KGL RESOURCES
www.kglresources.com.au
Level 7 167 Eagle Street Brisbane 4000

15 September 2020

Resource Upgrade at KGL's Jervois Copper Project Supports Development Focus.

Resource-building strategy has delivered:

- **Confidence in Resource now 68% in Indicated category.**
- **20.97 million tonnes at 2.03% copper and 31.9 g/t silver containing:**
  - **426,200 tonnes copper,**
  - **21.4 million ounces silver, and**
  - **175,700 ounces of gold[1].**
- **Prefeasibility study targeted for fourth quarter 2020.**

KGL Resources Limited (ASX: KGL) (KGL or the Company) announces significantly increased copper and upgraded Mineral Resources at the Company's 100% owned Jervois Copper Project in the Northern Territory.

This resource update includes the three main deposits considered for development (Reward, Rockface and Bellbird). Resources at Reward South will be re-assessed in the future.

The Company's consistent strategy, implemented after the 2016 AGM, has resulted in the significant upgrading of total resource estimates for the Jervois Project.

- An enhanced understanding of the Jervois geology noting higher grade mineralisation contained in tighter and better defined mineralised shoots.
- The grade of copper has almost doubled from 1.07% to 2.03%.
- A 30% increase in contained copper to 426,200 tonnes associated with a 31% reduction in the resource tonnage.
- An increased confidence in the resource with 68% now in the Indicated Resource category.

KGL Chairman Mr Denis Wood said the latest Resource Estimates justified the decision triggered by shareholders four years ago to focus on improving resource quality and project robustness before proceeding to development.

> "We committed to a new strategy of concentrating on understanding the geological structures. State of the art technologies were employed to plan efficient drilling that would confirm the structures" Mr Wood said.
>
> "Ultimately, this resource outcome – 30% more copper, a near doubling of grade and greater confidence levels– should have a positive impact on the mining and processing costs.

1. Gold reported for only Reward, Rockface and Bellbird deposits

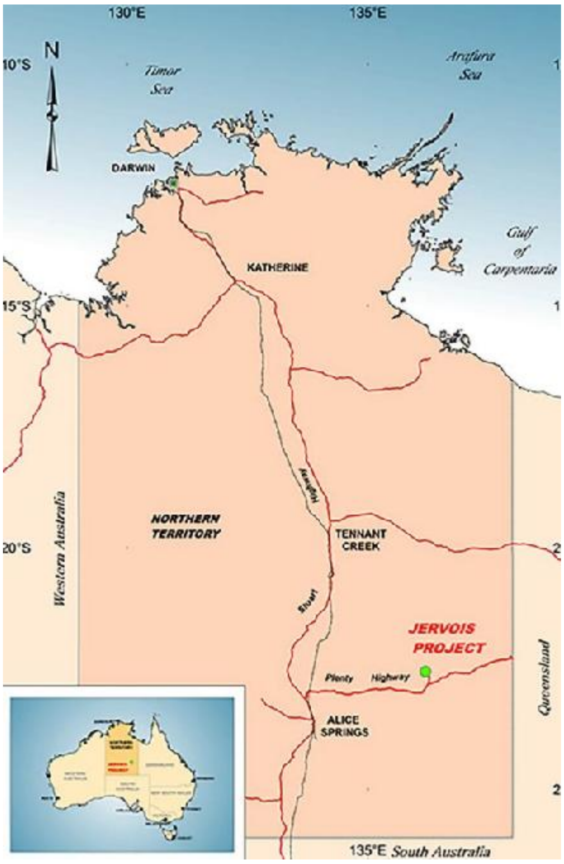
"A pre-feasibility study, including an Ore Reserve based on this Resource Estimate, and other project planning work is now being completed and is expected to be ready for release during the fourth quarter of 2020.

"KGL is approaching the project financing and development stage of Jervois at a time of strengthening copper and silver prices and positive medium and long-term market outlooks. Copper's traditional uses are being joined by steadily growing modern applications including renewable energy and electronics at a time when falling grades and increasing production costs around the world are impacting supply."

Resources Update in Detail

The updated JORC report on the Resource Estimates for Reward, Rockface and Bellbird deposits was prepared by Mining Associates and is included as Appendix A.

The Jervois Project and resource location map is shown in Figure 1 and 2 below.



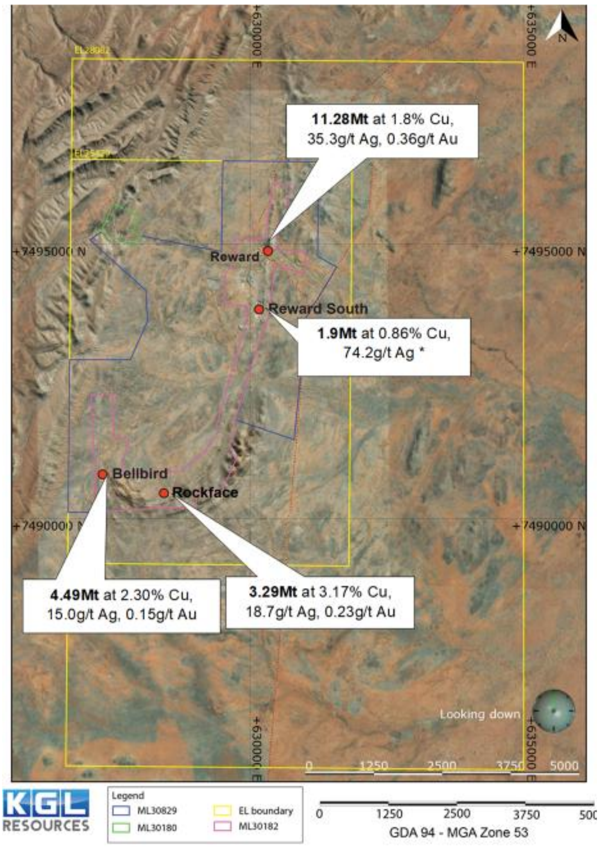


Figure 1 Jervois Area Local Geology.

*Figure 2 Jervois Project Resource Locations (*reported 2015 as Green Parrot)*

The new Resource Estimates for the Reward, Rockface and Bellbird deposits, together with the Reward South (previously Green Parrot) estimate from 2015 are detailed below in Table 1.

Table 1 Jervois Resource Estimate

Resource		Material	Grade			Metal		
Deposit	Category	(Mt)	Copper (%)	Silver (g/t)	Gold † (g/t)	Copper (kt)	Silver (Moz)	Gold † (koz)
Reward (2020)*	Indicated	7.03	2.05	42.30	0.48	144.00	9.60	107.60
	Inferred	4.26	1.38	23.70	0.16	58.70	3.20	22.10
	Total	**11.28**	**1.80**	**35.30**	**0.36**	**202.60**	**12.80**	**129.70**
Rockface (2020)*	Indicated	2.45	3.54	19.80	0.25	86.80	1.56	20.03
	Inferred	0.84	2.07	15.60	0.18	17.50	0.42	4.96
	Total	**3.29**	**3.17**	**18.70**	**0.23**	**104.20**	**1.98**	**24.73**
Bellbird (2020)*	Indicated	1.67	3.17	18.42	0.22	52.80	0.98	11.78
	Inferred	2.83	1.78	12.89	0.10	50.30	1.17	9.08
	Total	**4.49**	**2.30**	**15.00**	**0.15**	**103.10**	**2.17**	**21.66**
Total Reward, Rockface, Bellbird	Indicated	11.15	2.55	33.78	0.39	283.60	12.14	139.41
	Inferred	7.93	1.60	18.98	0.14	126.50	4.79	36.14
	Total	**19.07**	**2.15**	**27.60**	**0.29**	**410.00**	**16.94**	**175.70**
Reward South 2015 †	Indicated	0.50	0.99	64.00		5.10	1.06	
	Inferred	1.40	0.81	78.00		11.10	3.44	
	Total	**1.90**	**0.86**	**74.20**		**16.20**	**4.50**	
Total Jervois	Indicated	11.65	2.48	35.08		288.70	13.20	139.41
	Inferred	9.33	1.48	27.84		137.60	8.23	36.14
	Total	**20.97**	**2.03**	**31.82**		**426.20**	**21.44**	**175.70**

**cut-off grades: 0.5% Cu above 200m RL, 1% Cu below 200m RL; 200m RL is ±150m below surface and considered to be the depth limit for potential open pit mining, resource estimates do not include Reward South; † the 2015 resource estimate for Reward South had a deposit wide cut-off grade of 0.3% Cu and did not include gold.*

The considerable advances in the resource base when compared with the previously reported estimate, are due to the confirmatory infill drilling undertaken from June 2019 to March 2020 coupled with improved understanding of the geological controls on mineralisation. This was achieved through the systematic incorporation of drill results in the geological models and adapting the drill plans accordingly.

Improved Geological Model

During the last 4 years the KGL geology team has greatly improved the understanding of the controls of mineralisation and disposition of the mineralised lodes.

As outlined in the August 2019 JORC report, improved field protocols, supplementing legacy core-logging codes, have been introduced in 2017 for lithology, alteration, mineralisation and structures.

The result has greatly enhanced geological understanding and consistency in logging of lithology, alteration, mineralisation and structural domains and subgroups.

KGL now recognise two main styles of mineralisation and alteration/metamorphic mineral assemblages:

1. Lower tenor, primary syn-depositional or stratabound disseminated sulphides and
2. Higher grade, structurally controlled shoots representing both remobilised stratabound syngenetic mineralisation, possibly related to late regional intrusion-related mineralising event.

Higher grade mineralised shoots are the result of reworked and remobilised primary strata-bound base metals during deformation. During late stage deformation regional-scale granite intrusions likely provided the heat and fluids that remobilised copper from primary (stratabound) units, into structural traps such as anticlinal fold hinges. The structural framework for this is supported by research of the Northern Territory Geological Survey (e.g. McGloin et al 2019 and Weisheit et al 2019). The shoots are observed as massive or semi-massive sulphide-magnetite veins and chalcopyrite-rich brecciated veins (Figure 3).

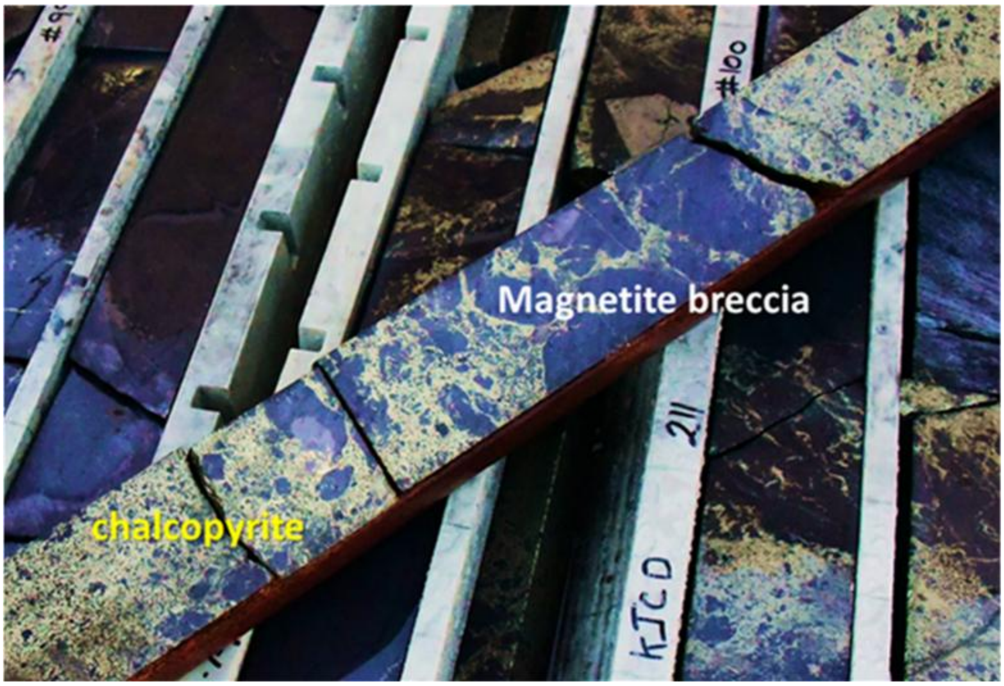


Figure 3 - Copper-Silver-Magnetite mineralisation from a structurally controlled shoot at Rockface

The improved geological model, upon which this resource update is based, widens opportunities to target higher grade extensions and repetitions within favourable host rocks and structures in other areas adjacent to known deposits and in other prospects at Jervois and the surrounding Unca Creek tenement.

Jervois Resources Progress

Figures 4, 5, and 6 illustrate the history of the total copper, silver and gold Resource Estimates for the Jervois Project.

The advance to a better grade and higher tonnes of contained copper has been progressively facilitated by:

- removal of the low grade resource from the previous resource models by:
  - changing the cut-off grade below 200 m from 0.5% to 1% and,
  - removing smaller low grade surface resources from previous estimates,
- successful use of state of the art exploration geophysics to guide drilling plans
- excellent drilling results coupled with the improved understanding of the geological controls on mineralisation.

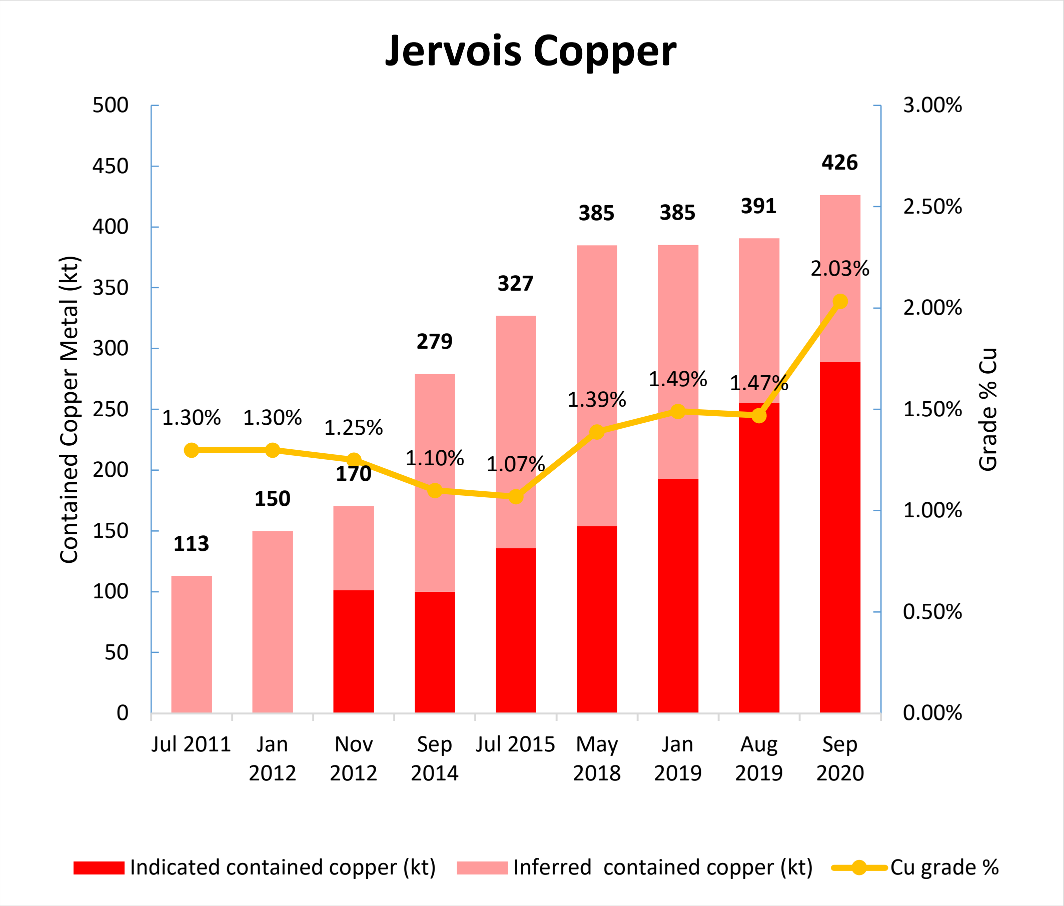


Figure 4 Progress of Jervois global contained copper metal and grade

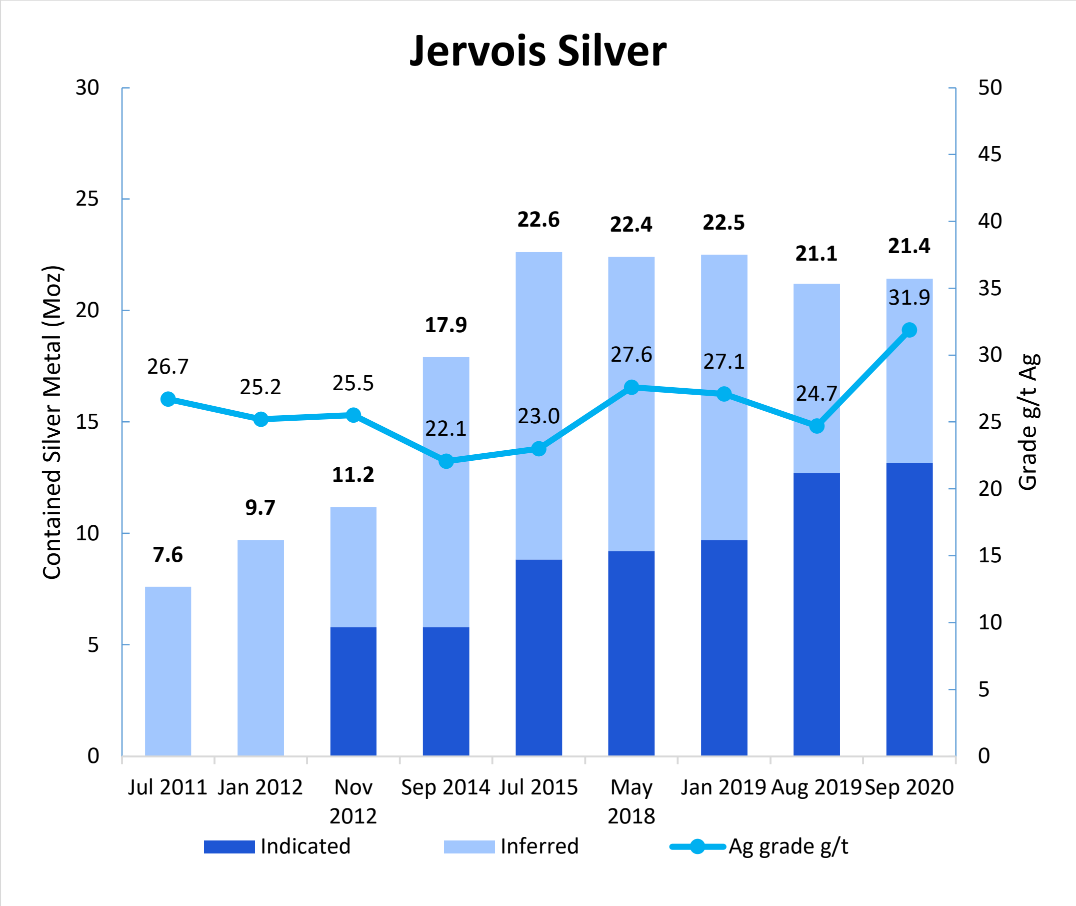


Figure 5 History of Jervois global contained silver metal and grade

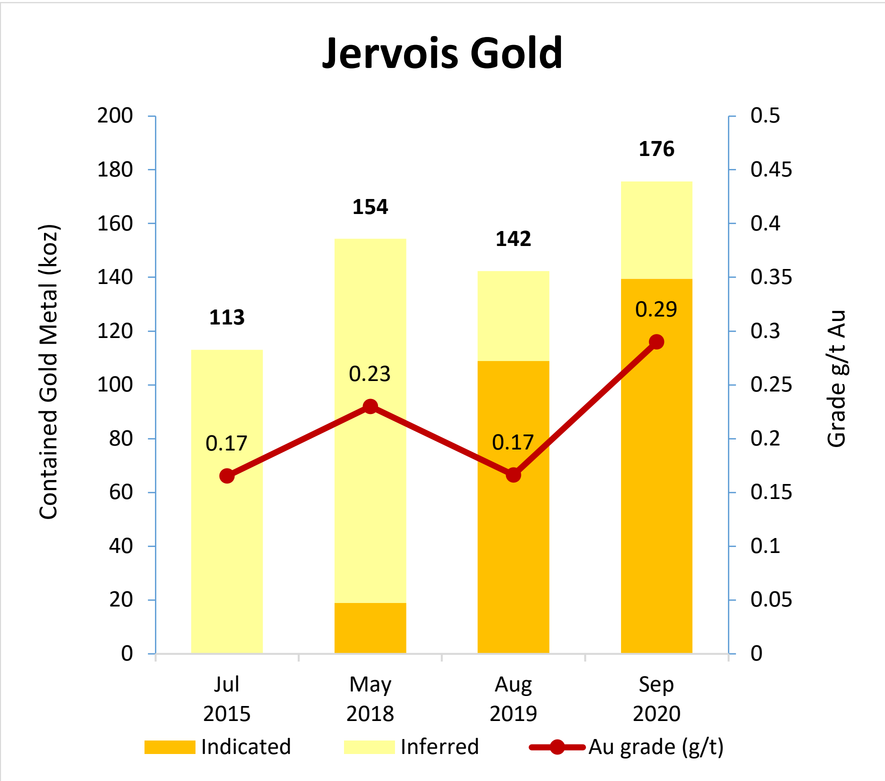


Figure 6 History of Jervois global contained gold metal and grade. *Note - deposits included in each gold estimate 2015 estimate: Reward and Bellbird, including Bellbird North excluding Reward South, estimates of 2018 to 2020: Reward, Rockface, and Bellbird, including Bellbird North and excluding Reward South.(Note. gold grade refers to the Reward, Rockface and Bellbird deposits only)*

Prior to 2014 too few samples were assayed for gold to be included in the reported Resource Estimates. Since 2016, as part of the strategy to improve the quality of exploration, assaying has consistently included gold, with much improved quality assurance/quality control.

2020 Resource Block Models

Confidence levels and copper grades improved notably in areas crucial to current mine planning. The new 3D block models of Reward (Figure 7), Rockface (Figure 8) and Bellbird (Figure 9) show coherent and tightly constrained lodes in the Indicated category.

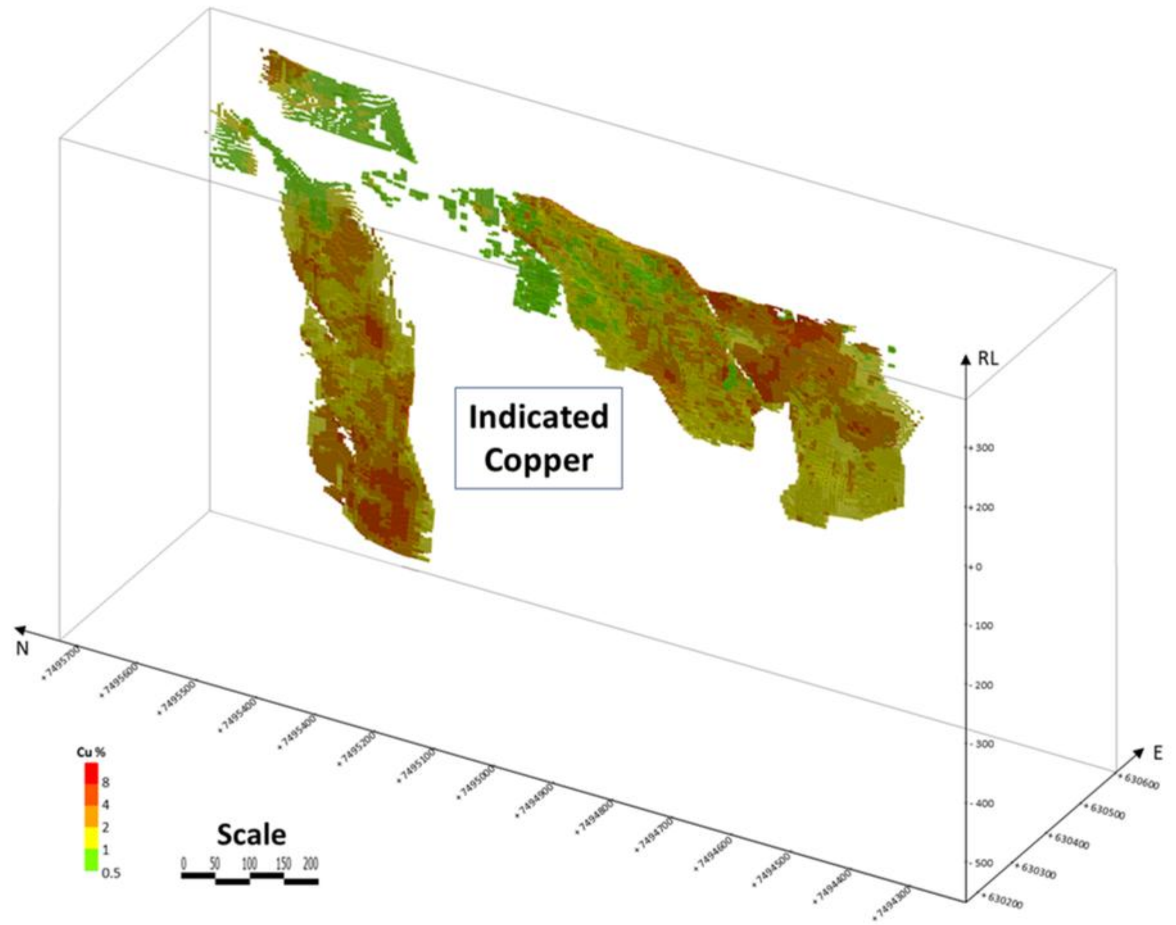


Figure 7 3D block model of the Indicated copper resources at Reward. Note that the cut-off for the underground potential is 1% Cu and for open pit potential is 0.5% Cu.

As previously shown at Reward, structurally controlled mineralised shoots are relatively enriched in gold (see 12 November 2019 ASX announcement). Remodelling of the Rockface lodes correspondingly shows a strong link between structural trends and higher grade copper and gold, see Figure 8.

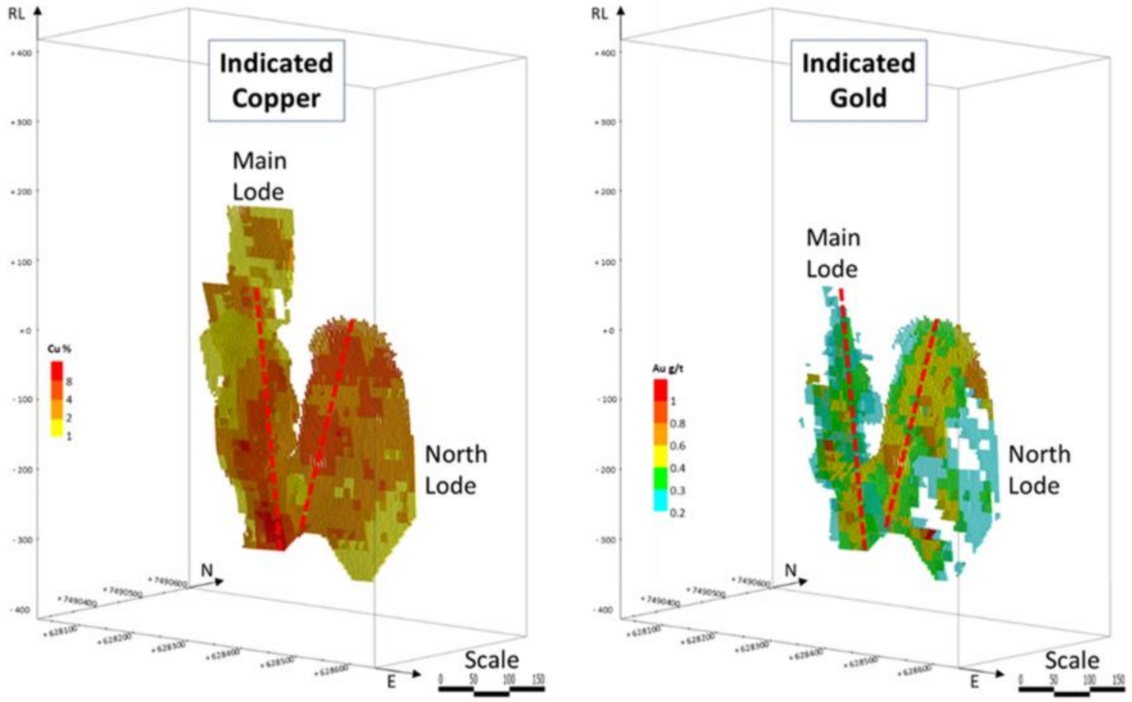


Figure 8 3D block models of Indicated copper (left) and gold (right) resources at Rockface, highlighting the structural trends in the Main Lode and the North Lode in red dashed lines. Note that Rockface is only considered for UG development with a cut-off of 1% Cu. The diagram on the right shows only blocks ≥ 0.2 g/t Au.

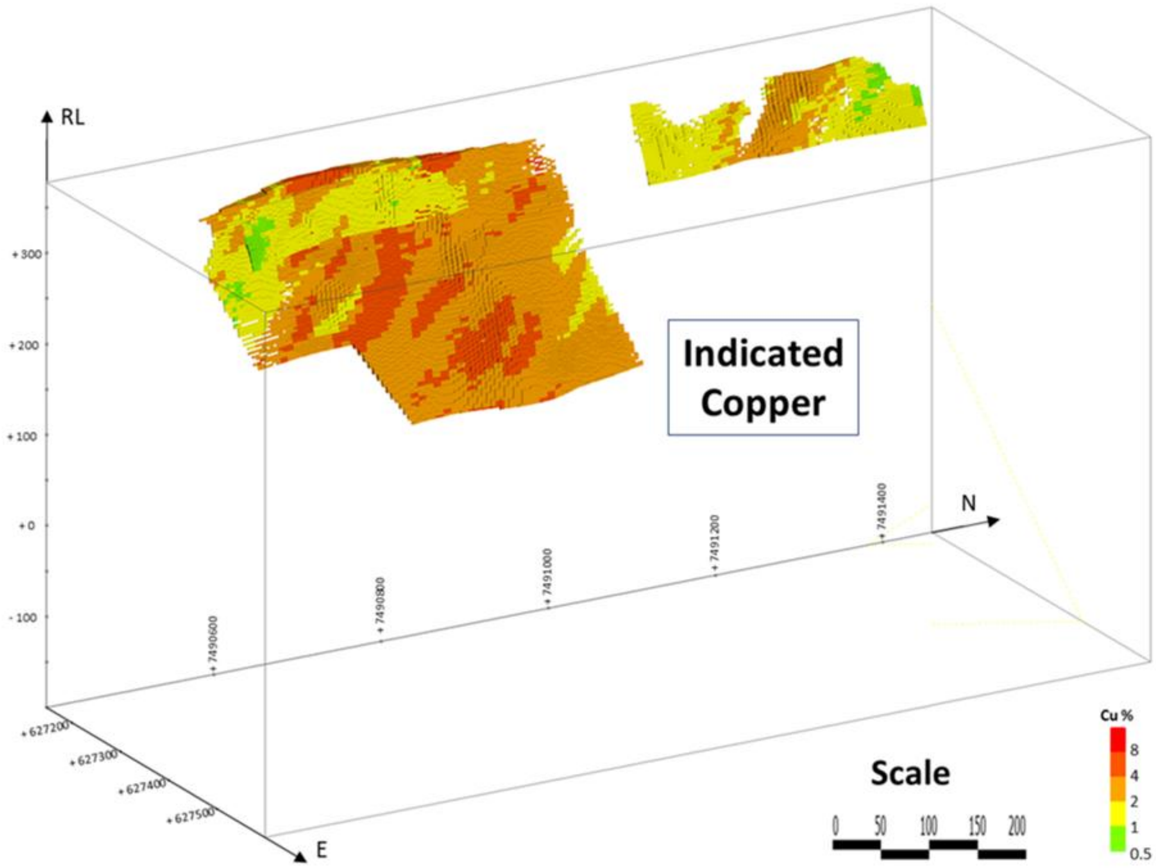


Figure 9 3D block model of the Indicated copper resources at Bellbird, featuring the proposed open pits. Note that the cut-off for the underground potential is 1% Cu and for open pit potential is 0.5% Cu.

Next Steps

KGL is currently in the process of compiling a prefeasibility study into the development of the Jervois project which the Company anticipates will be completed in the fourth quarter of 2020. In addition, the KGL team continues to focus on identifying additional mineral resources that would be accretive to development economics.

Approved for release by the KGL Board of Directors.

References

McGloin MV, Weisheit A, Trumbull RB and Maas R, 2019. Using tourmaline to identify base metal and tungsten mineralising process in the Jervois mineral field and Bonya Hills, Aileron Province. *Northern Territory Geological Survey Record 2019-001*.

Weisheit A, Reno BL and Beyer EE, 2019. *Jervois Range Special, Northern Territory. 1:100 000 geological map series explanatory notes, 6152 and part 6252*. Northern Territory Geological Survey, Darwin.

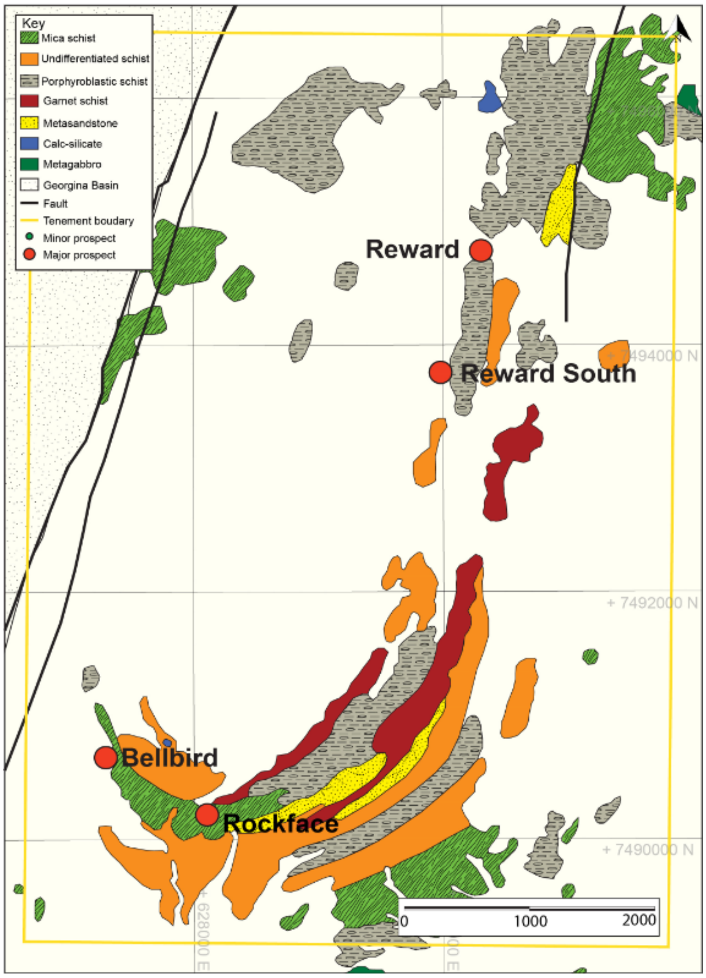
Competent Person Statement

The data in this report that relates to the 2015 Reward South Resource was first released to the market on 29/07/2015 (then named Green Parrot). and complies with JORC 2012. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The data in this report that relates to the 2020 Mineral Resource estimates for the Reward, Rockface and Bellbird are based on information evaluated by Mr Ian Taylor who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Taylor is an employee of Mining Associates and he consents to the inclusion in the report of the Mineral Resource in the form and context in which they appear.

JORC Table 1, Sections 1,2 and 3 contained within Mining Associates Report at page 123

MINERAL RESOURCE ESTIMATE, REWARD, ROCKFACE AND BELLBIRD DEPOSITS, JERVOIS PROJECT, NORTHERN TERRITORY, AUSTRALIA



Prepared by Mining Associates Pty Ltd

for

KGL Resources Ltd

Author:
Mr I.A Taylor
BSc (Hons) MAusIMM(CP)

Effective Date: 30 June 2020
Submitted Date:7 September 2020
Reference: MA2011-2-3

Mining Associates Pty Ltd
ABN 29 106 771 671
Level 6, 445 Upper Edward Street
Spring Hill QLD 4004 AUSTRALIA
T 61 7 3831 9154
F 61 7 3831 6754
W www.miningassociates.com.au

TABLE OF CONTENT

LIST OF FIGURES

LIST OF TABLES

1 SUMMARY

Mining Associates Pty Ltd ("MA") was comissioned by KGL Resources. ("KGL", or the "Company"), a mineral exploration and development company currently listed on the Australian Stock Exchange ("ASX"), to prepare a Mineral Resource Estimate ("MRE") and Technical Report on the Reward, Rockface and Bellbird deposits ("Reward", "Rockface" and "Bellbird") situated within KGL's 100% owned Jervois Licences.

1.1 LOCATION AND OWNERSHIP

The Reward deposit is located in the Northern Territory, 275 km ENE of Alice Springs. (22.65°S and 136.27°E). The Jervois Licences are 100% owned by KGL subsidiary Jinka Minerals Ltd.

1.2 HISTORY

Mineralisation at Jervois was discovered in 1929 during cattle mustering. Small high-grade open pit mines exploited mostly oxide copper and lead-zinc mineralisation at Marshall-Reward, Green Parrot and Bellbird up to the early 1970's. A small open pit mine exploiting lead-silver mineralisation at Green Parrot operated for one year in 1982, owned by Plenty River Mining. Approximately 40,000 tonnes of oxide material was mined.

From the 1990's onwards renewed focus on exploration has incrementally increased sulphide resources at depth. KGL acquired the Jervois project and Jinka Minerals Ltd, an unlisted exploration company, in 2011.

1.3 DATA USED

KGL supplied the drill hole database for Jervois, which included all drilling data and assays received up to 30 June 2020. MA has accepted the database in good faith as an accurate, reliable and complete representation of the available data. The responsibility for quality control resides solely with KGL. MA performed minimal validation of the data sufficient to justify the use in resource estimation.

1.4 GEOLOGICAL INTERPRETATION

The Jervois deposits (Reward, Rockface and Bellbird) occur within a folded succession of meta-sedimentary and meta-volcanic rocks. The exact origin of mineralisation is still debated and ranges from a metamorphosed and deformed sedimentary-exhalative deposit to a completely hypogene hydrothermal system. Recent work by KGL geologists indicates that there are two main styles of mineralisation: 1) lower grade 'stratabound' and 2) higher grade structurally controlled shoots representing both remobilised stratabound syngenetic mineralisation and a late tectonic intrusion-related mineralisation event.

1.5 MINERAL RESOURCE ESTIMATION

Based on the study herein reported, delineated mineralization of the Jervois Copper Project Resources are classified as an Indicated and Inferred resource according to the definitions from JORC (2012). Classification of the resources reflects the relative confidence of the grade estimates. Confidence with regard to the grade estimates is based on several factors, including but not limited to sample spacing relative to geological and geostatistical observations, the continuity of mineralization, mining history, specific gravity determinations, accuracy of drill collar locations, quality of the assay data, and other factors.

The resource is reported above a depth of 200 m RL and a 0.5% copper cut off and below 200 mRL at a 1% copper cut off.

Resource			Material	Grade (%)			Metal		
Area		Category	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Open Cut Potential > 0.5 % Cu	Reward	Indicated	3.34	1.86	41.8	0.44	62.2	4.49	47.5
		Inferred	0.76	0.93	9.5	0.06	7.0	0.23	1.4
	Bellbird	Indicated	1.33	3.08	17.4	0.23	40.9	0.74	9.8
		Inferred	1.40	1.19	9.1	0.10	16.6	0.41	4.5
	Sub Total		6.82	1.86	26.8	0.29	126.7	5.87	63.2
Underground Potential > 1 % Cu	Reward	Indicated	3.69	2.22	42.8	0.51	81.8	5.07	60.2
		Inferred	3.50	1.48	26.8	0.18	51.7	3.01	20.7
	Rockface	Indicated	2.45	3.54	19.8	0.25	86.8	1.56	20.0
		Inferred	0.84	2.07	15.6	0.18	17.5	0.42	5.0
	Bellbird	Indicated	0.34	3.52	22.4	0.18	11.9	0.24	2.0
		Inferred	1.43	2.36	16.6	0.10	33.7	0.76	4.6
	Sub Total		12.24	2.31	28.1	0.29	283.3	11.07	112.4
Total			19.07	2.15	27.6	0.29	410.0	16.94	175.7

*does not include Reward South deposit

* Due to rounding to appropriate significant figures, minor discrepancies may occur, tonnages are dry metric tonnes

Mr I.A Taylor

Brisbane, Australia

Date: 1st September 2020

2 INTRODUCTION

Mining Associates Pty Ltd ("MA") was comissioned by KGL Resources. ("KGL", or the "Company"), a mineral exploration and development company currently listed on the Australian Stock Exchange ("ASX"), to prepare a Mineral Resource Estimate ("MRE") and Technical Report on the Reward, Rockface and Bellbird deposits ("Reward", "Rockface" and "Bellbird") situated within KGL's 100% owned Jervois Licences.

The Mineral Resource statement herein was prepared in accordance with the terminology, definitions and guidelines provided by the Joint Ore Reserves Committees (JORC) of the AusIMM, the AIG and the Minerals Council of Australia as described in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition.

2.1 INFORMATION USED

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

Additional relevant material was acquired independently by MA from a variety of sources. The list of references at the end of this report lists the sources consulted. This material was used to expand on the information provided by KGL and, where appropriate, confirm or provide alternative assumptions to those made by KGL.

The Competent Person (JORC Code 2012 Edition) for this Mineral Resource Estimate is Mr Ian Taylor. Mr Taylor is an Employee of MA. Mr Taylor has sufficient experience relevant to the re-mobilised syn-depositional style of mineralisation and deposits under consideration and to the activity which they have undertaken to qualify as a Competent Person as defined in JORC Code 2012 Edition.

2.2 CURRENT PERSONAL INSPECTION BY COMPETENT PERSONS

Due to time constraints and travel restrictions imposed by COVID-19 quarantine measures, Mr Taylor has not visited the project site. However, Mr Taylor has had lengthy discussions of the geological interpretation and drill hole data with KGL Chief Geologist, Mr A. van Herk.

2.3 RELEVANT CODES AND GUIDELINES

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

Under the definition provided by the ASX and in the VALMIN Code, these properties are classified as 'Advanced Exploration Projects', which are inherently speculative in nature. The properties are considered to be sufficiently prospective, subject to varying degrees of risk, to warrant further exploration and development of their economic potential, consistent with the exploration and development programs proposed by the Company.

3 RELIANCE ON OTHER EXPERTS

A draft copy of this Technical Report has been reviewed for factual errors by the client and MA has relied on KGL's knowledge of the Property in this regard. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Technical Report.

4 PROPERTY DESCRIPTION AND LOCATION

The Jervois project is located in the south-eastern part of the Northern Territory of Australia, approximately 275 km ENE of Alice Springs (Table 4-1). The project is approximately centred on 22.65°S and 136.27°E.

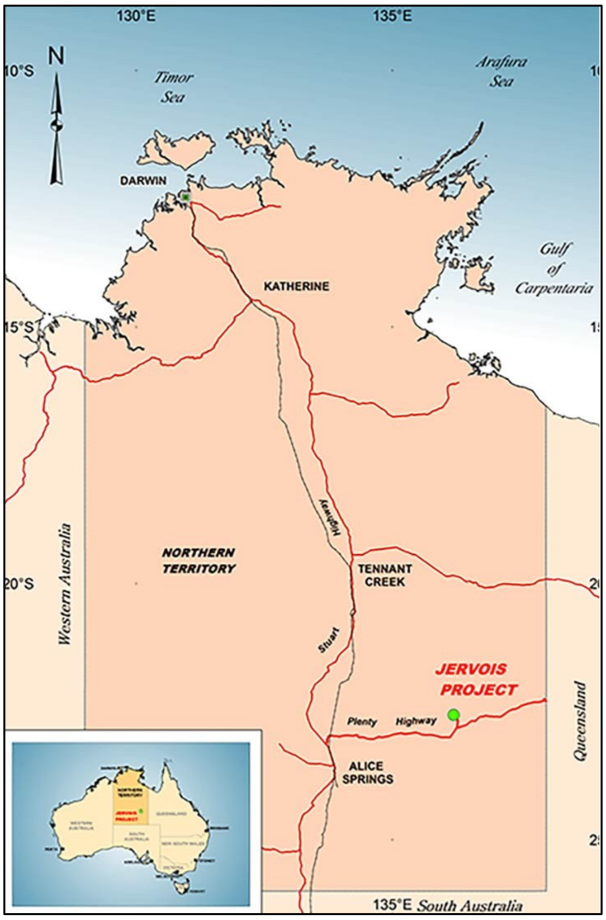


Figure 4-1. Regional Property Location

Map source: KGL website

4.1 PROPERTY TENURE

The Jervois project area is covered by a three Mining Licences and two Exploration Licences that are 100% owned by KGL subsidiary Jinka Minerals Ltd as detailed in Table 4-1.

Table 4-1. Details of Jervois Project Tenure

Title ID	Status	Transaction Type	Effective Date	Granted Date	Expiry Date	Holder	%	Area Units	Area Measure
ML30182	Current	Issued	2014-03-26	2014-03-26	2024-03-25	JINKA MINERALS LIMITED	100	481.7	HECT
ML30180	Current	Issued	2014-01-28	2014-01-28	2024-01-27	JINKA MINERALS LIMITED	100	33.21	HECT
ML30829	Current	Grant	2017-08-18	2017-08-18	2032-08-17	JINKA MINERALS LIMITED	100	1438	HECT
EL28082	Current	Renew Retained	2019-12-30	2010-12-30	2021-12-29	JINKA MINERALS LIMITED	100	23	SBKS
EL25429	Current	Renew Retained	2019-02-02	2007-02-02	2021-02-01	JINKA MINERALS LIMITED	100	12	SBKS

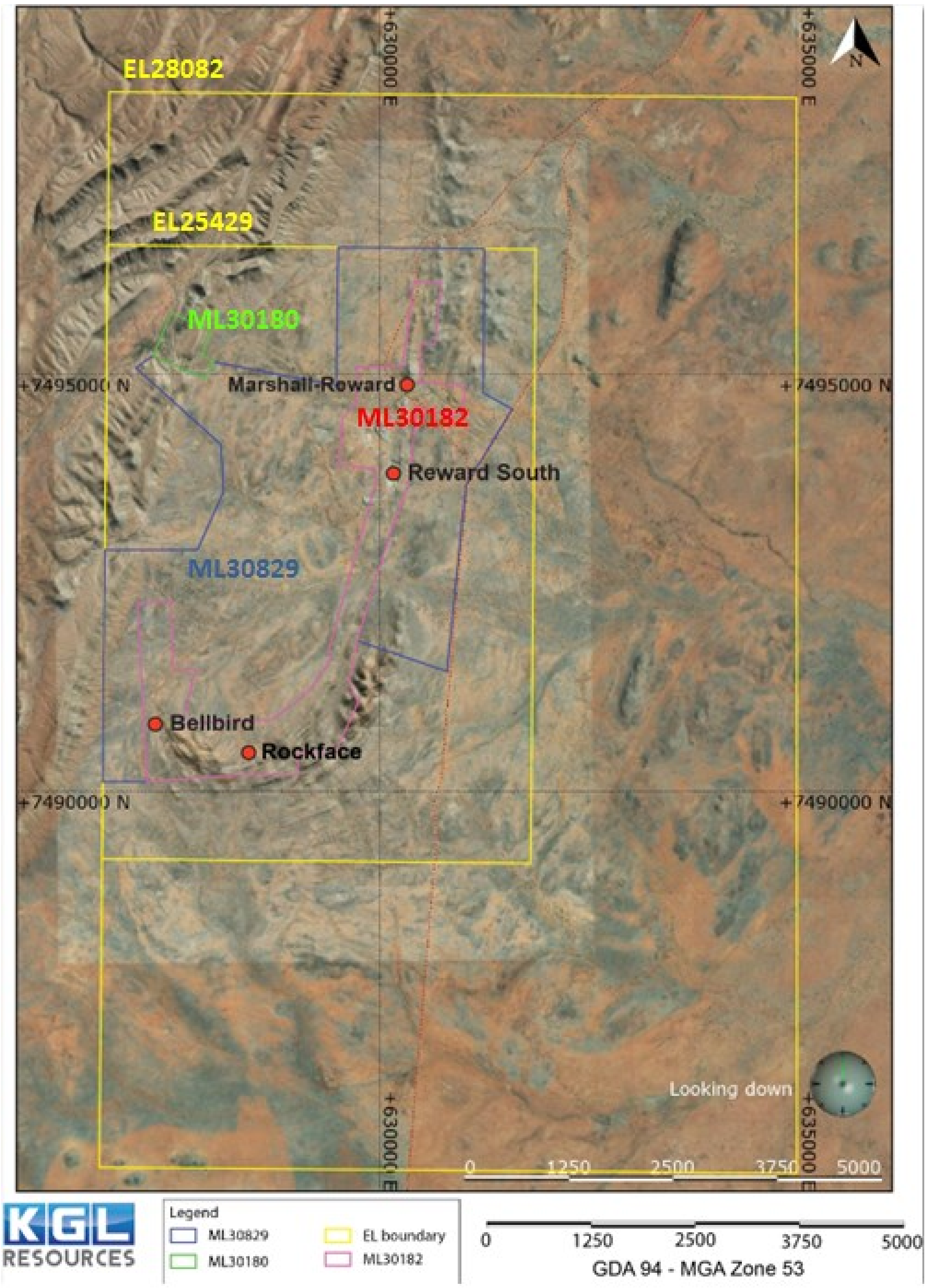


Figure 4-2. Tenement Map

Map source: KGL

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Jervois is accessed from Alice Springs via the Plenty Highway, a mostly unsealed graded road. Total road distance from Alice Springs is approximately 380 km. The area has a subtropical hot desert climate with an average annual rainfall less than 300 mm per year.

6 HISTORY

Mineralisation at Jervois was discovered in 1929 during cattle mustering. Small high-grade open pit mines exploited mostly oxide copper and lead-zinc mineralisation at Marshall-Reward, Green Parrot and Bellbird up to the early 1970's. A small open pit mine exploiting lead-silver mineralisation at Green Parrot operated for one year in 1982, owned by Plenty River Mining. Approximately 40,000 tonnes of oxide material was mined.

From the 1990's onwards renewed focus on exploration has incrementally increased sulphide resources at depth. KGL acquired the project in 2011 from Jinka Minerals Ltd, an unlisted exploration company.

6.1 PREVIOUS RESOURCE ESTIMATES

The most recent resource estimate for the Jervois deposits by H&S Consultants ("H&SC") was dated July 2019 and reported in August 2019 (Table 6-1) and used drill hole data collected up to 30th May 2019. This estimate includes resources for Reward, Rewards South, Bellbird and Rockface deposits. Previous estimates for the project by H&S were produced annually from 2011 to 2015.

Table 6-1. July 2019 Resource Estimate for Jervois by H&SC.

Jervois June 2019	Category	Mt	Cu %	Ag g/t	Pb %	Zn %	Cu Kt	Ag Mozs	Pb Kt	Zn Kt	Cu cut off
Reward OP	Indicated	5.1	1.22	27.9			61.7	4.5			0.5
Reward UG	Indicated	3.1	1.94	31.9			59.8	3.2			1
Bellbird OP	Indicated	3.8	1.23	7.6			46.7	0.9			0.5
Bellbird UG	Indicated	0.2	1.85	11.9			3.9	0.1			1
Rock Face UG	Indicated	3.1	2.44	13.5			74.9	1.3			1
Reward OP	Inferred	0.2	0.67	14.6			1.2	0.1			0.5
Reward UG	Inferred	2.1	1.70	32.3			35.6	2.2			1
Reward E OP	Inferred	0.7	0.76	7.1			5.4	0.2			0.5
Reward E UG	Inferred	0.8	1.29	12.0			10.8	0.3			1
Bellbird OP	Inferred	1.1	0.91	6.1			10.3	0.2			0.5
Bellbird UG	Inferred	1.7	2.02	12.7			33.6	0.7			1
Rock Face UG	Inferred	1.4	1.59	11.3			22.5	0.5			1
	Total	23.3	1.57	19.0			366.3	14.2			
Pb Resource											
Reward	Indicated	0.5	0.56	91.9	3.60	1.49	3.0	1.6	18.9	7.8	2% Pb
Reward S	Indicated	0.5	0.99	64.0	0.92	0.63	5.1	1.1	4.7	3.2	0.3
Reward	Inferred	0.3	0.51	56.8	3.58	1.73	1.4	0.5	9.8	4.7	2% Pb
Reward S	Inferred	1.4	0.81	78.0	1.78	0.93	11.1	3.4	24.4	12.8	0.3
Bellbird N	Inferred	0.7	0.57	17.9	1.71	2.52	3.8	0.4	11.3	16.7	0.2
	Total	3.3	0.73	64.4	2.07	1.35	24.3	6.9	69.2	45.2	
TOTAL	Indicated	16.3	1.57	24.2			255.0	12.7			
	Inferred	10.3	1.31	25.5			135.6	8.5			
		26.6	1.47	24.7			390.6	21.1			

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 REGIONAL GEOLOGY

Jervois is located on the northern margin of the Paleoproterozoic Aileron Province, adjacent to its faulted contact with Cambrian aged sedimentary rocks of the Georgina Basin (Figure 7-1). The Aileron Province comprises Palaeoproterozoic metasedimentary and meta-igneous rocks that formed as part of the North Australian Craton at ca 1.86–1.70 Ga (Weisheit, Reno and Beyer 2019). The oldest rock unit in the Jervois area, the Bonya Schist, is correlated with an extensive lithostratigraphic unit known as the Strangways Metamorphic Complex. Protoliths to the Strangways Complex are interpreted to have formed in a back-arc at the southern edge of the North Australian Craton with Bonya Metamorphics originally deposited in a continentally influenced basin.

Three major regionally significant tectonothermal events are interpreted to have affected rocks in the Aileron Province: the Stafford Event at ca 1.81–1.79 Ga, the Yambah Event at ca 1.78–1.77 Ga, and the Strangways Event at ca 1.74–1.69 Ga. These three events are linked to early collision, arc-related magmatism and collision/orogenesis respectively. A long period of quiescence and uplift followed the end of the Strangways Event until late Neoproterozoic times when the basal units of the Georgina Basin were deposited.

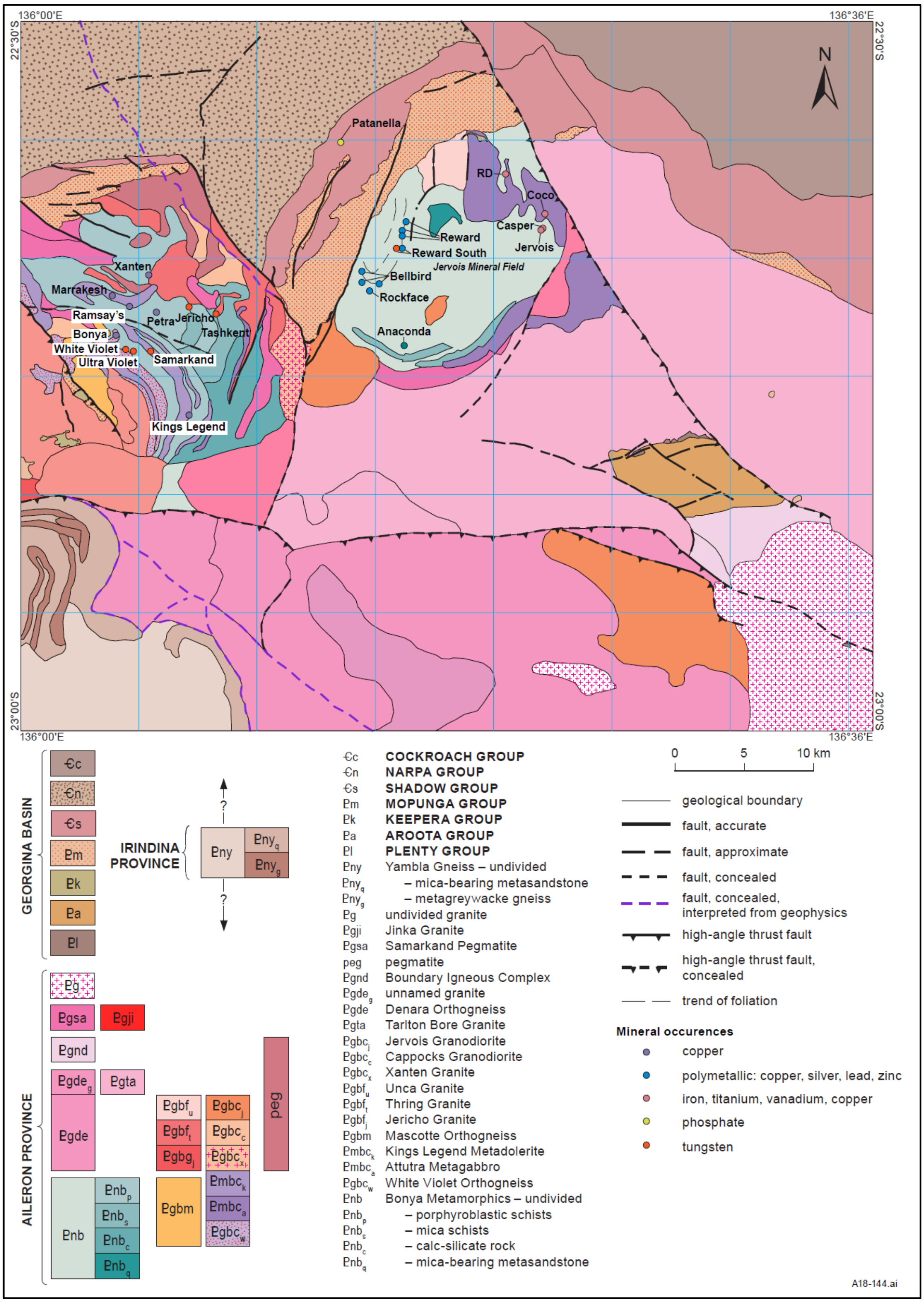


Figure 7-1. Regional Geology of Jervois area

Map source: Weisheit, Reno and Beyer (2019)

7.2 LOCAL GEOLOGY AND MINERALISATION

Local geology at Jervois comprises metasedimentary rocks of the Bonya Metamorphics folded into a distinct J-shaped north-plunging synformal structure that has its western limb terminated against a major fault (Jervois Fault). Bonya Metamorphics were intruded by mafic rocks of the Attura Metagabbro and leucogranite of the Unca Granite to the north and east of the area.

Bonya Metamorphics lithologies comprise meta-mudstones, meta-sandstone, meta-carbonate/calc-silicate group and minor aplites/pegmatites, tourmalinites and quartz-magnetite rock. Meta-mudstones are represented by a variety of quartz-mica schists with porphyroblasts of garnet, cordierite and/or andalusite. Meta-carbonates are represented by a wide variety of lithologies from 'pure' dolomite-calcite to epidote-calcite-qyartz-pyroxene-amphibole calc silicates. Some of the lithologies logged as meta-sandstone have been recently re-interpreted as meta-rhyolite on the basis of geochemistry (Schmid, Schaubs and Otto 2018).

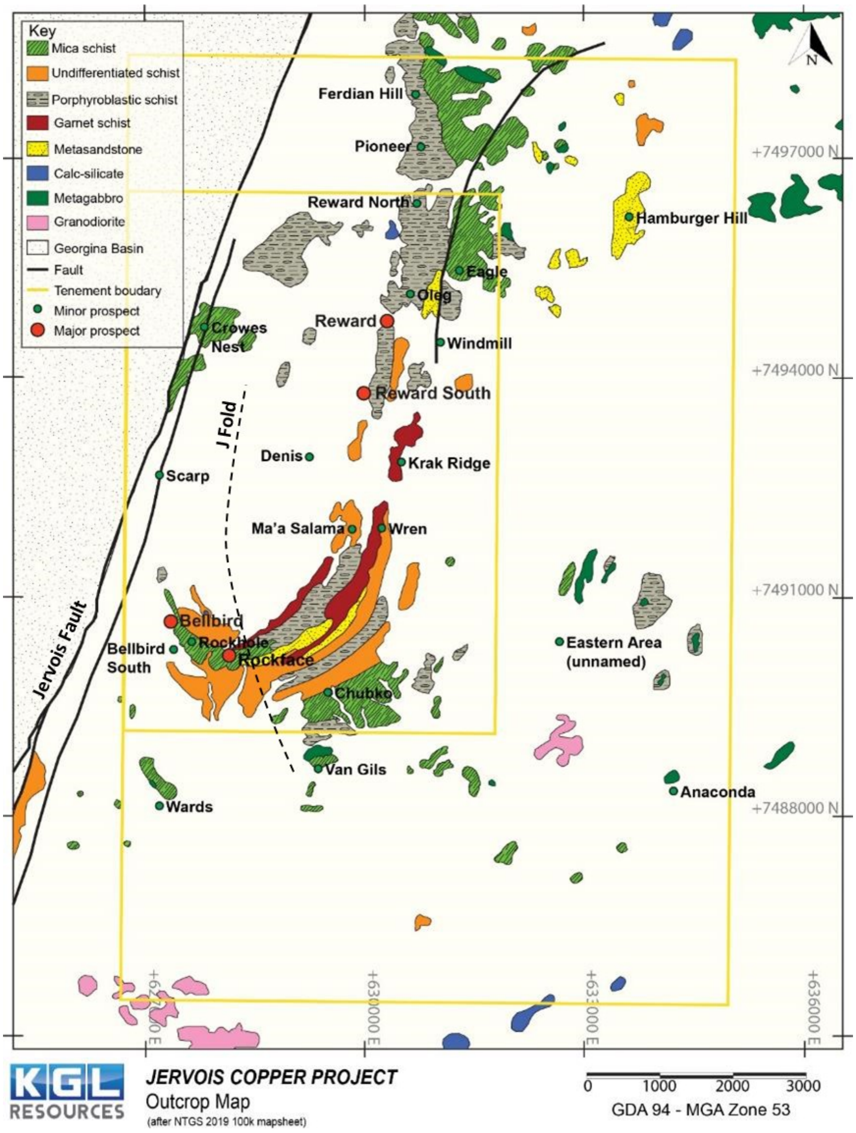


Figure 7-2. Jervois Area Local Geology.

Source : KGL

Three main structural deformation are recognised in the area (Schmid, Schaubs and Otto 2018):

D1: Layer-parallel foliation and rare isoclinal folds

D2: Tight to isoclinal folding of bedding and S1 foliation, folding produces dominant structures at outcrop scale

D3: Open to close folding of D2 structures, map-scale 'J fold' in Jervois area. Late D3 dextral transpression along Jervois Fault interpreted as responsible for the formation of the J fold as a drag fold (Weisheit, Reno and Beyer 2019).

7.3 MINERALISATION

Cu-Ag-Pb-Zn mineralisation is hosted by various units of the Bonya Metamorphics, mostly occurring as massive to semi-massive layers of sulphides. Sulphides also occur associated quartz veins and as thin interlayers in meta-mudstone and calc-silicates.

The origins of mineralisation at Jervois are difficult to ascertain due to the effects of metamorphism and polyphase deformation. Weisheit et al (2019) and Schmid et al (2018) agree that the bulk of mineralisation developed in a sediment-dominated VMS style system during or soon after deposition the host rocks with minor syn-deformational remobilisation. Crowe (2016) interpreted textural features in drill core and thin sections as indicating that mineralisation was largely syn-D2 timing.

KGL work in 2019 recognised two main styles of mineralisation and alteration/metamorphic mineral assemblages: 1) Lower grade, primary syn-depositional or stratabound sulphides and 2) higher grade, structurally controlled shoots representing both remobilised stratabound syngenetic mineralisation and a possible late tectonic intrusion-related mineralising event.

7.3.1 Stratabound mineralisation

Syn-depositional sulphide ("stratabound") mineralisation occurs in two main element associations thought to relate to different stratigraphic horizons (Figure 7-3):

(a) Low tenor chalcopyrite plus Ag and minor galena, sphalerite and low tenor Au, hosted by disseminated magnetite-bearing quartzite or BIFs.

(b) Polymetallic mineralisation of galena, sphalerite, chalcopyrite and Ag, hosted in carbonaceous psammi-pelites and calc-silicates.

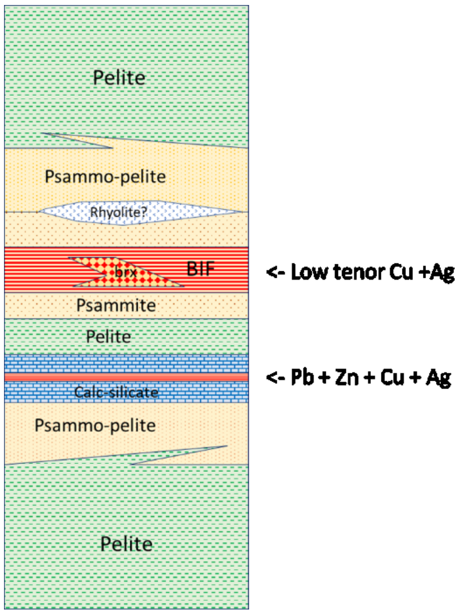


Figure 7-3. Schematic stratigraphy of Jervois showing different mineralisation styles

7.3.2 Structurally remobilised mineralisation

Deformation resulted in structural reworking and remobilisation of strata-bound base metal mineralisation. During late stage deformation and after peak metamorphism, granite intrusions provided the heat and fluids that remobilised Cu from primary (strata-bound) units, channelling them via reactivated fault zones into structural traps such as anticlinal fold hinges. A significant result is the observed concentration of sulphide mineralisation originally of strata-form disseminations, into local massive higher grade zones or shoots (Cu >1%, Ag >50 g/t and Au >0.5 g/t) – in particular chalcopyrite hosted in massive magnetite. Massive magnetite-chalcopyrite breccia seen at Rockface is typically associated with isoclinal fold hinges and the orientation of breccia shoots is parallel with the fold hinges, measured in both mapping and in 3D models. Similar high grades zones are seen at Rockface, Reward Deeps, Reward Main and Marshall.

7.3.3 Oxidation

Oxidation due to surface weathering effects is relatively limited with essentially the oxidised zone being transitional from surface to base of oxidation (approximately 10 – 15 m). No significant zone of complete oxidation can be delineated within the mineralisation and KGL plan to mine and treat all copper mineralisation by a single process, accepting varying recoveries.

8 DRILLING

This and following sections refer to work completed at the Reward, Rockface and Bellbird prospects only. MA has not reviewed any data for the other Jervois prospects, such as Reward South and Cox's Find.

Since acquiring the project in 2011 and up until 11 March 2020, KGL has extensiviely drilled the projects (Table 8-1). These figures do not include regional exploration shallow RAB drilling programmes or holes with failed validation in the same area.

Table 8-1. Jervois Project Summary holes and metres for Reward, Bellbird and Rockface.

Project	# KGL Holes	Total (m)	# previous operator holes	Total (m)
Bellbird	203	31,397.01	84	11,264.83
Reward	411	95,112.19	99	18,672.10
Rockface	111	45,863.05	16	2,994.79

8.1 DRILLING METHODS

For KGL drilling since 2011 most holes utilised a combination of RC pre-collars (5.25" face sampling bit) to a pre-determined depth above predicted mineralisation followed by diamond coring (wireline with dominantly HQ (63 mm) diameter with some NQ3 (45 mm) diameter). Pre-2011 hole diameter and drill type details are generally not recorded (NR) in the database. Table 8-2 summarises drilling statistics by drill hole type. RC_DD drill holes utilised RC pre-collars with diamond coring through zones of mineralisation, and DDW denotes diamond drilling wedges, or daughter holes drilled from a pre-existing hole path by directional drilling methods.

Table 8-2. Summary of drilling by project area and drill hole type

Project Area	Drill type	# Holes	Metres
Bellbird	NR	50	12,247.42
	DD	24	5,751.79
	RC	205	21,272.83
	RC_DD	8	3,389.80
Total		287	42,661.84
Reward	NR	168	51,938.75
	DD	60	19,002.47
	DDW	2	1,383.90
	RC	244	25,140.28
	RC_DD	36	16,318.89
Total		510	113,784.29
Rockface	NR	35	15,477.25
	DD	24	4,964.65
	DDW	14	9,669.30
	RC	25	2,827.64
	RC_DD	29	15,919.00
Total		127	48,857.84

8.2 DRILL HOLE COLLARS AND SURVEY

Available historic drill holes and all drilling conducted by KGL have had collars surveyed by differential GPS. Previous work by KGL and H&S determined that some sets of historic collars were incorrectly located, and cross checking of recorded and actual locations resulted in some collar positions being changed. Details of the cross-checking process are given in Tear (2019) and previous H&S reports. At Reward several historic drill hole collar locations recorded in the database could not be reconciled with newer drilling and a list of these are included in the 'data validation' section.

All drill collar locations are recorded using Map Grid of Australia (MGA) 94, zone 53 grid system.

8.3 DOWNHOLE SURVEYS

KGL drilling since 2016 has used a Reflex or Axis gyroscopic survey tool at 10 m intervals to determine dip and azimuth (in true north) of the hole. True north azimuth readings are converted to grid north (MGA94 zone 53) on import to the database. Gyroscopic surveys are used because magnetite alteration can cause significant deviation effects on magnetic compass survey readings.

For KGL 2014-15 drilling downhole surveys were taken with a Ranger or Reflex survey tool every 30 m. Check surveys were conducted using a Gyrosmart gyro and Azimuth Aligner at 10 m intervals which are used in preference in the database.

According to Tear (2019), historic drilling documentation indicated that for most holes several down hole surveys were completed at intervals ranging from 25 m to 50 m, but the downhole survey method is not recorded. Information for historic drill holes with JG, MP, PR, R and RJ prefixes suggests that there are no downhole measurements save for an end of hole reading that matches the collar orientation.

8.4 RECOVERY AND QUALITY

Tear (2019) includes a detailed discussion on RC sample recoveries for KGL drilling between 2014 and 2019. No issues were noted with RC sample recoveries and no relationship was found between recovery and grade that might indicate a sampling bias.

Core recovery information was not available for diamond core drill holes prior to 2013. KGL diamond core drilling at Jervois from 2014 onwards averaged 99.4% recovery and there is no relationship between recovery and grade.

9 SAMPLE PREPARATION, ANALYSES AND SECURITY

9.1 SAMPLING PROCEDURES

KGL drillhole sampling is documented as procedure KMNT_Exp_SOP017 for RC drilling and KMNT_Exp_SOP018 for diamond drilling. Figure 9-1 shows the flowsheet describing core handling and sampling. Sampling was continuous through mineralisation/alteration zones and extended up to 10 m for diamond core and up to 50 m for RC up and down-hole.

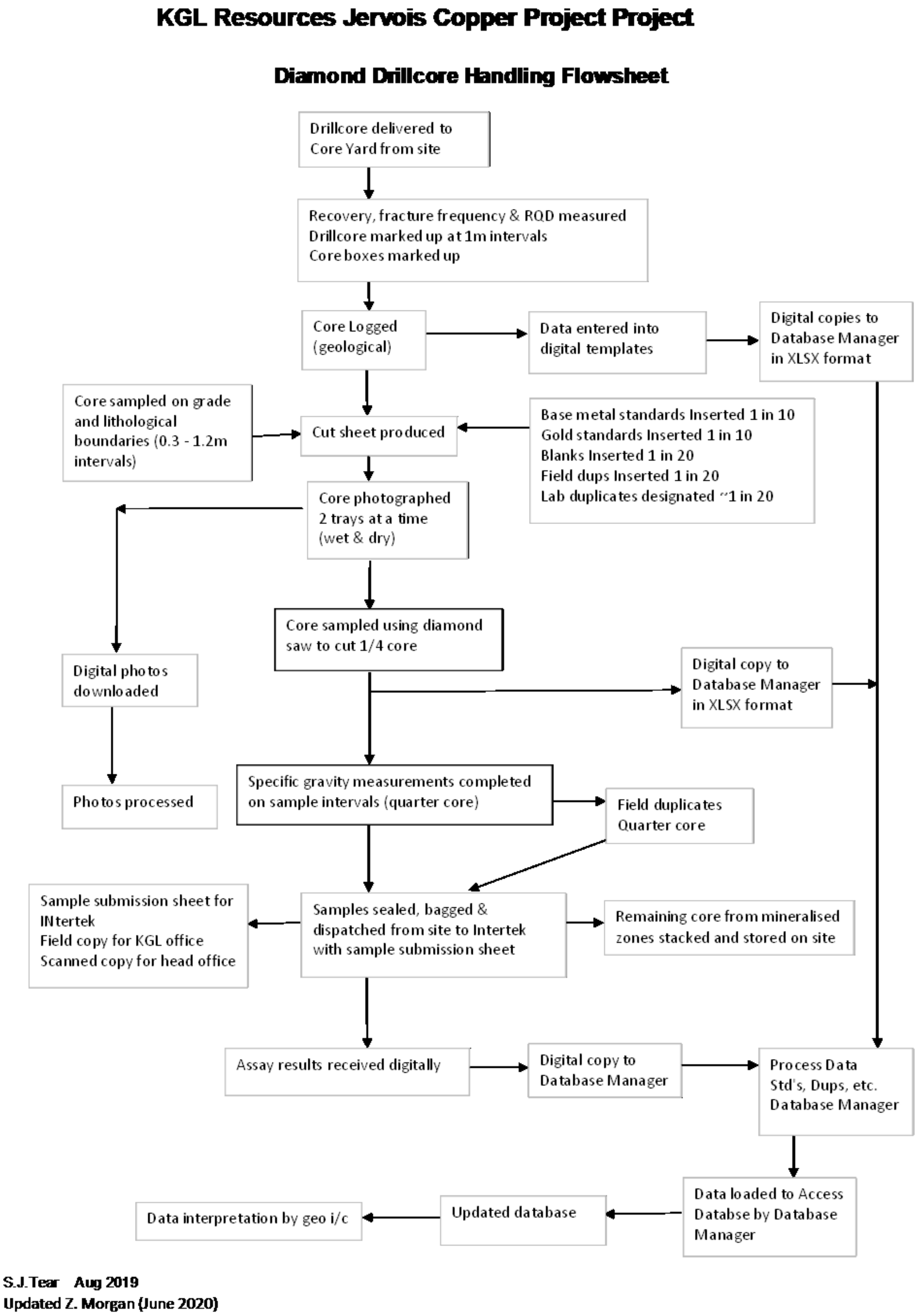


Figure 9-1. KGL flow chart for handling and sampling diamond core.

Previous reports (Tear 2019) document sampling procedures for RC drilling. Since the last resource update for Reward, Rockface and Bellbird, no RC drilling has been used to sample the main zones of mineralisation.

9.2 SAMPLE PREPARATION AND ANALYSIS

Since mid-2015 KGL has sent all samples to Intertek laboratories in Alice Springs for sample preparation, from where they were forwarded to Intertek in Townsville for analysis. From 2011 to 2015 samples were sent to ALS Global in Townsville. Figure 9-2 shows a flow chart for sample preparation and analysis at Intertek.

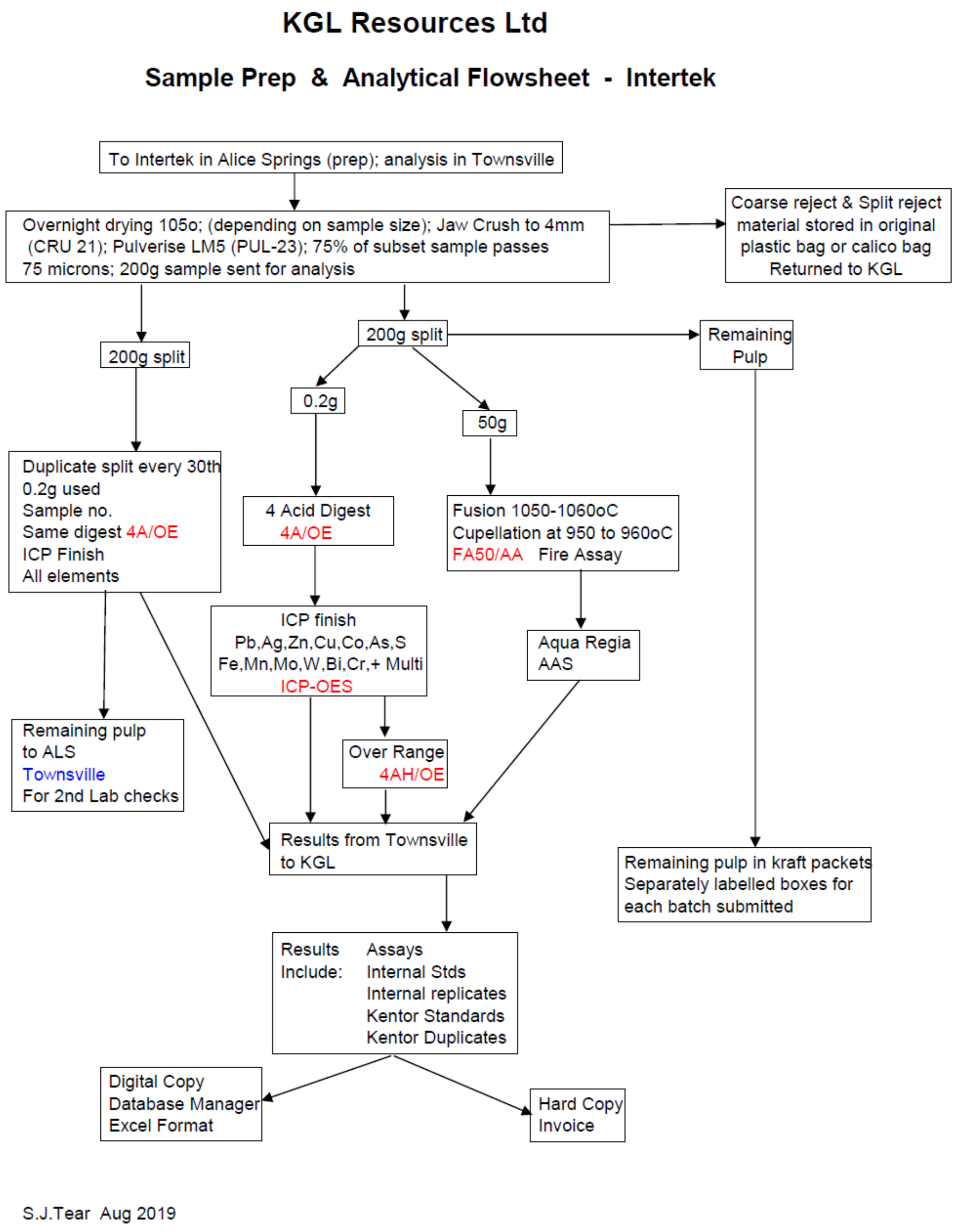


Figure 9-2. KGL analysis flow chart for all samples.

Intertek and ALS analysis used a 4-acid digest with ICP-OES finish. Over-grade (> 2 % Cu) samples were re-analysed by 4-acid digest and ICP-OES finish on a larger initial sample and longer digest time.

9.3 SAMPLE QUALITY ASSURANCE / QUALITY CONTROL (QAQC)

Quality Assurance ("QA") concerns the establishment of measurement systems and procedures to provide adequate confidence that quality is adhered to. Quality Control ("QC") is one aspect of QA and refers to the use of control checks of the measurements to ensure the systems are working as planned.

The QC terms commonly used to discuss geochemical data are:

- Precision: how close the assay result is to that of a repeat or duplicate of the same sample, i.e. the reproducibility of assay results.
- Accuracy: how close the assay result is to the expected result (of a certified standard).
- Bias: the amount by which the analysis varies from the correct result.

In geochemical sampling quality control is achieved by the insertion of standards, blanks and duplicate samples at different stages of sample collection and preparation. Analytical precision is controlled by repeat assays internally and externally ('check' samples sent to another laboratory).

KGL QC sample insertion protocols for diamond core sampling are as follows:

- Every drillhole sampling interval starts with a blank sample. After that:
- All QAQC samples have an insertion rate of 1 after every 5 original samples. This is broken down as listed below:
    - Standards: 1 after every 5 original samples except for when replaced by blanks or field duplicates.
    - Base metal 1 after every 10 original samples – low or high grade depending on mineralisation estimate.
    - Gold: 1 after every 10 original samples
    - Field duplicates: 1 after every 20 original samples
    - Coarse blank: 1 after every 20 original samples, sourced marble pebbles from a quarry in South Australia.
- A second split of pulverised material is taken every 30th sample as a pulp replicate to check on sample homogeneity during pulverising.
- In addition, since the start of 2019 a duplicate 200 g split of coarse crushed material is taken every 30th sample and pulverised. From the pulverised material 0.2 g is analysed at Intertek and the remainder is sent to ALS Townsville as an external laboratory check.

For KGL RC holes, standards were added one in every 20 samples. Duplicates and blanks were alternated for every other 10th sample e.g. 0 - 99th samples = no check samples, 100th sample = Std, 110th sample = blank, 120th = Std, 130th = dup, 140th = Std, 150th = blank etc. Duplicates were taken directly from the rig mounted cone splitter.

9.3.1 Blanks

Blanks submitted before 2014 were created from either white calcite or quartz pebbles purchased from a hardware store, it is reasonable to expect these samples to have little to no copper (> 10 ppm). Since 2014 the coarse blanks were pure marble from a quarry, there has been an improvement in blank results (Figure 9-3).

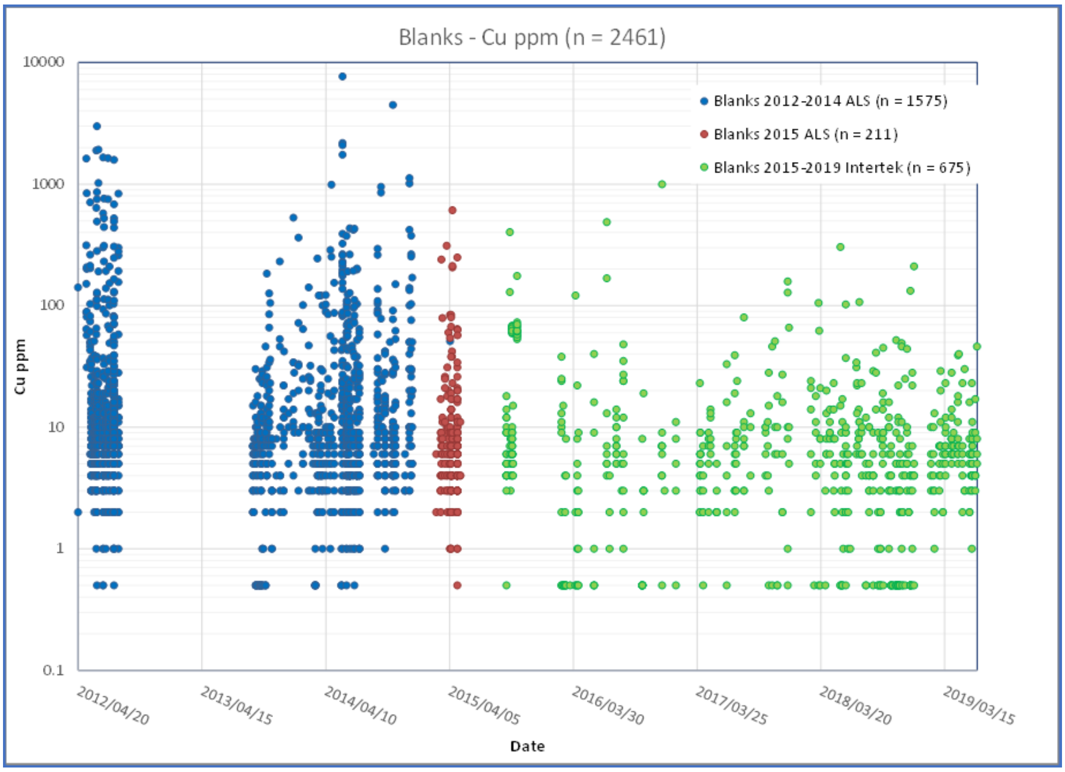


Figure 9-3. Blank assay results for copper, KGL drilling 2013-2019

Blanks throughout the 2019-2020 program (whole of Jervois Project) have been consistent, except for a minor spike in Cu around October 2019 (Figure 9-4).

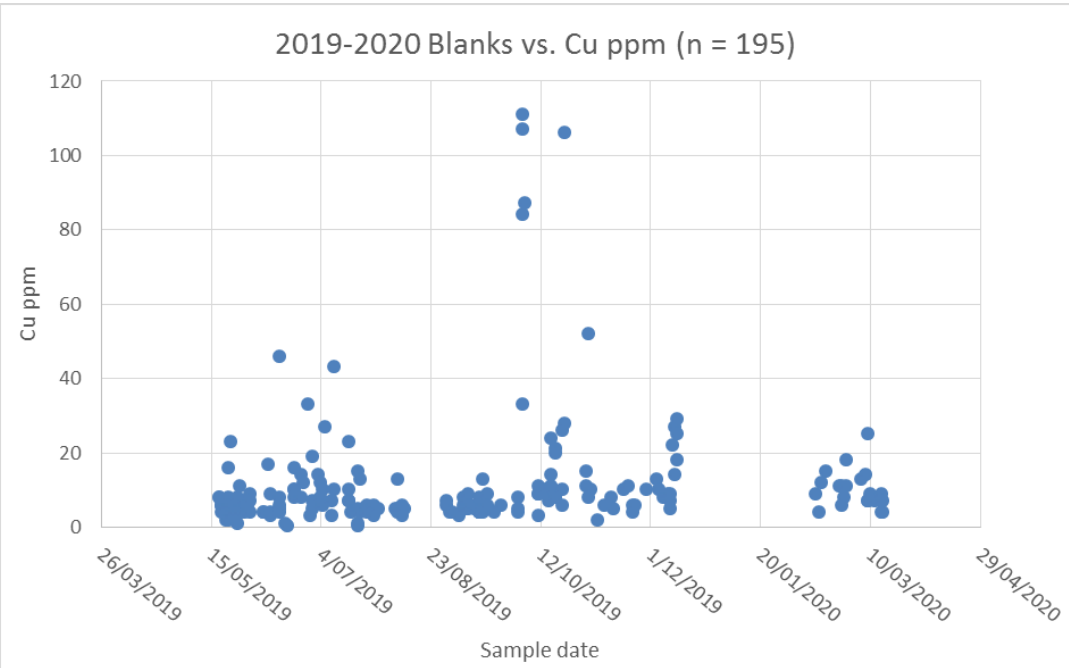


Figure 9-4. Blank assay results for copper, KGL 2019-2020

A blank sample is considered a fail if it reaches 10 x the detection limit. The detection limit of the acid digest and OES finish is 1 ppm Cu. It appears that the copper blanks actually average 10 ppm, MA recommends that KGL use their copper blanks as very low level standards, ie establish the expected value (mean) and understand the variance (standard deviation). This will establish warning (m+2SD) and control (m+3SD) parameters for action.

Throughout the projects history blank samples have indicated limited elevated copper values that represent low level "noise" either due low level contamination or inherent copper in the blanks. There is an improvement after 2014 when the blanks were sourced from a marble quarry.

Blank copper readings of less than 100 ppm (0.01 % Cu) do not have a material effect on the resource grade. Blanks above 1000 ppm require action to rectify.

9.3.2 Standards

Table 9-1 shows a summary of standards inserted in KGL drill programmes since 2011. All standards are supplied by Geostats Pty Ltd in Perth. GBM909-12 was discontinued and was replaced by GBM315-13 in early 2019. Gold standard G310-4 has been replaced by G316-5.

Table 9-1. Summary of KGL inserted standards 2012-2019.

Standard ID	First element		Second element ppm		Third element ppm		Number inserted (total over all KGL drilling)
	Mean	SD	Mean	SD	Mean	SD	
GBM310-1	Cu 5792	227	Ag 19	1.5	Pb 3035	248	856
GBM909-12	Cu 10830	339	Ag 51.7	3.0			597
GBM315-13	Cu 12565	399	Ag 41.3	1.6			13
G310-4	Au 0.43	0.03					93
G316-5	Au 0.5	0.02					230

Univariate statistics for analytical results for standards sent to ALS and Intertek shown in Table 9-2 conform closely with the expected values from round robin testing (Table 9-1).

Table 9-2. Summary of results for analyses of standards by ALS and Intertek 2012-2019

Standard ID	First element analysis		Second element analysis		Third element analysis		Number inserted (total over all KGL drilling)
	Mean	SD	Mean	SD	Mean	SD	
GBM310-1	Cu 5803	196	Ag 19.2	2.2	Pb 3020	300	856
GBM909-12	Cu 10531	307	Ag 50.4	2.1			597
GBM315-13	Cu 12315	339	Ag 41.1	2.4			13
GBM310-4	Au 0.41	0.012					93
GBM316-5	Au 0.49	0.02					230

Control charts for standards showing variation over the period 2012-early 2019 do not indicate a systematic bias from either ALS or Intertek for copper, silver or gold (see Tear 2019 for discussion). There is evidence for increased variability in all analyses for standards analysed by ALS that is contained within +-3 SD of certified values. GBM310-1 and GBM909-12 show an abrupt decrease in variability when Intertek analyses started in 2015. GBM909-12 results for copper and silver analyses at Intertek also display a cyclical variation in the mean within the acceptable range for values.

Since May 2019 results for standards analysed at Intertek have been consistent. GBM310-1 shows a slight increase in variability for copper, lead and silver over time (Figure 9-5). GBM315-13 (Figure

9-6) results have minimal scatter and no significant bias. G316-5 gold results drift towards a low bias towards the end of the 2019-2020 programme (Figure 9-7), but within acceptable limits.

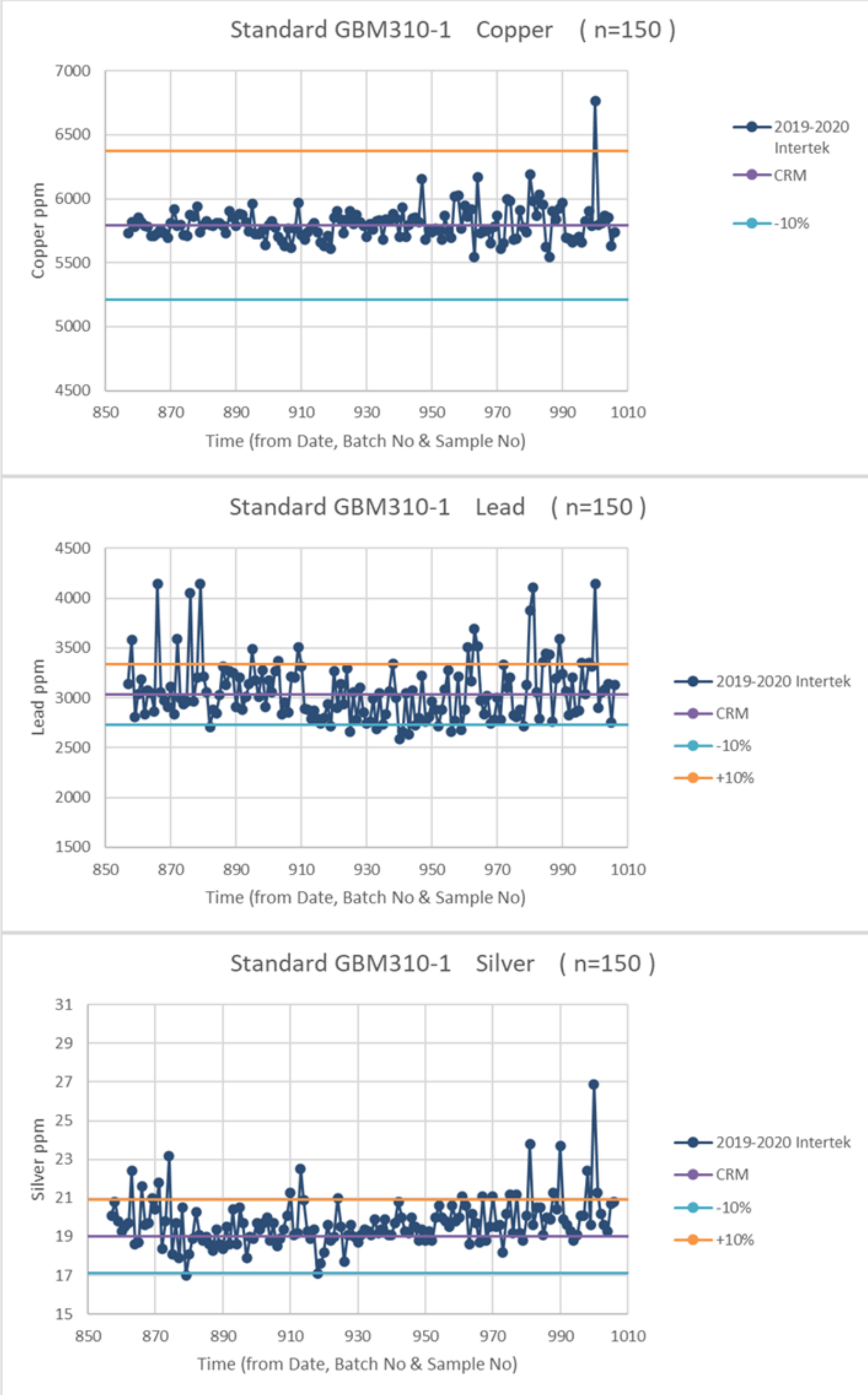


Figure 9-5. Control charts for GBM310-1 copper, lead and silver since May 2019.

Figure 9-6. Control charts for GBM315-13 copper and silver since May 2019.

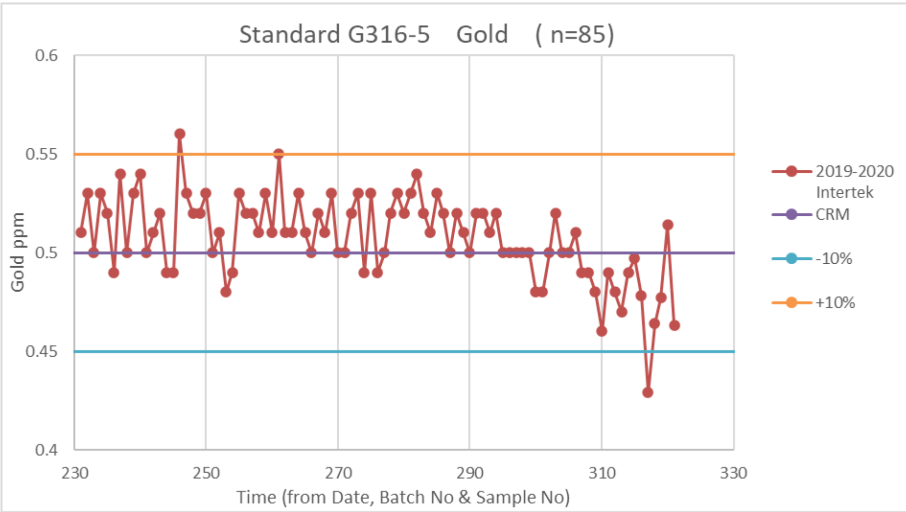


Figure 9-7. Control charts for G316-5 gold since May 2019.

Figure 9-8 to Figure 9-10 show scatterplots of field duplicate pair results for copper, silver and gold since the last resource estimate in July 2019. Results show that the majority of field duplicates are within +-10 % for copper and silver, with no consistent bias. Gold duplicates are more scattered, which is likely an effect of less homogenous distribution than the other elements.

Duplicate analyses do not indicate significant sampling errors or bias that would materially affect resource estimation or confidence.

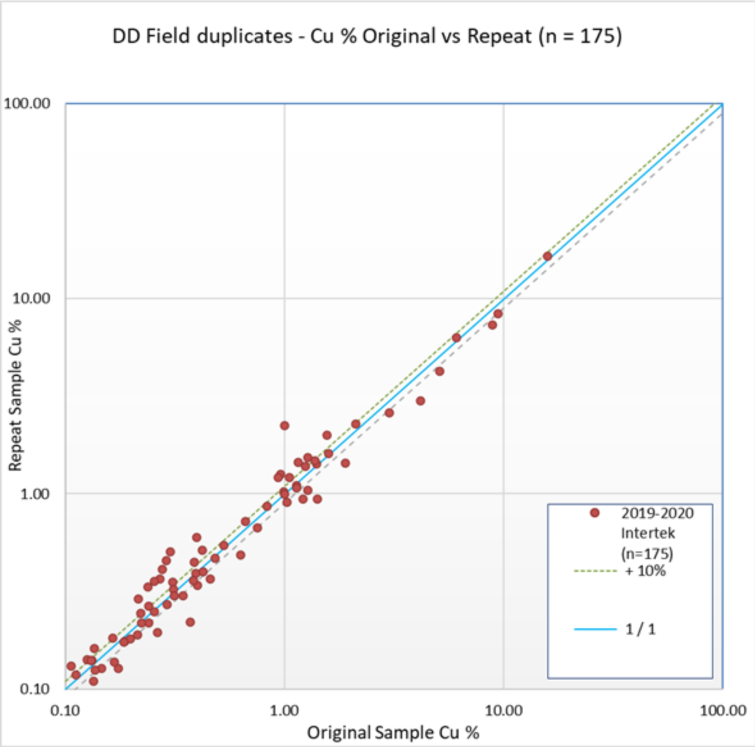


Figure 9-8. Scatterplot of field duplicate results for copper, 2019-2020.

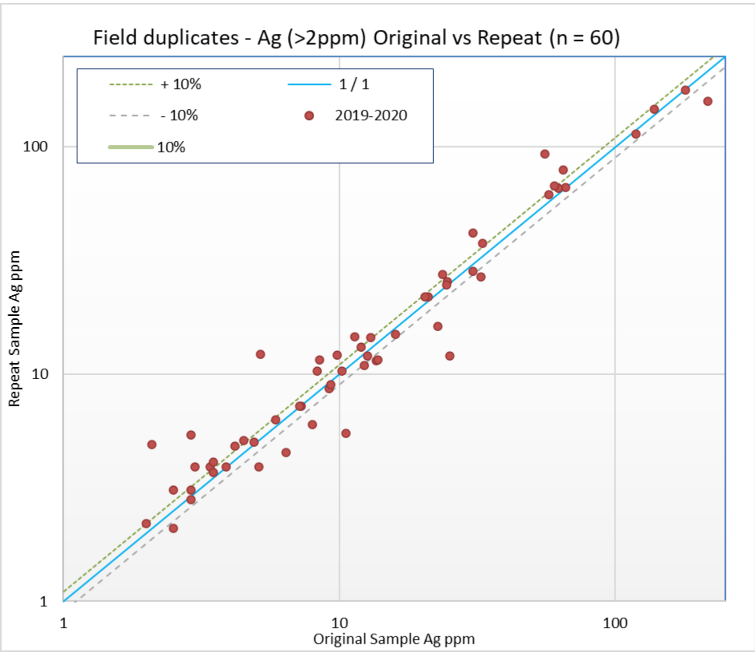


Figure 9-9. Scatterplot of field duplicate results for silver, 2019-2020.

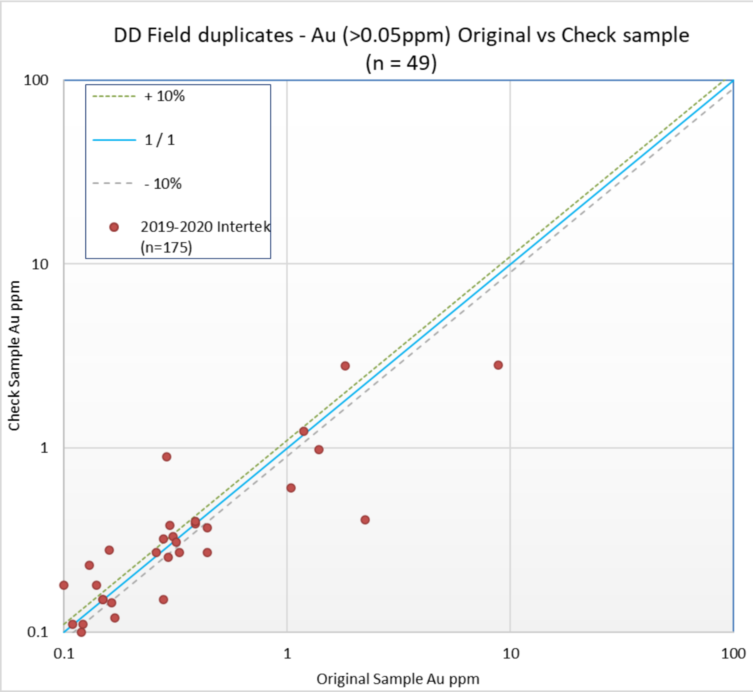


Figure 9-10. Scatterplot of field duplicate results for gold, 2019-2020

9.3.3 Coarse crush duplicates

Results for copper analyses of coarse crush duplicates show minimal scatter with the majority of data within +-10 % (Figure 9-11). Gold results are more variable, but still mostly within +-10 %.

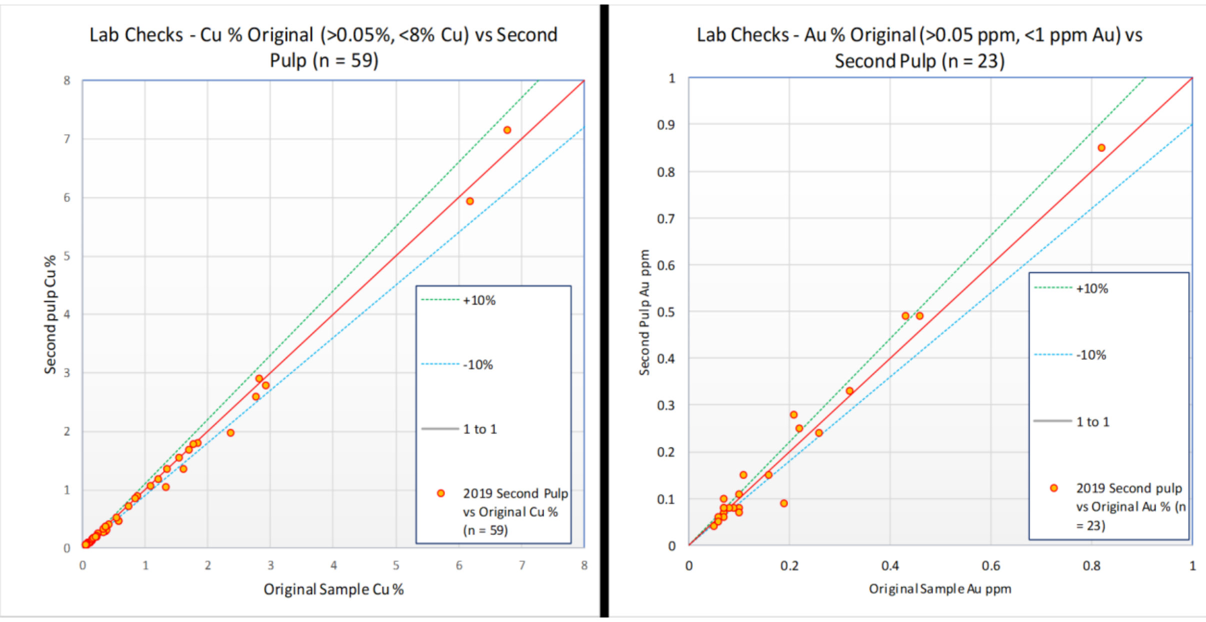


Figure 9-11. Scatterplots of coarse crush duplicate results, copper and gold

9.3.4 Pulp replicates

Pulp replicate analyses for copper and silver both show very strong correlation (Figure 9-12), as would be expected and do not indicate any issue with lab pulp preparation and splitting.

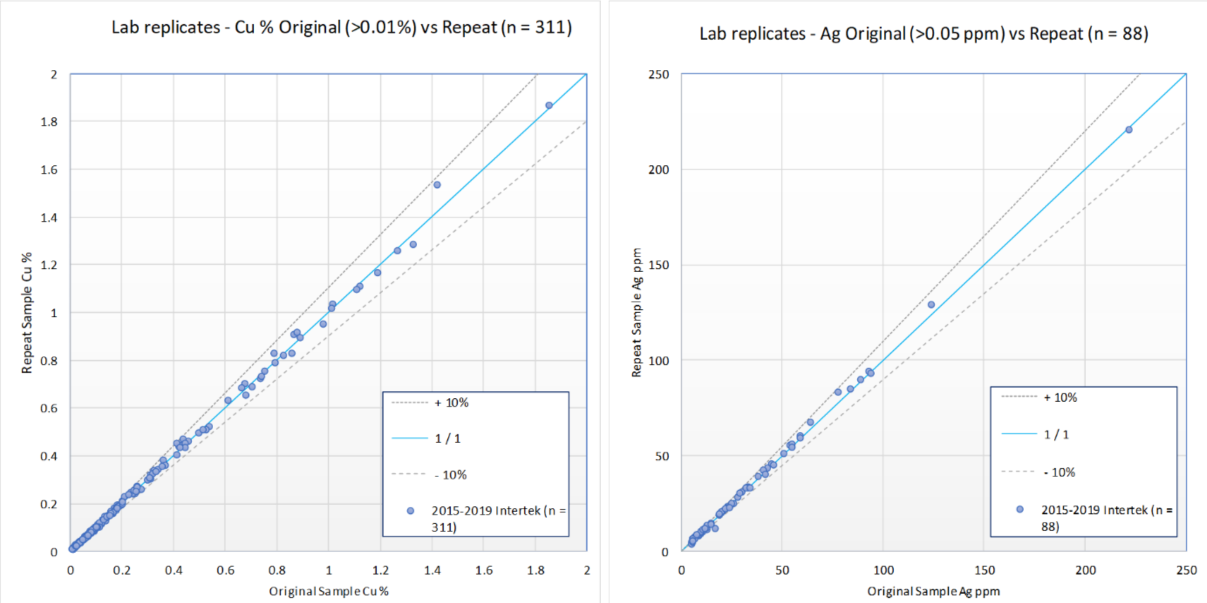


Figure 9-12. Scatterplot of pulp replicate results, copper and silver.

9.3.5 QAQC summary

Insertion of QC samples at the sample collection stage started in 2012 with KGL including coarse blanks, standards and field duplicates in sample batches from RC and diamond core drilling. Monitoring of QC sample analyses is undertaken on a drilling programme basis.

Data for coarse blanks over time indicates that there has been minor sample contamination at the preparation stage although the large majority of analyses reported below 100 ppm copper.

Standards for copper, zinc, silver and gold have performed as expected, with most results within an acceptable range. There appear to have been some problems in the past with the preparation and/or storage of standard GBM909-12 that resulted in a broader than expected scatter and periodic drift over time. None of the standards analyses indicate any major problems with laboratory accuracy.

Field duplicate results from diamond core for copper show some scatter about +-10 %, with no consistent bias. Samples from 2012 to 2014 show a higher degree of scatter, particularly at grades > 1 % copper. Silver and gold duplicates show similar results. MA considers the precision of duplicates to be as expected from using quarter core samples and the results do not have a material impact on resource classification.

Coarse crush duplicates and pulp replicates both show expected good to excellent correlation between duplicate pairs.

10 SUPPLIED DATA AND VERIFICATION

10.1 DRILL HOLE DATABASE

Data was delivered to MA (8 May 2020) in csv formatted tables and was compiled into an MS Access database. The latest drill hole included in the database was completed on 11th March 2020.

Error checking for duplicate records, missing assays and incorrect formats was undertaken as part of the Access database loading. The database was linked to the Surpac software, and an additional set of data validation checks was completed e.g. overlapping assay intervals and incorrect hole depths, etc. The quality of the supplied data was generally reasonable. Several requests were made of KGL for clarification of details for correction.

The majority of drill hole data was in good order, with errors having been detected and corrected during previous iterations of resource modelling by H&SC. A number of historic downhole surveys that were likely affected by magnetic interference were detected by highlighting abrupt changes in azimuth readings downhole. These were either corrected or removed by KGL.

Validation of drill hole data acquired up to 30 May 2019 including historic data has been undertaken by the previous Competent Person for mineral resources (Tear 2019). Issues raised during previous audits mainly involved incorrect locations of historic drill hole collars. Validation undertaken by MA on data aquired upto 11 March 2020 included all of RAB holes and 99 other holes beening excluded form the resoruce estimate. The majority don't have associated assays in the drill hole database. Table 10-1 lists the additional drill holes at Reward and Table 10-2 lists the additional holes at Bellbird excluded from this mineral resource estimate with the reason for exclusion. No holes were excluded from the Rockface Resrouce area.

Table 10-1. Summary of drill holes at Reward excluded from mineral resource estimation.

HoleID	Error	Replaced by
JR62	Suspicious surveys, too flat, suspicious assays in lode area	KJD377 and JOC204
MP1	good assays, offset from interpreted lode	JA15
MP10	good assays, offset from interpreted lode	JOC039
MP11	good assays, offset from interpreted lode	JMET019
MP12	good assays, offset from interpreted lode	JMET019
MP13	good assays, offset from interpreted lode	JOC039
MP14	good assays, offset from interpreted lode	JOC042
MP19	good assays, offset from interpreted lode	JOC042
MP2	good assays, offset from interpreted lode	JA15
MP20	good assays, offset from interpreted lode	JOC041
MP21	good assays, offset from interpreted lode	JOC041
MP3	good assays, offset from interpreted lode	JA15
MP5	good assays, offset from interpreted lode	JA15
MP6	good assays, offset from interpreted lode	JA15
MP7	good assays, offset from interpreted lode	JOC038
MP8	good assays, offset from interpreted lode	JOC038
RJ104	Historical assays, don't match surrounding intervals	

Table 10-2. Summary of drill holes at Bellbird excluded from mineral resource estimation.

Hole ID	Error
DDH3	No Cu intercepts, logged chalcopyrite or magnetite around expected lode intersection; log don't seem to match assays. See DDH3 re-log
DDH6	Single high grade intercept (9% Cu), no assays either side, 50m east of Bellbird Main Lode , assays don't match logs; DDH6 re-og

Hole ID	Error
GTD007	Cu intercepts (1.9% and 1.5% Cu) outside lodes; hole stopped short of Bellbird Main Lode.
JMET007	Good intercept (10m @ 2.6% Cu) 10 west of Bellbird Main Lode; RJ006 duplicates the hole with 8m @ 3.9% Cu at expected lode intersection
JMET013	Sub-vertical Met hole 25m east of Bellbird Main Lode; hole stopped short of Bellbird Main Lode
RJ110	partially sampled in the mineralised zone

10.1.1 Drill hole Database Summary

KGL supplied the drillhole database for the project and MA has undertaken validation to checks to ensure the data is fit for the purpose of resource estimation. For historic data MA was unable to undertake exhaustive data validation and the KGL data is accepted in good faith as being accurate and reliable. The responsibility for quality control ultimately resides with KGL, and they have been informed of all of MA's validation errors.

The drill hole database for Reward as supplied by KGL is summarised in Table 10-3.

Table 10-3. Summary of drill hole database, Reward DD and RC holes only

Table Name	Description	No. of Holes	No. of records
Collar	Collar information associated with drill type and location	510	510
Survey	Down hole survey data	510	9,863
Assays	Assay intervals	473	44,314
Lithology	Logged rock descriptions	444	21,508
Alteration	Logged alteration mineralogy, intensity, style	270	6,543
Mineralisation	Logged mineralisation mineralogy, intensity, style	150	1,586
StructDom	Interpreted structural domains	107	1,279
CoreRecovery	Measured core recovery for KGL drillholes	148	18,095
Density	Specific gravity readings of core samples	168	13,298
Magsus	Magnetic susceptibility of core samples from hand held meter	402	83,927

Table 10-4. Summary of drill hole database, Rockface DD and RC holes only

Table Name	Description	No. of Holes	No. of records
Collar	Collar information associated with drill type and location	127	127
Survey	Down hole survey data	127	4,241
Assays	Assay intervals	120	8,380
Lithology	Logged rock descriptions	118	5,128
Alteration	Logged alteration mineralogy, intensity, style	87	3,355
Mineralisation	Logged mineralisation mineralogy, intensity, style	88	1,244
StructDom	Interpreted structural domains	56	1,085
CoreRecovery	Measured core recovery for KGL drillholes	88	7,335
Density	Specific gravity readings of core samples	86	7,186
Magsus	Magnetic susceptibility of core samples from hand held meter	113	39,975

Table 10-5. Summary of drill hole database, Bellbird DD and RC holes only

Table Name	Description	No. of Holes	No. of records
Collar	Collar information associated with drill type and location	287	287
Survey	Down hole survey data	287	4,021
Assays	Assay intervals	268	21,368
Lithology	Logged rock descriptions	219	10,207
Alteration	Logged alteration mineralogy, intensity, style	144	2,958
Mineralisation	Logged mineralisation mineralogy, intensity, style	38	343
StructDom	Interpreted structural domains	25	260
CoreRecovery	Measured core recovery for KGL drillholes	40	5,510
Density	Specific gravity readings of core samples	44	2,985
Magsus	Magnetic susceptibility of core samples from hand held meter	213	31,473

After correction of minor issues, MA has concluded that the drillhole database for the Jervois project is satisfactory.

10.1.2 Topography

Topography was provided as a 4 m grid file (Jervois_4m_dtm_xyz) based on a LiDAR survey obtained in December 2017. There are two small excavations are apparent in the LiDAR data on the Marshal-Reward structure of the Reward Deposit. No excavations are apparent Rockface or Bellbird.

10.1.3 Weathering

Depth of oxidation (weathering) is logged by site geologists and is stored in the Lithology table of the drill hole database. Weathering profiles were interpreted by KGL based on sulphur grades and logging. The weathering in conjunction with sulphide selection is used to determine metallurgical domains.

The sulphide selection is based on the following sulphur assays or sulphur copper ratios:

- Oxide is less 0.05% S
- Transitional is classified as a sulphur copper ratio of less than 1.2
- Fresh material is considered to have a sulphur copper ratio of greater than 1.2 and
- Sulphur copper ratios of greater than 4.5 are considered as high sulphur metallurgical domains and only occurs at Reward, Rockface and Bellbird.

10.2 CURRENT PERSONAL INSPECTION

The Project has not been visited by Mr Ian Taylor due to time constraints and COVID-19 travel restrictions in place during the programme of work.

10.3 VERIFICATION OPINION

In MA's opinion, the geological data used to inform the Reward, Rockface and Bellbird resource estimates were collected in a manner consistent with industry accepted best practice. As such the data is suitable for use to define a Mineral Resource.

11 MINERAL PROCESSING AND METALLURGICAL TESTING

KGL have commissioned metallurgical testing of multiple composite samples from the Jervois project. Mineral processing and metallurgical factors do not have a significant impact on the mineral resource estimate insomuch as they relate to the prospects of 'eventual economic extraction' under the JORC Code.

12 MINERAL RESOURCE ESTIMATE - REWARD

12.1 GEOLOGICAL INTERPRETATION

Reward is interpreted as an original syn-depositional copper rich polymetallic massive sulphide deposit that has undergone deformation, metamorphism and some degree of structural remobilisation. Recent modelling of mineralisation by KGL geologists strongly supports the interpretation of a low-grade broadly stratabound zone overprinted by higher grade 'shoots' that represent structural remobilisation into fold hinges and breccia style structures.

Interpretation of higher-grade zones is based primarily on geological logging supported by abrupt changes in copper and/or silver and/or gold grades (Figure 12-1, Marshall (left) and Deeps south (right)). High grade structural shoots are characterised by coarser grained sulphides and magnetic-sulphide breccia. Intervals encompassing high grade shoots were modelled using Leapfrog software with an anisotropic component conforming to the plunge of measured F2 fold hinges.

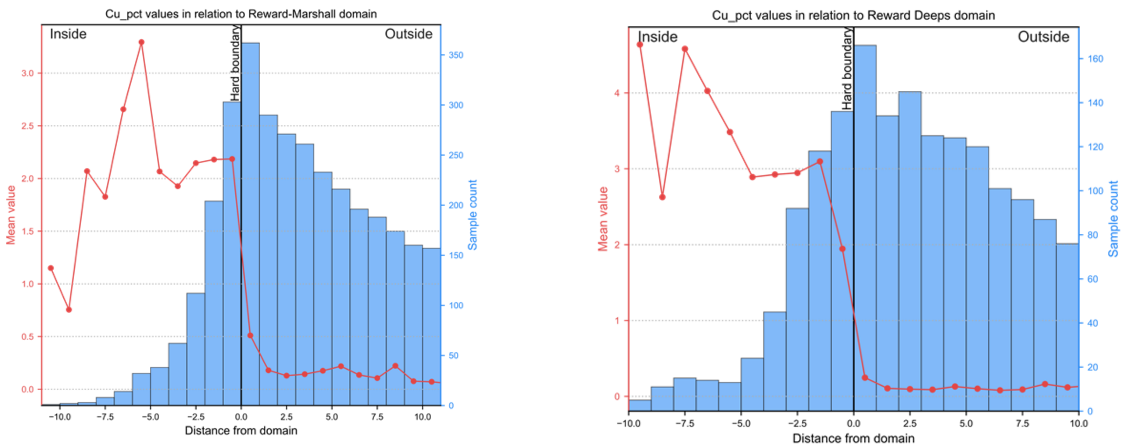


Figure 12-1. Boundary analysis showing abrupt grade change across shoot contacts.

Cross sections of the interpreted implicit models for Marshall shoot and Deeps South are shown in Figure 12-2 and Figure 12-3.

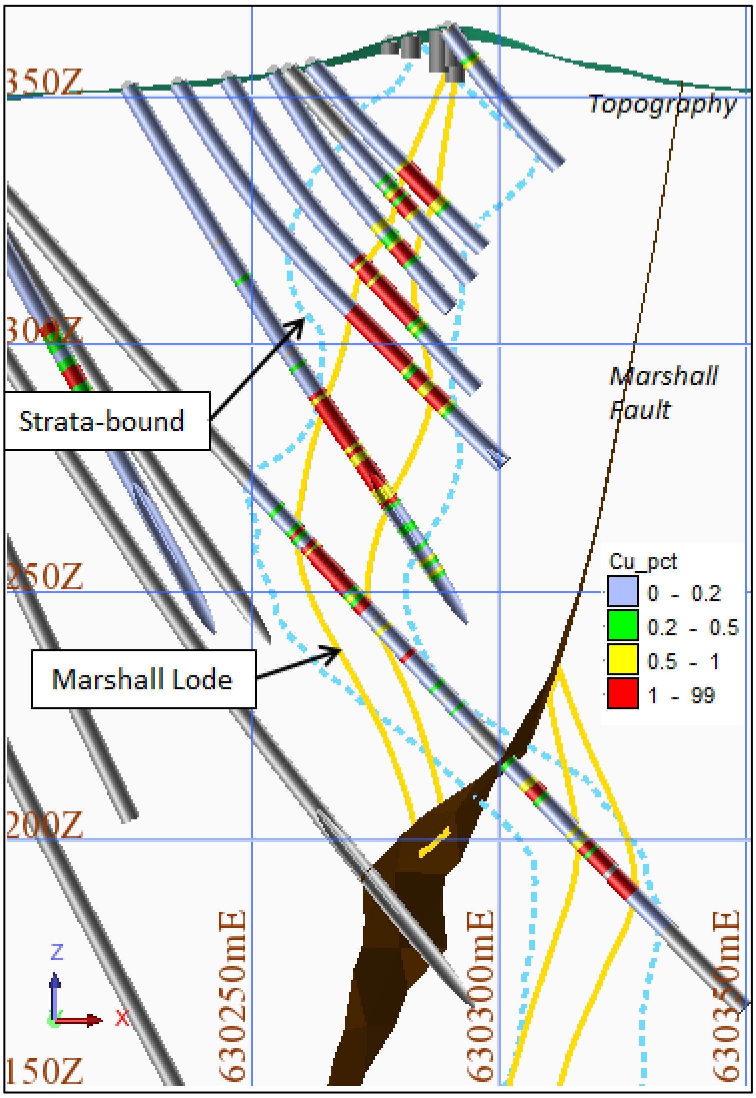


Figure 12-2. Marshall Lode Cross Section (7494525 mN)

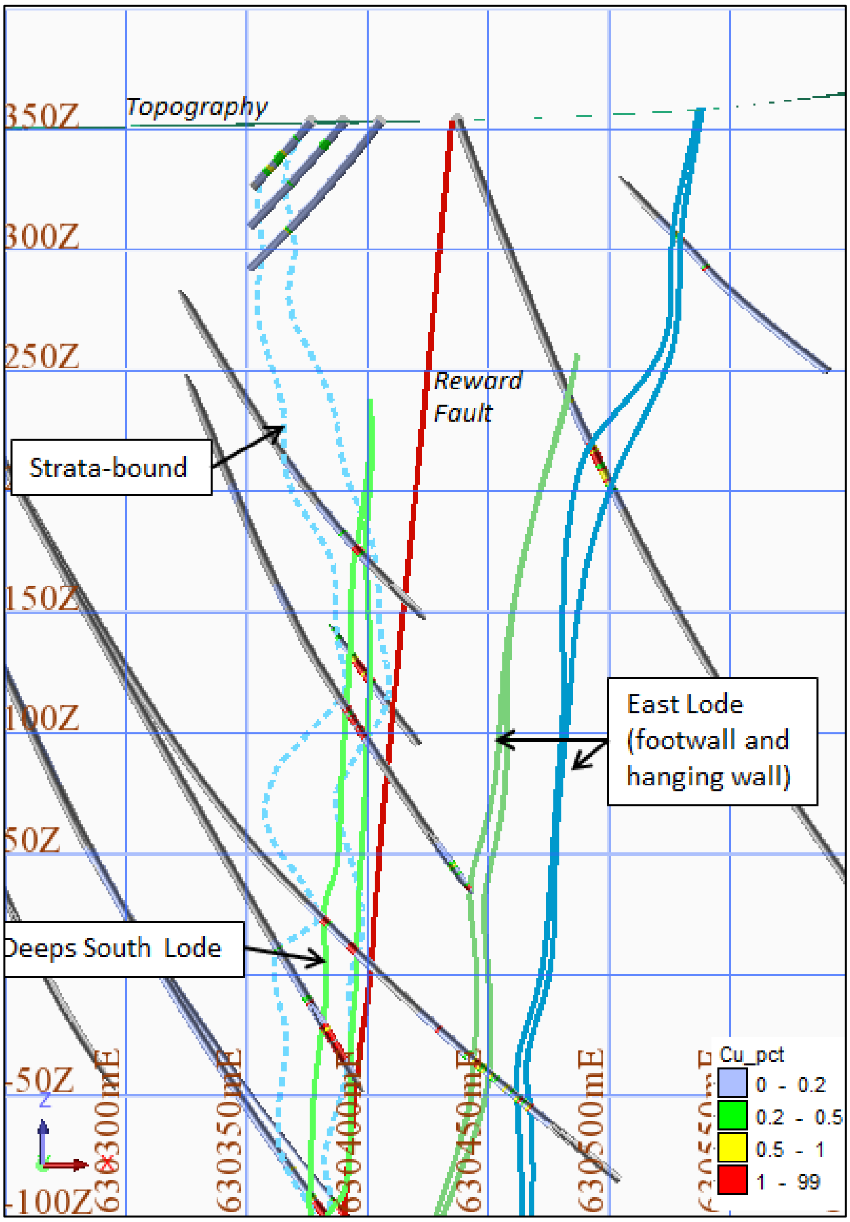


Figure 12-3. Deeps South and East Lodes, Cross Section (7495350 mN)

12.1.1 Bulk Density Data

KGL procedures for the measurement of dry bulk density on drill core samples were supplied. Routine measurements were made on selected intervals of core approximately 10 cm in length.

Data from both sets of measurements were combined and Table 12-1 shows a summary of the results.

Table 12-1. Average density measurements by rock type

Code	Count	Density (t/m³)	Lithology
Fpg	518	2.77	Pegmatite
Hcs	668	3.33	Calc silicate
Hm	52	3.41	Marble
Vq	140	3.17	Quartz vein
Vtm	45	3.22	Tourmaline vein
Y	1453	3.08	Mineralised lode undifferentiated
Yacgm	77	3.00	Mineralised lode - Andalusite and/or Cordierite schist with Garnet and/or Magnetite
Ycarb	113	3.58	Mineralised lode - Marble hosted
Ycs	305	3.53	Mineralised lode - Calcsilicate/skarn ('Mrbl_Cs' Group if modelling carbonate)
Yma	252	3.69	Mineralised lode - Magnetite/ ironstone
Yqgm	648	3.14	Mineralised lode - Quartzite/psammite +/- Chlorite/Biotite and Garnet/Magnetite
Z	871	2.97	Schist - undifferentiated
Zacgm	608	2.92	Muscovite and/or Sericite schist with Garnet and/or Magnetite
Zanco	1970	2.90	Andalusite and/or Cordierite schist
Zcbgm	113	3.01	Chlorite and/or Biotite schist with Garnet and/or Magnetite
Zcs	92	3.20	Calc silicate schist/skarn (incls. ga/ep)
Zmsgm	71	2.99	Muscovite and/or Sericite schist with Garnet and/or Magnetite
Zmuse	2970	2.94	Muscovite Schist
Zqgm	302	3.04	Quarrtzite/psammite schist +/- chlorite/biotite and garnet/magnetite
Zqp	2495	2.96	Quartzite and/or Psammite
Zqsmu	50	3.16	Quartz-sericite/muscovite schist

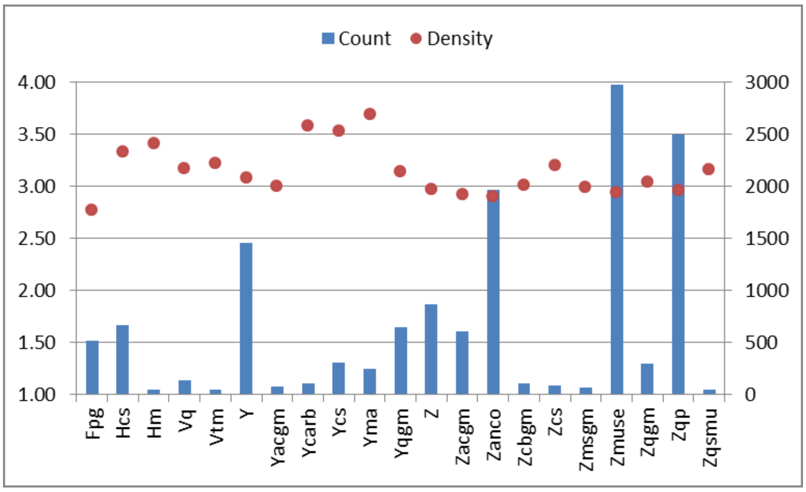


Figure 12-4. Mean Density by Rock Type

The average density of all material (13,846 readings) is 3.02, five records over 6.5 were removed from the analysis. 1392 readings could not be matched to logged oxidation states. Very few readings (4) were logged as oxidised material, the oxide readings averaged 2.82 t/m^3. 304 readings matched to transitional and 12,146 records matched to fresh logging codes, both averaged 3.02 t/m^3.

12.2 DIMENSIONS

Reward is interpreted as a syn-depositional copper rich polymetallic massive sulphide deposit that has undergone deformation, metamorphism and some degree of structural remobilisation. Along strike of Reward are Reward South and Cox's Find deposits, these deposits have not been assessed in this resource report. The Reward deposits strike over 1.5 km (Figure 12-5). Within the structural corridor lie four high grade shoots each approximately 200m in length, and plunge up to 800 m below the surface (Figure 12-6), the shoots are open to depth. The shoots range in thickness from 2 to 25 m. Main Shoot is the thickest mineralisation.

Database extents (Table 12-2) are greater than the mineralised resource described in this report.

Table 12-2. Database Extents

	Min (m)	Max (m)	Extents (m)
Northing	7,494,130	7,495,960	1,830
Easting	629,420	632,276	2,856
RL	337	380	43
Hole Depth	9	1347.8	NA

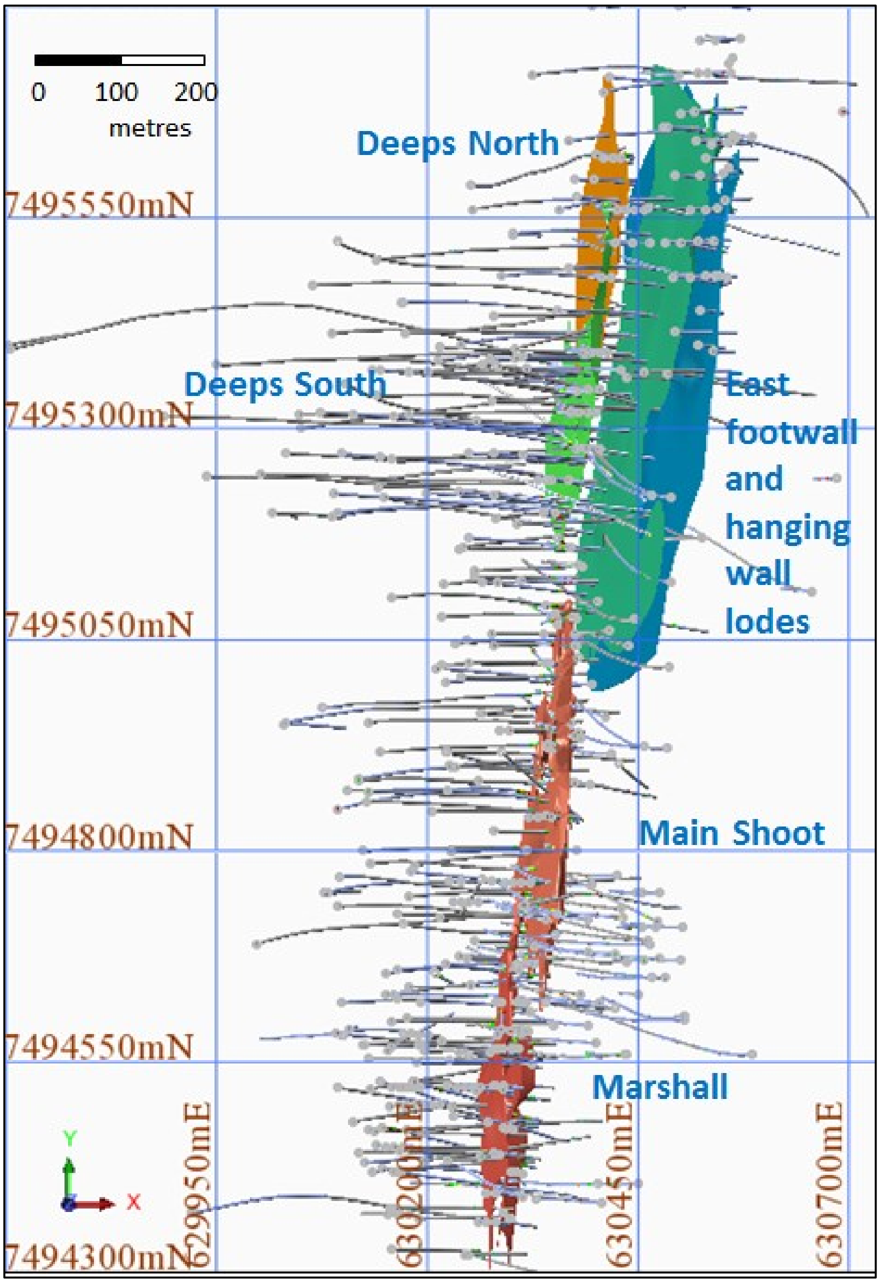


Figure 12-5. Plan View of Reward mineralisation 1.0% Cu grade shell with drill hole collars

12.2.1 Drill Hole Spacing

Resource definition drilling over the life of the project has been undertaken on 50 m spaced cross sections perpendicular to strike with holes spaced on average 50 m (50 x 50m grid). The higher grade shoots and shallower mineralisation (above 200m RL) has been infilled to approximately 25 x 25 m.

12.2.2 Domains and Stationarity

A domain is a defined volume that delineates the spatial limits of a single grade population. Domains have a single orientation of grade continuity, are geologically homogeneous and have statistical and geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Typical controls that can be used as the boundaries to domains include structural features, weathering, mineralization halos and lithology.

Within Reward domains were created primarily on the basis of structural shoots (Figure 12-6), weathering and grade.

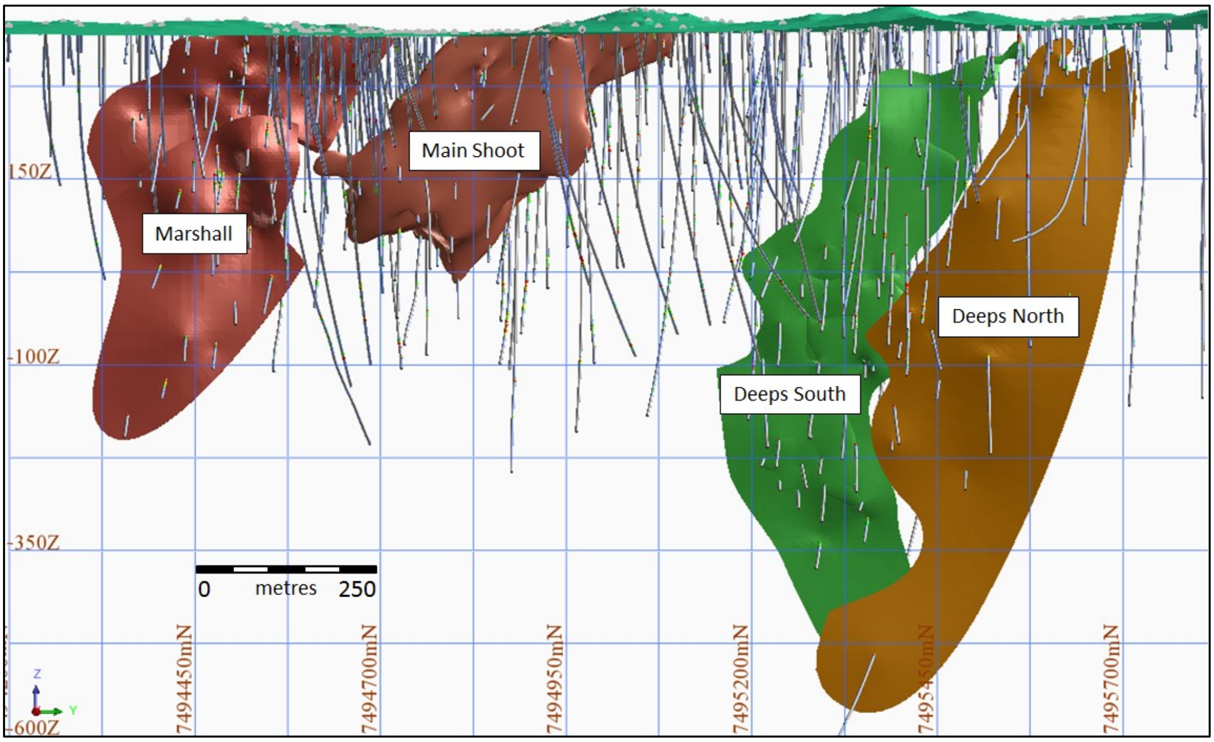


Figure 12-6. Long Section View showing wireframe domains

Domains were interpreted by KGL using implicit modelling techniques (Table 12-3) to create 3D wireframes to represent each domain. Reward Deeps has been divided into Deeps South and Deeps North.

Table 12-3. Domain Names - wireframe legend

Domain/shoot	Wireframe Name	Object	Trisolation
Strata-bound	reward_stratabound11.dtm	11	1
East footwall	reward_east_fw12.dtm	12	1
East hanging wall	reward_east_hw13.dtm	13	1
Deeps south	reward_deeps_sth14.dtm	14	1
Deeps north	reward_deeps_nth15.dtm	15	1
Main Shoot	reward_main_shoot16.dtm	16	1
Marshall	reward_marshall17.dtm	17	1

Earlier resource estimates included the Sykes and Johansson lodes as part of the Reward Mineral Resource but are not part of the reported resource estimates on advice from KGL; the lodes are poorly defined anomalous low grade discontinuous mineralisation.

12.2.3 Compositing

Selection of a composite length should be appropriate for the data, deposit and conceptual mining scenario (e.g. dominant assay interval length, open pit bench height, underground stoping method, lode thickness).

Compositing lengths were selected on the basis of statistical parameters and likely block size required. Care was taken to avoid splitting samples when compositing. The most common sample length at Reward is 1 m: 3.8% of samples are shorter than 0.9 m, 82.4% of samples are between 0.9 and 1.1 m and 7.7% of samples are longer than 1.1 m. The drill hole database was composited to 1 m intervals using Surpac's best fit algorithm, using a minimum permitted composite length of 0.75 m.

12.2.4 Summary Statistics

Summary statistics for each domain are shown below: copper, lead and zinc assay data is stored as parts per million (ppm) in the database allowing 4 decimal places to be used when converted to percentages.

Table 12-4. Summary Statistics, East Footwall

Statistic	copper	lead	zinc	gold	silver	iron	sulfur	bismuth
Number of samples	224	224	224	200	187	220	205	207
Minimum value	0.004	0.000	0.010	0.00	0.5	4.9	0.0	1
Maximum value	10.173	0.773	3.250	0.79	116.0	41.4	9.2	3710
Mean	1.164	0.026	0.088	0.07	11.1	17.2	1.1	207
Standard Deviation	1.493	0.082	0.254	0.11	15.9	7.3	1.5	482
Coefficient of variation	1.283	3.201	2.872	1.52	1.4	0.4	1.4	2
10.0 Percentile	0.059	0.001	0.016	0.01	1.0	9.3	0.0	8
25.0 Percentile	0.228	0.003	0.022	0.01	3.0	12.3	0.1	20
50.0 Percentile (median)	0.620	0.006	0.030	0.04	6.0	15.8	0.6	54
75.0 Percentile	1.349	0.013	0.056	0.08	13.0	20.4	1.4	153
95.0 Percentile	4.770	0.099	0.378	0.23	40.5	31.9	4.4	968
97.5 Percentile	5.606	0.214	0.569	0.41	50.5	38.0	5.6	1719
99.0 Percentile	7.050	0.522	1.011	0.62	98.0	39.9	7.8	3095

Table 12-5. Summary Statistics, East hanging wall

Statistic	copper	lead	zinc	gold	silver	iron	sulfur	bismuth
Number of samples	208	208	208	199	187	208	189	200
Minimum value	0.001	0.001	0.009	0.00	0.4	4.4	0.0	1
Maximum value	8.880	1.240	0.709	0.44	180.0	35.6	9.8	2480
Mean	1.032	0.023	0.077	0.07	11.7	14.5	1.4	185
Standard Deviation	1.014	0.090	0.092	0.08	16.5	5.1	1.2	362
Coefficient of variation	0.982	3.895	1.195	1.15	1.4	0.4	0.9	2
10.0 Percentile	0.150	0.002	0.021	0.01	1.0	8.4	0.1	5
25.0 Percentile	0.423	0.004	0.027	0.02	4.0	10.9	0.6	13
50.0 Percentile (median)	0.830	0.007	0.041	0.04	7.8	13.7	1.2	46
75.0 Percentile	1.332	0.017	0.093	0.09	13.5	17.2	2.2	190
95.0 Percentile	2.510	0.068	0.264	0.26	34.7	24.5	3.4	790
97.5 Percentile	3.404	0.108	0.314	0.33	42.5	25.7	3.7	1253
99.0 Percentile	5.555	0.226	0.505	0.39	68.0	29.7	6.1	2153

Table 12-6. Summary Statistics, Main Shoot

Statistic	copper	lead	zinc	gold	silver	iron	sulfur	bismuth
Number of samples	1678	1678	1625	1539	1593	1535	1367	1489
Minimum value	0.001	0.001	0.004	0.00	0.5	0.5	0.0	1
Maximum value	26.000	46.200	12.800	35.10	2340.0	51.4	20.1	19000
Mean	1.575	1.263	0.534	0.41	64.2	18.4	2.5	566
Standard Deviation	2.002	4.344	1.208	1.16	156.9	7.4	2.8	1194
Coefficient of variation	1.271	3.440	2.260	2.83	2.4	0.4	1.1	2
10.0 Percentile	0.109	0.018	0.034	0.03	3.5	9.6	0.1	26
25.0 Percentile	0.343	0.041	0.070	0.07	8.3	13.6	0.5	81
50.0 Percentile (median)	0.960	0.112	0.181	0.22	19.5	17.6	1.6	230
75.0 Percentile	2.050	0.374	0.494	0.47	43.1	22.5	3.4	544
95.0 Percentile	5.121	7.257	1.975	1.26	274.0	31.6	8.3	2144
97.5 Percentile	6.711	19.898	3.413	1.63	495.5	36.0	10.9	3801
99.0 Percentile	9.271	21.800	6.670	2.65	858.0	40.4	13.7	5743

Table 12-7. Summary Statistics, Deeps South

Statistic	copper	lead	zinc	gold	silver	iron	sulfur	bismuth
Number of samples	586	572	572	585	566	572	436	571
Minimum value	0.003	0.002	0.002	0.01	0.4	0.8	0.0	1
Maximum value	14.800	15.650	11.600	13.72	595.0	61.3	30.1	24625
Mean	2.257	0.342	0.242	0.69	35.5	22.2	5.3	837
Standard Deviation	2.370	1.111	0.723	1.31	57.5	12.8	5.4	2110
Coefficient of variation	1.050	3.247	2.982	1.89	1.6	0.6	1.0	3
10.0 Percentile	0.122	0.010	0.029	0.02	3.0	8.5	0.6	15
25.0 Percentile	0.617	0.029	0.045	0.07	8.1	12.0	1.4	57
50.0 Percentile (median)	1.450	0.071	0.086	0.25	17.3	19.2	3.6	182
75.0 Percentile	3.182	0.194	0.190	0.68	38.2	29.8	7.1	663
95.0 Percentile	6.899	1.411	0.643	2.84	127.1	47.5	17.0	3763
97.5 Percentile	8.817	2.525	1.516	4.59	181.6	49.9	21.8	7663
99.0 Percentile	10.437	5.610	3.305	5.76	281.3	54.6	25.2	10000

Table 12-8. Summary Statistics, Deeps North

Statistic	copper	lead	zinc	gold	silver	iron	sulfur	bismuth
Number of samples	124	124	124	121	114	124	124	115
Minimum value	0.005	0.001	0.017	0.01	0.8	3.8	0.1	1
Maximum value	15.770	20.000	9.330	7.43	309.6	50.1	21.1	7470
Mean	1.368	0.650	0.386	0.37	32.9	16.3	4.1	282
Standard Deviation	2.341	1.981	0.965	0.81	54.0	10.2	4.0	735
Coefficient of variation	1.711	3.046	2.501	2.20	1.6	0.6	1.0	3
10.0 Percentile	0.091	0.023	0.036	0.01	3.0	7.0	0.5	15
25.0 Percentile	0.200	0.049	0.071	0.03	6.0	9.1	1.2	32
50.0 Percentile (median)	0.640	0.095	0.142	0.12	13.0	13.7	3.0	118
75.0 Percentile	1.415	0.322	0.338	0.35	38.7	20.0	5.7	260
95.0 Percentile	5.876	2.930	1.832	1.90	112.5	40.2	13.8	1033
97.5 Percentile	9.966	3.560	2.621	2.15	244.5	47.5	15.6	1395
99.0 Percentile	14.278	12.695	6.255	4.99	305.3	49.7	20.6	4478

Table 12-9. Summary Statistics, Marshall

Statistic	copper	lead	zinc	gold	silver	iron	sulfur	bismuth
Number of samples	727	706	639	607	703	608	547	604
Minimum value	0.005	0.001	0.002	0.01	0.5	0.7	0.0	1
Maximum value	13.970	25.878	12.250	4.55	963.6	54.3	20.6	10595
Mean	2.456	0.561	0.495	0.29	59.0	19.4	3.7	667
Standard Deviation	2.255	1.999	1.089	0.38	93.6	10.0	3.2	1056
Coefficient of variation	0.918	3.561	2.200	1.32	1.6	0.5	0.9	2
10.0 Percentile	0.372	0.027	0.040	0.03	5.6	8.8	0.7	33
25.0 Percentile	0.902	0.054	0.076	0.07	14.0	12.2	1.4	98
50.0 Percentile (median)	1.728	0.146	0.174	0.16	29.6	16.9	2.8	285
75.0 Percentile	3.345	0.356	0.450	0.37	65.3	25.1	4.8	808
95.0 Percentile	7.200	1.896	1.925	1.02	228.0	39.5	11.0	2695
97.5 Percentile	8.497	2.905	3.122	1.33	295.0	43.5	12.5	3530
99.0 Percentile	9.964	10.600	5.387	1.85	471.0	47.0	15.4	5495

Table 12-10. Summary Statistics, Stratabound

Statistic	copper	lead	zinc	gold	silver	iron	sulfur	bismuth
Number of samples	13685	13639	13553	8424	9215	13331	11207	12799
Minimum value	0.000	0.000	0.001	0.00	0.0	0.2	0.0	1
Maximum value	23.500	37.942	25.400	5.64	663.0	64.2	19.9	10000
Mean	0.165	0.115	0.147	0.04	5.7	11.9	0.7	62
Standard Deviation	0.461	0.864	0.612	0.11	21.1	7.2	1.3	240
Coefficient of variation	2.800	7.514	4.156	2.67	3.7	0.6	1.8	4
10.0 Percentile	0.003	0.003	0.016	0.01	0.5	5.8	0.0	1
25.0 Percentile	0.010	0.006	0.026	0.01	1.0	7.0	0.0	3
50.0 Percentile (median)	0.040	0.014	0.049	0.01	2.0	9.7	0.2	8
75.0 Percentile	0.148	0.047	0.106	0.04	4.7	14.8	0.9	40
95.0 Percentile	0.680	0.318	0.402	0.16	19.0	26.3	3.0	261
97.5 Percentile	1.012	0.649	0.724	0.23	32.0	31.6	4.3	430
99.0 Percentile	1.903	1.466	1.795	0.36	58.0	37.9	6.1	831

12.2.5 Grade Capping

Capping is the process of reducing the grade of the outlier sample to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value.

Outlier values were defined per estimation domain using statistical parameters to ensure that the mean was not significantly affected by capping. Assessment of outliers was based on histograms, log probability plots and metal loss, additional considerations were the standard deviations, Tukey fences (interquartile ranges) and Sichel's mean.

Uncapped and capped summary statistics for each estimation domain for copper, silver and gold are presented in Table 12-11, Table 12-12 and Table 12-13 respectively.

Table 12-11. Grade capping summary statistics for copper by estimation domain

	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
East FW	224	0.97	8.9	1.03	3	0.9	**5.08**	0.9	1.3%	-2.2%
East HW	208	1.03	10.2	1.25	3	1.1	**5.78**	1.2	1.3%	-2.5%
Deeps -South	586	2.26	14.8	1.05	15	2.2	**8.82**	1.0	2.6%	-2.1%
Deeps-North	124	1.37	15.8	1.72	4	1.3	**8.87**	1.5	3.2%	-7.7%
Main-Shoot	1678	1.58	26.0	1.27	17	1.5	**8.69**	1.1	1.0%	-2.9%
Marshall	727	2.46	14.0	0.92	9	2.4	**9.82**	0.9	1.1%	-1.0%
Strata-bound	13685	0.16	23.5	2.84	25	0.2	3.87	2.3	0.2%	-3.1%

Table 12-12. Grade capping summary statistics for silver by estimation domain.

	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
East FW	187	17.60	180.0	1.54	3	9.5	53.35	1.1	1.4%	-7.0%
East HW	187	11.67	116.0	1.56	4	9.1	54.22	1.3	1.9%	-7.2%
Deeps -South	566	35.45	595.0	1.63	6	33.9	280.70	1.4	1.1%	-4.1%
Deeps-North	114	32.64	309.6	1.66	2	31.9	263.37	1.6	1.7%	-2.2%
Main-Shoot	1681	64.22	2340.0	2.47	26	56.5	665.85	2.0	1.5%	-8.7%
Marshall	607	0.29	963.6	1.73	16	47.8	304.31	1.4	2.0%	-7.9%
Strata-bound	9215	5.70	663.0	4.44	13	3.9	283.59	3.6	0.1%	-4.0%

Table 12-13. Grade capping summary statistics for gold by estimation domain

	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
East FW	200	0.07	0.4	1.26	5	0.1	0.33	1.2	2.2%	-2.0%
East HW	199	0.07	0.8	1.61	4	0.1	0.41	1.4	1.7%	-5.0%
Deeps -South	585	0.69	13.7	1.89	3	0.7	7.98	1.7	0.5%	-2.7%
Deeps-North	121	0.37	7.4	2.25	1	0.3	4.43	1.8	0.8%	-6.8%
Main-Shoot	1750	0.41	35.1	2.98	2	0.4	11.94	1.9	0.1%	-4.9%
Marshall	703	0.28	4.6	1.34	1	0.3	2.88	1.3	0.1%	-0.9%
Strata-bound	8424	0.04	5.6	3.45	13	0.0	0.98	2.6	0.1%	-3.1%

Lead and Zinc assays are generally very low with a small proportion of high grade values inconsistent with the majority of the data. Domains East FW, Deeps-North and Marshall had extreme lead outliers (Table 12-14).

Table 12-14. Grade capping summary statistics for lead and zinc by estimation domain

Element		Uncapped Composite Data				Capped Composite Data				Grade	
	Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
Lead	East FW	224	0.02	1.2	3.99	4	0.0	0.15	1.5	1.8%	-25.7%
	East HW	208	0.02	0.8	3.33	3	0.0	0.42	2.8	1.3%	-10.1%
	Deeps -South	572	0.34	15.7	3.24	3	0.3	7.57	2.8	0.5%	-5.4%
	Deeps-North	124	0.65	20.0	3.06	2	0.5	4.99	1.9	1.6%	-19.1%
	Main-Shoot	1748	1.26	46.2	3.50	20	1.1	20.00	3.3	1.1%	-7.3%
	Marshall	706	0.56	25.9	3.47	8	0.5	9.84	2.6	1.0%	-13.0%
	Strata-bound	13639	0.11	37.9	7.43	12	0.1	15.30	6.3	0.1%	-5.3%
Zinc	East FW	224	0.07	0.7	1.20	4	0.1	0.33	1.0	1.8%	-4.3%
	East HW	208	0.08	3.3	2.95	3	0.1	0.80	1.8	1.3%	-14.6%
	Deeps -South	572	0.24	11.6	3.00	6	0.2	3.25	2.1	1.1%	-11.4%
	Deeps-North	124	0.39	9.3	2.51	2	0.3	3.07	1.7	1.6%	-13.3%
	Main-Shoot	1695	0.53	12.8	2.22	9	0.5	7.72	2.0	0.5%	-3.4%
	Marshall	639	0.49	12.3	2.08	11	0.4	4.35	1.7	1.5%	-7.1%
	Strata-bound	13553	0.15	25.4	4.13	14	0.1	8.91	3.5	0.1%	-3.1%

Table 12-15. Grade capping summary statistics for bismuth by estimation domain

	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
East FW	224	164	2480	2.12	3	159	1871	2.0	1.3%	-3.2%
East HW	210	206	3710	2.33	3	198	2750	2.2	1.4%	-3.8%
Deeps -South	568	841	24625	2.52	3	795	10000	2.2	0.5%	-5.5%
Deeps-North	115	282	7470	2.62	2	230	1485	1.4	1.7%	-18.5%
Main-Shoot	1750	497	19000	2.26	18	466	5346	1.8	1.0%	-6.3%
Marshall	690	674	10595	1.57	6	651	4790	1.4	0.9%	-3.4%
Strata-bound	12580	60	10000	3.87	63	54	1204	2.6	0.5%	-10.4%

Deeps South has six over-grade bismuth results stored as 10000 ppm (1%) from hole RJ169, 2 from hole KJCD317 (1.55% and 2.46%) and one from hole RJ237W1 1.62% (Table 12-15). The significant change in grade in domain Deeps-North is due to the one outlier, the maximum assay result, the second assay capped had a bismuth grade of 1485.76 ppm.

No grade capping was required for sulphur. Sulphur assays had a weak to moderate correlation with Cu, Pb and Zn.

12.3 VARIOGRAPHY

The most important bivariate statistic used in geostatistics is the semivariogram. The experimental semivariogram is estimated as half the average of squared differences between data separated exactly by a distance vector 'h'. Semivariograms models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

Variogram analysis was undertaken in Snowdens Supervisor for copper and silver within each domain. Experimental Variograms were reasonably formed, due to the grade distribution expected in a strata bound copper deposit. The experimental variograms for the additional elements were generally less well formed.

Natural 3D experimental variograms could generally be created. Where variogram maps proved difficult to interpret the line of lode (strike) and dip was set as direction one and two respectively, with the third direction generally selected as moderately dipping to the south, mimicking the general trend of the shoots.

Variogram selection also considered the use of an adjacent domain's variogram or borrowed from the wide low grade strata-bound domain in cases where no clear experimental variograms were created.

3D experimental variogram modelling used a nugget (C_0) and two spherical models (C_1, C_2), although occasionally one spherical model was sufficient. The modelled variogram geometry is consistent with the interpreted mineralisation wireframes, incorporating a plunge component where identified and modelled accordingly.

Variogram sills were standardized to 1. Nugget effects were generally low to moderate for the defined copper domains, ranging from 0.16 to 0.50, and the range (A2) of the variograms varied from 50 m to 120 m. Geometric anisotropy was adopted and anisotropic ratios (ellipsoid) applied to reflect directional variograms. Anisotropic ellipses based on the resulting bearing, plunge, dip, and defined ranges and anisotropic ratios were graphically plotted in Surpac and displayed against the extracted assay composites to ensure modelled parameters were reasonably orientated. The major axis of the ellipse is orientated in the XY plane (Table 12-16), the plunge is the angle above (+) or below (-) the XY plane, and dip defines the rotation of the semi-major axis around the major axis. The overall ranges modelled for the major axis are well in excess of the drill spacing for all domains.

Copper variogram models are summarised in Table 12-16, silver in Table 12-17, sulphur in Table 12-18. The elements lead, zinc gold and bismuth (Table 12-19) did not provide discernible experimental variograms within the copper domains, as expected, due to low correlation coefficients between these elements and copper. The variograms were borrowed from the strata-bound domain.

Table 12-16. Semi-variogram Parameters for Reward copper estimation

Domain	Variogram Orientation			Variogram Parameters					Variogram Ratios			
Lode	bearing	plunge	dip	C0	C1	A1	C2	A2	Semi-Major	Minor	Semi-Major	Minor
East FW and HW	35.5	67.7	62.7	0.5	0.5	50	-	-	1.00	2.00	-	-
Deeps Sth and Nth	26.7	58.5	70.5	0.16	0.84	120	0	0	1.20	2.40	1.00	1.00
Main Shoot	18.29	39.3	77	0.18	0.58	38	0.24	100	1.52	3.04	1.39	2.78
Marshall	353.3	58.5	-70.6	0.4	0.6	60	0	0	0.80	1.20	1.00	1.00

Table 12-17. Variogram Parameters for Reward silver estimation

Domain	Variogram Orientation			Variogram Parameters					Variogram Ratios			
Lode	bearing	plunge	dip	C0	C1	A1	C2	A2	Semi-Major	Minor	Semi-Major	Minor
East FW	54.6	75.9	44.6	0.7	0.3	50	-	-	1.00	1.00	-	-
East HW	18.3	39.3	77	0.47	0.53	75	-	-	1.00	1.50	-	-
Deeps Nth	54.6	75.9	44.6	0.13	0.36	75	0.51	150	1.00	1.50	1.50	2.00
Deeps Sth	10	0	0	0.5	0.5	50	-	-	1.00	1.00	-	-
Main Shoot	21.7	49	74.7	0.2	0.8	84	-	-	1.05	2.10	-	-
Marshall	54.6	75.9	44.6	0.24	0.56	30	0.2	110	1.00	2.00	1.10	2.20

Table 12-18. Semi-variogram Parameters for Reward Sulphur

Domain	Variogram Orientation			Variogram Parameters					Variogram Ratios			
Lode	bearing	plunge	dip	C0	C1	A1	C2	A2	Semi-Major	Minor	Semi-Major	Minor
East FW & HW	35.5	67.7	62.7	0.34	0.66	50	-	-	1.00	1.00	-	-
Deeps Sth and Nth	35.5	67.7	62.7	0.09	0.62	5	0.29	59	1.00	1.00	1.00	1.00
Main Shoot & Marshall	35.5	67.7	62.7	0.35	0.65	63	-	-	1.00	1.58	-	-

Table 12-19. Semi-variogram Parameters for additional Reward elements

Domain		Variogram Orientation			Variogram Parameters					Variogram Ratios			
Element	Lode	bearing	plunge	dip	C0	C1	A1	C2	A2	Semi-Major	Minor	Semi-Major	Minor
Pb	All	35.5	67.7	62.7	0.28	0.37	33	0.35	125	1.50	3.00	1.67	2.50
Zn	All	18.2	39.3	77	0.2	0.14	38	0.66	140	2.00	3.17	2.00	3.04
Au	All	21.7	49	74.7	0.28	0.37	54	0.35	190	2.00	2.57	2.00	2.53
Bi	All	67.7	62.7	0.2	0.8	75	0	0	1.25	1.5	1	1	67.7

Experimental variograms for the larger strata-bound domain was easier to interpret as the domains generally consisted of lower grade material (Table 12-20).

Table 12-20. Variogram Parameters for Reward strata-bound.

Domain	Variogram Orientation			Variogram Parameters					Variogram Ratios			
Element	bearing	plunge	dip	C0	C1	A1	C2	A2	Semi-Major	Minor	Semi-Major	Minor
Cu	35.5	67.7	62.7	0.20	0.52	20	0.28	100	1.00	1.00	2.00	2.50
Pb	9.1	-10	85	0.22	0.58	52	0.2	100	2.00	2.17	2.00	2.50
Zn	35.5	67.7	62.7	0.28	0.37	33	0.35	125	1.50	3.00	1.67	2.50
Ag	18.29	39.3	77	0.3	0.52	50	0.18	100	1.67	2.00	1.67	2.00
Au	13.6	19.7	79.4	0.26	0.22	30	0.52	125	3.75	3.75	2.50	2.50
Fe	35.5	67.7	62.7	0.06	0.3	40	0.64	125	1.00	2.00	1.00	2.50
S	54.6	75.9	44.6	0.37	0.27	32	0.36	100	1.52	1.78	1.33	1.67
Bi	35.5	67.7	62.7	0.20	0.80	75	-	-	1.25	1.5	-	-
U	15.7	29.5	79	0.45	0.55	180	-	-	1.8	3.6	-	-
W	21.7	49	74.7	0.4	0.60	50	-	-	1.25	1.67	-	-

Vaiogams for density data within fresh material is shown in Table 12-21.

Table 12-21. Variogram Parameters for Density Estimation

Domain	Variogram Orientation			Variogram Parameters					Variogram Ratios			
Element	bearing	plunge	dip	C0	C1	A1	C2	A2	Semi-Major	Minor	Semi-Major	Minor
density	10	50	80	0.17	0.31	10	0.52	40	1.25	1.5	1.25	1.5

12.4 GRADE ESTIMATION

This section describes the MRE methodology and summarises the key assumptions considered by MA. In the opinion of MA, the Mineral Resource statement reported herein is a reasonable representation of the Reward deposit based on current sampling data. Grade estimation was undertaken using Geovia's Surpac™ software package (v7.2). Ordinary Kriging ("OK") was used for the grade estimation for copper, silver and gold (and all other elements estimated that are not reported as economically significant).

Copper is the primary element of concern, copper silver, gold, lead, zinc, bismuth and sulphur are estimated using the copper domains as hard boundaries and dynamic search ellipses. Sulphur is estimated into the country rock as well as the copper domains, and uses the weathering profiles as an additional hard boundary. Fe, U and W are estimated with soft boundaries across the copper domains. Dynamic search ellipses were used inside the copper domains, while fixed searches orientated to the regional lithology and larger estimation blocks were used in the host material.

12.4.1 Block Model

The Reward block model uses regular shaped blocks measuring 2.5 m x 10 m x 5 m (Table 12-22). The choice of the block size was patterned with the trend and continuity of the mineralisation, taking into account the dominant drill pattern in conjunction with the size and orientation of the deposit. To accurately represent the volume of the mineralized domains inside each block, volume sub-blocking to 1.25 m x 5 m x 2.5 m was used. Blocks above original topography were excluded from model estimation. Estimation resolution was set at the parent block size for blocks within defined domains. For estimates (Fe, S, Bi, U and W) outside defined domains (barren blocks) were estimated with a block resolution of 5 m x 20 m x 10 m.

Table 12-22. Block Model Extents

Type	X	Y	Z
Minimum Coordinates	630,001.25	7,494,145	-597.5
Maximum Coordinates	630,681.25	7,495,745	402.5
User Block Size	2.5	10.0	5.0
Min. Block Size	1.25	5.0	2.5
Rotation	0	0	0

12.4.2 Block Model Attributes

Interpreted mineralised domains were coded to the block model. Sufficient variables were added to allow grade estimation, resource classification and reporting. Blocks above the original topography are screened out. Final block model attributes are defined in Table 12-23.

Table 12-23. Block Model Attributes assigned to the 3D model

Attribute Name	Type	Decimals	Background	Description
ag_id	Float	4	0	silver inverse distance estimate capped
ag_nn	Float	4	0	silver nearest neighbour estimate capped
ag_ok	Float	4	0	silver ordinary krige estimate capped
au_ok	Float	4	0	gold ordinary krige estimate capped
bi_nn	Float	2	0	bismuth nearest neighbour
bi_ok	Float	0	0	bismuth ordinary krige estimate capped
cu_id	Float	4	0	copper inverse distance estimate capped
cu_nn	Float	4	0	copper nearest neighbour estimate capped
cu_ok	Float	4	0	copper ordinary krige estimate capped
density	Float	2	2.8	Density
deposit	Character	-	NT	Deposit Region
f_ok	Float	0	0	flurine ordinary krige estimate capped
fe_ok	Float	4	0	iron ordinary krige estimate capped
lode	Character	-	WS	Mineralisation Domain
lode_id	Integer	-	-99	lode number
pb_ok	Float	4	0	lead ordinary krige estimate capped
rescat	Integer	-	6	Resource classification (1 measured 2 indicated 3 inferred 4 unclassified 5 mined out 6 rock
rock	Integer	-	1	Air=0 Rock=1 Andesite = 10
Ratio_scu	calculated	2	0	The ratio of sulphur to copper
s_ok	Float	4	0	sulphur ordinary krige estimate capped
u_ok	Float	1	0	uranium ordinary krige estimate capped
w_ok	Float	0	0	tungston ordinary krige estimate capped
wth	Character	-	FR	FR = FRESH ROCK, PO = PARTIALLY OXIDISED ROCK, OX = OXIDISED ROCK
z_ads	Float	2	0	average distance to samples
z_brg	Float	2	0	bearing of search ellipse
z_cbs	Float	2	0	Conditional bais slope
z_dh	Integer	-	0	number of informing drillholes
z_dhid	Character	-	0	hole_id
z_dip	Float	2	0	dip of search ellipse
z_dns	Float	2	0	distance to nearest sample
z_ke	Float	2	0	krige efficency
z_kv	Float	2	0	krige variance
z_ns	Integer	-	0	number of informing samples
z_ps	Integer	-	0	1 First Pass; 2 Second Pass Estimate
zn_ok	Float	4	0	zinc ordinary krige estimate capped

12.4.3 Informing Samples and Search Parameters

Due to the reasonably spaced drill patterns, search radii were found to be optimal near 60 m (Table 12-24). The isotropy apparent in variogram analysis was considered in the search ellipse anisotropy. Search ellipses were kept constant within the copper domains to reduce potential order relation issues.

Table 12-24. Search Ellipses

Domain	Elements	Search Distance (m)	Anisotropic ratio	
			Semi-Major	Minor
East FW	Cu, Ag, Au, Pb, Zn and S	60	1.5	2.5
East HW	Cu, Ag, Au, Pb, Zn and S	60	1.5	2.5
Deeps Nth	Cu, Ag, Au, Pb, Zn and S	60	1.5	2.5
Deeps Sth	Cu, Ag, Au, Pb, Zn and S	60	1.5	2.5
Main Shoot	Cu, Ag, Au, Pb, Zn and S	60	1.5	2.5
Marshall	Cu, Ag, Au, Pb, Zn and S	60	1.5	2.5
Strata-bound	Cu, Ag, Au, Pb, Zn and S	60	1.5	2.0
Un-constrained	Fe, U W F	60	1.5	2.0
Density in fresh	density	60	1.25	1.5

The minimum and maximum samples utilised were 8 and 20 for the first pass and reduced to 6 and 15 for the second pass. Third pass informing samples were further reduced to a minimum of 2 and maximum of 10 (Table 12-25). As the search ellipse increased in distance the number of samples permitted dropped, ensuring proximal samples were used. Due to the overall lower number of intercepts of Deeps North the informing samples are reduced (Table 12-26) to limit over smoothing.

Table 12-25. Search Parameters - all lodes except Deeps North

Pass	1	2	3
Min	8	6	2
Max	20	15	10
Perhole	4	4	N
Search	Octant	Octant	Ellipsoid
Empty Octants	3	4	NA

Table 12-26. Search Parameters – Deeps North

Pass	1	2	3
Min	4	3	1
Max	16	12	8
Per-hole	No	No	No
Search	Octant	Octant	Ellipsoid
Empty Octants	3	4	NA

Dynamic searches were utilised to reflect the local orientation of the lodes. Local undulations in the lodes were determined from the mid-point of mineralised drill hole intercepts. The intercepts were wire-framed and sliced in 10 m sections. Wireframe slices were smoothed with points every 10 m providing a 10 m grid reflecting the orientation of the lodes. The grid was wire-framed and the dip and strike of each triangle defined a unique local search orientation for each block.

12.4.4 Discretisation

The krige estimate used a 1 x 5 x 2 discretisation (XYZ), giving discretisation nodes spaced evenly within the block. The distance between nodes approximates 2.5 times the sample composite length.

12.5 DENSITY ESTIMATION

The default density of the block model is 2.80 t/m^3. All oxide material is assigned 2.6 t/m^3. The mineralised transitional material is assigned 3.0 t/m^3 and the transitional waste is assigned a density of 2.8 t/m^3.

Density within the fresh material was estimated using OK of measured density values with the defined density variogram (Table 12-21) and a minimum of 5 and maximum of 12 samples within an ellipse measuring 60 m along the major axis, 48 m along the semi-major axis and 40 m along minor axis. The density search ellipse had a constant orientation, bearing 010°, plunge of 50° and a dip of 80°. The distribution of measured density data was insufficient to populate all blocks with an estimated density and alternate estimates of density were considered.

There is a distinct correlation between density and iron content of the samples. Figure 12-7 shows the regression between the two variables, low density readings (<2.0) and high density readings (> 6.5, not plotted) were excluded from the regression.

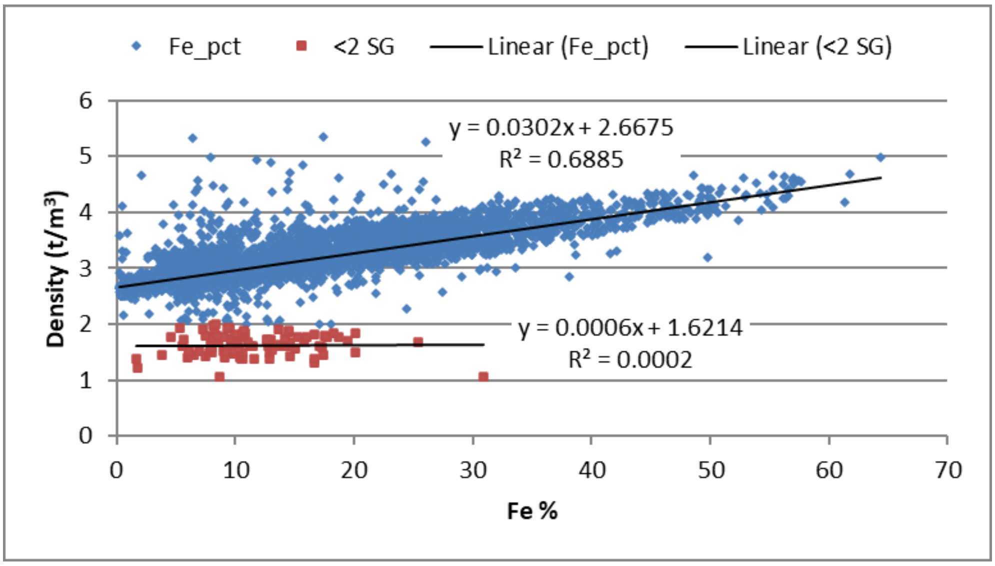


Figure 12-7. Density as a function of Iron Content

The second pass estimate of density utilised density data derived from the iron regression shown in Figure 12-7. During the second pass search distances were doubled and the required samples were reduced to a minimum of 1 and a maximum of 9.

The average modelled density of mineralised oxide material is 2.60 t/m^3, transitional material is 3.00 t/m^3, the high sulphide material averages 3.08 t/m^3 and mineralised fresh material averages 3.09 t/m^3.

12.6 VALIDATION

The block model was validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis. Initial comparisons occurred visually on screen, using extracted composite samples and block models. Further validation used swath plots to compare block estimates with informing sample statistics along parallel sections through the deposits.

12.6.1 Alternate Estimation Methods

Alternative estimation methods nearest neighbour and ID^2 were utilised to ensure the krige estimate was not reporting a global bias (Figure 12-8). The alternate estimates provided expected correlations. Nearest neighbour shows less tonnes and higher grade (less contained metal) as it does not employ averaging techniques to assign the block grade: distal blocks are informed by a single closest sample rather than several weighted samples. The ID^2 estimate is closer to kriging as it does use averaging weighted by distance but cannot assign anisotropy nor have the ability to de-cluster the input data nor account for nugget effect. Using the kriging algorithm provides a reliable estimate due to the ability of kriging to de-cluster data and weight the samples based on a variogram (which incorporates the nugget effect and anisotropy).

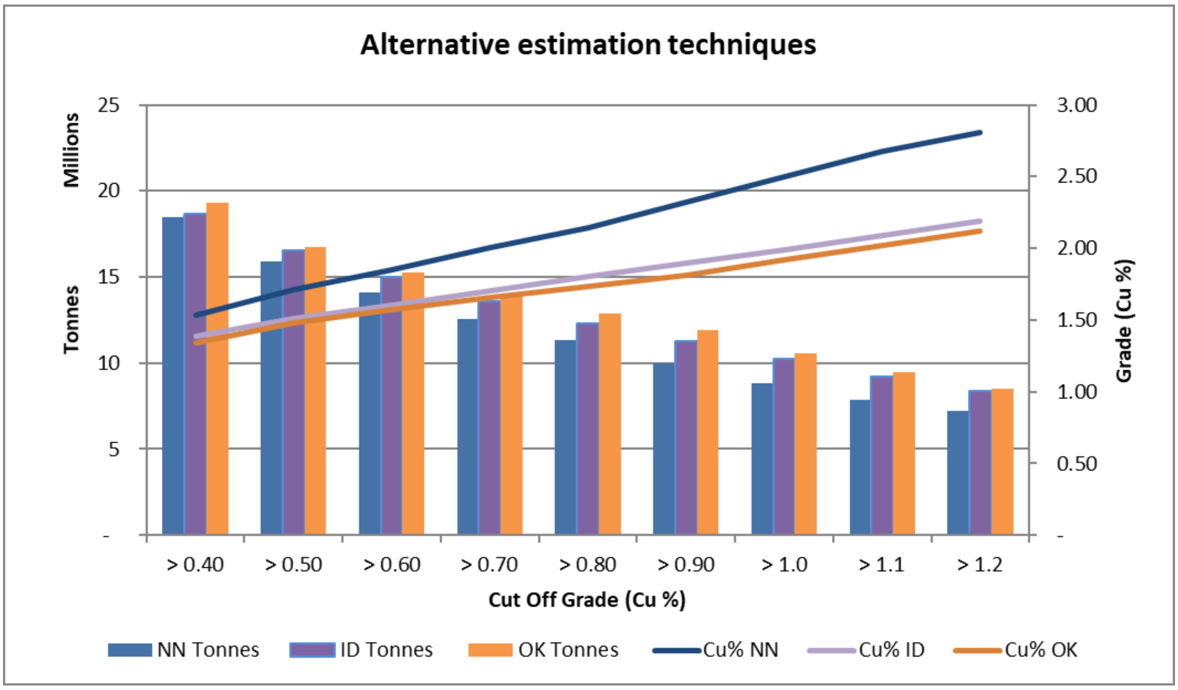


Figure 12-8. Alternative estimation results at nominated cut-offs (capped grades)

12.6.2 Global Bias check

A comparison of global mean values within the grade domains shows a reasonably close relationship between composites and block model values (Figure 12-9). The domains Deeps-North and Marshall both appear to be estimated low. Marshall is well drilled in the upper portions above the Marshall Fault in the open pit potential area and both grade and drill density decrease with depth. This observation is confirmed when the OK estimate is compared to a Nearest Neighbour global estimate, a form of declustered averaging (Figure 12-10). Declustering techniques minimize bias due to data clustering (commonly occurs in high grade areas) and can be used to get an unbiased prediction of the global mean.

Domain Deeps-North is complex with good copper grades against the Reward Fault. Grade and thickness of the shoot quickly decreases away from the fault and there is also less drilling north of the fault. This is also confirmed in Figure 12-10, where the NN global estimate and OK estimate are closer to the first bisector. Marshall and Main shoot have apparently underestimated silver values compared to the clustered assay data (Figure 12-11) and the OK estimates compare well with the NN (declustered) data (Figure 12-12). The gold present in the deposit is relatively minor, however is considered to be significant (Figure 12-13). Again the Deeps-North estimate does not reflect the input assays due to clustered high grade drill intercepts near the fault contact. Figure 12-14 shows the declustered NN grades to be significantly lower, potentially showing an over estimate of gold in the Deeps-North domain.

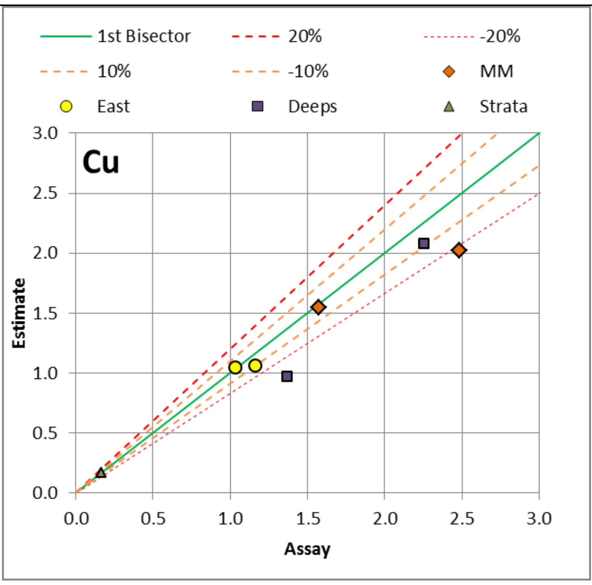


Figure 12-9. Global Copper Validation by Domains

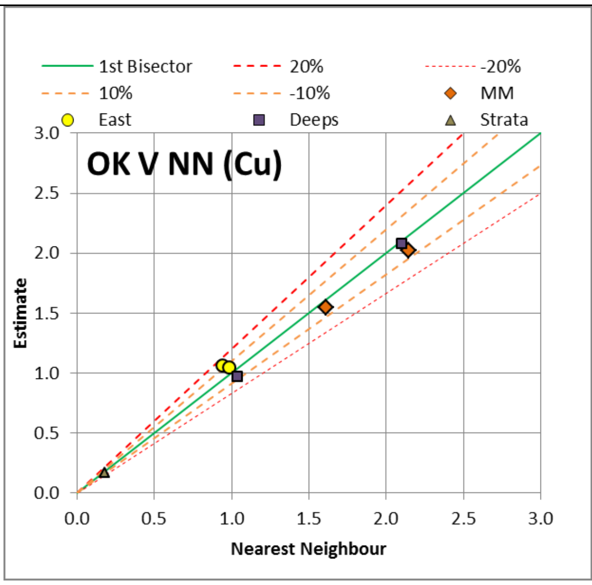


Figure 12-10. Global Copper by Domain comparing OK and NN

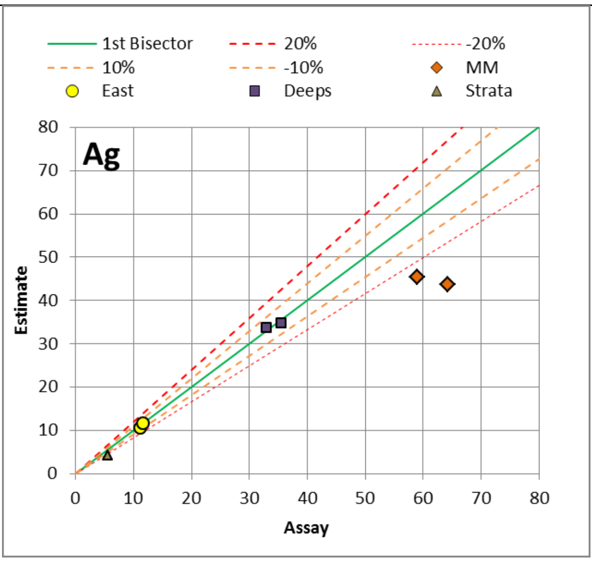


Figure 12-11. Global Silver Validation by Domains

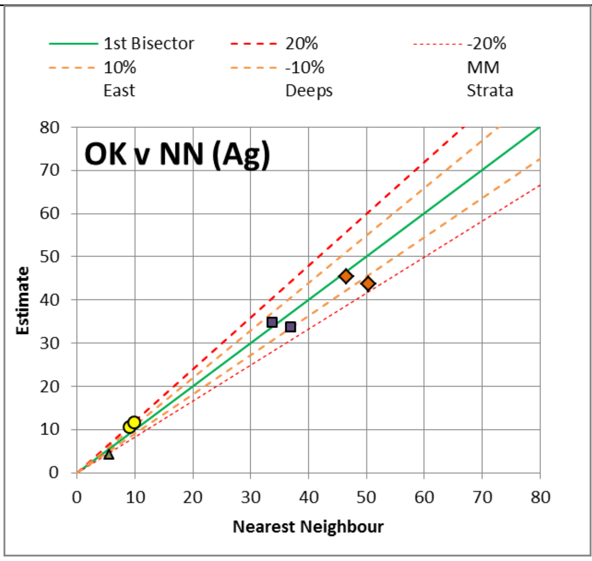


Figure 12-12. Global Silver by Domain comparing OK and NN

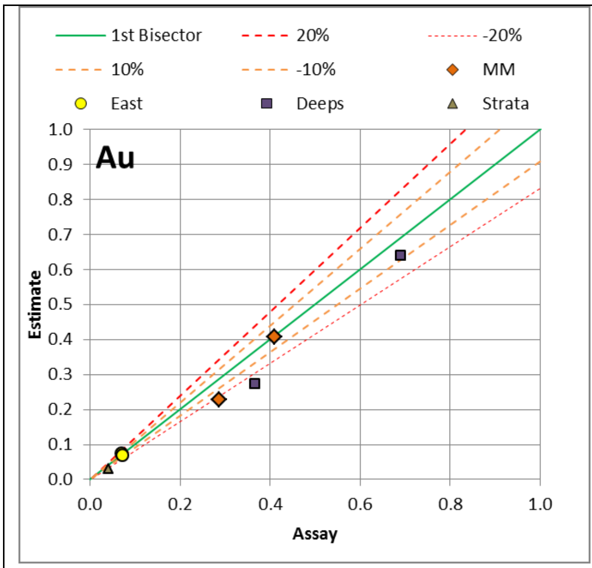


Figure 12-13. Global Gold Validation by Domains

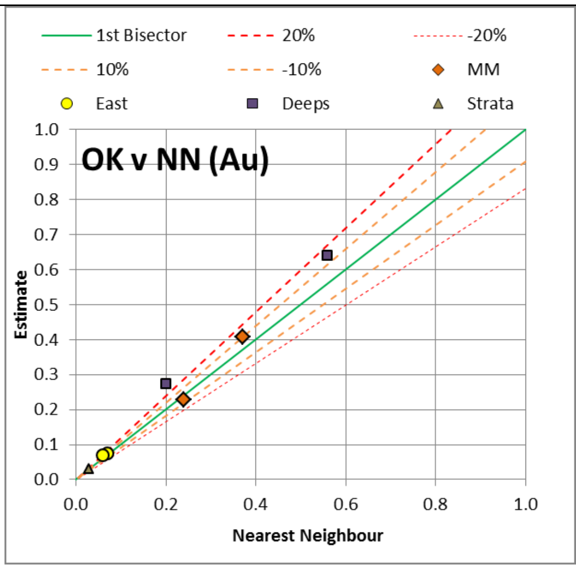


Figure 12-14. Global Gold by Domain comparing OK and NN

12.6.3 Local Bias Check

Swath plots were generated on vertical E-W 25 m wide swaths to assess local bias along strike by comparing the OK estimate with informing composite means for copper, lead, zinc, silver, gold, bismuth and sulphur. Results show no significant bias between OK estimates and informing samples and the smoothing effects of kriging are apparent. Copper is the dominant economic element and three domains have been selected, Deeps South, Main Shoot and Marshall. Figure 12-15, Figure 12-17 & Figure 12-19 show a good representation of the copper mineralisation. Sections with significantly more assay data have an impact on the local grade of adjacent sections, (Figure 12-15 Cu and Figure 12-16 Ag) both show the estimates remaining low in line with the number of assays seen on section 7,495,300 mN swamping the estimate. Future estimates could consider increasing the maximum number of samples per drill hole, thus not forcing the search ellipse to use as many samples from drill holes further away. Marshall shoot also shows the impact of the heavily drilled sections 7,494,525 and 7,494,550 mN on surrounding grades.

Silver mineralisation in the deposits (Figure 12-16, Figure 12-18 & Figure 12-20) generally shows a good correlation between informing silver samples and block grades. Deeps South shows increasing silver grade to the north where there are less informing samples to control the edge effect, coincident with model tonnes thinning out. Main Shoot has worked well, (Figure 12-18) with an appropriate amount of smoothing evident. Marshall shows increasing grade as the shoot thins to the north (Figure 12-20)

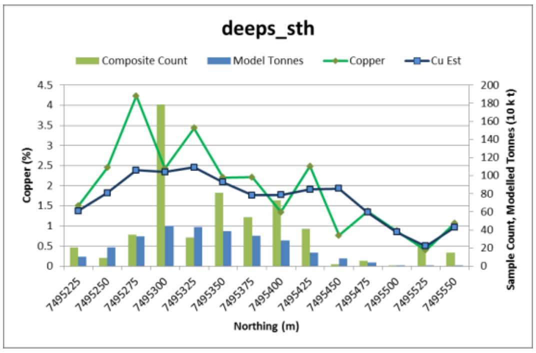


Figure 12-15. Swath Plot Deeps-South - copper

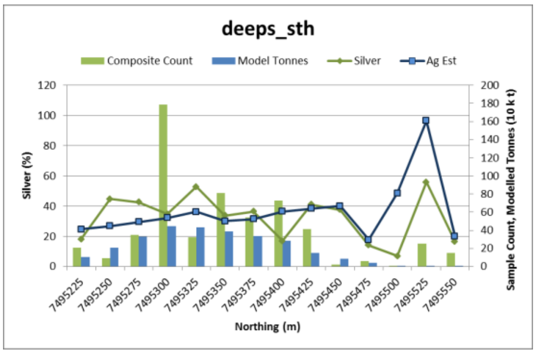


Figure 12-16. Swath Plot, Deeps-South - silver

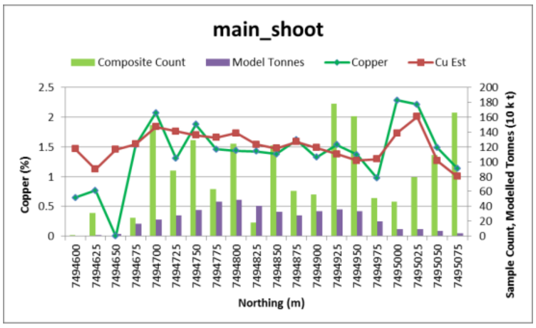


Figure 12-17. Swath Plot Main-Shoot - copper

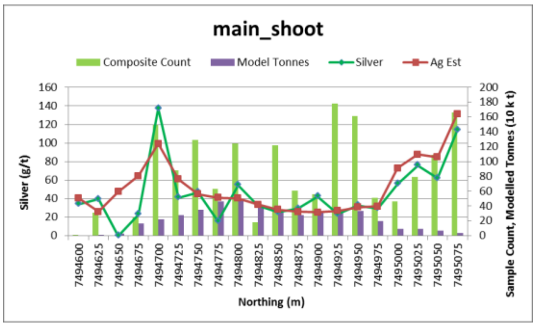


Figure 12-18. Swath Plot, Main-Shoot - silver

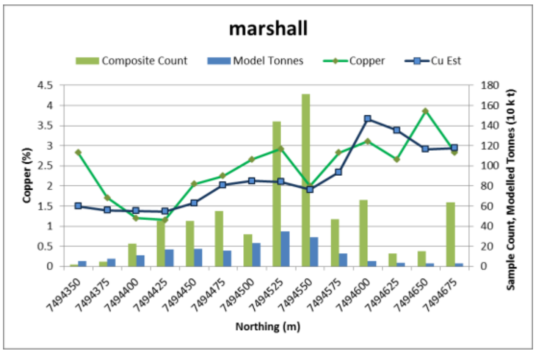


Figure 12-19. Swath Plot Marshall - copper

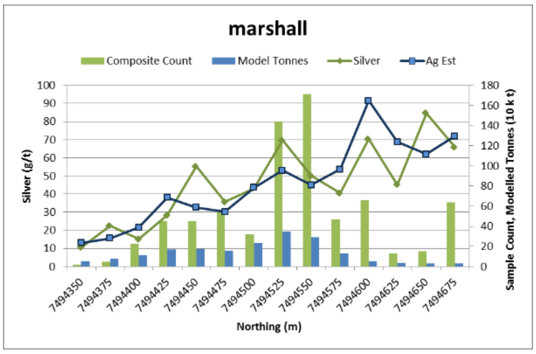


Figure 12-20. Swath Plot, Marshall - silver

A second series of swath plots were generated on horizontal swaths 20 m wide in the z direction to assess local bias with depth.

The eastern lodes (East FW and East HW) are drilled on a wider grid. The 20 m swaths show see-sawing sample numbers and grades and the estimate has largely smoothed this to the mean grades (Figure 12-21). Deeps South (Figure 12-22) shows the number of copper assays reduce below -100 m RL corresponding to a sharp increase in grade. The estimated grade increases but not as rapidly as the sample grades due to the estimate taking into account the grades of proximal samples above -100 m RL.

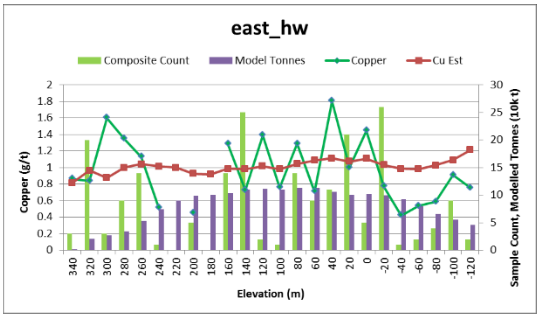


Figure 12-21. Swath Plot (Z) East-HW - copper

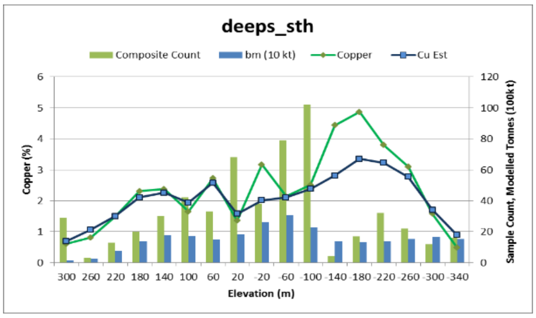


Figure 12-22. Swath Plot (Z) Deeps South - copper

Both Main Shoot (Figure 12-23) and Marshall (Figure 12-24) show grade dropping off with depth.

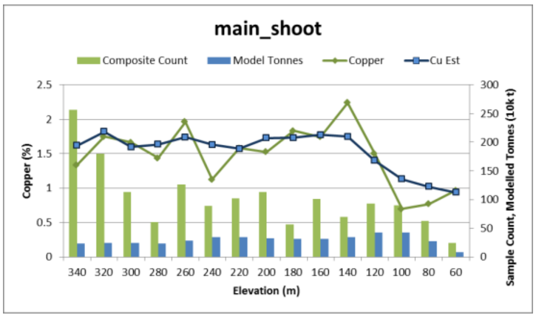


Figure 12-23. Swath Plot (Z) Main Shoot - copper

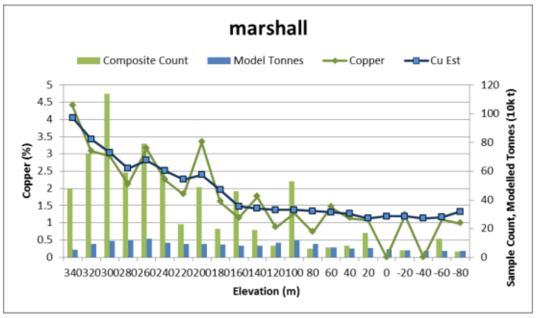


Figure 12-24. Swath Plot (Z) marshall - copper

12.6.4 Comparison with previous estimates

The most recent resource estimate for the Jervois deposits by H&S Consultants ("H&SC") was dated August 2019 (Table 12-27) and used drill hole data collected up to 30th May 2019. * for comparison purposes the tonnage and grade figures presented in this table include Reward, Reward East and Reward Pb Resources from H&S mineral resource estimate

Table 12-28 shows the comparative resource estimated by MA. Both Open Pit potential (OPP) resources are reported above 200 m RL and at a 0.5% Cu cut-off. The underground potential (UGP) resources are below 200 m RL and at a 1.0% Cu cut-off.

Table 12-27. July 2019 Resource Estimate*

	Category	Material (Mt)	Cu%	Ag g/t	Au g/t	Cu kt	Ag Moz	Au koz
OPP > 0.5%	Indicated	5.60	1.16	34.0	0.26	64.7	6.1	44.21
	Inferred	1.16	0.69	19.8	0.10	8.00	0.74	2.25
Sub Total		6.76	1.08	31.6	0.23	72.7	6.84	46.46
UGP >1.0%	Indicated	3.08	1.94	31.9	0.48	59.80	3.16	47.10
	Inferred	2.94	1.58	26.5	0.30	46.40	2.50	47.10
Sub Total		6.02	2.45	31.9	0.48	106.2	5.66	94.2
Resource	Indicated	8.68	1.44	33.2	0.33	124.5	9.26	91.33
	Inferred	4.10	1.33	24.6	0.20	54.4	3.24	26.99
Total		12.78	1.40	30.5	0.29	178.9	12.5	118.32

* for comparison purposes the tonnage and grade figures presented in this table include Reward, Reward East and Reward Pb Resources from H&S mineral resource estimate

Table 12-28. June 2020 Resource Estimate

	Category	Material (Mt)	Cu %	Ag g/t	Au g/t	Cu kt	Ag Moz	Au koz
OPP > 0.5%	indicated	3.34	1.86	41.8	0.44	62.2	4.5	47.4
	Inferred	0.76	0.93	9.5	0.06	7.0	0.2	1.4
Sub total		*4.10*	*1.69*	*35.8*	*0.37*	*69.2*	*4.7*	*48.9*
UGP > 1.0%	indicated	3.69	2.22	42.8	0.51	81.8	5.1	60.2
	inferred	3.50	1.48	26.8	0.18	51.7	3.0	20.7
Sub total		*7.19*	*1.86*	*35.0*	*0.35*	*133.4*	*8.1*	*80.9*
Resource	indicated	7.03	2.05	42.3	0.48	144.0	9.6	107.6
	inferred	4.26	1.38	23.7	0.16	58.7	3.2	22.1
Total		**11.28**	**1.80**	**35.3**	**0.36**	**202.6**	**12.8**	**129.7**

12.7 REASONABLE PROSPECTS FOR EVENTUAL ECONOMIC EXTRACTION

Assumptions for reasonable prospects for eventual economic extraction applied to this deposit include but may not be limited to Table 12-29 (prices are AUD). Recovery assumptions for copper and silver, (main economic minerals) are provided in Table 12-30.

Table 12-29. Adopted costs for reasonable prospects of economic extraction

Parameter	unit	Average
Mill Throughput per annum (Mtpa)	Mt	1.6
Strip ratio	t/t	11:1
General and Administration Cost	$/t ore	8.12
Copper price	$/t	8,533
Silver price	$/oz	25.32
Average Open Pit Mining cost	$/total tonne mined	3.12
Average Underground Mining cost	$/total tonne mined	43.4
Sulphide ore processing cost	$/t ore	22.68
Oxidised ore processing cost	$/t ore	22.62
Pit bench angle	Degrees	48.5
Ore loss	%	5
Dilution	%	5

Table 12-30: Recovery Assumptions

Material	Recovery Algorithm	Example
Oxide and Transition -	Cu Rec = (% Cu-(0.48-(0.04 x % Cu))/% Cu	For a Cu Head Grade of 1.9%, the Copper Recovery will be 78.7%
	Ag Rec = 0.88*LN(% Cu Rec*100) -2.98	For a Cu Recovery of 78.7%, the Silver Recovery will be 86.2%
Sulphide Ore	Cu Rec = (% Cu-0.075) x 0.975)/% Cu	For a Cu Head Grade of 1.9%, the Copper Recovery will be 93.7%
	Ag Rec = 2.07 x % Cu Rec - 1.255	For a Cu recovery of 93.7%, the Silver Recovery will be 68.5%

12.8 MINERAL RESOURCE CLASSIFICATION

The Reward deposit mineral resource has been classified in accordance with the JORC 2102 code.

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-

divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. (JORC Code 2012)

Resource classification is based on data quality, drill density, number of informing samples, kriging efficiency, conditional bias slope, average distance to informing samples and deposit consistency (geological continuity). The confidence in the quality of the data and mining history justified the classification of indicated and inferred resources. Data quality does not preclude Measured but geological confidence and grade continuity are not sufficiently defined to assign Measured. Geological continuity has been assumed at 50 m drill-section spacing, and is confirmed where drill spacing is tightened.

This Mineral Resource estimate is prepared by digital methods, and the model does have isolated and discontinuous blocks present that have grades or values above the stated cut-off grade. For the areas considered for underground mining methods these blocks have been excluded from the Mineral Resource statement due to their spatial continuity and size being insufficient to achieve a potentially mineable shape. Blocks of this nature in the open pit area remain in the resource as at the lower described cut off of 0.5% the blocks form continuous zones.

The deposit has demonstrable economic value at a 0.5% Cu cut off:

<u>Measured Mineral Resource</u>

No measured resources are defined at this stage.

<u>Indicated Mineral Resource</u>

Defined as those portions of the deposit with a drill spacing of 50 m x 50 m and demonstrate a reasonable level of confidence in the geological continuity of the mineralisation, supported by some infill drilling. The distance to the nearest sample must be less than 40 m, and the average distance to all informing samples must be less than 60 m. Krige variances of block within the indicated category fall below 0.6 or lower. The conditional bias slope must be greater than 0.5. A few blocks outside these specifications may be included if a structural trend is present. Estimated during either Pass 1 or 2.

<u>Inferred Mineral Resource</u>

Defined as those portions of the deposit covered by a drill spacing of greater than 50 m or those portions of the deposit with a smaller number of intercepts but demonstrating an acceptable level of geological confidence. The average distance to informing samples must be less than 180 m and blocks could have very low conditional bias slope values. Included in the inferred resource is material within the strata-bound interpretation above 0.5% Cu and the 200 m RL.

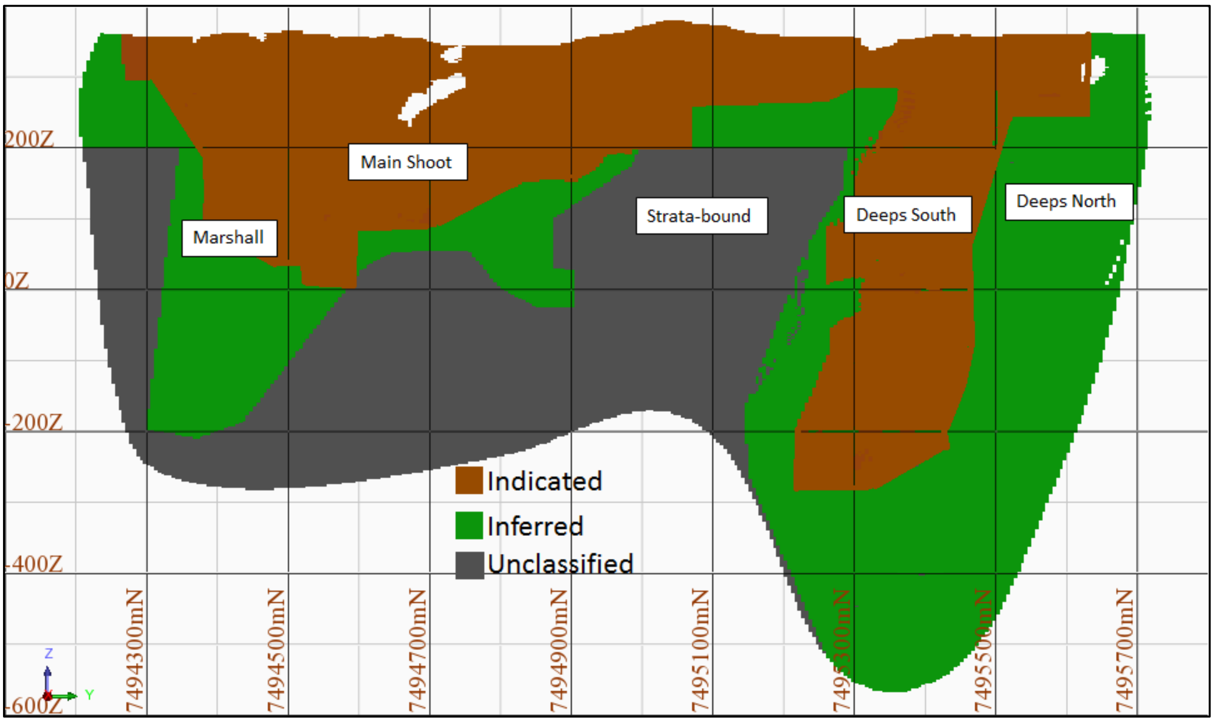


Figure 12-25. Reward categories (long section sketch)

12.9 REWARD RESOURCE SUMMARY

Grade tonnage curves for Reward (Figure 12-26) highlight the broad low grade tenor of the strata-bound mineralisation with a significant increase of tonnes at lower cut-off. The associated table (Table 12-31) shows silver and gold grade increase with copper cut-off.

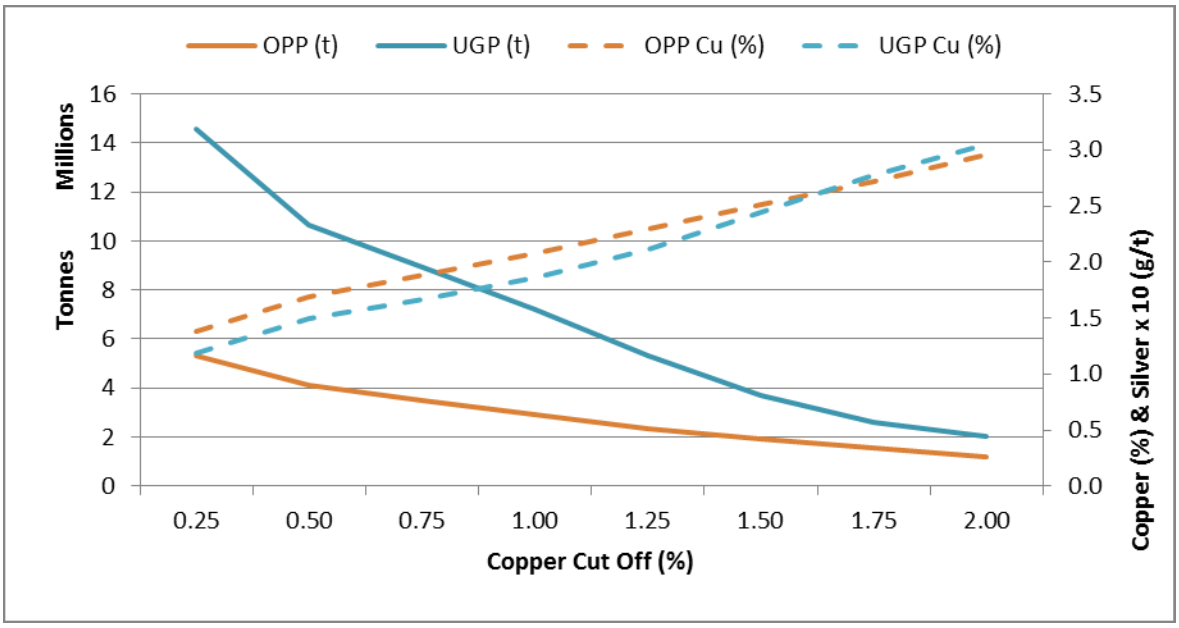


Figure 12-26. Grade tonnage curves

Table 12-31. Tonnes and grade at various cut-offs

	Open Pit Potential				Underground Potential			
Cut Off	Material (t)	Cu (%)	Ag (g/t)	Au (g/t)	Material (t)	Cu (%)	Ag (g/t)	Au (g/t)
0.50	4,097,200	1.69	35.8	0.37				
0.75	3,473,800	1.88	39.4	0.42				
1.00	2,911,200	2.07	43.4	0.45	7,185,000	1.86	35.0	0.35
1.25	2,361,400	2.30	48.4	0.47	5,343,000	2.11	38.4	0.41
1.50	1,916,400	2.51	53.2	0.48	3,681,600	2.45	41.0	0.49
1.75	1,551,400	2.72	57.0	0.49	2,627,600	2.78	44.6	0.59
2.00	1,219,200	2.95	61.7	0.49	2,028,700	3.05	47.4	0.67

Weathering of the deposits has an impact on metallurgical recoveries. KGL is considering different processing and or differing recoveries based on the amount of sulphur is present. Table 12-32 and Table 12-33 shows the deposits reported by weathering profiles, including the High Sulphur resource (S/Cu > 4.5).

Table 12-32. Reward Resource by weathering profile above 200 m RL at 0.5% Cu cut-off

OPP Resource			Grades					Metal				
Category	weathering	Material (t)	Cu %	Pb %	Zn %	Ag g/t	Au g/t	Cu (t)	Pb (t)	Zn (t)	Ag (oz)	Au (oz)
Indicated	Oxide	199,000	2.09	0.93	0.37	81.2	0.84	4,200	1,800	700	518,800	5,400
	Transitional	116,000	2.26	0.57	0.30	49.7	0.71	2,600	700	300	185,300	2,700
	High Sulphur	123,000	0.76	0.82	0.31	31.9	0.34	900	1,000	400	126,500	1,300
	Fresh	2,903,000	1.88	0.40	0.32	39.2	0.41	54,500	11,700	9,300	3,658,800	38,100
Inferred	Oxide	200	0.55	0.00	0.02	4.4	0.01	1	-	-	28	-
	Transitional	15,000	0.63	0.00	0.03	4.9	0.02	100	-	-	2,400	-
	High Sulphur	1,000	0.62	0.12	0.32	17.7	0.06	4	1	2	400	1
	Fresh	740,000	0.93	0.05	0.10	9.5	0.06	6,900	400	800	227,200	1,400
Subtotal	Oxide	199,000	2.09	0.92	0.37	81.2	0.84	1,800	700	518,800	5,400	1,800
	Transitional	131,000	2.07	0.50	0.26	44.5	0.63	700	300	187,700	2,700	700
	High Sulphur	124,000	0.76	0.81	0.31	31.8	0.33	1,000	400	126,900	1,300	1,000
	Fresh	3,643,000	1.69	0.33	0.28	33.2	0.34	61,400	12,100	10,100	3,885,900	39,500
Total		4,097,000	1.69	0.38	0.28	35.8	0.37	69,200	15,600	11,500	4,719,300	48,900

Table 12-33. Reward Resource by weathering profile below 200 m RL at 1.0% Cu cut-off

UGP Resource			Grades					Metal				
Category	weathering	Materia (t)	Cu %	Pb %	Zn %	Ag g/t	Au g/t	Cu (t)	Pb (t)	Zn (t)	Ag (oz)	Au (oz)
Indicated	Oxide	-	-	-	-	-	-	-	-	-	-	-
	Transitional	90,000	2.15	0.46	0.25	54.13	0.67	1,900	400	200	156,800	1,900
	High Sulphur	314,000	1.35	0.42	0.32	30.25	0.37	4,300	1,300	1,000	305,800	3,800
	Fresh	3,281,000	2.30	0.41	0.42	43.67	0.52	75,600	13,400	13,600	4,606,400	54,500
Inferred	Oxide	-	-	-	-	-	-	-	-	-	-	-
	Transitional	-	-	-	-	-	-	-	-	-	-	-
	High Sulphur	390,000	1.30	1.36	0.83	53.30	0.19	5,100	5,300	3,200	668,400	2,400
	Fresh	3,110,000	1.50	0.24	0.24	23.46	0.18	46,600	7,500	7,500	2,345,700	18,300
Subtotal	Oxide	-	-	-	-	-	-	-	-	-	-	-
	Transitional	90,000	2.15	0.46	0.25	54.13	0.67	1,900	400	200	156,800	1,900
	High Sulphur	704,000	1.32	0.94	0.60	43.01	0.27	9,300	6,600	4,200	974,300	6,200
	Fresh	6,391,000	1.91	0.33	0.33	33.84	0.35	122,200	20,900	21,100	6,952,000	72,800
Total		7,185,000	1.86	0.39	0.36	34.99	0.35	133,400	28,000	25,600	8,083,100	80,900

The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition.
Due to rounding to appropriate significant figures, minor discrepancies may occur
All tonnages reported are dry metric

Reward reported by lode is shown in Table 12-34.

Table 12-34: Reward Resource by lode (Cut off >0.5g/t > 200 mLR and > 1.0 g/t > 200mRL)

Resource		Material	Grade (%)			Metal		
Category	Area	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Indicated	Deeps North	0.13	2.38	33.9	0.65	3.2	0.15	2.8
	Deeps South	1.90	2.56	38.7	0.72	48.6	2.37	43.9
	East FW	0.11	1.10	5.3	0.03	1.2	0.02	0.1
	Main Shoot	3.30	1.75	43.3	0.46	57.7	4.59	49.2
	Marshall	1.38	2.30	53.1	0.25	31.7	2.36	11.1
	Strata-bound	0.21	0.73	12.1	0.08	1.5	0.08	0.5
Subtotal		7.03	2.05	42.3	0.48	144.0	9.56	107.7
Inferred	Deeps North	0.47	1.74	62.6	0.22	8.2	0.95	3.3
	Deeps South	0.43	1.57	25.8	0.39	6.8	0.36	5.5
	East FW	1.26	1.32	11.2	0.07	16.6	0.45	2.8
	East HW	1.09	1.21	12.4	0.08	13.2	0.43	2.7
	Main Shoot	0.54	1.43	47.2	0.33	7.7	0.82	5.7
	Marshall	0.35	1.43	15.9	0.15	5.0	0.18	1.7
	Strata-bound	0.11	1.01	12.8	0.10	1.1	0.05	0.4
Subtotal		4.26	1.38	23.7	0.16	58.7	3.24	22.1
Total		11.28	1.80	35.3	0.36	202.6	12.80	129.7

13 MINERAL RESOURCE ESTIMATE - ROCKFACE

13.1 GEOLOGICAL INTERPRETATION

Rockface is interpreted by KGL as a syn-depositional copper-rich, polymetallic massive sulphide deposit that has undergone deformation, metamorphism and a high degree of structural remobilisation. This has resulted in thickening by isoclinal folding and remobilisation of sulphides, possibly enhanced by a late-stage hydrothermal event. Recent modelling of mineralisation by KGL geologists strongly supports the interpretation of a low-grade broadly stratabound zone overprinted by higher grade 'shoots' that are presently interpreted to represent structural remobilisation into fold hinges and structural breccia zones.

Interpretation of higher-grade zones is based primarily on geological logging supported by abrupt changes in copper and/or silver and/or gold grades (example Figure 13-1, Rockface Main Lode Copper). High grade structural shoots are characterised by coarser grained sulphides and magnetite-bearing sulphide breccia. Intervals encompassing high grade shoots were modelled using Leapfrog software with an anisotropic component conforming to the plunge of measured F2 fold hinges.

Plan and cross sections of the interpreted implicit models for Rockface are shown in Figure 13-2 and Figure 13-3.

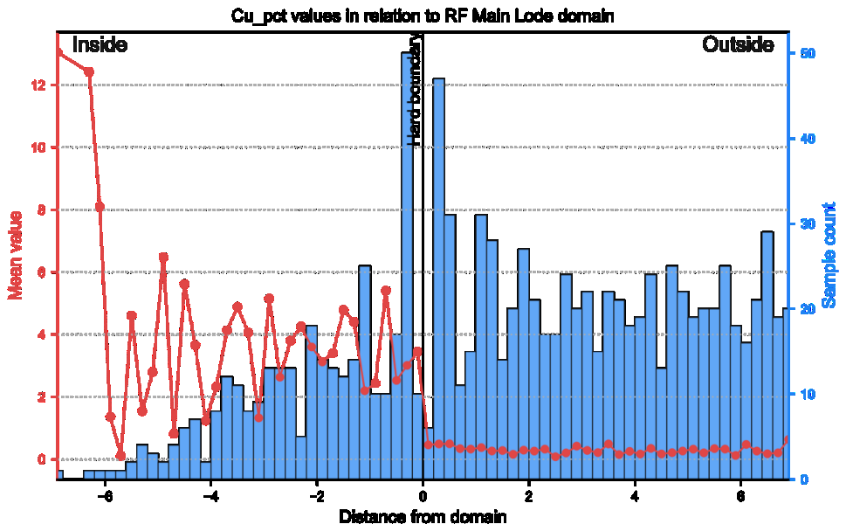


Figure 13-1. Boundary analysis showing abrupt grade change across shoot contact.

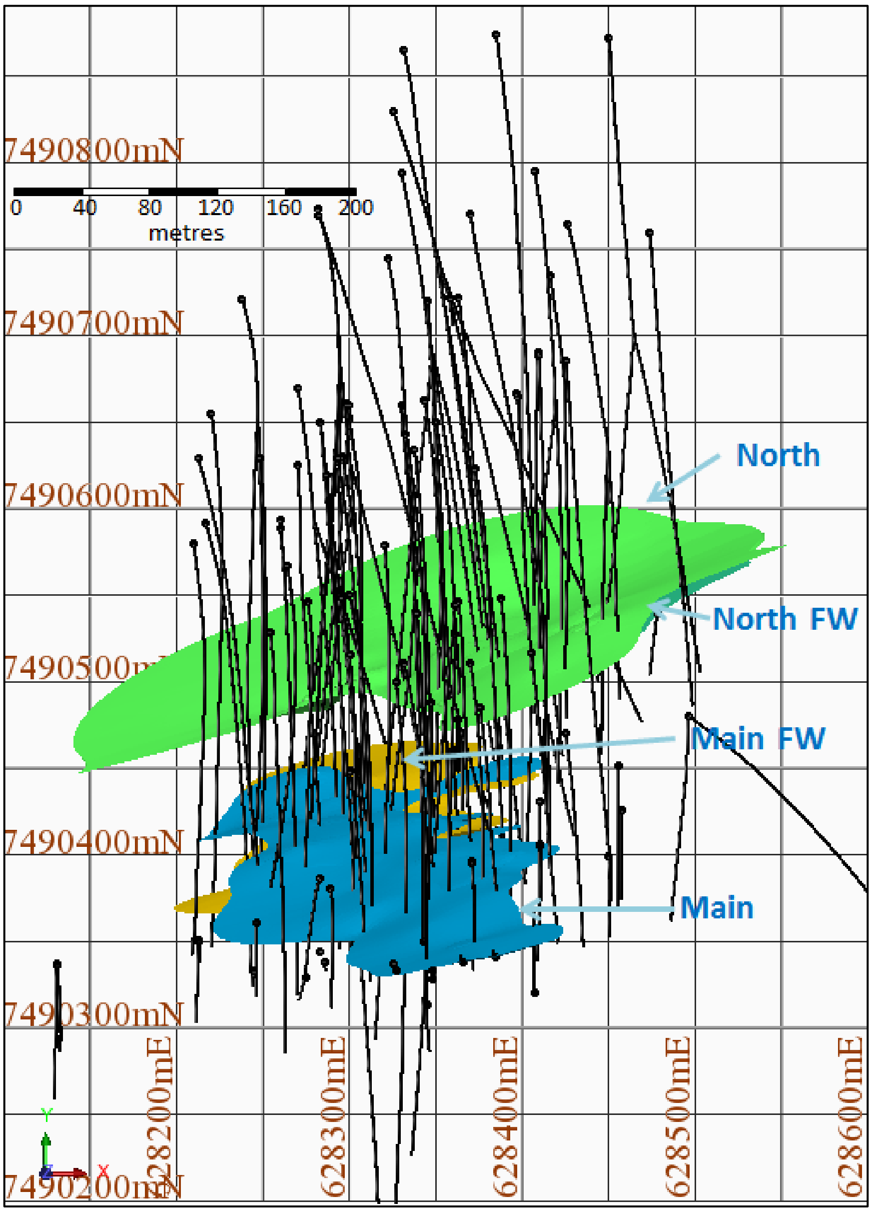


Figure 13-2. Plan view of Rockface mineralisation 1.0% Cu grade shells with drill hole traces.

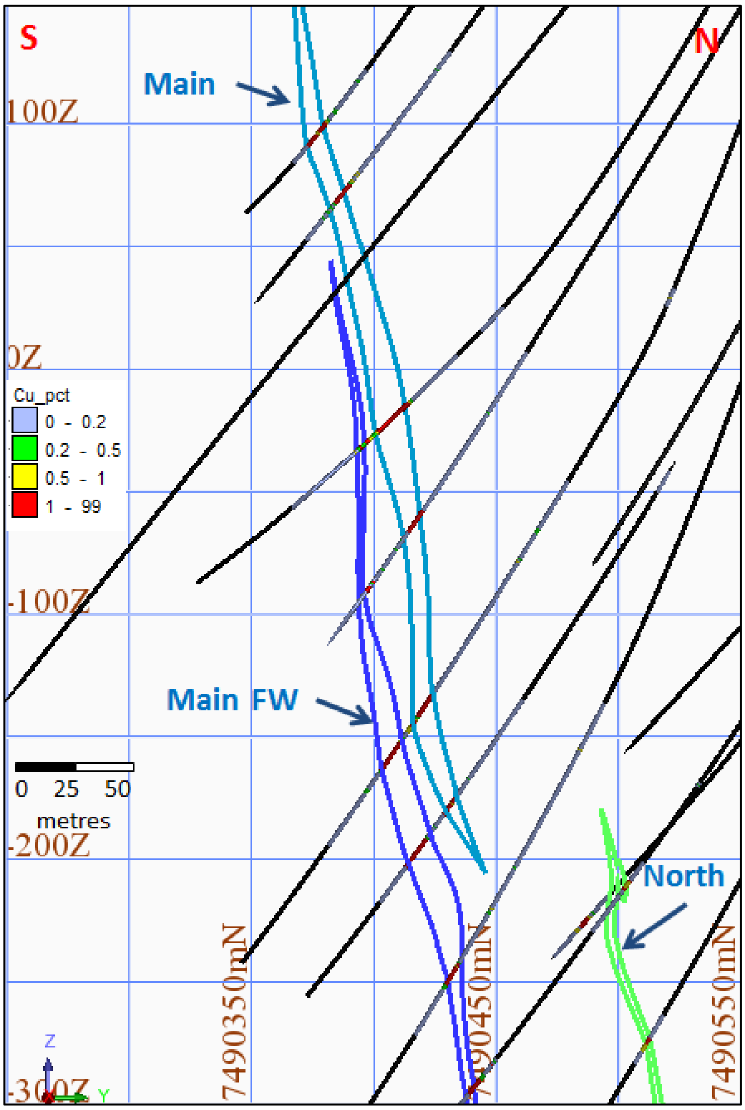


Figure 13-3. Rockface deposit Cross Section (628,300 mE)

13.1.1 Bulk Density Data

KGL procedures for the measurement of dry bulk density on drill core samples were supplied. Routine measurements were made on selected intervals of core approximately 10 cm in length. Table 13-1 and Figure 13-4 shows a summary of the results.

Table 13-1. Average density measurements by rock type

Code	Count	Density	Description
bif	2	3.57	Banded iron formation
Fpg	84	2.82	Pegmatite
Fpo	2	2.92	Porphyry
Hcs	2	3.54	Calc silicate
Hq	9	3.49	Quartzite (massive)
Vq	88	2.99	Quartz vein
Vtm	5	2.83	Tourmaline vein
Y	78	3.31	Mineralised lode undifferentiated
Yacgm	459	3.02	Mineralised lode - Andalusite and/or Cordierite schist with Garnet and/or Magnetite
Ycarb	3	3.28	Mineralised lode - Marble hosted
Ycs	14	3.15	Mineralised lode - Calcsilicate/skarn ('Mrbl_Cs' Group if modelling carbonate)

Code	Count	Density	Description
Yma	813	3.93	Mineralised lode - Magnetite/ ironstone
Yqgm	268	3.40	Mineralised lode - Quartzite/psammite +/- Chlorite/Biotite and Garnet/Magnetite
Z	2	3.45	Schist - undifferentiated
Zacgm	804	2.90	Muscovite and/or Sericite schist with Garnet and/or Magnetite
Zanco	2435	2.86	Andalusite and/or Cordierite schist
Zcbgm	616	2.92	Chlorite and/or Biotite schist with Garnet and/or Magnetite
Zchbi	9	2.78	Chlorite and/or Biotite schist
Zcs	4	2.80	Calc silicate schist/skarn (incls. ga/ep)
Zmsgm	99	2.86	Muscovite and/or Sericite schist with Garnet and/or Magnetite
Zmuse	395	2.92	Muscovite Schist
Zqgm	423	3.06	Quarrtzite/psammite schist +/- chlorite/biotite and garnet/magnetite
Zqp	383	2.99	Quartzite and/or Psammite
Zqsmu	7	2.78	Quartz-sericite/muscovite schist
Zcs	4	2.80	Calc silicate schist/skarn (incls. ga/ep)

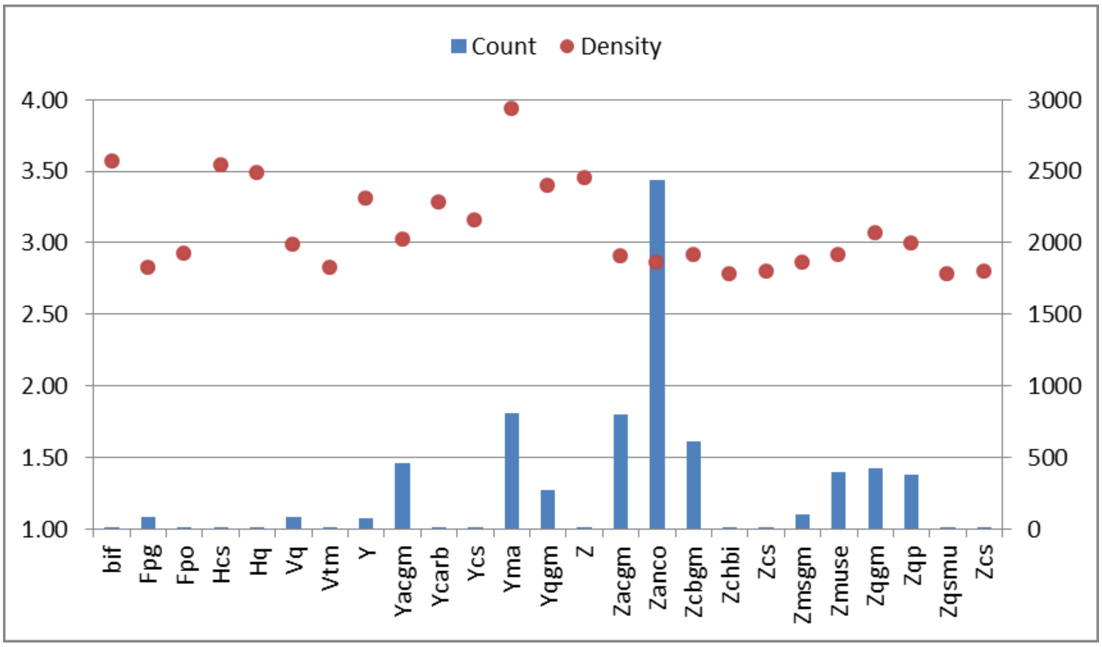


Figure 13-4. Mean Density by Rock Type

The average density of all material (7,413 records) is 3.05 t/m^3. Of these, 1,007 records could not be matched to logged oxidation states. Very few records (39) were logged as oxidised material and averaged 2.78 t/m^3. There were 62 records of transitional which averaged 2.82 t/m^3. 6,406 records correlated with fresh logging codes and averaged 3.04 t/m^3.

13.2 DIMENSIONS

Rockface is interpreted by KGL as a syn-depositional copper rich polymetallic massive sulphide deposit that has undergone deformation, metamorphism and some degree of structural remobilisation. The deposit occurs in the fold hinge of a regional drag fold. There are no identified deposits immediately along strike of Rockface.

The Rockface deposit consists of structurally controlled shoots which strike approximately 300 m. (Figure 13-2). Within the structural corridor there are four high grade shoots which strike approximately 100 to 200 m and plunge between 500 to 900 m below the surface (Figure 13-5). The shoots are open to depth and range in thickness from 1 to 10 m.

Database extents (Table 13-2) are greater than the mineralised resource described in this report.

Table 13-2. Database Extents

	Min (m)	Max (m)	Extents (m)
Northing	7,490,130	7,490,874	744
Easting	627,572	628,497	925
RL	356	405	49
Hole Depth	2.7	1272.8	NA

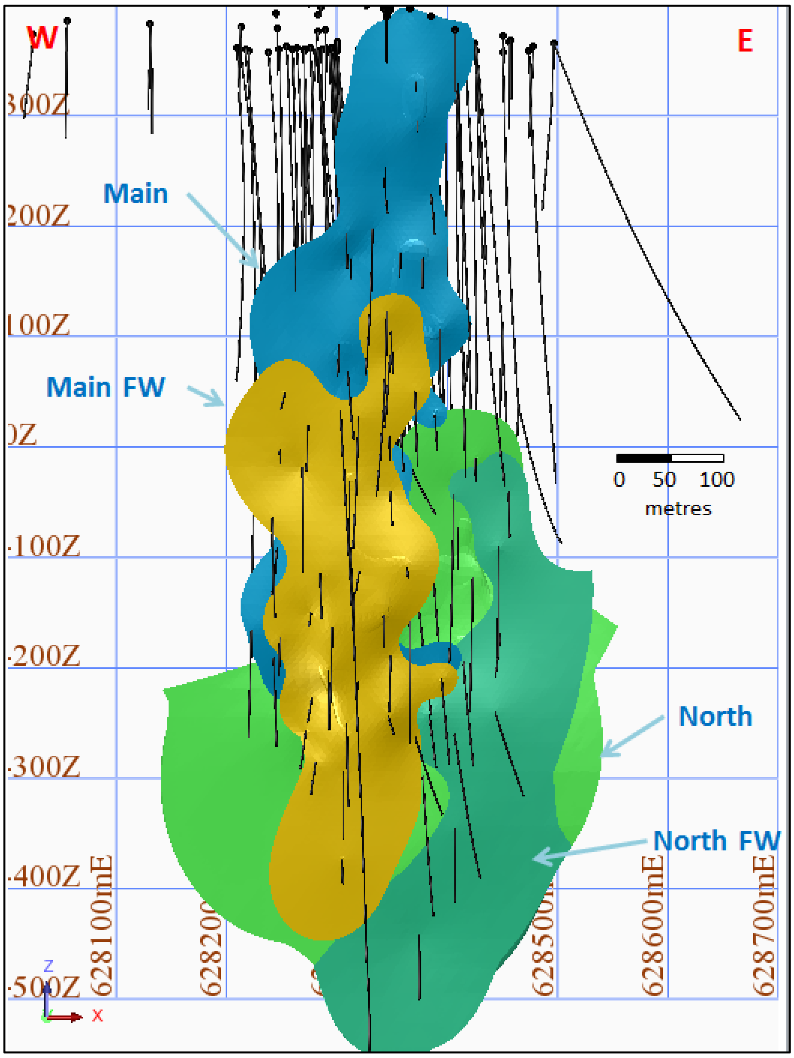


Figure 13-5. East-West section view showing wireframe domains

13.2.1 Drill Hole Spacing

Resource definition drilling over the life of the project has been undertaken on 50 m spaced cross sections perpendicular to strike with holes spaced on approximately 50 m (50 x 50m grid). Main lode has significant infill drilling tightening up the drill grid in critical locations.

13.2.2 Domains and Stationarity

A domain is a defined volume that delineates the spatial limits of a single grade population. Domains have a single orientation of grade continuity, are geologically homogeneous and have statistical and geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Typical controls that can be used as the boundaries to domains include structural features, weathering, mineralization halos and lithology.

Within Rockface, domains were created primarily on the basis of structural shoots, weathering and grade. Domains were interpreted by KGL using implicit modelling techniques (Table 13-3) to create 3D wireframes to represent each domain.

Table 13-3. Domain names - wireframe legend

Domain/shoot	Wireframe Name	Object	Trisolation
Strata-bound	rsm14_rockface_lg10.dtm	10	1
Main_FW	rsm14_rockface_main_fw11.dtm	11	1
Main	rsm14_rockface_main12.dtm	12	1
North_FW	rsm14_rockface_north_fw13.dtm	13	1
North	rsm14_rockface_north14.dtm	14	1

13.2.3 Compositing

Selection of a composite length should be appropriate for the data, deposit and conceptual mining scenario (e.g. dominant assay interval length, open pit bench height, underground stoping method, lode thickness).

Compositing lengths were selected on the basis of statistical parameters and likely block size required. Care was taken to avoid splitting samples when compositing. The most common sample length at Rockface is 1 m. Of these, 15.9% of samples are shorter than 0.95 m, 69.4% of samples are between 0.95 and 1.1 m and 14.7% of samples are longer than 1.1 m. The drill hole database was composited to 1 m intervals using Surpac's best fit algorithm, using a minimum permitted composite length of 0.75 m.

13.2.4 Summary Statistics

Summary statistics for each domain are shown below (Table 13-4 to Table 13-7). Copper, lead and zinc assay data is stored as parts per million (ppm) in the database allowing 4 decimal places to be used when converted to percentages.

Table 13-4. Summary Statistics, Main Footwall

Statistic	Cu	Pb	Zn	Au	Ag	S	Bi
Number of Samples	164	164	164	164	164	164	164
Minimum	0.2	0.0	0.0	0.0	1.0	0.2	3
Maximum	15.9	0.5	1.6	3.7	85.5	34.0	6551
Mean	4.04	0.03	0.10	0.31	18.41	7.4	490
Standard Deviation	3.4	0.1	0.2	0.4	15.7	7.0	862
Coefficent of Variation	0.85	1.53	1.82	1.38	0.85	0.9	2
10 percentile	1.01	0.00	0.02	0.03	3.17	1.7	17
25 percentile	1.54	0.01	0.03	0.08	7.82	2.8	45
50 percentile (median)	2.73	0.02	0.05	0.16	13.86	4.5	193
75 percentile	5.38	0.04	0.09	0.37	24.89	9.5	558
95 percentile	10.71	0.13	0.36	0.93	46.31	24.5	1832
97.5 percentile	11.07	0.16	0.43	1.05	47.69	25.1	2253
99 percentile	14.62	0.19	0.64	1.73	68.44	28.0	3420

Table 13-5. Summary Statistics, Main

Statistic	Cu	Pb	Zn	Au Ag	Ag	S	Bi
Number of Samples	300	300	296	296	293	296	293
Minimum	0.0	0.0	0.0	0.0	0.5	0.0	3
Maximum	18.9	5.4	2.8	2.3	98.8	26.3	8636
Mean	3.39	0.13	0.11	0.19	18.36	4.9	494
Standard Deviation	3.6	0.6	0.3	0.3	17.6	4.9	785
Coefficent of Variation	1.05	4.79	2.56	1.32	0.96	1.0	2
10 percentile	0.68	0.00	0.03	0.04	4.06	1.2	39
25 percentile	1.29	0.01	0.04	0.06	7.47	1.9	110
50 percentile (median)	2.14	0.02	0.05	0.11	12.04	3.1	273
75 percentile	4.01	0.03	0.08	0.22	22.30	5.8	566
95 percentile	12.40	0.25	0.23	0.55	56.60	17.0	1594
97.5 percentile	13.06	0.27	0.28	0.66	61.17	17.7	1780
99 percentile	15.62	2.53	0.77	1.17	76.52	21.3	3151

Table 13-6. Summary Statistics, North Footwall

Statistic	Cu	Pb	Zn	Au	Ag	S	Bi
Number of Samples	36	36	36	36	36	36	36
Minimum	0.1	0.0	0.0	0.0	1.0	0.5	5
Maximum	12.7	0.3	0.5	0.5	44.0	28.4	3729
Mean	1.67	0.03	0.10	0.12	8.18	8.3	231
Standard Deviation	2.2	0.0	0.1	0.1	9.3	7.8	612
Coefficent of Variation	1.32	1.54	1.31	0.85	1.13	0.9	3
10 percentile	0.41	0.01	0.01	0.03	2.04	1.9	19
25 percentile	0.65	0.01	0.02	0.06	3.10	3.7	35
50 percentile (median)	1.08	0.01	0.04	0.09	5.03	5.1	79
75 percentile	1.61	0.03	0.10	0.17	7.62	10.4	239
95 percentile	5.03	0.09	0.37	0.28	30.51	23.9	392
97.5 percentile	5.23	0.11	0.37	0.33	31.67	26.0	409
99 percentile	8.91	0.19	0.45	0.43	38.23	28.4	1996

Table 13-7. Summary Statistics, North

Statistic	Cu	Pb	Zn	Au	Ag	S	Bi
Number of Samples	141	141	141	141	141	141	141
Minimum	0.1	0.0	0.0	0.0	1.8	0.5	6
Maximum	12.3	5.7	14.1	3.4	202.2	33.8	2971
Mean	3.69	0.11	0.55	0.41	27.71	12.6	353
Standard Deviation	2.8	0.5	1.3	0.5	24.8	7.9	460
Coefficent of Variation	0.76	4.29	2.29	1.19	0.89	0.6	1
10 percentile	0.80	0.01	0.03	0.06	5.90	3.0	34
25 percentile	1.21	0.02	0.08	0.13	11.36	7.3	78
50 percentile (median)	3.05	0.04	0.25	0.27	22.00	11.3	197
75 percentile	5.42	0.08	0.60	0.51	37.13	17.4	468
95 percentile	8.60	0.26	1.63	1.27	71.21	27.0	1292
97.5 percentile	9.10	0.30	1.82	1.28	75.18	28.4	1355
99 percentile	11.51	0.57	2.06	2.24	85.05	30.6	2238

13.2.5 Grade Capping

Capping is the process of reducing the grade of the outlier sample to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value.

Outlier values were defined per estimation domain using statistical parameters to ensure that the mean was not significantly affected by capping. Assessment of outliers was based on histograms, log probability plots and metal loss, additional considerations were the standard deviations, Tukey fences (interquartile ranges) and Sichel's mean.

Uncapped and capped summary statistics for each estimation domain for copper, silver and gold are presented in Table 13-8, Table 13-9 and Table 13-10 respectively.

Table 13-8. Grade capping summary statistics for copper by estimation domain

Copper	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Main FW	164	4.04	15.9	0.85	2	4.0	**15.10**	0.8	1.2%	-0.2%
Main	300	3.39	18.9	1.05	3	3.4	**16.08**	1.0	1.0%	-0.4%
North FW	36	1.67	12.7	1.32	1	1.5	**6.36**	0.9	2.8%	-10.6%
North	141	3.69	12.3	0.76	3	3.7	**11.51**	0.8	2.1%	-0.2%

Table 13-9. Grade capping summary statistics for silver by estimation domain.

Silver	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Main FW	164	18.41	85.5	0.85	3	18.1	**68.44**	0.8	1.8%	-1.5%
Main	293	18.36	98.8	0.96	5	18.2	**76.52**	0.9	1.7%	-1.1%
North FW	36	8.18	44.0	1.13	1	8.0	**38.23**	1.1	2.8%	-2.0%
North	141	27.71	202.2	0.89	3	26.8	**85.05**	0.8	2.1%	-3.1%

Table 13-10. Grade capping summary statistics for gold by estimation domain

Gold	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Main FW	164	0.31	3.7	1.38	3	0.3	**1.73**	1.2	1.8%	-4.4%
Main	296	0.19	2.3	1.32	5	0.2	**1.17**	1.2	1.7%	-3.1%
North FW	36	0.12	0.5	0.85	1	0.1	**0.43**	0.8	2.8%	-1.2%
North	141	0.41	3.4	1.19	3	0.4	**2.24**	1.1	2.1%	-2.6%

Lead and Zinc assays are generally very low with a small proportion of high grade values inconsistent with the majority of the data (Table 13-11). Domain North had extreme lead outliers.

Table 13-11. Grade capping summary statistics for lead and zinc by estimation domain

		Uncapped Composite Data				Capped Composite Data				Grade	
Element	Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Lead	Main FW	164	0.03	0.5	1.53	1	0.0	**0.25**	1.3	0.6%	-3.6%
	Main	300	0.13	5.4	4.79	3	0.1	**4.09**	4.4	1.0%	-10.0%
	North FW	36	0.03	0.3	1.54	1	0.0	**0.23**	1.5	2.8%	-1.8%
	North	141	0.11	5.7	4.29	1	0.1	**2.18**	2.3	0.7%	-22.1%
Zinc	Main FW	164	0.10	1.6	1.82	2	0.1	**0.80**	1.5	1.2%	-6.4%
	Main	296	0.11	2.8	2.56	3	0.1	**1.73**	2.1	1.0%	-6.5%
	North FW	36	0.10	0.5	1.31	1	0.1	**0.47**	1.3	2.8%	-1.3%
	North	141	0.55	14.1	2.29	2	0.5	**2.50**	1.2	1.4%	-15.3%

Bismuth assays assays are well distributed (moderate CV's) with a small proportion of high grade values inconsistent with the majority of the data. The slight capping applied has reduced the CVs (Table 13-12).

Table 13-12. Grade capping summary statistics for bismuth by estimation domain

Copper	**Uncapped Composite Data**				**Capped Composite Data**				**Grade**	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
Bi - Main FW	164	490	6551	1.76	1	483	**5358**	1.69	0.6%	-1.5%
Bi - Main	293	494	8636	1.59	2	479	**4408**	1.38	0.7%	-3.1%
Bi - North FW	36	231	3729	2.65	1	215	**3151**	2.41	2.8%	-6.9%
Bi - North	141	353	2971	1.30	1	350	**2519**	1.26	0.7%	-0.9%

No grade capping was required for sulphur or iron. Sulphur assays have a weak to moderate correlation with Cu, Pb and Zn.

13.3 VARIOGRAPHY

The most important bivariate statistic used in geostatistics is the semivariogram. The experimental semivariogram is estimated as half the average of squared differences between data separated exactly by a distance vector 'h'. Semivariograms models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

Variogram analysis was undertaken in Snowdens Supervisor for Cu, Ag, Au, Pb and Zn within the Main domain.

Natural 3D experimental variograms could generally be created. Where variogram maps proved difficult to interpret the line of lode (strike) and dip was set as direction one and two respectively, with the third direction generally selected as steeply plunging, mimicking the general trend of the shoots.

Ancillary elements were assessed within the LG halo, and variograms "borrowed" to inform the the dominant domains. Experimental Variograms were poorly formed, consistent with the grade distribution expected in a re-mobilised structurally controlled copper deposit. The experimental variograms for the additional elements were generally less well formed.

3D experimental variogram modelling used a nugget (C_0) and two spherical models (C_1, C_2), although occasionally one spherical model was sufficient. The modelled variogram geometry is consistent with the interpreted mineralisation wireframes, incorporating a plunge component where identified and modelled accordingly.

Experimental variograms for copper and silver were poorly formed, within Main and Main FW domains, (Table 13-13 and Table 13-14Table 12-17). Limited data in North and North FW domains prevented functional experimental variograms being modelled

Table 13-13. Semi-variogram parameters for Rockface copper estimation

Copper	Rotation			Variogram			Anisotropy	
Domain	bearing	plunge	dip	Co	C1	A1	Major/Semi-Major	Major/minor
Main FW	44.5	-67.7	62.7	0.17	0.83	78	1.00	2.00
Main	25.4	-75.9	44.6	0.13	0.87	100	1.33	2.00
North FW	44.5	-67.7	62.7	0.17	0.83	78	1.00	2.00
North	25.4	-75.9	44.6	0.13	0.87	100	1.33	2.00

Table 13-14. Variogram parameters for Rockface silver estimation

Copper	Rotation			Variogram			Anisotropy	
Domain	bearing	plunge	Dip	Co	C1	A1	Major/Semi-Major	Major/minor
Main FW	353	39.2	-8.2	0.1	0.9	106	1.39	1.89
Main	114.6	75.9	44.6	0.1	0.9	106	1.39	1.89
North FW	353	39.2	-8.2	0.1	0.9	106	1.39	1.89
North	114.6	75.9	44.6	0.1	0.9	106	1.39	1.89

Experimental variograms for gold, lead and zinc were poorly formed within the Main domain, however modelled variograms could be interpreted (Table 13-15). No experimental variograms were modelled within other domains.

Table 13-15. Variogram parameters for Rockface gold lead and zinc estimation –based on main shoot

	Rotation			Variography					Anisotropy			
Element	bearing	Plunge	dip	Co	C1	A1	C2	C2	Major/ Semi-Major	Major/ minor	Major/ Semi-Major	Major/ minor
Au	115	75.9	44.5	0.3	0.34	65.5	0.36	120	1.6	3.1	1.4	2.7
Pb	205	75.9	-44.6	0.2	0.8	120	-	-	1.2	2.0	-	-
Zn	205	75.9	-44.6	0.49	0.51	63	-	-	1.1	1.6	-	-

The low grade domain was used to understand the background elemental spatial characteristics of the underlying grade distribution, trends and observations seen in the low grade domain were used to influence decisions in poorly formed domains (due to lack of data, geological or grade definition). The low grade variograms for the ancillary elements were used to estimate those elements (Fe, S, Bi, U and W) in all domains (Table 13-16).

Table 13-16. Semi-variogram parameters for ancillary Rockface elements – based on LG domain

	Rotation			Variography					Anisotropy			
Domain	bearing	plunge	dip	Co	C1	A1	C2	C2	Major/ Semi-Major	Major/ minor	Major/ Semi-Major	Major/ minor
Cu	25.4	-75.9	44.6	0.21	0.5	60	0.28	88	1.20	1.71	1.17	2.00
Pb	215.4	75.9	-44.6	0.36	0.57	30	0.07	142	1.00	1.50	1.14	3.26
Zn	205.4	75.9	-44.6	0.27	0.64	65	0.08	150	2.17	3.25	1.50	3.00
Au	353	39.2	-8.2	0.26	0.4	7	0.33	86	1.00	1.00	1.00	1.69
Ag	353	39.2	-8.2	0.2	0.52	20	0.28	100	1.00	1.00	2.00	2.50
Fe	114.6	75.9	44.5	0.05	0.59	50	0.36	142	1.32	2.78	1.33	2.29
S	114.6	75.9	44.5	0.09	0.91	80	-	-	1.33	2.00	-	-
Bi	114.6	75.9	44.5	0.45	0.55	100	-	-	1.67	2.50	-	-
U	114.6	75.9	44.5	0.05	0.96	60	-	-	1.00	1.50	-	-
W	114.6	75.9	44.5	0.6	0.41	75	-	-	1.25	1.88	-	-

Variography for density utilised unconstrained density data as limited data was collected in the oxide and transition portion of the deposit. Variogram parameters for density are presented in Table 13-17.

Table 13-17. Variogram Parameters for density estimation

	Rotation			Variography					Anisotropy			
Domain	bearing	plunge	dip	Co	C1	A1	C2	C2	Major/ Semi-Major	Major/ minor	Major/ Semi-Major	Major/ minor
Density	81.1	28	67.2	0.29	0.39	68	0.31	145	1.05	1.70	1.45	2.64

13.4 GRADE ESTIMATION

This section describes the MRE methodology and summarises the key assumptions considered by MA. In the opinion of MA, the Mineral Resource statement reported herein is a reasonable representation of the Rockface deposit based on current sampling data. Grade estimation was undertaken using Geovia's Surpac™ software package (v7.2). Ordinary Kriging ("OK") was used for the grade estimation for copper, silver and gold (and all other elements estimated that are not reported as economically significant).

Copper is the primary element of concern, copper silver, gold, lead, zinc, bismuth and sulphur are estimated using the copper domains as hard boundaries and dynamic search ellipses. Sulphur is estimated into the country rock as well as the copper domains, and uses the weathering profiles as an additional hard boundary. Fe, U and W are estimated with soft boundaries across the copper domains. Dynamic search ellipses were used inside the copper domains, while fixed searches orientated to the regional lithology and larger estimation blocks were used in the host material.

13.4.1 Block Model

The Rockface block model uses regular shaped blocks measuring 2 m x 15 m x 5 m (Table 13-18). The choice of the block size was patterned with the trend and continuity of the mineralisation, taking into account the dominant drill pattern in conjunction with the size and orientation of the deposit. To accurately represent the volume of the mineralized domains inside each block, volume sub-blocking to 0.5 m x 3.75 m x 3.75 m was used. Blocks above original topography were excluded from model estimation. Estimation resolution was set at the parent block size for blocks within defined domains. For estimates (Fe, S, Bi, U and W) outside defined domains (barren blocks) were estimated with a block resolution of 4 m x 30 m x 30 m.

Table 13-18. Block Model Extents

Type	Y	X	Z
Minimum Coordinates	7490186	627900	-700
Maximum Coordinates	7490698	628860	500
User Block Size	2	15	15
Min. Block Size	0.5	3.75	3.75
Rotation	0	0	0

13.4.2 Block Model Attributes

Interpreted mineralised domains were coded to the block model. Sufficient variables were added to allow grade estimation, resource classification and reporting. Blocks above the original topography are screened out. Final block model attributes are defined in Table 13-19.

Attribute Name	Type	Decimals	Background	Description
ag_id	Float	4	0	silver inverse distance estimate capped
ag_nn	Float	4	0	silver nearest neighbour estimate capped
ag_ok	Float	4	0	silver ordinary krige estimate capped
au_ok	Float	4	0	gold ordinary krige estimate capped
bi_nn	Float	2	0	bismuth nearest neighbour
bi_ok	Float	0	0	bismuth ordinary krige estimate capped
cu_id	Float	4	0	copper inverse distance estimate capped
cu_nn	Float	4	0	copper nearest neighbour estimate capped
cu_ok	Float	4	0	copper ordinary krige estimate capped
density	Float	2	2.8	Density
deposit	Character	-	NT	Deposit Region
f_ok	Float	0	0	fluorine ordinary krige estimate capped
fe_ok	Float	4	0	iron ordinary krige estimate capped
lode	Character	-	WS	Mineralisation Domain
lode_id	Integer	-	-99	lode number
pb_ok	Float	4	0	lead ordinary krige estimate capped
rescat	Integer	-	6	Resource classification (1 measured 2 indicated 3 inferred 4 unclassified 5 mined out 6 rock
rock	Integer	-	1	Air=0 Rock=1 Andesite = 10
Ratio_scu	calculated	2	0	The ratio of sulphur to copper
s_ok	Float	4	0	sulphur ordinary krige estimate capped
u_ok	Float	1	0	uranium ordinary krige estimate capped
w_ok	Float	0	0	tungsten ordinary krige estimate capped
wth	Character	-	FR	FR = Fresh Rock, PO = Partially Oxidised Rock, OX = Oxidised Rock
z_ads	Float	2	0	average distance to samples
z_brg	Float	2	0	bearing of search ellipse
z_cbs	Float	2	0	Conditional bias slope
z_dh	Integer	-	0	number of informing drill holes
z_dhid	Character	-	0	hole_id
z_dip	Float	2	0	dip of search ellipse
z_dns	Float	2	0	distance to nearest sample
z_ke	Float	2	0	krige efficiency
z_kv	Float	2	0	krige variance
z_ns	Integer	-	0	number of informing samples
z_ps	Integer	-	0	1 First Pass; 2 Second Pass Estimate
zn_ok	Float	4	0	zinc ordinary krige estimate capped

Table 13-19. Block Model Attributes assigned to the 3D model

13.4.3 Informing Samples and Search Parameters

Due to the reasonably spaced drill patterns, search radii were found to be optimal near 60 m for the main lode and main footwall lodes as the majority of blocks have a sample within 40 m of the block centroid. The north and north footwall lodes are less well drilled and 80% of the blocks having a sample within 80 m of the block centroid. Search ellipses for the north lodes was also kept at 60 m (Figure 13-6). The isotropy apparent in variogram analysis was considered in the search ellipse anisotropy. Search ellipses were kept constant within the copper domains to reduce potential order relation issues.

Estimation was carried out in three passes, pass one with a search ellipse of 60m, pass two 120 m, and pass three 180 m. Anisotropy ratios were constant for pass one and two (major/semi-major 1.25 and major/minor 2.0)

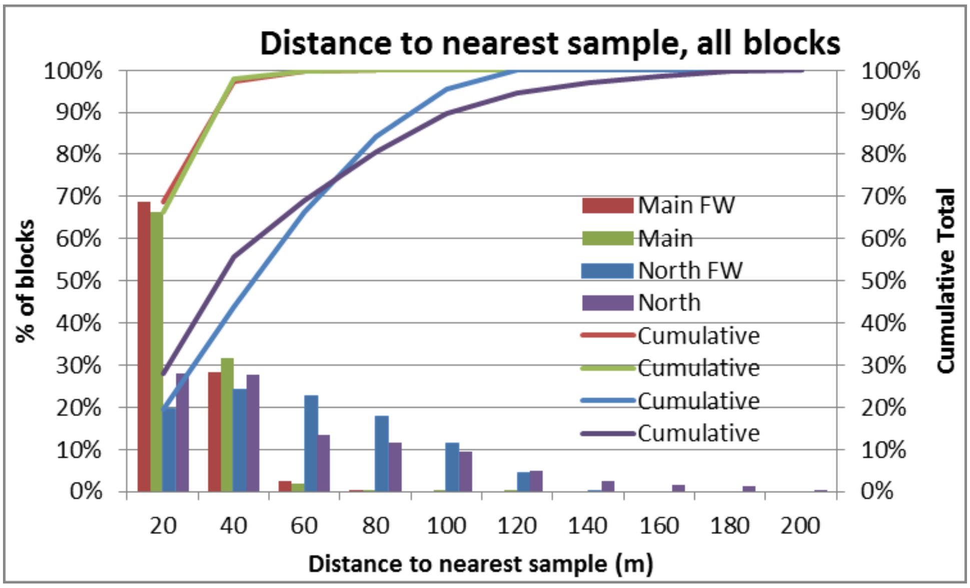


Figure 13-6. Distance to nearest sample, all blocks

The minimum and maximum samples utilised were 8 and 20 for the first pass and reduced to 6 and 16 for the second pass. Third pass informing samples were further reduced to a minimum of 2 and maximum of 10 (Table 13-20). As the search ellipse increased in distance the number of samples permitted dropped, ensuring proximal samples were used.

Table 13-20. Search Parameters

Pass	One	Two	Three
Min	8	6	2
Max	20	16	10
Perhole	4	4	N
Search	Ellipsoid	Ellipsoid	Ellipsoid
Ratio 1	1.25	1.25	1.25
Ratio2	2	2	2

Dynamic searches were utilised to reflect the local orientation of the lodes. Local undulations in the lodes were determined from the mid-point of mineralised drill hole intercepts. The intercepts were wire-framed and sliced in 10 m sections. Wireframe slices were smoothed adding points every 10 m along the slice providing a 10 m grid reflecting the orientation of the lodes. The grid was wire-framed and the dip and strike of each triangle defined a unique local search orientation for each block.

13.4.4 Discretisation

The krige estimate used a 5 x 1 x 5 discretisation (XYZ), giving discretisation nodes spaced relatively evenly within the block. The distance between nodes approximates 2 to 3 times the sample composite length.

13.5 DENSITY ESTIMATION

The default density of the block model is 2.80 t/m^3. All oxide material is assigned 2.7 t/m^3. Mineralised transitional material is assigned 2.9 t/m^3 and transitional waste material is assigned 2.8 t/m^3.

Density within the fresh material was estimated using OK of measured density values with the defined density variogram (Table 13-17) and a minimum of 5 and maximum of 12 samples within an ellipse measuring 60 m along the major axis, 48 m along the semi-major axis and 40 m along minor axis. The density search ellipse had a constant orientation, bearing 081.1°, plunge of 28° and a dip of 67.2°. The distribution of measured density data was insufficient to populate all blocks with an estimated density and alternate estimates of density were considered.

There is a distinct correlation between density and iron content of the samples. Figure 13-7 shows the regression between the two variables. There are two populations, the maroon population of low iron high densities were excluded from the regression along with three high iron low density samples.

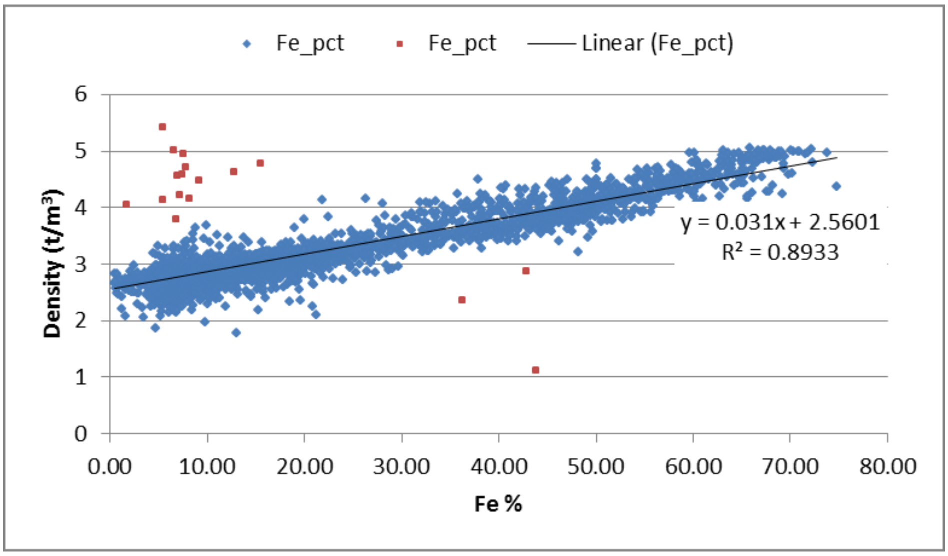


Figure 13-7. Density as a function of Iron Content

The second pass of the density estimate utilised density data derived from the iron regression shown in Figure 13-7. During the second pass search distances were doubled and the required samples were reduced to a minimum of 1 and a maximum of 9.

The average modelled density of mineralised oxide material is 2.70 t/m^3, transitional material is 2.91 t/m^3 and structurally controlled mineralised fresh material averages 3.46 t/m^3. The average density for all estimated blocks (low grade halo and HG structures) is 3.04 t/m^3 (Table 13-21).

Table 13-21. Estimated density by domain

Domain	Average Estimated Density
Low Grade	3.02
Main FW	3.51
Main	3.69
North FW	3.1
North	3.3

13.6 VALIDATION

The block model was validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis. Initial comparisons occurred visually on screen, using extracted composite samples and block models. Further validation used swath plots to compare block estimates with informing sample statistics along parallel sections through the deposits.

13.6.1 Alternate Estimation Methods

Alternative estimation methods nearest neighbour and ID^2 were utilised to ensure the krige estimate was not reporting a global bias (Figure 13-8Figure 13-8. Alternative estimation results at nominated cut-offs (capped grades)). The alternate estimates provided expected correlations. Nearest neighbour shows less tonnes and higher grade (less contained metal) as it does not employ averaging techniques to assign the block grade. Instead distal blocks are informed by a single closest sample rather than several weighted samples. The ID^2 estimate shows similar results to kriging as it does use averaging weighted by distance but cannot assign anisotropy nor have the ability to de-cluster the input data nor account for nugget effect. The inverse distance tonnages and grades are marginally higher than the krige estimate. Using the kriging algorithm provides a reliable estimate due to the ability of kriging to de-cluster data and weight the samples based on a variogram (which incorporates the nugget effect and anisotropy).

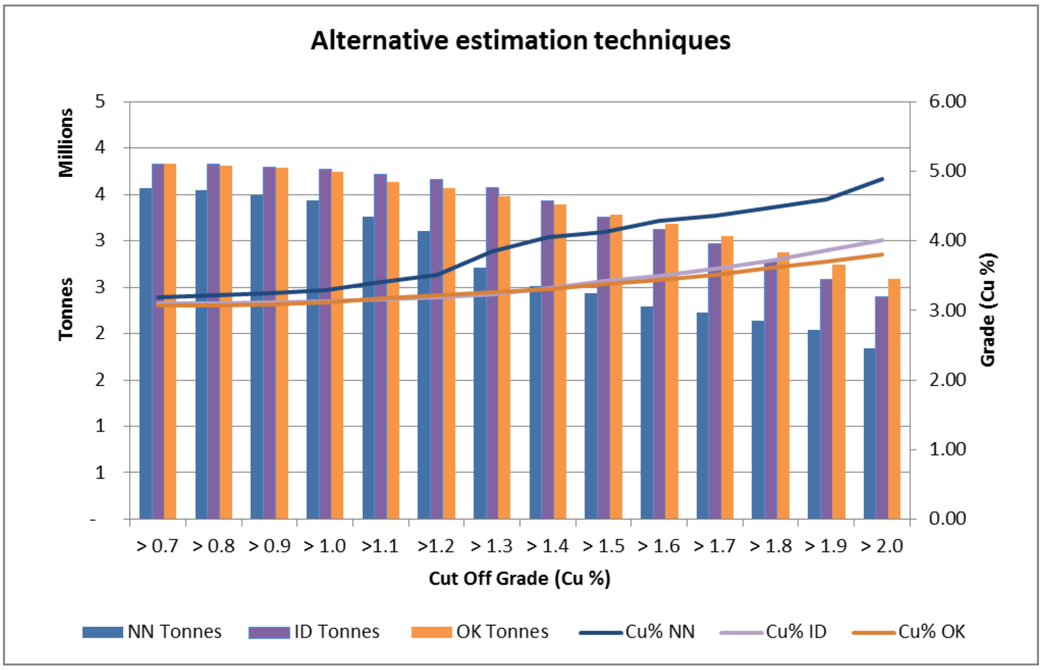


Figure 13-8. Alternative estimation results at nominated cut-offs (capped grades)

13.6.2 Global Bias Check

A comparison of global mean values within the grade domains shows a reasonably close relationship between composites and block model values (Figure 13-9). Main and Main FW are the higher grade domains and appear to represent the global grade well. The North and North FW appear to under call the grade, however a comparison with the NN estimate (declustered grades) shows a much better correlation (Figure 13-10). The global estimate for silver performs well, the Main and Main FW have very similar silver grades and North lode has the highest silver content (Figure 13-11). The gold mineralisation represented in the deposit is relatively minor, however is considered to be significant (Figure 13-12) and the north lode has the highest tenor of gold mineralisation.

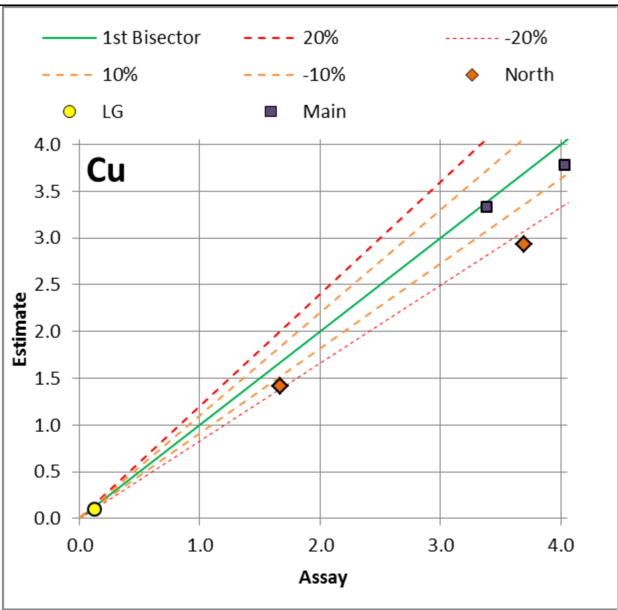


Figure 13-9. Global Copper Validation by Domains comparing OK and average sample data

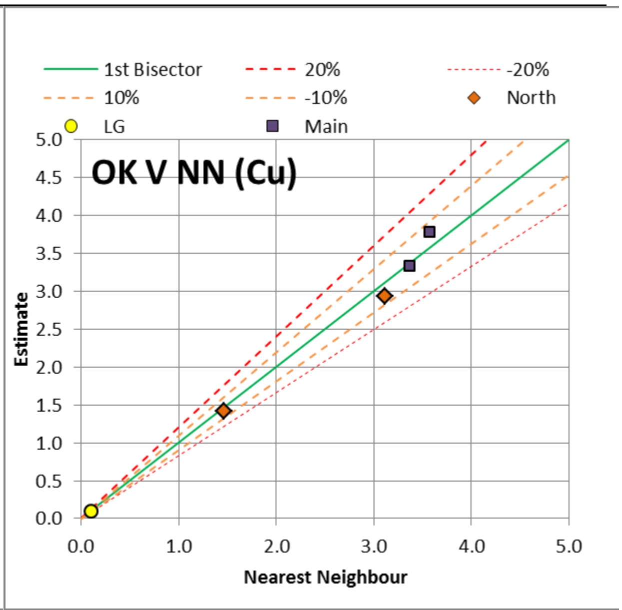


Figure 13-10. Global Copper by Domain comparing OK and NN

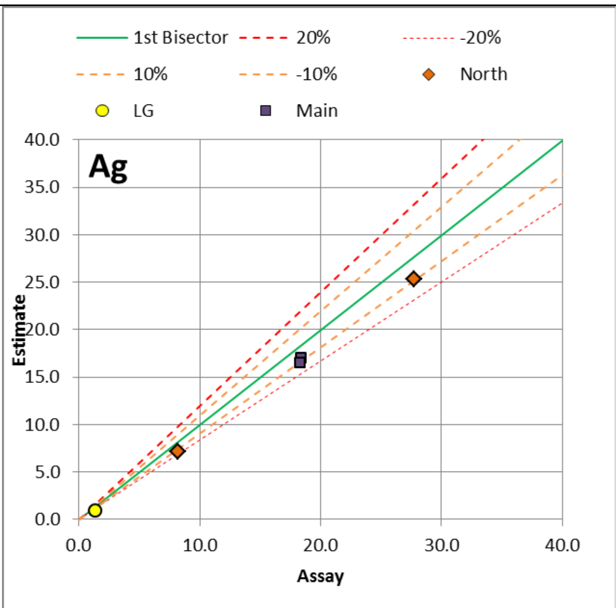


Figure 13-11. Global Silver Validation by Domains comparing OK and average sample data

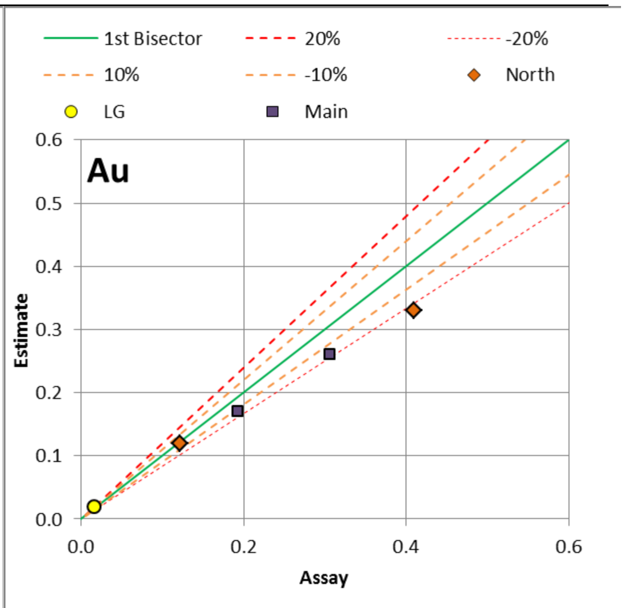


Figure 13-12. Global Gold by Domain comparing OK and average sample data

13.6.3 Local Bias Check

Swath plots were generated on horizontal 30 m wide swaths to assess local bias down dip by comparing the OK estimate with informing composite means for copper and silver. No strike swath plots were generated as the lodes have limited strike extents. Results show no significant bias between OK estimates and informing samples and the smoothing effects of kriging are apparent (Figure 12-15 to Figure 13-20). The deeper portions of main show some levels with very few informing samples with high average grades (-120 mRL) in both the copper (Figure 13-15) and silver

(Figure 13-16), neighbouring slices have more data and lower average grades closer to the reported grades within the block model. The North FW lode has quite disjointed assay data (Figure 13-17 and Figure 13-18) implying it is sparsely drilled with numerous swaths with no raw data.

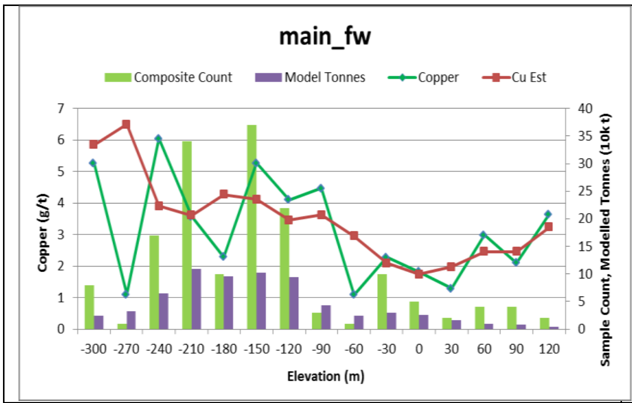


Figure 13-13. Swath Plot main FW- copper

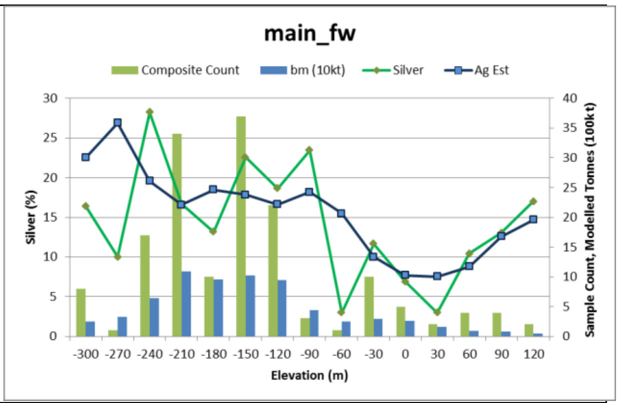


Figure 13-14. Swath Plot main FW- silver

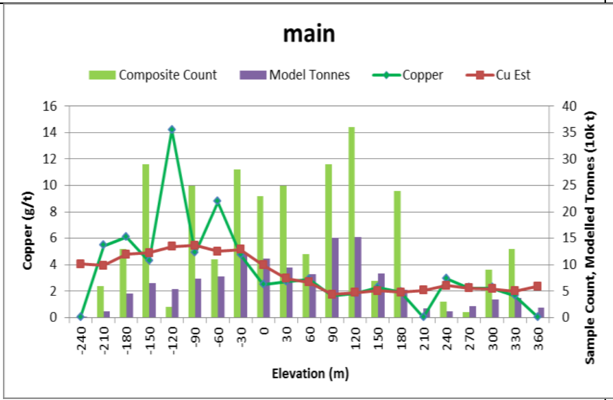


Figure 13-15. Swath Plot Main - copper

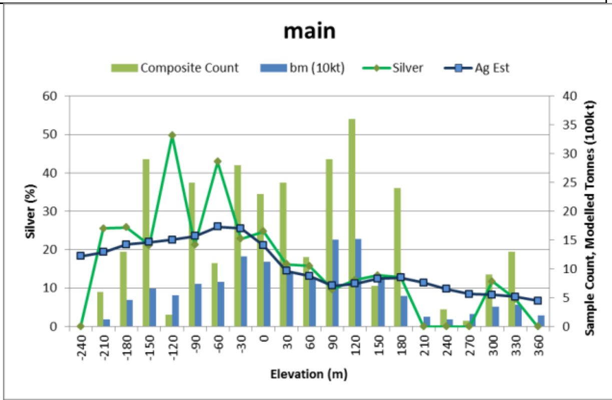


Figure 13-16. Swath Plot Main - silver

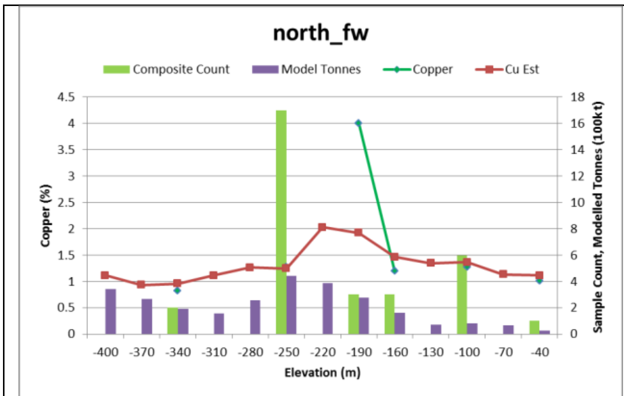


Figure 13-17. Swath Plot North FW - copper

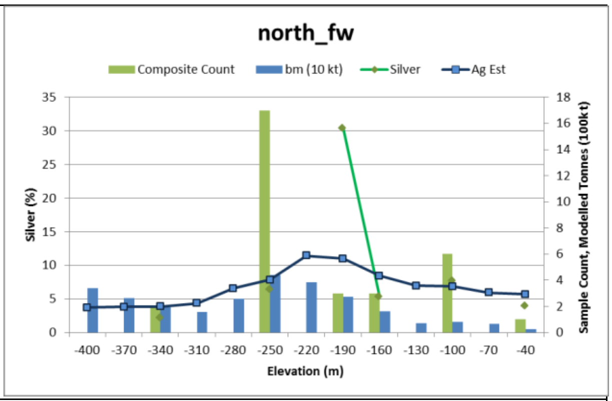


Figure 13-18. Swath Plot North FW - silver

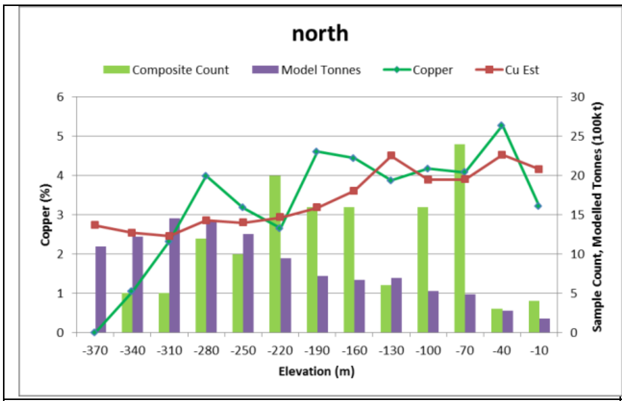


Figure 13-19. Swath North - copper

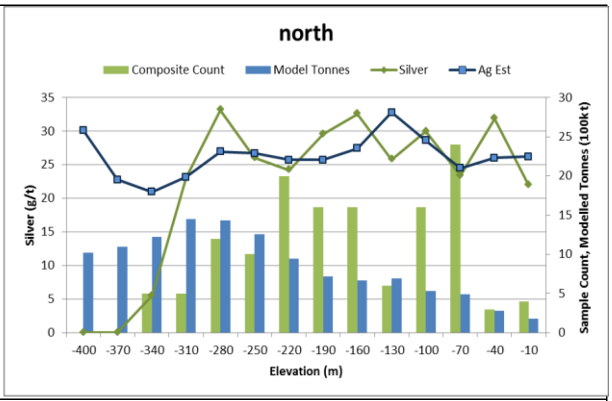


Figure 13-20. Swath North - silver

13.6.4 Comparison with previous estimates

Only two mineral zones, Main Lode and North Lode, were created for the July 2019 resource (submited date August 2019). The lodes were defined with a combination of a litho-geochemical interpretation (lithology, sulphur and iron assays) and a nominal 0.1% copper shell. The 2020 resource adopted interpreted high grade structural shoots (+1.25% copper) characterised by coarser grained sulphides and magnetic-bearing sulphide breccia. This constrained interpretation resulted in an estimate with 25% less tonnes and 43% higher copper grade.

Both resource estimates are reported as Underground potential estimates above a 1% copper cut, however the 2019 resource (Table 13-22) estimate had a RL cap of 200m. The current resource (Table 13-23) has no RL restrictions as it is unlikely that the material above 200mRL (141.5 kt, 4.4% of the total resource) would warrant an open pit. It is more likely that the upper level stopes will either daylight or pull up below the oxide interface.

Table 13-22. July 2019 Resource Estimate

Cut off 1% Cu	Category	Mt	Cu%	Ag g/t	Au g/t	Cu kt	Ag Moz	Au koz
UG	Indicated	3.07	2.44	13.5	0.18	74.8	1.3	17.6
	Inferred	1.42	1.59	11.3	0.14	22.6	0.5	6.4
Sub Total		4.48	2.17	12.8	0.17	97.3	1.9	24.0

Table 13-23. June 2020, Rockface Resource Estimate

Cut off > 1% Cu	Category	Mt	Cu %	Ag g/t	Au g/t	Cu kt	Ag Moz	Au koz
UG	Indicated	2.45	3.54	19.8	0.25	86.8	1.56	20.03
	Inferred	0.84	2.07	15.6	0.18	17.5	0.42	4.96
Total		3.29	3.17	18.7	0.23	104.2	1.98	24.73

The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition.
Due to rounding to appropriate significant figures, minor discrepancies may occur.
All tonnages reported are dry metric

13.7 REASONABLE PROSPECTS FOR EVENTUAL ECONOMIC EXTRACTION

Assumptions for reasonable prospects for eventual economic extraction applied to this deposit include but may not be limited to Table 13-24Table 12-29 (prices are AUD). Recovery assumptions for copper and silver, (main economic minerals) are provided in Table 13-25.

Table 13-24. Adopted costs for reasonable prospects of economic extraction

Parameter	unit	Average
Mill Throughput per annum (Mtpa)	Mt	1.6
General and Administration Cost	$/t ore	8.12
Copper price	$/t	8,533
Silver price	$/oz	25.32
Average Underground Mining cost	$/total tonne mined	43.4
Haulage	$/t ore	0.75
Sulphide ore processing cost	$/t ore	22.68
Oxidised ore processing cost	$/t ore	22.62
Ore loss	%	5
Dilution	%	5

Table 13-25. Recovery Assumptions

Material	Recovery Algorithm	Example
Oxide and Transition -	Cu Rec = (% Cu-(0.48-(0.04 x % Cu))/% Cu	For a Cu Head Grade of 1.9%, the Copper Recovery will be 78.7%
	Ag Rec = 0.88*LN(% Cu Rec*100) -2.98	For a Cu Recovery of 78.7%, the Silver Recovery will be 86.2%
Sulphide Ore	Cu Rec = (% Cu-0.075) x 0.975)/% Cu	For a Cu Head Grade of 1.9%, the Copper Recovery will be 93.7%
	Ag Rec = 2.07 x % Cu Rec - 1.255	For a Cu recovery of 93.7%, the Silver Recovery will be 68.5%

13.8 MINERAL RESOURCE CLASSIFICATION

The Rockface deposit mineral resource has been classified in accordance with the JORC 2102 code.

> *A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. (JORC Code 2012)*

Resource classification is based on data quality, drill density, number of informing samples, kriging efficiency, conditional bias slope, average distance to informing samples and deposit consistency (geological continuity). The confidence in the quality of the data justified the classification of indicated and inferred resources. Data quality does not preclude Measured but grade continuity is not sufficiently defined to assign Measured. Geological continuity has been assumed at 50 m drill-section spacing, and is confirmed where drill spacing is tightened.

This Mineral Resource estimate is prepared by digital methods, and the model does have isolated and discontinuous blocks present that have grades above the stated cut-off grade. For the areas considered for underground mining methods these blocks have been excluded from the Mineral Resource statement due to their spatial continuity and size being insufficient to achieve a potentially mineable shape.

The deposit has demonstrable economic value at a 1.0 % Cu cut off:

<u>Measured Mineral Resource</u>

No measured resources are defined at this stage.

Indicated Mineral Resource

Defined as those portions of the deposit with a drill spacing of 50 m x 50 m and demonstrate a reasonable level of confidence in the geological continuity of the mineralisation, supported by some infill drilling. Blocks are estimated during either Pass 1 or 2. The distance to the nearest sample must be less than 40 m, and the average distance to all informing samples is be less than 60 m. Krige variances of block within the indicated category fall below 0.6 or lower. The conditional bias slope must be greater than 0.5. A few blocks outside these specifications may be included if a structural trend is present.

Inferred Mineral Resource

Defined as those portions of the deposit covered by a drill spacing of greater than 50 m or those portions of the deposit with a smaller number of intercepts but demonstrating an acceptable level of geological confidence. Inferred blocks can be estimated during pass 2. The average distance to informing samples must be less than 180 m and blocks could have very low conditional bias slope values.

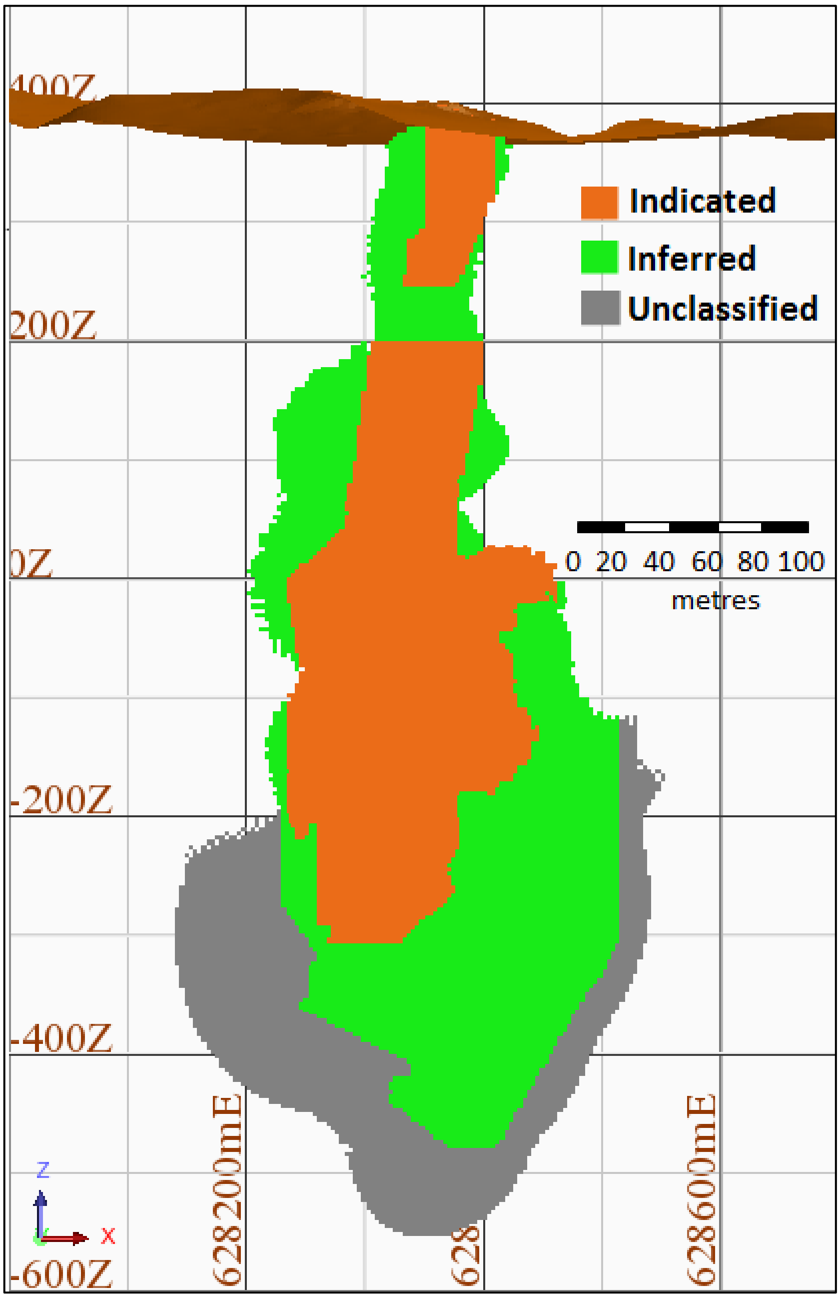


Figure 13-21. Rockface categories (E-W section sketch)

13.9 ROCKFACE RESOURCE SUMMARY

Grade tonnage curves for Rockface (Figure 13-22 and Figure 13-23) highlight limited mineralisation below the 1% cut off within the low grade halo. No material within the mineralised low grade halo reports above 1 % Cu. The associated table (Table 13-26) shows silver and gold grade increase with copper cut-off.

Figure 13-22. Grade tonnage curves – total resource

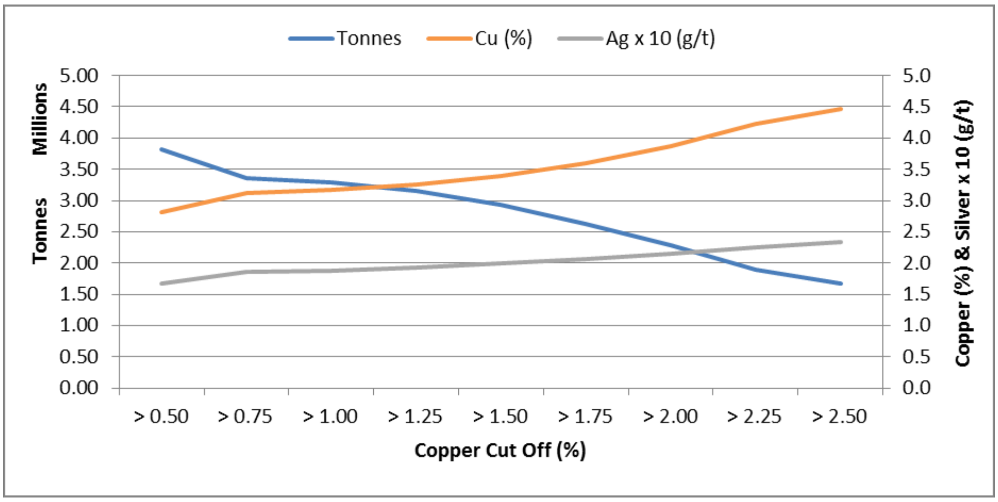


Figure 13-23. Grade tonnage curves – indicated and inferred

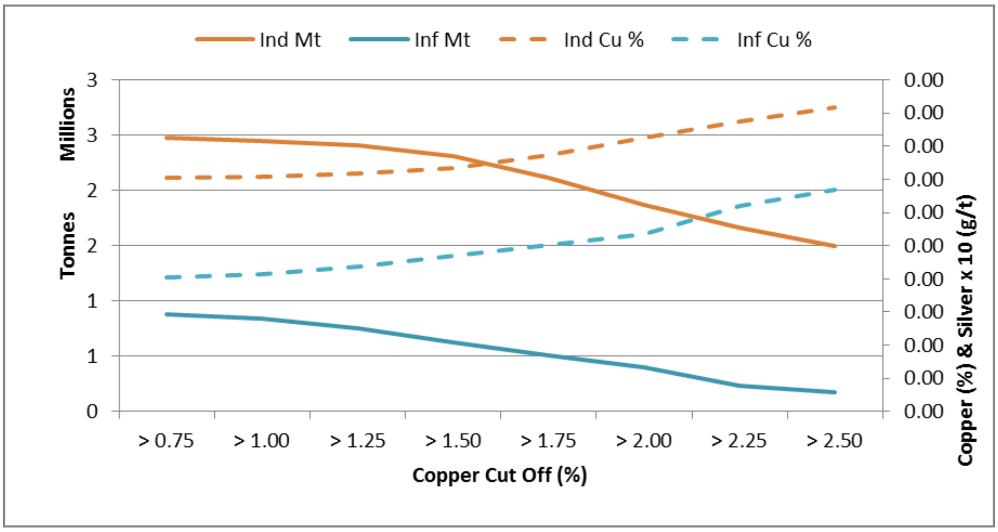


Table 13-26. Tonnes and grade at various cut-offs

Resource	cut-off	Tonnes (Mt)	Cu %	Ag g/t	Cu kt	Ag koz
Indicated	> 0.75	2.47	3.52	19.7	87.0	15.7
	> 1.00	2.45	3.54	19.8	86.8	15.6
	> 1.25	2.41	3.58	19.9	86.3	15.4
Inferred	> 0.75	0.88	2.02	15.1	17.8	4.3
	> 1.00	0.84	2.07	15.6	17.5	4.2
	> 1.25	0.75	2.18	16.8	16.5	4.1

Weathering of the deposits has an impact on metallurgical recoveries. KGL is considering different processing and or differing recoveries base on the amount of sulphur is present. Table 13-27 shows the deposits reported by weathering profiles, including the High Sulphur resource (S/Cu > 4.5).

Table 13-27. Rockface Resource by weathering profile at 1.0% Cu cut-off

Resource			Grades					Metal				
Category	weathering	Material (t)	Cu %	Pb %	Zn %	Ag g/t	Au g/t	Cu kt)	Pb (t)	Zn (t)	Ag (koz)	Au (koz)
Indicated	Oxide	24,000	2.38	0.03	0.04	7.23	0.12	0.6	-	-	5.6	0.10
	Transitional	-	-	-	-	-	-	-	-	-	-	-
	High Sulphur	333,000	2.25	0.08	0.42	22.41	0.28	7.50	300	1,400	239.9	3.00
	Fresh	2,094,000	3.76	0.07	0.17	19.54	0.24	78.7	1,500	3,500	1,315.8	16.50
Inferred	Oxide	5,200	2.33	0.02	0.06	6.12	0.09	0.1	-	-	1.0	-
	Transitional	-	-	-	-	-	-	-	-	-	-	-
	High Sulphur	386,000	1.84	0.18	0.37	19.69	0.21	7.10	700	1,400	244.3	2.60
	Fresh	451,000	2.27	0.02	0.09	12.15	0.15	10.2	100	400	176.2	2.20
Subtotal	Oxide	29,200	2.37	0.03	0.05	7.04	0.12	0.7	-	-	6.6	0.10
	Transitional	-	-	-	-	-	-	-	-	-	-	-
	High Sulphur	719,000	2.03	0.13	0.39	20.95	0.24	14.6	1,000	2,800	484.3	5.60
	Fresh	2,545,000	3.49	0.06	0.15	18.23	0.23	88.9	1,600	3,900	1,492.0	18.70
Total		3,293,200	3.16	0.08	0.85	18.73	0.23	104.2	2,600	6,800	1,982.8	24.40

The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition.
Due to rounding to appropriate significant figures, minor discrepancies may occur.
All tonnages reported are dry metric

Rockface reported by lode is shown in Table 13-28.

Table 13-28: Rockface Resource by lode (>1.0 g/t)

Rockface Resource		Material	Grade (%)			Metal		
Category	Area	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Indicated	Main	1.15	3.54	17.4	0.18	40.6	0.64	6.63
	Main FW	0.62	3.89	17.6	0.28	23.9	0.35	5.5
	North	0.69	3.22	25.7	0.35	22.2	0.57	7.8
Subtotal		2.45	3.54	19.8	0.25	86.8	1.56	19.7
Inferred	Main	0.15	2.16	10.2	0.11	3.2	0.05	0.5
	Main FW	0.10	3.13	13.7	0.18	3.2	0.04	0.6
	Subtotal	0.34	2.15	24.5	0.26	7.4	0.27	2.9
	North FW	0.25	1.49	7.2	0.11	3.7	0.06	0.9
Subtotal		0.84	2.07	15.6	0.18	17.5	0.42	4.9
Total		3.29	3.17	18.7	0.23	104.2	1.98	24.4

14 MINERAL RESOURCE ESTIMATE - BELLBIRD

14.1 GEOLOGICAL INTERPRETATION

Bellbird is located on the western limb of the regional scale "J"-fold and steeply plunging. Bellbird differs from the Reward and Rockface in that the host rocks are extensively sheared, and magnetite is present in smaller amounts in its alteration zone. In addition, bornite has been intersected in some drill holes, a mineral not seen in any significant quantity at either Reward or Rockface.

Bellbird is interpreted by KGL as a syn-depositional copper-rich, polymetallic massive sulphide deposit that has undergone deformation, metamorphism and a high degree of structural remobilisation, including intense shearing and remobilisation of sulphides, possibly enhanced by a late-stage hydrothermal event. The intense shearing is associated with the nearby Jervois Shear zone. Bornite veins and veinlets overprint S2 foliation which suggests bornite was introduced relatively late in the sequence of mineralising events and its significance is under investigation.

Recent modelling of mineralisation by KGL geologists strongly supports the interpretation of a low-grade broadly strata-bound zone overprinted by higher grade structures that represent structural remobilisation into fold hinges and breccia style structures.

Interpretation of higher-grade structures is based primarily on geological logging supported by abrupt changes in copper and/or silver and/or gold grades (Figure 14-1 and Figure 14-2). High grade (>1.25% Cu) structural shoots are characterised by coarser grained sulphides and magnetite-bearing sulphide breccia, both hosted by shear bands. Intervals encompassing high grade shoots were modelled using Leapfrog software with an anisotropic component along the relatively continuous dominant shear in the footwall of the Bellbird Main Lodes 1 &2 which has an average dip direction 075/86 and a 019/62 plunge (see also, Crowe 2012, Figure 14-3, Figure 14-4).

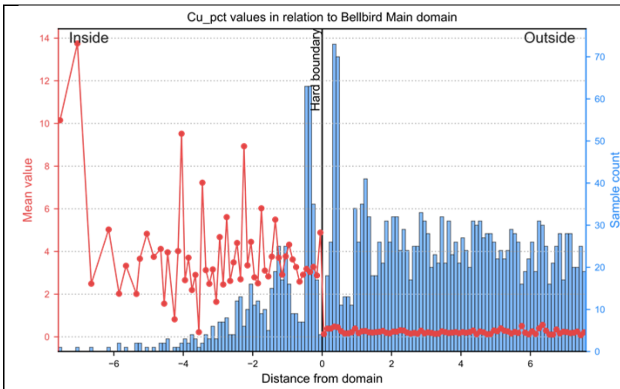


Figure 14-1. Bellbird Main Lode contact analysis

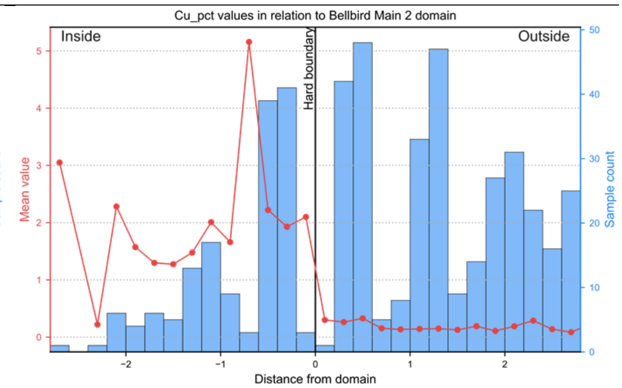


Figure 14-2. Bellbird Main-North Lode contact analysis

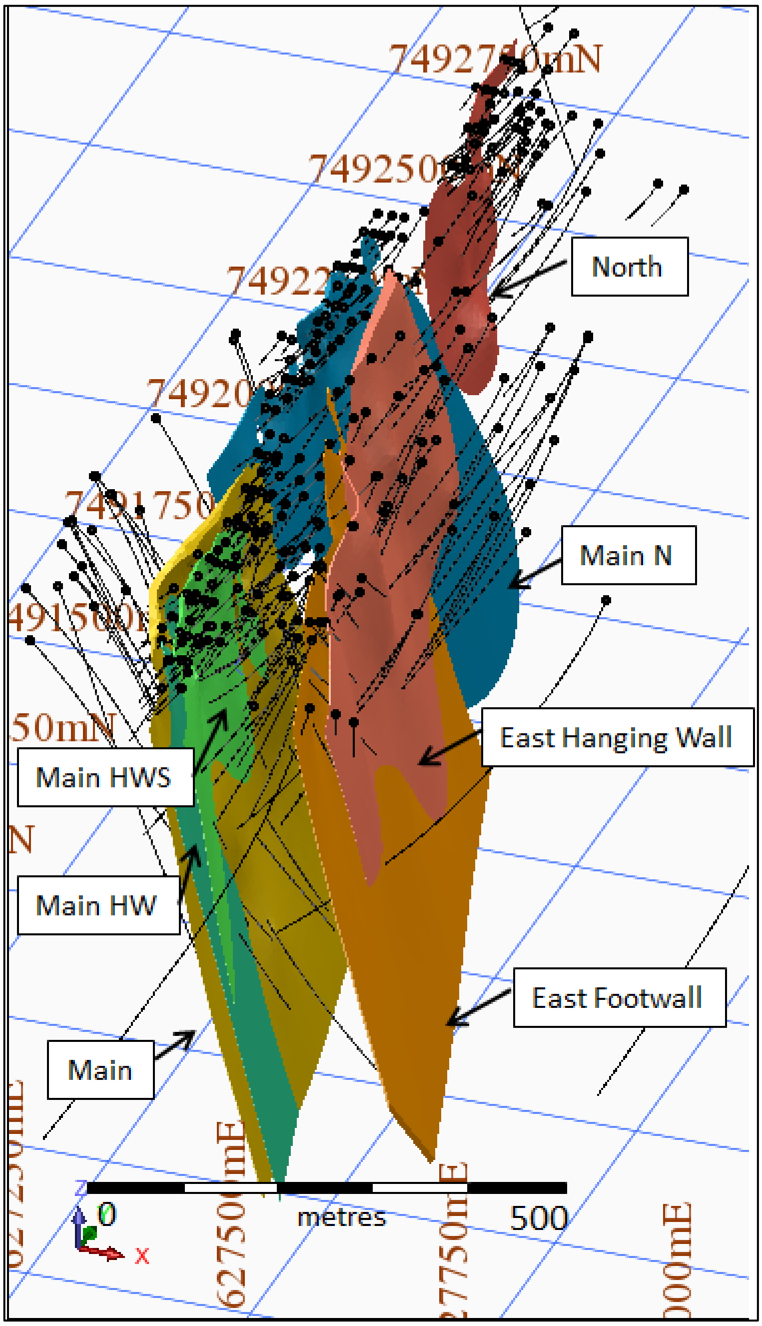


Figure 14-3. Bellbird (Oblique View 340° tilt -30°)

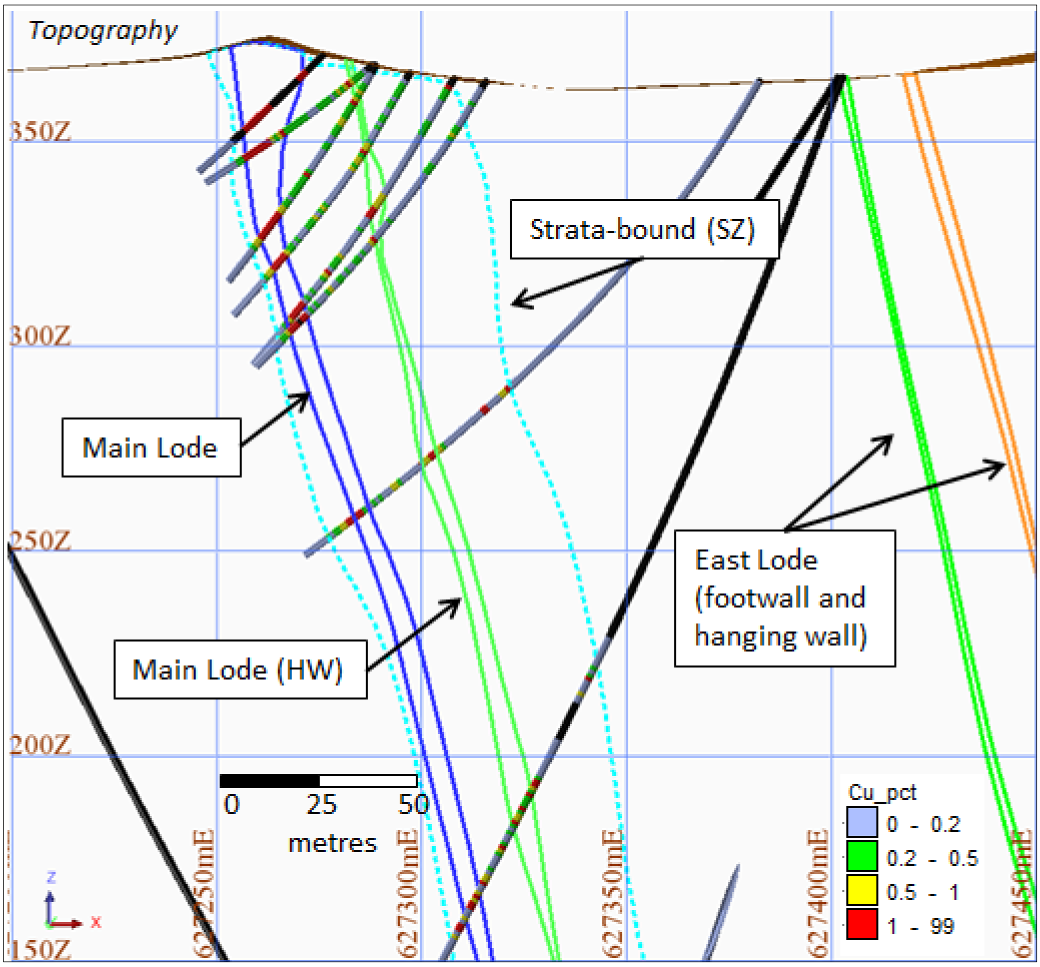


Figure 14-4. Bellbird Lodes (E-W section 7490725mN ± 12.5m)

14.1.1 Bulk Density Data

KGL procedures for the measurement of dry bulk density on drill core samples were supplied. Routine measurements were made on selected intervals of core approximately 10 cm in length.

Density measurements are summarised by rock type in Table 14-1 and Figure 14-5, codes prefixed with Y are mineralised rock codes.

Table 14-1. Average density measurements by rock type

Code	Count	Density	Description
Fpg	22	2.80	Pegmatite
Ha	4	3.04	Amphibolite (gabbro), sheared amphibolite, Meta-gabbro
Hcs	116	2.91	Calc silicate
Hm	21	2.96	Marble
Vq	34	2.84	Quartz vein
Y	277	2.95	Mineralised lode undifferentiated
Ycarb	6	2.77	Mineralised lode - Marble hosted
Ycbgm	32	2.91	Mineralised lode - Chlorite and/or Biotite schist with Garnet and/or Magnetite
Ycs	5	2.89	Mineralised lode – Calc-silicate/skarn ('Mrbl_Cs' Group if modelling carbonate)
Yma	28	3.04	Mineralised lode - Magnetite/ ironstone
Yqgm	66	2.97	Mineralised lode - Quartzite/psammite +/- Chlorite/Biotite and Garnet/Magnetite
Z	281	2.90	Schist – undifferentiated
Zacgm	434	2.89	Muscovite and/or Sericite schist with Garnet and/or Magnetite
Zanco	997	2.92	Andalusite and/or Cordierite schist
Zcbgm	62	2.94	Chlorite and/or Biotite schist with Garnet and/or Magnetite
Zcs	41	2.88	Calc silicate schist/skarn (incls. ga/ep)
Zmuse	355	2.89	Muscovite Schist
Zqgm	53	2.96	Quarrtzite/psammite schist +/- chlorite/biotite and garnet/magnetite
Zqp	205	2.79	Quartzite and/or Psammite
Zqsmu	30	2.86	Quartz-sericite/muscovite schist

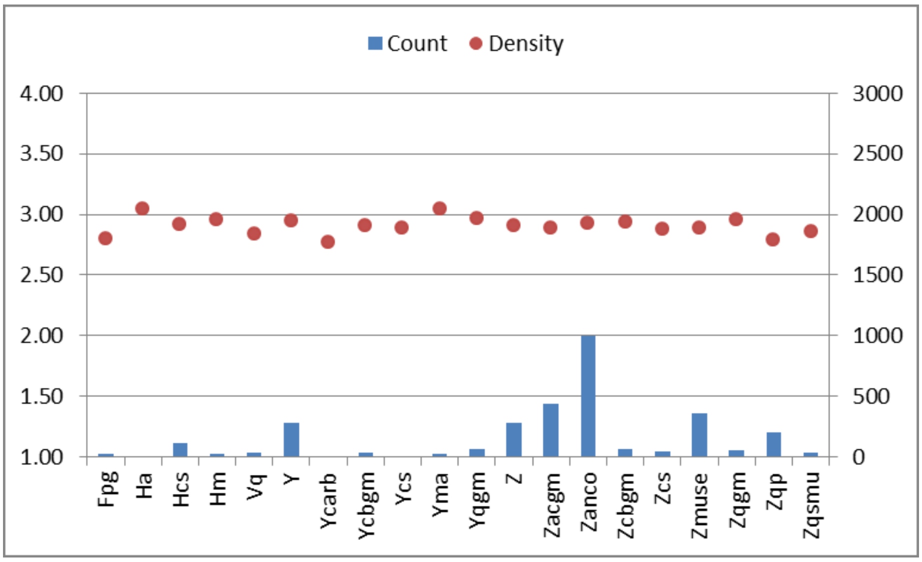


Figure 14-5. Mean Density by Rock Type

The average density of all material (3,090 readings) is 2.91. 94 records could not be matched to logged oxidation states. 26 records were logged as oxidised material and averaged 2.72 t/m^3. 74 records matched to transitional and 2,896 records matched to fresh logging codes and both averaged 2.91 t/m^3.

14.2 DIMENSIONS

Bellbird is interpreted by KGL as a syn-depositional copper rich polymetallic massive sulphide deposit that has undergone deformation, metamorphism and some degree of structural remobilisation. The deposit lies in the western limb of a regional drag fold. Bellbird deposits strike over 1.5 km (Figure 14-6). Within the structural corridor lie three remobilised high grade structures each approximately 500m in length which dip steeply east up to 600 m below the surface (Figure 14-7). Structures are open to depth and vary in thickness from 2 to 25 m. The southern portion of the structural zone has two associated hanging wall lodes. To the east hosted in psammite are two lower grade east dipping lodes referred to as the east lodes.

Database extents (Table 14-2) are greater than the mineralised resource described in this report.

Table 14-2. Database Extents

	Min (m)	Max (m)	Extents (m)
Northing	7,490,428	7,492,210	1,782
Easting	627,026	627,949	923
RL	353	380	27
Hole Depth	16	710.1	NA

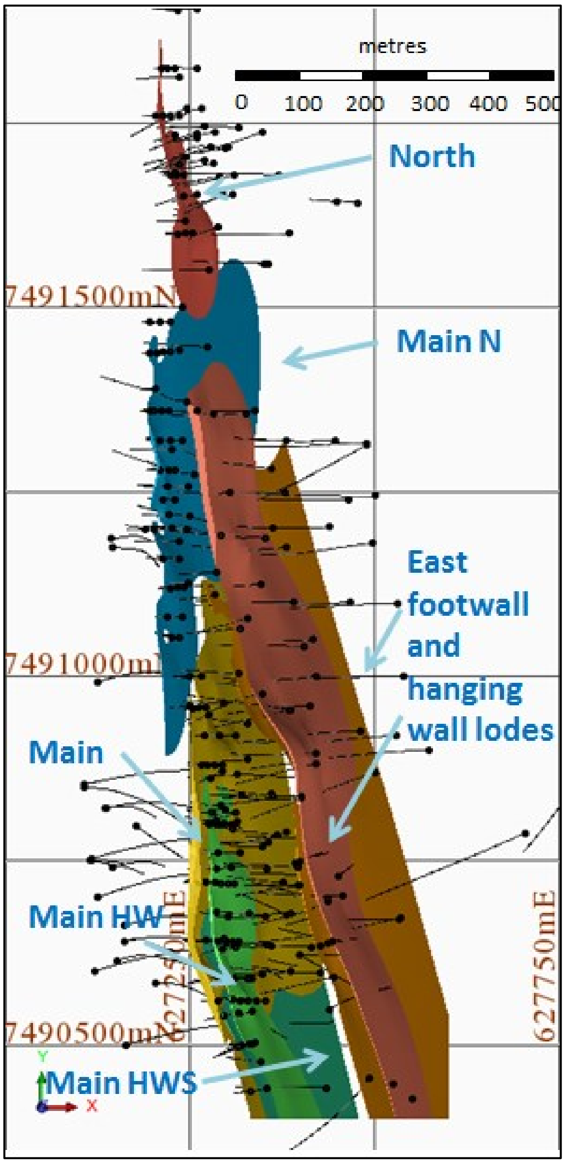


Figure 14-6. Plan View of Bellbird mineralisation 1.0% Cu grade shell with drill hole collars

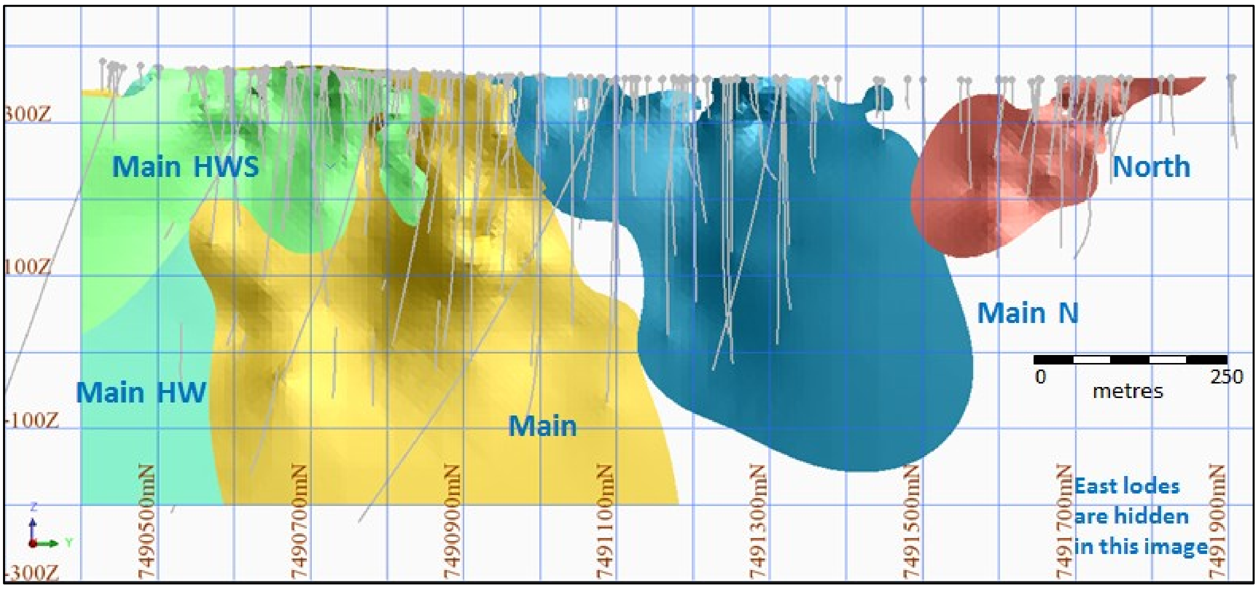


Figure 14-7. Long Section View showing wireframe domains

14.2.1 Drill Hole Spacing

Resource definition drilling over the life of the project has been undertaken on 50 m spaced cross sections perpendicular to strike with holes spaced on average 50 m (50 x 50m grid) in more peripheral areas (Figure 14-8). The shallower mineralisation (above 300m RL) has been infilled to approximately 25 x 25 m and near surface as tight as 10 m on sections 80 m apart.

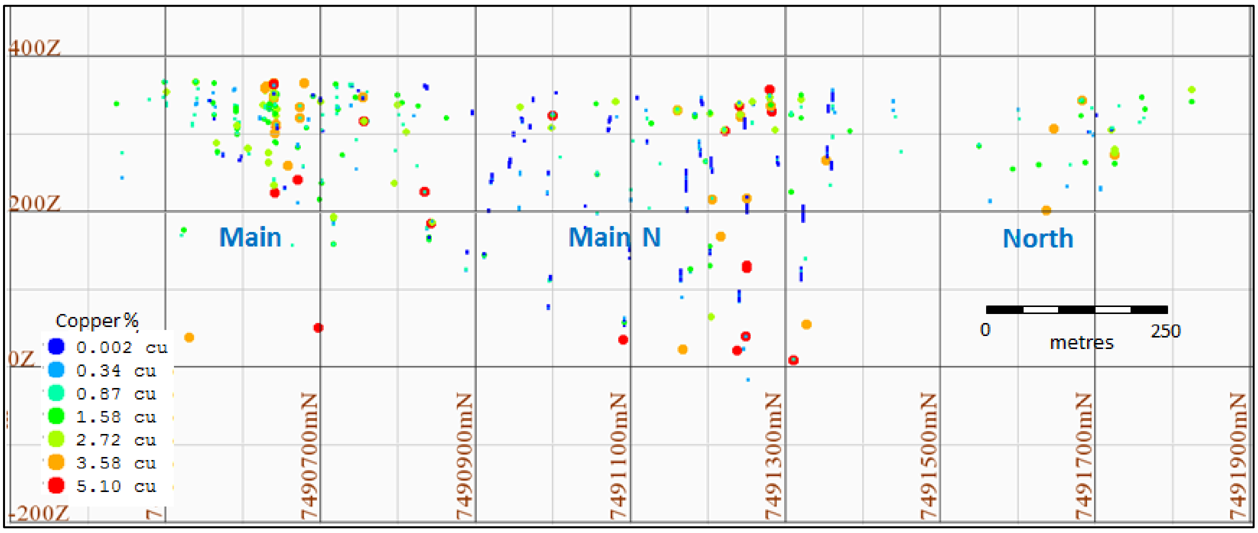


Figure 14-8. Cross section showing drill density over main Bellbird structural corridor

14.2.2 Domains and Stationarity

A domain is a defined volume that delineates the spatial limits of a single grade population. Domains have a single orientation of grade continuity, are geologically homogeneous and have statistical and geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Typical controls that can be used as the boundaries to domains include structural features, weathering, mineralization halos and lithology.

Within Bellbird domains were created primarily on the basis of structural lodes, weathering and grade. Domains were interpreted by KGL using implicit modelling techniques (Table 14-3) to create 3D wireframes to represent each domain.

Table 14-3. Domain Names - wireframe legend

Lode Name	Domain	Wireframe Name	Object	Trisolation
Shear Zone	SZ	bsm15_bellbird_sz10.dtm	10	1
Main lode	Main	bsm15_bellbird_main11.dtm	11	1
Main north	Main N	bsm15_bellbird_main_n12.dtm	12	1
Main hanging wall splay	Main HWS	bsm15_bellbird_main_hws13.dtm	13	1
Main hanging wall	Main HW	bsm15_bellbird_main_hw14.dtm	14	1
East footwall	East FW	bsm15_bellbird_east_fw15.dtm	15	1
East hanging wall	East HW	bsm15_bellbird_east_hw16.dtm	16	1
North	North	bsm15_bellbird_north17.dtm	17	1

14.2.3 Compositing

Selection of a composite length should be appropriate for the data, deposit and conceptual mining scenario (e.g. dominant assay interval length, open pit bench height, underground stoping method, lode thickness).

Compositing lengths were selected on the basis of statistical parameters and likely block size required. Care was taken to avoid splitting samples when compositing. The most common sample length at Bellbird is 1 m: 3% of samples are shorter than 0.92 m, 83.7% of samples are between 0.92 and 1.19 m and 8% of samples are longer than 1.19 m. The drill hole database was composited to 1 m intervals using Surpac's best fit algorithm, using a minimum permitted composite length of 0.75 m.

14.2.4 Summary Statistics

Summary statistics for each domain are shown below (Table 14-4 to Table 14-11). Copper, lead and zinc assay data is stored as parts per million (ppm) in the database allowing 4 decimal places to be used when converted to percentages.

Table 14-4. Summary Statistics, Main Lode

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	707	707	707	657	680	546	456	523
Minimum value	0.046	0.001	0.002	0.005	0.500	4.31	0.01	2
Maximum value	20.800	1.337	0.263	2.68	244.0	47.2	29.7	5890
Mean	3.331	0.034	0.023	0.19	20.1	15.9	5.6	449
Median	2.490	0.020	0.020	0.12	14.0	15.1	4.4	253
Standard Deviation	2.89	0.06	0.02	0.24	21.7	6.3	5.1	599
Coefficient of variation	0.87	1.80	0.86	1.32	1.1	0.4	0.9	1.33
10.0 Percentile	0.670	0.006	0.010	0.02	4.0	9.1	0.2	34
25.0 Percentile	1.330	0.010	0.013	0.05	7.0	11.1	1.5	91
50.0 Percentile (median)	2.490	0.020	0.020	0.12	14.0	15.1	4.4	253
75.0 Percentile	4.366	0.039	0.027	0.22	25.5	19.4	8.2	566
95.0 Percentile	9.538	0.097	0.052	0.57	57.5	26.7	16.0	1496
97.5 Percentile	11.300	0.124	0.066	0.77	75.0	30.9	18.0	1950
99.0 Percentile	13.750	0.178	0.083	1.00	97.1	39.1	19.7	3290

Table 14-5. Summary Statistics, Main-North Lode

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	Bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	163	163	163	158	159	154	132	154
Minimum value	0.034	0.001	0.013	0.005	0.804	2.59	0.01	3
Maximum value	12.500	2.180	8.830	35.90	83.0	33.7	22.2	1165
Mean	1.926	0.049	0.186	0.85	13.3	14.1	4.1	202
Median	1.240	0.020	0.057	0.23	8.0	13.7	2.4	125
Standard Deviation	1.90	0.18	0.77	3.94	14.6	5.4	4.9	224
Coefficient of variation	0.98	3.60	4.14	4.64	1.1	0.4	1.2	1.11
10.0 Percentile	0.542	0.006	0.028	0.05	2.5	7.6	0.0	32
25.0 Percentile	0.837	0.010	0.040	0.11	5.0	10.3	0.4	56
50.0 Percentile (median)	1.240	0.020	0.057	0.23	8.0	13.7	2.4	125
75.0 Percentile	2.645	0.038	0.084	0.49	15.5	17.7	5.6	253
95.0 Percentile	5.540	0.133	0.549	1.52	41.5	22.9	13.8	747
97.5 Percentile	7.592	0.298	0.863	3.02	63.0	26.7	18.3	905
99.0 Percentile	10.260	0.313	2.703	20.04	77.5	29.9	21.5	968

Table 14-6. Summary Statistics, North Lode

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	Bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	56	56	56	32	49	25	25	25
Minimum value	0.010	0.005	0.045	0.010	3.000	4.72	0.03	6
Maximum value	4.87	12.55	23.40	0.79	107.0	24.8	8.1	376
Mean	1.209	3.133	4.062	0.12	31.5	10.5	2.8	89
Median	1.020	1.390	1.333	0.05	15.0	8.2	2.3	61
Standard Deviation	1.04	3.65	4.86	0.19	31.8	4.8	2.7	92
Coefficient of variation	0.86	1.16	1.20	1.58	1.0	0.5	1.0	1.03
10.0 Percentile	0.062	0.033	0.096	0.01	4.5	6.1	0.1	7
25.0 Percentile	0.453	0.223	0.206	0.03	7.5	7.0	0.3	27
50.0 Percentile (median)	1.020	1.390	1.333	0.05	15.0	8.2	2.3	61
75.0 Percentile	1.635	5.030	7.565	0.12	52.0	12.7	5.4	114
95.0 Percentile	3.430	11.000	12.875	0.60	104.0	22.1	7.7	341
97.5 Percentile	4.250	12.375	18.950	0.75	107.0	22.1	7.7	341
99.0 Percentile	4.250	12.375	18.950	0.79	107.0	24.8	8.1	376

Table 14-7. Summary Statistics, Main Footwall

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	Bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	186	186	186	179	185	135	114	134
Minimum value	0.047	0.001	0.005	0.008	0.660	5.60	0.01	8
Maximum value	5.902	0.090	0.040	2.70	50.0	35.8	9.4	818
Mean	1.484	0.015	0.021	0.13	7.5	14.7	1.2	170
Median	1.178	0.010	0.020	0.09	6.0	14.2	1.0	125
Standard Deviation	1.04	0.01	0.01	0.24	6.7	4.2	1.5	151
Coefficient of variation	0.70	0.79	0.31	1.81	0.9	0.3	1.2	0.89
10.0 Percentile	0.580	0.005	0.013	0.02	2.0	10.1	0.0	39
25.0 Percentile	0.784	0.008	0.017	0.05	3.1	11.9	0.0	63
50.0 Percentile (median)	1.178	0.010	0.020	0.09	6.0	14.2	1.0	125
75.0 Percentile	1.830	0.020	0.025	0.15	10.0	16.9	1.8	214
95.0 Percentile	3.810	0.038	0.031	0.30	19.0	21.1	4.0	497
97.5 Percentile	4.135	0.042	0.037	0.40	23.5	24.4	4.9	626
99.0 Percentile	4.920	0.052	0.039	1.18	37.1	31.9	7.7	739

Table 14-8. Summary Statistics, Main Footwall Splay

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	Bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	61	61	61	60	61	48	43	48
Minimum value	0.120	0.001	0.010	0.010	0.611	5.34	0.01	20
Maximum value	7.000	0.040	0.060	1.00	29.0	14.1	10.9	275
Mean	1.869	0.012	0.020	0.10	7.5	10.0	2.4	83
Median	1.535	0.010	0.019	0.07	6.6	10.1	2.2	71
Standard Deviation	1.15	0.01	0.01	0.13	5.1	2.2	2.0	56
Coefficient of variation	0.62	0.69	0.43	1.30	0.7	0.2	0.8	0.68
10.0 Percentile	0.742	0.002	0.013	0.03	2.0	6.7	0.0	30
25.0 Percentile	1.136	0.007	0.016	0.04	3.0	8.7	0.9	43
50.0 Percentile (median)	1.535	0.010	0.019	0.07	6.6	10.1	2.2	71
75.0 Percentile	2.450	0.014	0.022	0.12	11.0	11.5	3.6	106
95.0 Percentile	3.876	0.029	0.038	0.23	16.0	14.1	5.3	242
97.5 Percentile	4.440	0.035	0.048	0.25	16.5	14.1	8.3	260
99.0 Percentile	5.790	0.040	0.055	0.63	23.0	14.1	10.9	275

Table 14-9. Summary Statistics, East Footwall

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	Bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	220	202	202	131	179	194	102	178
Minimum value	0.003	0.001	0.003	0.005	0.500	0.54	0.01	1
Maximum value	34.268	4.360	9.670	0.27	436.0	43.7	19.6	4060
Mean	0.616	0.104	0.262	0.03	8.8	5.0	1.6	104
Median	0.233	0.014	0.048	0.01	2.0	2.3	0.5	15
Standard Deviation	2.43	0.36	0.98	0.04	35.2	6.2	3.1	432
Coefficient of variation	3.94	3.49	3.75	1.46	4.0	1.2	1.9	4.14
10.0 Percentile	0.043	0.002	0.010	0.01	1.0	1.0	0.0	3
25.0 Percentile	0.126	0.006	0.020	0.01	1.0	1.3	0.1	5
50.0 Percentile (median)	0.233	0.014	0.048	0.01	2.0	2.3	0.5	15
75.0 Percentile	0.450	0.064	0.108	0.03	4.5	6.9	1.6	42
95.0 Percentile	1.619	0.356	0.718	0.12	31.4	16.4	7.1	254
97.5 Percentile	2.102	0.963	2.552	0.13	83.0	23.3	11.5	1252
99.0 Percentile	6.948	1.381	5.720	0.21	89.0	33.1	17.4	2510

Table 14-10. Summary Statistics, East Hanging wall

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	Bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	324	311	311	116	230	303	302	294
Minimum value	0.003	0.001	0.003	0.010	1.000	0.54	0.01	1
Maximum value	9.810	6.270	11.750	0.15	67.0	8.3	8.0	530
Mean	0.425	0.199	0.394	0.02	4.8	2.0	0.4	18
Median	0.136	0.017	0.040	0.01	2.0	1.2	0.1	6
Standard Deviation	0.98	0.66	1.41	0.02	8.6	1.7	1.0	41
Coefficient of variation	2.31	3.31	3.57	1.30	1.8	0.8	2.5	2.26
10.0 Percentile	0.011	0.002	0.006	0.01	1.0	0.8	0.0	1
25.0 Percentile	0.059	0.005	0.012	0.01	1.0	0.9	0.0	3
50.0 Percentile (median)	0.136	0.017	0.040	0.01	2.0	1.2	0.1	6
75.0 Percentile	0.324	0.081	0.180	0.01	5.0	2.4	0.3	16
95.0 Percentile	1.650	0.998	1.547	0.05	20.0	5.6	1.7	85
97.5 Percentile	3.491	2.319	4.550	0.11	29.5	6.8	3.8	104
99.0 Percentile	5.495	3.865	9.607	0.14	59.5	7.5	5.9	172

Table 14-11. Summary Statistics, Shear Zone

Statistics	copper	lead	zinc	Gold	silver	iron	sulphur	Bismuth
Lower cut	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of samples	5933	5894	5906	4586	4545	4895	4384	4589
Minimum value	0.000	0.000	0.001	0.001	0.092	0.69	0.01	1
Maximum value	5.810	11.900	25.900	3.67	98.0	41.9	15.6	5377
Mean	0.244	0.047	0.092	0.03	2.9	10.4	0.6	43
Median	0.143	0.005	0.021	0.02	2.0	9.6	0.3	16
Standard Deviation	0.31	0.39	0.72	0.08	4.9	3.5	1.0	126
Coefficient of variation	1.27	8.31	7.81	2.63	1.7	0.3	1.7	2.89
10.0 Percentile	0.019	0.001	0.015	0.01	1.0	7.0	0.0	2
25.0 Percentile	0.057	0.003	0.019	0.01	1.0	8.1	0.0	5
50.0 Percentile (median)	0.143	0.005	0.021	0.02	2.0	9.6	0.3	16
75.0 Percentile	0.326	0.010	0.028	0.03	3.0	11.8	0.8	42
95.0 Percentile	0.797	0.038	0.100	0.09	8.4	16.8	2.2	160
97.5 Percentile	0.970	0.167	0.300	0.13	13.0	19.2	3.1	258
99.0 Percentile	1.419	1.140	1.578	0.25	24.5	23.3	4.5	407

14.2.5 Grade Capping

Capping is the process of reducing the grade of the outlier sample to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value.

Outlier values were defined per estimation domain using statistical parameters to ensure that the mean was not significantly affected by capping. Assessment of outliers was based on histograms, log probability plots and metal loss, additional considerations were the standard deviations, Tukey fences (interquartile ranges) and Sichel's mean.

Uncapped and capped summary statistics for each estimation domain for copper, silver and gold are presented in Table 14-12 to Table 14-15.

Table 14-12. Grade capping summary statistics for copper by estimation domain

Copper	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Main	707	3.3	20.8	0.87	8	3.3	**13.7**	0.8	1.1%	-0.6%
Main N	163	1.9	12.5	0.99	2	1.9	**10.0**	0.9	1.2%	-1.2%
Main HWS	61	1.9	7.0	0.62	1	1.8	**5.5**	0.6	1.6%	-1.3%
Main HW	186	1.5	5.9	0.70	2	1.5	**4.8**	0.7	1.1%	-0.5%
East FW	220	0.6	34.3	3.95	3	0.5	**6.0**	1.8	1.4%	-22.3%
East HW	324	0.4	9.8	2.32	4	0.4	**5.04**	2.0	1.2%	-5.8%
North	59	1.3	4.9	0.85	2	1.3	**3.63**	0.8	3.4%	-1.6%

Table 14-13. Grade capping summary statistics for silver by estimation domain

Silver	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Main	681	20.11	244.0	1.08	17	19.2	74.00	0.9	2.5%	-4.4%
Main N	163	13.01	83.0	1.12	5	12.6	57.80	1.0	3.1%	-3.5%
Main HWS	61	7.47	29.0	0.69	2	7.3	16.50	0.6	3.3%	-2.9%
Main HW	185	7.53	50.0	0.89	2	7.4	32.33	0.8	1.1%	-2.1%
East FW	198	8.02	436.0	4.20	2	6.2	83.00	2.4	1.0%	-23.0%
East HW	311	3.70	67.0	2.06	4	3.4	33.90	1.7	1.3%	-7.3%
North	52	29.74	107.0	1.08	2	29.7	105.35	1.1	3.8%	-0.2%

Table 14-14. Grade capping summary statistics for gold by estimation domain

Gold	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Main	659	0.2	2.7	1.32	7	0.2	**1.0**	1.1	1.1%	-4.9%
Main N	158	0.8	35.9	4.66	3	0.5	**5.0**	1.7	1.9%	-45.5%
Main HWS	60	0.1	1.0	1.31	1	0.1	**0.6**	0.9	1.7%	-7.4%
Main HW	179	0.1	2.7	1.81	2	0.1	**0.9**	1.1	1.1%	-10.1%
East FW	214	0.0	0.3	1.76	2	0.0	**0.1**	1.6	0.9%	-4.2%
East HW	318	0.0	0.2	1.54	4	0.0	**0.09**	1.2	1.3%	-4.5%
North	32	0.1	0.8	1.60	1	0.1	**0.77**	1.6	3.1%	-0.7%

Lead and Zinc assays are generally very low with a small proportion of high grade values inconsistent with the majority of the data (Table 14-15).

Table 14-15. Grade capping summary statistics for lead and zinc by estimation domain

Element	Domain	Uncapped Composite Data				Capped Composite Data				Grade	
		Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% ∆
Lead	Main	707	0.0	1.3	1.80	8	0.0	0.2	1.0	1.1%	-6.8%
	Main N	163	0.0	2.2	3.61	2	0.0	0.3	1.6	1.2%	-23.5%
	Main HWS	61	0.0	0.0	0.69	1	0.0	0.0	0.7	1.6%	-0.1%
	Main HW	186	0.0	0.1	0.79	2	0.0	0.1	0.7	1.1%	-1.6%
	East FW	220	0.1	4.4	3.66	3	0.1	1.3	2.6	1.4%	-15.1%
	East HW	324	0.2	6.3	3.39	4	0.2	3.6	3.1	1.2%	-6.4%
	North 17	59	3.4	16.9	1.19	1	3.4	12.4	1.2	1.7%	-1.2%
Zinc	Main	707	0.0	0.3	0.86	8	0.0	0.1	0.6	1.1%	-3.2%
	Main N	163	0.2	8.8	4.15	2	0.1	2.3	2.2	1.2%	-27.5%
	Main HWS	61	0.0	0.1	0.43	1	0.0	0.1	0.4	1.6%	-0.5%
	Main HW	186	0.0	0.0	0.31	2	0.0	0.0	0.3	1.1%	-0.1%
	East FW	220	0.2	9.7	3.93	6	0.2	2.4	2.6	2.7%	-29.5%
	East HW	324	0.4	11.8	3.66	9	0.3	4.3	2.8	2.8%	-25.4%
	North 17	59	4.4	23.4	1.15	2	4.3	14.2	1.1	3.4%	-3.4%

No grade capping was required for sulphur. Sulphur assays had a weak to moderate correlation with Cu, Pb and Zn.

14.3 VARIOGRAPHY

The most important bivariate statistic used in geostatistics is the semivariogram. The experimental semivariogram is estimated as half the average of squared differences between data separated exactly by a distance vector 'h'. Semivariograms models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

Variogram analysis was undertaken in Snowdens Supervisor for copper and silver within each domain. Experimental Variograms were reasonably formed, due to the grade distribution expected in a strata bound copper deposit. The experimental variograms for the additional elements were generally less well formed.

Natural 3D experimental variograms could generally be created. Where variogram maps proved difficult to interpret the line of lode (strike) and dip was set as direction one and two respectively, with the third direction generally selected as moderately dipping to the south, mimicking the general trend of the shoots.

Variogram selection also considered the use of an adjacent domain's variogram or borrowed from the wide low grade strata-bound domain in cases where no clear experimental variograms were created.

3D experimental variogram modelling used a nugget (C_0) and two spherical models (C_1, C_2), although occasionally one spherical model was sufficient. The modelled variogram geometry is consistent with the interpreted mineralisation wireframes, incorporating a plunge component where identified and modelled accordingly.

Geometric anisotropy was adopted and anisotropic ratios (ellipsoid) applied to reflect directional variograms. Anisotropic ellipses based on the resulting bearing, plunge, dip, and defined ranges and anisotropic ratios were graphically plotted in Surpac and displayed against the extracted assay composites to ensure modelled parameters were reasonably orientated. The major axis of the ellipse is orientated in the XY plane (Table 14-16), the plunge is the angle above (+) or below (-) the XY plane, and dip defines the rotation of the semi-major axis around the major axis. The overall ranges modelled for the major axis are well in excess of the drill spacing for all domains.

Variogram sills were standardized to 1. Generally domains had insufficient data and grade continuity to create distinguishable experimental variograms suitable for modelling (Table 14-16). Variogram models fitted to the Main domain experimental variograms were used for all the structural domains.

The broad low grade shear zone was used to understand the background elemental spatial characteristics of the underlying grade distribution, trends and observations seen in the broad shear zone were used to influence decisions in poorly formed domains (due to lack of data, geological or grade definition). Variogram models identified within the shear domain are summarised in Table 14-17.

Table 14-16. Semi-variogram parameters based on the Main domain

Element	Rotation			Variogram					Anisotropy 1		Anisotropy 2	
	Bearing	Plunge	dip	Co	C1	A1	C2	C2	M/SM	M/m	M/SM	M/m
Cu	339	37.2	-64.6	0.28	0.4	7	0.032	100	1.00	1.00	1.52	3.03
Pb	339	37.2	-64.6	0.48	0.28	35	0.24	96	1.25	2.50	1.68	3.69
Zn	205.6	54.5	53.9	0.14	0.61	7.5	0.25	82	1.25	1.50	1.55	3.28
Au	3.5	-28.9	-72.8	0.29	0.31	23	0.4	124	1.15	1.44	1.03	1.55
Ag	332.8	46	-60.5	0.23	0.36	13	0.41	108	1.00	1.30	1.35	2.70
Fe	324.4	54.5	-54	0.19	0.23	18	0.57	80	1.00	3.00	1.04	2.00
S	324.4	54.5	-54	0.13	0.21	92	0.66	435	1.53	2.30	2.81	4.35
Bi	324.4	54.5	-54	0.17	0.6	38	0.23	100	1.00	1.65	1.25	1.67

Table 14-17. Semi-variogram parameters based on the Shear Zone domain

Element	Rotation			Variogram					Anisotropy 1		Anisotropy 2	
	Bearing	Plunge	dip	Co	C1	A1	C2	C2	M/SM	M/m	M/SM	M/m
Cu	311.8	62	-43.2	0.23	0.47	17	0.31	169	1.00	1.42	1.18	2.11
Pb	210.4	65.2	51.9	0.39	0.49	52	0.12	490	2.00	2.00	4.90	7.78
Zn	237.7	67.7	25.5	0.29	0.64	54	0.07	498	1.00	3.18	1.00	8.30
Au	311.8	62	-43.2	0.51	0.34	21	0.15	222	3.82	3.82	1.48	3.70
Ag	210	65.4	50.6	0.37	0.39	30	0.24	362	1.15	1.50	1.33	6.03
Fe	237.7	67.7	25.5	0.18	0.38	21	0.44	102	1.24	2.63	1.04	3.40
S	311.8	62	-43.2	0.16	0.6	36	0.24	198	1.13	1.44	1.58	3.67
Bi	311.8	62	-43.2	0.52	0.24	10	0.25	137	1.00	2.86	1.37	3.91
W	311.8	62	-43.2	0.45	0.41	8.5	0.14	54	1.06	2.43	1.13	1.59
U	265	70	0	0.42	0.41	9.5	0.17	80	2.71	2.71	2.00	2.00
F	265	70	0	0.15	0.85	100	0	0	1.33	2.00	1.00	1.00

Variography for density utilised unconstrained density data, limited data was collected in the oxide and transition portion of the deposit. Variogram parameters for density are presented in Table 14-18.

Table 14-18. Semi-variogram parameters, density

Variable	Rotation			Variogram					Anisotropy 1		Anisotropy 2	
	Bearing	Plunge	dip	Co	C1	A1	C2	C2				
Density	333.5	7.6	-49.6	0.42	0.31	52	0.27	369	3.25	6.50	2.46	4.92

14.4 GRADE ESTIMATION

This section describes the MRE methodology and summarises the key assumptions considered by MA. In the opinion of MA, the Mineral Resource statement reported herein is a reasonable representation of the Bellbird deposit based on current sampling data. Grade estimation was undertaken using Geovia's Surpac™ software package (v7.2). Ordinary Kriging ("OK") was used for the grade estimation for copper, silver and gold (and all other elements estimated that are not reported as economically significant).

Copper is the primary element of interest. Copper silver, gold, lead, zinc, bismuth and sulphur are estimated using the copper domains as hard boundaries and dynamic search ellipses. Sulphur is estimated into the country rock as well as the copper domains and used the weathering profiles as an additional hard boundary. Fe, U and W are estimated with soft boundaries across the copper domains. Dynamic search ellipses were used inside the copper domains, while fixed searches orientated to the regional lithology and larger estimation blocks were used in the host material.

14.4.1 Block Model

The Bellbird block model uses regular shaped blocks measuring 2.5 m x 10 m x 5 m (Table 14-19). The choice of the block size was aligned with the trend and continuity of the mineralisation and took into account the dominant drill pattern in conjunction with the size and orientation of the deposit. To accurately represent the volume of the mineralized domains inside each block, volume sub-blocking to 1.25 m x 5 m x 2.5 m was used. Blocks above original topography were excluded from model estimation. Estimation resolution was set at the parent block size for blocks within defined domains. For estimates (Fe, S, Bi, U and W) outside defined domains (barren blocks) were estimated with a block resolution of 5 m x 20 m x 10 m.

Table 14-19. Block Model Extents

Type	X	Y	Z
Minimum Coordinates	627000	7490280	-200
Maximum Coordinates	627640	7492040	440
User Block Size	2.5	10	5
Min. Block Size	1.25	5	2.5
Rotation	0	0	0

Interpreted mineralised domains were coded to the block model. Sufficient variables were added to allow grade estimation, resource classification and reporting. Blocks above the original topography are screened out. Final block model attributes are defined in Table 14-20.

Table 14-20. Block Model Attributes assigned to the 3D model

Attribute Name	Type	Decimals	Background	Description
ag_id	Float	1	0	silver inverse distance estimate capped
ag_nn	Float	1	0	silver nearest neighbour estimate capped
ag_ok	Float	1	0	silver ordinary krige estimate capped
ag_okr	Float	2	0	silver ordinary krige estimate un-capped
au_ok	Float	2	0	gold ordinary krige estimate capped
bi_nn	Float	0	0	bismuth nearest neighbour estimate capped
bi_ok	Float	0	0	bismuth ordinary krige estimate capped
cu_id	Float	4	0	copper inverse distance estimate capped
cu_nn	Float	4	0	copper nearest neighbour estimate capped
cu_ok	Float	4	0	copper ordinary krige estimate capped
cu_okr	Float	4	0	copper ordinary krige estimate un-capped
density	Float	2	2.8	Density
deposit	Character	-	NT	Deposit Region
f_ok	Float	0	0	fluorine ordinary krige estimate capped
fe_ok	Float	2	0	iron ordinary krige estimate capped
lode	Character	-	WS	Mineralisation Domain
lode_id	Integer	-	-99	lode number
pb_ok	Float	4	0	lead ordinary krige estimate capped
rescat	Integer	-	6	Resource classification (1 measured 2 indicated 3 inferred 4 unclassified 5 mined out 6 rock
rock	Integer	-	1	Air=0 Rock=1 Andesite = 10
s_ok	Float	2	0	sulphur ordinary krige estimate capped
u_ok	Float	1	0	uranium ordinary krige estimate capped
w_ok	Float	0	0	tungsten ordinary krige estimate capped
wth	Character	-	FR	FR = Fresh, PO = Partially oxidised, OX = oxidised
z_ads	Float	2	0	average distance to samples
z_brg	Float	2	0	bearing of search ellipse
z_cbs	Float	2	0	Conditional bias slope

Attribute Name	Type	Decimals	Background	Description
z_dh	Integer	-	0	number of informing drillholes
z_dhid	Character	-	0	hole_id
z_dip	Float	2	0	dip of search ellipse
z_dns	Float	2	0	distance to nearest sample
z_ke	Float	2	0	krige efficiency
z_kv	Float	2	0	krige variance
z_ns	Integer	-	0	number of informing samples
z_ps	Integer	-	0	1 First Pass; 2 Second Pass Estimate
zn_ok	Float	4	0	zinc ordinary krige estimate capped

14.4.2 Informing Samples and Search Parameters

Due to the reasonably spaced drill patterns, search radii were found to be optimal near 60 m for lodes within the Bellbird structural corridor (Main Main_N and North; Figure 14-9). Search ellipses for all Bellbird lodes was also kept at 60 m. The isotropy apparent in variogram analysis was considered in the search ellipse anisotropy. Search ellipses were kept constant within the copper domains to reduce potential order relation issues.

Estimation was carried out in three passes: pass one with a search ellipse of 60m, pass two 120 m, and pass three 180 m. Anisotropy ratios were constant for pass one and two (major/semi-major 1.25 and major/minor 2.0)

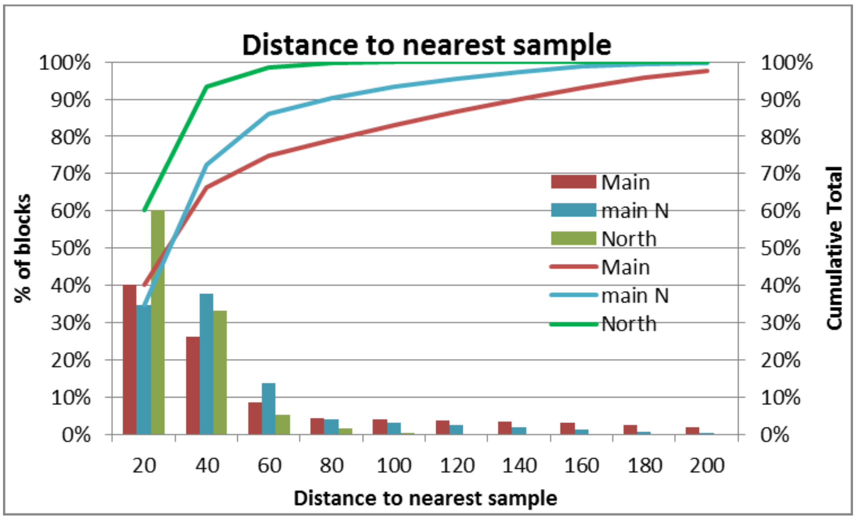


Figure 14-9. Distance to nearest sample for lodes within the bellbird structural corridor

The minimum and maximum samples utilised were 8 and 20 for the first pass and reduced to 6 and 16 for the second pass. Third pass informing samples were further reduced to a minimum of 2 and maximum of 10 (Table 14-21). As the search ellipse increased in distance the number of samples permitted dropped, ensuring proximal samples were used.

Table 14-21. Search Parameters

Pass	One	Two	Three
Min	8	6	2
Max	20	16	10
Perhole	4	4	N
Search	Ellipsoid	Ellipsoid	Ellipsoid
Ratio 1	1.5	1.5	1.5
Ratio2	2.5	2.5	2.5

Dynamic searches were utilised to reflect the local orientation of the lodes. Local undulations in the lodes were determined from the mid-point of mineralised drill hole intercepts. The intercepts were wire-framed and sliced in 10 m sections. Wireframe slices were smoothed adding points every 10 m along the slice providing a 10 m grid reflecting the orientation of the lodes. The grid was wire-framed and the dip and strike of each triangle defined a unique local search orientation for each block.

14.4.3 Discretisation

The krige estimate used a 1 x 5 x 2 discretisation (XYZ), giving discretisation nodes spaced evenly within the block. The distance between nodes approximates 2.5 times the sample composite length.

14.5 DENSITY ESTIMATION

The default density of the block model is 2.80 t/m^3. All oxide material is assigned 2.72 t/m^3. The mineralised transitional material is assigned 2.91 t/m^3 and the transitional waste is assigned a density of 2.8 t/m^3.

Density within the fresh material was estimated using OK of measured density values with the defined density variogram (Table 14-18) and a minimum of 5 and maximum of 12 samples within an ellipse measuring 60 m along the major axis, 48 m along the semi-major axis and 40 m along minor axis. The density search ellipse had a constant orientation, bearing 333.5°, plunge of 7.6° and a dip of -49.6°. The distribution of measured density data was insufficient to populate all blocks with an estimated density and alternate estimates of density were considered.

There is a moderate correlation between density and iron content in the samples. Figure 14-10 shows the regression between the two variables. The high density low Fe samples and the scattered samples with high Fe relative to density were excluded from the regression. The correlation between iron and density (R^2 of 0.56) is not as strong as Reward or Rockface.

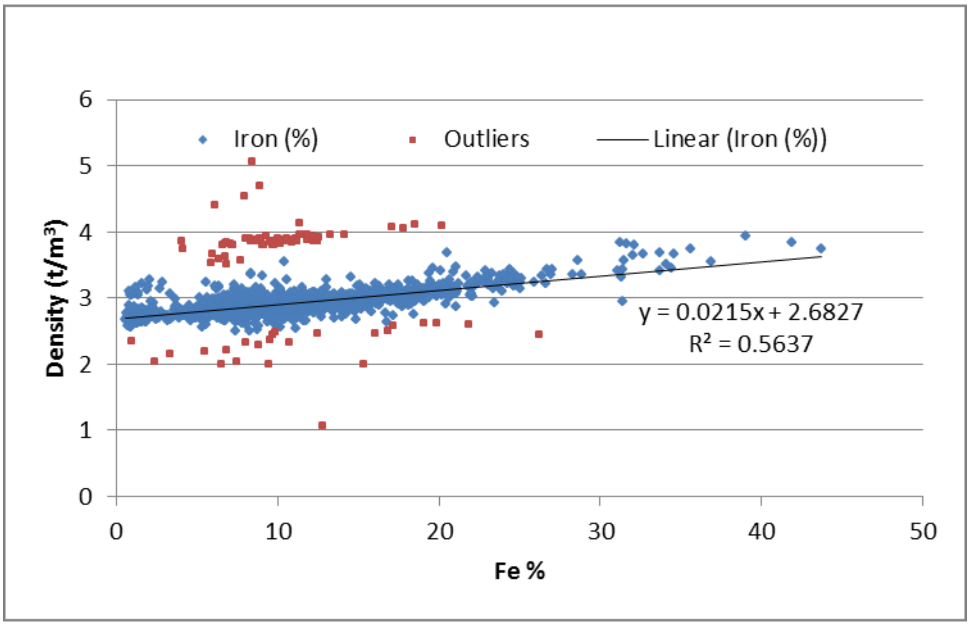


Figure 14-10. Density as a function of Iron Content

The second pass estimate of density utilised density data derived from the iron regression shown in Figure 14-10. During the second pass search distances were doubled and the required samples were reduced to a minimum of 1 and a maximum of 9.

The average modelled density of mineralised oxide material is 2.70 t/m^3, transitional material is 2.9 t/m^3, the high sulphide material averages 2. 86 t/m^3 and mineralised fresh material averages 2.89 t/m^3.

14.6 VALIDATION

The block model was validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis. Initial comparisons occurred visually on screen, using extracted composite samples and block models. Further validation used swath plots to compare block estimates with informing sample statistics along parallel sections through the deposits.

14.6.1 Alternate Estimation Methods

Alternative estimation methods nearest neighbour and ID^2 were utilised to ensure the krige estimate was not reporting a global bias (Figure 14-11). The alternate estimates provided expected correlations. Nearest neighbour shows less tonnes and higher grade (less contained metal) as it does not employ averaging techniques to assign the block grade as distal blocks are informed by a single closest sample rather than several weighted samples. The ID^2 estimate is closer to kriging as it does use averaging weighted by distance but cannot assign anisotropy nor have the ability to de-cluster the input data nor account for nugget effect. Using the kriging algorithm provides a reliable estimate due to the ability of kriging to de-cluster data and weight the samples based on a variogram (which incorporates the nugget effect and anisotropy).

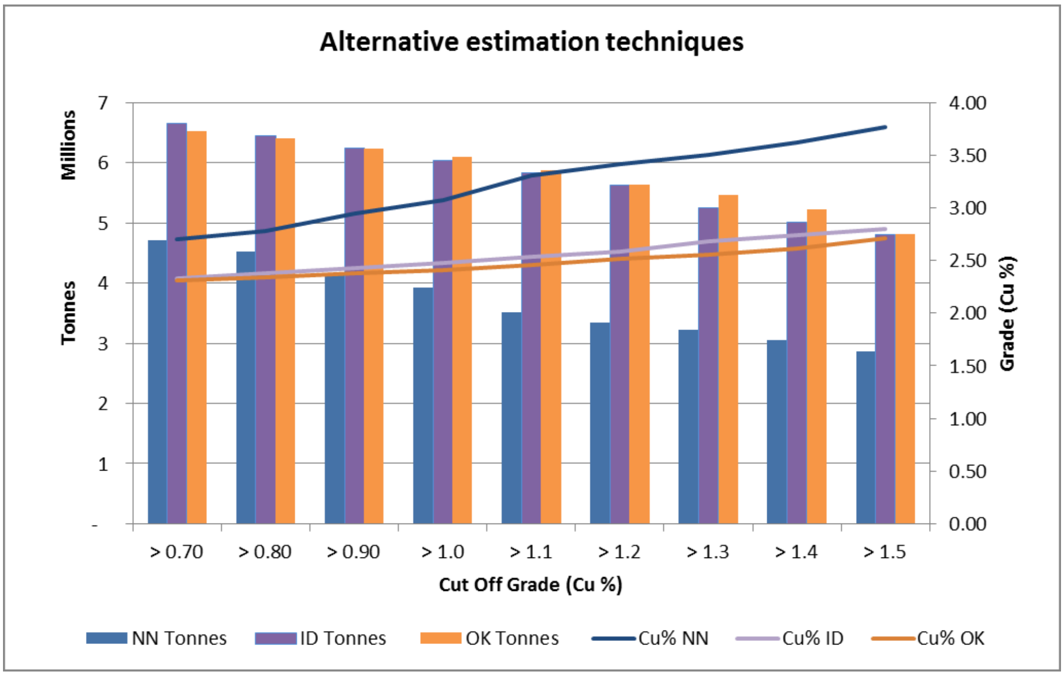


Figure 14-11. Alternative estimation results at nominated cut-offs (capped grades)

14.6.2 Global bias check

A comparison of global mean values within the grade domains shows a reasonably close relationship between composites and block model values (Figure 14-12). Main lode is the highest grade domain and appears to represent the global grade well. Copper grade reduces to the north. The correlations improve when compared to the NN estimate (declustered) (Figure 14-13). The global estimate for silver performs well and North lode has the highest silver content (Figure 14-14). The gold mineralisation represented in the deposit is relatively minor, however is considered to be significant (Figure 14-15). The main-north lode has the highest tenor of gold mineralisation. The gold NN (declustered) estimate shows similar trends to the OK estimate (Figure 14-15).

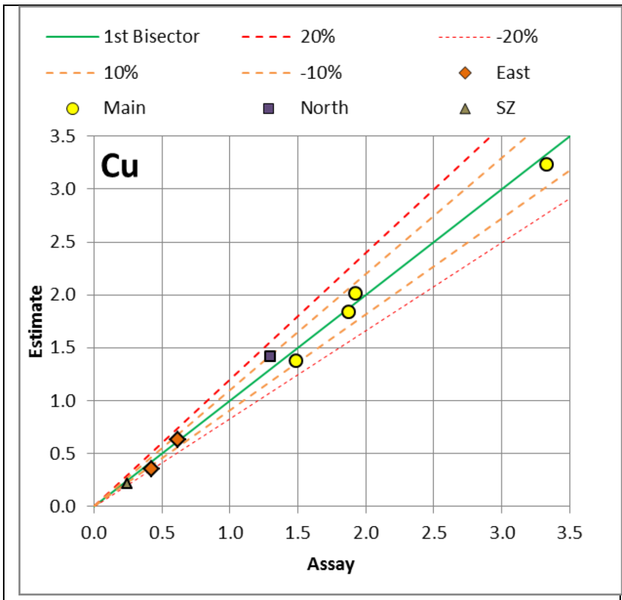


Figure 14-12. Global Copper Validation by Domains

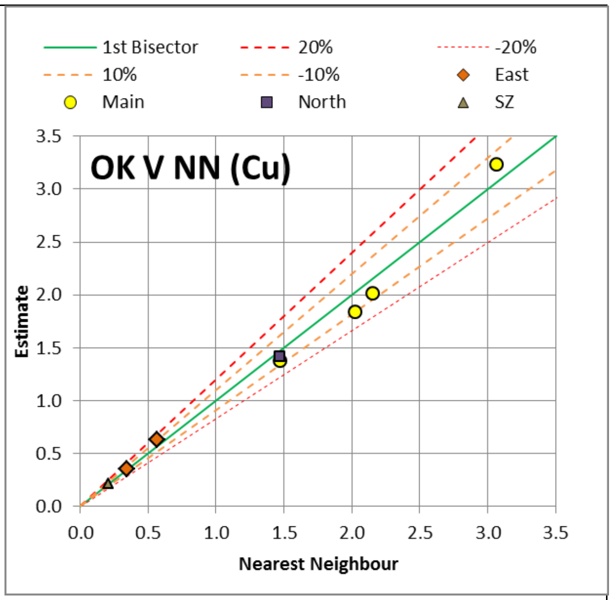


Figure 14-13. Global Copper by Domain comparing OK and

comparing OK and average sample data	NN

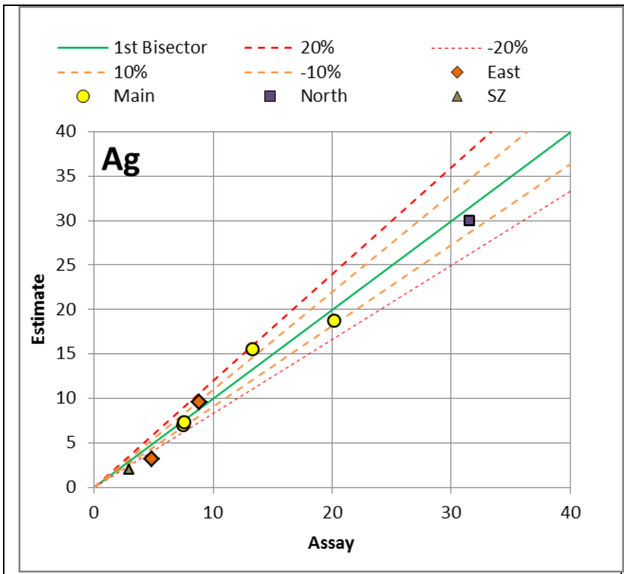


Figure 14-14. Global Silver Validation by Domains comparing OK and average sample data

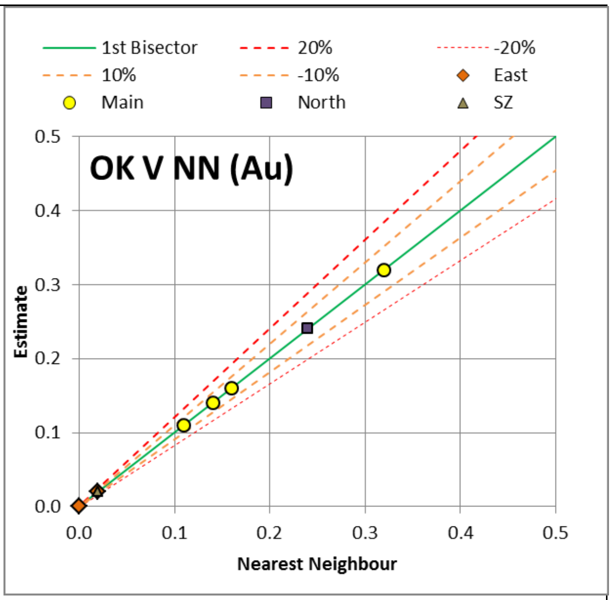


Figure 14-15. Global Gold by Domain comparing OK and NN estimate

14.6.3 Local bias Check

Swath plots were generated on vertical E-W 25 m wide swaths to assess local bias along strike by comparing the OK estimate with informing composite means for copper and silver. Results show no significant bias between OK estimates and informing samples and the smoothing effects of kriging are apparent.

The broad trend demonstrated by the raw data are honoured by the block model (Figure 14-16), and the interpolated grades are generally lower than the composite values. The comparison illustrates the effect of the interpolation, which results in smoothing of the block grades compared to the raw grades. Overall, the comparison between the OK and assay swath plots show a reasonably close correlation. The area between 7491150 and 7491350 mN drilling has intercepted the high grade Main – North lode , and very limited drilling has continued into the Eastern lodes (Figure 14-21 and Figure 14-22). The high grade spike seen at 7491650 mN (Figure 14-16) is a single assay intercepted in the North lode by hole RJ111.

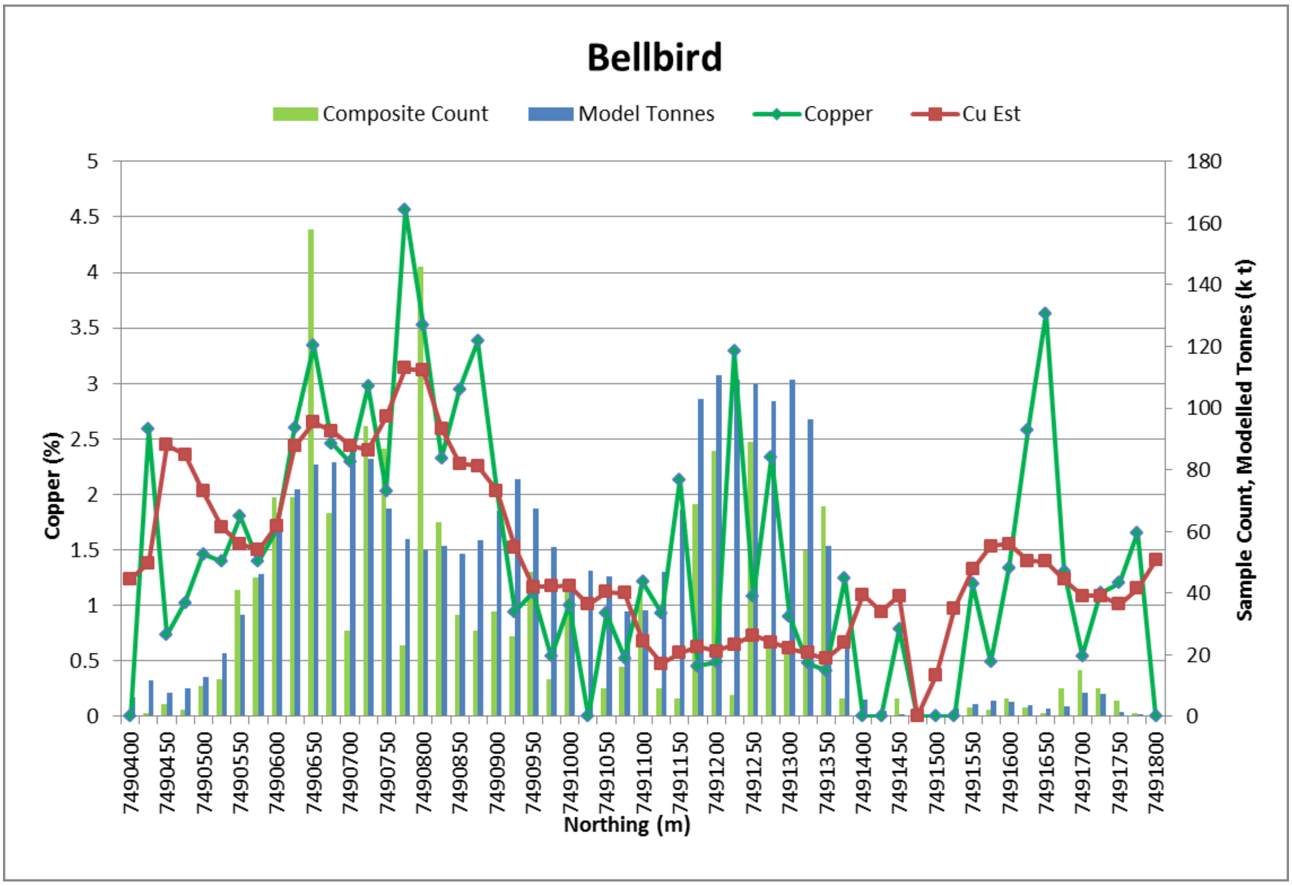


Figure 14-16. Swath Plot - Bellbird Deposit

Individual domain copper trends are provided in Figure 14-17 to Figure 14-22.

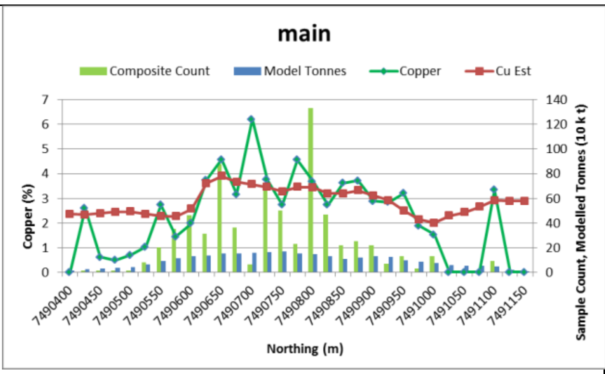


Figure 14-17. Swath Plot Main - copper

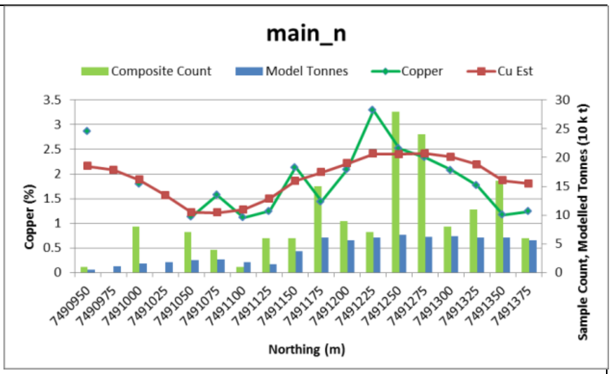


Figure 14-18. Swath Plot Main N - copper

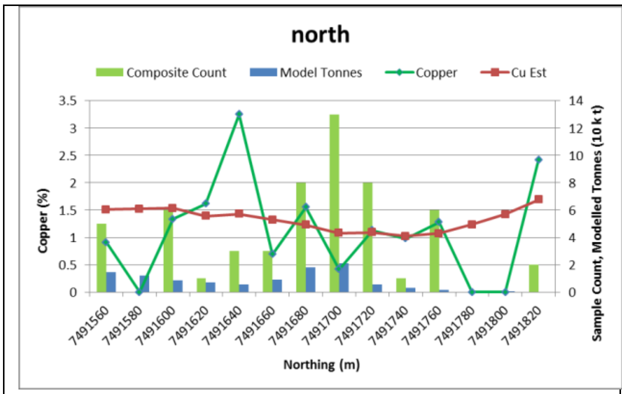


Figure 14-19. Swath Plot North - copper

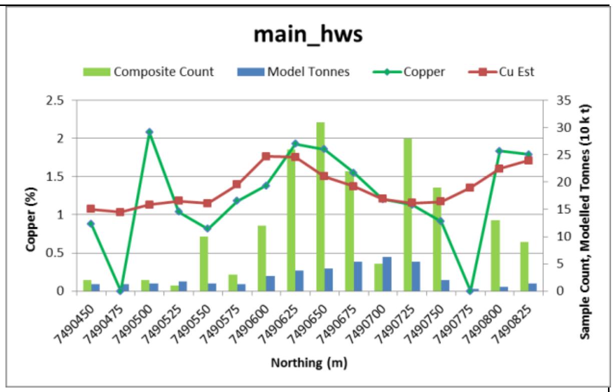


Figure 14-20. Swath Plot Main HWS - copper

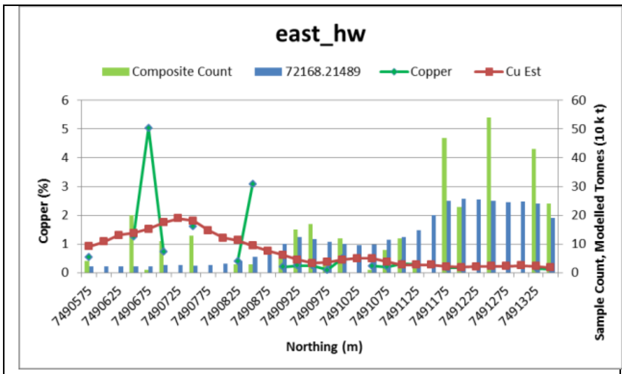


Figure 14-21. Swath Plot East HW - copper

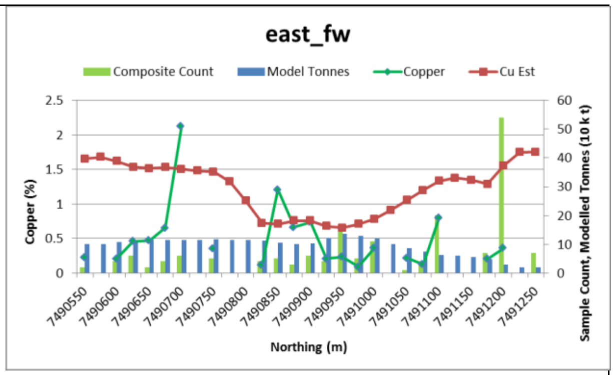


Figure 14-22. Swath Plot East FW - copper

The broad trend demonstrated by the silver data are honoured by the model estimate (Figure 14-23) and the interpolated grades are generally lower than the composite values as expected due to smoothing of the estimate.

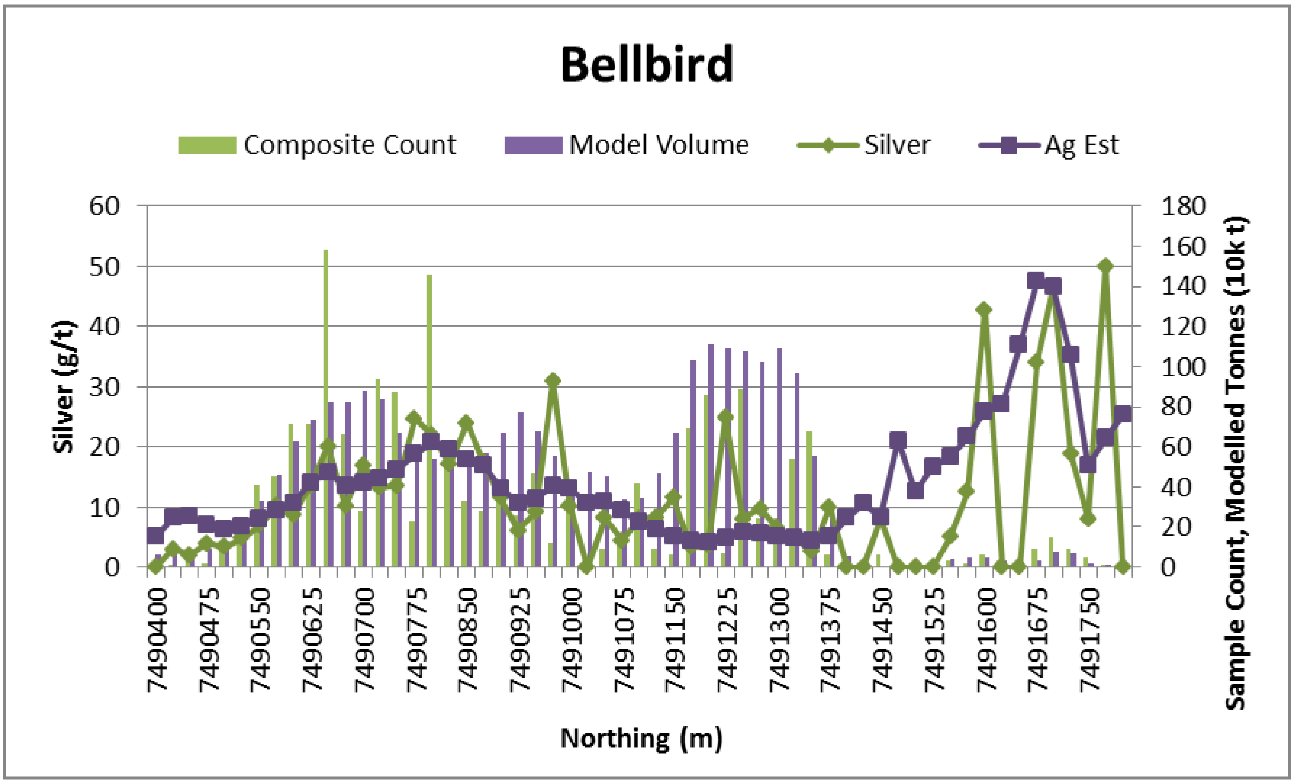


Figure 14-23. Swath Plot, Bellbird - silver

Selected individual domain swath plots are shown in Figure 14-24 to Figure 14-27.

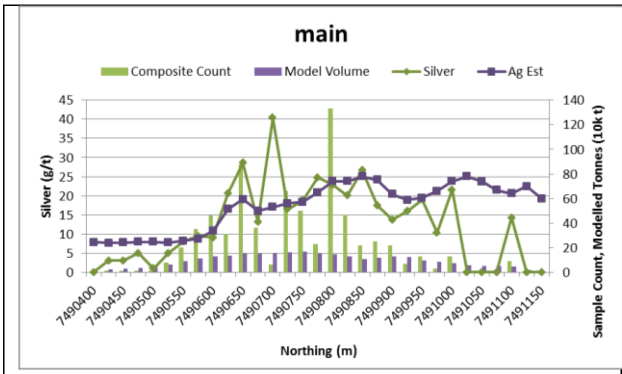


Figure 14-24. Swath Plot, Main- silver

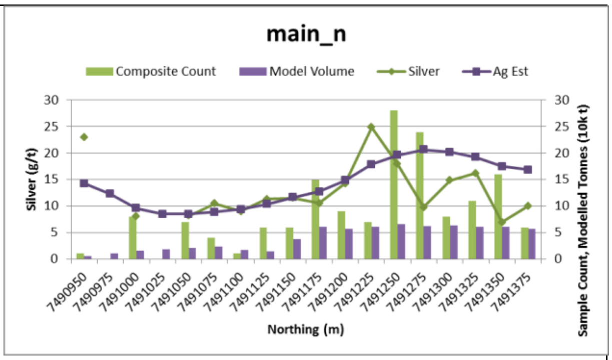


Figure 14-25. Swath Plot, Main N- silver

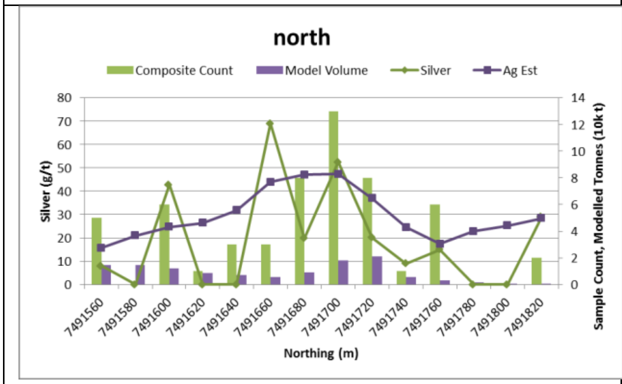


Figure 14-26. Swath Plot, North- silver

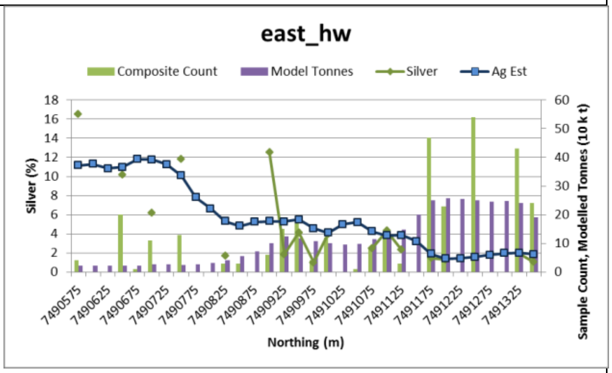


Figure 14-27. Swath Plot, East HW- silver

Additional validation of zinc and lead was undertaken in the north domain (Figure 14-28 to Figure 14-31). RL swath plots for copper silver zinc and lead are shown in Figure 14-32 to Figure 14-35. The swath plots along strike show a reasonable correlation between the composite grades and the OK block model grades. Zinc shows elevated grades are potentially smoothed too face north. By comparison the RL swath plot for Zinc (Figure 14-34) shows a good correlation between grade and estimate.

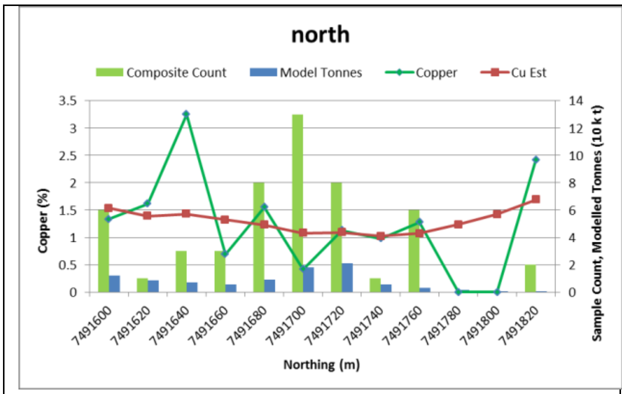


Figure 14-28 . Swath Plot North - copper

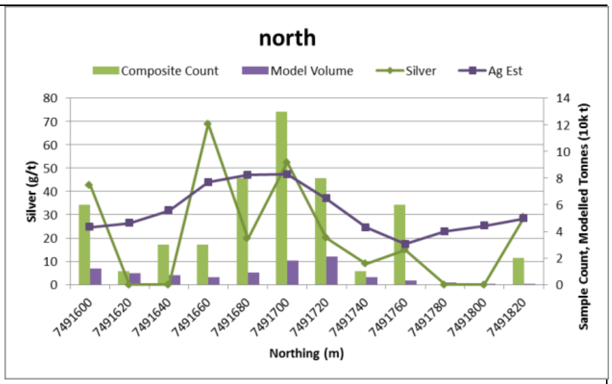


Figure 14-29 . Swath Plot North – silver

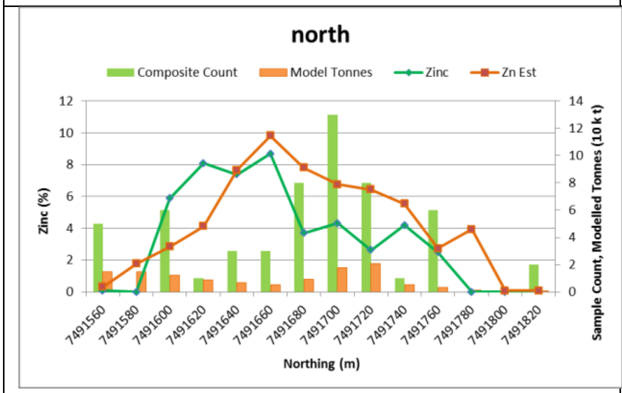


Figure 14-30 . Swath Plot North - zinc

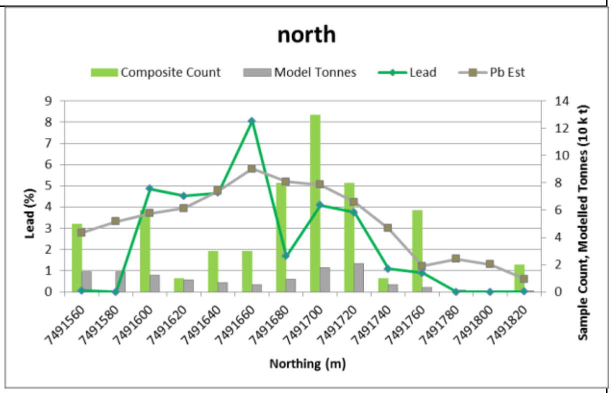


Figure 14-31 . Swath Plot North - lead

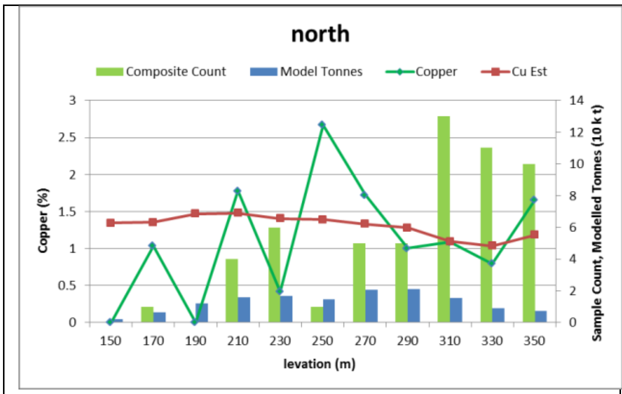


Figure 14-32 . Swath Plot (Z) North - copper

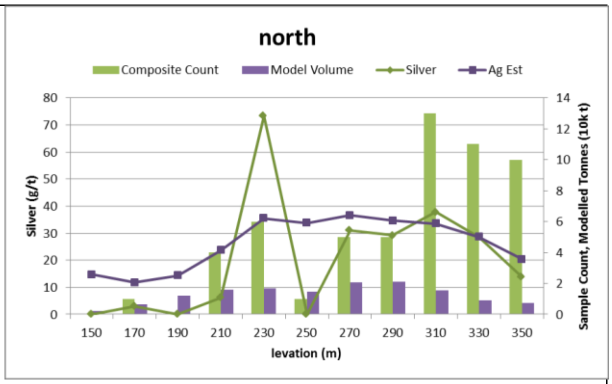


Figure 14-33 . Swath Plot (Z) North - silver

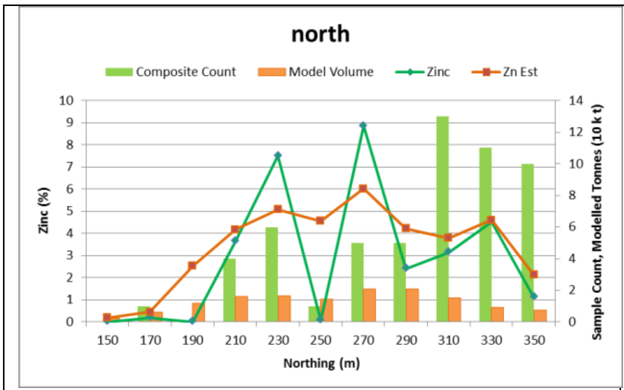


Figure 14-34 . Swath Plot (Z) North - zinc

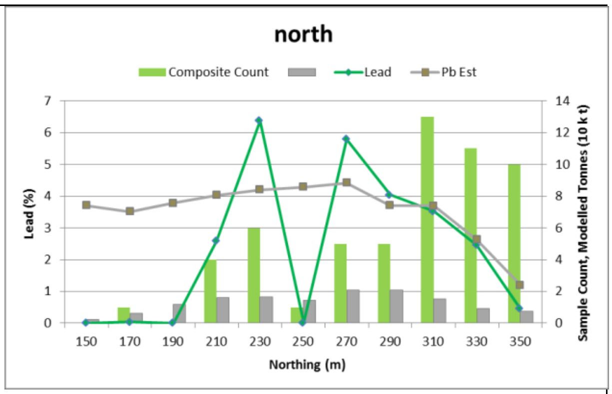


Figure 14-35 . Swath Plot (Z) North - lead

14.6.4 Comparison with previous estimates

The most recent resource estimate for the Bellbird deposits by H&S Consultants has an effective date of July 2019 (Table 14-22), the copper and silver mineralisation associated with Bellbird North has been included in the table for a direct comparison to the current MA resource (Table 14-23)

Open Pit potential (OPP) resources are reported above 200 m RL and at a 0.5% Cu cut-off. The underground potential (UGP) resources are below 200 m RL and at a 1.0% Cu cut-off.

Table 14-22. July 2019 Bellbird Resource

	Category	Mt	Cu%	Ag g/t	Cu kt	Ag Moz
OP (0.5%)	Indicated	3.80	1.23	7.6	46.7	0.9
	Inferred	1.10	0.91	6.1	10.3	0.2
North (>0.2 % Cu)	Inferred	0.70	0.57	17.9	4.0	0.4
Sub Total		5.60	1.08	23.14	61.0	1.1
UG (1.0%)	Indicated	0.20	1.85	11.9	3.9	0.1
	Inferred	1.70	2.02	12.7	33.6	0.7
Sub Total		1.90	2.00	12.6	37.5	0.8
	Indicated	4.00	1.26	7.8	50.6	1.0
	Inferred	3.50	1.38	11.7	47.9	1.3
Total		7.50	1.32	20.5	98.5	1.9

Table 14-23. June 2020 Bellbird Resource

	Category	Material (Mt)	Cu %	Ag g/t	Cu kt	Ag Moz
OPP > 0.5%	indicated	1.33	3.08	17.5	40.9	0.7
	Inferred	1.40	1.18	9.1	16.5	0.4
Sub total		2.73	2.10	13.2	57.3	1.2
UGP > 1%	indicated	0.34	3.51	22.4	11.9	0.2
	inferred	1.43	2.36	16.6	33.7	0.8
Sub total		1.76	2.58	17.7	45.5	1.0
Resource	indicated	1.67	3.17	18.5	52.8	1.0
	inferred	2.82	1.77	12.9	50.1	1.2
Total		4.49	2.29	15.0	102.9	2.2

*note rounding errors in the totals due to reported significant figures

The previous interpretation used by H&SC was interpreted by KGL geologists in 2015 and used a 0.5% Cu lower cut off. The current interpretation created by KGL geologists considers the structurally controlled nature of the deposit and uses a 1.25% copper cut-off. The resource tons are down 60%

and copper grades are up 74 %. Copper metal is up 5% and silver grade estimates are lower than the 2019 resource.

14.7 REASONABLE PROSPECTS FOR EVENTUAL ECONOMIC EXTRACTION

Assumptions for reasonable prospects for eventual economic extraction applied to this deposit include but may not be limited to Table 14-24 (prices are AUD). Recovery assumptions for copper and silver, (main economic minerals) are provided in Table 14-25.

Table 14-24. Adopted costs for reasonable prospects of economic extraction

Parameter	unit	Average
Mill Throughput per annum (Mtpa)	Mt	1.6
Strip ratio	t/t	11:1
General and Administration Cost	$/t ore	8.12
Copper price	$/t	8,533
Silver price	$/oz	25.32
Average Open Pit Mining cost	$/total tonne mined	3.12
Average Underground Mining cost	$/total tonne mined	43.4
Sulphide ore processing cost	$/t ore	22.68
Oxidised ore processing cost	$/t ore	22.62
Pit bench angle	Degrees	48.5
Ore loss	%	5
Dilution	%	5

Table 14-25. Recovery Assumptions

Material	Recovery Algorithm	Example
Oxide and Transition -	Cu Rec = (% Cu-(0.48-(0.04 x % Cu))/% Cu	For a Cu Head Grade of 1.9%, the Copper Recovery will be 78.7%
	Ag Rec = 0.88*LN(% Cu Rec*100) -2.98	For a Cu Recovery of 78.7%, the Silver Recovery will be 86.2%
Sulphide Ore	Cu Rec = (% Cu-0.075) x 0.975)/% Cu	For a Cu Head Grade of 1.9%, the Copper Recovery will be 93.7%
	Ag Rec = 2.07 x % Cu Rec - 1.255	For a Cu recovery of 93.7%, the Silver Recovery will be 68.5%

14.8 MINERAL RESOURCE CLASSIFICATION

The Bellbird deposit mineral resource has been classified in accordance with the JORC 2012 code.

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. (JORC Code 2012)

Resource classification is based on data quality, drill density, number of informing samples, kriging efficiency, conditional bias slope, average distance to informing samples and deposit consistency (geological continuity). The confidence in the quality of the data and mining history justified the classification of indicated and inferred resources. Data quality does not preclude Measured but geological confidence and grade continuity are not sufficiently defined to assign Measured. Geological continuity has been assumed at 50 m drill-section spacing, and is confirmed where drill spacing is tightened.

This Mineral Resource estimate is prepared by digital methods, and the model does have isolated and discontinuous blocks present that have grades or values above the stated cut-off grade. For the areas considered for underground mining methods these blocks have been excluded from the Mineral Resource statement due to their spatial continuity and size being insufficient to achieve a potentially mineable shape. Blocks of this nature in the open pit area remain in the resource as at the lower described cut off of 0.5% the blocks form continuous zones (Figure 14-36).

The deposit has demonstrable economic value at a 0.5% Cu cut off:

Measured Mineral Resource

No measured resources are defined at this stage.

Indicated Mineral Resource

Defined as those portions of the deposit with a drill spacing of 50 m x 50 m and demonstrate a reasonable level of confidence in the geological continuity of the mineralisation, supported by some infill drilling. The distance to the nearest sample must be less than 40 m, and the average distance to all informing samples is dominantly less than 60 m. Krige variances of block within the indicated category fall below 0.5 or lower. The conditional bias slope of approximately 0.2 or higher. A few blocks outside these specifications may be included if a structural trend is present. Estimated during either Pass 1 or 2.

Inferred Mineral Resource

Defined as those portions of the deposit covered by a drill spacing of greater than 50 m or those portions of the deposit with a smaller number of intercepts but demonstrating an acceptable level of geological confidence. The average distance to informing samples must be less than 120 m and blocks could have very low conditional bias slope values. Included in the inferred resource is material within the shear zone interpretation above 0.5% Cu and the 200 m RL.

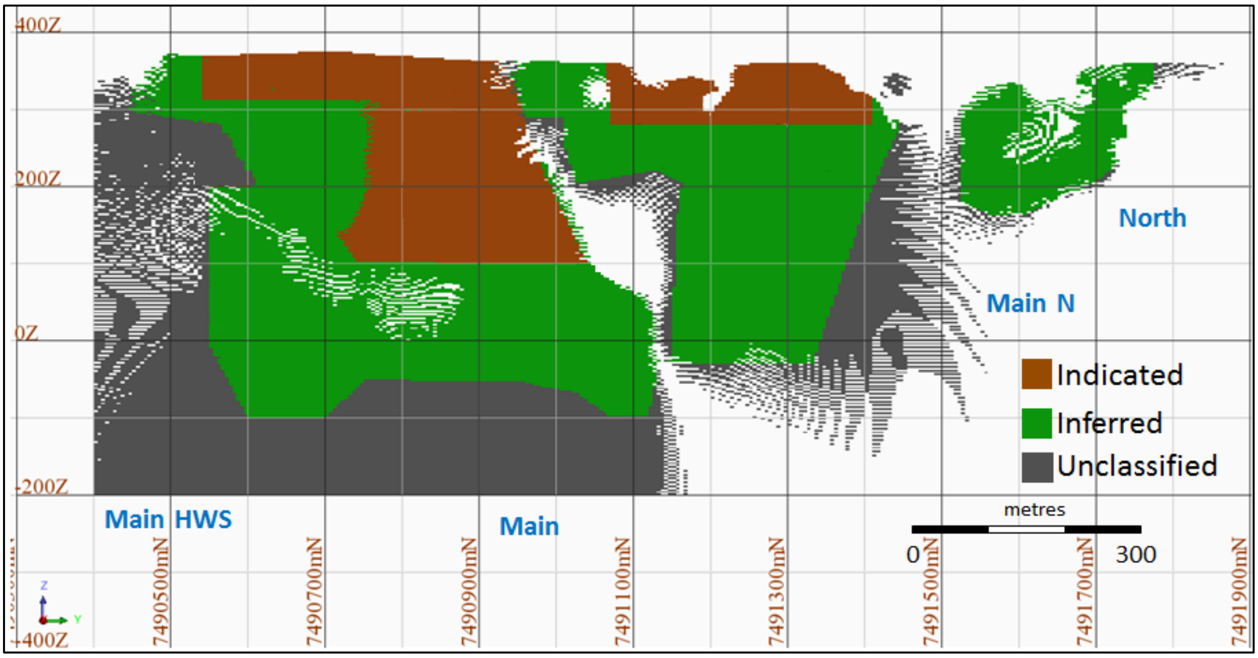


Figure 14-36. Bellbird resource categories (long section sketch)

14.9 BELLBIRD RESOURCE SUMMARY

Grade tonnage curves for Bellbird (Figure 14-37) highlight the broad low grade tenor of the strata-bound mineralisation with a significant increase of tonnes at lower cut-off. The associated table (Table 14-26) shows silver and gold grade increase with copper cut-off.

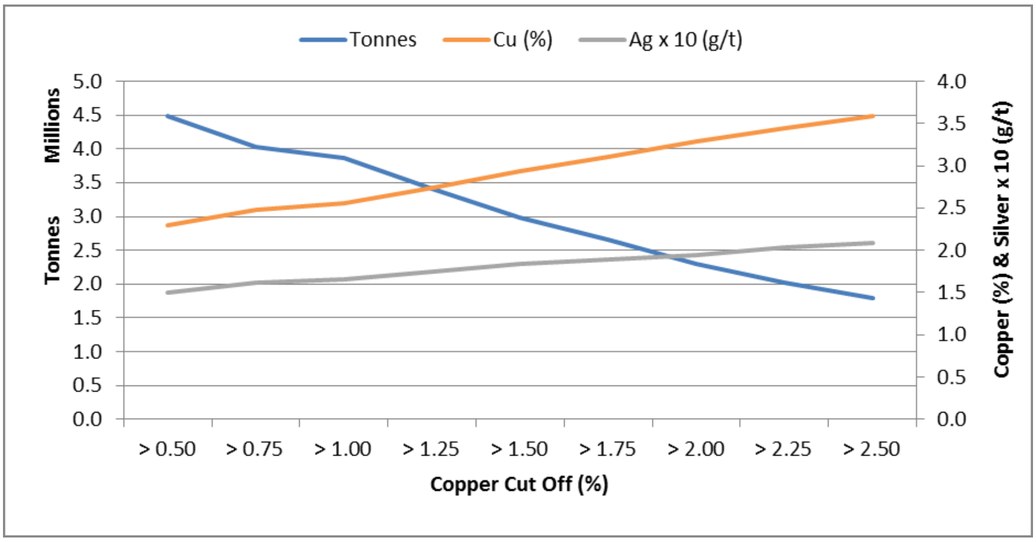


Figure 14-37. Grade tonnage curves

Table 14-26. Tonnes and grade at various cut-offs

	Open Pit Potential				Underground Potential			
Cut Off	Material (t)	Cu (%)	Ag (g/t)	Au (g/t)	Material (t)	Cu (%)	Ag (g/t)	Au (g/t)
0.50	**2,726,500**	**2.10**	**13.2**					
0.75	2,267,800	2.41	15.0					
1.00	2,107,000	2.53	15.6	0.20	**1,763,900**	**2.58**	**17.76**	**0.12**
1.25	1,758,200	2.81	16.7	0.21	1,648,300	2.68	18.35	0.12
1.50	1,495,900	3.06	17.6	0.22	1,491,900	2.82	19.14	0.13
1.75	1,330,500	3.24	18.3	0.22	1,320,400	2.97	19.62	0.14
2.00	1,189,500	3.40	19.1	0.21	1,111,800	3.17	19.75	0.15

Weathering of the deposits has an impact on metallurgical recoveries. KGL is considering different processing and or differing recoveries based on the amount of sulphur present. Table 14-27 and Table 14-28 shows the deposits reported by weathering profiles, including the High Sulphur resource (S/Cu > 4.5).

Table 14-27. Bellbird Resource by weathering profile above 200 m RL at 0.5% Cu cut-off

OPP Resource			Grade					Metal				
Category	weathering	Material (t)	Cu %	Pb %	Zn %	Ag g/t	Au g/t	Cu (t)	Pb (t)	Zn (t)	Ag (koz)	Au (oz)
Indicated	Oxide	283,000	2.96	0.03	0.03	14.2	0.24	8.4	100	100	129.1	2,200
	Transitional	33,000	2.74	0.02	0.03	13.8	0.22	0.9	-	-	14.7	200
	High Sulphur	75,000	2.60	0.04	0.04	19.7	0.29	1.9	-	-	47.6	700
	Fresh	938,000	3.16	0.03	0.03	18.4	0.22	29.7	300	300	555.1	6,600
Inferred	Oxide	117,500	1.10	0.46	0.55	7.3	0.04	1.3	538	652	27.6	200
	Transitional	16,000	1.17	0.60	1.05	8.6	0.04	0.2	100	200	4.4	20
	High Sulphur	128,000	1.26	0.80	1.16	15.1	0.23	1.6	1,022	1,484	62.3	943
	Fresh	1,137,000	1.18	0.45	0.65	8.6	0.10	13.4	5,200	7,300	314.3	3,700
Subtotal	Oxide	400,500	2.42	0.15	0.18	12.2	0.18	9.7	600	700	156.7	2,300
	Transitional	49,000	2.23	0.21	0.36	12.1	0.16	1.1	100	200	19.1	300
	High Sulphur	203,000	1.75	0.52	0.74	16.8	0.25	3.6	1,000	1,500	109.9	1,600
	Fresh	2,075,000	2.07	0.26	0.37	13.0	0.15	43.0	5,400	7,600	869.4	10,300
Total		2,728,000	2.10	0.26	0.37	13.2	0.17	57.3	7,200	10,000	1,155.1	14,500

Table 14-28. Bellbird Resource by weathering profile below 200 m RL at 1.0% Cu cut-off

UGP Resource			Grades					Metal				
Category	weathering	Material (t)	Cu %	Pb %	Zn %	Ag g/t	Au g/t	Cu (t)	Pb (t)	Zn (t)	Ag (koz)	Au (oz)
Indicated	Oxide	-	-	-	-	-	-	-	-	-	-	-
	Transitional	-	-	-	-	-	-	-	-	-	-	-
	High Sulphur	1,000	1.85	0.06	0.02	19.25	0.12	-	-	-	0.60	-
	Fresh	337,000	3.52	0.04	0.03	22.40	0.18	11.9	100	100	242.7	2,000
Inferred	Oxide	-	-	-	-	-	-	-	-	-	-	-
	Transitional	-	-	-	-	-	-	-	-	-	-	-
	High Sulphur	154,000	2.10	0.15	0.44	20.83	0.16	3.2	200	700	103.1	800
	Fresh	1,272,000	2.39	0.13	0.18	16.10	0.10	30.4	1,700	2,300	658.4	4,100
Subtotal	Oxide	-	-	-	-	-	-	-	-	-	-	-
	Transitional	-	-	-	-	-	-	-	-	-	-	-
	High Sulphur	155,000	2.10	0.15	0.44	20.82	0.16	3.2	200	700	103.7	800
	Fresh	1,609,000	2.63	0.11	0.15	17.42	0.12	42.3	1,800	2,400	901.1	6,000
Total		1,764,000	2.58	0.11	0.18	17.72	0.12	45.5	2,000	3,100	1,004.9	6,800

The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition.
Due to rounding to appropriate significant figures, minor discrepancies may occur
All tonnages reported are dry metric

Bellbird reported by lode is shown in Table 14-29.

Table 14-29: Bellbird Resource by lode (Cut off >0.5g/t > 200 mLR and > 1.0 g/t < 200mRL)

Resource		Material	Grade (%)			Metal		
Category	Area	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Indicated	Main	1.41	3.43	20.1	0.18	48.2	0.91	8.1
	Main HW	0.11	1.54	7.9	0.14	1.6	0.03	0.5
	Main North	0.15	1.88	11.0	0.64	2.9	0.05	3.1
Subtotal		1.67	3.17	18.5	0.22	52.8	0.99	11.8
Inferred	East FW	0.43	1.58	15.2	0.03	6.8	0.21	0.4
	East HW	0.49	1.17	7.0	0.02	5.8	0.11	0.3
	Main	0.65	2.91	16.1	0.13	18.9	0.34	2.7
	Main HW	0.25	1.33	7.1	0.13	3.3	0.06	1.1
	Main HWS	0.06	1.90	7.2	0.11	1.2	0.01	0.2
	Main North	0.50	2.13	17.5	0.22	10.6	0.28	3.5
	North	0.13	1.31	30.2	0.24	1.7	0.12	1.0
	SZ	0.31	0.58	3.5	0.04	1.8	0.03	0.4
Subtotal		2.82	1.78	12.9	0.10	50.1	1.17	9.1
Total		4.49	2.29	15.0	0.15	102.9	2.17	21.7

Of the Bellbird Deposits, North lode is high in lead zinc and silver (Table 14-30).

Table 14-30. Bellbird North Lode – highlighted Pb Zn mineralisation

Inferred	Material (Mt)	Cu %	Pb %	Zn %	Ag g/t	Au g/t	Cu (t)	Pb (t)	Zn (t)	Ag koz	Au koz
OPP	113,000	1.30	3.87	4.70	32.5	0.22	870	290	240	118	0.80
UPP	15,000	1.41	3.75	1.83	12.9	0.33	800	300	620	6	0.16
Total	128,000	1.31	3.85	4.36	30.2	0.23	1,670	590	860	124	1.0

*(North lode is a subset of the Bellbird Resource high in lead zinc and silver)

15 MINERAL RESOURCE ESTIMATE STATEMENT

Based on the study herein reported, delineated mineralization of the Reward Rockface and Bellbird copper deposits are classified as Indicated and Inferred resources according to the definitions of the JORC Code (2012) as presented in Table 15-1, Table 15-2 and Table 15-3.

Table 15-1. 2020 Reward Resource Estimate

Resource		Material	Grade (%)			Metal		
Area	Category	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Open Cut Potential > 0.5 % Cu	Indicated	3.34	1.86	41.8	0.44	62.2	4.49	47.5
	Inferred	0.76	0.93	9.5	0.06	7.0	0.23	1.4
Sub Total		4.10	1.69	35.8	0.37	69.2	4.72	48.9
Underground Potential > 1 % Cu	Indicated	3.69	2.22	42.8	0.51	81.8	5.07	60.2
	Inferred	3.50	1.48	26.8	0.18	51.7	3.01	20.7
Sub Total		7.19	1.86	35.0	0.35	133.5	8.08	80.9
Total		11.28	1.80	35.3	0.36	202.7	12.80	129.8

Table 15-2. 2020 Rockface Rockface Estimate

Resource		Material	Grade (%)			Metal		
Area	Category	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Underground Potential > 1 % Cu	Indicated	2.45	3.54	19.8	0.25	86.8	1.56	20.03
	Inferred	0.84	2.07	15.6	0.18	17.5	0.42	4.96
Total	Total	3.29	3.17	18.7	0.23	104.2	1.98	24.73

*Limited Openpit potential, all Rockface resoueces reported above 1.0 %Cu

Table 15-3. 2020 Bellbird Resource Estimate

Resource		Material	Grade (%)			Metal		
Area	Category	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Open Cut Potential	Indicated	1.33	3.08	17.4	0.23	40.9	0.74	9.83
>0.5 % Cu	Inferred	1.40	1.19	9.1	0.10	16.6	0.41	4.49
Subtotal		2.73	2.11	13.2	0.16	57.5	1.16	14.03
Underground Potential	Indicated	0.34	3.52	22.4	0.18	11.9	0.24	1.95
> 1% Cu	Inferred	1.43	2.36	16.6	0.10	33.7	0.76	4.59
Subtotal		1.76	2.58	17.7	0.12	45.6	1.00	6.81
Total		4.49	2.30	15.0	0.15	103.1	2.17	21.66

The resource is summerised by cut off in Table 15-4

Table 15-4. Jervois Resource Summary

Resource			Material	Grade (%)			Metal		
Area		Category	Mt	Copper	Silver	Gold	Copper (kt)	Silver (Moz)	Gold (koz)
Open Cut Potential > 0.5 % Cu	Reward	Indicated	3.34	1.86	41.8	0.44	62.2	4.49	47.5
		Inferred	0.76	0.93	9.5	0.06	7.0	0.23	1.4
	Bellbird	Indicated	1.33	3.08	17.4	0.23	40.9	0.74	9.8
		Inferred	1.40	1.19	9.1	0.10	16.6	0.41	4.5
Sub Total			6.82	1.86	26.8	0.29	126.7	5.87	63.2
Underground Potential > 1 % Cu	Reward	Indicated	3.69	2.22	42.8	0.51	81.8	5.07	60.2
		Inferred	3.50	1.48	26.8	0.18	51.7	3.01	20.7
	Rockface	Indicated	2.45	3.54	19.8	0.25	86.8	1.56	20.0
		Inferred	0.84	2.07	15.6	0.18	17.5	0.42	5.0
	Bellbird	Indicated	0.34	3.52	22.4	0.18	11.9	0.24	2.0
		Inferred	1.43	2.36	16.6	0.10	33.7	0.76	4.6
Sub Total			12.24	2.31	28.1	0.29	283.3	11.07	112.4
Total			19.07	2.15	27.6	0.29	410.0	16.94	175.7

Note: The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition.
Mineral resources stated herein do not include Reward South deposit.
Due to rounding to appropriate significant figures, minor discrepancies may occur
All tonnages reported are dry metric
According to Clause 27 of the JORC Code 2012 edition: “in a public report of a Mineral Resource for a significant project for the first time, or when those estimates have materially changed from when they were last reported, a brief summary of the information in relevant sections of Table 1 must be provided”. Table 1 is included in the Appendix of this report and must accompany any reporting of Mineral Resources.

“The information in this report that relates to Mineral Resources is based on information compiled by Mr I. Taylor who is a Certified Professional by The Australasian Institute of Mining and Metallurgy and is employed by Mining Associates Limited. Mr Taylor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Taylor consents to the inclusion in the report of the matters based on his information in the form and context in which it appears”.

For and on behalf of Mining Associates Pty Ltd

Mr I.A Taylor

BSc (Hons) MAusIMM (CP)

Competent Person

Effective Date: 30 June 2020

16 REFERENCES

Crowe, W. "SAM data interpretation and field mapping within the Jervois tenements, Northern Territory, Australia." Internal unpublished report prepared by International Geoscience for Kentor Gold, 2011.

Crowe, W. *Observations and Implications from the Logging of KJCD 195 and KJCD 183.* Internal Report for KGL, 2016.

Schmid, Susanne, Peter Schaubs, and Alex Otto. *Characterisation of Mineralisation at Rockface and Reward North, Jervois Cu-Pb-Zn deposit, NT, Australia.* CSIRO EP 185553, pp. 88, 2018.

Tear, S. *Resource Estimation for the Jervois Copper Project, NT.* H&S Consultants, 2019.

Vann, J, S Jackson, and O Bertoli. "Quantitative Kriging Neighbourhood Analysis for the Mining Geologist - Adescription of the Method With Worked Casae Examples." *5th International Mineing Geology Conference.* Bendigo, Victoria: AusIMM, 2003. 215-223.

Weisheit, A, B L Reno, and E E Beyer. *Jervois Range Special, Northern Territory. 1:100 000 geological map series explanatory notes, 6152 and part 6252.* Darwin: Northern Territory Geological Survey, 2019.

17 APPENDIX 1: – JORC TABLE 1

17.1 SECTION 1 SAMPLING TECHNIQUES AND DATA

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

Criteria	JORC Code explanation	Comment
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Diamond drilling and reverse circulation (RC) drilling were used to obtain samples for geological logging and assaying. The core samples comprised a mixture of sawn HQ quarter core, sawn NQ half core and possibly BQ half core (historical drilling only). Sample lengths are generally 1m, but at times lengths were adjusted to take into account geological variations. RC sample intervals are predominantly 1m intervals with some 2 and 4 m compositing (historical holes only). • Drilling is on a nominal 25m spacing near surface expanding at depth to 50m and then to 100m on the periphery of the mineralisation • RC samples are routinely scanned by KGL Resources with a Niton XRF. Samples assaying greater than 0.1% Cu, Pb or Zn are submitted for analysis at a commercial laboratory. • Mineralisation is characterized by disseminations, veinlets and large masses of chalcopyrite associated with magnetite-rich alteration within a psammite. The mineralisation has textures indicative of structural emplacement within specific strata i.e. the mineral appears stratabound. • Documentation of the historical drilling(pre-2011) for Reward is variable
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• KGL and previous Jinka-Minerals RC drilling was conducted using a reverse circulation rig with a 5.25-inch face-sampling bit. Diamond drilling was either in NQ2 or HQ3 drill diameters. Metallurgical diamond drilling (JMET holes)were PQ. • Diamond holes are generally utilise a RC pre-collar. • Orientated core has been measured for the recent KGL Drilling • There is no documentation of the historic drilling techniques • A total of 610 510 drill holes for 119,410113,784 metres have been drilled into Reward Deposit, 127 holes for 48,858 metres into Rockface Deposit and 287 holes for 42,662 metres into Bellbird Deposit...
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• The KGL RC samples were not weighed on a regular basis but when completed no sample recovery issues were encountered during the drilling program. • Jinka Minerals and KGL split the rare overweight samples (>3kg) for assay. Since overweight samples were rarely reported no sample bias was established between sample recovery and grade. • The core recovery for the KGL drilling has been regarded as acceptable although there is no documentation for the historical drilling.

Criteria	*JORC Code explanation*	Comment
		• No evidence has been found for any relationship between sample recovery and copper grade and there are no biases in the sampling with respect to copper grade and recovery.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All KGL RC and diamond core samples are geologically logged. • Core samples are orientated and logged for geotechnical information. • All logging has been converted to quantitative and qualitative codes in the KGL Access database. • All relevant intersections were logged. • Paper logs existed for the historical drilling. There is very little historical core available or inspection.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The following describes the recent KGL sampling and assaying process • RC drill holes are sampled at 1m intervals and split using a cone-splitter attached to the cyclone to generate a split of ~3kg; • RC sample splits (~3kg) are pulverized to 85% passing 75microns. • Diamond core was quartered with a diamond saw and generally sampled at 1m intervals with samples lengths adjusted at geological contacts; • Diamond core samples are crushed to 70% passing 2mm and then pulverized to 85% passing 75microns. • Two quarter core field duplicates were taken for every 20m samples by Jinka Minerals and KGL Resources. • All sampling methods and sample sizes are deemed appropriate for resource estimation • Details for the historical sampling are not available
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The KGL drilling has QAQC data that includes standards, duplicates and laboratory checks. In ore zones standards are added at a ratio of 1:10 and duplicates and blanks 1:20. • Base metal samples are assayed using a four-acid digest with an ICP AES finish. Gold samples are assayed by Aqua Regia with an ICP MS finish. Samples over1ppm Au are re-assayed by Fire Assay with an AAS finish. • There are no details of the historic drill sample assaying or any QAQC. • All assay methods were deemed appropriate at the time of undertaking
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Data is validated on entry into the MSAccess database, using Database check queries and Maxwell's DataShed. • Further validation is conducted when data is imported into Surpac and Leapfrog Geo. • Hole twinning was occasionally conducted at Reward with mixed results. This may be due to inaccuracies with historic hole locations rather than mineral continuity issues. • For the resource estimation below detection values were converted to half the lower detection limit.
Location of	• *Accuracy and quality of surveys used to locate drill*	• For the KGL drilling surface collar surveys were

Criteria	JORC Code explanation	Comment
data points	*holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	picked up using a Trimble DGPS, with accuracy to 1 cm or smaller. • Downhole surveys were taken during drilling with a Ranger or Reflex survey tool at 30m intervals. Checks were conducted with a Gyrosmart gyro and Azimuth Aligner. • All drilling by Jinka Minerals and KGL is referenced on the MGA 94 Zone 53 grid. All downhole magnetic surveys were converted to MGA 94 grid. • For Reward there are concerns about the accuracy of some of the historic drill hole collars. There are virtually no preserved historic collars for checking. • There is no documentation for the downhole survey method for the historic drilling. • Topography was mapped using LiDAR obtained in December 2019.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drilling within Reward OP and Bellbird OP potential was on 25 m spaced sections with downhole sampling on 1 m intervals. • For Reward shallow oxide RC drilling was conducted on 80m spaced traverses with holes 10m apart • Drilling at Reward UG, Rockface and BellBird UG was on nominal 50 m spaced centres with downhole samlining on 1 m intervals based around geological contacts. • A small amount of sample compositing has been applied to some of the near surface historic drilling • The drill spacing for all areas is appropriate for defining geological and grade continuity.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Holes were drilled perpendicular to the strike of the mineralization; the default angle is-60 degrees, but holes vary from-45 to-80. • Drilling orientations are considered appropriate and no obvious sampling bias was detected.
Sample security	• *The measures taken to ensure sample security.*	• Samples were stored in sealed polyweave bags on site and transported to the laboratory at regular intervals by KGL staff or a transport contractor
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The sampling techniques are regularly reviewed internally and by external consultants

17.2 SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria	• *JORC Code explanation*	• Comment
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Jervois Project is within E30242 100 % owned by Jinka Minerals and operated by Kentor Minerals (NT), both wholly owned subsidiaries of KGL Resources. • The Jervois Project is covered by Mineral Claims and an Exploration licence owned by KGL Resources subsidiary Jinka Minerals.

Criteria	• *JORC Code explanation*	• Comment
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration has primarily been conducted by Reward Minerals, MIM and Plenty River
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Project is located mainly within the Palaeo-Proterozoic Bonya Schist on the north-eastern boundary of the Arunta Orogenic Domain. The Arunta Orogenic Domain in the north western part of the tenement is overlain unconformably by Neo-Proterozoic sediments of the Georgina Basin. • The stratabound mineralisation for the project consists of a series of complex, narrow, structurally controlled, sub-vertical sulphide/magnetite-rich deposits hosted by Proterozoic-aged, amphibolite grade metamorphosed sediments of the Arunta Inlier. • Mineralisation is characterised by veinlets and disseminations of chalcopyrite in association with magnetite. In the oxide zone which is vertically limited malachite, azurite, chalcocite are the main Cu-minerals. • Massive to semi-massive galena in association with sphalerite occur locally in high grade lenses of limited extent with oxide equivalents including cerussite and anglesite in the oxide zone. Generally, these lenses are associated with more carbonate-rich host rocks occurring at Green Parrot, Reward and Bellbird North.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• This table references a Mineral Resource Estimate and this item is not applicable
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• This table references a Mineral Resource Estimate and this item is not applicable
Relationship	• *These relationships are particularly important in*	• This table references a Mineral Resource Estimate

Criteria	*JORC Code explanation*	**Comment**
between mineralisation widths and intercept lengths	*the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	and this item is not applicable
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• This table references a Mineral Resource Estimate and this item is not applicable
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• This table references a Mineral Resource Estimate and this item is not applicable
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Outcrop mapping of the project and exploration targets using Real time DGPS.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Mineralisation is open at depth. • There are opportunities for targeting some areas for further infill drilling to increase confidence in resources. • Notably the near surface where mining is likely to commence first.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	*JORC Code explanation*	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• MA has undertaken limited independent first principal checks of the database. • Historical ITRs accept the integrity of the database. • The geological database is managed by KGL Staff. • Basic database validation checks were run, including checks for missing intervals, overlapping intervals and hole depth mis-matches.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Due to time constraints and travel restrictions imposed by COVID-19 quarantine measures, a site visit was not undertaken by the CP.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological*	• The geological model is well understood at a deposit scale. • Reward is interpreted as an original syn-depositional

	interpretation of the mineral deposit. • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	copper rich polymetallic massive sulphide deposit that has undergone deformation, metamorphism and some degree of structural remobilisation. • Geological logging, structural mapping and drill hole assays have been used in the establishment of a resource estimate, • Geological and grade continuity within defined domains appears good.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Reward deposits strike over 1.5 km. Within the structural corridor lie four high grade shoots each approximately 200m in length, and plunge up to 800 m below the surface. Two lodes lie to the east in the footwall of the reward structure. • Bellbird strikes over 1.5 km on the western Limb of the regional J fold. Along the structural corridor lie three individual high grade zones each 500m in lenth, and steeply dipping east to 600 m below the surface. • Rockface consists of structurally controlled shoots which strike approximately 300 m, and consistes of a main and northern shoot with associated hanging wall shoots. the shoots plunge steeply north between 500 and 900m belwo the surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the*	• Ordinary Kriging has been used as the interpolation technique to estimate the Mineral Resource with this method considered appropriate given the nature of mineralisation. All elements were estimated using ordinary kriging. • Estimation was undertaken in Surpac 2020 (v7.2). • The three dimensional mineralisation wireframes are used to flag the down hole intervals with unique domain codes. Intervals were checked for inconsistences, split samples, edge dilution and mineralisation outside the interpretation. • These domain codes have then been used to extract a raw assay file from MS Access for grade population analysis, as well as analysis of the most appropriate composite length to be used for the estimation. • Analysis of the raw samples within the Cu mineralisation domains indicates that the majority of sample lengths are at 1 m. Samples were composited to one metre honouring geological boundaries. • High grade outliers (Cu, Pb, Zn, Ag, Au and Bi) within the composite data were capped. NO capping was applied to S, Fe, U or W. Domains were individually asses for outliers using histograms, log probability plots and changes in average metal content; grade caps were applied as appropriate. Generally the domains defined a well distributed population with low CV's and only minimal grade-capping was required. • Grade continuity analysis within Cu domains to define the mineralisation has been undertaken.Where variograms could not be generated for a particular element, variograms were considered from adjacent domains or borrowed from the broad low grade stata-bound mineralisation.

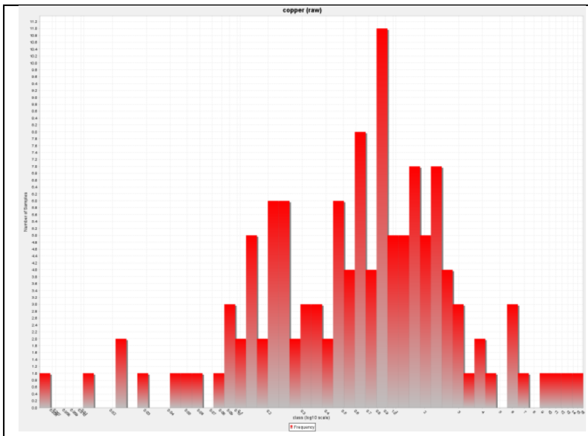
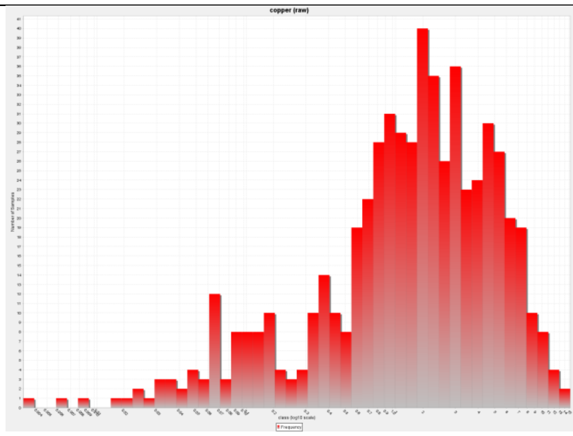
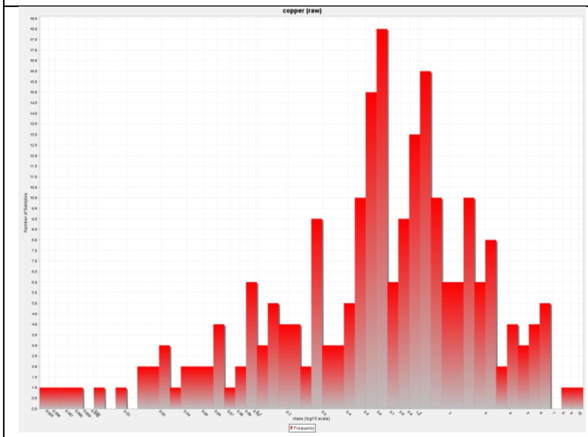
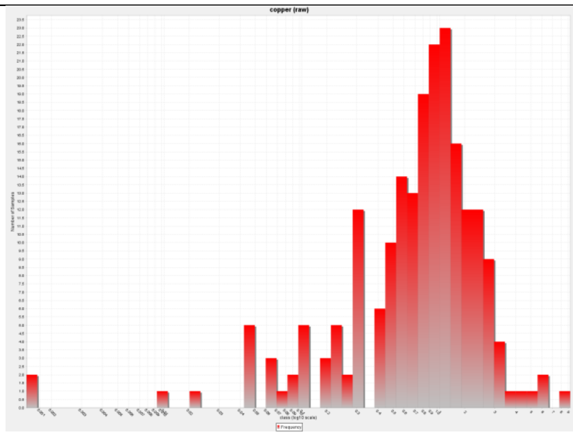
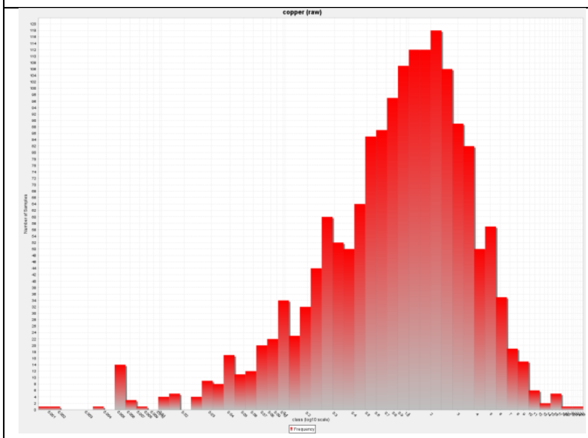
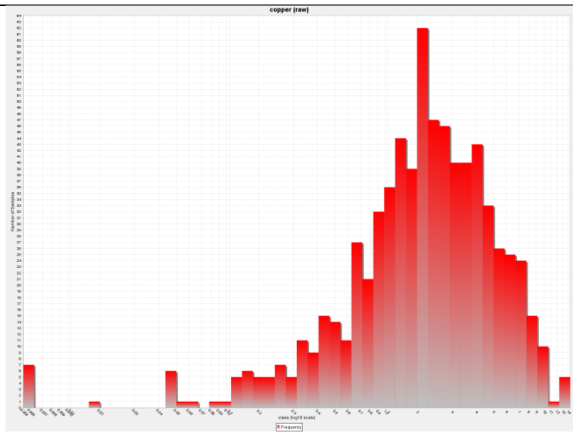
	resource estimates. • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• 3D experimental variogram modelling using a nugget (C0) and two spherical models (C1, C2), occasionally one spherical model was sufficient. Nuggets were low to moderate between 0.16 and 0.50, and variogram ranges varied between 50 and 120 m. • Anisotropic ellipses based on the resulting bearing, plunge, dip, and defined ranges and anisotropic ratios were graphically plotted in Surpac and displayed against the extracted assay composites to ensure modelled parameters were reasonably orientated • A 3D model with a parent block size of 2.5 m (X) by 10 m (Y) by 5 m (Z) was used. The drill hole spacing in the deposit ranges from 25 m by 25 m in the better drilled parts of the deposit to 50 m by 50 m in the down dip extensions of the deposit. In order for effective boundary definition, a sub-block size of 1.25 m (X) by 5 m (Y) by 2.5 m (Z) has been used; these sub-cells are estimated at the parent block scale. • The interpolations have been constrained within the mineralisation wireframes and undertaken in three passes with the mineralisation wireframes utilised as hard-boundaries during the estimation. • The first pass utilised a search distance of 60 m and a minimum number of informing samples of 8, and a maximum number of informing samples of 20. The second pass utilised a minimum of 6 and maximum of 15 samples, the maximum search distance was doubled to 120 m. Both passes restricted the maximum number of samples per hole to 4. The third pass dropped the minimum to 2 and maximum to 10 samples and the restriction of samples per hole was lifted. • No specific assumptions have been made regarding selective mining units. However the sub-blocks are of a suitable selective mining unit size for either an open pit operation or underground mining scenario. • The resource has been validated visually in section and level plan along with a statistical comparison of the block model grades against the composite grades to ensure that the block model is a realistic representation of the input grades. No issues material to the reported Mineral Resource have been identified in the validation process
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are based on dry tonnes.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The resource is reported above 200 m RL and a 0.5 % Cu lower cut-off representing open pit potential mineralisation. Below 200 m RL the resource is reported at a 1 % Cu Cut-off reflecting an underground mining scenario. Assumed Copper price is $AU 8,533/t ($AU 3.87/lb), and assumed Silver price of $AU 22.68/t. Recovery algorithms for copper and silver were supplied by KGL.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the*	• The mineralisation above the 200 m RL has been deemed to be potentially accessible by open cut mining methods.(except at Rockface where mineralisation above 200 m is limited) The deposit is a large steeply dipping syn-depositional copper deposit likely resulting in a high

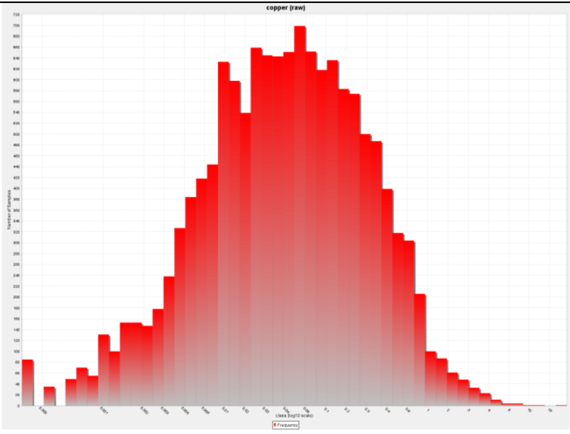
	process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	strip ratio. • Mineralisation below the 200 m RL (approximately 150 m below the surface) is considered to have underground potential above a 1 % Cu cut off. • No other mining assumptions have been used in the estimation of the Mineral Resource.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• No metallurgical factors have been applied to the in situ grade estimates. • Metallurgical Recoveries for copper and silver are reported as functions of copper grade in oxide/transitional and sulphide ore.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No test work has been carried out regarding potential acid mine drainage material type definition. • It is assumed that surface waste dumps will be used to store waste material and conventional storage facilities will be used for the process plant tailings.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Onsite measurements by water immersion method are only conducted on competent transitional and fresh core. Limited oxide samples have been taken. • Dry bulk density has been varied according to the weathering profile. Within Fresh material bulk density was estimated (OK) directly from measured samples. In areas not filled with estimated density values, a linear regression of iron assays was employed; the calculated density data was then used in the second pass to assign density to the model. • Reward - the average modelled density of mineralised oxide material is 2.60 t/m^3, transitional material is 3.00 t/m^3, the high sulphide material averages 3.08 t/m^3 and mineralised fresh material averages 3.09 t/m^3 • Rockface - The average modelled density of mineralised oxide material is 2.70 t/m^3, transitional material is 2.91 t/m^3 and structurally controlled mineralised fresh material averages 3.46 t/m^3. The average density for all estimated blocks (low grade halo and HG structures) is 3.04 t/m^3 • Bellbird - The average modelled density of mineralised

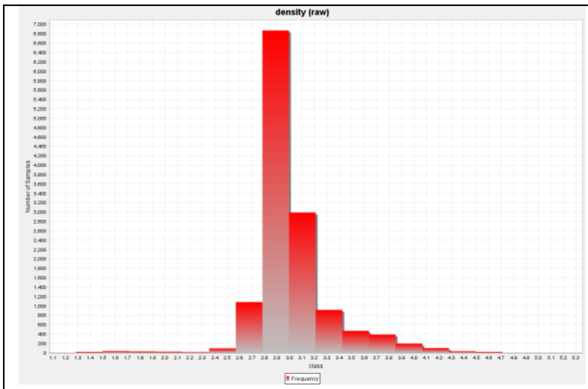
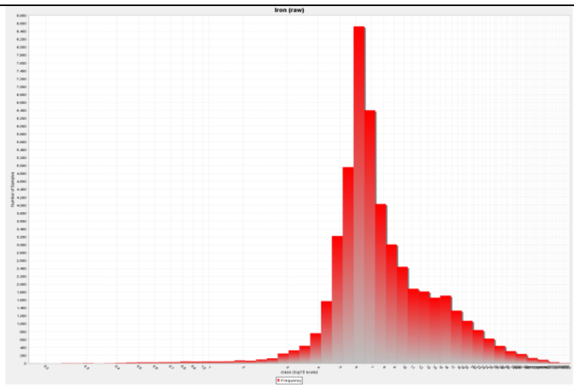
		oxide material is 2.70 t/m^3, transitional material is 2.9 t/m^3, the high sulphide material averages 2. 86 t/m^3 and mineralised fresh material averages 2.89 t/m^3
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Blocks have then been classified as Indicated, Inferred or Unclassified based on drill hole spacing, geological continuity and estimation quality parameters. • The classification protocols described in the Resource Report have been used to classify the 2020 resource and this classification reflects the competent person's view of the Reward deposit. • Unclassified mineralisation has not been included in this Mineral Resource and is the material contained in isolated block above cut off within the strata-bound domain at depth.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• There has been a limited independent audit of the data performed by MA, there has been no independent review of the mineral resource.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• With further drilling it is expected that there will be variances to the tonnage, grade and contained metal within the deposit. The competent person does not expect that these variances will impact the economic extraction of the deposit. • The mineral resource estimate appropriately reflects the competent person's view of the deposit. • No geostatistical confidence limits have been estimated. Consideration has been given to all relevant factors in the classification of the mineral resource. • The ordinary kriging result, due to the level of smoothing, should only be regarded as a global estimate, and is suitable as a life of mine planning tool. • Should local estimates be required for detailed mine scheduling, techniques such as Uniform conditioning or conditional simulation could be considered. Ultimately grade control drilling will be required. • Limited Mining records exist (40 kt of oxide extracted from Green Parrot – south of the resource). Some historic mining has occurred on the Marshal – Reward structure, records are insufficient to reconcile.

18 APPENDIX 3: HISTOGRAMS

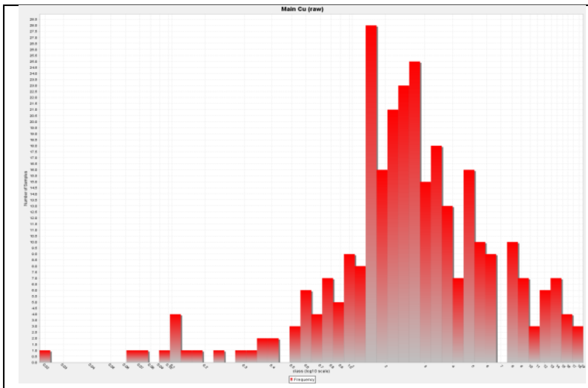
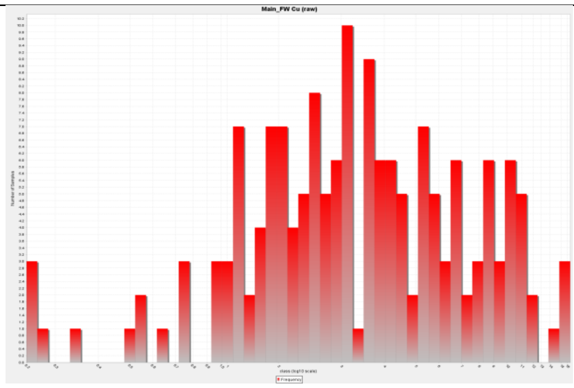
18.1 REWARD COPPER – LOG HISTOGRAMS

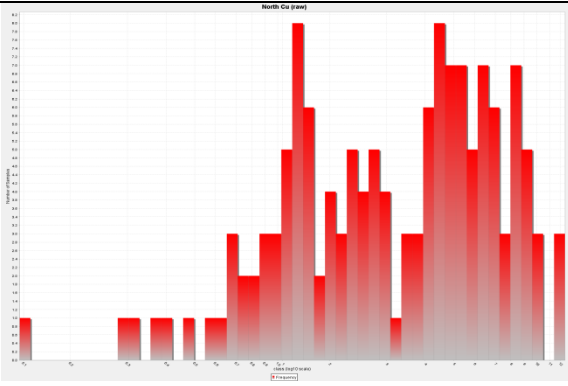
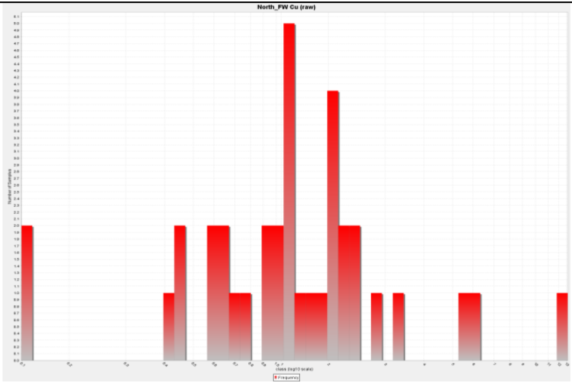
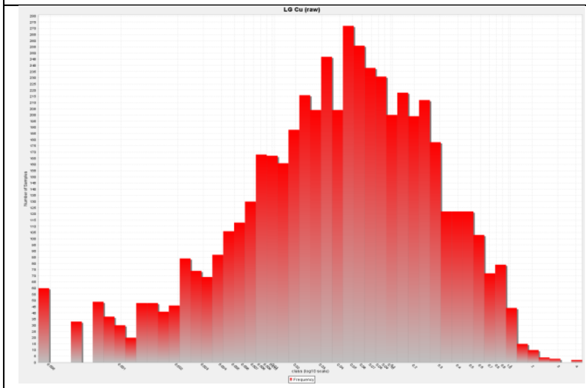
	
Deeps North - Copper	Deeps South - Copper
	
East Footwall - Copper	East Hanging Wall - Copper
	
Main Shoot - Copper	Marshall - Copper

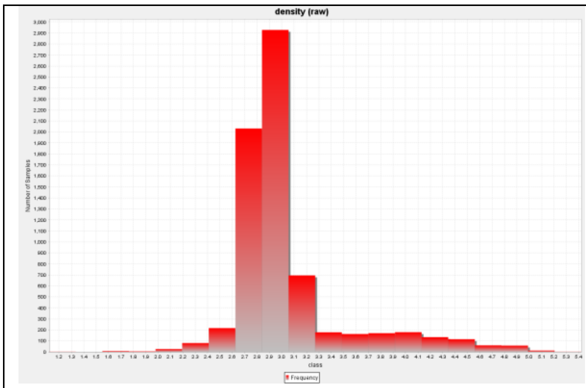
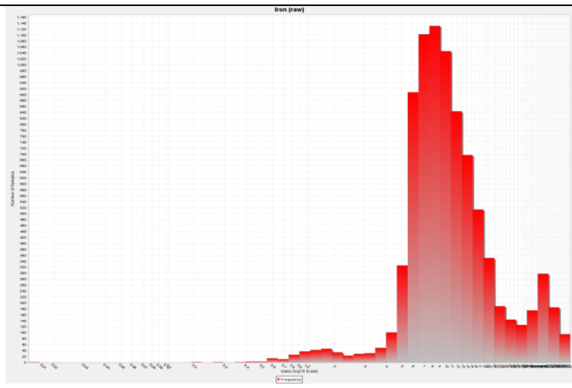
	BLANK
Strata-bound - Copper	

	
Bellbird - Density Histogram	Bellbird - Iron Log Histogram

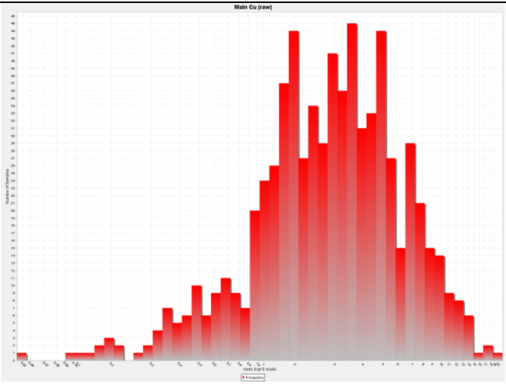
18.2 ROCKFACE COPPER – LOG HISTOGRAMS

	
Main Lode - Copper	Main FW - Copper

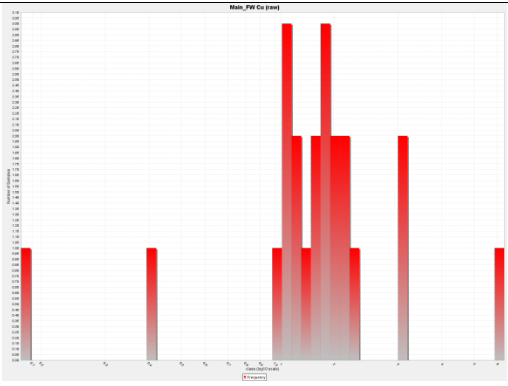
	
North lode - Copper	North FW - Copper
	BLANK
Strata-bound Copper (LG)	

	
Rockface - Density Histogram	Rockface - Iron Log Histogram

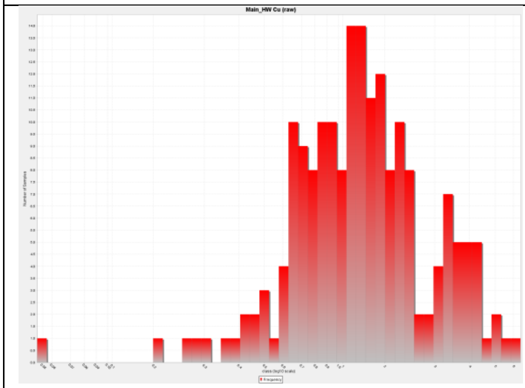
18.3 BELLBIRD COPPER – LOG HISTOGRAMS



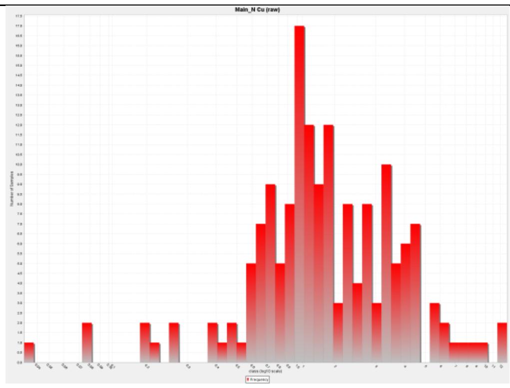
Main Lode - Copper



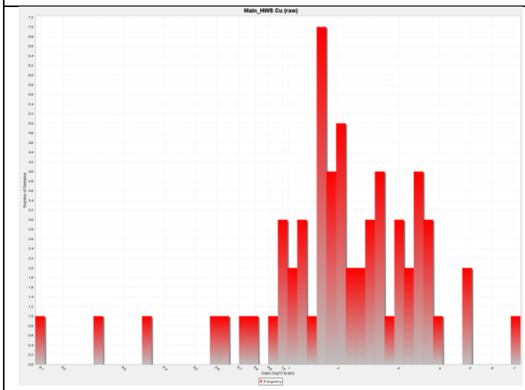
Main FW Lode - Copper



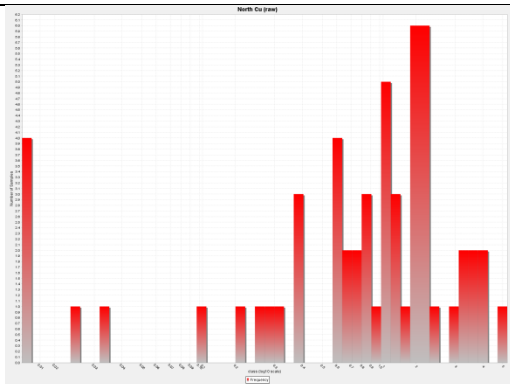
Main HW lode - Copper



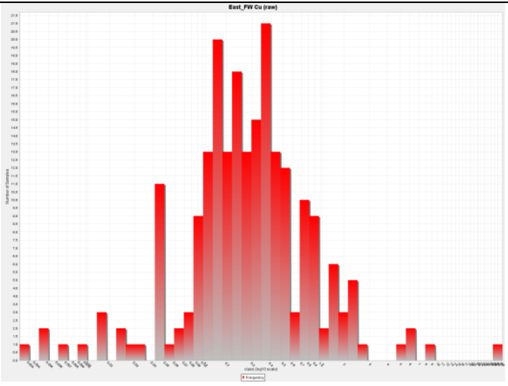
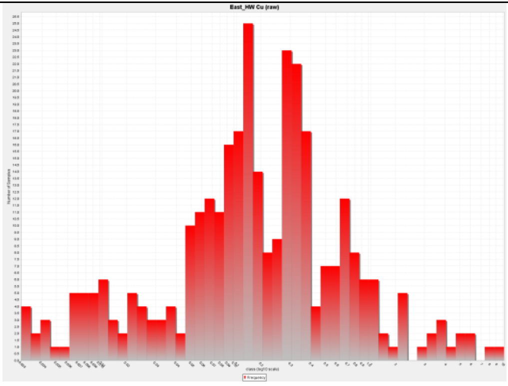
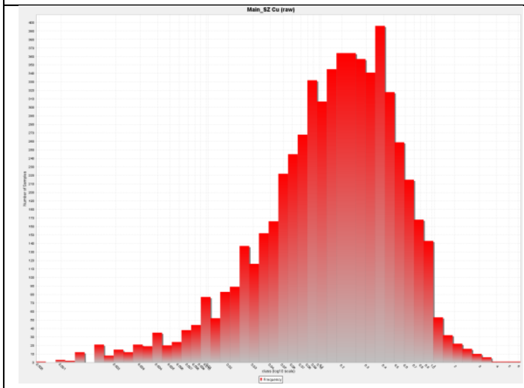
Main-North Lode - Copper

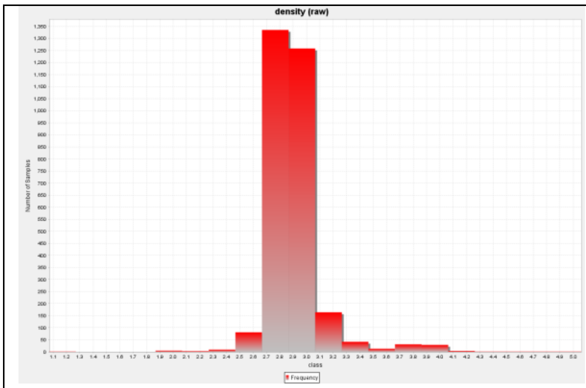
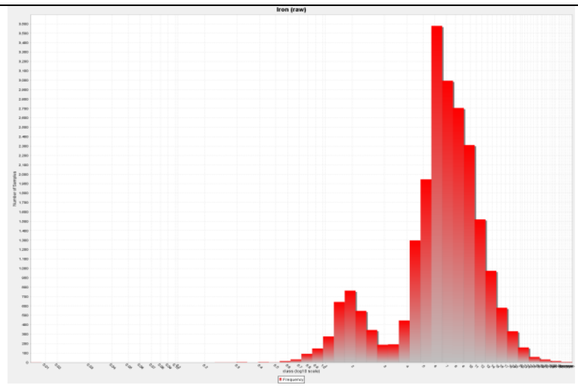


Main HW-Splay Lode - Copper



North Lode - Copper

	
East FW Lode - Copper	East HW - Copper
	BLANK
Bellbird Stratabound (SZ) - Copper	

	
Bellbird - Density Histogram	Bellbird – Iron Log Histogram