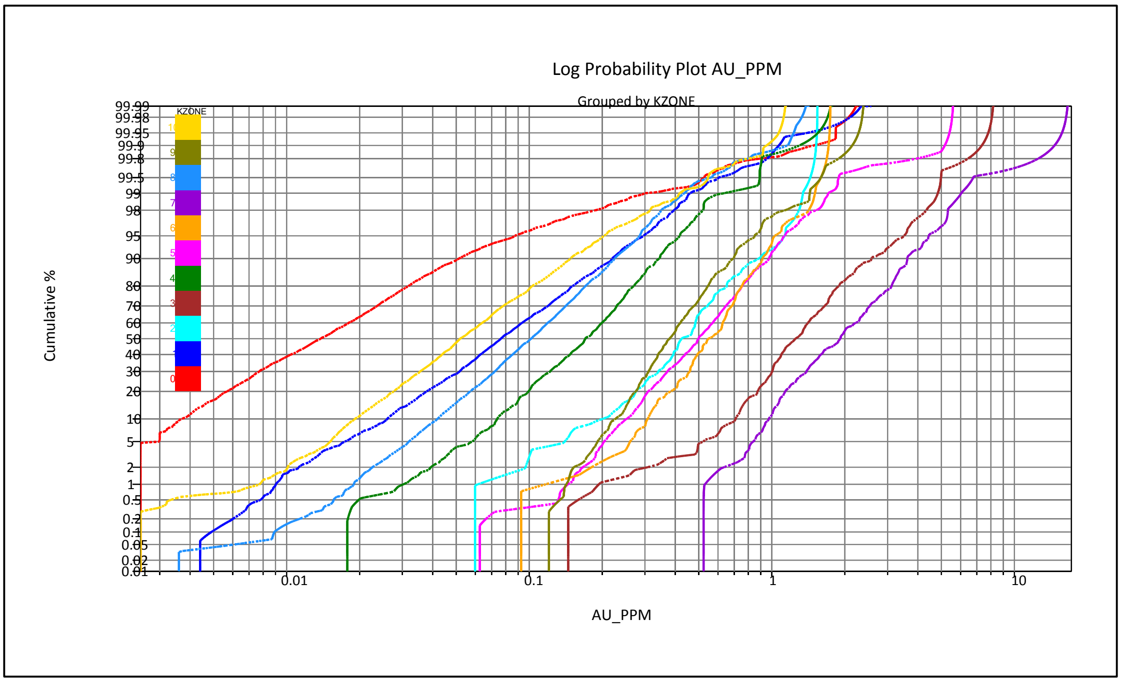


Figure 14-24: Log probability plots of Au (g/t) for composites split by KZONE

14.5.3 Evaluation of Outliers

High-grade capping is occasionally undertaken where data is considered to sit outside of the main population. SolGold undertook an exercise to identify any high-grade outliers and understand the geological reasoning for each case. A total of 10 samples were identified as outliers (generally where CuEq > 10%). The majority of these results have sound geological reasoning, for example, drillhole CSD-18-025 from 820 to 822 m grading 18.03% Cu and 0.98 g/t Au (18.6% CuEq) seen in Figure 14-25 is close to the tip of a QD10 dyke where particularly high proportions of chalcopyrite are associated with in the UST style of mineralisation.

SRK considers that the compositing process (averaging 2 m samples to 10 m composites) and the detailed geological domaining has adequately smoothed these high values and constrained them; there is no evidence of these outliers materially effecting the mean grades of the domain populations and therefore no capping was undertaken for grade estimation.

High-grade caps were applied to the data in a number of kriging domains during the geostatistical analysis in order to improve the structures observed in the semi-variograms.

Figure 14-25: Drillhole CSD-18-25 (820-822 m) showing high-grade copper (Source: SolGold, 2018)

14.6 Geostatistical Analysis

Variography was used to assess grade continuity and spatial variability of an attribute in the resultant estimation domains and to determine sample search and kriging parameters for block grade estimation. Leapfrog was used for geostatistical analysis.

After completing the variogram map analysis for each estimation domain (within the plane of the general dip and strike of the deposit – dipping 80° towards 040°), experimental semi-variograms were calculated in the principal (major – direction of longest continuity), semi-major and minor axis orientations, with a downhole variogram calculated to characterise the nugget effect.

Directional variograms were generated for all zones. Where the resultant experimental semi-variograms were poorly defined, such as zone 7 (high-grade QD10), variogram search neighbourhoods were increased to give an essentially omni-directional variogram for fitting of the final variogram models.

An example of the directional semi-variograms modelled for KZONE 1 for copper and gold are shown in Figure 14-26 and Figure 14-27. The final variogram parameters are displayed in Table 14-5.

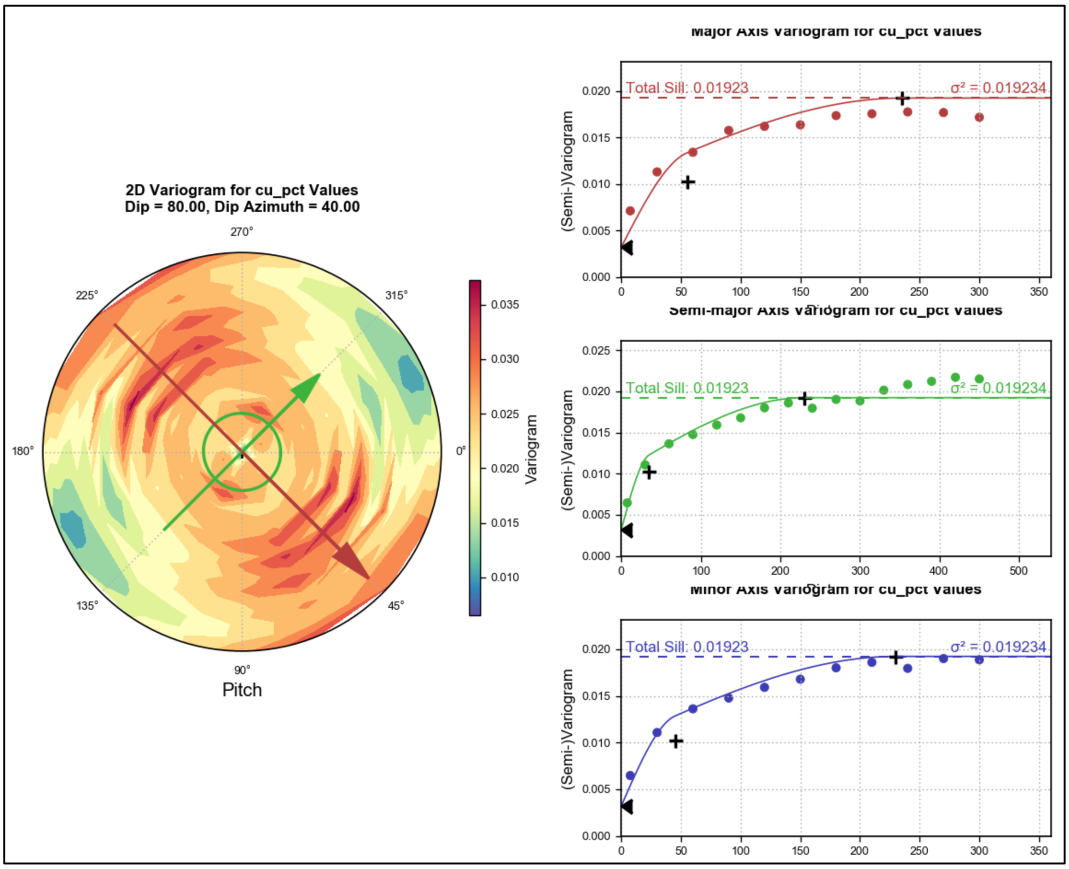


Figure 14-26: Variogram map and modelled semi-variograms for KZONE 1 for copper

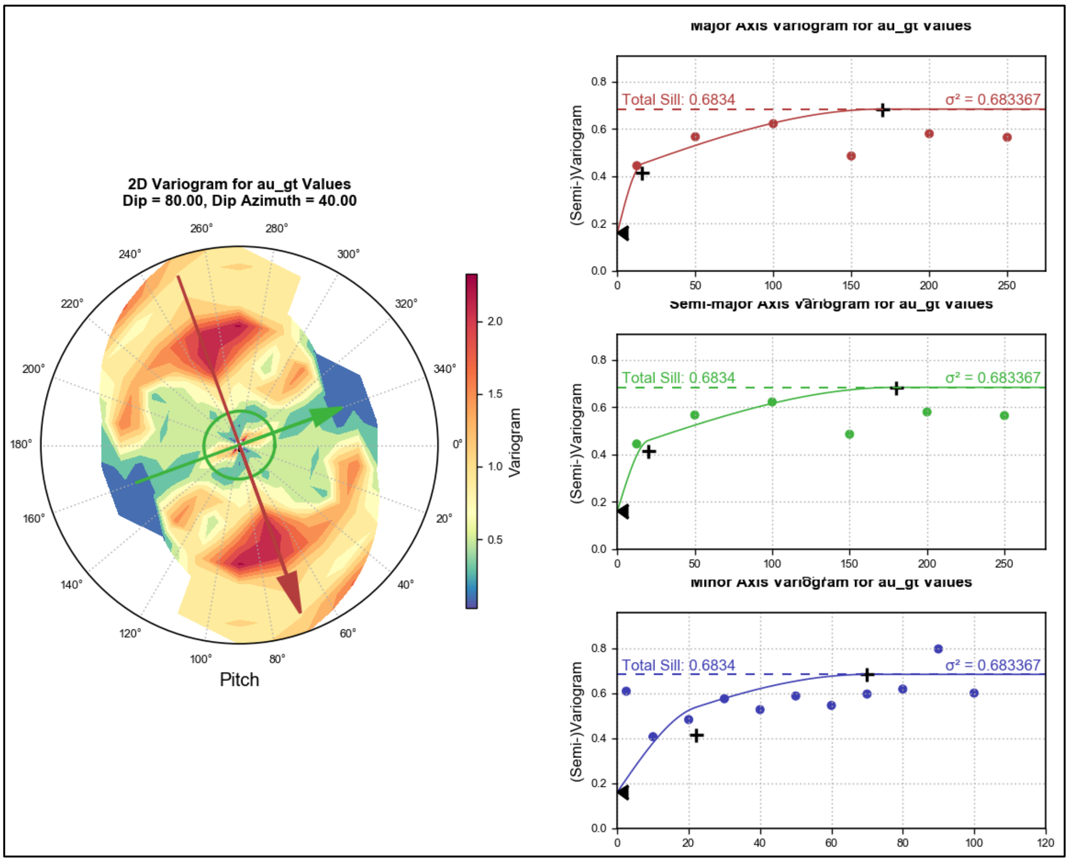


Figure 14-27: Variogram map and modelled semi-variograms for KZONE 1 for gold

Table 14-5: Variogram parameters

Element	KZONE	Pitch	Cap	Nugget Effect%	Structure 1				Structure 2			
					Sill%	Range (m)			Sill%	Range (m)		
						Maj	Sem Maj	Min		Maj	Sem Maj	Min
Au	0	60	0.30	29%	26%	80	50	50	46%	600	400	300
	1	105	-	38%	10%	45	40	15	52%	60	60	55
	2	100	-	17%	42%	100	100	25	41%	180	200	40
	3	70	4.00	23%	37%	16	20	22	39%	170	180	70
	4	65	-	8%	61%	25	25	25	30%	65	80	40
	5	130	3.00	33%	49%	75	35	50	18%	240	310	200
	6	60	1.40	21%	59%	120	115	60	20%	200	300	85
	7	70	4.00	5%	69%	50	50	35	26%	170	145	120
	8	65	1.40	31%	27%	90	55	50	41%	370	360	80
	9	65	1.50	10%	44%	60	30	30	46%	180	180	60
	10	110	-	17%	2%	105	145	120	80%	530	530	400
Cu	0	60	-	28%	40%	50	55	55	33%	365	400	180
	1	45	-	17%	36%	55	35	45	47%	235	230	230
	2	155	-	11%	38%	35	20	30	50%	180	90	50
	3	100	2.00	40%	31%	15	15	15	29%	110	135	100
	4	115	-	40%	42%	30	130	30	18%	330	370	45
	5	130	-	56%	23%	30	35	20	21%	320	280	220
	6	60	-	30%	41%	20	20	25	29%	225	220	80
	7	50	-	14%	36%	15	20	30	50%	200	230	70
	8	65	-	24%	25%	60	60	70	52%	200	200	200
	9	65	-	12%	59%	20	25	25	29%	95	60	50
	10	110	-	17%	22%	105	145	120	61%	530	530	400

14.7 Block Model and Estimation

A block model encapsulating the entire model has 10m x 10m x 10m blocks for grade estimation with no sub-blocks used. Table 14-6 provides details of the block model dimensions for the grade estimation. The blocks are relatively small compared with drillhole spacing however they do allow for relatively fine domain coding in the model which is important given how narrow domains can be and the significant changes in grades from one domain to the next in places.

Table 14-6: Details of block model dimensions

Dimension	Origin (bottom left)	Block Size (m)	Number of Blocks	Minimum Sub-block Size (m)
X	795500	10	352	-
Y	82000	10	352	-
Z	-1000	10	320	-

14.7.1 Grade Estimation

Ordinary Kriging ("OK") was used for the grade estimation for copper and gold (and silver). All major domain boundaries have been treated as hard boundaries during the estimation process. For the maiden MRE, in order to optimise the block model grade estimation, SRK undertook a quantitative Kriging neighbourhood analysis ("QKNA") for domains with large quantities of samples. This was not repeated for this update, as the results from the maiden MRE demonstrated the model was relatively insensitive to changing parameters.

The analysis highlighted the following:

- Block estimates are not sensitive to changing block size; meaning that using small blocks relative to the drilling data density does not cause bias in the global grade interpolation, however, small blocks may not be appropriate for short-term mine planning in future.
- A minimum of 10 and maximum of 30 produces good quality estimates for the majority of domains analysed. Using <10 samples produced lower quality estimates and using >30 samples has no further benefit in terms of improving estimate quality. However, for the domains with fewer samples, the minimum was reduced to 2 or 4 to allow for reasonable estimation.
- Block estimates are not sensitive to search ellipse dimensions over distances greater than the drill spacing.
- Discretisation only improves quality after increasing from 1 x 1 x 1 to 2 x 2 x 2 with minor improvements thereafter. All block estimates used 4 x 4 x4.

As a result of the analysis, the maximum number of samples per drillhole was generally set to 5 to ensure that at least 2 holes were used to estimate blocks in domains with high data density (minimum samples of 10 and max per hole of 5 = >2 drillholes).

The search ellipse radii are generally based on distances 2/3 of the total variogram range (rounded), with minor adjustments to ensure adequate samples able to be selected during interpolation. The orientation of the search ellipse is determined by the dip and dip direction of the variography major, semi-major and minor axes.

A multi-pass kriging routine was used; most classified blocks were estimated in the first pass using search radii in the plane of the deposit ranging from 40 m to over 350 m depending on variography results per domain. The second search generally doubled the size of the search ellipse radii and reduced the minimum and maximum number of samples required to estimate each block. A third search of dimensions approximately 10x the size of the first search was utilised to ensure all blocks in the model were assigned grades and densities.

The search pass dimensions and parameters used in the grade estimate are presented in Table 14-7.

Table 14-7: Search ellipse dimensions and parameters

Element	KZONE	1st Search						2nd Search				3rd Search			
		Radii (m)			Min Samp	Max Samp	Max per DH	Radii Multiple	Min Samp	Max Samp	Max per DH	Radii Multiple	Min Samp	Max Samp	Max per DH
		Maj	Sem-Maj	Min											
Au	1	40	40	40	8	30	4	2	8	30	4	40	4	20	-
	2	120	130	30	8	30	4	2	6	30	3	10	2	20	-
	3	110	120	50	10	30	5	2	8	30	4	10	4	20	-
	4	40	50	30	8	30	4	2	6	30	3	20	4	20	-
	5	160	200	130	10	30	5	2	8	30	4	10	4	20	-
	6	130	200	60	10	30	5	2	8	30	4	10	4	20	-
	7	110	100	80	10	30	5	2	8	30	4	10	4	20	-
	8	240	240	50	10	30	5	2	8	30	4	10	4	20	-
	9	120	120	40	10	30	5	2	8	30	4	10	4	20	-
	10	350	350	260	10	30	5	2	8	30	4	4	4	20	-
Cu	1	150	150	150	10	30	5	2	8	30	4	15	4	20	-
	2	120	60	30	8	30	4	2	6	30	3	10	2	20	
	3	70	90	70	10	30	5	2	8	30	4	10	4	20	-
	4	220	240	30	10	30	5	2	8	30	4	10	4	20	-
	5	220	200	150	10	30	5	2	8	30	4	10	4	20	-
	6	150	150	50	10	30	5	2	8	30	4	10	4	20	-
	7	140	120	40	10	30	5	2	8	30	4	10	6	20	-
	8	140	140	120	10	30	5	2	8	30	4	10	4	20	-
	9	60	40	30	8	30	4	2	6	30	-	15	2	20	-
	10	350	350	260	10	30	5	2	6	30	3	4	4	20	

14.7.2 Density Estimation

Specific gravity analysis has been undertaken using a wax method on selected sections of whole core approximately 10 cm in length as discussed in Section 10.2.4 of this report.

The current project database contains 9,150 specific gravity measurements (8,405 within geological model boundary at the time of modelling) which have been composited into 7,451 composite samples (10 m) and used to inform the tonnage estimation. Table 14-8 and Figure 14-28 outline the density statistics by lithology. It should be noted that a minor number of anomalous values were removed from the estimate, with a lower limit of 2 and upper limit of 3.4 used to ensure that only reasonable values were used.

SRK did not find any significant spatial trends within the density data when compared to grade; however, SG values typically marginally increased with depth. The drillholes at the furthest extents along strike tended to show lower SG values than that in the core of the deposit.

The density was estimated undomained using an anisotropic IDW^2 method with a first pass search ellipse orientated 200m along strike, 200m down dip and 100m across strike (then a second and third pass based on a radii multiplier of x2 and x10, respectively). A minimum of 1 and maximum of 5 samples were used to inform each block.

Table 14-8: Statistics of density samples by lithology (uncomposited)

LITHCODE	No. of Samples	Minimum	Maximum	Mean	COV
100	3269	1.18	11.39	2.76	0.1
200	853	1.37	12.03	2.82	0.13
300	214	2.12	3.24	2.81	0.03
400	345	2.26	3.47	2.79	0.04
500	1464	1.07	4.38	2.8	0.05
600	510	1.26	14.53	2.8	0.2
700	50	2.54	2.97	2.77	0.03
800	5	2.66	2.73	2.69	0.01
900	1695	1.39	6.01	2.78	0.06

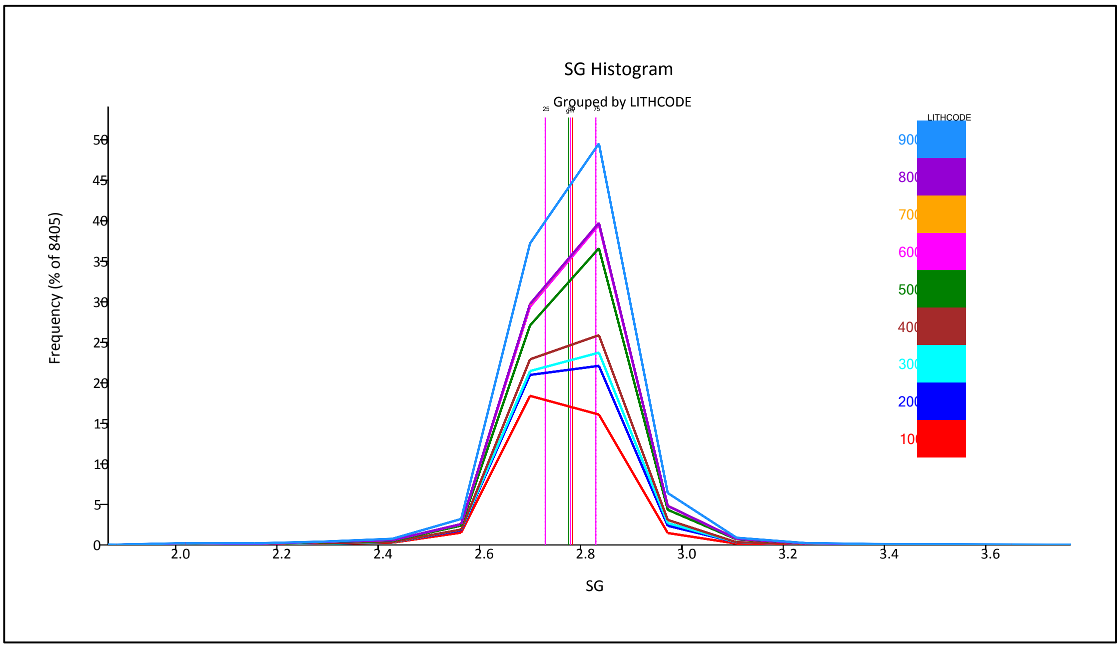


Figure 14-28: Histogram plot of density values per lithology

14.8 Model Validation and Sensitivity

SRK has validated the block model using the following techniques:

- visual inspection of block grades in comparison with drillhole data;
- sectional validation of the mean samples grades in comparison to the mean model grades;
- comparing inverse distance to ordinary kriged estimates;
- comparison of block model statistics; and;
- comparison to Datamine grade estimate.

14.8.1 Visual Validation

Visual validation provides a comparison of the interpolated block model on a local scale. A thorough visual inspection has been undertaken in section and 3D, comparing the sample grades with the block grades, which demonstrates in general good comparison between local block estimates and nearby samples, without excessive smoothing in the block model.

Figure 14-29 shows an example of the visual validation checks and highlights the overall block grades corresponding with composite sample grades in plan view, with two cross-sections in Figure 14-30 and Figure 14-31.

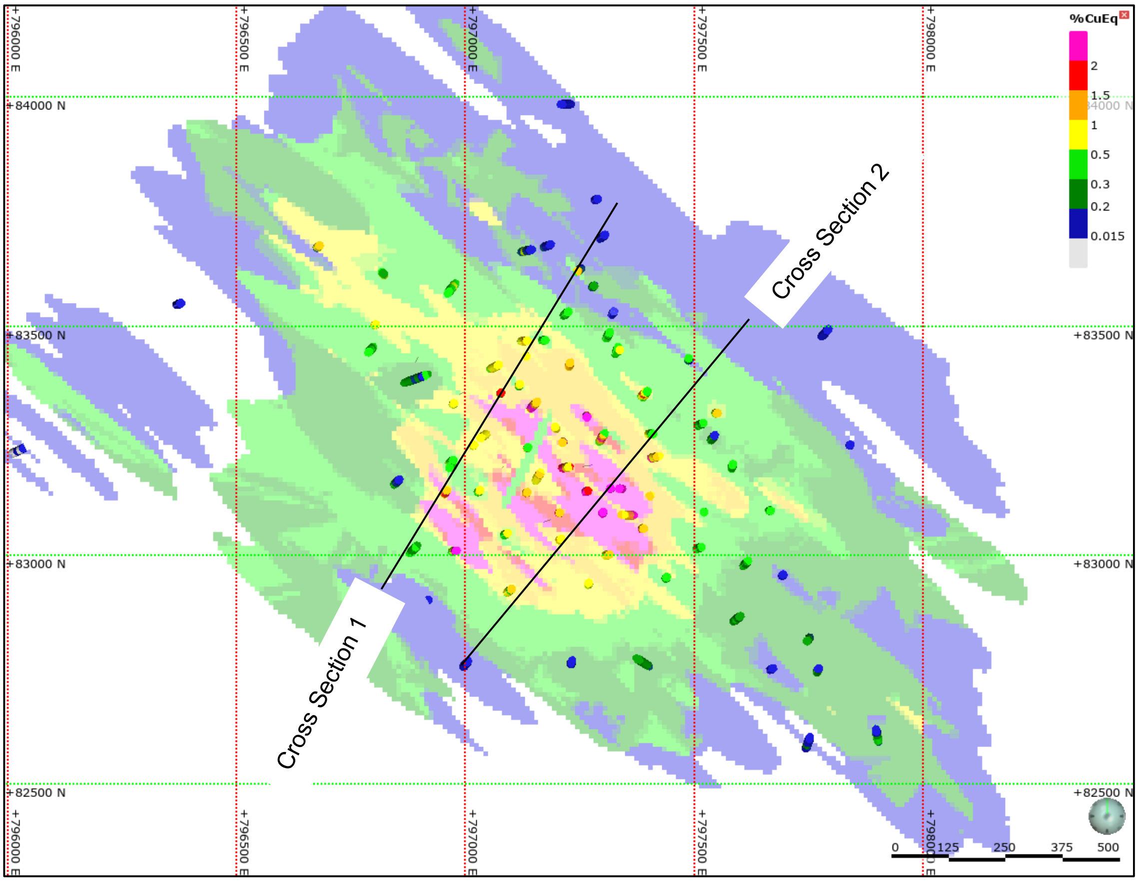


Figure 14-29: Plan view at 600 m RL, showing composites and block model grade estimates coloured by CuEq (%) and cross-section locations (below)

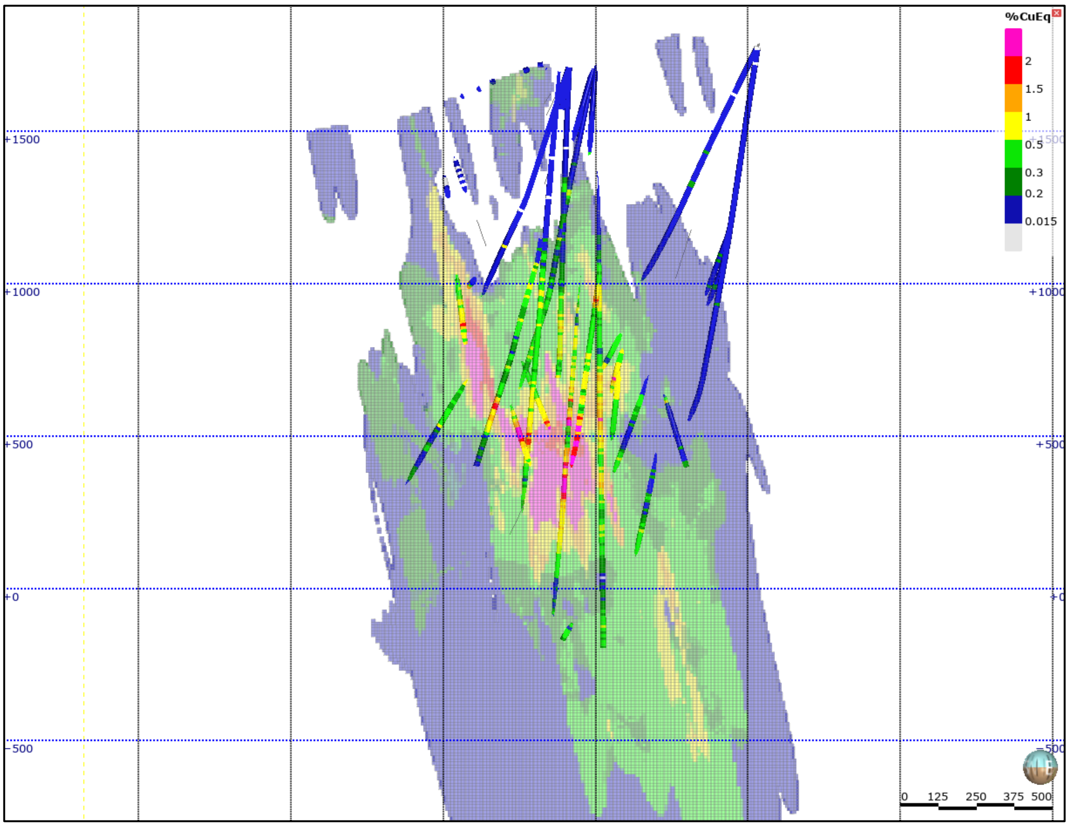


Figure 14-30: Cross-section 1 looking northwest showing composites and block model grade estimates coloured by CuEq (%)

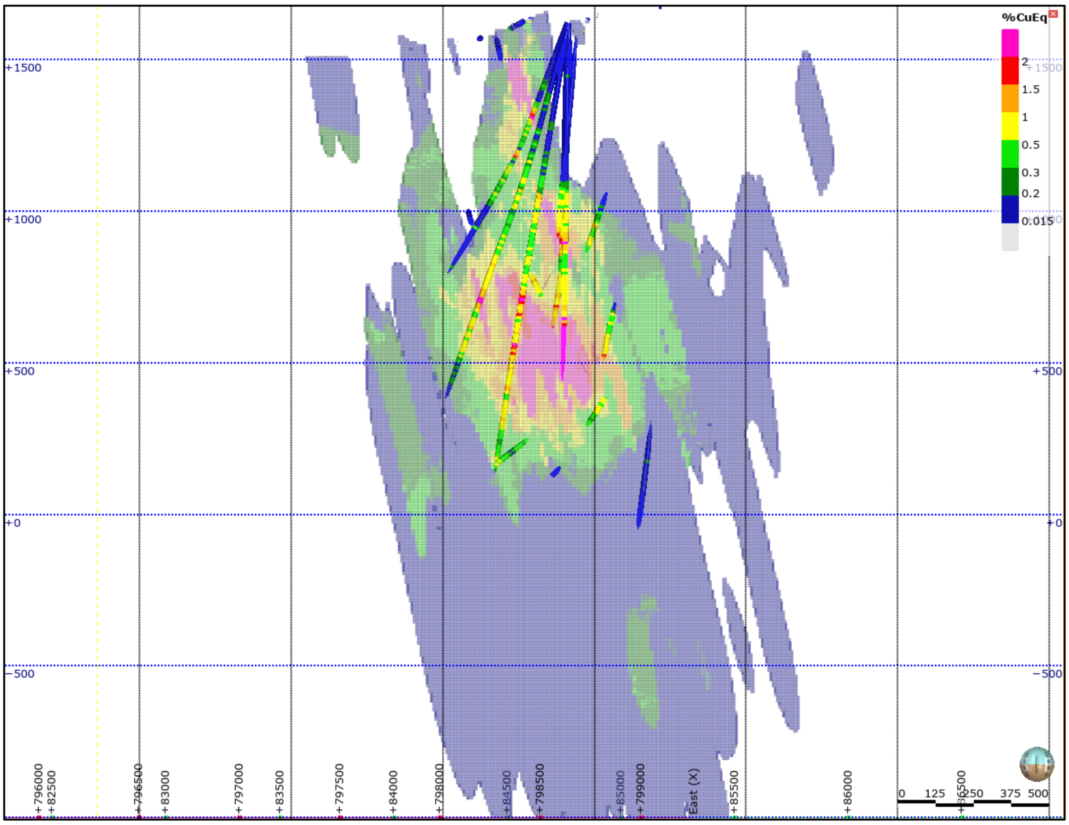


Figure 14-31: Cross-section 2 looking northwest showing composites and block model grade estimates coloured by CuEq (%)

14.8.2 Sectional Validation

As part of the validation process, the input composite samples were compared to the block model grades in sectional slices in the easting (X), northing (Y) and elevation (Z) directions. The results of which are then displayed on charts (swath plots) to check for material differences between grades and to visualise the level of smoothing. Figure 14-32 and Figure 14-33 shows example swath plot results comparing composites and block model grades for copper and gold in KZONE 4 (for the first search volume only).

The validation exercise shows a reasonable correlation between the block model grades and the composite grades, with the block model showing a typically smoothed profile of the composite grades as expected. SRK notes that in less densely sampled areas, minor grade discrepancies do exist on a local scale which is normal. In addition, due to the sub-vertical nature of the majority of holes and high intersection angles compared to the mineralisation, the elevation swath plots provide the truest comparison. Overall, SRK is confident that the interpolated grades reflect the available input sample data and the estimate shows no sign of material bias.

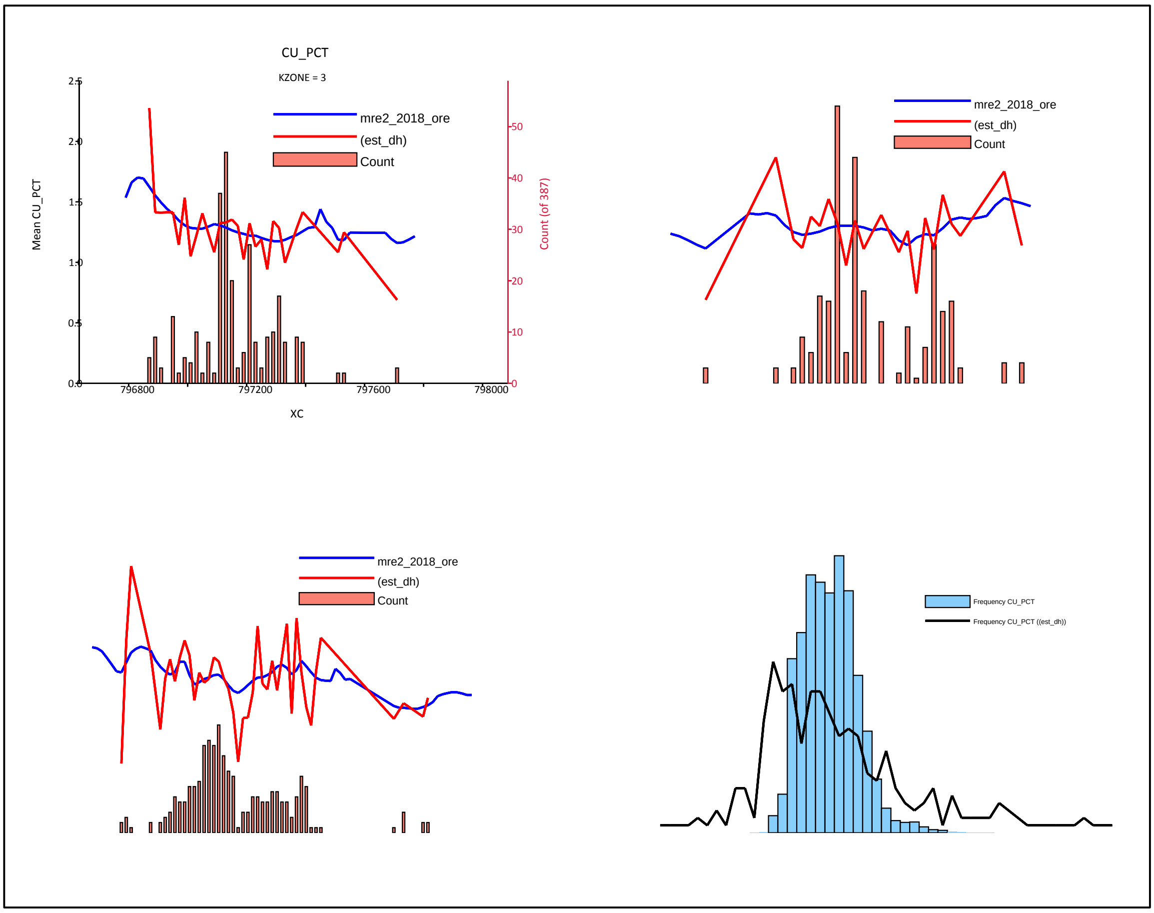


Figure 14-32: Swath plots and histogram comparing block model and composite mean Cu (%) grades for KZONE 3

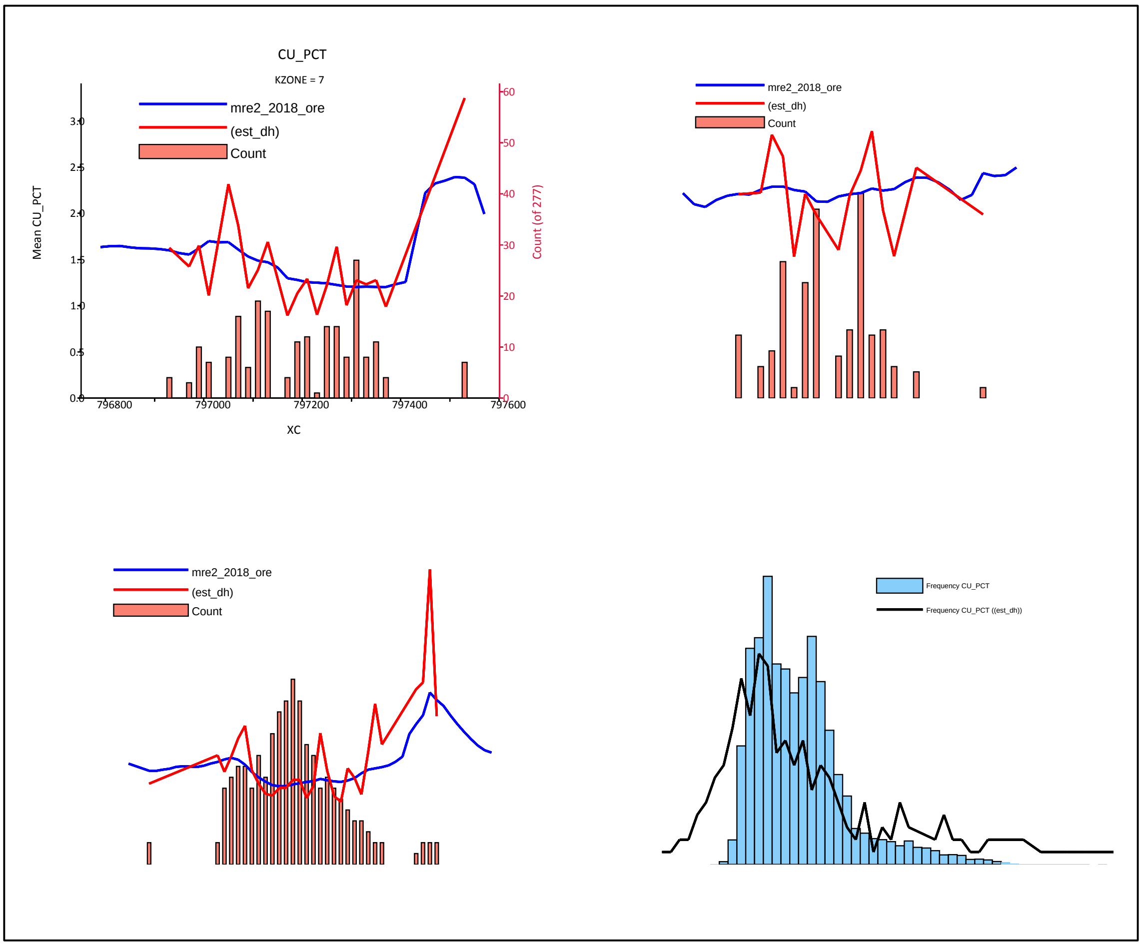


Figure 14-33: Swath plots and histogram comparing block model and composite mean Cu (%) grades for KZONE 7

14.8.3 Statistical Validation

The block estimate mean grade values have been compared to the declustered composite sample means for each KZONE (Table 14-9). The drillholes have been rotated by 45° to an east-west strike orientation and in alignment the declustering grids (150mX x 150mY x 10mZ). This global (entire domain) difference between the two values typically vary between 1 to 20% in terms of the OK estimates versus the composites, which SRK deems to be within acceptable levels. Such global grade differences can occur when drillhole spacing is variable as is the case in most domains. The highest percentage differences occur in the KZONEs with the lower grade gold.

Based on the visual, sectional and statistical validation results SRK considers the grades in the block model to be well estimated overall, with no material biases but variable confidence in some areas due to irregular or wider sample spacing.

Table 14-9 Differences between estimated block model and declustered composite sample mean grades*

KZONE	Grade	Block Model Mean	Declustered Composited Mean*	Difference	Percentage Difference
1	Cu (%)	0.21	0.22	0.01	4%
	Au (g/t)	0.09	0.10	0.01	9%
2	Cu (%)	0.60	0.55	-0.05	-9%
	Au (g/t)	0.46	0.47	0.01	2%
3	Cu (%)	1.28	1.29	0.01	1%
	Au (g/t)	1.47	1.39	-0.09	-6%
4	Cu (%)	0.38	0.36	-0.02	-6%
	Au (g/t)	0.15	0.20	0.05	23%
5	Cu (%)	0.71	0.69	-0.03	-4%
	Au (g/t)	0.55	0.55	0.00	-1%
6	Cu (%)	0.68	0.72	0.04	5%
	Au (g/t)	0.57	0.55	-0.03	-5%
7	Cu (%)	1.44	1.55	0.11	7%
	Au (g/t)	2.15	2.08	-0.07	-3%
8	Cu (%)	0.25	0.26	0.01	3%
	Au (g/t)	0.11	0.12	0.00	4%
9	Cu (%)	0.64	0.63	0.00	-1%
	Au (g/t)	0.40	0.41	0.01	2%
10	Cu (%)	0.14	0.13	-0.02	-12%
	Au (g/t)	0.08	0.07	0.00	-4%

**Note: samples declustered using a grid of 150 mX by 150 mY by 10 mZ*

14.8.4 Datamine Check Estimate

SolGold created their block model using Leapfrog Geo's module ('EDGE') which is a relatively recent addition to the software. SRK has checked that the outcome is in-line with other commonly utilised software packages by completing a check grade estimation in Datamine Studio RM software.

SRK produced check estimates for all KZONES for copper and gold matching estimation parameters as closely as possible, there were no issues identified between Leapfrog and Datamine. Examples of the close comparisons are shown in the grade-tonnage curves for copper in Figure 14-34 and Figure 14-35 for KZONEs 3 and 7, respectively.

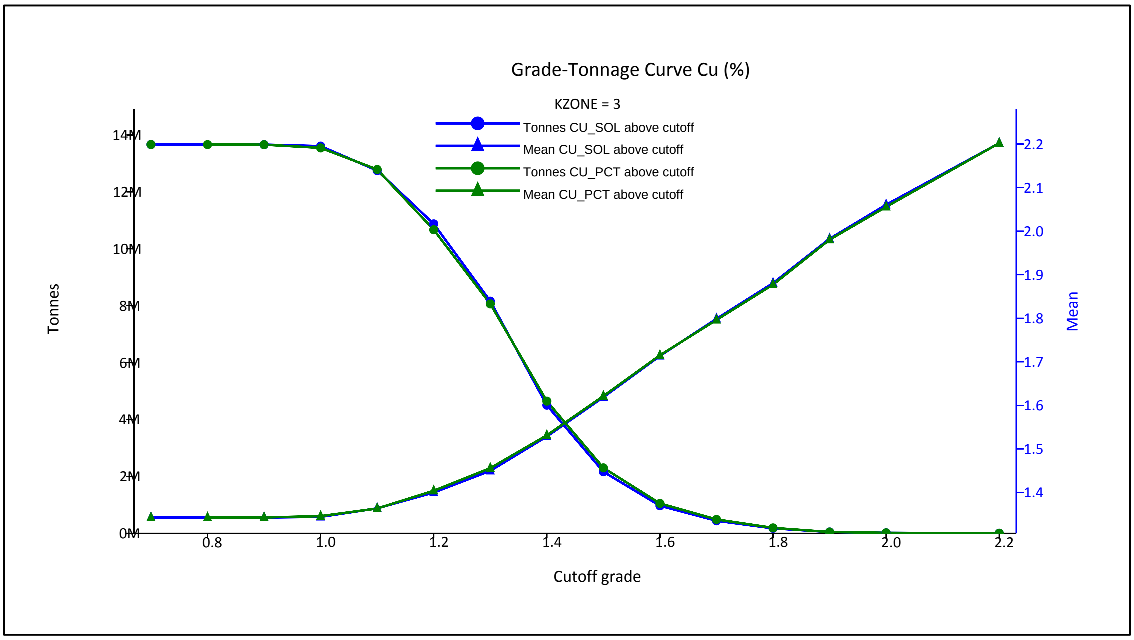


Figure 14-34: Grade-tonnage curve comparing Cu (%) estimates in Leapfrog (CU_SOL) and Datamine (CU_PCT) for KZONE 3

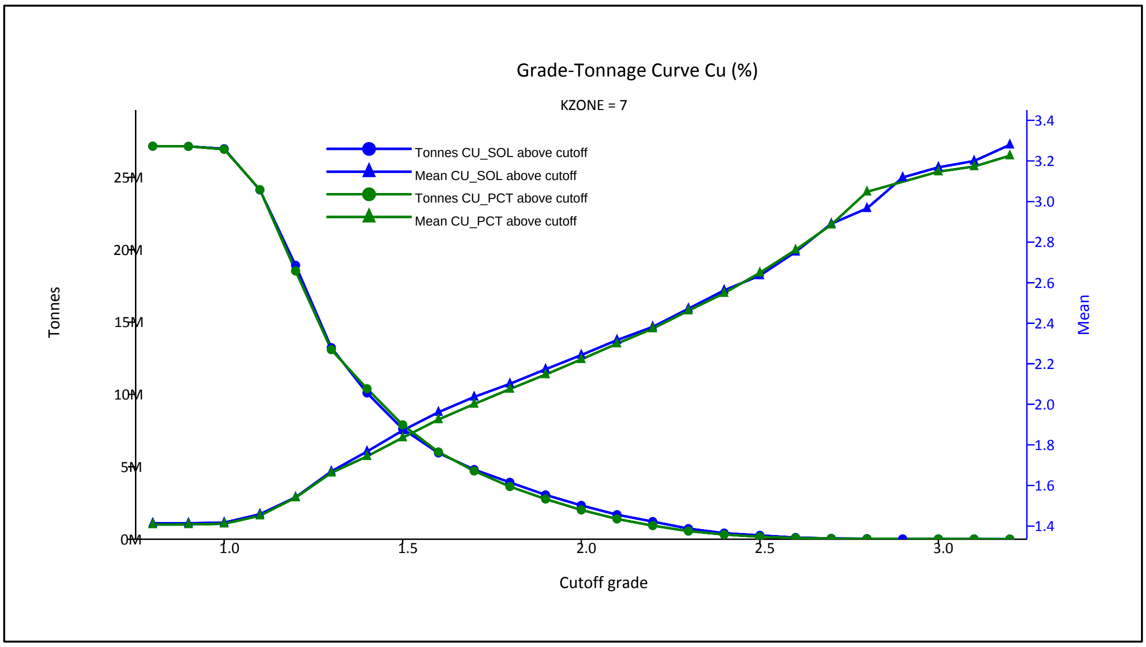


Figure 14-35: Grade-tonnage curve comparing Cu (%) estimates in Leapfrog (CU_SOL) and Datamine (CU_PCT) for KZONE 7

14.9 Mineral Resource Classification

Block model tonnage and grade estimates have been classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves.

Mineral Resource classification is typically a subjective concept considering the confidence in the geological continuity of the mineralised structures, the quality and quantity of exploration data supporting the estimates and the geostatistical confidence in the tonnage and grade estimates. Appropriate classification criteria should ideally integrate these concepts to delineate contiguous areas with similar resource classification.

Overall the low and medium grade domains have very good continuity in the northwest-striking steep northeasterly dipping plane of the deposit; some of the high-grade domains are relatively smaller scale and more variable in terms of drillhole spacing with respect to their size but most high-grade features are well defined by several drillhole intersections allowing confident interpretation of their true thickness, dip extent and strike continuity.

14.9.1 Indicated Mineral Resources

Indicated Mineral Resources are confined to the core of the drilling coverage, they comprise contiguous areas with several intersections spaced up to 75 m across strike and up to 150 m apart along strike. The outer limit is 75 m to 150 m from the intersections across and along strike respectively.

The Indicated classification shows reasonable continuity for both mineralisation and geological wireframes. In these volumes SRK has reasonable to good confidence in the suitability of the model for long term mine planning.

SRK considers there to be further potential to increase the Indicated Mineral Resource with carefully targeted infill drilling, as was achieved by the drilling completed between the maiden MRE and this MRE#2.

14.9.2 Inferred Mineral Resources

Inferred Mineral Resources are where we have reasonable to low confidence in geological geometry, continuity and the block grade estimates. Inferred status has been assigned to contiguous areas which contain several intersections spaced approximately 100 m apart across strike and 200 m apart along strike with the outer limit drawn between 100 m and 200 m from the intersections across and along strike respectively.

SRK considers there to be a reasonable expectation that infill drilling in the Inferred Mineral Resource areas will result in Indicated Mineral Resources, as was achieved by the drilling completed between the maiden MRE and this MRE#2.

14.9.3 Classification Summary

Data quality, drillhole spacing and the interpreted continuity of grades controlled by the mineralisation domains have allowed SRK to classify portions of the deposit in the Indicated and Inferred Mineral Resource categories. No Measured classification has been applied at this time due to the complex cross-cutting relationships and resulting geometries of the higher-grade intrusions. The current drillhole spacing also inhibits a high confidence to be attributed to the smaller and more complex domains. This is complicated by the depth of the deposit and sub-vertical dipping nature of the mineralisation, which results in difficulty in accurately targeting drilling.

SRK has drawn classification outlines on multiple level plans to limit and classify the MRE. Figure 14-36 and Figure 14-37 show the classification wireframes created by SRK to delineate Indicated and Inferred Mineral Resources within the block model.

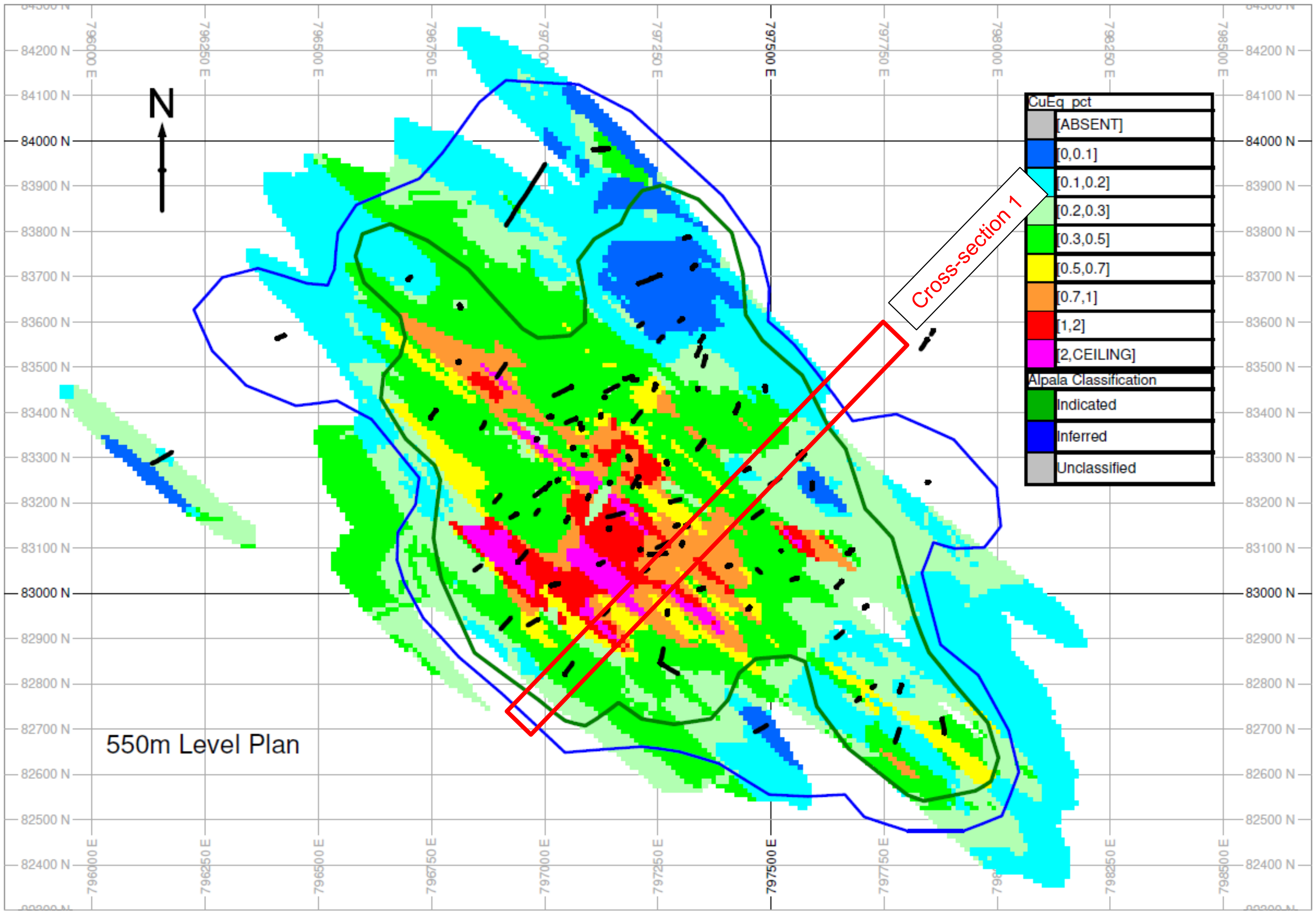


Figure 14-36: 2D Level Plan (550 masl) showing block model coloured by CuEq (%) and Mineral Resource Classification outlines

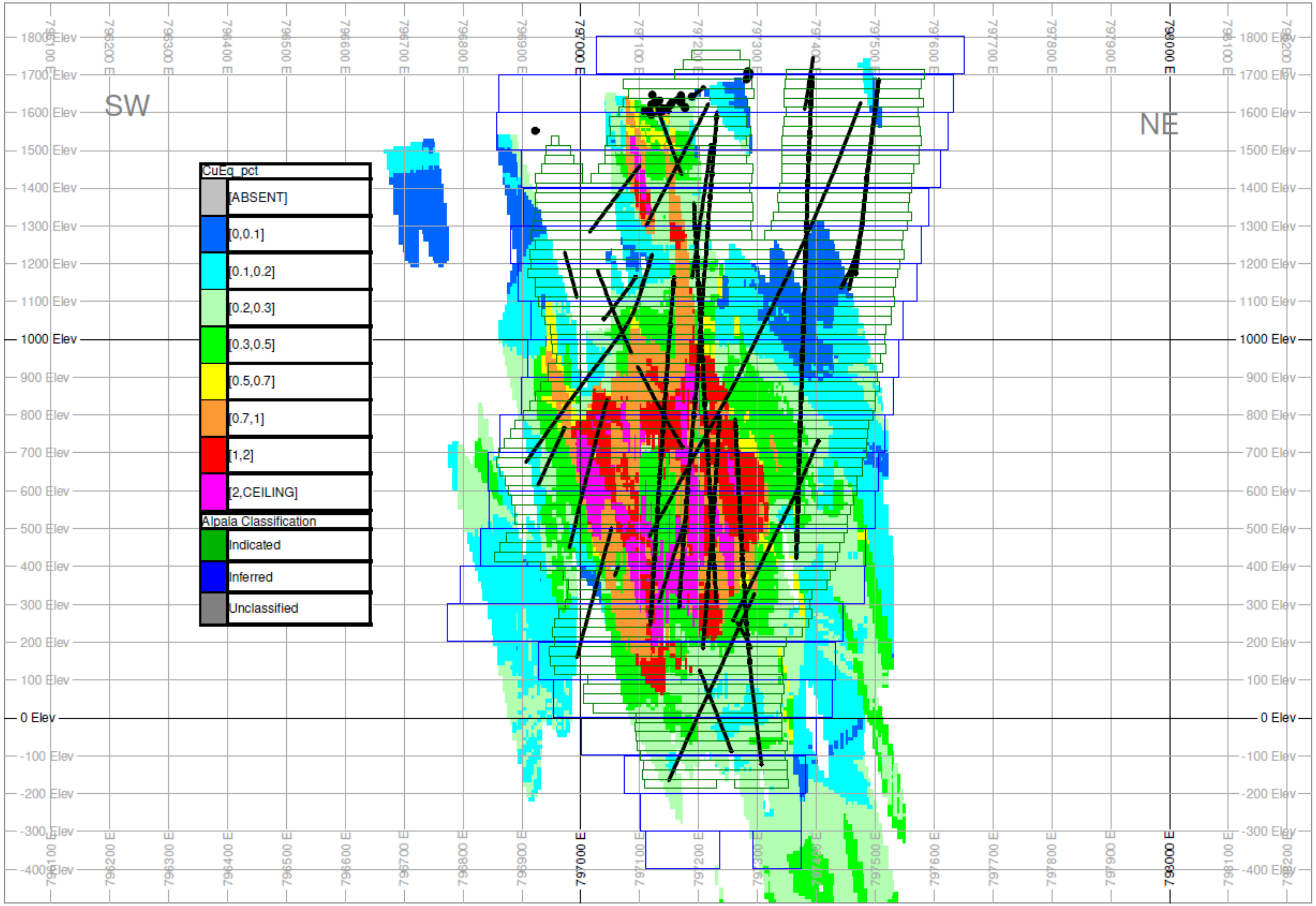


Figure 14-37: **Cross-section 1 showing block model coloured by CuEq (%) and Mineral Resource Classification outlines (40m clipping)**

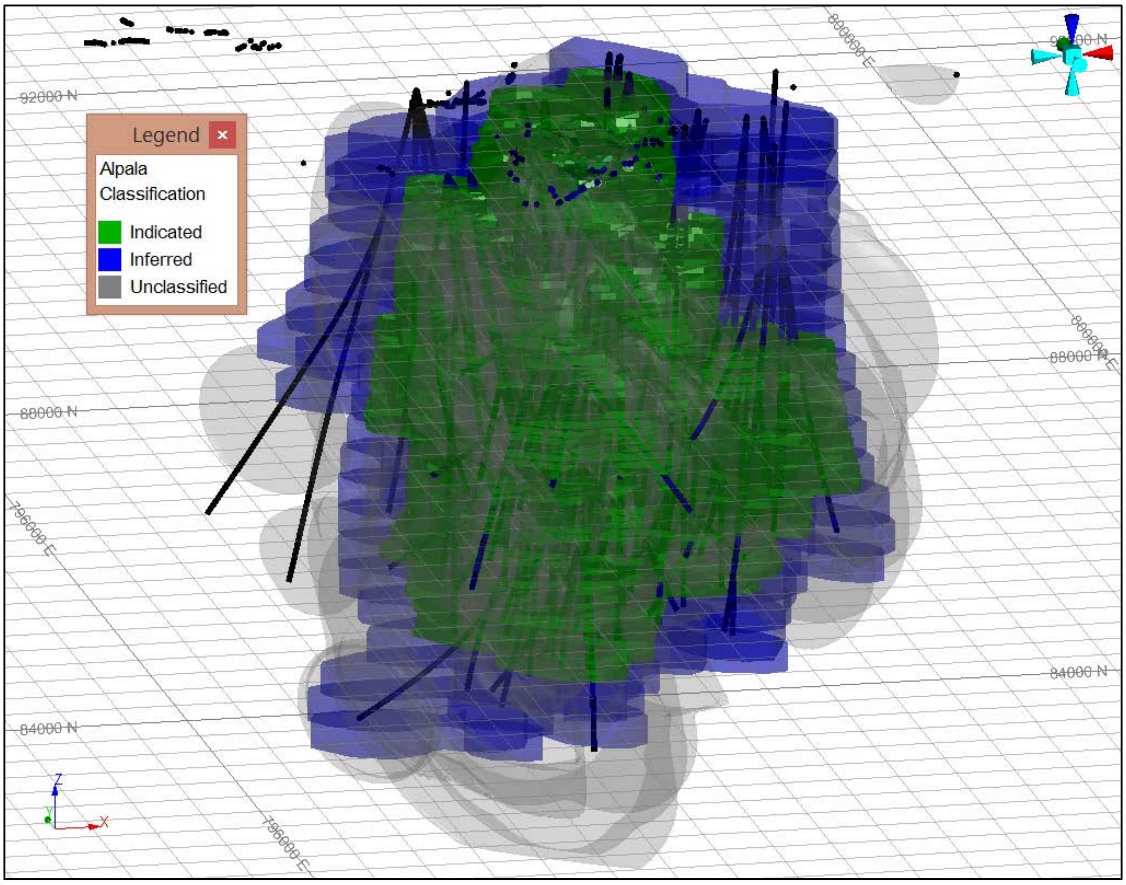


Figure 14-38: 3D view looking north showing classification wireframes and drillholes

14.9.4 Unclassified Exploration Potential of the Model

The geological model has been built to satisfy a number of objectives, primarily the MRE but also to assist with drillhole targeting. The block model therefore contains estimated blocks in a greater volume than the classified Mineral Resource. The unclassified parts of the model represent opportunities for future drilling to grow the deposit model in several directions.

The exploration potential of the Alpala deposit and larger Cascabel Project is discussed in more detail in Section 14.14 below.

14.10 Cut-off Grade

A cut-off grade of 0.2% CuEq has been used for the Mineral Resource statement. The copper equivalent calculation is displayed below and is based on long term metal prices and assumes equal metallurgical recovery for copper and gold:

$$\text{CuEq} = (\text{copper grade } (\%)) + (\text{gold grade } (g/t) \text{ x } 0.63)$$

The selected cut-off grade compares well with other large scale underground copper-gold miners and developers who have published Mineral Resource statements in recent years. This value also agrees with a first principals calculation based on long term market forecast metal prices (with a 30% uplift which is commonly done in the industry when stating Mineral Resources as opposed to Mineral Reserves) using operating costs derived from a peer group review and input from the teams developing the Preliminary Economic Assessment ("PEA") for the deposit, smelter terms based on assuming clean and conventional concentrate; copper and gold metal recovery formulae based on interpretation of the mineralogical studies and early metallurgical testwork results summarised in Section 13.

14.11 Mineral Resource Statement

SRK has produced the Mineral Resource statement using the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves. The statement is reported using a copper equivalent grade cut-off of 0.2% which SRK considers appropriate given the reasonable prospects for economic extraction by underground mass mining such as block caving. The statement is accompanied by grade tonnage curves (below) in which the high-grade portions are known to mostly occupy the deeper parts of the model presenting an opportunity for early extraction of higher-grade material. The statement is presented on a 100% basis and has an Effective Date of 07 November 2018.

The Mineral Resource has increased by 108% (by metal content) from 7.4 Mt CuEq in the December 2017 Maiden MRE (at a cut-off of 0.3% CuEq) to the current 15.4 Mt CuEq (at a cut-off of 0.2% CuEq), as described in Section 14.13m below.

Table 14-10: SRK Alpala Mineral Resource, 07 November 2018

Resource Category	Tonnage (Mt)	Grade			Contained Metal		
		Cu (%)	Au (g/t)	CuEq (%)	Cu (Mt)	Au (Moz)	CuEq (Mt)
Indicated	2,050	0.41	0.29	0.60	8.4	19.4	12.2
Inferred	900	0.27	0.13	0.35	2.5	3.8	3.2

Notes:

1. *Mr. Martin Pittuck, CEng, MIMMM, FGS, is responsible for this Mineral Resource statement and is an "independent qualified person" as such term is defined in NI 43-101*
2. *Mineral Resource is reported using a cut-off grade of 0.2% copper equivalent calculated using [copper grade (%)] + [gold grade (g/t) x 0.63]*
3. *Mineral Resource is considered to have reasonable prospects for eventual economic extraction by underground mass mining such as block caving*
4. *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability*
5. *The statement uses the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves (May 2014) as required by NI 43-101.*
6. *The MRE is reported on 100 percent basis*

14.12 Grade Sensitivity Analysis

The results of grade sensitivity analysis are shown in Table 14-11, and as grade-tonnage curves in Figure 14-39. They demonstrate the tonnage and grade of the block model estimates at various cut-off increments and the sensitivity of the Mineral Resource to changes in cut-off grade. The tonnages and grades provided in these tables are provided to describe the sensitivity of the Mineral Resource statement and should not be interpreted as Mineral Resources.

Table 14-11: Block Model Grade-Tonnage Sensitivity data

Classification	CuEq Cut-off	Tonnes (Mt)	Grade			Metal		
			Cu (%)	Au (g/t)	CuEq (%)	Cu (Mt)	Au (Moz)	CuEq (Mt)
Indicated	0.1	2,460	0.36	0.26	0.52	8.9	20.2	12.9
	0.15	2,290	0.38	0.27	0.55	8.8	19.9	12.7
	0.2	2,050	0.41	0.29	0.60	8.4	19.4	12.2
	0.3	1,500	0.49	0.37	0.73	7.4	17.8	10.9
	0.45	810	0.66	0.57	1.03	5.4	15.0	8.3
	0.7	490	0.84	0.83	1.37	4.1	13.0	6.7
	0.9	400	0.90	0.93	1.49	3.6	11.9	5.9
	1.1	200	1.13	1.36	1.99	2.2	8.7	3.9
	1.5	120	1.35	1.77	2.47	1.7	7.0	3.0
Inferred	0.1	1,380	0.22	0.11	0.28	3.0	4.7	3.9
	0.15	1,140	0.24	0.12	0.32	2.8	4.3	3.6
	0.2	900	0.27	0.13	0.35	2.5	3.8	3.2
	0.3	490	0.34	0.16	0.45	1.7	2.5	2.2
	0.45	150	0.49	0.26	0.65	0.7	1.2	1.0
	0.7	50	0.67	0.41	0.93	0.4	0.7	0.5
	0.9	20	0.72	0.52	1.05	0.2	0.4	0.2
	1.1	10	0.76	0.70	1.20	0.1	0.1	0.1
	1.5	-	-	-	-	-	-	-

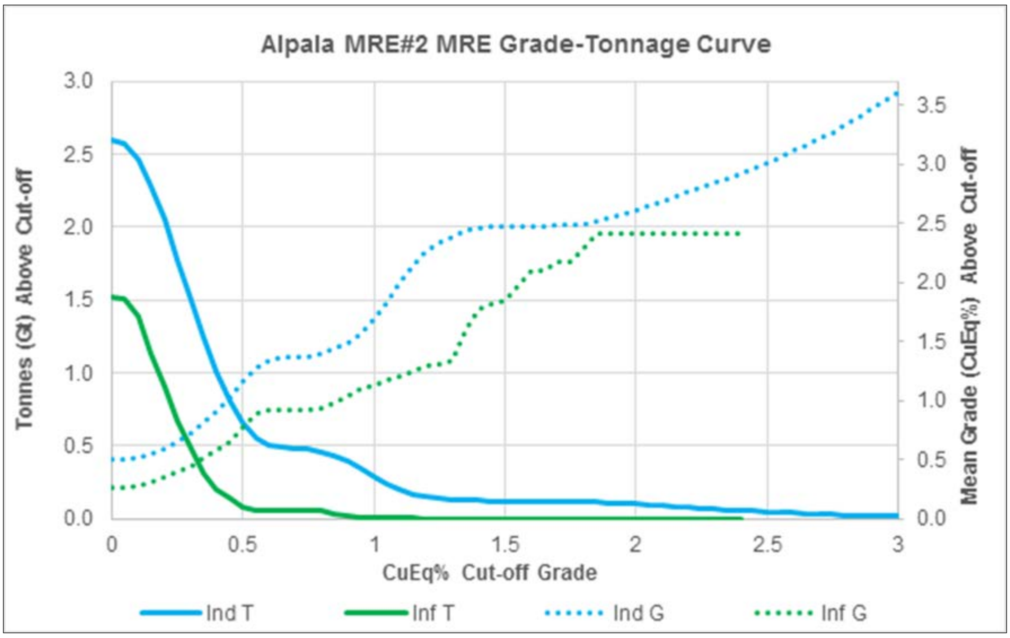


Figure 14-39: Grade-Tonnage Curves for all Indicated and Inferred blocks in model

14.13 Comparison to Previous Mineral Resource Estimates

This MRE (MRE#2) is an update the maiden MRE released in December 2017 by SRK ES. Subsequent to this maiden MRE, SolGold has continued a vigorous drilling campaign over the last year with the effect of over doubling the quantity of drilling metres and assayed intervals. In addition, MRE#2 used data from trenches whereas the maiden MRE did not, which adds additional confidence to near-surface interpretations. This had led to a re-interpretation of the geological model and update to the tonnage and grade estimate, as described herein.

The results of the additional data can be seen in Figure 14-40, where the changes to mineralisation models are shown for the low-, medium- and high-grade domains. Overall, as can be seen from the low-grade model changes, the volume of modelled mineralisation has increased significantly due to extensional drilling.

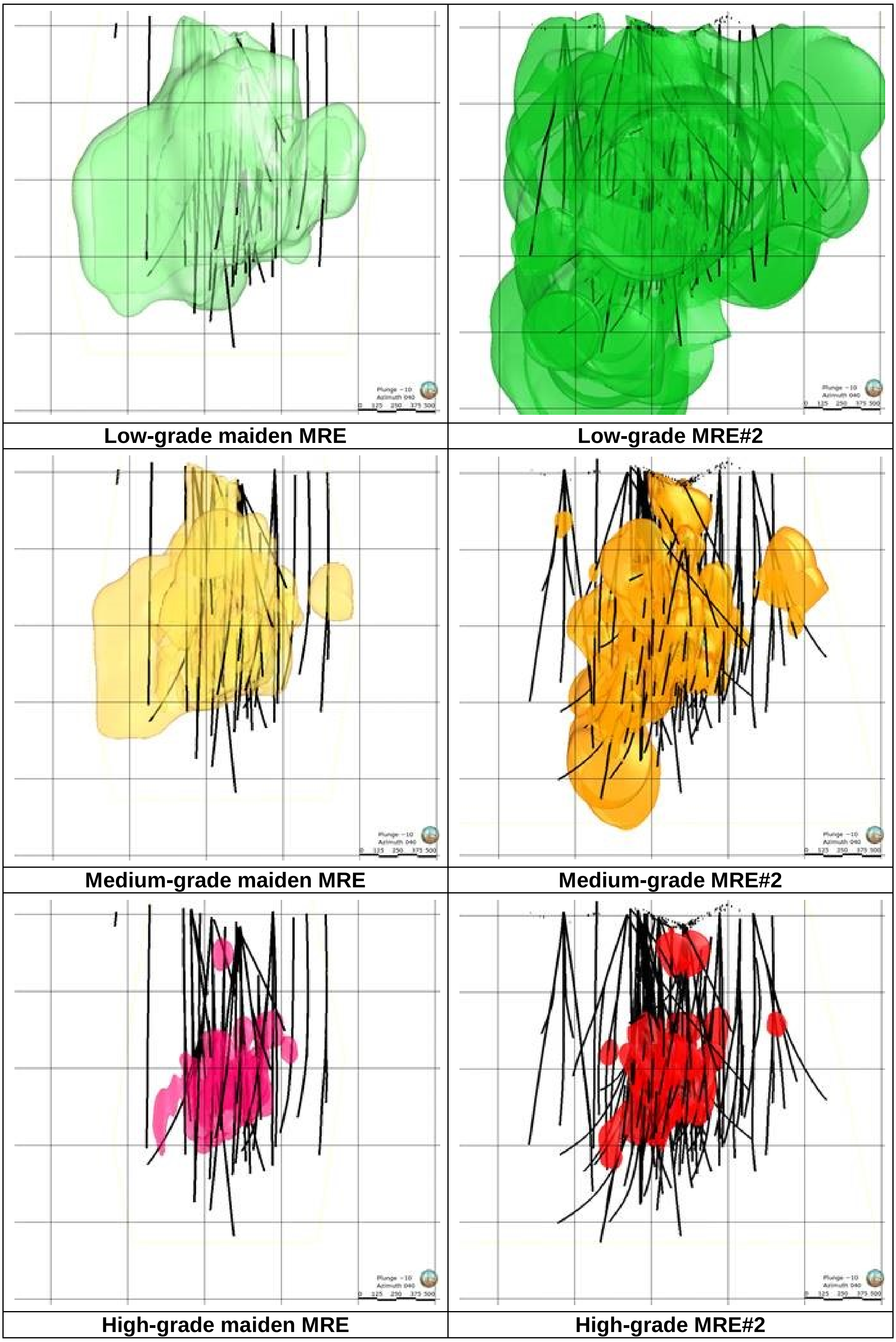


Figure 14-40: Model changes from maiden MRE to MRE#2 (looking northeast)

In addition to the modelling changes, the following have also been updated:

- Estimation methodology: utilising Leapfrog Geo EDGE (this has been checked using Datamine Studio RM which produces a very similar estimate).
- Domaining: the same methodology has been applied to generate estimation domains with a combination of mineralisation and lithology solids/wireframes used to define domains with similar statistical populations, which were combined into "KZONES" for grade estimation domains. Due to the additional data, the geometry and number of samples per domain has changed significantly.
- Variography: as the data with the domains has been updated, so too have the variograms used to assign weighting during the kriging estimation.
- Estimation parameters: the changes in variograms resulted in changes to orientations and geometries of the search ellipses used for grade estimation.
- Classification: the increased level of confidence in the geological model and resulting tonnage and grade estimation has led to an increase in the proportion of the block model classified as Indicated compared to Inferred (and unclassified). Figure 14-41 shows the changes in classification wireframes between the maiden MRE and MRE#2, which demonstrates both the increase in drilling metres and increased proportion of Indicated.
- Reporting: cut-off grade changed from 0.3% to 0.2% CuEq due to improved economic viability, which is driven by the greater scale of the mining and revised cost and recovery assumptions following the commencement of a PEA study.

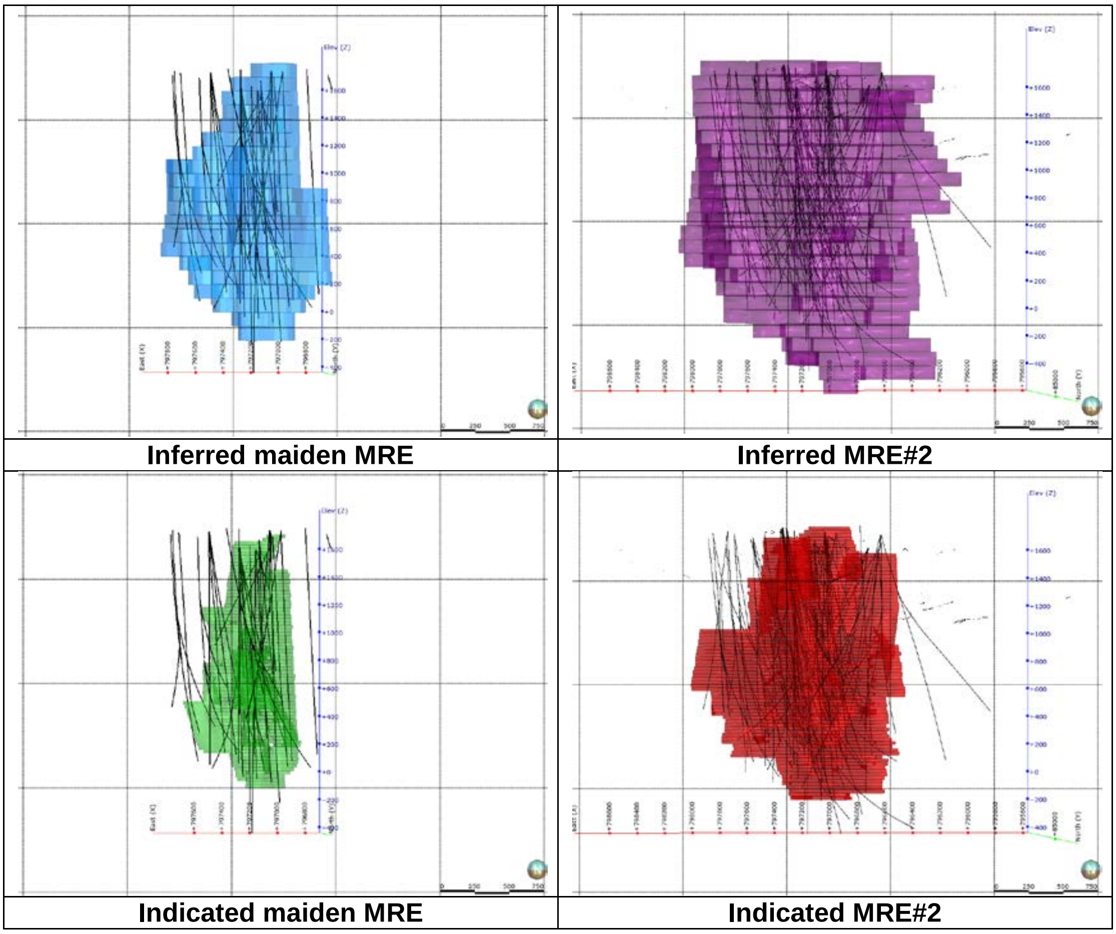


Figure 14-41: Classification wireframe changes from maiden MRE to MRE#2 (looking south)

The resulting difference in Mineral Resource statements for various cut-off grades is tabulated in Table 14-12. The main effect of the MRE update has been to increase the volume and contained metal significantly along with report a high proportion within the Indicated category.

Table 14-12: Comparison of Mineral Resource statements from maiden MRE to MRE#2*

CuEq% Cut-off	Classification	December 2017 Maiden MRE				November 2018 MRE#2			
		Tonnes (Mt)	Cu (%)	Au (g/t)	CuEq (%)	Tonnes (Mt)	Cu (%)	Au (g/t)	CuEq (%)
0.2	Indicated	500	0.48	0.38	0.71	2,050	0.41	0.29	0.60
	Inferred	900	0.37	0.24	0.52	900	0.27	0.13	0.35
0.3	Indicated	430	0.53	0.43	0.79	1,500	0.49	0.37	0.73
	Inferred	650	0.44	0.30	0.62	490	0.34	0.16	0.45
0.7	Indicated	180	0.78	0.77	1.24	490	0.84	0.83	1.37
	Inferred	180	0.73	0.65	1.12	50	0.67	0.41	0.93
0.9	Indicated	120	0.89	0.97	1.48	400	0.90	0.93	1.49
	Inferred	100	0.85	0.87	1.37	20	0.72	0.52	1.05

**Note: maiden MRE reported using 0.3% CuEq cut-off, MRE#2 reported using 0.2% CuEq cut-off.*

14.14 Resource Extension and Exploration Potential

In addition to the several exploration targets on the Cascabel licence, many of which require follow-up work, SolGold's main focus will be to continue drilling in the Alpala cluster.

Phase 4 drilling is now underway, with a primary focus on further resource growth. SolGold believes that there remains good potential for further growth with the 2019 drilling campaign which is aimed at continuing to expand the deposit at Alpala Southeast, Alpala Northwest, Trivinio and Alpala Western Limb.

The majority of the currently defined medium- and high-grade mineralisation in confined to the Indicated Mineral Resource, SRK agrees that there is further potential to increase the size of the higher-grade domains, particularly up- and down-plunge as shown in Figure 14-42 which illustrates the current mineralisation model above 0.7% CuEq, the extent of the current drilling programme and the areas which will be tested by the ongoing drilling programme.

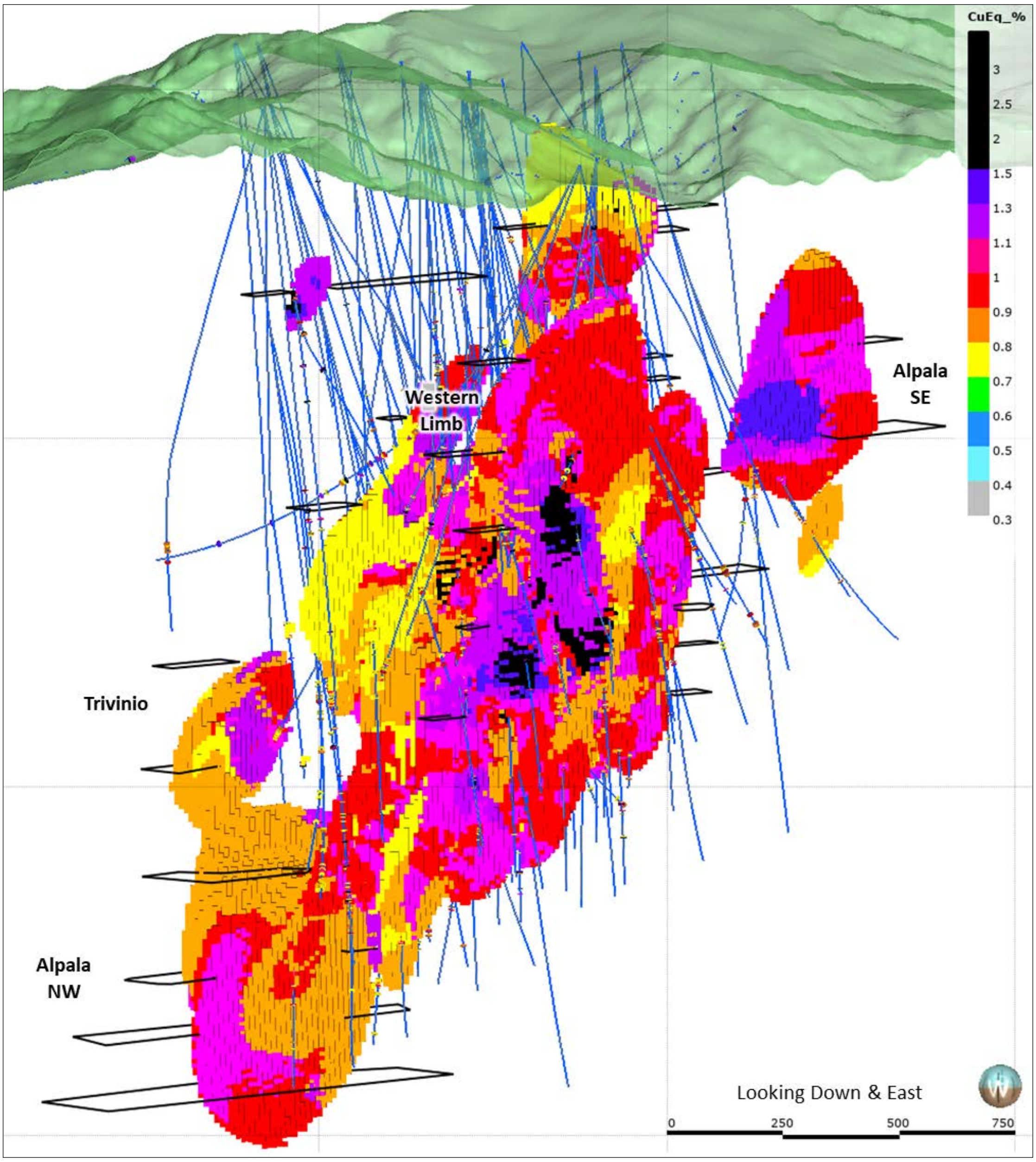


Figure 14-42: Extent of current drilling and polygons representing targets for further drilling in 2019

SRK notes that the lower grade mineralisation remains open in several directions as illustrated by the unclassified parts of the block model shown in Figure 14-43. The unclassified and Inferred areas have been interpreted from relatively wide spaced drilling which require further drilling in order improve confidence from Inferred to Indicated and from unclassified to Mineral Resource. It should be noted that there is no guarantee that additional drilling will grow the model or improve confidence in the model if unexpected complexities are encountered.

SRK has identified key drilling targets which are described and illustrated below; the locations of the cross-sections provided are displayed on Figure 14-44.

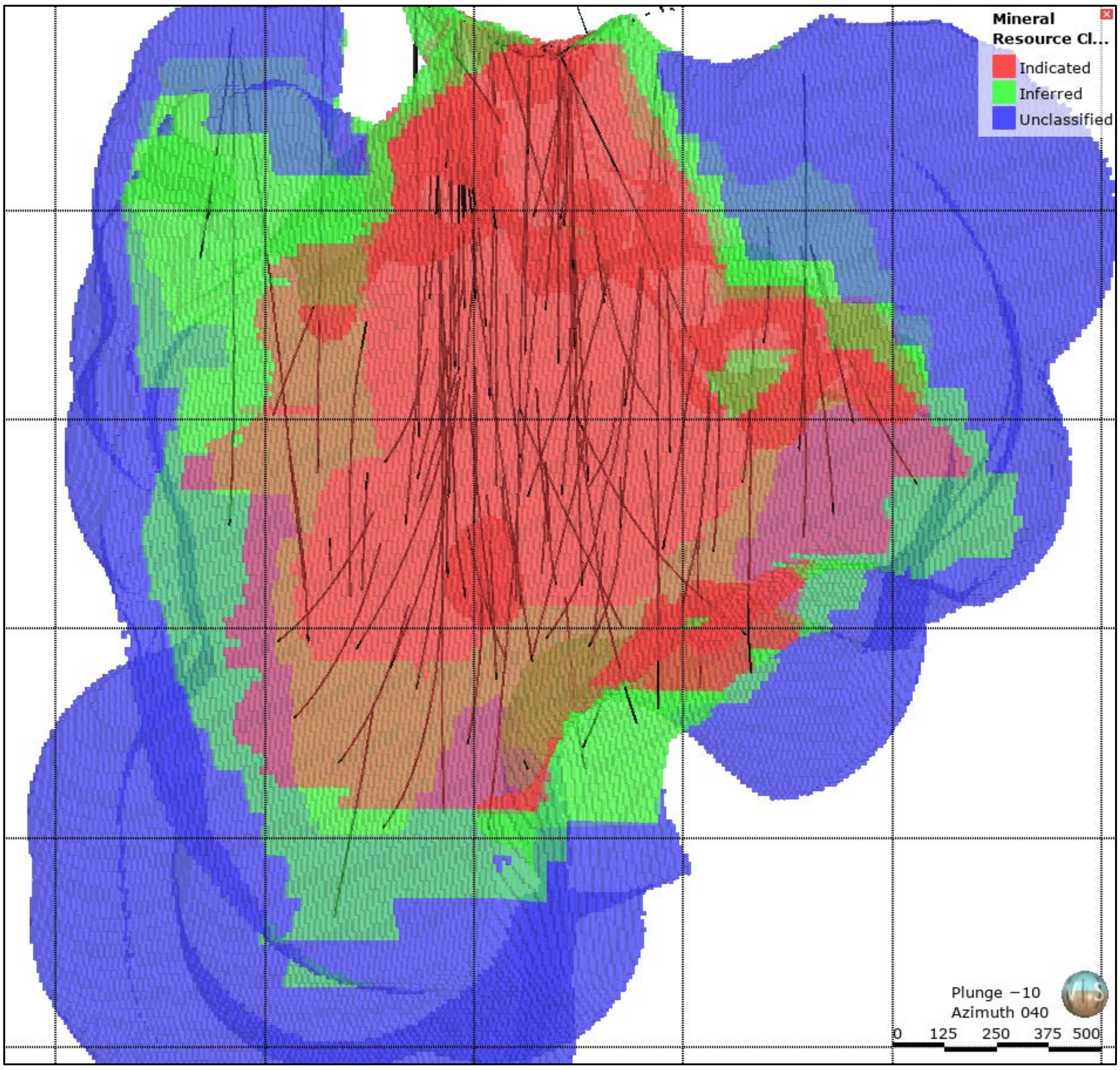


Figure 14-43: Long-section (looking northeast) showing block model coloured by classification

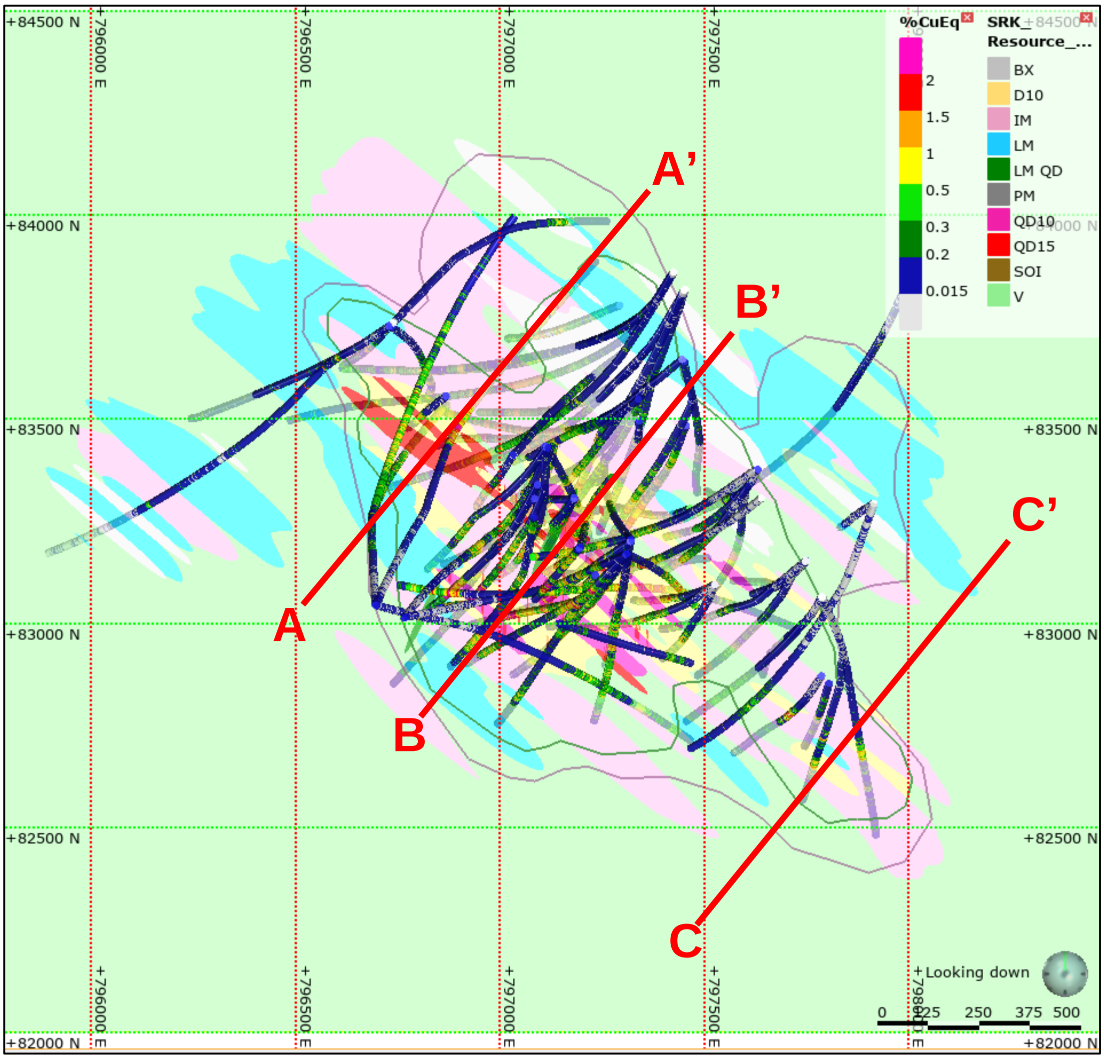


Figure 14-44: Exploration potential cross-section location map

14.14.1 Alpala Northwest

Figure 14-45 shows an area at depth in the northwest part of the deposit where there is potential to increase higher-grade material down-plunge; Indicated and Inferred parts of the model are shown as green and purple outlines, respectively. Currently the deepest hole in this area (CSD-18-064 – highlighted in pink in the image) shows a thick intercept of >0.5% CuEq material. This target area known as Alpala Northwest is flagged as a high priority area and will be drill tested during the 2019 campaign.

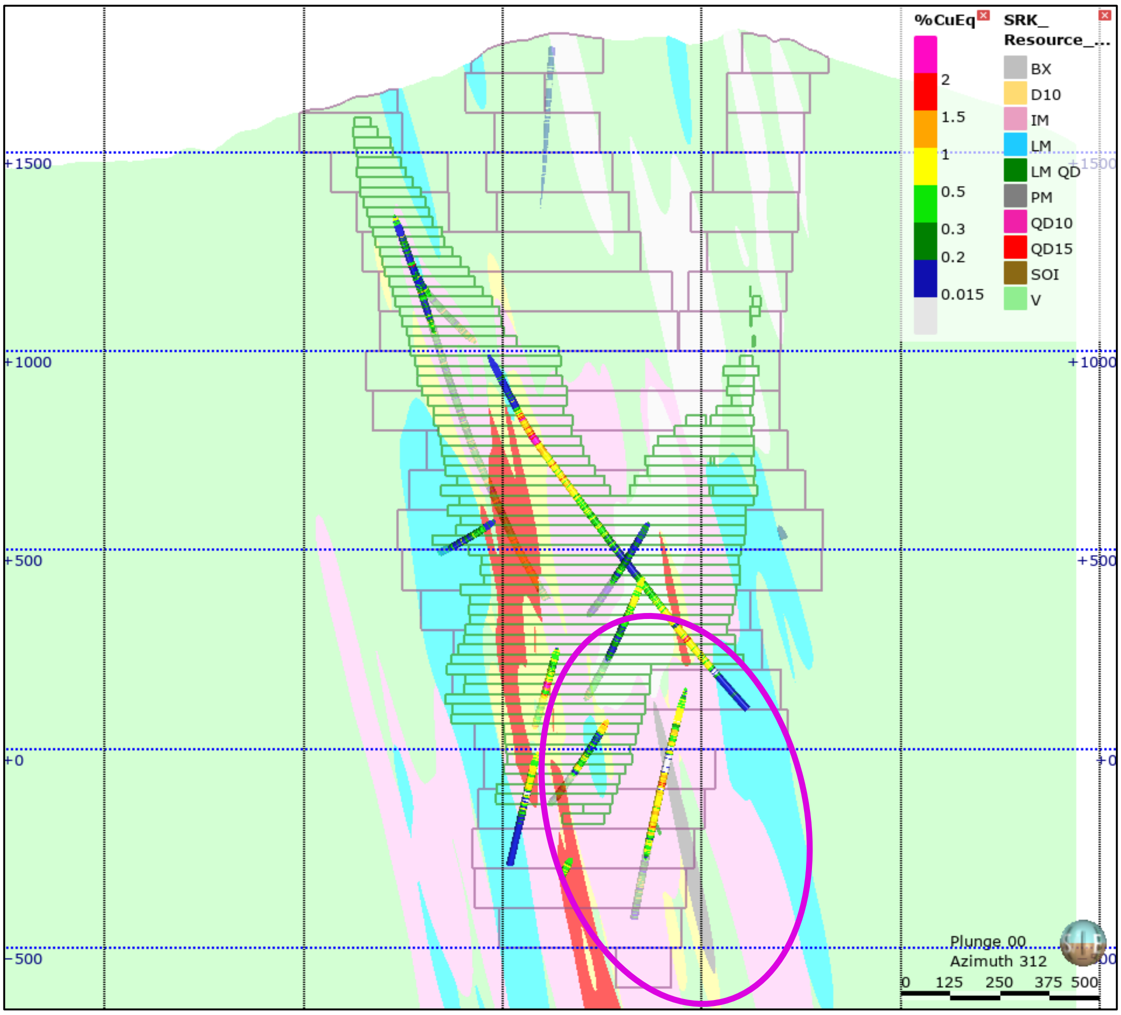


Figure 14-45: Cross-section A-A' (looking northwest) highlighting the Alpala Northwest drilling target

14.14.2 Drilling Gap

Figure 14-46 shows a gap in the current drilling where the model remains unclassified. Although this area is slightly off the main trend, adding holes in this gap targeting the lower main mineralised zone would serve two purposes: adding information to a current unexplored area and providing infill drilling at deeper levels.

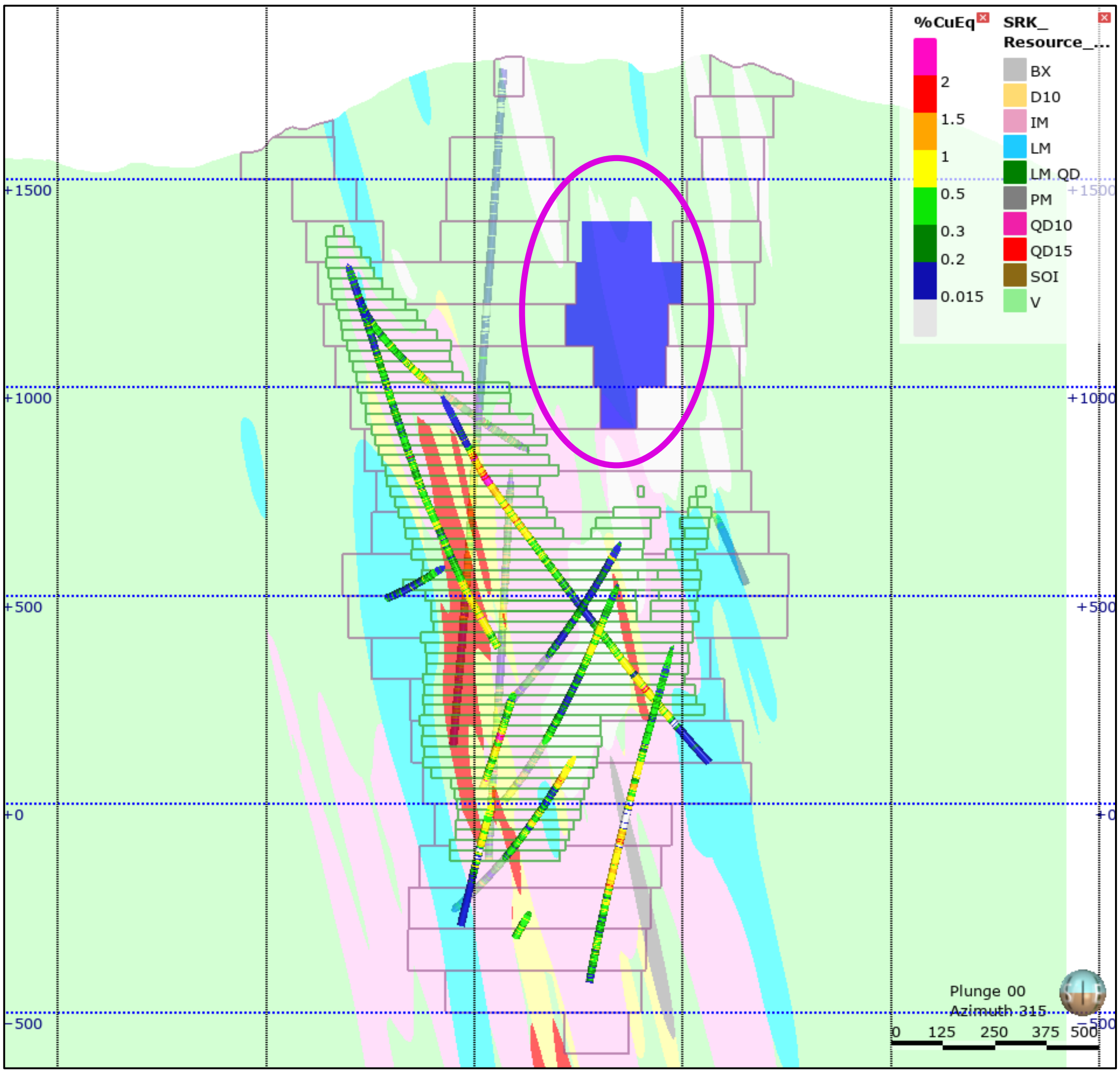


Figure 14-46: Cross-section A-A' (looking northwest) highlighting a drilling gap

14.14.3 Western Limb

Figure 14-47 shows the upper western part of the deposit where there is potential to increase medium-grade material up-dip. Two holes on the edge of the current model show reasonable intercepts of >0.5% CuEq material. This was an area of focus for the 2018 drilling and will continue to be drilled in 2019.

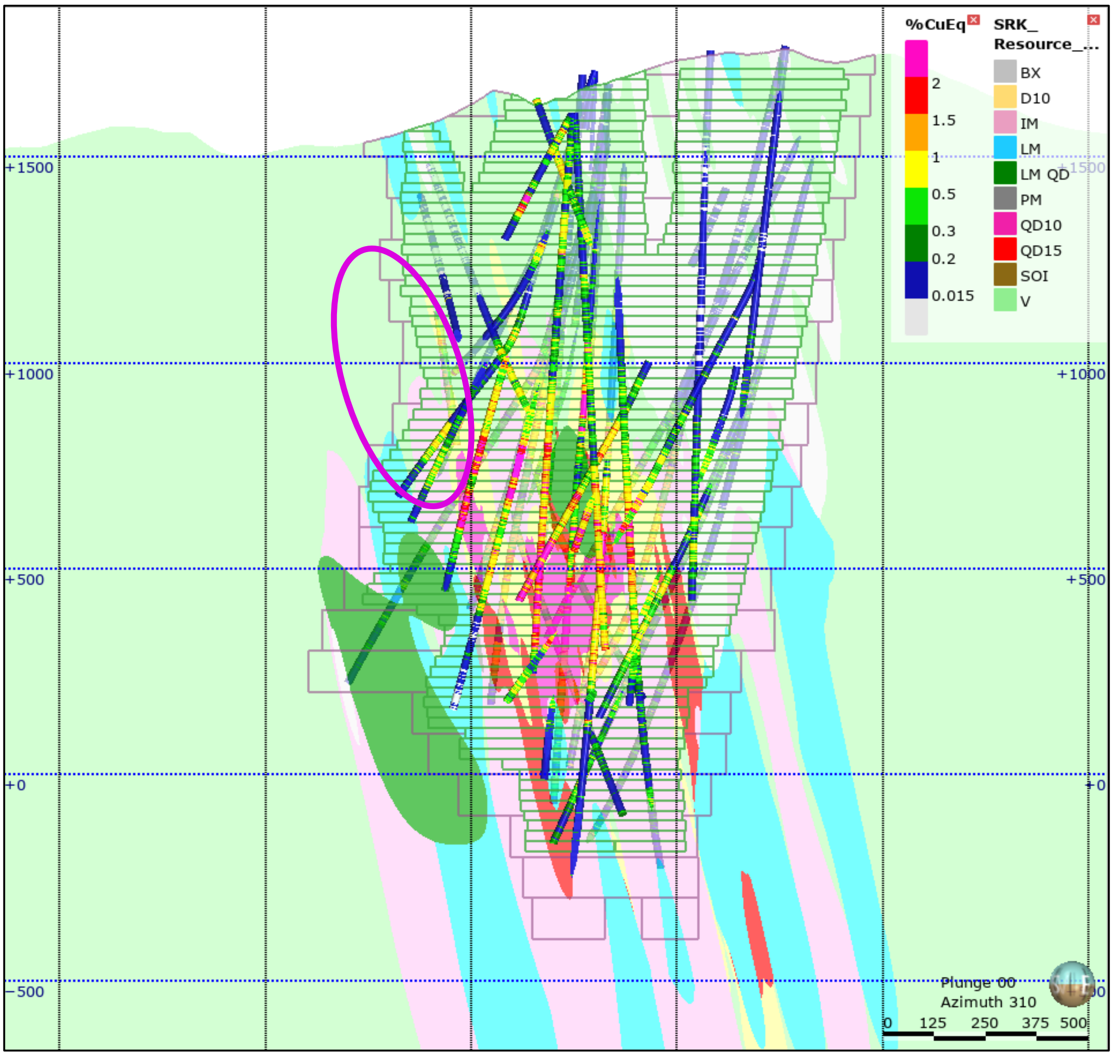


Figure 14-47: Cross-section B-B' (looking northwest) highlighting Western Limb drilling target

14.14.4 Alpala Southeast

Figure 14-48 shows an area up-plunge from the southeast area of the deposit highlighting potential to increase medium-grade material up-plunge. The hole highlighted in the image (CSD-17-024) intercepted >160 m (down-hole not true thickness) of >0.5% CuEq material (including >80 m of >1% CuEq) within D10 units. The modelled medium-grade mineralisation currently extends outside the Inferred boundary in this area.

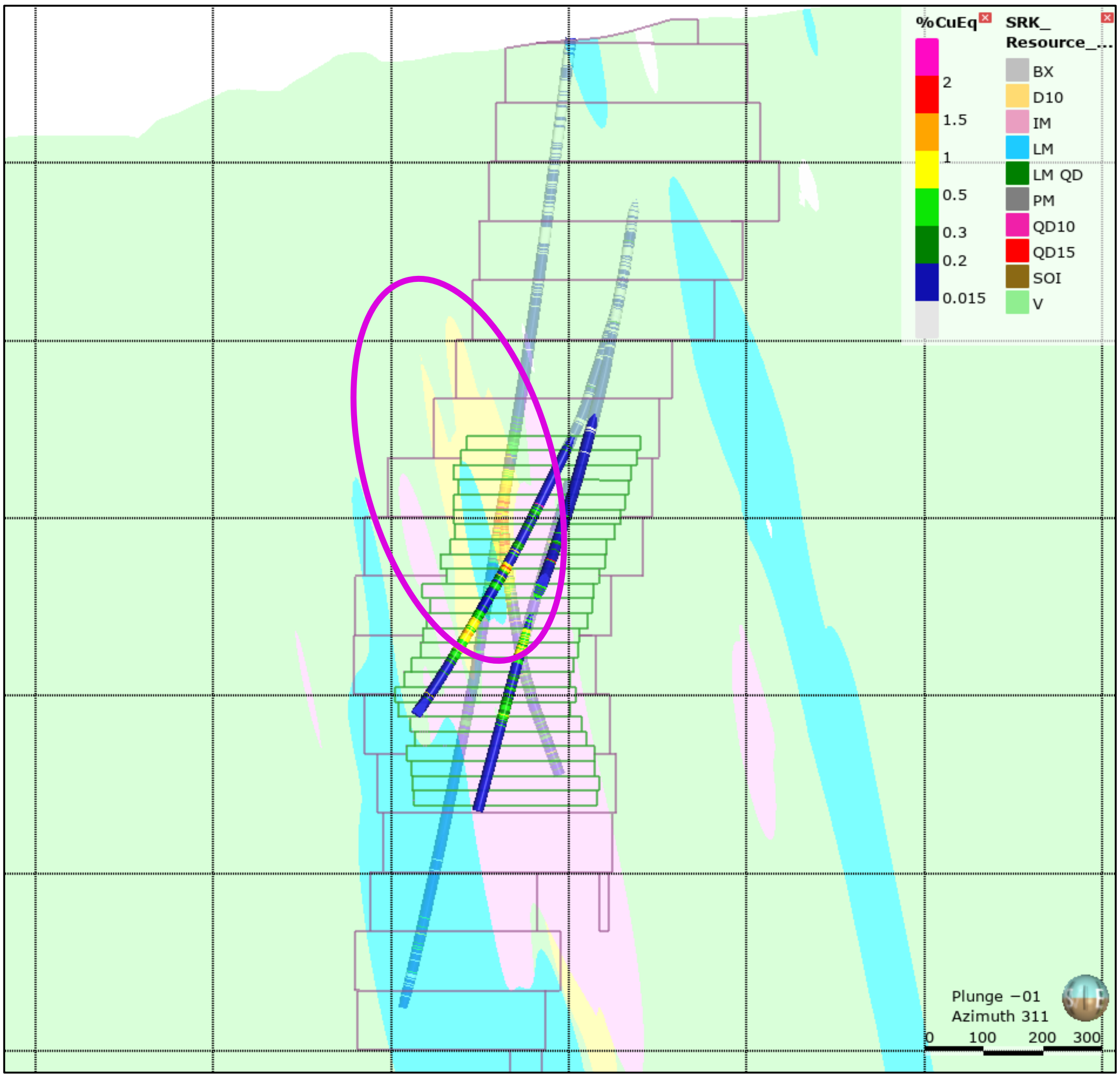


Figure 14-48: Cross-section C-C' (looking northwest) highlighting Alpala Southeast up-plunge target

15 MINERAL RESERVE ESTIMATE

No Mineral Reserve estimates have been undertaken to date.

16 MINING METHODS

Mining studies are being conducted as part of an ongoing PEA; SRK understands that the deposit will be amenable to conventional underground mass mining methods.

17 RECOVERY METHODS

Preliminary metallurgical testwork is described in Section 13.

18 PROJECT INFRASTRUCTURE

Other than the roads connecting the project site to Quito and onwards to the coast, there is no infrastructure in the Cascabel licence.

19 MARKET STUDIES AND CONTRACTS

No market or contractual studies have been undertaken to date.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

SRK have been informed that SolGold hold all necessary permits to conduct their exploration programmes. SolGold initiated their environmental and social management programmes in 2012. The Environmental Licence for the Cascabel project required for drilling was received from the Environmental Ministry ("MAE") on 27 August 2013. Since 2013, SolGold has continued to expand and build on those programmes, with approximately 9% of total 2018 exploration budget dedicated to social and environmental works

The project is currently registered as an Advanced Exploration project. Additional environmental licences will be required ahead of any future mine development and operation.

21 CAPITAL AND OPERATING COSTS

No capital and operating studies have been undertaken to date.

22 ECONOMIC ANALYSIS

No economic analysis has been undertaken to date.

23 ADJACENT PROPERTIES

Properties adjacent to the Cascabel licence are held by 7 different companies. The Ecuador Mining Cadastre details registered licenses (red hashed areas) and those currently under application (green outlines), these are shown in Figure 23-1.

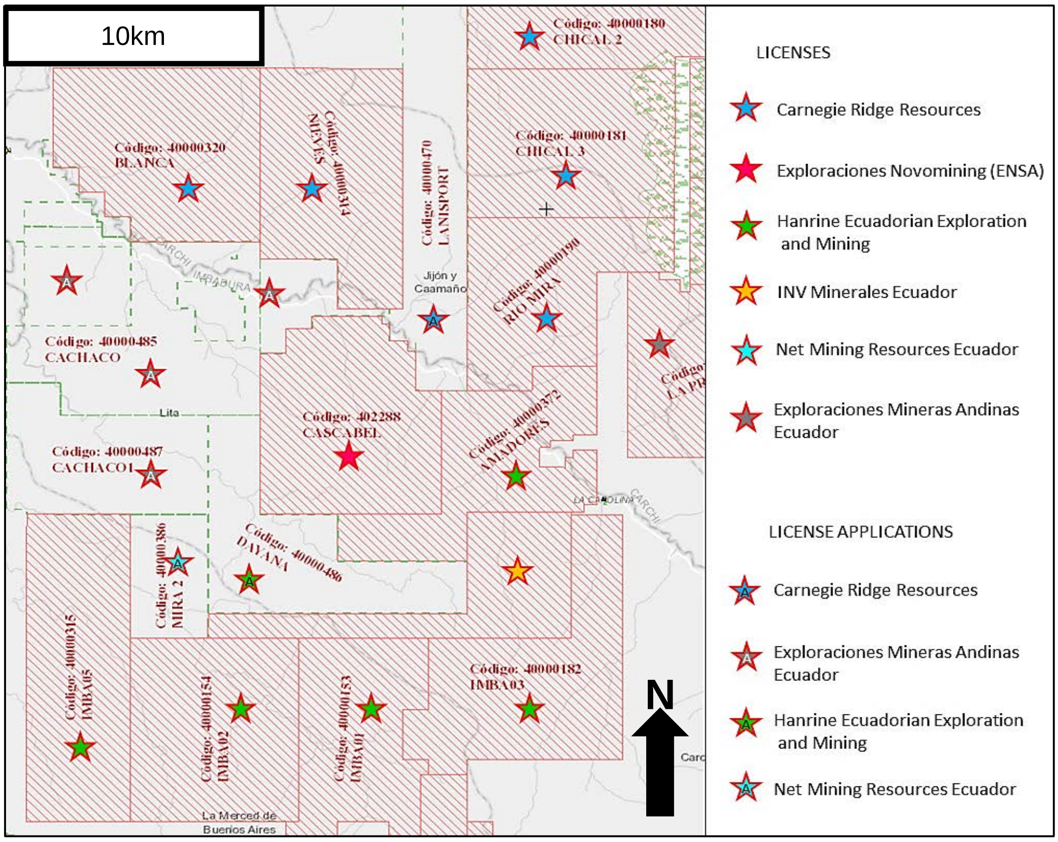


Figure 23-1: Adjacent Properties (Source: Control Minero de Ecuador, December 2018)

24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data available about the Alpala Project.

25 INTERPRETATION AND CONCLUSIONS

25.1 Conclusions

The Cascabel Project, joint ventured between SolGold and Cornerstone and operated by SolGold, is situated along the western foothills of the Cordillera Occidental of northern Ecuador and within the Western Tectonic Realm that has been affected by magmatism associated with the subduction of the flat-lying buoyant Carnegie Ridge.

The licence hosts numerous porphyry centres interpreted from airborne geophysical surveys as well as distinct molybdenum, copper/zinc and manganese soil geochemical anomalies and surface kaolinite and paragonite alteration halos. The most pronounced of these is the Alpala cluster and Aguinaga.

SRK consider the Alpala deposit, which is part of the Alpala cluster within the Cascabel Project, to be an Advanced Exploration Property that has demonstrated 3D continuity of economic grade copper/gold mineralisation which is now well defined by drilling culminating in the Mineral Resource estimate as reported on here. Alpala hosts a high-grade copper gold porphyry deposit centred on the confluence between a northeast and northwest striking structural trend. Alpala has been the focus of deep diamond core drilling since September 2013. This has resulted in a total of 173,076 m from 115 completed drillholes used for this current MRE.

This drilling has defined six main equigranular to sub-porphyritic, hornblende-bearing intrusions that are narrow, taper upwards and exhibit four main types of porphyry-related vein types. Chalcopyrite and bornite precipitation are associated with the B-vein series with distinct mineralisation also observed in the later C-veins. These six intrusions are hosted by a sequence of andesitic volcaniclastic rocks and lavas and are cut by late-mineralisation diorite and a series of low volume post mineralisation tonalities.

Copper and gold mineralisation is most prolific in the QD10 quartz diorite bodies as well as the D10 diorite to microdiorite bodies. The intensity of mineralised veining is stronger inside of and in proximity to the mineralising intrusions but also stronger near the steep dipping structures that provided the original pathways for the intrusions, for some distance above the dyke tips (apical margins).

Drilling has successfully delineated the base of mineralisation throughout the central portion of the deposit and demonstrates a sharp grade decrease between the mineralised an unmineralised material, forming a bowl-shaped keel to the mineralisation. In terms of exploration potential, SRK notes that the mineralisation currently remains open in several directions, particularly along strike and down plunge to the northwest of the deposit, in the western limb and up plunge to the southeast.

SRK have reviewed the exploration processes and the channel and core sampling procedures and consider them to be of industry standard and have made a number of recommendations to optimise these practises as the project develops. SRK have also audited the exploration and sample database held by SolGold and consider this robust. Both the procedures utilised, and the database validity, is considered sufficient for the use in the MRE.

This updated MRE has resulted in an updated Mineral Resource statement of 2,050 Mt grading 0.60% copper equivalent of Indicated Mineral Resources for a contained metal content of 8.4 Mt copper and 19.4 Moz gold and 900 Mt grading 0.35% CuEq of Inferred Mineral Resources for 2.5 Mt Cu and 3.8 Moz Au, using a 0.2% CuEq cut-off grade.

Within the deposit, a higher-grade core exists totalling 400 Mt grading 1.49% CuEq (Indicated) and 20 Mt grading 1.05% CuEq (Inferred) using a 0.9% CuEq cut-off. The 400Mt is contained in the total Mineral Resource tonnages given above. This highlights the reasonable prospects for eventual economic extraction by underground mass mining methods such as block caving.

Only a limited amount of metallurgical test work has been conducted but based on the results received so far it appears that reasonable recoveries can be expected and SolGold anticipate reasonable concentrate grades will be achievable with further work. SRK recommends that future test work should include a wider variety of rock types, mineralisation styles and mineralogy ensuring sample head grades are representative of anticipated mill feed grades.

25.2 Risks and Opportunities

SRK is not aware of any significant risks and uncertainties that could be expected to affect the reliability or confidence in the exploration information and Mineral Resource discussed herein.

As with all mineral projects, there is an inherent risk associated with mineral exploration. As such, there is no guarantee that additional drilling will grow the model or improve confidence in the model. SRK are confident the Mineral Resource can be further upgraded in confidence with more drilling and that there is some potential to grow the deposit model further.

The potential for the existing Mineral Resource and any future extensions to be converted to a Mineral Reserve however, will only become well demonstrated following completion of a Prefeasibility study.

26 RECOMMENDATIONS

26.1 2018-2019 Alpala Exploration Programme

Phase 4 drilling is now underway, it has a primary focus on further resource growth at Alpala and in the surrounding areas, as well as infill drilling to increase the Mineral Resource confidence level. A preliminary drilling program comprising 70,000 -80,000m of drilling utilising 10 machines is envisaged for the coming year; SolGold has a budget of some US$ 35 million for the programme.

SRK agrees with Solgold's 2019 drilling objectives which are to continue to infill and expand the deposit at Alpala Southeast, Alpala Northwest, Trivinio and Alpala Western Limb.

A Preliminary Economic Assessment and related studies are underway with a planned release of a final PEA in Q1 2019; SRK considers a PEA to be warranted regardless of the results of the Phase 4 drilling programme.

26.2 QAQC

SRK recommend that the sample QAQC programme is extended to increase insertion frequency to 15%, and that the following are employed:

- CRMs, blanks and duplicates are inserted in a randomised approach (i.e. not at regular intervals);
- Coarse blanks continued to be inserted;
- Pulp duplicates are inserted as well as field duplicates;
- A copper blank is inserted to assess potential copper contamination in samples;
- Additional periodic check assay programmes are employed where stored pulps are selected in a way that honours the original statistical spread of assays and are re-assayed at a separated umpire laboratory.
- QAQC is assessed on a batch-by-batch basis when results are received, and problems flagged and addressed with the assay lab immediately.

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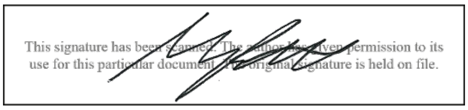
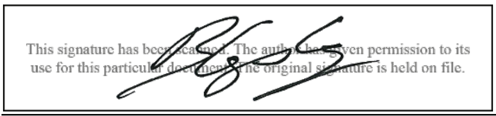
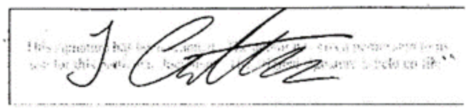
For and on behalf of SRK Consulting (UK) Limited



Martin Pittuck,
Corporate Consultant
(Mining Geology)
SRK Consulting (UK) Limited



Ben Lepley
Senior Consultant
(Resource Geology)
SRK Consulting (UK) Limited



James Gilbertson,
Principal Consultant & Managing Director
(Exploration Geology)
SRK Exploration Services Limited

Glossary

CIM	Canadian Institute of Mining, Metallurgy and Petroleum.
CRIRSCO	Committee for Mineral Reserves International Reporting Standards.

Abbreviations

Au	Gold
Cu	Copper
CuEq	Copper equivalent (CuEq = [copper grade (%)] + [gold grade (g/t) x 0.63])
CoV	Coefficient of variation (CoV=standard deviation/mean)

Units

cm	Centimetres
g	Grams
g/cm^3	Grams per centimetre cubed (density)
kg	Kilograms
km	Kilometres
km^2	Kilometres squared
Kt	Thousand metric tonnes (based on a dry in situ bulk density unless specified)
Ktpa	Thousand (metric) tonnes per annum
m	Metres
µm	Micrometres
Mt	Million metric tonnes (based on a dry in situ bulk density unless specified)
Mtpa	Million (metric) tonnes per annum
%	Percentage

APPENDIX

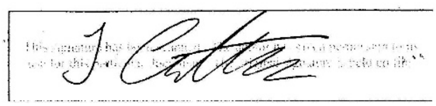
A CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON

I, James Gilbertson, CGeol, MCSM, FGS, do hereby certify that:

1. I am a Principal Exploration Geologist and Managing Director of SRK Exploration Services Ltd with an office at 12 St Andrews Crescent, Cardiff, CF10 3DD;
2. This certificate applies to the Technical Report titled "A Technical Report on an Updated Mineral Resource Estimate for the Alpala Deposit, Cascabel Project, Northern Ecuador" (the "Technical Report"), prepared for SolGold;
3. The Effective Date of the Technical Report is 7 November 2018;
4. I am a graduate with a Master of Science in Mining Geology gained from the Camborne School of Mines, in 2001. I have practiced my profession continuously since July 2001. I have practiced as a resource and exploration geologist with SRK since 2004, assessing exploration assets, designing and managing exploration programmes, auditing exploration data, generating geological models and Mineral Resource Estimates.
5. I am a Professional Chartered Geologist registered with the Geological Society of London, membership number 1013644.
6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
7. I visited the Cascabel property between 26 and 31 October 2017.
8. I am co-author and reviewer of this report and have responsibility for sections 4, 5, 6, 7, 8, 9 (except 9.6), 11 and 12
9. I am independent of SolGold Ltd. and Cornerstone Capital Resources Inc., applying all of the tests in section 1.5 of NI 43-101.
10. I have not had prior involvement with the property that is the subject of the Technical Report, other than previous independent consulting mandates.
11. I have read NI 43-101 and Form 43-101F1; the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
12. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 21 December 2018.



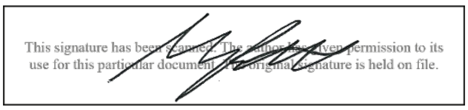
James Gilbertson, CGeol, MCSM, FGS
Principal Exploration Geologist

CERTIFICATE OF QUALIFIED PERSON

I, Martin Frank Pittuck, CEng, MIMMM, FGS, do hereby certify that:

1. I am a Corporate Consultant (Mining Geology) of SRK Consulting (UK) Ltd with an office at 5th Floor, Churchill House, Churchill Way, Cardiff CF10 2HH;
2. This certificate applies to the Technical Report titled “A Technical Report on an Updated Mineral Resource Estimate for the Alpala Deposit, Cascabel Project, Northern Ecuador” (the “Technical Report”), prepared for SolGold;
3. The Effective Date of the Technical Report is 7 November 2018;
4. I am a graduate with a Master of Science in Mineral Resources gained from Cardiff College, University of Wales in 1996 and I have practised my profession continuously since that time. Since graduating I have worked as a consultant at SRK on a wide range of mineral projects, specializing in precious and rare metals. I have undertaken many geological investigations, resource estimations, mine evaluation technical studies and due diligence reports.
5. I am a Professional Member of the Institute of Materials, Minerals and Mining (MIMMM) (Membership Number 49186) and I am a Chartered Engineer (CEng).
6. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a “Qualified Person” for the purposes of NI 43-101.
7. I visited the Cascabel property between 26 and 31 October 2017 and between 27 and 29 January 2018.
8. I am co-author of this report and have responsibility for the Mineral Resource estimate and all sections in the Technical Report except sections 4, 5, 6, 7, 8, 9, 11, 12 and 13.
9. I am independent of SolGold Ltd. and Cornerstone Capital Resources Inc., applying all of the tests in section 1.5 of NI 43-101.
10. I have not had prior involvement with the property that is the subject of the Technical Report, other than previous independent consulting mandates.
11. I have read NI 43-101 and Form 43-101F1; the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
12. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

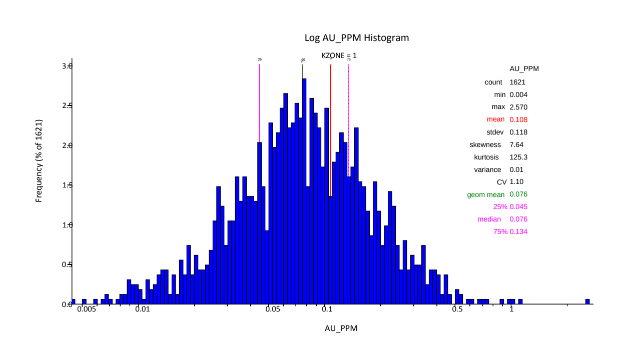
Dated 21 December 2018.



Martin Frank Pittuck, CEng, MIMMM, FGS
Corporate Consultant (Mining Geology)

APPENDIX

B COMPOSITE DRILLHOLE HISTOGRAMS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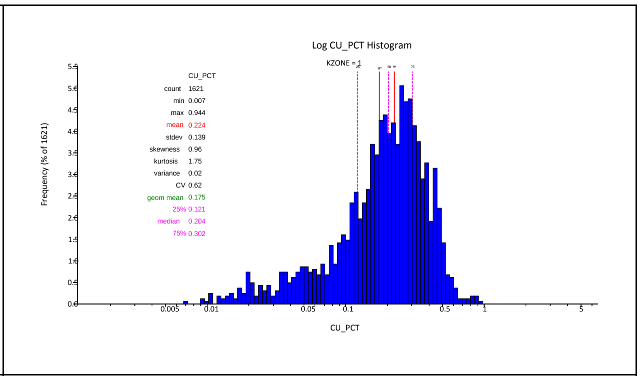
KZONE = 1
AU_PPM
count 1621
min 0.004
max 2.570
mean 0.108
stdev 0.118
skewness 7.64
kurtosis 125.3
variance 0.01
CV 1.10
geom mean 0.076
25% 0.045
median 0.076
75% 0.134
Frequency (% of 1621)
AU_PPM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KZONE = 1
CU_PCT
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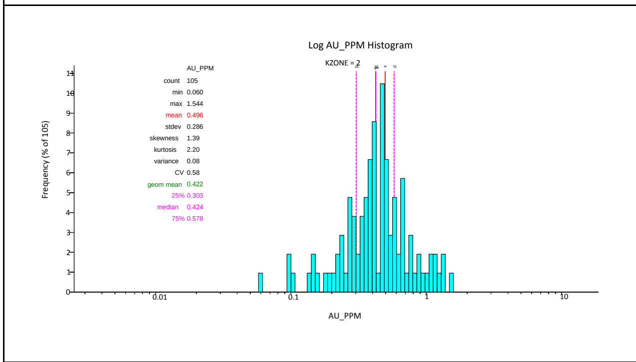
min 0.007
max 0.944
mean 0.224
stdev 0.139
skewness 0.96
kurtosis 1.75
variance 0.02
CV 0.62
geom mean 0.175
25% 0.121
median 0.204
75% 0.302
Frequency (% of 1621)
CU_PCT


Log AU_PPM Histogram
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AU_PPM
count 105
min 0.060
max 1.544
mean 0.496
stdev 0.286
skewness 1.39
kurtosis 2.20
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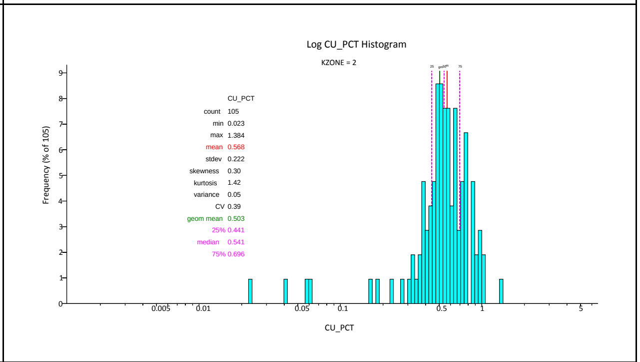
CV 0.58
geom mean 0.422
25% 0.303
median 0.424
75% 0.578
Frequency (% of 105)
AU_PPM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max 1.384
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stdev 0.222
skewness 0.30
kurtosis 1.42
variance 0.05
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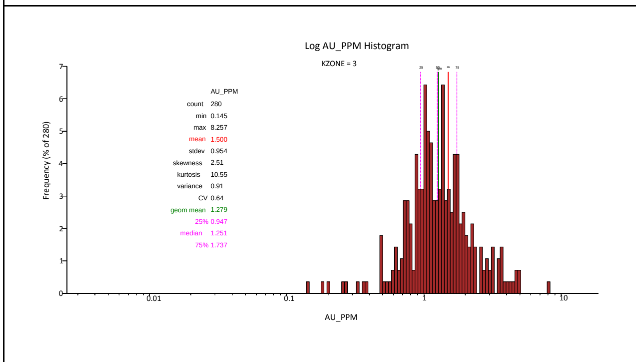
median 0.541
75% 0.696
Frequency (% of 105)
CU_PCT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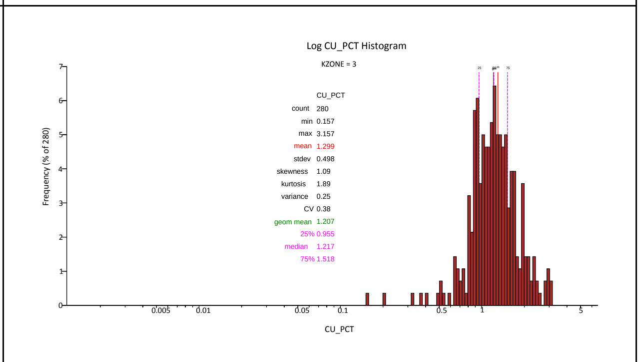
max 8.257
mean 1.500
stdev 0.954
skewness 2.51
kurtosis 10.55
variance 0.91
CV 0.64
geom mean 1.279
25% 0.947
median 1.251
75% 1.737
Frequency (% of 280)
AU_PPM


Log CU_PCT Histogram
KZONE = 3
CU_PCT
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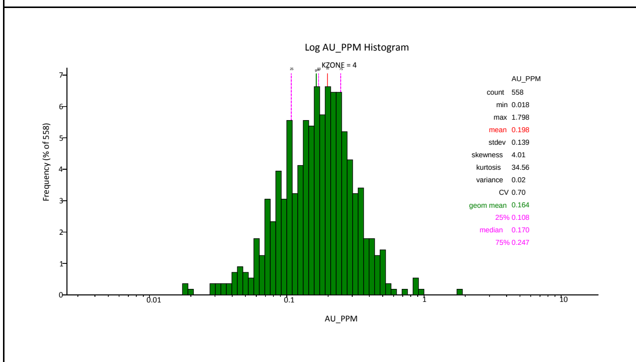
min 0.157
max 3.157
mean 1.299
stdev 0.498
skewness 1.09
kurtosis 1.89
variance 0.25
CV 0.38
geom mean 1.207
25% 0.955
median 1.217
75% 1.518
Frequency (% of 280)
CU_PCT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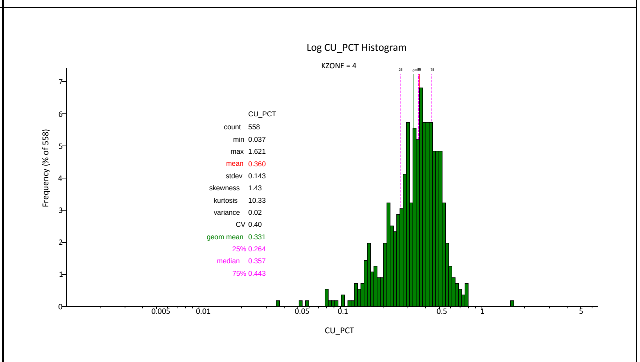
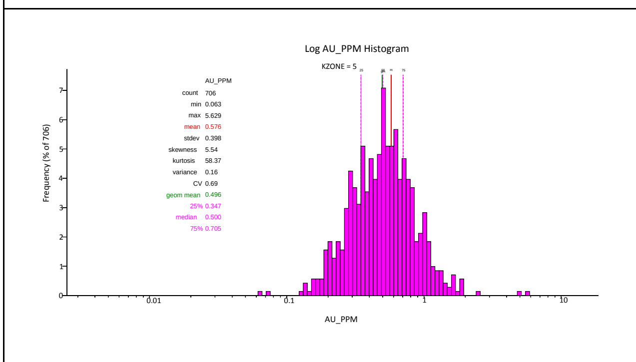
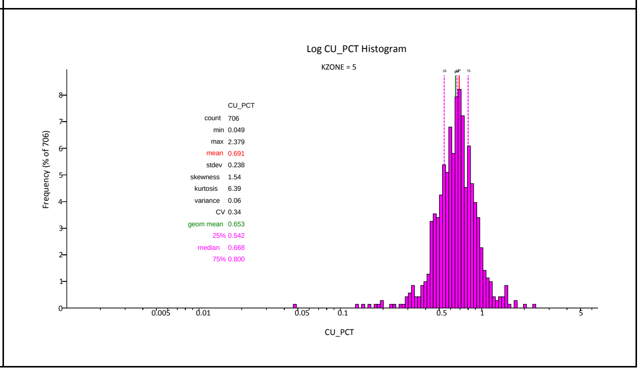
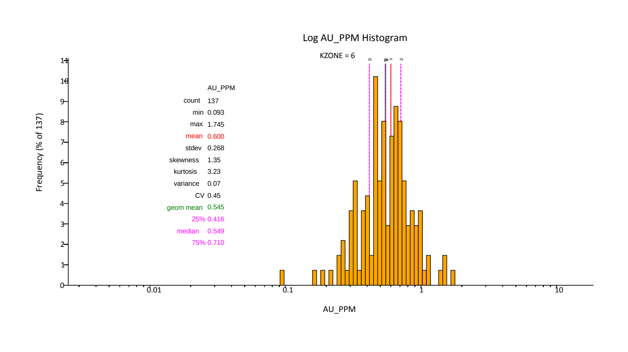
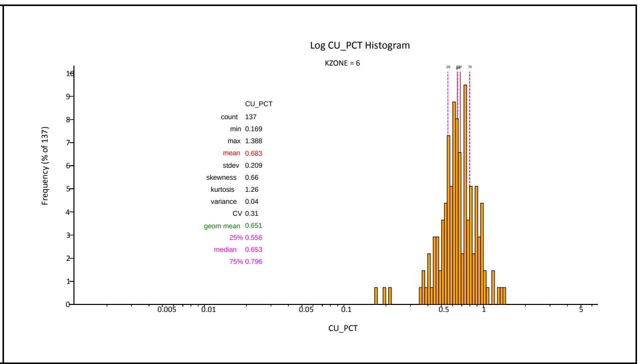
max 1.798
mean 0.198
stdev 0.139
skewness 4.01
kurtosis 34.56
variance 0.02
CV 0.70
geom mean 0.164
25% 0.108
median 0.170
75% 0.247
Frequency (% of 558)
AU_PPM

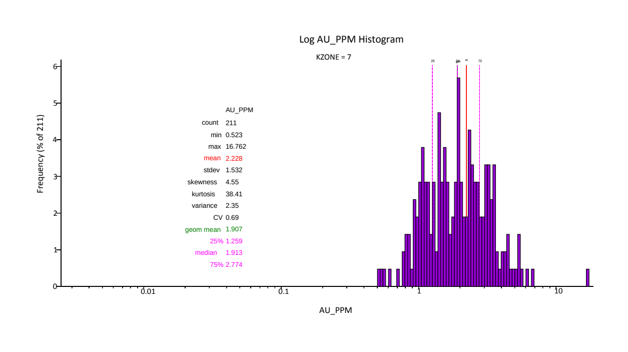

Log CU_PCT Histogram
KZONE = 4
CU_PCT
count 558
min 0.037
max 1.621
mean 0.360
stdev 0.143
skewness 1.43
kurtosis 10.33
variance 0.02
CV 0.40
geom mean 0.331
25% 0.264
median 0.357
75% 0.443
Frequency (% of 558)
CU_PCT

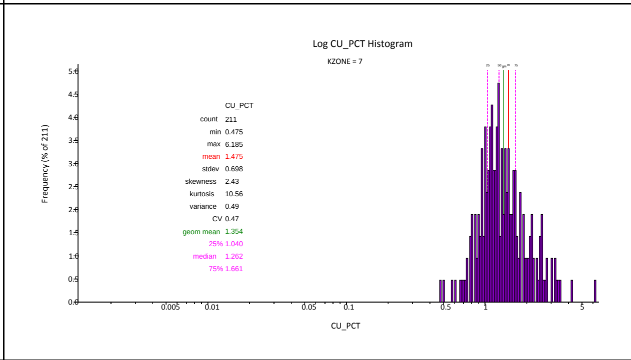

Log AU_PPM Histogram
KZONE = 5
AU_PPM
count 706
min 0.063
max 5.629
mean 0.576
stdev 0.398
skewness 5.54
kurtosis 58.37
variance 0.16
CV 0.69
geom mean 0.496
25% 0.347
median 0.500
75% 0.705
Frequency (% of 706)
AU_PPM

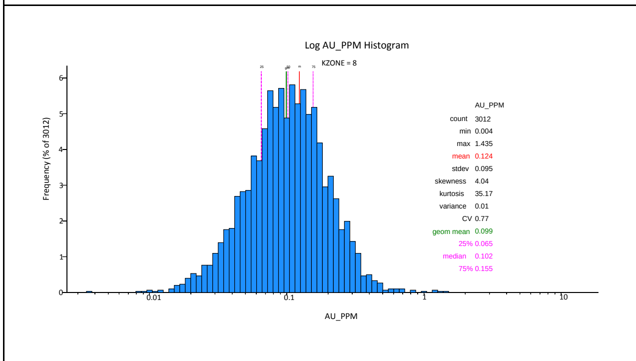

Log CU_PCT Histogram
KZONE = 5
CU_PCT
count 706
min 0.049
max 2.379
mean 0.691
stdev 0.238
skewness 1.54
kurtosis 6.39
variance 0.06
CV 0.34
geom mean 0.653
25% 0.542
median 0.668
75% 0.800
Frequency (% of 706)
CU_PCT

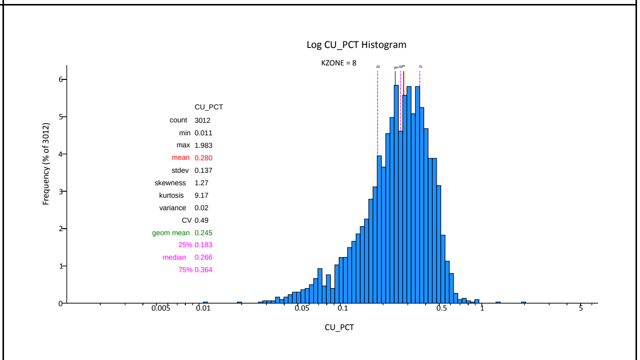

Log AU_PPM Histogram
KZONE = 6
AU_PPM
count 137
min 0.093
max 1.745
mean 0.600
stdev 0.268
skewness 1.35
kurtosis 3.23
variance 0.07
CV 0.45
geom mean 0.545
25% 0.416
median 0.549
75% 0.710
Frequency (% of 137)
AU_PPM

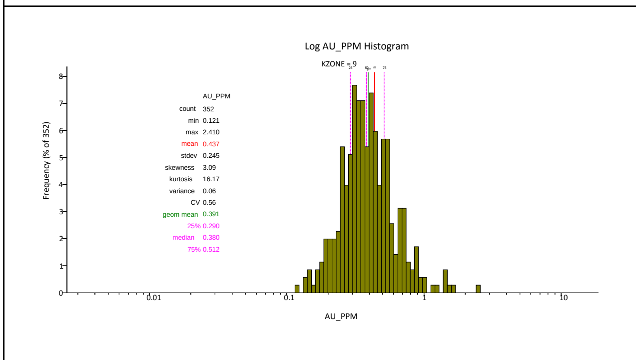

Log CU_PCT Histogram
KZONE = 6
CU_PCT
count 137
min 0.169
max 1.388
mean 0.683
stdev 0.209
skewness 0.66
kurtosis 1.26
variance 0.04
CV 0.31
geom mean 0.651
25% 0.556
median 0.653
75% 0.796
Frequency (% of 137)
CU_PCT

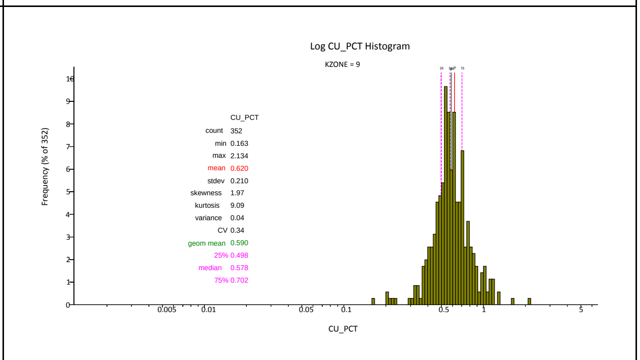

Log AU_PPM Histogram
KZONE = 7
AU_PPM
count 211
min 0.523
max 16.762
mean 2.228
stdev 1.532
skewness 4.55
kurtosis 38.41
variance 2.35
CV 0.69
geom mean 1.907
25% 1.259
median 1.913
75% 2.774
Frequency (% of 211)
AU_PPM

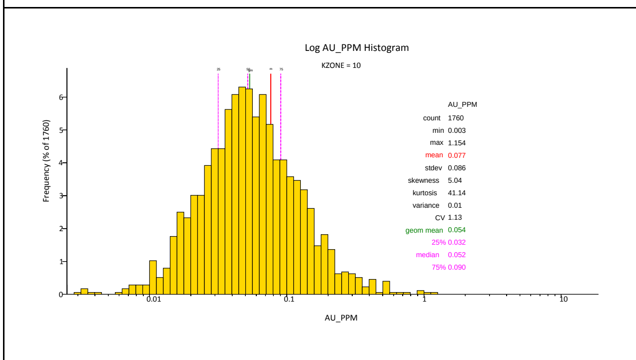

Log CU_PCT Histogram
KZONE = 7
CU_PCT
count 211
min 0.475
max 6.185
mean 1.475
stdev 0.698
skewness 2.43
kurtosis 10.56
variance 0.49
CV 0.47
geom mean 1.354
25% 1.040
median 1.262
75% 1.661
Frequency (% of 211)
CU_PCT

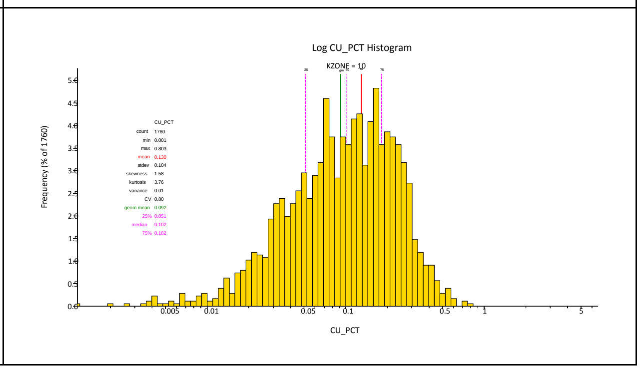

Log AU_PPM Histogram
KZONE = 8
AU_PPM
count 3012
min 0.004
max 1.435
mean 0.124
stdev 0.095
skewness 4.04
kurtosis 35.17
variance 0.01
CV 0.77
geom mean 0.099
25% 0.065
median 0.102
75% 0.155
Frequency (% of 3012)
AU_PPM


Log CU_PCT Histogram
KZONE = 8
CU_PCT
count 3012
min 0.011
max 1.983
mean 0.280
stdev 0.137
skewness 1.27
kurtosis 9.17
variance 0.02
CV 0.49
geom mean 0.245
25% 0.183
median 0.266
75% 0.364
Frequency (% of 3012)
CU_PCT


Log AU_PPM Histogram
KZONE = 9
AU_PPM
count 352
min 0.121
max 2.410
mean 0.437
stdev 0.245
skewness 3.09
kurtosis 16.17
variance 0.06
CV 0.56
geom mean 0.391
25% 0.290
median 0.380
75% 0.512
Frequency (% of 352)
AU_PPM


Log CU_PCT Histogram
KZONE = 9
CU_PCT
count 352
min 0.163
max 2.134
mean 0.620
stdev 0.210
skewness 1.97
kurtosis 9.09
variance 0.04
CV 0.34
geom mean 0.590
25% 0.498
median 0.578
75% 0.702
Frequency (% of 352)
CU_PCT


Log AU_PPM Histogram
KZONE = 10
AU_PPM
count 1760
min 0.003
max 1.154
mean 0.077
stdev 0.086
skewness 5.04
kurtosis 41.14
variance 0.01
CV 1.13
geom mean 0.054
25% 0.032
median 0.052
75% 0.090
Frequency (% of 1760)
AU_PPM


Log CU_PCT Histogram
KZONE = 10
CU_PCT
count 1760
min 0.001
max 0.803
mean 0.130
stdev 0.104
skewness 1.58
kurtosis 3.76
variance 0.01
CV 0.80
geom mean 0.092
25% 0.051
median 0.102
75% 0.182
Frequency (% of 1760)
CU_PCT