Emull Base Metals Deposit Mineral Resource Estimate

Ashmore Advisory Pty Ltd

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for

AuKing Mining Limited

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Executive Summary

Background

Ashmore Advisory Pty Ltd ("Ashmore") was engaged by AuKing Mining Limited ("AKN" or the "Company") to complete a maiden Mineral Resource estimate for the Emull base metal deposit, part of the Koongie Park Copper/Zinc Project (the "Project") in November 2022. The Project is located approximately 25km southwest of Halls Creek in the Kimberley region of Western Australia. The Project contains three known occurrences of copper/zinc mineralisation; the Onedin, Sandiego and Emull deposits. The Emull Mineral Resource has been estimated in accordance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (The JORC Code 2012).

The Emull Mineral Resource estimate was completed as a result of AKN's entering into a joint venture arrangement with Astral Resources Limited ("AAR") in June 2021 for the Project. In addition, an 11 hole RC drill program was conducted at Emull in 2022, with those results supporting the historical data.

The Emull base metal deposit occurs in Koongie Park Formation, part of the Palaeoproterozoic Lamboo Province, within the northeast trending Halls Creek Orogen. The deposit is hosted by altered and contact metamorphosed calc-silicate rocks, which have been intruded by and partially assimilated by the Emull gabbro. Thin, semi-massive and disseminated mineralisation is confined to several discontinuous but apparently stratabound lenses, dominated by sphalerite, with subordinate chalcopyrite and galena. The largest lens has a strike length of 500m and a maximum plan width of 50m.

The genesis of mineralisation at Emull is not certain, although models based on an origin as a volcanic hosted massive sulphide ("VHMS") deposit partially assimilated during intrusion of gabbro, or as a skarn developed during intrusion of gabbro into carbonate units within the Koongie Park Formation, have been proposed.

Mineral Resource Estimate Key Outcomes

Drilling at the Project extends to a vertical depth of approximately 350m. The mineralisation was modelled from surface to a depth of approximately 280m below surface. The estimate is based on good quality reverse circulation ("RC") and diamond core ("DD") drilling data. Drill hole spacing is predominantly 25m by 20m in the well-drilled portions of the Project and broadens to approximately 80m by 80m over the remaining areas.

Results of the independent Mineral Resource estimate by Ashmore for Emull are tabulated in the Statement of Mineral Resources in Table 1-1; and shown in detail in Appendix 3. The Statement of Mineral Resources is reported in line with requirements of the 2012 JORC Code and is therefore suitable for public reporting.

Table 1-1 – Emull December 2022 Mineral Resource Estimate (0.15% Cu Cut-off Grade)

Type	Indicated Mineral Resource								
	Tonnage Mt	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag koz
Oxide	0.26	0.28	0.72	0.16	5.4	700	1,800	400	50
Transitional	0.34	0.29	0.68	0.17	7.0	1,000	2,300	600	80
Fresh	1.8	0.31	0.57	0.14	6.6	5,600	10,400	2,400	390
Total	**2.4**	**0.30**	**0.60**	**0.14**	**6.6**	**7,300**	**14,500**	**3,400**	**510**
Type	**Inferred Mineral Resource**								
	Tonnage Mt	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag koz
Oxide	0.04	0.24	0.23	0.05	3.1	100	100		
Transitional	0.05	0.25	0.18	0.04	3.4	100	100		10
Fresh	9.7	0.26	0.33	0.08	4.6	25,200	32,300	7,400	1,420
Total	**9.8**	**0.26**	**0.33**	**0.08**	**4.5**	**25,400**	**32,500**	**7,400**	**1,430**
Type	**Total Mineral Resource**								
	Tonnage Mt	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag koz
Oxide	0.29	0.28	0.66	0.14	5.2	800	1,900	400	50
Transitional	0.39	0.28	0.61	0.15	6.6	1,100	2,400	600	80
Fresh	11.5	0.27	0.37	0.09	4.9	30,800	42,700	9,800	1,810
Total	**12.2**	**0.27**	**0.38**	**0.09**	**4.9**	**32,700**	**47,000**	**10,800**	**1,940**

Note:

The Mineral Resource has been compiled under the supervision of Mr. Shaun Searle who is a director of Ashmore Advisory Pty Ltd and a Registered Member of the Australian Institute of Geoscientists. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.

All Mineral Resources figures reported in the table above represent estimates at December 2022. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

The block model was created and estimated in Surpac using Ordinary Kriging (“OK”) grade interpolation. The mineralisation was constrained by mineralisation envelopes prepared using a nominal 0.1% copper cut-off grade for disseminated sulphide mineralisation. A minimum down-hole length of 3m was adopted for the interpretation.

Samples were composited to 1m based on an analysis of sample lengths inside the wireframes. Top cuts were applied to some of the zinc and silver composite data after review of the composite statistics.

The block dimensions used in the model were 10m EW by 5m NS by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m. This was selected as the optimal block size as a result of kriging neighbourhood analysis (“KNA”).

A bulk density of 2.7t/m^3 was assigned to the fresh material, a value of 2.4t/m^3 was assigned to transition and 2.0t/m^3 was assigned to oxide, based on known values from similar geological terrains.

The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced drilling of less than 25m by 20m, and where the continuity and predictability of the mineralised units was reasonable. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 25m by 20m and less than 80m by 80m; where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.

The Mineral Resource tonnages and grades were estimated on a dry in-situ basis. The resource model is undiluted, so appropriate dilution needs to be incorporated in any evaluation of the deposit.

The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a copper cut-off grade of 0.15% under the assumption of an open pit mining method.

It is assumed the Emull material can be extracted with open pit mining methods and either toll treating or could be processed as part of a multi deposit operation along with AKN’s Onedin and Sandiego deposits. Metallurgical testwork has not yet been conducted at Emull, although it is anticipated that similar results could be obtained to the geologically similar Onedin and Sandiego deposits at the Project. It is anticipated separate concentrates for copper and zinc could be generated from Emull, however further studies are required.

This document was compiled by Shaun Searle, a Member of the Australian Institute of Geoscientists. Mr Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Searle is a director of Ashmore. Ashmore and the Competent Person are independent of the Company and other than being paid fees for services in compiling this report, neither has any financial interest (direct or contingent) in the Company.

Risks

The local geology and structure, particularly frequency of localised faulting and the fault geometry at Emull, is not well defined. This creates potential for minor, localised tonnage and overall geometry variations in the model.

Weathering surfaces are based on qualitative logging. Therefore, some variation in modelled versus actual locations of oxidation boundaries is possible.

The grade domains are based on cut-off grade and geological logging. The mineralisation occurs within disseminated sulphide mineralisation that can show variation in thickness and geometry across the breadth of the deposit. There is a risk that the mineralisation will not be continuous as modelled.

The topographic surface was generated from surveyed drill collars. Although the Emull topography is generally flat, a topographic survey should be conducted.

Bulk density was assumed, rather than measured. Future drilling programs should incorporate diamond core, with density measurements being obtained from all material types.

Opportunities

Further drilling along strike or down-dip within the Project area may define extensions to known mineralisation or new zones of mineralisation.

There is an opportunity to increase the level of confidence in the estimate by conducting infill drilling.

Collection of density measurements may result in small increases (or decreases) to bulk density values applied in the block model.

Recommendations

Ashmore recommends:

- For future RC drilling, field duplicates are taken at a rate of 1 in 25;
- Using the Emull block model to conduct a mining optimisation to assist in determining the potentially mineable portions of the deposit and to guide drill hole planning;

- Additional infill drilling (25m by 20m spacing) in the economic portions of the deposit, particularly around areas of sub-economic grades within wireframes and higher grade zones;
- With additional drilling, the interpretation of additional zinc dominant domains should be considered;
- Recording bulk density measurements from all assayed intervals from all future diamond drilling;
- Drilling diamond holes at the deposit to confirm mineralisation geometry and to conduct structural, geotechnical and metallurgical studies to improve ore body knowledge and confirm viability for mining and processing; and
- Additional drilling along strike, down-plunge/dip to extend known mineralisation.

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1. Introduction

1.1 Purpose of the Report

This report is an estimate (hereafter, referred to as the "Statement") prepared for AuKing Mining Limited ("AKN" or "the Company"), of the Mineral Resources of the Emull base metal deposit. The Statement reports the Mineral Resources as of August 2022 and has been undertaken in compliance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code 2012 Edition) prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, ("The JORC Code").

The Emull Mineral Resource estimate was completed as a result of AKN's entering into a joint venture arrangement with Astral Resources Limited ("AAR") in June 2021 for the Project. In addition, an 11 hole RC drill program was conducted at Emull in 2022, with those results supporting the historical data.

1.2 Relevant Assets

The Project is located approximately 25km southwest of Halls Creek in the Kimberley region of Western Australia (Figure 2-1). The Project contains three known occurrences of copper/zinc mineralisation; the Onedin, Sandiego and Emull deposits.

1.3 Scope of Work

The scope of work ("SOW") includes the following:

- Review available data for the deposit, including;
  - Review input drilling data;
  - Review and modify geology, mineralisation and weathering wireframes; and
  - Review bulk density results.
- Undertake statistical and geostatistical analyses of the data where required, and undertake the determination of suitable grade and bulk density domains and subsequent estimation parameters;
- Conduct estimation, validation, classification and reporting in accordance with requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition);
- Review the Mineral Resources for eventual economic extraction;
- Complete a full Mineral Resource Report; and
- Provide Competent Person sign-off for the Mineral Resource Report.

1.4 Capability

This report was prepared on behalf of AKN by Shaun Searle, Director of Ashmore Advisory Pty Ltd ("Ashmore"). Ashmore operates as an independent technical consultant providing Mineral Resource evaluation services to the resources industry.

All opinions, findings and conclusions expressed in this Report are those of the Competent Person. Shaun Searle is a Member of the Australian Institute of Geoscientists. Mr Searle has sufficient experience 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 Searle consents to the inclusion in this report of these matters based on information in the form and context in which it appears.

Drafts of this Report were provided to AKN, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in this Report.

1.5 Information Sources

The following reports, documents and studies were used as reference material in the preparation of the Statement:

- Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, (The JORC Code – 2012 Edition), 2012.
- AuKing, 2021. Koongie Park 2021 Combined Annual Report. Internal tenement annual report dated May 2022.
- AuKing, 2022. QAQC Report for Emull Drilling. Internal technical report dated November 2022.
- CSA Global, 2022. Mineral Resource Estimates for Onedin and Sandiego. CSA Global technical memorandum for AuKing Mining Limited, dated 4th April 2022.
- Various ASX releases accessed from the AKN website (https://www.aukingmining.com/site/content/).

The key files supplied to Ashmore included:

- Drilling database – '*KNGIE_Export_Emull_Surpac.accdb*'.
- Surpac wireframes for mineralisation, weathering and topography.

1.6 Approach

The process adopted for preparing the Mineral Resource estimate is described below:

1. Mineralisation and geology wireframes were supplied by AKN; and reviewed and modified where required by Ashmore in Surpac software. The wireframes were interpreted using down-hole geochemistry and geological logging.

2. The underlying raw data, such as drill hole logs, quality control reports and assay logs were reviewed by Ashmore and are considered to be suitable for use in estimating the Mineral Resource.

3. An Ordinary Kriging ("OK") interpolation was used to estimate Cu, Ag, Pb, and Zn values within the block model, using up to three estimation passes.

4. Preliminary classification of the mineralised domains in the block model into Indicated and Inferred Mineral Resource was based on data quality, geological confidence and drill hole spacing. Copper, silver, lead and zinc grades and tonnages were estimated and reported in these categories after applying cut-off criteria.

5. Checks were undertaken and results and supporting information documented in this report.

2. Project Description

2.1 Location

The Project is located approximately 25km southwest of Halls Creek in the Kimberley region of Western Australia (Figure 2-1). The Project contains three known occurrences of copper/zinc mineralisation; the Onedin, Sandiego and Emull deposits.

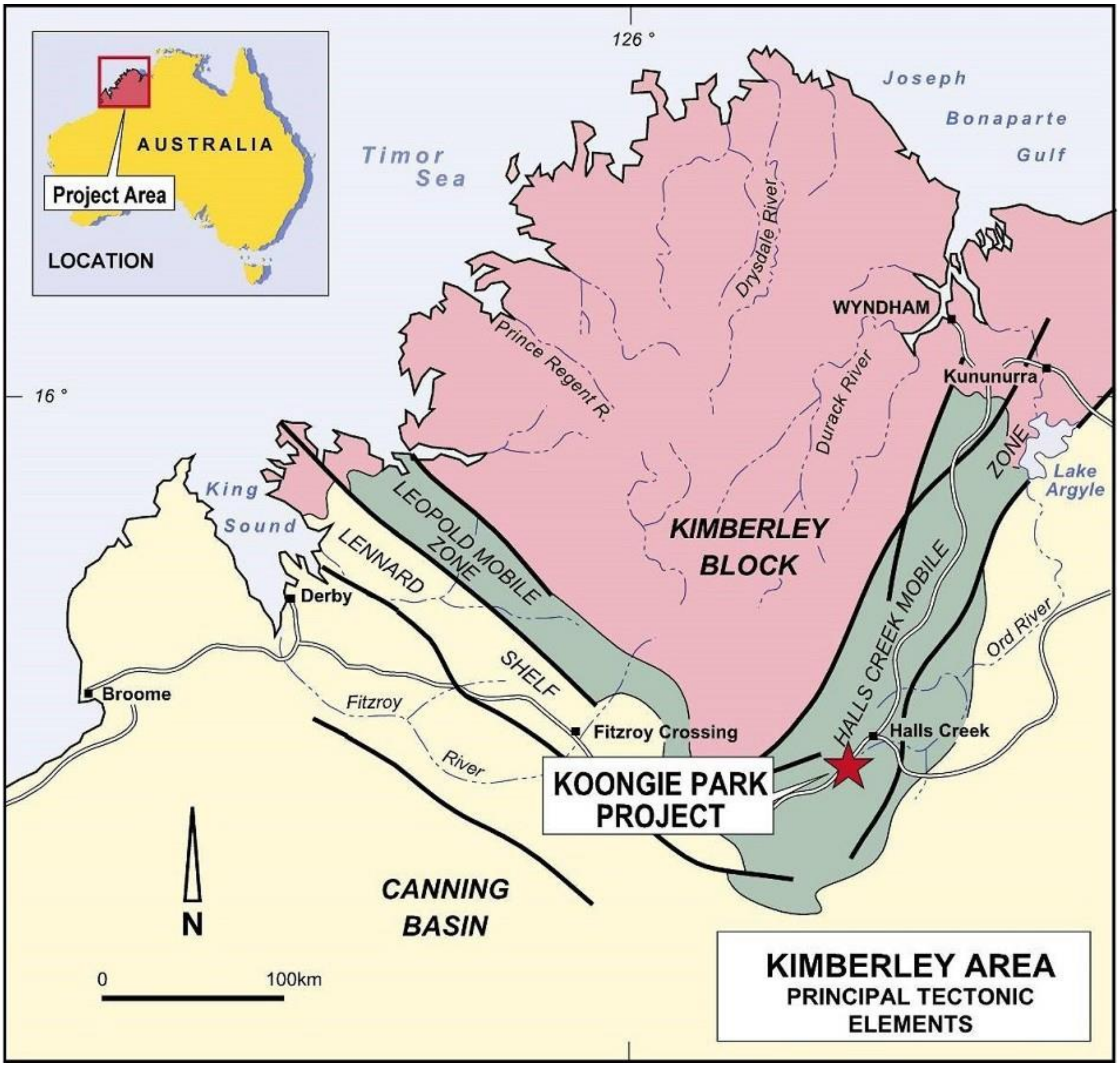


Figure 2-1 Koongie Park Copper/Zinc Project Location (Source: AKN)

2.2 Tenements and Land Tenure

The Emull deposit is located within E80/4957. The Exploration Licence is located 44km southwest of Halls Creek, near the Great Northern Highway (refer to Figure 2-2).

The tenement is current and in good standing.

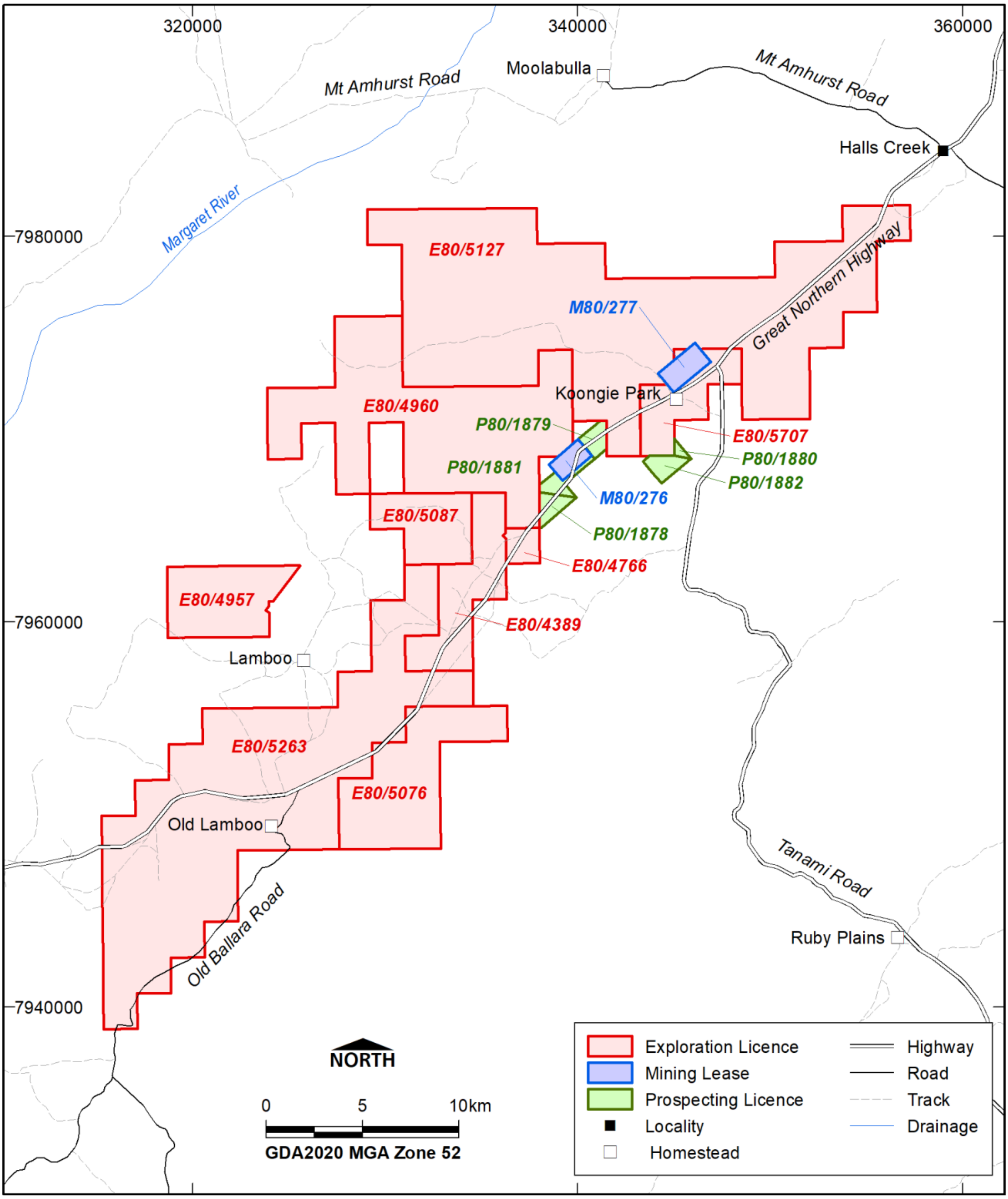


Figure 2-2 Koongie Park Tenements (Source: AKN)

2.3 Grid System

A local exploration grid was previously established at Emull and detailed survey work has previously cross-referenced the local grids to the Zone 52 MGA94 and now, the GDA 2020 coordinate system. Mineral Resource estimation was carried out using the GDA 2020, Zone 52 coordinate system.

2.4 Site Visit

A site visit to the deposit for the purpose of geological due diligence was undertaken in November 2022. The visit was carried out by the Competent Person for Mineral Resources, Shaun Searle, and included the following:

- Meeting and discussions with key exploration personnel for deposit overview;
- Field inspection of prospect area including surface conditions; and
- Review of selected RC chips from the deposit. Verification of logging and sampling procedures and clarification of geological and mineralogical features of the deposits.

The data, drilling and geological records were found to be well maintained by AKN and comprehensive field procedures had been developed. The site visit review concluded no significant issues were identified with regards to current geological understanding and data information.

3. Geology and Mineralisation (Source: AuKing, 2022a)

The geology and mineralisation have been sourced from internal technical reports and summaries.

3.1 Regional Geology

The Palaeoproterozoic Lamboo Province in the East Kimberley region is host to a wide range of mineral deposit styles including orogenic and possibly epithermal gold systems. The principal geological domains were formed during the amalgamation of the Kimberley and proto- North Australian craton between 1.9 and 1.8 Ga. Subdivision of the Lamboo Province into three distinct geological domains has been recognised (Figure 3-1):

- The Western zone is thought to represent the eastern margin of the buried Kimberley craton which is interpreted from geophysics to be composed of a dominantly Archean Lithologies comprise the Lamboo Fm flysch and Whitewater Fm felsic volcanics, both deformed and metamorphosed and extensively intruded by potassic, I-type granitic and sub-volcanic rocks, as well as gabbroic rocks, and layered mafic– ultramafic intrusions of the Paperbark Supersuite during the 1,865 – 1,850 Ma Hooper Orogeny;
- The Central zone may be an arc-like domain on a continental fragment, comprising turbiditic metasedimentary and mafic volcanic and volcaniclastic rocks of the Tickalara Metamorphics, deposited by 1,865 Ma. These rocks were intruded by tonalitic sheets and deformed and metamorphosed between c. 1,865 – 1,856 Ma and at 1,850 – 1,845Ma. A younger succession of rocks comprising the sedimentary rocks and mafic and felsic volcanic rocks of the Koongie Park Formation were deposited in a possible rifted arc setting at around 1,843Ma.

  Layered mafic–ultramafic bodies were intruded into the Central zone at c. 1,856, c. 1,845 and 1,830 Ma. Large volumes of granite and gabbro of the Sally Downs Supersuite intruded the Central zone during the Halls Creek Orogeny at 1,835 – 1,805Ma;
- The Eastern zone The Eastern zone has exposed older basement of c. 1,910 Ma mafic and felsic volcanic rocks of the Ding Dong Downs Volcanics and associated granitic These are unconformably overlain by low-grade metasedimentary and metavolcanic rocks of the Halls Creek Group. At the base of the Halls Creek Group the quartz sandstone of the Saunders Creek Formation contains exclusively Archean detrital zircon populations (3,600 Ma – 2,512 Ma). Overlying mafic volcanic rocks of the Biscay Formation in the lower part of the Halls Creek Group were erupted at c. 1,880 Ma on a passive continental margin along the western edge of the North Australian Craton. The overlying turbiditic metasedimentary rocks of the Olympio Formation divided into upper and lower units separated by alkaline volcanism at c. 1,857 Ma and 1,848 Ma. The Halls Creek Group was deformed and metamorphosed during the 1,835 – 1,805 Ma Halls Creek Orogeny, and were stitched to the central zone by the 1,820 – 1,810 Ma granites of the Sally Downs Supersuite;

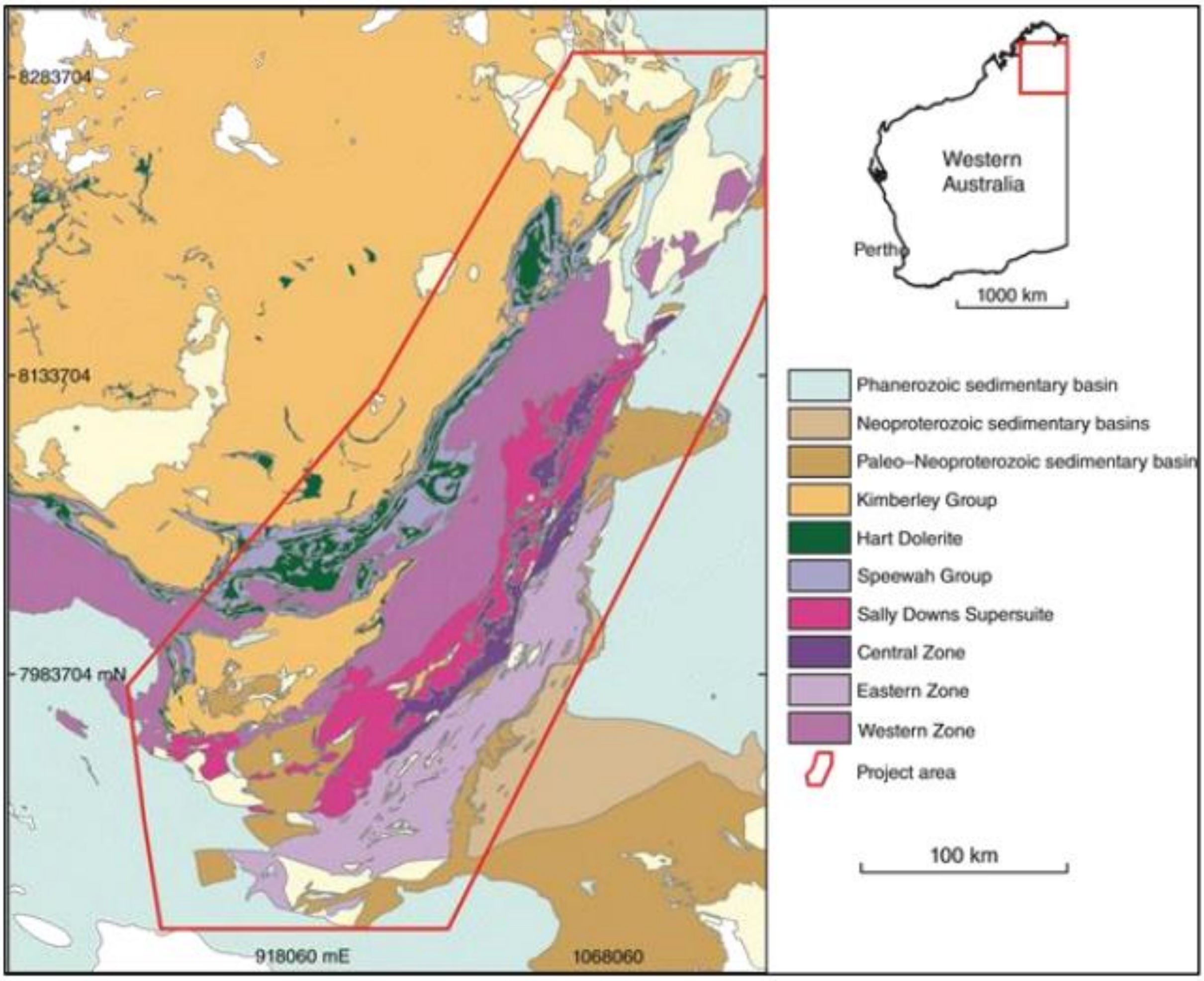


Figure 3-1 Map of Eastern, Central and Western Zones of the Lamboo Province within the Halls Creek Orogen (Source: AKN, 2022a)

Post-orogenic rocks of the Kimberley Group onlap and unconformably overly the Lamboo province successions. These rocks are sometimes interpreted (Tyler et al 2012) to include the Moola Bulla Fm which dominantly comprises coarse clastic rocks that lies close to the boundary between the Eastern and Central zones. Orth (2002) noted these rocks have been deformed and recognized two generations of folding. This strongly suggests that The Moola Bulla Fm is a localised late orogenic basin formed during the Halls Creek orogeny, such basins are common in many orogenic gold provinces, and in many cases host gold mineralisation. The Lamboo province was amalgamated to form the North Australian craton.

Subduction zones on either side of the Central zone of the Lamboo Province have been postulated, however no subduction beneath the Eastern Zone is interpreted during the Thus, the Eastern Zone could be regarded as a passive margin to the proto-North Australian continent onto which a thick succession of turbidites and volcanics was deposited. This domain may have been more isolated from significant thermal events as evidenced by its mid- greenschist or lower metamorphic grades and lack of intrusions outside the suture zones between Central and Eastern zones along the Angelo fault. For this reason, gold prospectivity in the Eastern zone may be lower. The presence of volcanics, including alkaline volcanics within the Olympio Formation, does however suggest some link to an active margin at times during the orogenic phase.

3.2 Local Geology

The following descriptions of property geology are derived from the reconnaissance and mapping program conducted in 2017, supported by existing literature and GSWA geological reports. Major tectonic elements represented in the project area include the Paleoproterozoic Lamboo Central and Eastern zones, Sally Downs Supersuite, Moola Bulla Basin, and Kimberley Basin. The majority of the property contains rocks of the Lamboo Central zone. A complex history of polyphase deformation and metamorphism obscure primary textures of rocks and original contact relationships between units.

Tickalara Metamorphics

The oldest rocks examined were of the Tickalara metamorphics, comprising turbidites and mafic volcanic facies, dated at 1,865 – 1,854 Ma (Page & Sun 1994, Page et al. 1994). Sedimentary Tickalara units observed during the 2017 season were dominantly interlayed pelite and psammite, with local banded iron-formation, and lesser calc-silicate metamorphosed rocks with biotite-muscovite-(andalusite? or silliminite?)-quartz and garnet-staurolite?-biotite-muscovite-quartz assemblages.

These rocks are sometimes strikingly similar in appearance to those in the Koongie Park Formation (KPF), and indeed the KPF was formerly mapped as Tickalara metamorphics. A supposed distinguishing characteristic, presented in existing literature, is that the Tickalara exhibit deformation textures produced during the Hooper Orogeny (which occurred prior to the deposition of the KPF) (Tyler & Page 1996, Tyler et al. 1998). However, such textures were not noted during field work.

Mafic metavolcanic rocks mapped as Tickalara were mainly observed as strongly weathered basalt. In outcrop the unit weathers to iron oxides, giving a superficially gossanous impression. In creeks and rivers, it is less weathered and relict chlorite gives it a grey- green appearance. At Nicolsons Find, an occurrence of this unit strikes across the Rowdies open pit, continuing as outcrop outside the pit and appearing in the underground decline.

The unconformable contact between the Tickalara and overlying KPF in the property was not observed during field work, although it may be present on the property; Orth (2002) describes it as well exposed at Hanging Tree, where basaltic volcanic facies and sandstone are directly overlain by ironstone, chert and felsic volcanic facies, typical of the upper KPF, with no obvious structural or metamorphic break between the two units.

Olympio Formation

The Olympio Formation consists of a monotonous sequence of weakly metamorphosed and strongly deformed sediments, thin- to medium- bedded mudstone, siltstone, and matrix-supported quartz wacke, greywacke and arkose. Thicker beds include metamorphosed coarse- grained to pebbly, clast-supported quartz sandstone units.

Moving south from the highway and crossing the Mary River, there is a noteworthy change in topography that contrasts with the areas of KPF bedrock. Deeply incised, 'V' shaped creek beds with steep banks feed the Mark River and its various feeder creeks.

Koongie Park Formation

The KPF occurs in the southern portion of the Central zone of the Halls Creek Orogen (Griffin & Tyler 1992, Tyler et al. 1994, 1995). It extends for 85 km, NNE and southwest of Halls Creek (Blake et al. 1999, Tyler et al. 1998). The KPF at Koongie Park is broadly characterised as metamorphosed low-grade composed of mafic and felsic volcanic and associated sedimentary facies including sandstone, mudstone, carbonate, chert and ironstone intruded by rhyolitic to rhyodacitic sills, dolerite bodies and basalt dykes (Orth, 1997; Griffin et al. 1998; Orth, 2002). The KPF can be divided into two informal units: lower and upper (Orth, 2002). Felsic volcanic facies and carbonate are less common in the lower KPF. Sandstone turbidites and mudstone comprise most of the lower KPF but are less abundant in the upper KPF. Orth (2002) describes the lower KPF as consisting of basalt, dolerite, interbedded graded sandstone and mudstone, mudstone, chert, ironstone and poorly sorted, lithic-rich pebbly sandstone facies. The interbedded graded sandstone and mudstone facies and mudstone facies dominate with isolated outcrops of chert. Locally, either mafic rocks or sediments may be dominant in the stratigraphic sequence: locally, tabular basalt is intercalated with rare beds of poorly sorted, lithic-rich pebbly sandstone. However, in other areas, small units of basalt are intercalated with interbedded graded sandstone and mudstone. The upper KPF composes felsic volcanic units, carbonate, ironstone, chert, mudstone, quartz-bearing volcaniclastic beds and lithic sandstone. Currently known base metal prospects are concentrated in the upper KPF at Koongie Park, i.e., the trend which includes Sandiego and Onedin deposits.

Low outcrop and subcrop of metasediments are present across the claims, but separating the various silty to sandy and variably deformed and metamorphosed units did not readily produce mappable units, except at a very local scale. These sediments range in colour, from brown-green to yellow-brown, grey-brown, and rust-red.

Moola Bulla

The upper KPF is overlain in the south by the Moola Bulla Formation. Although a portion of this unit is present in the central southwest of the Koongie Park tenements, it was not observed during the 2017 field season. A summary definition from Griffin et al. (1998) and Orth (2002) is presented below.

Sediment deposited into the Moola Bulla Basin is interpreted as deposited in a fluvial and sandy braid-delta complex draining from a granite and metasedimentary source. Basal erosional contacts are present where the Moola Bulla Formation locally incises upper KPF chert, mudstone and sandstone. The Moola Bulla Formation outcrops in a refolded synform on the southeastern side of the Highway Fault and as a narrow fault sliver further north on the northwestern side of this fault.

Sally Downs Supersuite

The Sally Downs Supersuite is extensive in the Central zone of the Halls Creek Orogen (Tyler et al. 1995, Blake et al. 1999). In the field area, granitoid, massive gabbro, and mingled gabbro-granite outcrop in the southern half and northeastern areas. Granitoid and gabbro plutons have intruded and contact metamorphosed the Koongie Park Formation and are therefore younger than c. 1843 Ma Koongie Park Formation. They are regarded as belonging to the 1,835 - 1,805 Ma Sally Downs Supersuite (Sheppard et al., 1995, 1997).

Emull Gabbro

The Emull Gabbro was not observed during 2017 field work. The following is summarized from Griffin et al. (1998) and Orth (2002) and included, as the unit is prominent in GSWA mapping of the southwest Koongie Park project area.

The Emull Gabbro is a north-northeasterly trending, elongate intrusion about 15 km long by 7 to 8 km wide that outcrops on the Angelo and Dockrell map sheets. The unit comprises medium- to fine-grained, subophitic and subhedral granular gabbro, xenocrystic quartz gabbro and tonalite. The tonalite typically forms irregular veins cutting the various gabbro types. Locally, some of the coarser grained gabbros have a weak layering. In proximity to the Dillinger Monzogranite, the gabbros commonly contain rounded xenocrysts of plagioclase and quartz with fine-grained reaction rims. The unit has been metamorphically recrystallized, and consists of amphibole or green hornblende and plagioclase, with up to 5% reddish-brown biotite, minor interstitial quartz, and minor amounts of opaque minerals. Amphibole commonly contains cores of clinopyroxene and rare orthopyroxene, and locally plagioclase cores contain abundant secondary epidote.

McIntosh Suite (and Lamboo Ultramafics)

The McIntosh Suite is a group of layered mafic-ultramafic intrusions that includes magnetite gabbro, magnetite gabbronorite, magnetite- olivine gabbro, olivine gabbro, leucogabbro, leucogabbronorite, anorthosite, olivine gabbronorite, gabbro, gabbronorite, peridotite and troctolite. Four informal units are present in the suite, including the Lamboo Ultramafics. The suite has an approximate age of between 1,855 +/-2 Ma and 1,842 +/-3 Ma (SHRIMP Data from OZCHRON1, Geological Survey of Western Australia, 2013). Exposure of the suite is within the AAR's greater Emull target area, west of Nicolsons Find.

The Lamboo Ultramafics form a north-northeasterly trending elliptical intrusion about 6km long and 2-3km wide, with a smaller exposure about 1 to 3km to the northeast. The ultramafic rocks are thought to have been intruded as sills into low- to medium-grade metamorphosed KPF. The intrusion was folded before being intruded by the Loadstone Monzogranite. Possible cumulate textures are present in resistant hills of folded Lamboo Ultramafics, although these are overprinted by later tectonic fabrics and may represent recrystallization textures.

Carbonate bearing exposures of weathered ultramafics are present in creek beds. Carbonate is present in both the weathered rock matrix and as sharp-walled stockwork veining.

Griffin et al. (1998) describe the Lamboo Ultramafics as commonly covered by a silcrete cap. Small areas of likely silcrete and ferricrete were observed, usually on the scale of several square metres, atop hilly areas. More interesting, however, are occurrences of massive boudinaged siliceous rock and centimeter scale layers of botryoidal textured silica. Both are deformed and folded along with the ultramafic, and can be mapped over tens of metres. This feature may indicate weathering of the unit before the Yampi orogeny, or post- or syn-intrusion hydrothermal activity. Another possibility could be recrystallized intervals of KPF chert.

Scattered exposures of basic to intermediate gabbro were observed to the west of the Lamboo ultramafics and metabasalt to the east.

Kevins Dam Suite

The Kevins Dam suite of felsic intrusive rocks include massive, medium-grained, even-textured and porphyritic biotite monzogranite and syenogranite, with local mafic enclaves. The main two members of this suite occurring on the Koongie Park tenements are the Loadstone Monzogranite and Dillinger Monzogranite.

Loadstone Monzogranite

The Loadstone Monzogranite forms scattered outcrops, commonly covered in laterite. These occur across the southern portion of Lamboo Station, including Nicolsons Find and Nicolsons East target area. Exposure of the unit in open pits shows that it is deeply weathered, up to greater than 200m. Dating of the Loadstone gives an age of 1,827 ± 2 Ma (Blake et al. 1999). The Loadstone Monzogranite intrudes the Tickalara Metamorphics, KPF, and McIntosh Suite.

The intrusion is quite homogenous across the Koongie Park project, consisting almost entirely of medium- to coarse-grained, weakly porphyritic biotite monzogranite and syenogranite. The intrusion is distinguished from most others in the Sally Downs batholith by the presence of microcline, rather than microperthite, as the K-feldspar (Orth, 2002). K-feldspar megacrysts are typical. As a whole, the groundmass is undeformed within the intrusion; however, margins of the intrusions are variously folded or separated by extension and boudinage.

Late aplite and pegmatite veins crosscut the Loadstone Monzogranite.

Dillinger Monzogranite

Best exposure of the Dillinger monzogranite encountered was in the far southwest tenement boundary, where it is present as large hills outcropping along the highway. The Dillinger Monzogranite is a homogeneous intrusion, bearing medium grained nearly-equigranular biotite monzogranite. The Dillinger Monzogranite intrudes the Tickalara metamorphics, KPF, Emull gabbro, and McIntosh Suite.

Ridges of hydrothermal stockwork and breccia are exposed throughout the project area and have been described in earlier work (e.g., Griffin, 1998) although no associated mineralisation has been described.

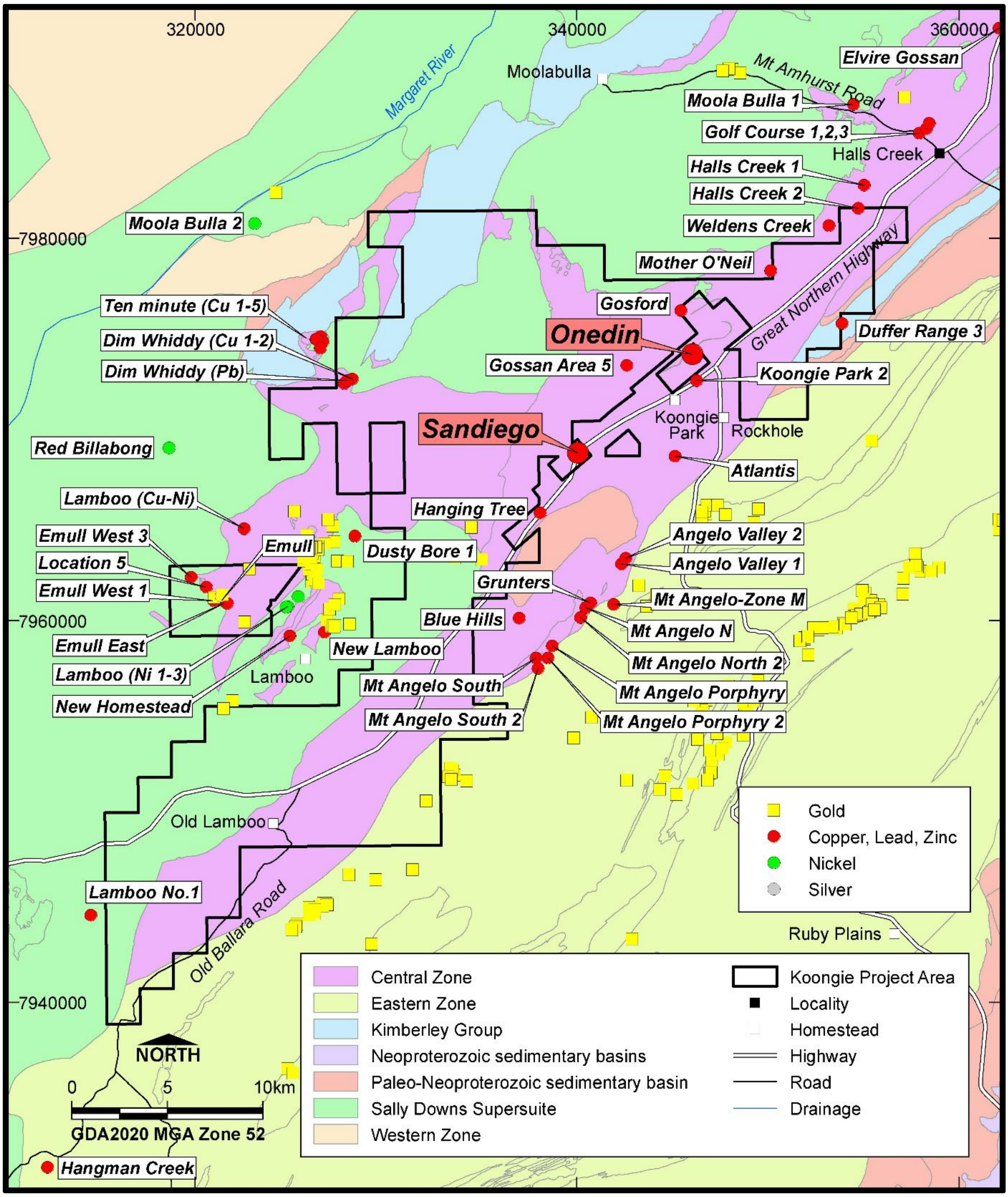


Figure 3-2 Geological Map of the Koongie Park Project Area (Source: AKN, 2022a)

4. Previous Mineral Resource Estimates

This is a maiden estimate, reported in accordance with the JORC Code (2012), for the Emull deposit.

5. Drilling Data

5.1 Summary

The data was supplied as an Access database named *'KNGIE_Export_Emull_Surpac.accdb'*.

A map of AKN drilling compared to NST and historical drilling at Emull is shown in Figure 5-1.

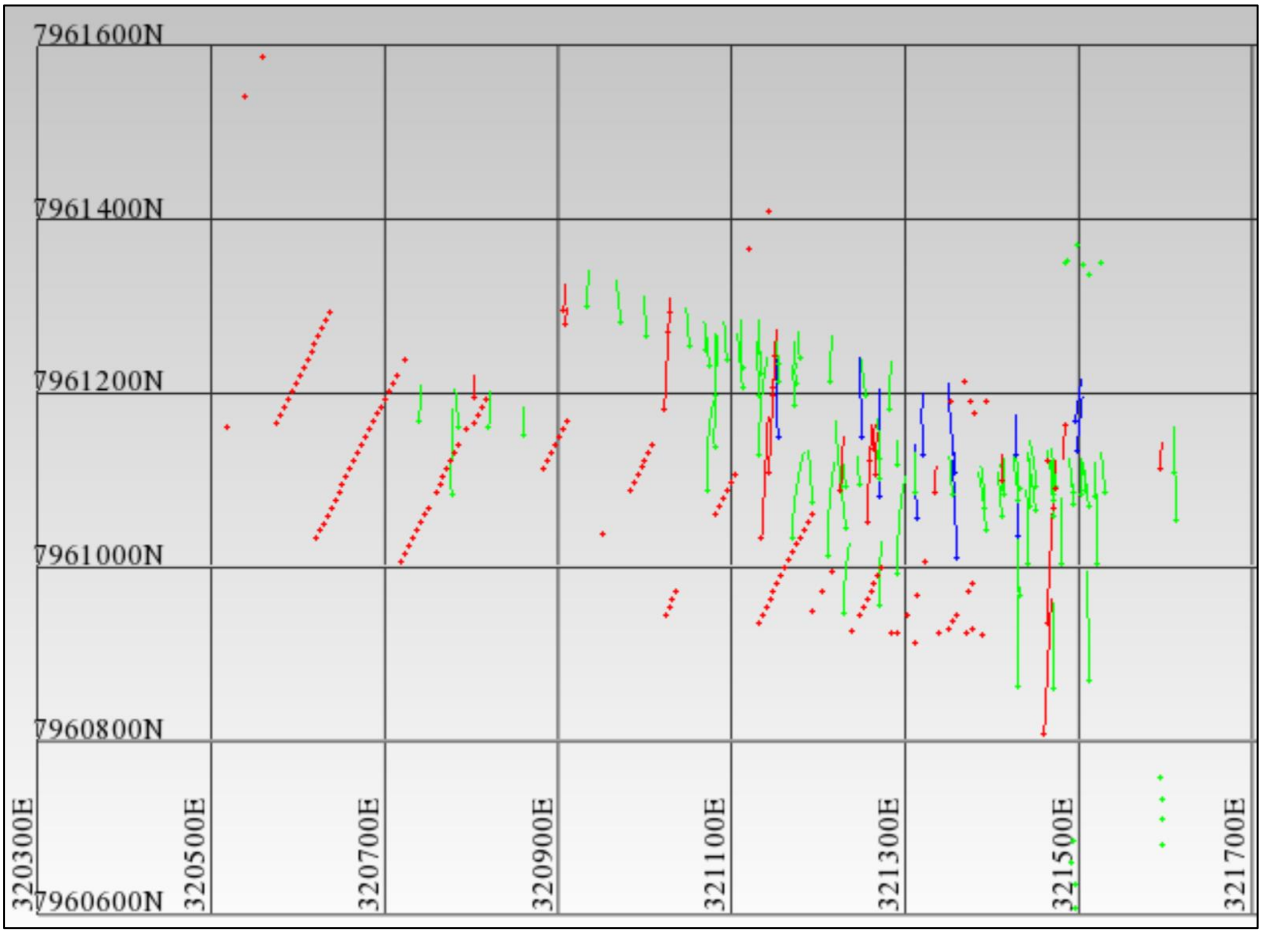


Figure 5-1 AKN (Blue), NST (Green) and Historical (Red) Drilling Layout

A summary of the drilling data within the Emull Mineral Resource area is shown in Table 5-1.

Table 5-1 – Summary of Drilling at Emull

Hole Type	At Emull		In Mineral Resource		
	Drill holes		Drill holes		Intersection
	Number	Metres	Number	Metres	Metres
Unknown	134	2,592			
AUG	2	3			
AC	15	106			
RC	84	11,051	60	8,036	3,107
DD	25	2,415	17	1,738	737
Total	**260**	**16,167**	**77**	**9,774**	**3,844**

The database was loaded into Surpac software.

5.2 Drill Hole Collar Location

Historical drill hole collars were surveyed in the AGD84 or MGA94 datum by the historical operators and Northern Star Minerals Limited ("NST") and converted to the GDA2020 datum by AKN.

For AKN collars, RC holes were surveyed with DGPS equipment using the GDA2020, Zone 52 coordinate system. Mineral Resource estimation was carried out on this grid.

5.3 Down-Hole Surveys

NST holes were surveyed by a Eastman multi shot camera at 30 to 50m intervals.

For AKN drilling, all holes were surveyed down hole via a gyroscopic tool at approximately 30m intervals to determine accurate drill trace locations.

5.4 Geological Logging

Historical drill core was logged to a level of detail (quantitative and qualitative) sufficient to support use of the data in all categories of Mineral Resource estimation.

For AKN and NST RC drilling, chips were logged for quantitative and qualitative attributes with chips stored in chip trays for future reference. All drill holes were logged in full.

5.5 Sampling

5.5.1 Methodology

For NST and AKN drilling, mineralisation was sampled with the following techniques: RC drilling - 1m samples of pulverised chips, sampled by a rig mounted cone splitter, with approximately 3kg collected in individual calico bags.

Historical core was sampled at 0.3 to 1.2m intervals, cut in half using a core sore.

Based on the distribution of mineralisation the sample size is considered adequate for representative sampling.

5.5.2 Sample Preparation

Sample procedures followed by historic operators are assumed to be in line with industry standards at the time, although these were not documented.

AKN samples were sent to Jinning Testing and Inspection Laboratory in Canning Vale, WA for sample preparation and analysis. When received, RC samples were sorted and then dried in an industrial oven for a minimum of 12 hours at greater than 105°C. The sample was then subject to a primary crush, then pulverised for 8 minutes with the aim that 85% passes a 75µm sieve. The pulverised 20g sample was then retained for analysis.

5.6 Data Excluded

All auger, AC and unknown holes were excluded from the estimate.

6. Assay Data

6.1 Methodology

Analytical procedures followed by historic operators are assumed to be in line with industry standards at the time, although these were not documented.

For AKN drilling, samples were sent to Jinning Testing and Inspection Laboratory in Canning Vale, WA for analysis. A multi-element analytical suite is assayed for using a mixed acid digest on a 20g charge that involves the use of nitric, perchloric and hydrofluoric acids in the attack. Dissolution is then achieved using hydrochloric acid. The use of hydrofluoric acid ensures the breakdown of silicate minerals. Although the digest approaches total dissolution of the sample there can be undissolved material encountered. Analyses are performed via ICP-OES to a range of detection limits.

The following elements were analysed for (detection limits in parentheses, as ppm unless otherwise indicated): Ag (1); Al (0.01%); As (2); Ba (1); Be (0.5); Bi (5); Ca (0.01%); Cd (1); Ce (5); Co (1); Cr (2); Cu (1); Fe (0.01%); Ga (10); K (0.01%); La (2); Li (1); Mg (0.01%); Mn (1); Mo (2); Na (0.005%); Ni (1); P (20); Pb (2); S (20); Sb (5); Sc (1); Sn (5); Sr (1); Ta (10); Te (10); Th (10); Ti (5); V (1); W (5); Y (1); Zn (1) and Zr (1).

6.2 Quality Control

6.2.1 Protocol and Summary

It is assumed that industry best practice was used by previous operators NST to ensure acceptable assay data accuracy and precision. Historical QA/QC procedures were not recorded in available documents.

Although no apparent unusual assays exist in the drill hole database, the absence of documented QA/QC is a low to moderate risk to the quality of the historical assays.

For AKN drilling, QAQC protocols included the insertion of Certified Reference Material (CRM’s or standards) and blank (Blanks) samples, which were inserted at a rate of 1 in 20 for RC. Accuracy and performance of CRM’s and blanks were considered after results were received. Field duplicates collected for RC holes from the rig mounted cyclone and cone splitter were inserted 1 in 100 samples.

A quantile-quantile (“Q-Q”) plot of AKN assays compared to historical assays verified the historical data.

6.2.2 Standards and Blanks – AKN Drilling

A total of 236 standards and 40 blanks were inserted into the AKN drilling campaigns, that included drilling at Onedin and Sandiego. Blanks were sourced from quartz sand and standards were sourced from Geostats Pty Ltd in Perth, WA. Blanks were generally barren, although there may be some minor hygiene issues for two or three blank samples (refer to Figure 6-1).

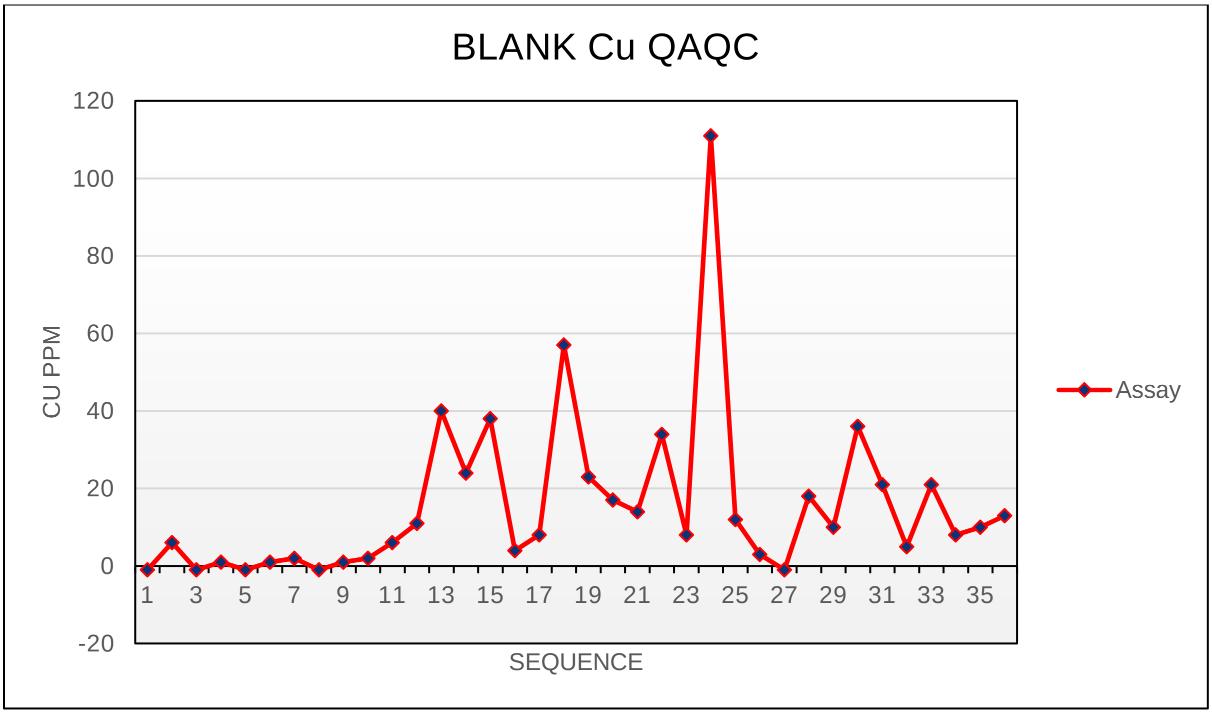


Figure 6-1 Blank Chart for Cu (Source: AuKing, 2022b)

Most standards compare well and fall within the two standard deviation confidence interval. A copper control chart for GBM918-5 is shown below in Figure 6-2.

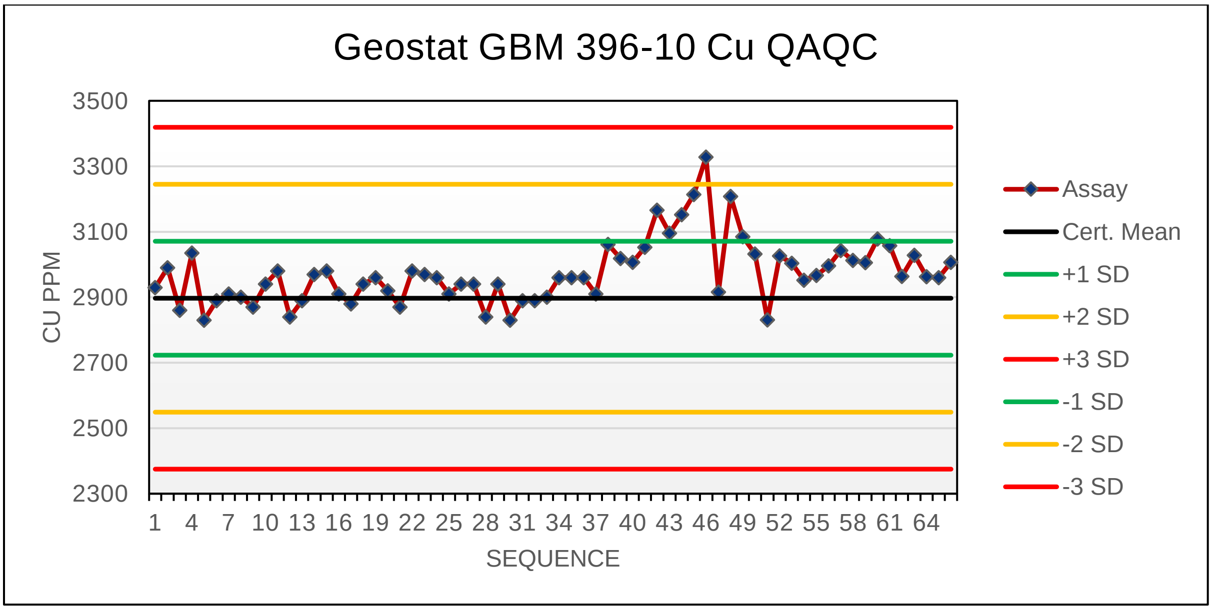


Figure 6-2 Standard Control Chart for Cu – GBM396-10 (Source: AuKing, 2022b)

Blank and standard control charts for the remaining standards and blanks are displayed in Appendix 5.

6.2.3 Field Duplicates – AKN Drilling

AKN collected field duplicates at a rate of 1 in 100 from RC drilling, with reasonably repeatable results as shown in Figure 6-3.

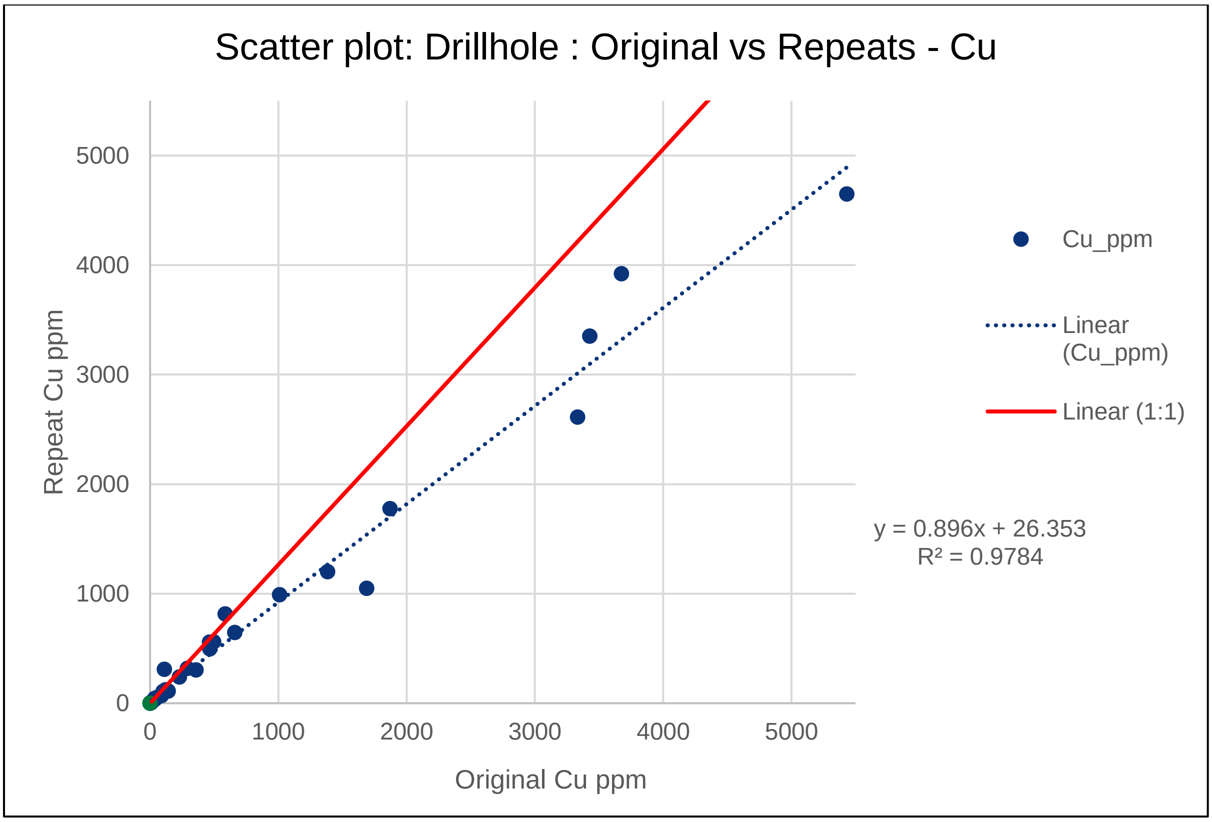


Figure 6-3 Scatter Plot for Cu – Field Duplicates (Source: AuKing, 2022b)

Ashmore recommends that field duplicates are obtained for any drilling conducted with reverse circulation ("RC") in future, at a rate of 1 in 25 samples.

6.2.4 Historical Data Quality Analysis

To analyse the validity of assay values across time periods, Ashmore assessed whether it was appropriate to conduct quantile-quantile ("Q-Q") plots to compare the assays of the various companies' drilling campaigns. In order to complete an accurate comparison, the various drilling campaigns would ideally be evenly distributed across the deposit, so that natural deposit grade variability does not skew the results. After reviewing the spatial location of the AKN and historical drill locations, Ashmore deemed that the only valid comparison would have to be assessed using the entire dataset of mineralised samples.

Figure 6-4 shows Q-Q plots comparing historical and AKN assays for copper and zinc.

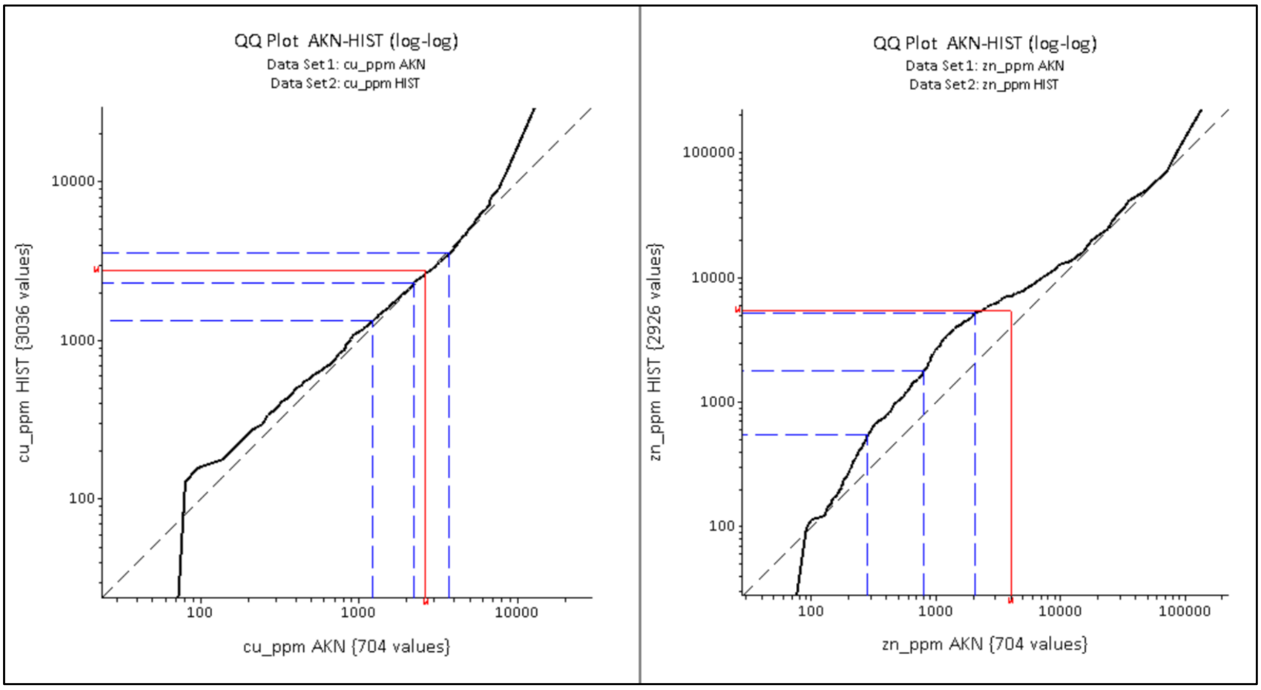


Figure 6-4 Q-Q Analysis of AKN (X-axis) and HIST (Y-axis) Assays at Emull (Cu LHS, Zn RHS)

The results from Figure 6-4 indicate that copper is repeatable between campaigns. Ashmore notes that there is a slight bias evident to the historical assays at Emull for zinc, with the historical drilling displaying higher zinc grades in general. The variance should continue to be monitored as drilling progresses at the deposit and a more geospatially regular distribution of AKN to historical drilling is completed.

6.2.5 QAQC Conclusion

Historical QAQC information is limited. After conducting a Q-Q analysis on the various companies assay data, the reasonable results of the plots give confidence in the precision of the assays across various drilling campaigns and companies.

The QAQC for AKN drilling shows accurate results, with minor discrepancies observed with sample hygiene (blanks). Overall, the QAQC data does not indicate any bias and supports the assay data used in the Mineral Resource estimate.

7. Bulk Density Data

No density measurements have been obtained from the Emull deposit.

Ashmore recommends conducting diamond drilling at Emull; and recording bulk density measurements from all assayed intervals from all future diamond drilling.

8. Metallurgy

Metallurgical testwork has not yet been conducted on the Emull mineralisation. However, testwork has been conducted on AKN's nearby deposits, Onedin and Sandiego. This test work is summarised below:

"Significant metallurgical testwork has been undertaken for the deposits by various explorers since the 1970's. Several desktop mining studies were also undertaken by early explorers. Early work was effectively superseded by a major metallurgical testwork campaign and mining studies undertaken by Anglo Australian Resources from 2006. The testwork was conducted by AMMTEC Laboratories under the guidance of the METS Engineering Group. The metallurgical testwork has established that saleable copper and zinc concentrates could be produced from the sulphide mineralisation at Sandiego and Onedin but work on the transitional material (using conventional flotation techniques) was challenging. The 2007 testwork included 96 metallurgical sample tests on different ore types from Onedin and Sandiego to underpin a mineral processing flowsheet for economic study work."

Ashmore recommends drilling diamond holes at the deposit to confirm mineralisation geometry and to conduct structural, geotechnical and metallurgical studies to improve ore body knowledge and confirm viability for mining and processing.

9. Database Verification

Ashmore completed systematic data validation steps after receiving the database. Checks completed by Ashmore included verifying that:

- Down-hole survey depths did not exceed the hole depth as reported in the collar table.
- Hole dips were within the range of 0° and -90° for surface drilling.
- Visual inspection of drill hole collars and traces in Surpac.
- Assay values or lithology records did not extend beyond the hole depth quoted in the collar table.
- Assay and survey information was checked for duplicate records.

The database was well organised with no errors.

Drill hole relative location was checked by Ashmore when on-site in November 2022 by locating 11 drill holes with a hand-held GPS. The recorded positions were then compared with the surveyed co-ordinates in the database (see Table 9-1). Although the handheld GPS lacks precision, the holes are located correctly in relation to each other which increases confidence that no data entry mix-ups have occurred when loading collar co-ordinates into the database.

Table 9-1 – Drill Hole Collar Verification

Hole ID	Original Survey		Check Survey	
	East	North	East	North
EMRC22_001	321,250.65	7,961,151.93	321,254	7,961,152
EMRC22_002	321,153.59	7,961,150.97	321,157	7,961,152
EMRC22_003	321,357.25	7,961,111.70	321,361	7,961,113
EMRC22_004	321,429.67	7,961,036.95	321,431	7,961,035
EMRC22_005	321,428.57	7,961,131.93	321,429	7,961,132
EMRC22_006	321,359.65	7,961,013.24	321,362	7,961,012
EMRC22_007	321,271.29	7,961,084.41	321,272	7,961,083
EMRC22_008	321,313.30	7,961,059.40	321,314	7,961,059
EMRC22_009	321,320.38	7,961,131.90	321,321	7,961,131
EMRC22_010	321,498.10	7,961,135.05	321,502	7,961,136
EMRC22_011	321,496.34	7,961,169.16	321,496	7,961,170

10. Interpretation and Statistics

10.1 Geology and Interpretation

Mineralisation wireframes were prepared by AKN in Surpac software and provided to Ashmore for review. Statistical analysis of the Cu and Zn assay values indicated a natural cut-off around 0.1 to 0.15% copper and around 0.2 to 0.25% zinc. After visual review of the assays in Surpac, AKN nominated a cut-off grade of 0.1% copper (refer Figure 10-1) to define the mineralisation. The raw correlation matrix for copper, silver, lead and zinc is shown in Table 10-1. Generally, there were moderate correlations between copper and the other metals; and a strong correlation between lead and silver.

With additional drilling, the interpretation of additional zinc dominant domains should be considered.

A minimum down-hole length of 3m was used with no edge dilution and some zones of internal dilution were included to maintain continuity of the wireframes. Geological logging was used to create weathering wireframes.

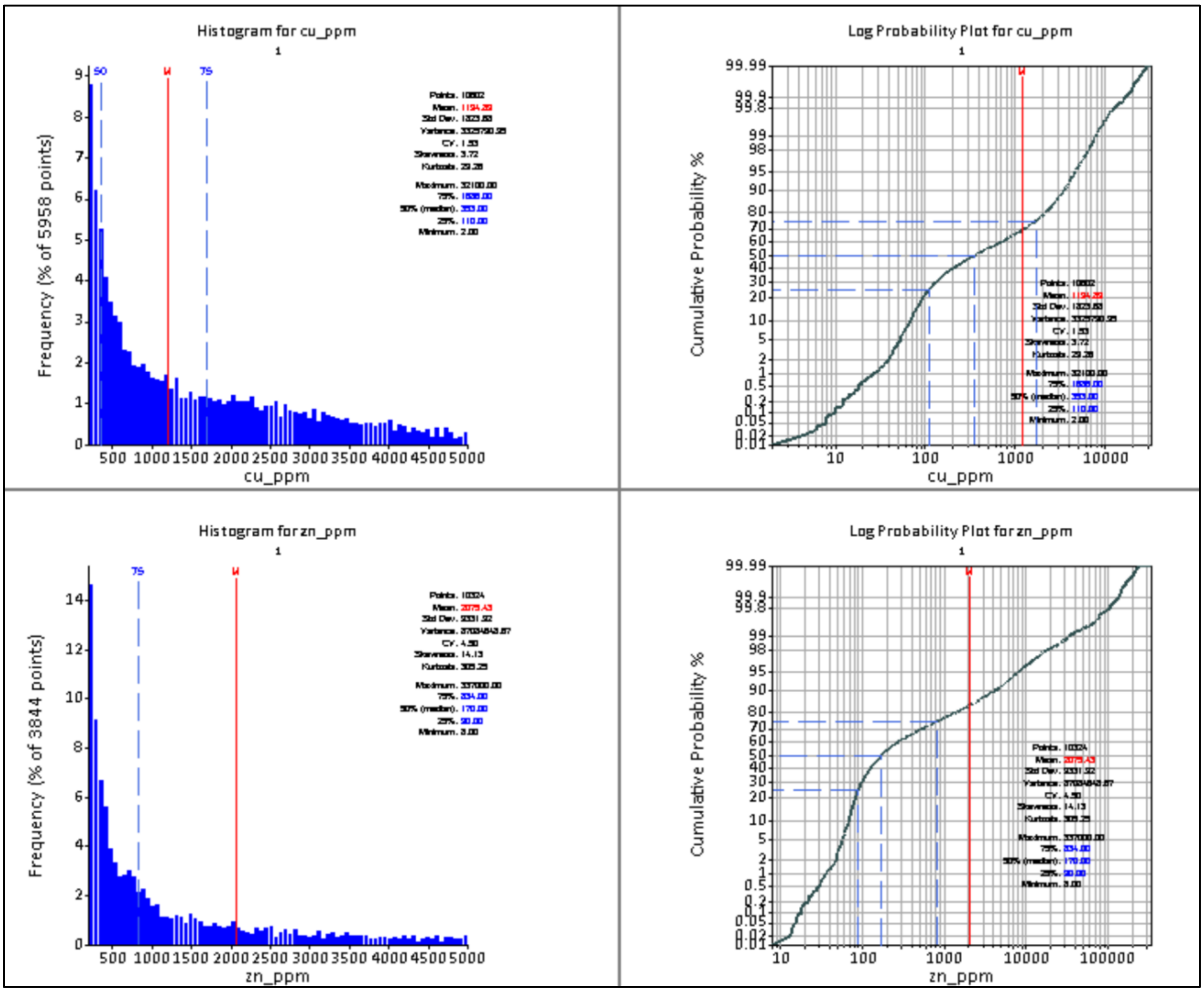


Figure 10-1 Histogram and Log Probability Plot for All Copper (top) and Zinc (bottom) Assays at Emull

Table 10-1 – Raw Correlation Matrix for the Emull Dataset

	cu_ppm	ag_ppm	zn_ppm	pb_ppm
cu_ppm	1.00			
ag_ppm	0.45	1.00		
zn_ppm	0.35	0.12	1.00	
pb_ppm	0.50	0.91	0.17	1.00

10.2 Preparation of Wireframes

10.2.1 Resource Wireframes

Flitch plan outlines were manually triangulated to form wireframes. To form ends to the wireframes, the end flitch strings were copied to a position midway to the next level or to 30m and adjusted to match the dip, strike and plunge of the zone. The wireframed objects were validated using Surpac software and set as solids.

A total of five wireframes (*'emull_res_202211.dtm'*) were created and used to select the sample data to be used for grade estimation, and to constrain the block model for estimation purposes. The mineralisation wireframes were treated as hard boundaries for all estimation purposes, that is, only assays from within each wireframe were used to estimate blocks within that wireframe. Diagrams showing various views of the mineralisation and drilling are shown below in Figure 10-2 to Figure 10-4.

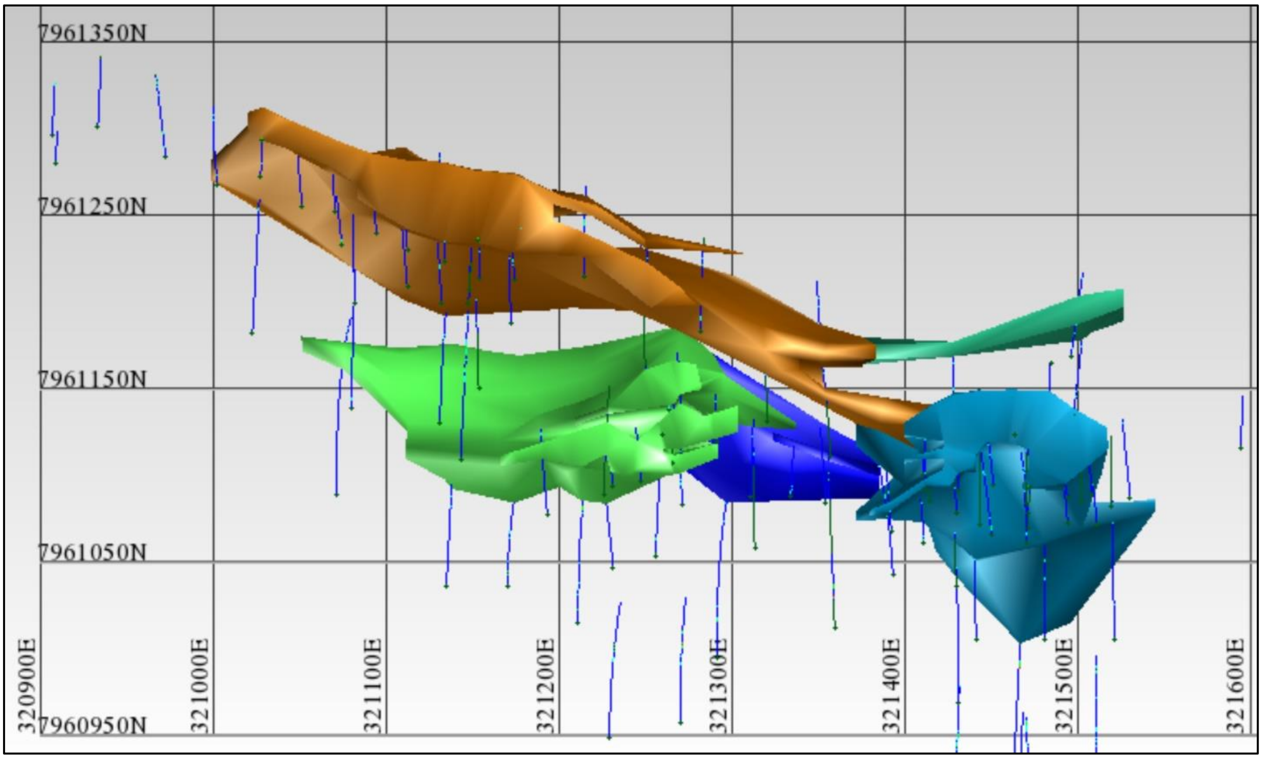


Figure 10-2 Plan View of Wireframes and Drilling at Emull

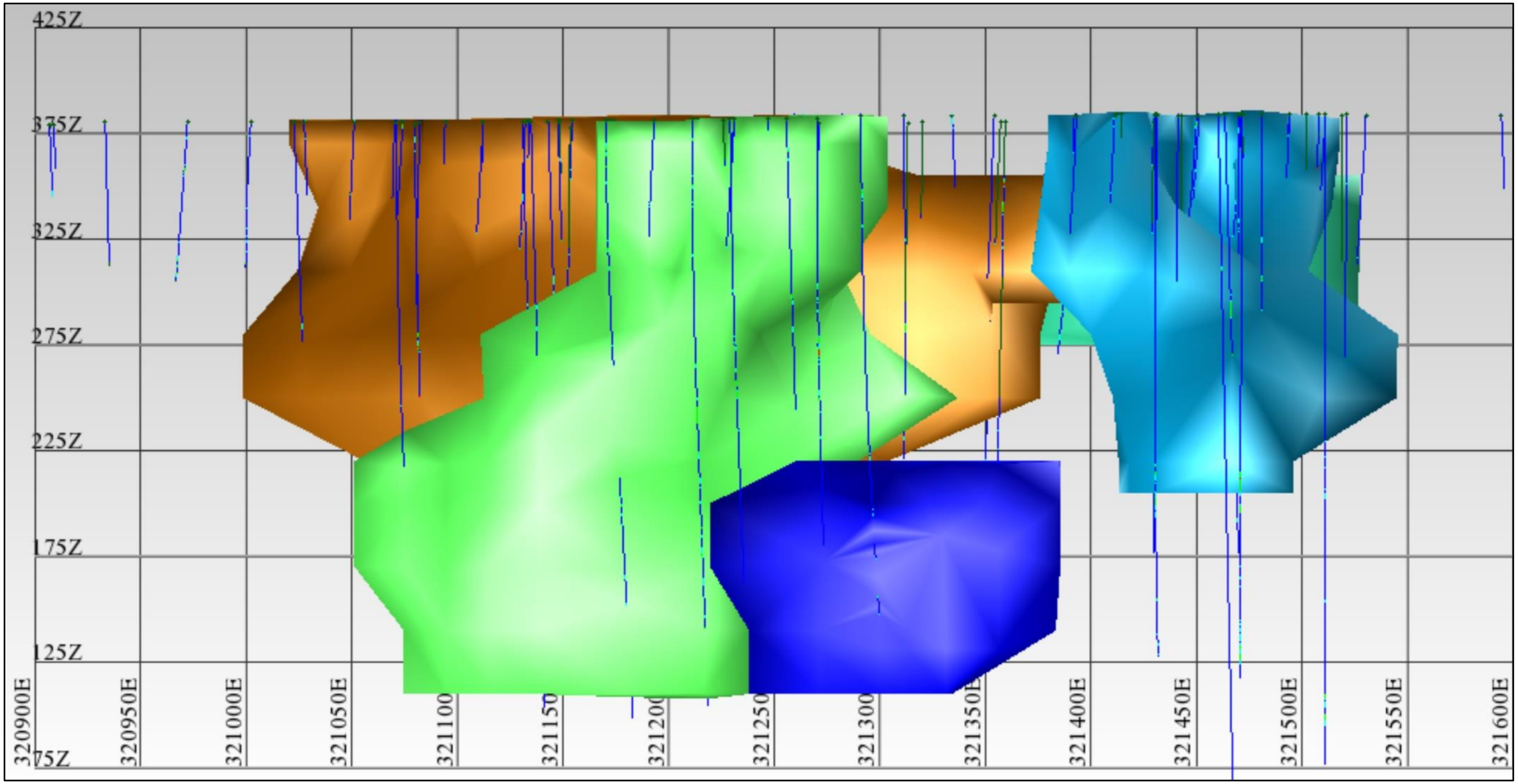


Figure 10-3 Long Section of Wireframes and Drilling at Emull, Facing North

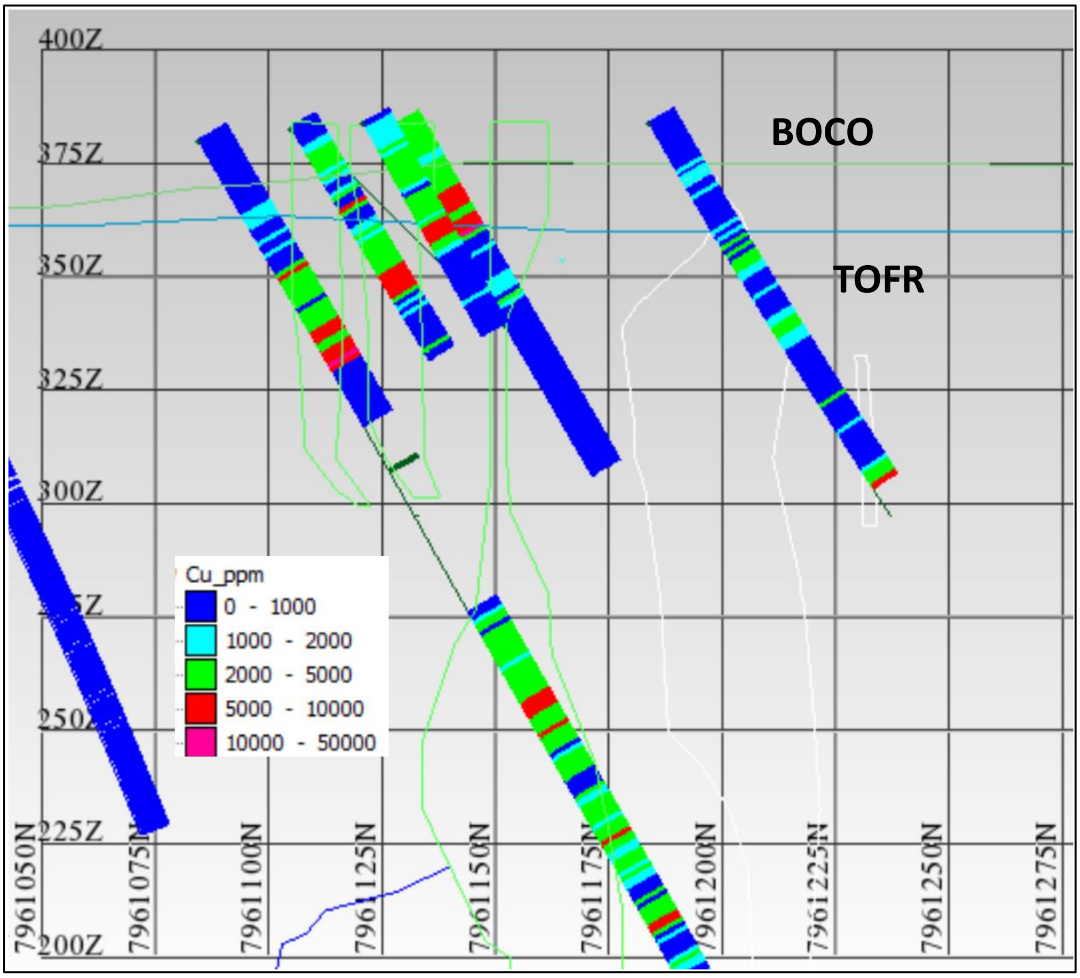


Figure 10-4 Cross Section View of Emull, Section 321,280mE

10.2.2 Weathering Wireframes

Weathering surfaces were generated by AKN based on the geological logging data. Surfaces were renamed by Ashmore for base of complete oxidation '*emull_boco_202211.dtm*' and top of fresh rock '*emull_tofr_202211.dtm*'.

10.2.3 Topographic Surface

A topographic surface was provided by AKN and renamed by Ashmore to *'emull_topo_202211.dtm'*. The topography was generated from drill hole collar surveys.

10.3 Compositing and Statistics

The wireframes of the mineralised zones were used to define the Mineral Resource intersections. These were coded into the 'res_zone' table within the database.

Samples from within the Mineral Resource wireframes were used to conduct a sample length analysis within the mineralised lodes. The majority of samples were 1m in length (Figure 10-5). Surpac software was then used to extract 'best fit' 1m down-hole composites within the intervals coded as 'res_zone' intersections.

The composites were checked for spatial correlation with the objects, the location of the rejected composites and zero composite values. Individual composite files were created for each of the individual domains in the wireframe models; containing Cu (ppm), Zn (ppm), Pb (ppm) and Ag (ppm) assay data.

The composite data was imported into Supervisor software for analysis. There were five domains, with statistics summarised for each domain in Table 10-2. The remaining statistics are shown in Appendix 6.

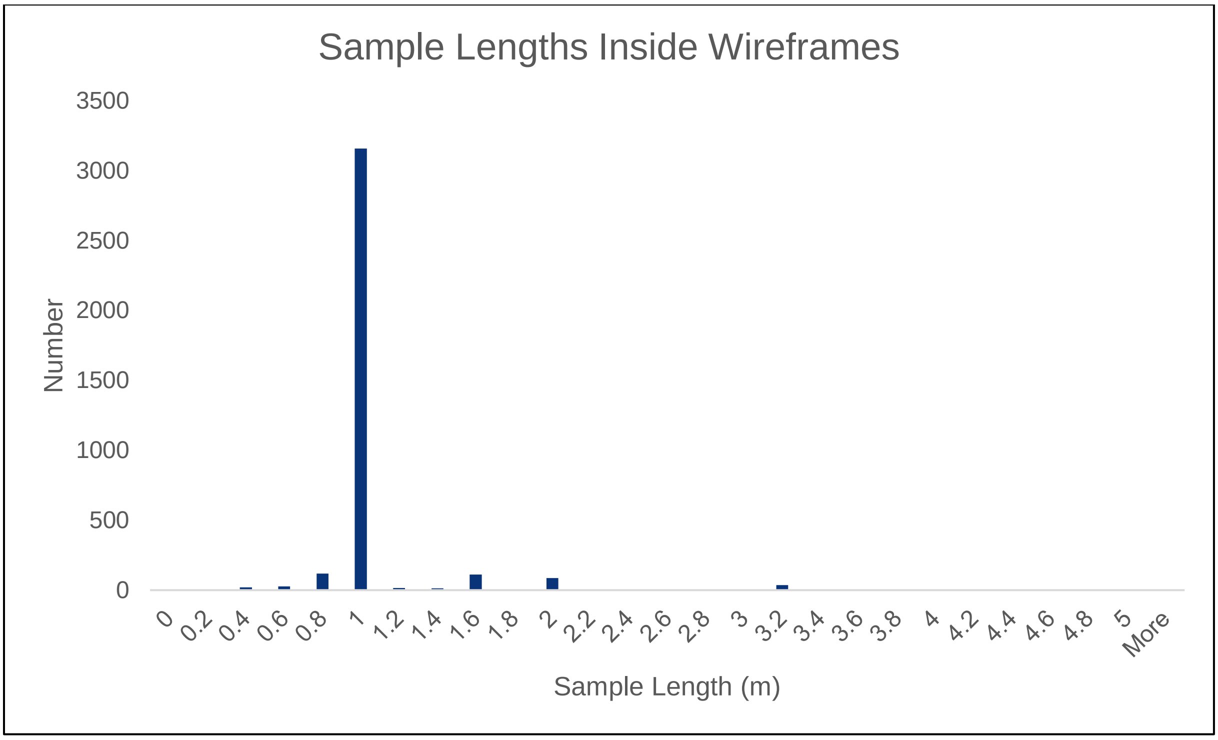


Figure 10-5 Sample Lengths Inside Wireframes

Table 10-2 – 1m Composite Statistics for Domain 1

Assay	cu_ppm	zn_ppm	pb_ppm	ag_ppm
Samples	1,504	1,504	1,504	1,398
Minimum	60	36	3	0.25
Maximum	20,100	174,000	8,770	32.83
Mean	2,752	4,769	924	4.83
Std. Dev.	1,842	11,069	1,076	4.50
CV	0.67	2.32	1.16	0.93
10%	746	187	69	1.00
20%	1,171	297	123	1.36
30%	1,650	514	191	2.00
40%	2,096	829	296	2.50
50%	2,500	1,400	510	3.50
60%	2,891	2,514	811	4.50
70%	3,368	4,156	1,200	6.00
80%	3,960	5,972	1,580	7.50
90%	4,965	9,466	2,250	10.50
95%	6,098	17,970	3,009	13.01
97.50%	7,348	33,680	3,662	17.00
99%	8,620	47,515	4,999	22.02

10.4 Correlation Analysis

Correlation analysis was conducted on the larger domains. Generally, weak correlations exist between copper and the remaining elements. Silver and lead had a strong positive correlation.

The correlation matrices are shown in Table 10-3. Scatter plots are displayed in Appendix 6.

Table 10-3 – Correlation Matrix for Domain 1

	cu_ppm	zn_ppm	pb_ppm	ag_ppm
cu_ppm	1.00			
zn_ppm	0.35	1.00		
pb_ppm	0.32	0.24	1.00	
ag_ppm	0.43	0.32	0.79	1.00

10.5 Top Cuts

After analysis of the statistics and the observation of low maximum assays, top cuts were applied to some of the zinc and silver composite data after review of the composite statistics.

A summary of the cuts is shown in Table 10-4.

Table 10-4 – Top Cuts Applied to the Composites

Domain:	1	3	3	5
Assay	zn_ppm	zn_ppm	ag_ppm	zn_ppm
Samples	1,504	972	1,041	1,003
Maximum	174,000	144,000	393.00	223,513
Uncut Mean	4,769	6,786	8.46	4,615
Uncut CV	2.32	2.33	2.32	2.86
Top Cut	**75,000**	**75,000**	**200**	**50,000**
Number Cut	6	16	3	17
Cut Mean	4,590	6,308	8.18	3,965
Cut CV	2.01	2.01	1.87	2.01

10.6 Geostatistical Analysis

10.6.1 Variography

Mineralisation continuity was examined via variography. Variography examines the spatial relationship between composites and seeks to identify the directions of mineralisation continuity and to quantify the ranges of grade continuity. Variography was also used to determine the random variability or 'nugget effect' of the deposit. The results provide the basis for determining appropriate kriging parameters for resource estimation.

Ashmore calculated experimental variograms using the composited elements for Domain 1. All variography was completed using Supervisor software.

A two structure, nested spherical model was found to model the experimental variogram reasonably well. The down-hole variogram provides the best estimate of the true nugget value which was 0.18 for copper, 0.16 for zinc, 0.11 for lead and 0.11 for silver.

The orientation of the plane of mineralisation was aligned with the generalised overall interpreted orientation for each domain. The experimental variograms were calculated with the first aligned along the main mineralisation continuity while the second was aligned in the plane of mineralisation at 90° to the first orientation. The third was orientated perpendicular to the mineralisation plane, across the width of the mineralisation.

Ashmore modelled the down-hole and three orthogonal variograms for each element within Domain 1. The variograms displayed reasonable structure. The directional variograms for copper are shown in Figure 10-6. Full details of the directional continuity analysis for the remaining elements can be found in Appendix 7.

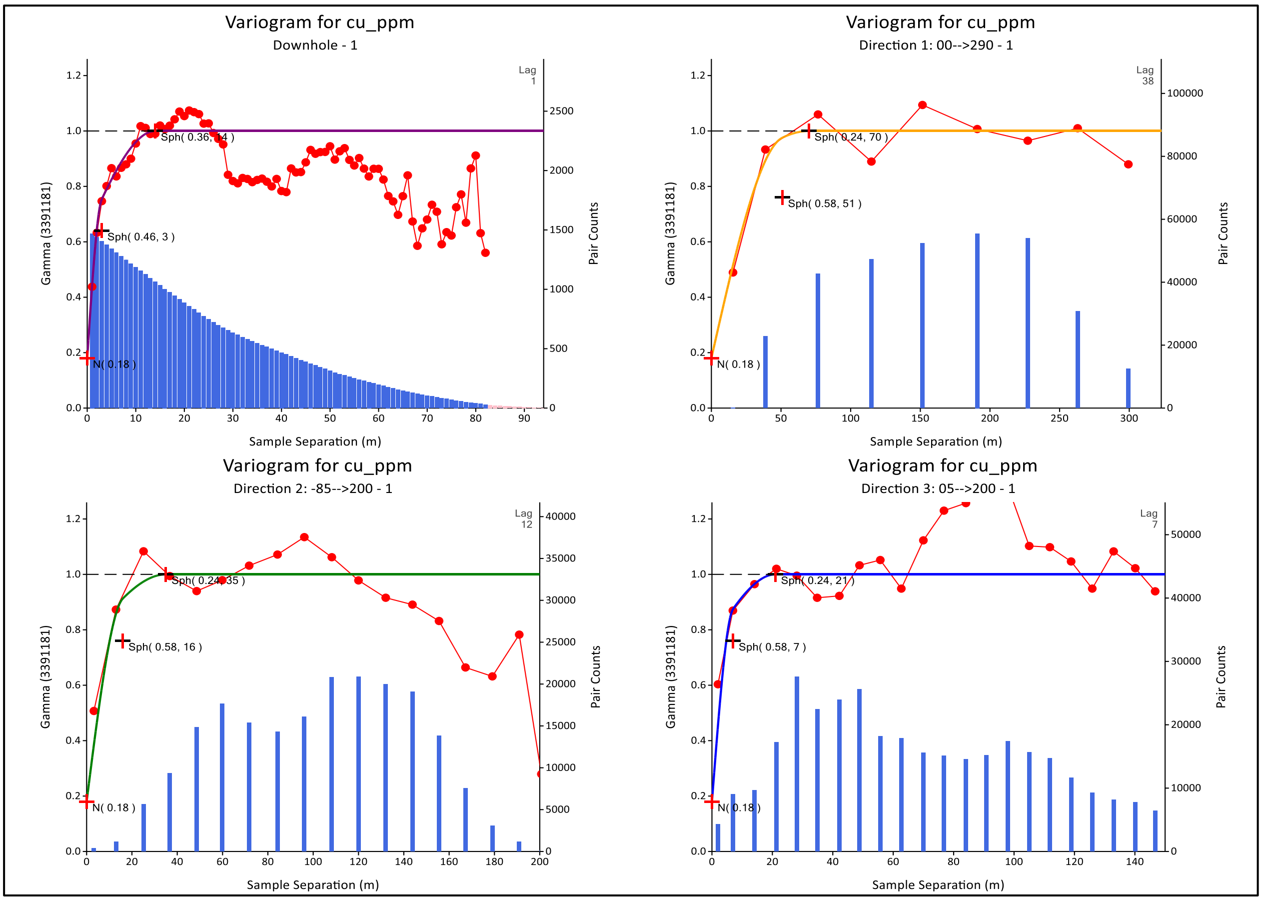


Figure 10-6 Copper Variograms for Domain 1

10.6.2 Kriging Parameters

The Cu, Zn, Pb and Ag grades were interpolated into a Surpac block model using ordinary kriging (“OK”) using the nugget, sill values and ranges determined from the variogram models discussed in Section 10.6.1. The ranges obtained from the variogram models were used as a guide in the search ellipse parameters used in the Mineral Resource estimate. Search ellipse parameters varied for all other lodes and were orientated to align with the strike and plunge of their respective domain. The kriging parameters are summarised in Table 10-5 for Domain 1; and these parameters were applied to the other domains.

Table 10-5 – Kriging Parameters for Domain 1

Element	Major Direction	Nugget	Structure 1				Structure 2			
			C1	A1	Semi	Minor	C2	A2	Semi	Minor
Cu	00->290	0.18	0.58	51	3.19	7.29	0.24	70	2.00	3.33
Zn	00->290	0.16	0.42	49	9.80	16.33	0.42	50	3.13	4.55
Pb	00->290	0.11	0.47	49	5.44	7.00	0.42	56	1.75	2.24
Ag	00->290	0.11	0.47	49	2.58	7.00	0.42	56	1.75	2.55

11. Mineral Resource Estimation

11.1 Block Model

A Surpac block model was created to encompass the full extent of the mineralisation. The block model parameters are listed in Table 11-1. The block dimensions used in the Emull model was 10m EW by 5m NS by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m.

The parent block size was selected on the basis of kriging neighbourhood analysis (discussed in Section 11.2), while dimensions in other directions were selected to provide sufficient resolution to the block model in the across-strike and down-dip direction.

Table 11-1 – Block Model Parameters

Model Name	**emull_ok_202211.mdl**		
	Y	X	Z
Minimum Coordinates	7,960,700	320,600	0
Maximum Coordinates	7,961,500	321,700	420
Block Size (Sub-blocks)	5 (1.25)	10 (2.5)	5 (1.25)
Attributes:			
cu_ppm	Cu (ppm) OK estimated grade		
zn_ppm	Zn (ppm) OK estimated grade		
pb_ppm	Pb (ppm) OK estimated grade		
ag_ppm	Ag (ppm) OK estimated grade		
zn_cut	Zn (ppm) OK estimated grade - cut		
ag_cut	Ag (ppm) OK estimated grade - cut		
cu_pct	Cu (%) grade - calculated		
zn_pct	Zn (%) grade - calculated		
pb_pct	Pb (%) grade - calculated		
cueq_pct	Cu equivalent grade – see Section 11.5		
min_dis	Distance to nearest sample		
ave_dis	Average distance to samples		
num_sam	Number of samples used for block grade interpolation		
kvar	Kriging variance		
bvar	Block variance		
ke	Kriging efficiency		
est_zone	Estimation zone number		
bd	Bulk density – regression equation		
pod	Estimation domain		
type	air, ox, tr, fr		
pass	Estimation pass number		
class	mes, ind, inf, unc		
class_code	1=mes, 2=ind, 3=inf, 4=unc		
mined	y or n		

11.2 Kriging Neighbourhood Analysis

Kriging neighbourhood analysis ("KNA") is conducted to minimise the conditional bias that occurs during grade estimation as a function of estimating block grades from point data. Conditional bias typically presents as overestimation of low grade blocks and underestimation of high grade blocks due to use of non-optimal estimation parameters and can be minimised by optimising parameters such as:

- block size;
- size of sample search neighbourhood;
- number of informing samples; and
- block discretisation.

The degree of conditional bias present in a model can be quantified by computing the theoretical regression slope and kriging efficiency of estimation at multiple test locations within the region of estimation. These locations are selected to represent portions of the deposit with excellent, moderate and poor drill (sample) coverage.

11.2.1 Block Size

To test the optimal block size for existing drilling at the deposit, KNA was conducted within Supervisor for Domain 1. A range of block sizes were assessed for regression slope and kriging efficiency and are summarised in Figure 11-1.

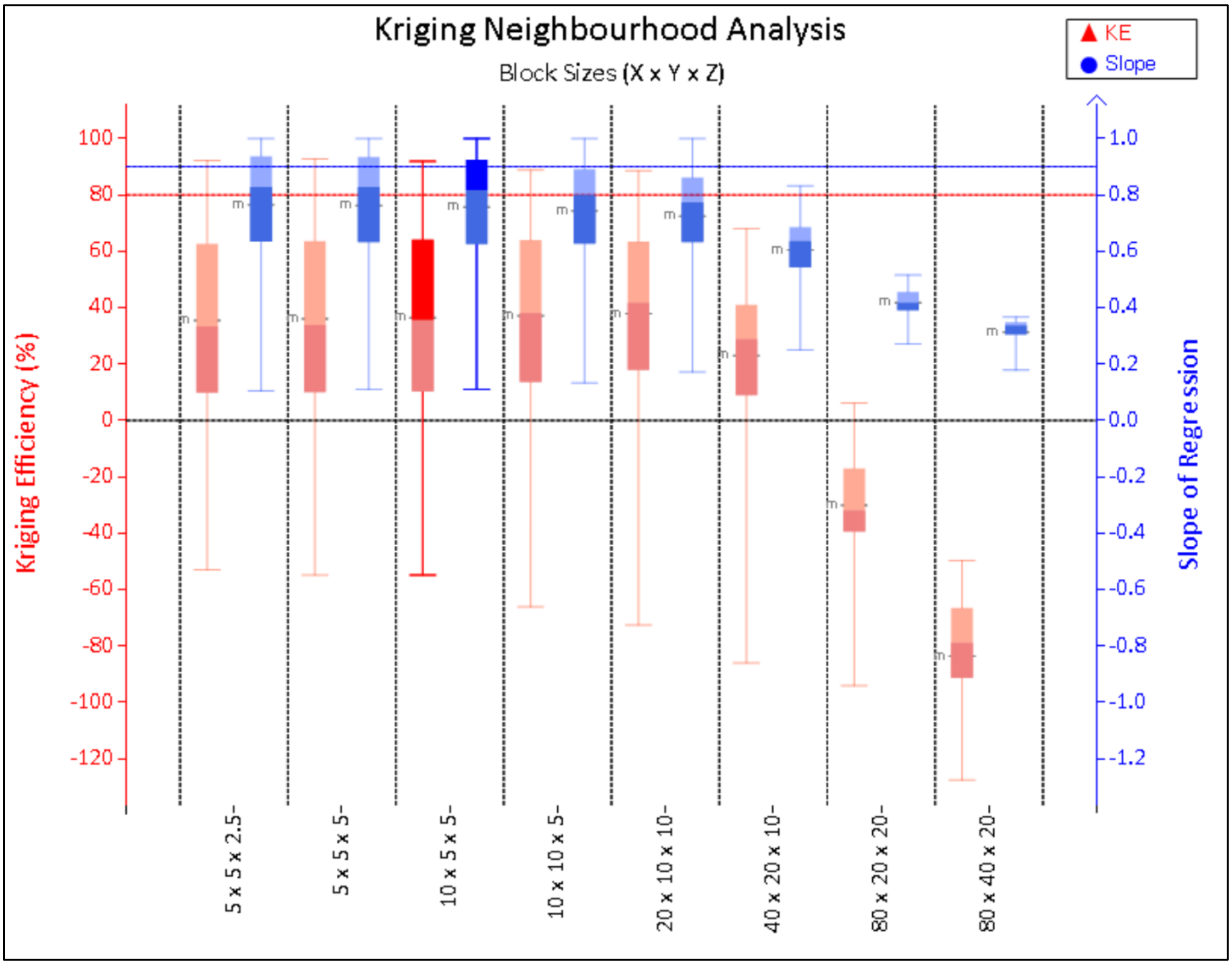


Figure 11-1 Block Size Analysis Chart – Domain 1

Analysis of the results shows that there is little variance up to double the drill spacing. Ashmore selected the 10m (X) by 5m (Y) by 5m (Z) block size in order to provide sufficient resolution of grades in the semi-major and minor directions, which also aligns to half the drill hole spacing in the upper portions of the deposit.

11.2.2 Number of Informing Samples

To test the optimal number of samples to be used in the kriging estimations, blocks within Domain 1 were assessed. The size of the dataset hampered the maximum sample analysis, therefore a value of 20 samples was selected as a maximum. Results are shown in Figure 11-2.

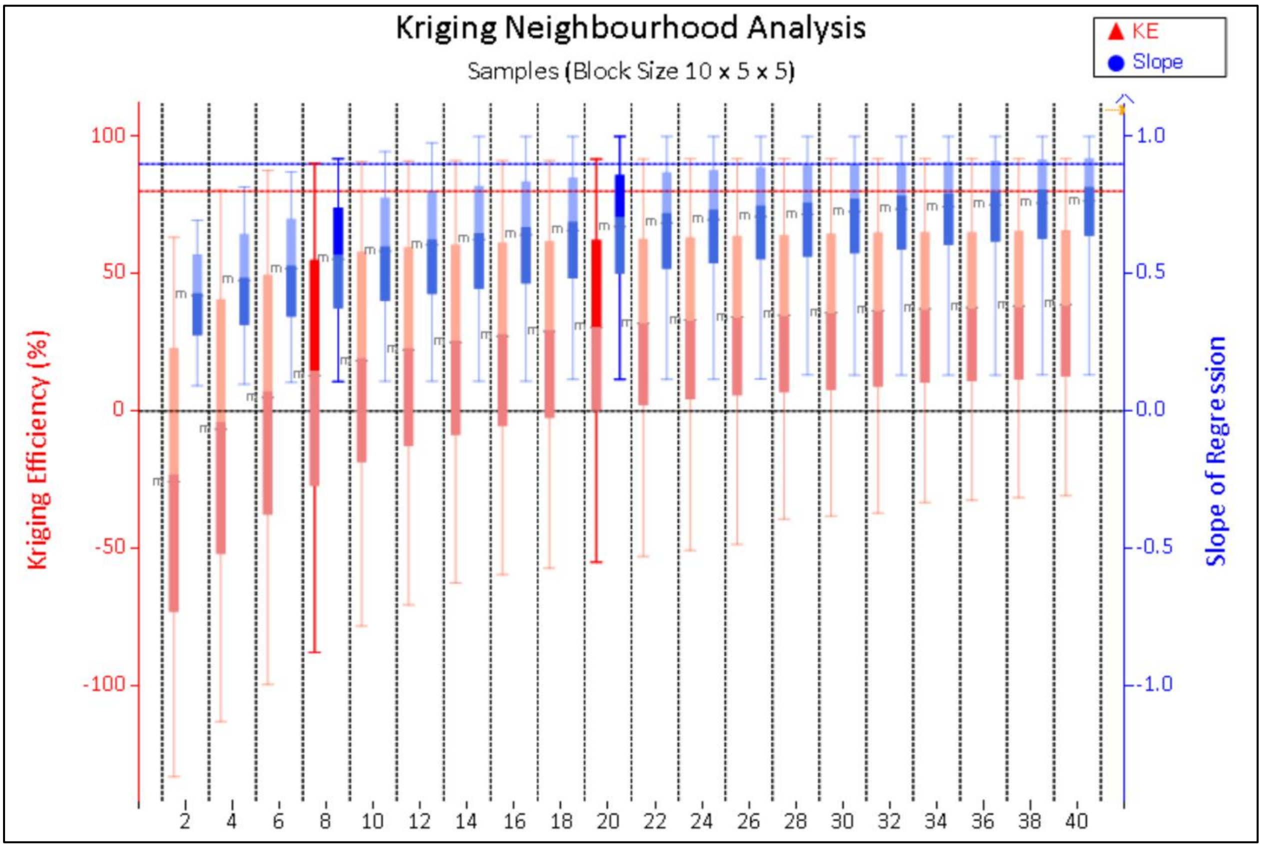


Figure 11-2 Number of Samples Analysis Chart – Domain 1

11.2.3 Search Distance

To test the optimal search distance, blocks within Domain 1 were assessed using the minimum and maximum samples determined in step two. A range of search radii were assessed for regression slope and kriging efficiency and are summarised in Figure 11-3.

There was little difference in measured quality in the various search distances. Therefore, the search range selected was 50m.

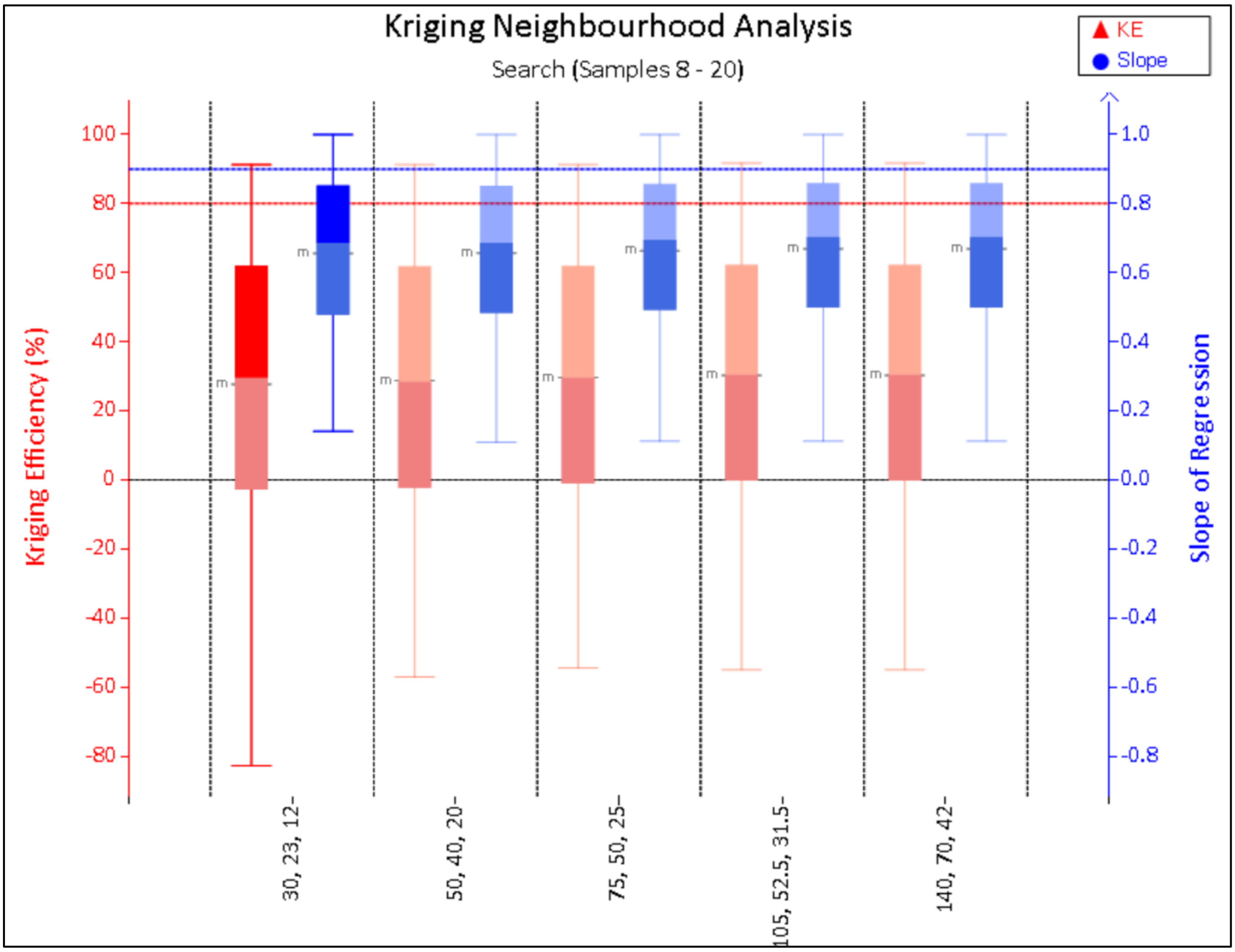


Figure 11-3 Search Distance Analysis Chart – Domain 1

11.2.4 Block Discretisation

To test the optimal block discretisation at the deposit, blocks within Domain 1 were assessed. A range of discretisation parameters were assessed for regression slope and kriging efficiency and are summarised in Figure 11-4.

The results above indicate that block discretisation has little effect on the conditional bias of the estimate. Ashmore adopted a block discretisation of 4 (X) by 2 (Y) by 2 (Z) for the estimate.

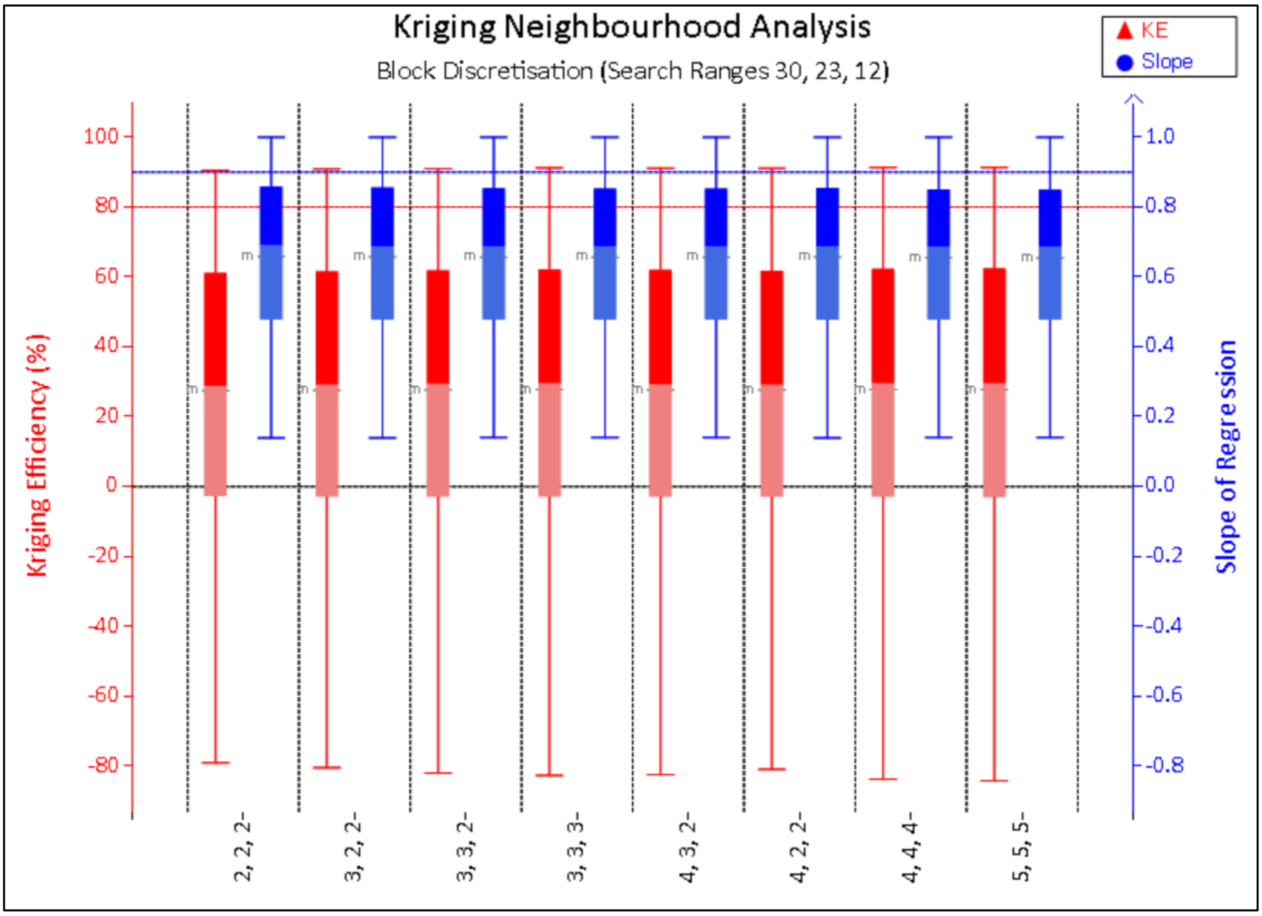


Figure 11-4 Block Discretisation Analysis Chart – Domain 1

11.3 Grade Interpolation

11.3.1 General

The Ordinary Kriging ("OK") algorithm was used for the grade interpolation and the wireframes were used as a hard boundary for the grade estimation of each domain. OK was selected as it allows the measured spatial variation to be included in the estimate and results in a degree of smoothing which is appropriate for the nature of the mineralisation. Any blocks outside the wireframes were set to zero grade.

11.3.2 Search Parameters

An orientated search ellipse with an 'ellipsoid' search was used to select data for interpolation. Each ellipse was oriented based on kriging parameters and were consistent with the interpreted geology. Differences between the kriging parameters and the search ellipse may occur in order to honour both the continuity analysis and the mineralisation geometry. Search neighbourhood parameters were based on the KNA.

Up to three interpolation passes were used for the interpolation. More than 85% of the blocks were filled in the first two passes for the mineralised domains. The kriging parameters for copper are listed in Table 11-2.

Table 11-2 – OK Estimation Parameters – Mineralised Domains (Copper)

Parameter	Pass 1	Pass 2	Pass 3
Search Type	Ellipsoid	Ellipsoid	Ellipsoid
Bearing Dip Plunge	260° to 300° -80° to 85° 0°		
Major-Semi Major Ratio Major-Minor Ratio	2.0 3.5		
Search Radius Minimum Samples Maximum Samples Max. Sam. per Hole	50 8 20 4	100 6 20 4	200 2 20 4
Block Discretisation	4 X by 2 Y by 2 Z		
Percentage Blocks Filled	36%	49%	15%

A long section showing copper block grades for the domains are shown below in Figure 11-5.

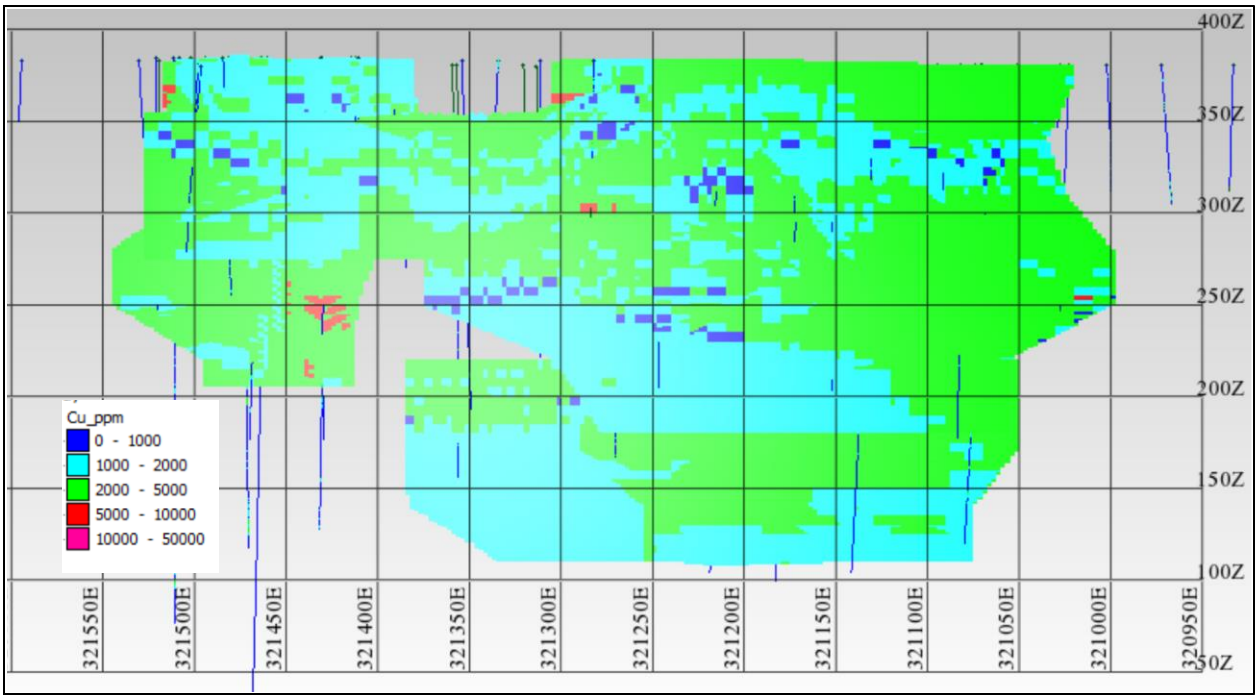


Figure 11-5 Long Section of Block Model Copper Grades – All Domains

11.4 Density and Material Type

A bulk density of 2.7t/m^3 was assigned to the fresh material, a value of 2.4t/m^3 was assigned to transition and 2.0t/m^3 was assigned to oxide, based on known values from similar geological terrains.

Ashmore recommends conducting diamond drilling at Emull; and recording bulk density measurements from all assayed intervals from all future diamond drilling

Material types were assigned codes of ‘fr’, ‘tr’ or ‘ox’ within the “type” attribute in the block model for fresh, transitional and oxide respectively. A code of ‘air’ was assigned for blocks above the topography.

11.5 Metal Equivalence

The copper equivalent grade ("CuEq") was calculated based on London Metal Exchange ("LME") closing prices as at 25th November, 2022. The CuEq formula is shown below:

CuEq =100 x [(Cu% x 8,005) + (Zn% x 2,906) + (Pb% x 2,107) + (Ag g/t x (21.6/31.1035))] / (8,005)

12. Model Validation

A three-step process was used to validate the Mineral Resource estimate. Firstly, a qualitative assessment was completed by slicing sections through the block model in positions coincident with drilling. Overall, the assessment indicated that the trend of the modelled grade was consistent with the drill hole grades.

A quantitative assessment of the estimate was completed by comparing the average declustered grades of the sample file input against the block model output for all the lodes. The comparative results are tabulated in Table 12-1.

To check that the interpolation of the block model correctly honoured the drilling data, validation was carried out by comparing the interpolated blocks to the sample composite data within easting and elevation (swath plots). Validation results for Domain 1 are summarised in Figure 12-1, and validation results for other elements are summarised in Appendix 4.

Table 12-1 – Average Composite Input v Block Model Output

	Wireframe	Block Model					Declustered Composites					
Domain	Lode Volume	Resource Volume	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Number of Comps	Cu ppm	Zn ppm	Pb ppm	Ag ppm	OK V Declust Cu ppm
1	2,096,695	2,097,129	2,620	3,843	813	4.41	1,504	2,713	4,435	917	4.69	-3.57%
2	558,066	557,414	2,117	1,165	574	3.87	86	2,207	1,827	666	4.31	-4.27%
3	829,958	829,246	2,859	6,407	1,417	7.13	1,084	3,005	5,900	1,566	7.91	-5.12%
4	128,813	129,688	1,839	1,408	843	4.84	65	1,887	1,464	817	4.86	-2.64%
5	1,666,721	1,668,262	2,275	2,665	611	3.85	1,003	2,399	3,945	950	4.64	-5.44%
Total	**5,280,253**	**5,281,739**	**2,476**	**3,531**	**819**	**4.61**	**3,742**	**2,586**	**4,162**	**1,000**	**5.14**	**-4.44%**

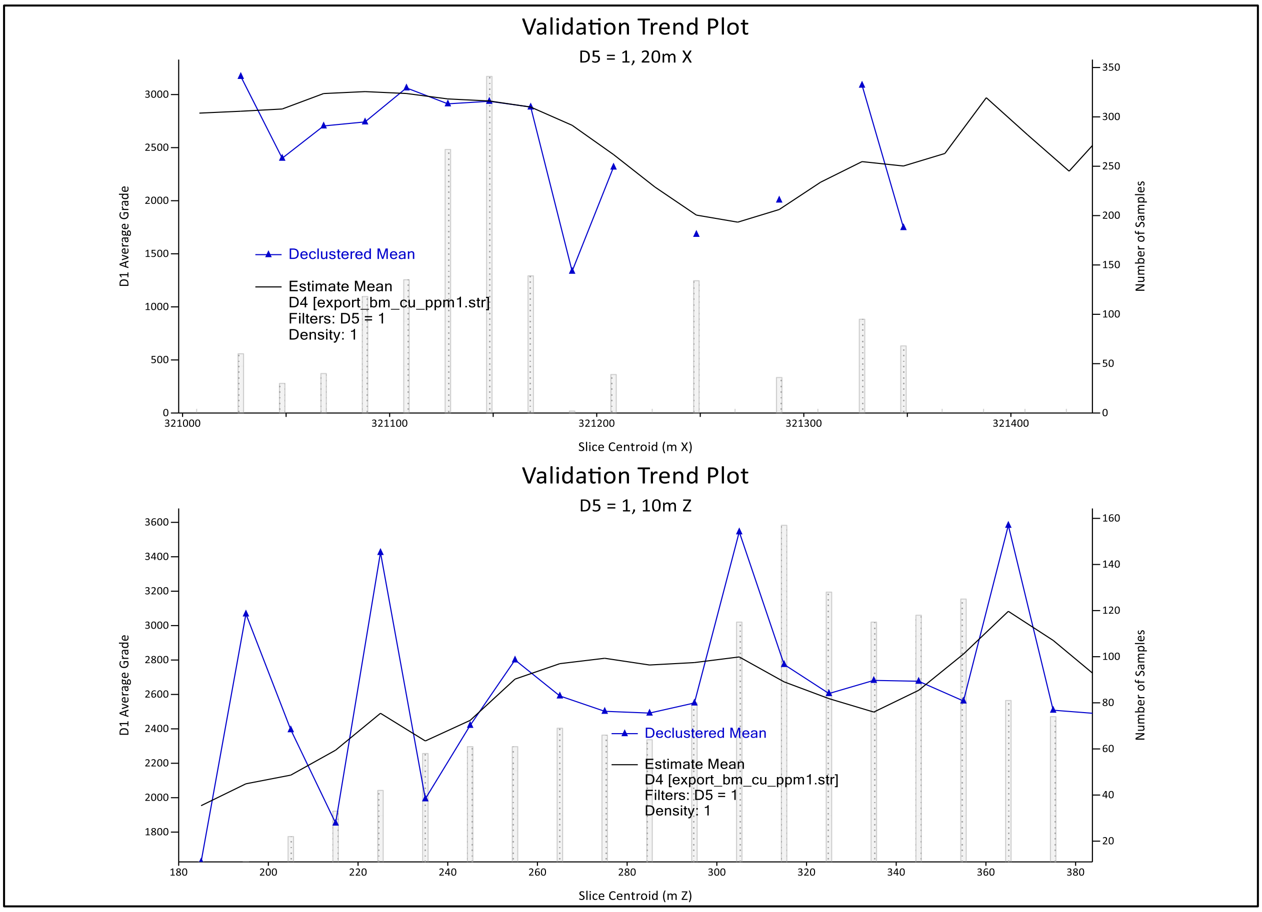


Figure 12-1 Validation by 20m Northing and 10m Elevation – Domain 1, Cu (Blue=declustered mean, Black=OK)

The validation plots show good correlation between the composite grades and the block model grades for the comparison by easting and elevation. The trends shown by the composite data are honoured by the OK estimate.

The comparisons show the effect of the interpolation, which results in smoothing of the block grades, compared to the composite grades.

13. Mineral Resource Classification

The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced drilling of less than 25m by 20m, and where the continuity and predictability of the mineralised units was reasonable. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 25m by 20m and less than 80m by 80m; where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.

The block model has an attribute "class" for all blocks within the mineralisation wireframes coded as "ind" for Indicated Mineral Resource and "inf" for Inferred Mineral Resource. An oblique view of the classification is shown in Figure 13-1.

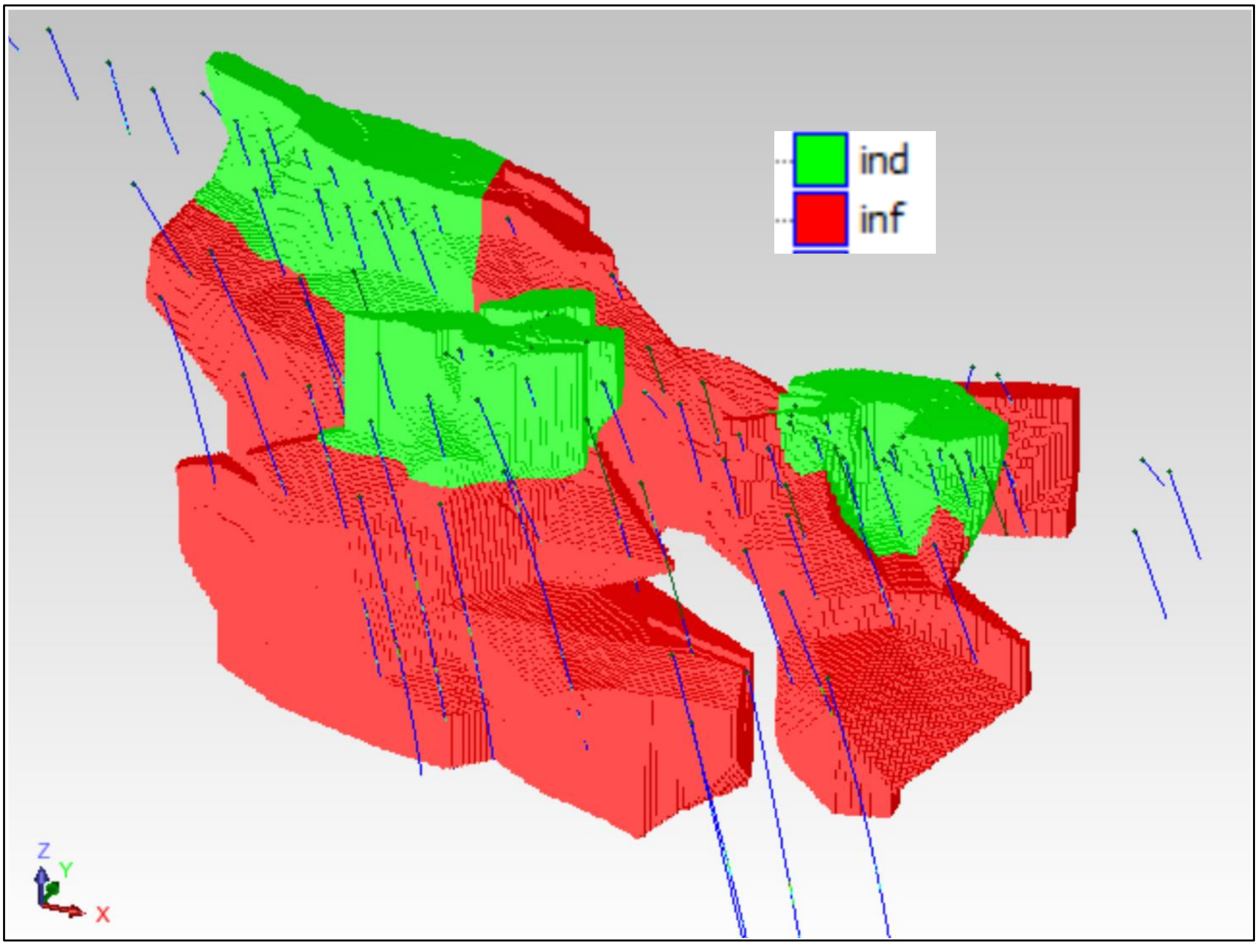


Figure 13-1 Emull Mineral Resource Classification – Oblique View Facing NW

The extrapolation of the lodes along strike and down-dip has been limited to a distance equal to the previous section drill spacing or to 50m.

The JORC Code (2012) describes a number of criteria which must be addressed in the documentation of Mineral Resource estimates prior to public release of the information. The criteria provide a means of assessing whether or not parts of or the entire data inventory used in the estimate are adequate for that purpose. The Mineral Resources stated in this document are based on the criteria set out in Table 1 of that Code. These criteria are listed in Appendices 1 and 2.

13.1 Results

Results of the independent Mineral Resource estimate by Ashmore for Emull are tabulated in the Statement of Mineral Resources in Table 13-1; and shown in detail in Appendix 3. The Statement of Mineral Resources is reported in line with requirements of the 2012 JORC Code and is therefore suitable for public reporting.

Table 13-1 – Emull December 2022 Mineral Resource Estimate (0.15% Cu Cut-off Grade)

Type	Indicated Mineral Resource								
	Tonnage Mt	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag koz
Oxide	0.26	0.28	0.72	0.16	5.4	700	1,800	400	50
Transitional	0.34	0.29	0.68	0.17	7.0	1,000	2,300	600	80
Fresh	1.8	0.31	0.57	0.14	6.6	5,600	10,400	2,400	390
Total	**2.4**	**0.30**	**0.60**	**0.14**	**6.6**	**7,300**	**14,500**	**3,400**	**510**
Type	**Inferred Mineral Resource**								
	Tonnage Mt	**Cu %**	**Zn %**	**Pb %**	**Ag g/t**	**Cu t**	**Zn t**	**Pb t**	**Ag koz**
Oxide	0.04	0.24	0.23	0.05	3.1	100	100		
Transitional	0.05	0.25	0.18	0.04	3.4	100	100		10
Fresh	9.7	0.26	0.33	0.08	4.6	25,200	32,300	7,400	1,420
Total	**9.8**	**0.26**	**0.33**	**0.08**	**4.5**	**25,400**	**32,500**	**7,400**	**1,430**
Type	**Total Mineral Resource**								
	Tonnage Mt	**Cu %**	**Zn %**	**Pb %**	**Ag g/t**	**Cu t**	**Zn t**	**Pb t**	**Ag koz**
Oxide	0.29	0.28	0.66	0.14	5.2	800	1,900	400	50
Transitional	0.39	0.28	0.61	0.15	6.6	1,100	2,400	600	80
Fresh	11.5	0.27	0.37	0.09	4.9	30,800	42,700	9,800	1,810
Total	**12.2**	**0.27**	**0.38**	**0.09**	**4.9**	**32,700**	**47,000**	**10,800**	**1,940**

Note:

The Mineral Resource has been compiled under the supervision of Mr. Shaun Searle who is a director of Ashmore Advisory Pty Ltd and a Registered Member of the Australian Institute of Geoscientists. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.

All Mineral Resources figures reported in the table above represent estimates at December 2022. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

To show the tonnage and grade distribution throughout the entire deposit, a bench breakdown has been prepared using a 10m bench height which is shown graphically in Figure 13-2.

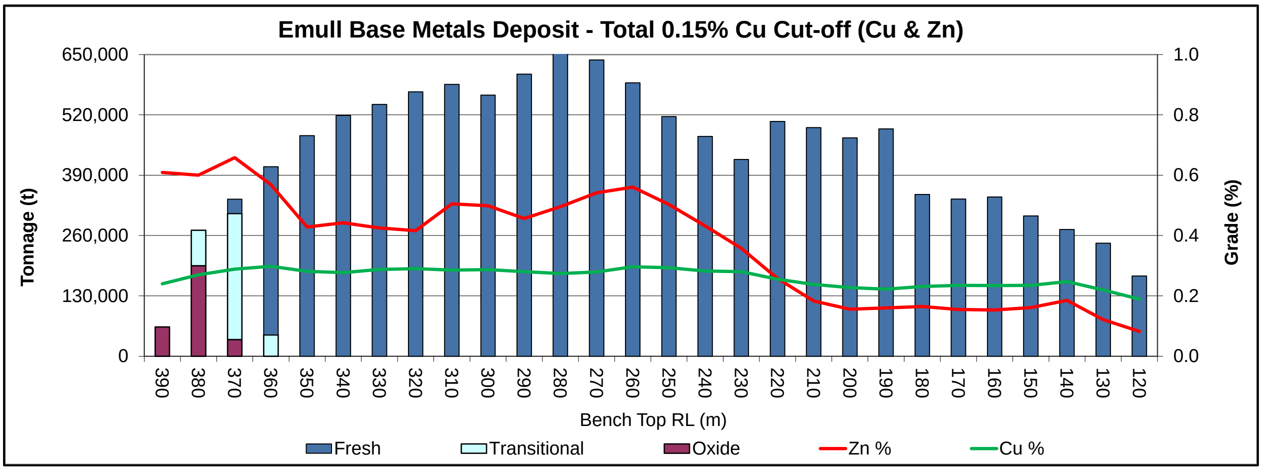


Figure 13-2 Emull Tonnage and Grade – 10m Bench Elevation

The grade tonnage curve for the Emull Mineral Resource is shown in Figure 13-3.

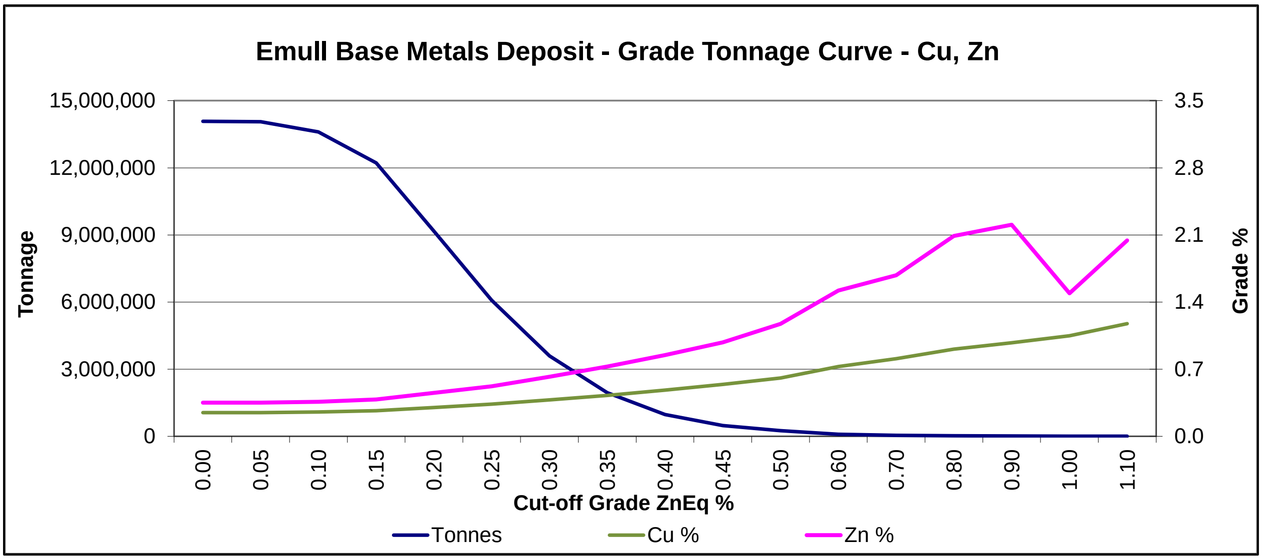


Figure 13-3 Emull Grade - Tonnage Curve

14. Risk and Opportunities

14.1 Risks

The local geology and structure, particularly frequency of localised faulting and the fault geometry at Emull, is not well defined. This creates potential for minor, localised tonnage and overall geometry variations in the model.

Weathering surfaces are based on qualitative logging. Therefore, some variation in modelled versus actual locations of oxidation boundaries is possible.

The grade domains are based on cut-off grade and geological logging. The mineralisation occurs within disseminated sulphide mineralisation that can show variation in thickness and geometry across the breadth of the deposit. There is a risk that the mineralisation will not be continuous as modelled.

The topographic surface was generated from surveyed drill collars. Although the Emull topography is generally flat, a topographic survey should be conducted.

Bulk density was assumed, rather than measured. Future drilling programs should incorporate diamond core, with density measurements being obtained from all material types.

14.2 Opportunities

Further drilling along strike or down-dip within the Project area may define extensions to known mineralisation or new zones of mineralisation.

There is an opportunity to increase the level of confidence in the estimate by conducting infill drilling.

Collection of density measurements may result in small increases (or decreases) to bulk density values applied in the block model.

15. Conclusion and Recommendations

The Emull base metals deposit shows good continuity of the main mineralised zones which allowed the drill hole intersections to be modelled into coherent, geologically robust domains. Consistency is evident in the thickness of the structure, and the distribution of grade appears to be reasonable along strike and down dip.

The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced drilling of less than 25m by 20m, and where the continuity and predictability of the mineralised units was reasonable. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 25m by 20m and less than 80m by 80m; where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.

The Mineral Resource model is undiluted, so appropriate dilution needs to be incorporated in any mine planning evaluation of the deposit. The Mineral Resource has been reported on a dry in-situ basis.

The Mineral Resource model has not had mining modifying factors applied, so appropriate factors need to be incorporated in any mine planning evaluation of the deposit.

Ashmore recommends:

- For future RC drilling, field duplicates are taken at a rate of 1 in 25;
- Using the Emull block model to conduct a mining optimisation to assist in determining the potentially mineable portions of the deposit and to guide drill hole planning;
- Additional infill drilling (25m by 20m spacing) in the economic portions of the deposit, particularly around areas of sub-economic grades within wireframes and higher grade zones;
- With additional drilling, the interpretation of additional zinc dominant domains should be considered;
- Recording bulk density measurements from all assayed intervals from all future diamond drilling;
- Drilling diamond holes at the deposit to confirm mineralisation geometry and to conduct structural, geotechnical and metallurgical studies to improve ore body knowledge and confirm viability for mining and processing; and
- Additional drilling along strike, down-plunge/dip to extend known mineralisation.

16. Prospects for Economic Extraction

The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a copper cut-off grade of 0.15% under the assumption of an open pit mining method.

It is assumed the Emull material can be extracted with open pit mining methods and either toll treating or could be processed as part of a multi deposit operation along with AKN's Onedin and Sandiego deposits. Metallurgical testwork has not yet been conducted at Emull, although it is anticipated that similar results could be obtained to the geologically similar Onedin and Sandiego deposits at the Project. It is anticipated separate concentrates for copper and zinc could be generated from Emull, however further studies are required.

17. References

Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, (The JORC Code – 2012 Edition), 2012.

AuKing, 2022a. Koongie Park 2021 Combined Annual Report. Internal tenement annual report dated May 2022.

AuKing, 2022b. QAQC Report for Emull Drilling. Internal technical report dated November 2022.

CSA Global, 2022. Mineral Resource Estimates for Onedin and Sandiego. CSA Global technical memorandum for AuKing Mining Limited, dated 4th April 2022.

Various ASX releases accessed from the AOU website (https://www.aurochminerals.com/).

Appendix 1 – JORC Code (2012) Table 1, Sections 1 and 2

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
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.*	• Historical drilling methods include aircore, RC and diamond cored drilling. • Aircore, percussion and RC drilling returns a sample of broken rock collected in a bag at site at the time of drilling. Drill core from diamond drilling technique was later cut by a core saw. • AKN utilised Reverse Circulation ("RC") drilling at Emull to obtain individual 1m samples, which were reduced in size to produce a sample of approximately 1 to 2kg in weight. The samples were ticketed prior to dispatch to the analytical laboratory, pulverised to produce a pulp sample for fire assay and base metal analyses. • The RC drilling results reviewed in the accompanying release were obtained entirely by RC drilling with the sample return connected to a cyclone and cone splitter. Sampling has been done on a single metre by metre basis.
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).*	• Historical drilling included RC drilling with 5.5 inch hammer and diamond core of HQ and NQ diameter with standard and/or triple tube. • AKN drilling included RC drilling with 5.5 inch hammer.
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.*	• AKN RC recovery levels are high hence the relationship between recovery and grade is not an issue. • No relationship between sample recovery and grade has been yet observed and no sample bias is believed to have occurred.
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.*	• Geological logging of historic drill holes was reviewed by AKN using historic statutory reports and databases compiled by previous operators. • Geological logging data collected to date is sufficiently detailed to support a Mineral Resource at Emull. • For AKN drilling, RC chips were logged for quantitative and qualitative attributes with chips stored in chip trays for future reference. All drill holes were logged in full.
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 historical and AKN drilling, mineralisation has been sampled with the following techniques: RC drilling - 1m samples of pulverised chips, sampled by a rig mounted cone splitter, with approximately 1 to 2kg collected in

Criteria	JORC Code explanation	Commentary
	• *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.*	individual calico bags. • Historical core was sampled at 0.3 to 1.2m intervals, cut in half using a core sore. • Based on the distribution of mineralisation the sample size is considered adequate for representative sampling.
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.*	• AKN samples were prepared and analysed by Jinning Testing and Inspection Laboratory, Canning Vale, Perth, WA. • RC samples are pulverised to a nominal 85% passing 75µm. • A multi-element analytical suite is assayed for using a mixed acid digest on a 0.2g charge that involves the use of nitric, perchloric and hydrofluoric acids in the attack. Dissolution is then achieved using hydrochloric acid. The use of hydrofluoric acid ensures the breakdown of silicate minerals. Although the digest approaches total dissolution of the sample there can be undissolved material encountered. Analyses are performed via ICP-OES to a range of detection limits. • The following elements are currently being analysed for (detection limits in parentheses, as ppm unless otherwise indicated): Ag (1); Al (0.01%); As (2); Ba (1); Be (0.5); Bi (5); Ca (0.01%); Cd (1); Ce (5); Co (1); Cr (2); Cu (1); Fe (0.01%); Ga (10); K (0.01%); La (2); Li (1); Mg (0.01%); Mn (1); Mo (2); Na (0.005%); Ni (1); P (20); Pb (2); S (20); Sb (5); Sc (1); Sn (5); Sr (1); Ta (10); Te (10); Th (10); Ti (5); V (1); W (5); Y (1); Zn (1) and Zr (1). • The balance of the pulp sample is stored pending additional analytical work being required. • On receipt of the initial results and pending review, Au analyses by 30gm charge fire assay may be undertaken at Jinning's or another laboratory. • The laboratory includes a number of blanks and internal CRMs on an approximately 1 in 25 basis as internal QAQC checks. These results are also reported. • The results seen to date indicate that there are no concerns with the quality of analyses reported. • For AKN drilling, QAQC included Certified Reference Material (CRM's) or blank (Blanks) samples are inserted at a rate of 1:20 for RC drilling. Accuracy and performance of CRM's and Blanks are considered after results are received. Field duplicates collected from the Cyclone and cone splitter were inserted every 100 samples.

Criteria	JORC Code explanation	Commentary
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.*	• The grade of significant intersections has been verified by other senior geological personnel associated with the project. • Twinned drilling has not yet been undertaken. • The drilling database is managed by Newexco Exploration, a Perth based exploration consultancy group. All drilling data resides on their NXDB database management system. Newexco is responsible for uploading all analytical and other drilling data and producing audited downloaded data for use in various mining software packages. The NXDB system has stringent data entry validation routines. • No adjustments to assay data were undertaken.
Location of data points	• *Accuracy and quality of surveys used to locate drill 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.*	• All historical location data for the Mineral Resource were collected in AGD84 or MGA94 datum and transformed to GDA2020 datum, Zone 52. • Downhole survey methods in the older diamond drill holes are considered to have been undertaken at an industry standard level. • The current RC drillholes have been surveyed by north-seeking gyroscopic method. • For AKN collars, RC and DD holes were surveyed with DGPS equipment using the GDA2020, Zone 52 coordinate system. Mineral Resource estimation was carried out on this grid. • A topographic surface was provided by AKN and renamed by Ashmore to *'emull_topo_202211.dtm'*. The topography was generated from drill hole collar surveys.
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.*	• Drill data spacing of all drill data is sufficient to establish the degree of geological and grade continuity appropriate for estimating a Mineral Resource. • Drill hole spacing is predominantly 25m by 20m in the well-drilled portions of the deposit and broadens to approximately 80m by 80m over the remaining areas. Spacing is adequate to establish the degree of geological and grade continuity for estimating a Mineral Resource. • Samples were composited to 1m lengths prior to Mineral Resource estimation.
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.*	• Historical drill holes were oriented, as far as reasonably practical, to intersect the centre of the targeted mineralised zone perpendicular to the interpreted strike orientation of the mineralised zone. • The geometry of drill holes relative to the mineralised zones achieves unbiased sampling of this deposit type. • No orientation-based sampling bias has been identified.
Sample security	• *The measures taken to ensure sample security.*	• It is assumed that due care was taken historically with security of samples during

Criteria	JORC Code explanation	Commentary
		field collection, transport and laboratory analysis. • All samples were placed in large poly-weave bags for road transportation to the analytical laboratory in Perth by a local transportation service.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No independent audit or review has been undertaken, apart from the site visit by the Mineral Resource Competent Person.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
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 license to operate in the area.*	• The Emull prospect is located within E80/4957. The Exploration Licence is located 44km southwest of Halls Creek, near the Great Northern Highway. • The tenement is in good standing and part of AKN's Koongie Park joint venture with Astral Resources (ASX: AAR). • AKN's joint venture with AAR in respect of the group of tenures called "Koongie Park" commenced in June 2021. The primary mineral assets, the Onedin and Sandiego copper-zinc-gold-silver deposits lie within the granted mining leases M80/277 and M80/276 respectively. These tenures expire in 2031. • Both mining licences M80/277 and M80/276 were granted in 1989 and therefore prior to the Native Title Act 1993 ("NTA"). The Koongie-Elvire Native Title Claim WC 1999/040 was also registered after grant of the mining licences and they are not subject to the future act provisions under the NTA.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Several companies have explored within the Emull tenement area, primarily focusing on the potential for a significant stratabound lead-zinc system with volcanogenic affinities since the early 1970s. • The gossan outcrop capping the mineralization was discovered in the late 1960s by the local pastoralist. • From 1971 onwards a number of groups, including Pickands Mather International, North Broken Hill (NBH) were active in the area and undertook percussion and diamond drilling of the gossanous horizon at Emull. • In 1977 Shell entered into a JV with North Broken Hill to explore the nearby Location 5 gossan system, now known as Emull West. Shell withdrew from the JV in 1978 and NBH allowed the claims to lapse. • During or prior to Shell's tenure over Emull, a resource estimate of 4.7Mt @ 4.5% Zn, 0.33% Cu, 0.2% Pb & 19g/t Ag was reported in the Independent Geologists Report by RSA Global in the Prospectus of Northern Star Resources (NST) dated 6 November 2003. • West Coast Holdings applied for 12 mineral claims in early 1981 which were later surrendered and incorporated into E80/377. West Coast referred to the prospect as the Lamboo Prospect. M80/271 was subsequently applied for and approved in March 1989. West Coast undertook shallow RAB and percussion drilling, primarily in a search for supergene enriched zones but were unsuccessful and dropped the tenement in or around 1991. • S.A. Macdonald applied for E80/1459 across the Emull prospect area in 1991.

Criteria	JORC Code explanation	Commentary
		Only limited work, including hand auger drilling, general prospecting and panning and loaming were carried out. Macdonald's tenure ceased in or around 1996. • NST commenced exploration work in the area in E80/2612 in 2003-2004 for several target styles including polymetallic mineralisation as seen at Emull, Au mineralisation as identified at nearby Nicholson's Prospect and possible PGM mineralisation. NST undertook extensive drilling in the area, comprising 228 drill holes (RC and air core) across the tenure area and. more specifically, 88 drill holes (RC and air core) across the Emull deposit area. NST concluded exploration activities in the area in 2012. • The Competent Person considers the historical work undertaken incrementally over time has built up a useful understanding of the geological characteristics of the deposit, and all historical work provides useful information. • AKN's Joint Venture Agreement with AAR commenced in June 2021 and AKN assumed management and control of the exploration activities on the property. Drilling commenced in June 2022. New results reported above and supported by this Table are based on work solely undertaken by AKN.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Emull base metal occurrence within the E80/4957 tenement area is hosted by altered and contact metamorphosed calc-silicate rocks, which have been intruded by and partially assimilated by the Emull gabbro. • Thin, semi-massive and disseminated mineralisation is confined to several discontinuous but apparently stratabound lenses, dominated by sphalerite, with subordinate chalcopyrite and galena. The largest lens has a strike length of 500m and a maximum plan width of 50m. • The genesis of mineralisation at Emull is not certain, although models based on an origin as a volcanic hosted massive sulphide ("VHMS") deposit partially assimilated during intrusion of gabbro, or as a skarn developed during intrusion of gabbro into carbonate units within the Koongie Park Formation, have been proposed. • Rocks of the Koongie Park property are assigned to the Lamboo Province, of Palaeoproterozoic age (1,910–1,805 Ma), which formed within the northeast trending Halls Creek Orogen. • The KPF hosts several other base metal occurrences and two significant base metal deposits, Onedin and Sandiego. • The massive Cu-Zn dominated sulphide deposits of Koongie Park have been traditionally classified as volcanogenic massive sulphide (VMS) deposits. A PhD

Criteria	JORC Code explanation	Commentary
		study concluded in 2002 proposed that the best model for the base metal occurrence is as a sub-horizontal basin floor replacement VMS. CSA Global concurs and considers the weight of evidence supports their interpretation as VMS deposits. Thus, the deposits are interpreted to have been formed around the time of deposition of the host volcanic and sedimentary strata in which they are bound and generally in bedding parallel lenses. Hydrothermal fluids associated with volcanic activity is interpreted to have been the source of the metals and other constituents of the mineralisation.

Drill hole information	• *A summary of all information material to the under-standing 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.*
		• Exploration results are not being reported.
		• All drill hole information relevant to this resource report/statement has been included in the appendices. No relevant drill hole information has been excluded.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Exploration results are not being reported. • Not applicable as a Mineral Resource is being reported. • Metal equivalent values have not been used.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in 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 (e.g. 'down hole length, true width not known').*	• Most drill holes were angled to the north so that intersections are orthogonal to the orientation of mineralisation.
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.*	• Relevant diagrams have been included within the Mineral Resource report main body of text.

Criteria	JORC Code explanation	Commentary
Balanced Reporting	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *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.*	• Exploration results are not being reported, refer to Section 3.
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.*	• No other substantive data exists.
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Further work by AKN may include a Scoping Study for the Emull Mineral Resource estimate, as well as additional drilling to improve confidence. • Refer to diagrams in the body of text within the Mineral Resource report.

Appendix 2 – JORC Code (2012) Table 1, Section 3

Section 3 Estimation and Reporting of Mineral Resources

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.*	• The drilling database is managed by Newexco Exploration, a Perth based exploration consultancy group. All drilling data resides on their NXDB database management system. Newexco is responsible for uploading all analytical and other drilling data and producing audited downloaded data for use in various mining software packages. The NXDB system has stringent data entry validation routines. • It is assumed that due care was taken historically with the process of transcribing data from field notes into digital format for statutory annual reporting. • All assays were reported by laboratories in digital format reducing the likelihood of transcription errors. • Historic data has been verified by checking historical reports on the Emull deposit. Validation was carried out during data import and by onscreen visual validation.
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.*	• A site visit was conducted by Shaun Searle during November 2022. The site visit included inspection of the geology, drill chips, the site layout and the topographic conditions present at the site as well as infrastructure. During the site visit, Mr Searle had open discussions with AKN personnel on technical aspects relating to the relevant issues and in particular the geological data.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological 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.*	• The confidence in the geological interpretation is considered to be good and is based historical and AKN drilling, including diamond core. • Geochemistry and geological logging has been used to assist identification of lithology and mineralisation. • The Project consists of south dipping lodes. The current interpretation is considered robust. • Recent drilling by AKN has confirmed the geological and grade continuity observed in the historical drilling.
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 Emull Mineral Resource area extends over an east-west strike length of 540m (from 321,000mE – 321,540mE) and includes the 280m vertical interval from 390mRL to 110mRL.
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*	• Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades in three passes using Surpac software. Linear grade estimation was deemed suitable for the Emull Mineral Resource due to the geological control on mineralisation. Maximum extrapolation of wireframes from drilling was 50m down-dip beyond the last drill holes on section. This was equivalent to approximately one drill hole spacing in this portion of the deposit and classified as Inferred Mineral

Criteria	JORC Code explanation	Commentary
	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 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.*	Resource. Extrapolation was generally half drill hole spacing between drill holes. • This is a maiden Mineral Resource estimate for the Emull deposit. • Copper, silver, lead and zinc are considered to be the economic or potentially economic metals. Additional studies are required to confirm this. Further metallurgical test work is required to assess potential deleterious elements. • The parent block dimensions used were 10m EW by 5m NS by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m. The parent block size dimension was selected on the results obtained from Kriging Neighbourhood Analysis that suggested this was the optimal block size for the Emull dataset. • An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography. Three passes were used. The first pass had a range of 50m, with a minimum of 8 samples. For the second pass, the range was 100m, with a minimum of 6 samples. For the third pass, the range was extended to 200m, with a minimum of 2 samples. A maximum of 20 samples was used for all three passes. • No assumptions were made on selective mining units. • Correlations exist between copper and the the remaining elements. Silver and lead had a strong positive correlation. • The deposit mineralisation was constrained by a cut-off grade of 0.1% copper for mineralisation. The wireframes were applied as hard boundaries in the estimate. • Statistical analysis was carried out on data from five lodes. Top cuts were applied to some of the zinc and silver composite data after review of the composite statistics. • Validation of the model included detailed comparison of composite grades and block grades by easting and elevation. Validation plots showed reasonable correlation between the composite grades and the block model grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a copper cut-off grade of 0.15% under the assumption of an open pit mining method.
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 process of*	• Ashmore has assumed that the deposit could potentially be mined using open pit mining techniques with toll treatment of the ore at a third party concentrator, or as part of a larger operation. No assumptions have

Criteria	JORC Code explanation	Commentary
	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.	been made for mining dilution or mining widths.
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.*	• Metallurgical testwork has not yet been conducted at Emull, although it is anticipated that similar results could be obtained to the geologically similar Onedin and Sandiego deposits at the Project. It is anticipated separate concentrates for copper and zinc could be generated from Emull, however further studies are required.
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. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• AKN will work to mitigate environmental impacts as a result of any future mining or mineral processing.
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.*	• No density measurements were available for the Emull deposit. • It is assumed there are minimal void spaces in the rocks within the Emull deposit. The weathering at Emull is relatively shallow, with the deposit hosted within competent mafic rocks. • Bulk densities were assigned in the block model based on assumed values from similar geological terrains. Density values of 2.0t/m^3, 2.4t/m^3 and 2.7t/m^3 were applied to the oxide, transitional and fresh material types.
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).*	• The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of

Criteria	JORC Code explanation	Commentary
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	close spaced drilling of less than 25m by 20m, and where the continuity and predictability of the mineralised units was reasonable. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 25m by 20m and less than 80m by 80m; where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones. • The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by recent infill drilling conducted by AKN, which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Internal audits have been completed by Ashmore which verified the technical inputs, methodology, parameters and results of the estimate.
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.*	• The lode geometry and continuity has been adequately interpreted to reflect the applied level of Mineral Resource. The data quality is good and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade. • This is a maiden Mineral Resource estimate for the Emull deposit.

Appendix 3 – December 2022 Mineral Resource Tables

Emull December 2022 Mineral Resource Estimate (0.15% Cu Cut-off Grade)

Type	Indicated Mineral Resource								
	Tonnage Mt	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag koz
Oxide	0.26	0.28	0.72	0.16	5.4	700	1,800	400	50
Transitional	0.34	0.29	0.68	0.17	7.0	1,000	2,300	600	80
Fresh	1.8	0.31	0.57	0.14	6.6	5,600	10,400	2,400	390
Total	**2.4**	**0.30**	**0.60**	**0.14**	**6.6**	**7,300**	**14,500**	**3,400**	**510**
Type	**Inferred Mineral Resource**								
	Tonnage Mt	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag koz
Oxide	0.04	0.24	0.23	0.05	3.1	100	100		
Transitional	0.05	0.25	0.18	0.04	3.4	100	100		10
Fresh	9.7	0.26	0.33	0.08	4.6	25,200	32,300	7,400	1,420
Total	**9.8**	**0.26**	**0.33**	**0.08**	**4.5**	**25,400**	**32,500**	**7,400**	**1,430**
Type	**Total Mineral Resource**								
	Tonnage Mt	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag koz
Oxide	0.29	0.28	0.66	0.14	5.2	800	1,900	400	50
Transitional	0.39	0.28	0.61	0.15	6.6	1,100	2,400	600	80
Fresh	11.5	0.27	0.37	0.09	4.9	30,800	42,700	9,800	1,810
Total	**12.2**	**0.27**	**0.38**	**0.09**	**4.9**	**32,700**	**47,000**	**10,800**	**1,940**

Note:

The Mineral Resource has been compiled under the supervision of Mr. Shaun Searle who is a director of Ashmore Advisory Pty Ltd and a Registered Member of the Australian Institute of Geoscientists. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.

All Mineral Resources figures reported in the table above represent estimates at December 2022. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

Emull Base Metals Deposit

December 2022 Mineral Resource Estimate (0.15% Cu Cut-off)

Indicated

Bench	Oxide					Transitional					Fresh				
Top RL	Tonnage t	Cu %	Zn %	Pb %	Ag g/t	Tonnage t	Cu %	Zn %	Pb %	Ag g/t	Tonnage t	Cu %	Zn %	Pb %	Ag g/t
390	54,133	0.24	0.67	0.16	4.92										
380	168,609	0.28	0.68	0.17	5.69	69,328	0.26	0.59	0.18	7.68					
370	34,500	0.34	0.96	0.12	5.06	232,800	0.29	0.70	0.17	6.97	30,069	0.28	0.62	0.15	5.80
360						41,484	0.33	0.68	0.15	6.28	284,513	0.32	0.67	0.17	7.00
350											308,886	0.31	0.57	0.15	7.03
340											296,620	0.31	0.63	0.13	6.80
330											284,449	0.31	0.57	0.14	6.89
320											294,732	0.31	0.46	0.13	6.57
310											309,572	0.30	0.54	0.10	5.71
Total	**257,242**	**0.28**	**0.72**	**0.16**	**5.44**	**343,612**	**0.29**	**0.68**	**0.17**	**7.03**	**1,808,841**	**0.31**	**0.57**	**0.14**	**6.64**

Inferred

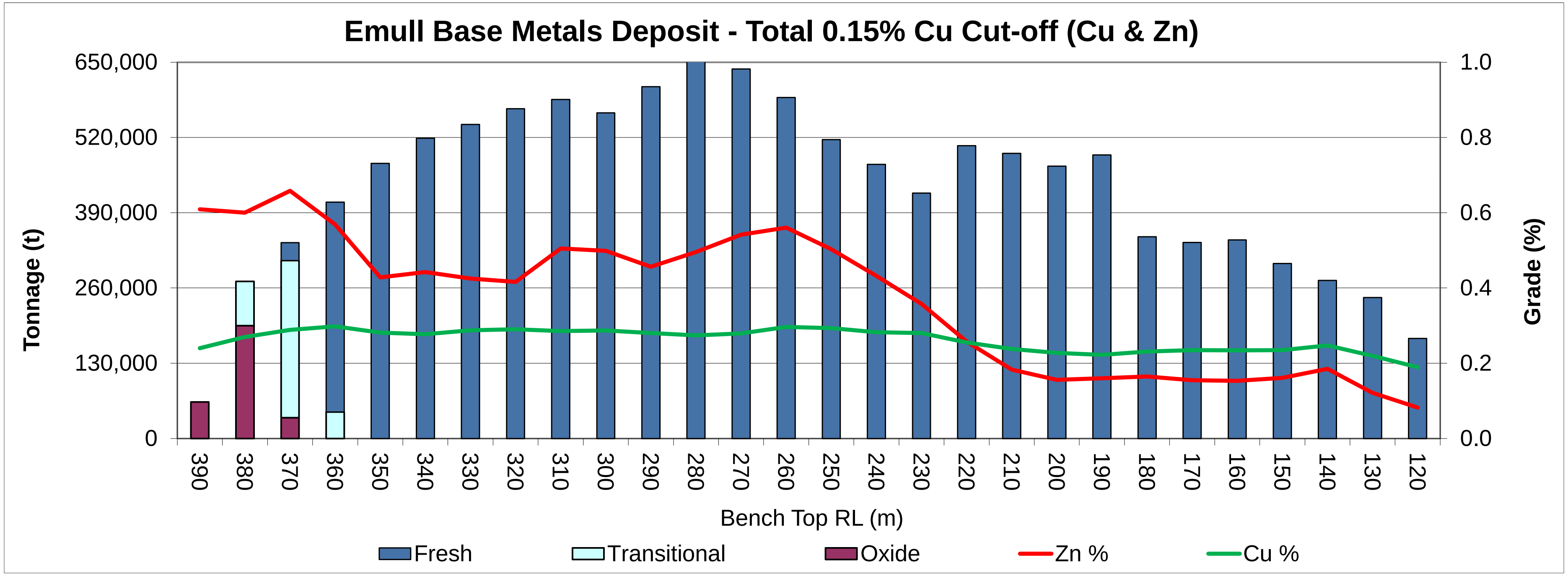
Bench	Oxide					Transitional					Fresh				
Top RL	Tonnage t	Cu %	Zn %	Pb %	Ag g/t	Tonnage t	Cu %	Zn %	Pb %	Ag g/t	Tonnage t	Cu %	Zn %	Pb %	Ag g/t
390	8,977	0.24	0.25	0.05	3.06										
380	26,328	0.24	0.22	0.04	3.08	7,022	0.23	0.13	0.03	3.16					
370	1,195	0.28	0.40	0.07	3.79	39,047	0.25	0.18	0.04	3.45	538	0.23	0.19	0.10	5.96
360						4,228	0.27	0.25	0.05	3.33	78,079	0.22	0.14	0.05	3.74
350											166,430	0.23	0.17	0.06	4.05
340											222,001	0.24	0.19	0.07	4.36
330											258,029	0.26	0.27	0.08	5.09
320											275,157	0.27	0.37	0.11	6.07
310											276,286	0.26	0.47	0.11	6.21
300											562,507	0.29	0.50	0.09	5.28
290											607,901	0.28	0.46	0.09	5.14
280											653,031	0.27	0.50	0.10	5.21
270											638,307	0.28	0.54	0.10	5.41
260											589,022	0.30	0.56	0.10	5.54
250											516,343	0.29	0.50	0.09	4.92
240											473,396	0.28	0.43	0.08	4.34
230											423,868	0.28	0.36	0.07	4.31
220											505,965	0.26	0.26	0.08	4.44
210											492,560	0.24	0.18	0.07	4.20
200											470,486	0.23	0.16	0.06	3.91
190											489,966	0.22	0.16	0.05	3.42
180											348,374	0.23	0.16	0.05	3.75
170											338,650	0.23	0.16	0.05	3.58
160											342,911	0.23	0.15	0.05	3.68
150											302,432	0.23	0.16	0.05	3.78
140											273,217	0.25	0.19	0.05	3.64
130											243,348	0.22	0.12	0.04	3.25
120											172,853	0.19	0.08	0.03	2.54
110											686	0.16	0.04	0.02	1.54
Total	**36,500**	**0.24**	**0.23**	**0.05**	**3.10**	**50,297**	**0.25**	**0.18**	**0.04**	**3.40**	**9,722,343**	**0.26**	**0.33**	**0.08**	**4.55**

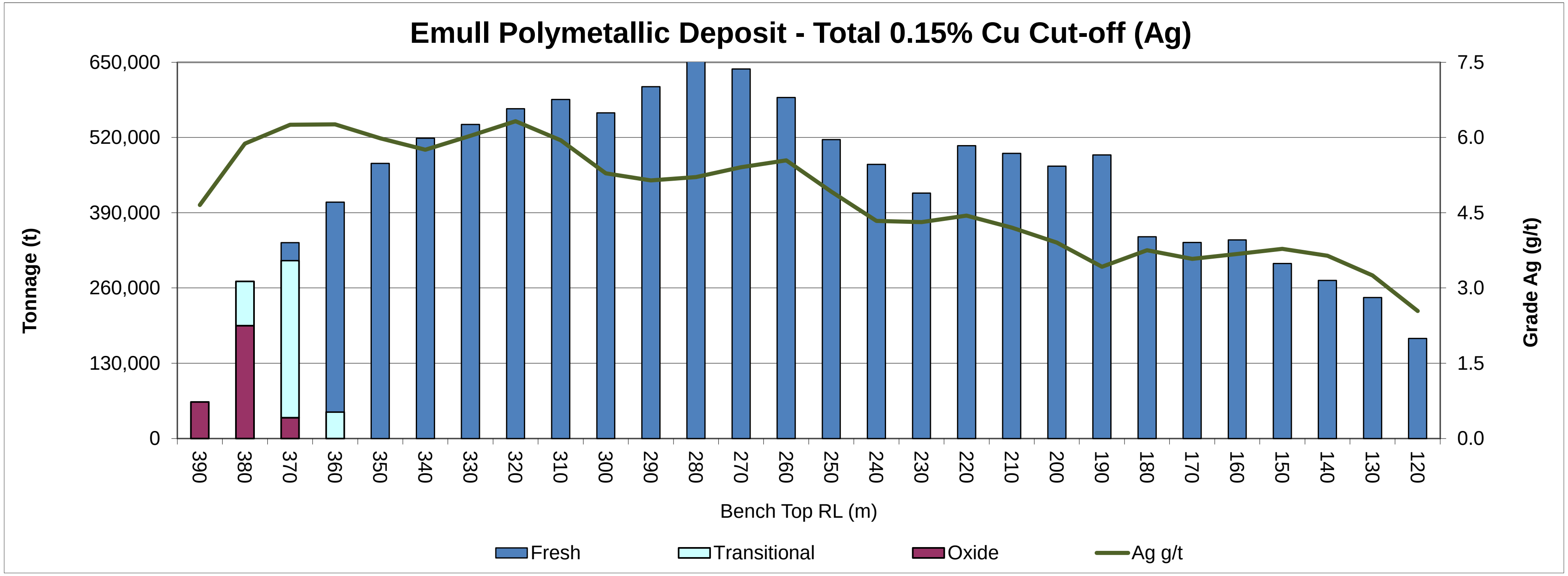
Indicated Total								
Tonnage t	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag Ounces
54,133	0.24	0.67	0.16	4.92	130	362	84	8,563
237,937	0.27	0.66	0.17	6.27	652	1,561	405	47,946
297,369	0.29	0.72	0.16	6.63	873	2,151	479	63,400
325,997	0.32	0.67	0.16	6.91	1,036	2,200	531	72,383
308,886	0.31	0.57	0.15	7.03	956	1,759	459	69,805
296,620	0.31	0.63	0.13	6.80	907	1,862	394	64,849
284,449	0.31	0.57	0.14	6.89	890	1,619	386	63,000
294,732	0.31	0.46	0.13	6.57	915	1,351	379	62,242
309,572	0.30	0.54	0.10	5.71	941	1,668	313	56,811
2,409,695	0.30	0.60	0.14	6.57	7,299	14,533	3,432	508,999

Inferred Total								
Tonnage t	Cu %	Zn %	Pb %	Ag g/t	Cu t	Zn t	Pb t	Ag Ounces
8,977	0.24	0.25	0.05	3.06	22	22	4	883
33,350	0.24	0.20	0.04	3.10	80	66	14	3,324
40,780	0.25	0.19	0.05	3.49	102	75	19	4,581
82,307	0.22	0.15	0.05	3.72	182	122	44	9,837
166,430	0.23	0.17	0.06	4.05	380	277	106	21,649
222,001	0.24	0.19	0.07	4.36	530	431	157	31,142
258,029	0.26	0.27	0.08	5.09	670	686	219	42,263
275,157	0.27	0.37	0.11	6.07	738	1,022	289	53,670
276,286	0.26	0.47	0.11	6.21	732	1,290	303	55,155
562,507	0.29	0.50	0.09	5.28	1,613	2,806	525	95,573
607,901	0.28	0.46	0.09	5.14	1,704	2,775	566	100,536
653,031	0.27	0.50	0.10	5.21	1,788	3,236	626	109,421
638,307	0.28	0.54	0.10	5.41	1,782	3,457	627	110,982
589,022	0.30	0.56	0.10	5.54	1,745	3,301	594	104,975
516,343	0.29	0.50	0.09	4.92	1,514	2,597	454	81,683
473,396	0.28	0.43	0.08	4.34	1,336	2,045	365	65,986
423,868	0.28	0.36	0.07	4.31	1,189	1,516	315	58,781
505,965	0.26	0.26	0.08	4.44	1,291	1,303	386	72,267
492,560	0.24	0.18	0.07	4.20	1,171	900	339	66,567
470,486	0.23	0.16	0.06	3.91	1,069	732	285	59,069
489,966	0.22	0.16	0.05	3.42	1,090	783	244	53,917
348,374	0.23	0.16	0.05	3.75	806	574	178	42,041
338,650	0.23	0.16	0.05	3.58	795	525	156	38,981
342,911	0.23	0.15	0.05	3.68	804	525	164	40,531
302,432	0.23	0.16	0.05	3.78	710	487	155	36,739
273,217	0.25	0.19	0.05	3.64	675	506	123	31,993
243,348	0.22	0.12	0.04	3.25	534	295	90	25,445
172,853	0.19	0.08	0.03	2.54	327	142	51	14,118
686	0.16	0.04	0.02	1.54	1	0	0	34
9,809,140	0.26	0.33	0.08	4.54	25,380	32,496	7,400	1,432,145

Emull Base Metals Deposit
December 2022 Mineral Resource Estimate (0.15% Cu Cut-off)

	Oxide					Transitional					Fresh					Total Deposit				
Bench Top RL	**Tonnage t**	**Cu %**	**Zn %**	**Pb %**	**Ag g/t**	**Tonnage t**	**Cu %**	**Zn %**	**Pb %**	**Ag g/t**	**Tonnage t**	**Cu %**	**Zn %**	**Pb %**	**Ag g/t**	**Tonnage t**	**Cu %**	**Zn %**	**Pb %**	**Ag g/t**
390	63,110	0.24	0.61	0.14	4.66											63,110	0.24	0.61	0.14	4.66
380	194,937	0.28	0.62	0.15	5.34	76,350	0.25	0.55	0.17	7.26						271,287	0.27	0.60	0.15	5.88
370	35,695	0.34	0.94	0.12	5.02	271,847	0.28	0.63	0.15	6.47	30,607	0.28	0.62	0.14	5.80	338,149	0.29	0.66	0.15	6.25
360						45,712	0.33	0.64	0.14	6.01	362,592	0.29	0.56	0.14	6.30	408,304	0.30	0.57	0.14	6.26
350											475,316	0.28	0.43	0.12	5.98	475,316	0.28	0.43	0.12	5.98
340											518,621	0.28	0.44	0.11	5.76	518,621	0.28	0.44	0.11	5.76
330											542,478	0.29	0.42	0.11	6.04	542,478	0.29	0.42	0.11	6.04
320											569,889	0.29	0.42	0.12	6.33	569,889	0.29	0.42	0.12	6.33
310											585,858	0.29	0.50	0.11	5.94	585,858	0.29	0.50	0.11	5.94
300											562,507	0.29	0.50	0.09	5.28	562,507	0.29	0.50	0.09	5.28
290											607,901	0.28	0.46	0.09	5.14	607,901	0.28	0.46	0.09	5.14
280											653,031	0.27	0.50	0.10	5.21	653,031	0.27	0.50	0.10	5.21
270											638,307	0.28	0.54	0.10	5.41	638,307	0.28	0.54	0.10	5.41
260											589,022	0.30	0.56	0.10	5.54	589,022	0.30	0.56	0.10	5.54
250											516,343	0.29	0.50	0.09	4.92	516,343	0.29	0.50	0.09	4.92
240											473,396	0.28	0.43	0.08	4.34	473,396	0.28	0.43	0.08	4.34
230											423,868	0.28	0.36	0.07	4.31	423,868	0.28	0.36	0.07	4.31
220											505,965	0.26	0.26	0.08	4.44	505,965	0.26	0.26	0.08	4.44
210											492,560	0.24	0.18	0.07	4.20	492,560	0.24	0.18	0.07	4.20
200											470,486	0.23	0.16	0.06	3.91	470,486	0.23	0.16	0.06	3.91
190											489,966	0.22	0.16	0.05	3.42	489,966	0.22	0.16	0.05	3.42
180											348,374	0.23	0.16	0.05	3.75	348,374	0.23	0.16	0.05	3.75
170											338,650	0.23	0.16	0.05	3.58	338,650	0.23	0.16	0.05	3.58
160											342,911	0.23	0.15	0.05	3.68	342,911	0.23	0.15	0.05	3.68
150											302,432	0.23	0.16	0.05	3.78	302,432	0.23	0.16	0.05	3.78
140											273,217	0.25	0.19	0.05	3.64	273,217	0.25	0.19	0.05	3.64
130											243,348	0.22	0.12	0.04	3.25	243,348	0.22	0.12	0.04	3.25
120											172,853	0.19	0.08	0.03	2.54	172,853	0.19	0.08	0.03	2.54
Total	**293,742**	**0.28**	**0.66**	**0.14**	**5.15**	**393,909**	**0.28**	**0.61**	**0.15**	**6.57**	**11,531,184**	**0.27**	**0.37**	**0.09**	**4.88**	**12,218,835**	**0.27**	**0.38**	**0.09**	**4.94**


Emull Base Metals Deposit - Total 0.15% Cu Cut-off (Cu & Zn)
Tonnage (t)
650,000
520,000
390,000
260,000
130,000
0
Grade (%)
1.0
0.8
0.6
0.4
0.2
0.0
390
380
370
360
350
340
330
320
310
300
290
280
270
260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
Bench Top RL (m)
Fresh
Transitional
Oxide
Zn %
Cu %

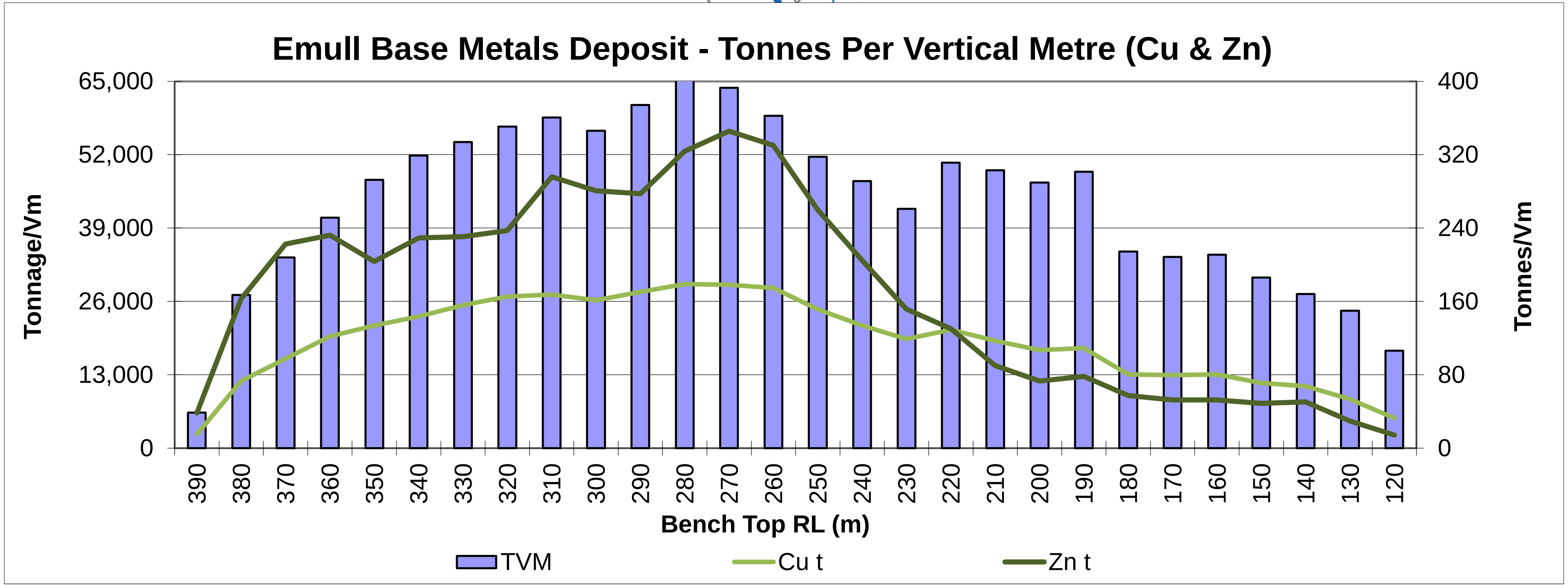


Emull Polymetallic Deposit - Total 0.15% Cu Cut-off (Ag)
Tonnage (t)
650,000
520,000
390,000
260,000
130,000
0
Grade Ag (g/t)
7.5
6.0
4.5
3.0
1.5
0.0
390
380
370
360
350
340
330
320
310
300
290
280
270
260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
Bench Top RL (m)
Fresh
Transitional
Oxide
Ag g/t

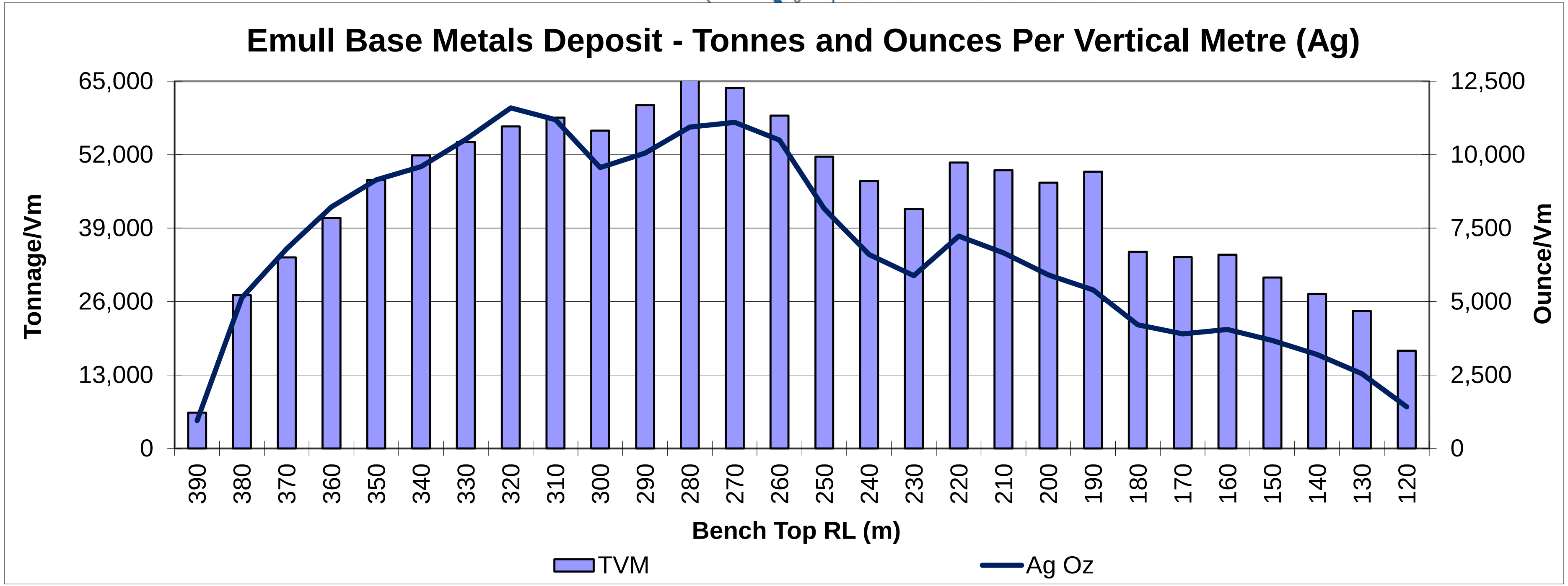
Emull Base Metals Deposit

December 2022 Mineral Resource Estimate (0.15% Cu Cut-off)

Bench Top	Tonnage	Cu	Zn	Pb	Ag	Cu	Zn	Pb	Ag	Per Vertical Metre				
RL	t	%	%	%	g/t	t	t	t	Ounces	Tonnes	Cu t	Zn t	Pb t	Ag Oz
390	63,110	0.24	0.61	0.14	4.66	152	384	89	9,446	6,311	15	38	9	945
380	271,287	0.27	0.60	0.15	5.88	732	1,628	419	51,270	27,129	73	163	42	5,127
370	338,149	0.29	0.66	0.15	6.25	975	2,226	498	67,981	33,815	98	223	50	6,798
360	408,304	0.30	0.57	0.14	6.26	1,218	2,322	575	82,220	40,830	122	232	58	8,222
350	475,316	0.28	0.43	0.12	5.98	1,336	2,036	565	91,455	47,532	134	204	56	9,145
340	518,621	0.28	0.44	0.11	5.76	1,437	2,293	552	95,990	51,862	144	229	55	9,599
330	542,478	0.29	0.42	0.11	6.04	1,560	2,305	605	105,263	54,248	156	231	60	10,526
320	569,889	0.29	0.42	0.12	6.33	1,653	2,373	668	115,912	56,989	165	237	67	11,591
310	585,858	0.29	0.50	0.11	5.94	1,673	2,958	617	111,966	58,586	167	296	62	11,197
300	562,507	0.29	0.50	0.09	5.28	1,613	2,806	525	95,573	56,251	161	281	52	9,557
290	607,901	0.28	0.46	0.09	5.14	1,704	2,775	566	100,536	60,790	170	277	57	10,054
280	653,031	0.27	0.50	0.10	5.21	1,788	3,236	626	109,421	65,303	179	324	63	10,942
270	638,307	0.28	0.54	0.10	5.41	1,782	3,457	627	110,982	63,831	178	346	63	11,098
260	589,022	0.30	0.56	0.10	5.54	1,745	3,301	594	104,975	58,902	175	330	59	10,497
250	516,343	0.29	0.50	0.09	4.92	1,514	2,597	454	81,683	51,634	151	260	45	8,168
240	473,396	0.28	0.43	0.08	4.34	1,336	2,045	365	65,986	47,340	134	205	37	6,599
230	423,868	0.28	0.36	0.07	4.31	1,189	1,516	315	58,781	42,387	119	152	31	5,878
220	505,965	0.26	0.26	0.08	4.44	1,291	1,303	386	72,267	50,597	129	130	39	7,227
210	492,560	0.24	0.18	0.07	4.20	1,171	900	339	66,567	49,256	117	90	34	6,657
200	470,486	0.23	0.16	0.06	3.91	1,069	732	285	59,069	47,049	107	73	29	5,907
190	489,966	0.22	0.16	0.05	3.42	1,090	783	244	53,917	48,997	109	78	24	5,392
180	348,374	0.23	0.16	0.05	3.75	806	574	178	42,041	34,837	81	57	18	4,204
170	338,650	0.23	0.16	0.05	3.58	795	525	156	38,981	33,865	80	52	16	3,898
160	342,911	0.23	0.15	0.05	3.68	804	525	164	40,531	34,291	80	52	16	4,053
150	302,432	0.23	0.16	0.05	3.78	710	487	155	36,739	30,243	71	49	16	3,674
140	273,217	0.25	0.19	0.05	3.64	675	506	123	31,993	27,322	68	51	12	3,199
130	243,348	0.22	0.12	0.04	3.25	534	295	90	25,445	24,335	53	29	9	2,544
120	172,853	0.19	0.08	0.03	2.54	327	142	51	14,118	17,285	33	14	5	1,412
Total	**12,218,835**	**0.27**	**0.38**	**0.09**	**4.94**	**32,679**	**47,030**	**34,825**	**1,941,144**					

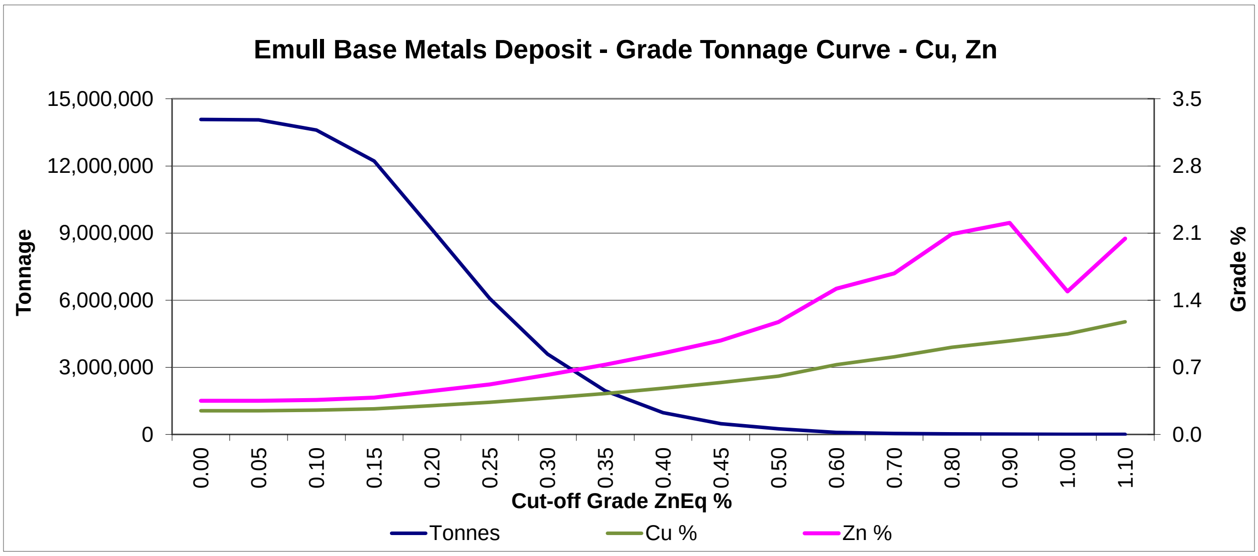


Emull Base Metals Deposit - Tonnes Per Vertical Metre (Cu & Zn)
Tonnage/Vm
Tonnes/Vm
65,000
52,000
39,000
26,000
13,000
0
400
320
240
160
80
0
390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120
Bench Top RL (m)
TVM
Cu t
Zn t


Emull Base Metals Deposit - Tonnes and Ounces Per Vertical Metre (Ag)
Tonnage/Vm
Ounce/Vm
65,000
52,000
39,000
26,000
13,000
0
12,500
10,000
7,500
5,000
2,500
0
390
380
370
360
350
340
330
320
310
300
290
280
270
260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
Bench Top RL (m)
TVM
Ag Oz

Emull Base Metals Deposit
December 2022 Mineral Resource Estimate

Grade	Incremental Resource					Cut-off	Cumulative Resource								
Range	Tonnes	Cu	Zn	Pb	Ag	Grade	Tonnes	Cu	Zn	Pb	Ag	Cu	Zn	Pb	Ag
Cu	t	%	%	%	g/t	Cu	t	%	%	%	g/t	Tonnes	Tonnes	Tonnes	Ounces
0.0 -> 0.05	21,168	0.04	0.04	0.02	1.57	0.00	14,078,475	0.25	0.35	0.08	4.61	34,845	49,270	11,438	2,084,703
0.05 -> 0.1	456,433	0.08	0.07	0.02	2.16	0.05	14,057,307	0.25	0.35	0.08	4.61	34,836	49,260	11,434	2,083,631
0.1 -> 0.15	1,382,039	0.13	0.14	0.04	2.49	0.10	13,600,874	0.25	0.36	0.08	4.69	34,472	48,934	11,325	2,051,933
0.15 -> 0.2	3,050,686	0.17	0.18	0.05	3.06	**0.15**	**12,218,835**	**0.27**	**0.38**	**0.09**	**4.94**	**32,679**	**47,030**	**10,832**	**1,941,144**
0.2 -> 0.25	3,091,730	0.23	0.32	0.08	4.59	0.20	9,168,149	0.30	0.45	0.10	5.57	27,393	41,445	9,335	1,641,368
0.25 -> 0.3	2,483,796	0.27	0.38	0.09	5.05	0.25	6,076,419	0.34	0.52	0.11	6.06	20,437	31,625	6,733	1,184,822
0.3 -> 0.35	1,647,414	0.32	0.50	0.11	5.81	0.30	3,592,623	0.38	0.62	0.12	6.76	13,629	22,294	4,426	781,266
0.35 -> 0.4	971,319	0.37	0.61	0.12	6.62	0.35	1,945,209	0.43	0.73	0.14	7.57	8,297	14,132	2,662	473,337
0.4 -> 0.45	495,786	0.42	0.72	0.13	7.54	0.40	973,890	0.48	0.85	0.15	8.52	4,681	8,253	1,499	266,685
0.45 -> 0.5	231,018	0.47	0.77	0.15	8.19	0.45	478,104	0.54	0.98	0.17	9.53	2,591	4,685	831	146,536
0.5 -> 0.6	157,071	0.54	0.97	0.17	9.20	0.50	247,086	0.61	1.17	0.20	10.78	1,501	2,895	487	85,670
0.6 -> 0.7	44,487	0.64	1.36	0.18	9.33	0.60	90,015	0.73	1.52	0.25	13.55	655	1,369	227	39,200
0.7 -> 0.8	26,448	0.74	1.38	0.23	12.53	0.70	45,528	0.81	1.68	0.32	17.66	369	764	145	25,855
0.8 -> 0.9	10,494	0.85	1.99	0.28	14.59	0.80	19,080	0.91	2.09	0.44	24.78	173	399	84	15,200
0.9 -> 1.0	6,244	0.95	2.47	0.55	30.05	0.90	8,586	0.98	2.21	0.64	37.24	84	189	55	10,279
1.0 -> 1.1	2,004	1.03	1.40	0.98	63.73	1.00	2,342	1.05	1.49	0.87	56.39	25	35	20	4,246
1.1 -> 1.2	338	1.18	2.04	0.19	12.81	1.10	338	1.18	2.04	0.19	12.81	4	7	1	139
Total	**14,078,475**	**0.25**	**0.35**	**0.08**	**4.61**										

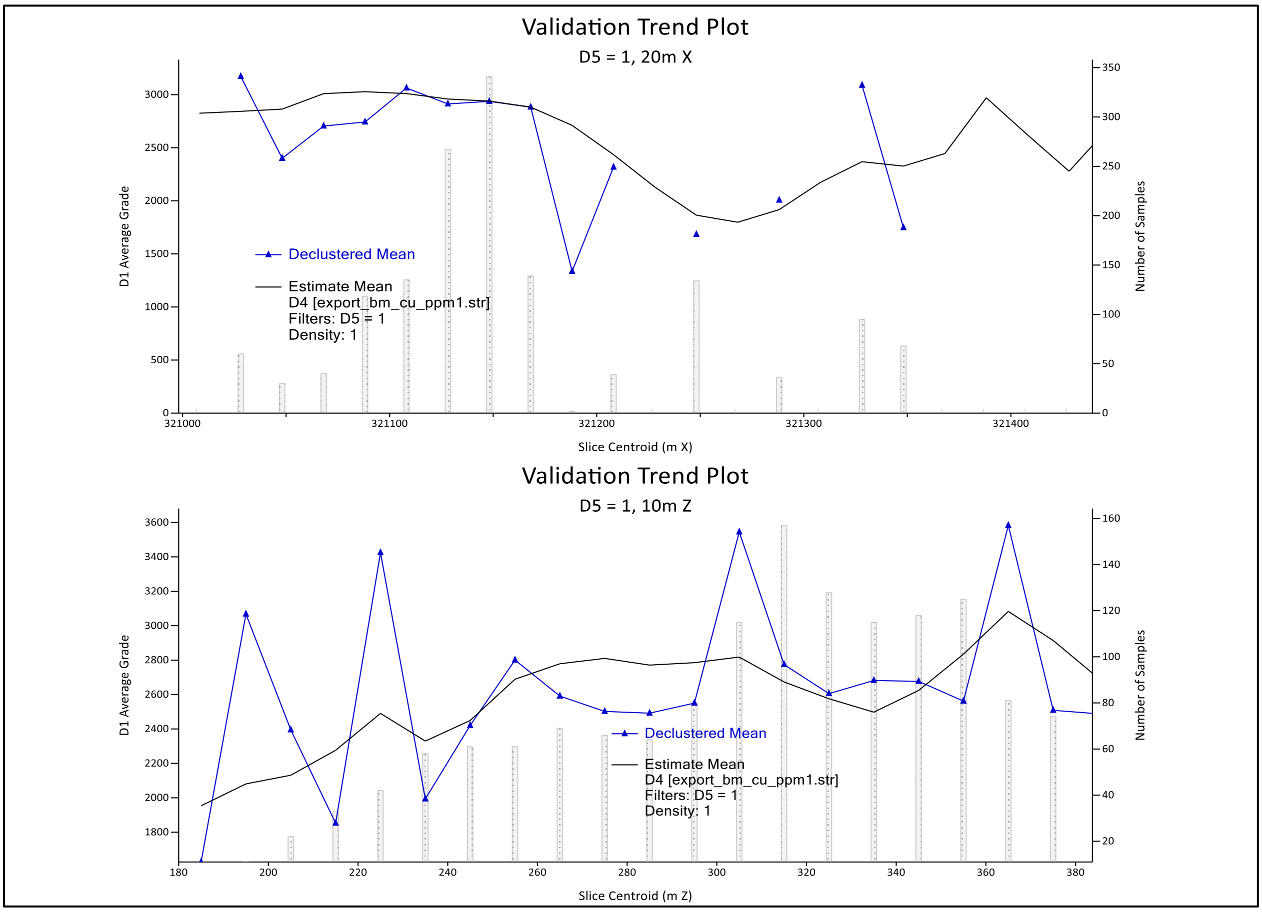

Emull Base Metals Deposit - Grade Tonnage Curve - Cu, Zn
Tonnage
Grade %
15,000,000
12,000,000
9,000,000
6,000,000
3,000,000
0
3.5
2.8
2.1
1.4
0.7
0.0
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.45
0.50
0.60
0.70
0.80
0.90
1.00
1.10
Cut-off Grade ZnEq %
Tonnes
Cu %
Zn %

Appendix 4 – Block Model Validation

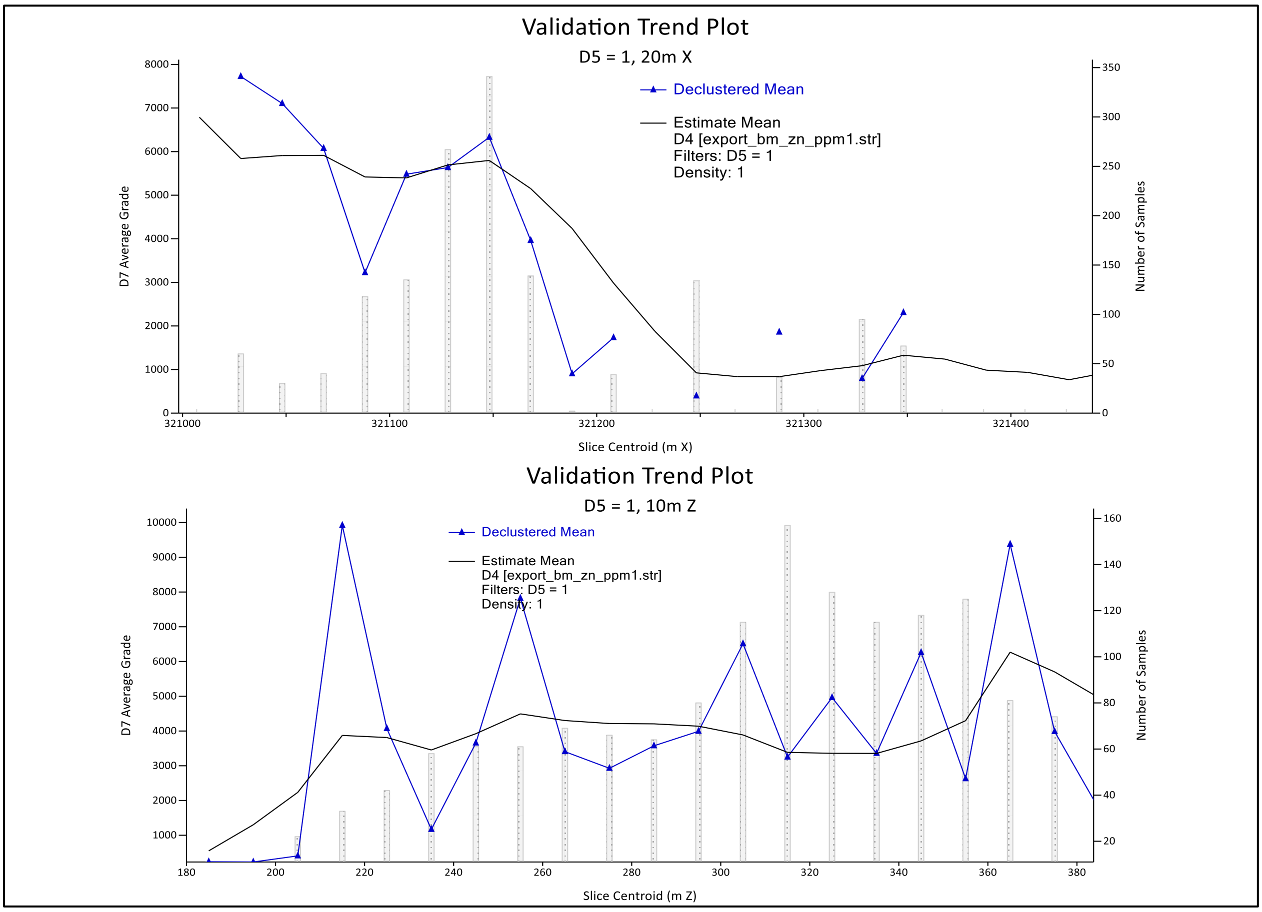
Average Composite Input v Block Model Output

	Wireframe	Block Model					Declustered Composites					
Domain	Lode Volume	Resource Volume	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Number of Comps	Cu ppm	Zn ppm	Pb ppm	Ag ppm	OK V Declust Cu ppm
1	2,096,695	2,097,129	2,620	3,843	813	4.41	1,504	2,713	4,435	917	4.69	-3.57%
2	558,066	557,414	2,117	1,165	574	3.87	86	2,207	1,827	666	4.31	-4.27%
3	829,958	829,246	2,859	6,407	1,417	7.13	1,084	3,005	5,900	1,566	7.91	-5.12%
4	128,813	129,688	1,839	1,408	843	4.84	65	1,887	1,464	817	4.86	-2.64%
5	1,666,721	1,668,262	2,275	2,665	611	3.85	1,003	2,399	3,945	950	4.64	-5.44%
Total	**5,280,253**	**5,281,739**	**2,476**	**3,531**	**819**	**4.61**	**3,742**	**2,586**	**4,162**	**1,000**	**5.14**	**-4.44%**

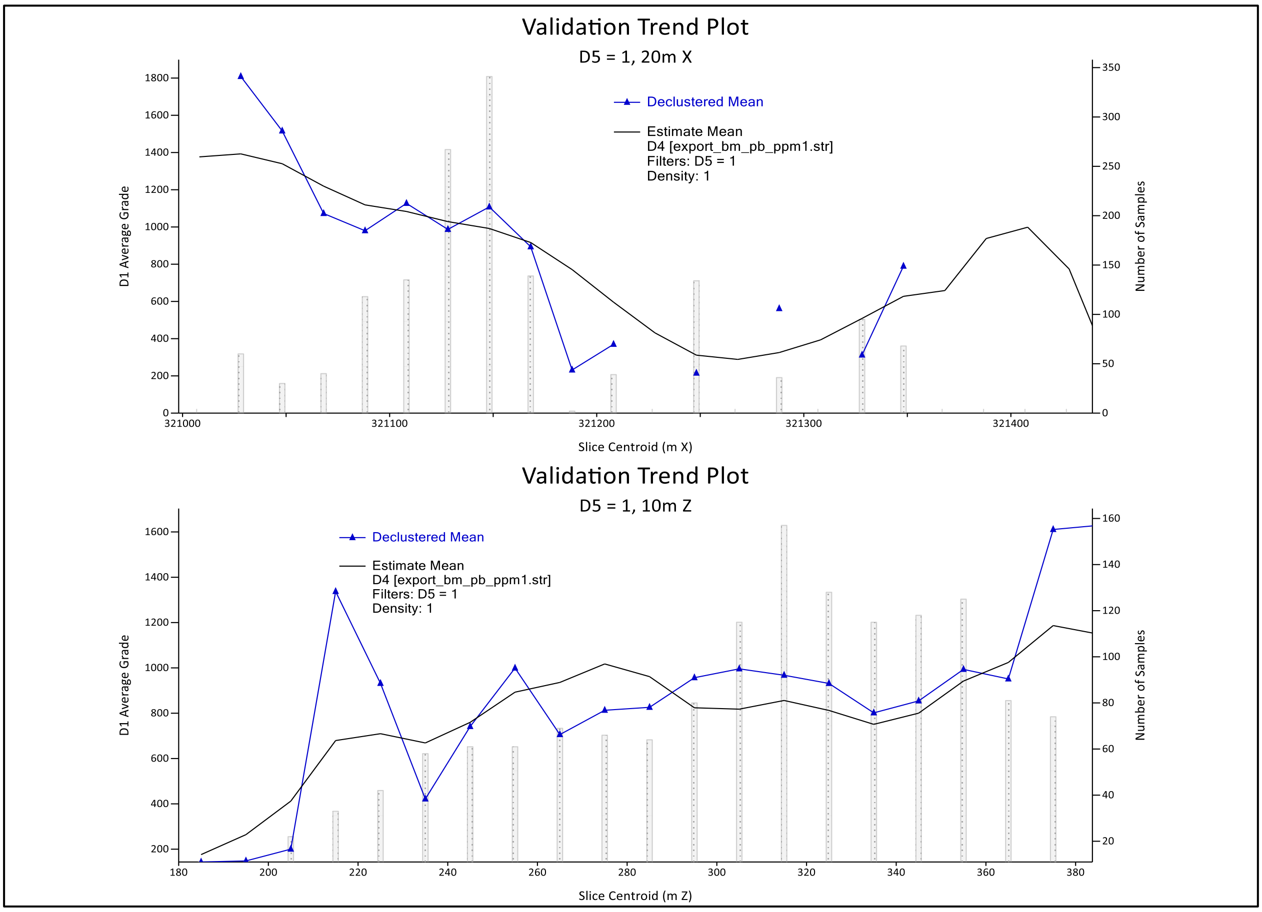
Validation by 20m Northing and 10m Elevation – Domain 1, Cu



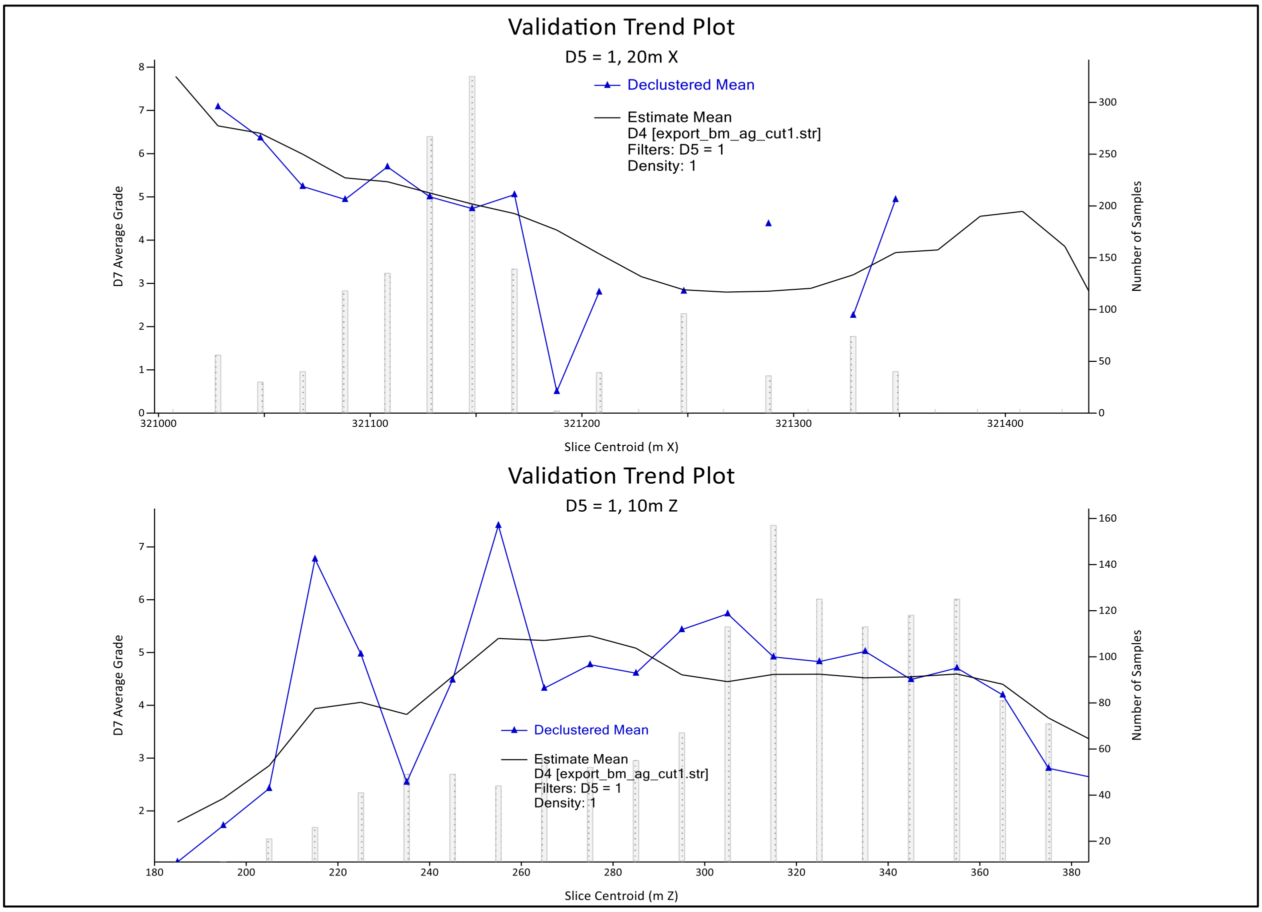
Validation by 20m Northing and 10m Elevation – Domain 1, Zn



Validation by 20m Northing and 10m Elevation – Domain 1, Pb

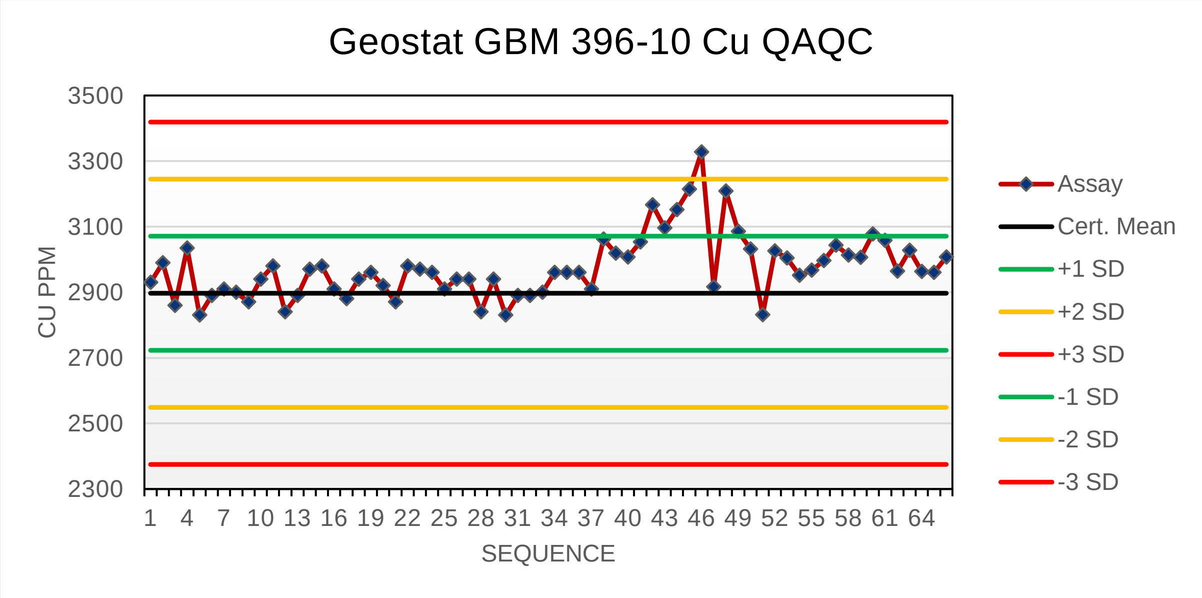


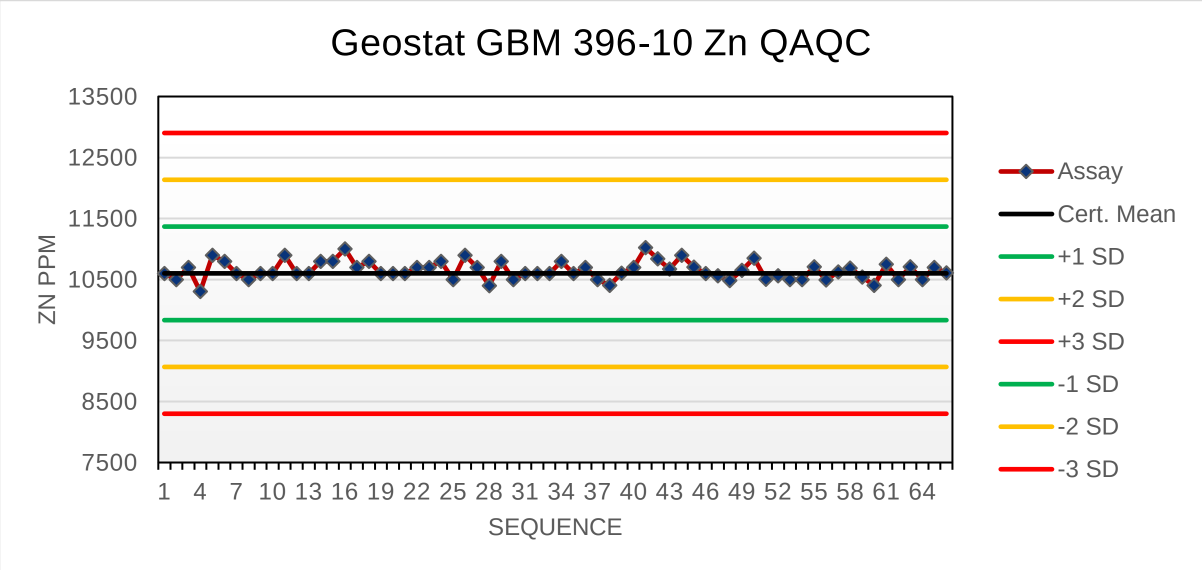
Validation by 20m Northing and 10m Elevation – Domain 1, Ag

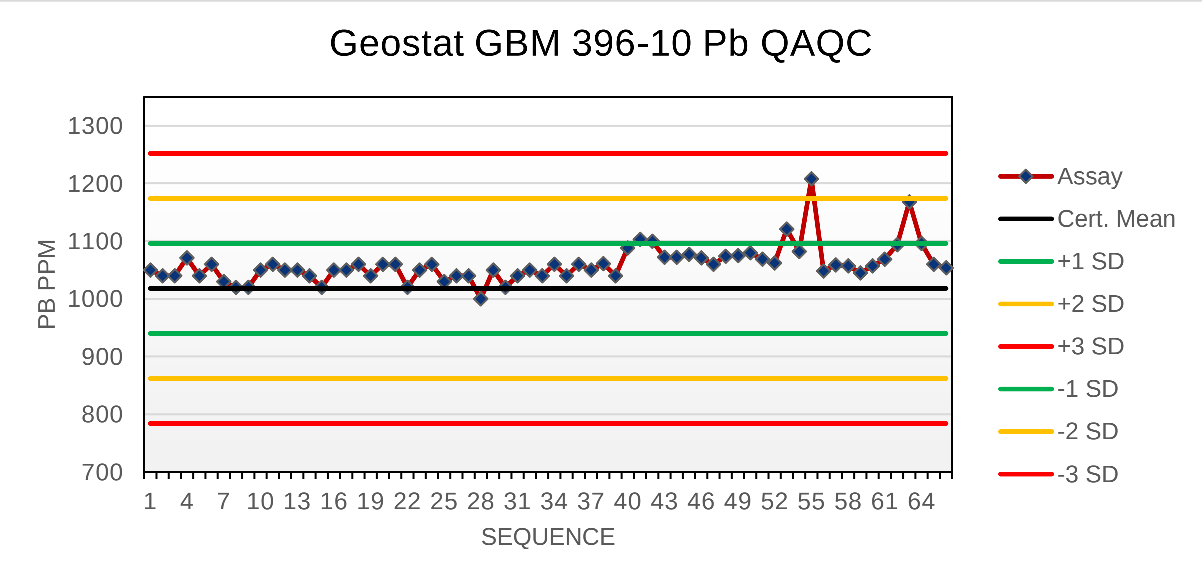


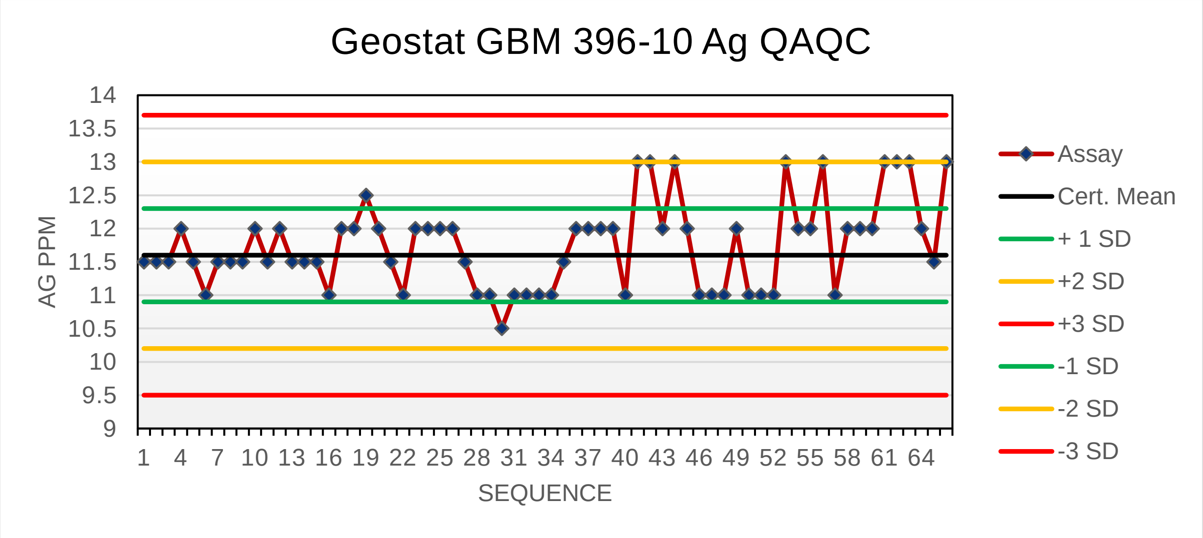
Appendix 5 – QA/QC

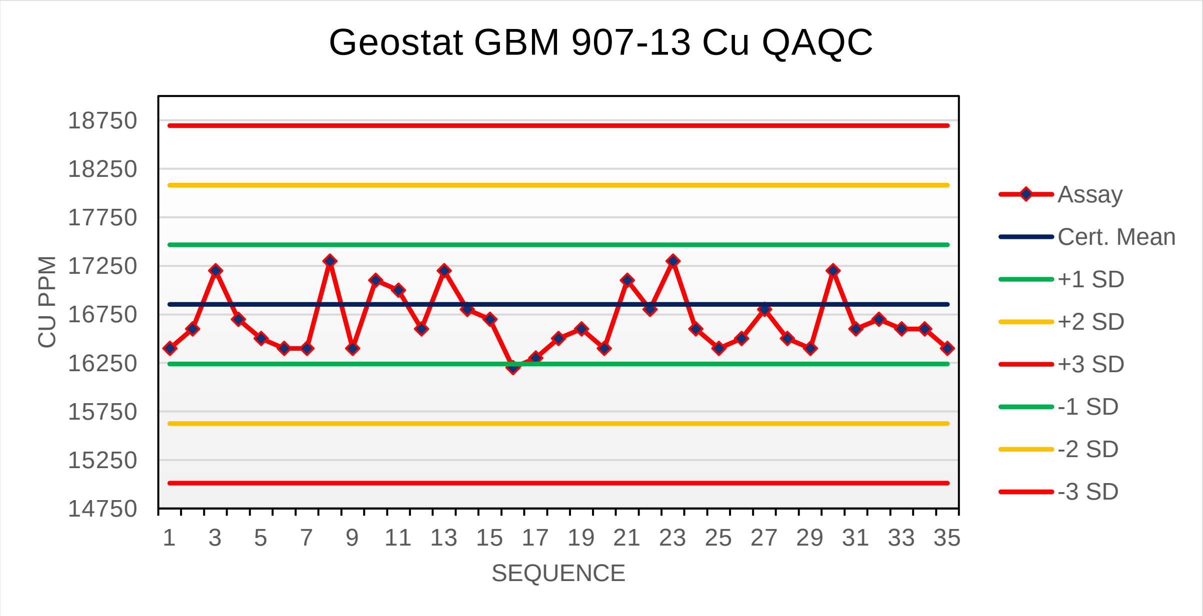
Standard Control Charts – AKN Drilling

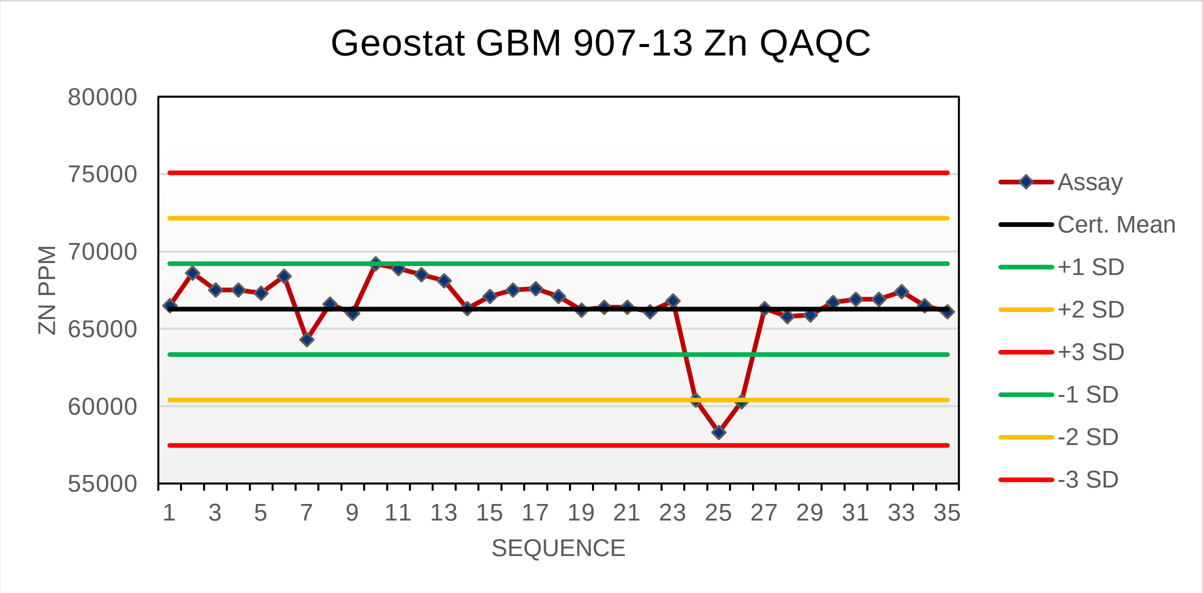


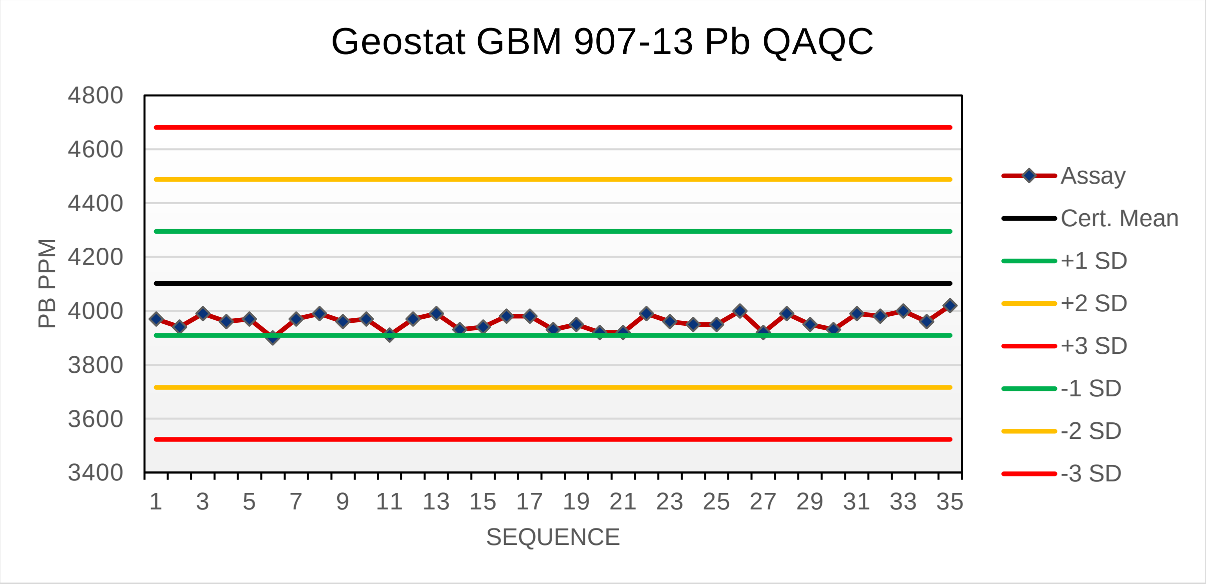


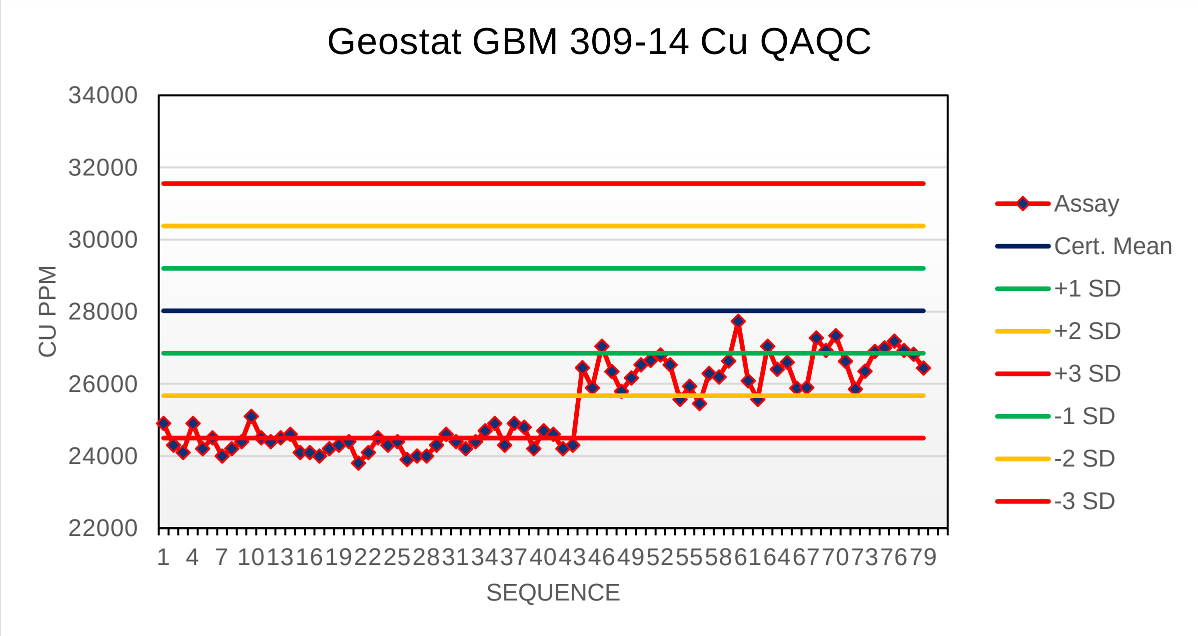



Geostat GBM 396-10 Ag QAQC
AG PPM
14
13.5
13
12.5
12
11.5
11
10.5
10
9.5
9
1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64
SEQUENCE
Assay
Cert. Mean
+ 1 SD
+2 SD
+3 SD
-1 SD
-2 SD
-3 SD

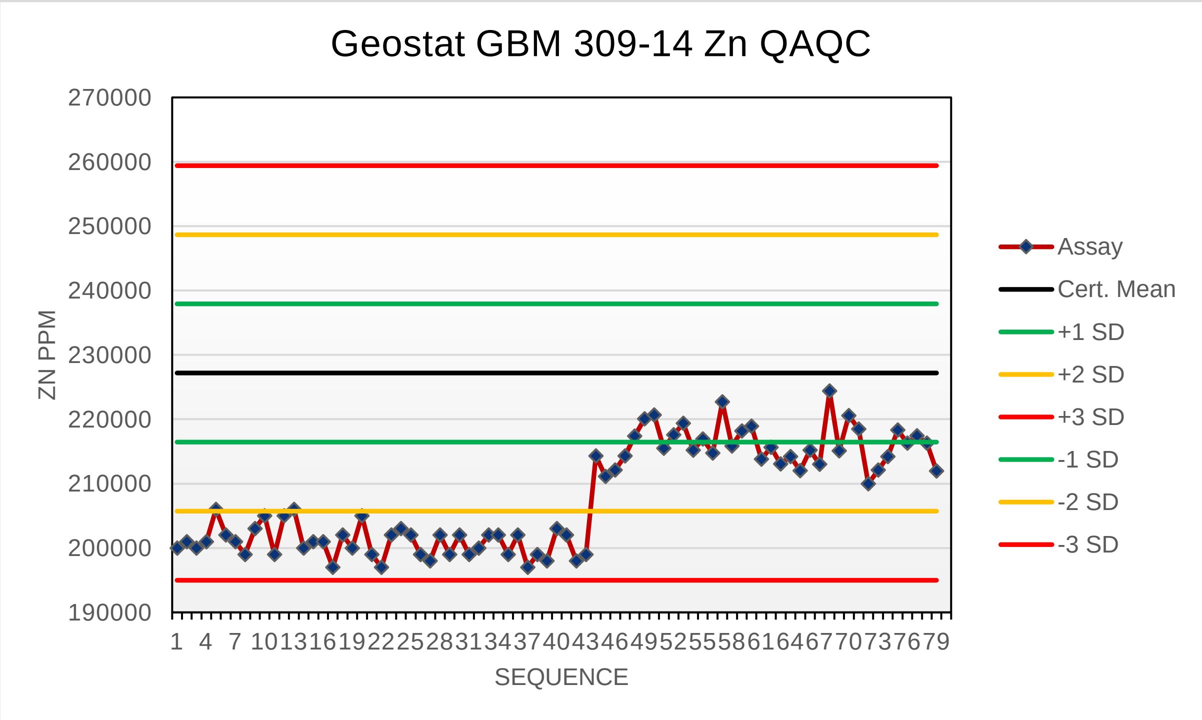

Geostat GBM 907-13 Cu QAQC
CU PPM
18750
18250
17750
17250
16750
16250
15750
15250
14750
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
SEQUENCE
Assay
Cert. Mean
+1 SD
+2 SD
+3 SD
-1 SD
-2 SD
-3 SD


Geostat GBM 907-13 Zn QAQC
ZN PPM
80000
75000
70000
65000
60000
55000
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
SEQUENCE
Assay
Cert. Mean
+1 SD
+2 SD
+3 SD
-1 SD
-2 SD
-3 SD

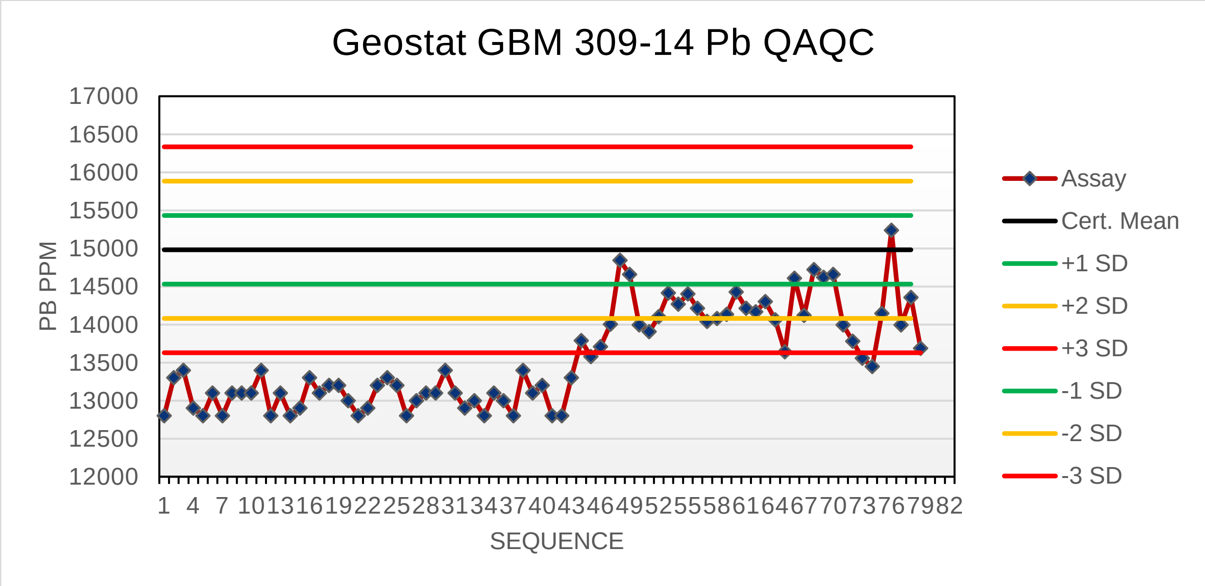

Geostat GBM 907-13 Pb QAQC
4800
4600
4400
4200
4000
3800
3600
3400
PB PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
SEQUENCE
Assay
Cert. Mean
+1 SD
+2 SD
+3 SD
-1 SD
-2 SD
-3 SD



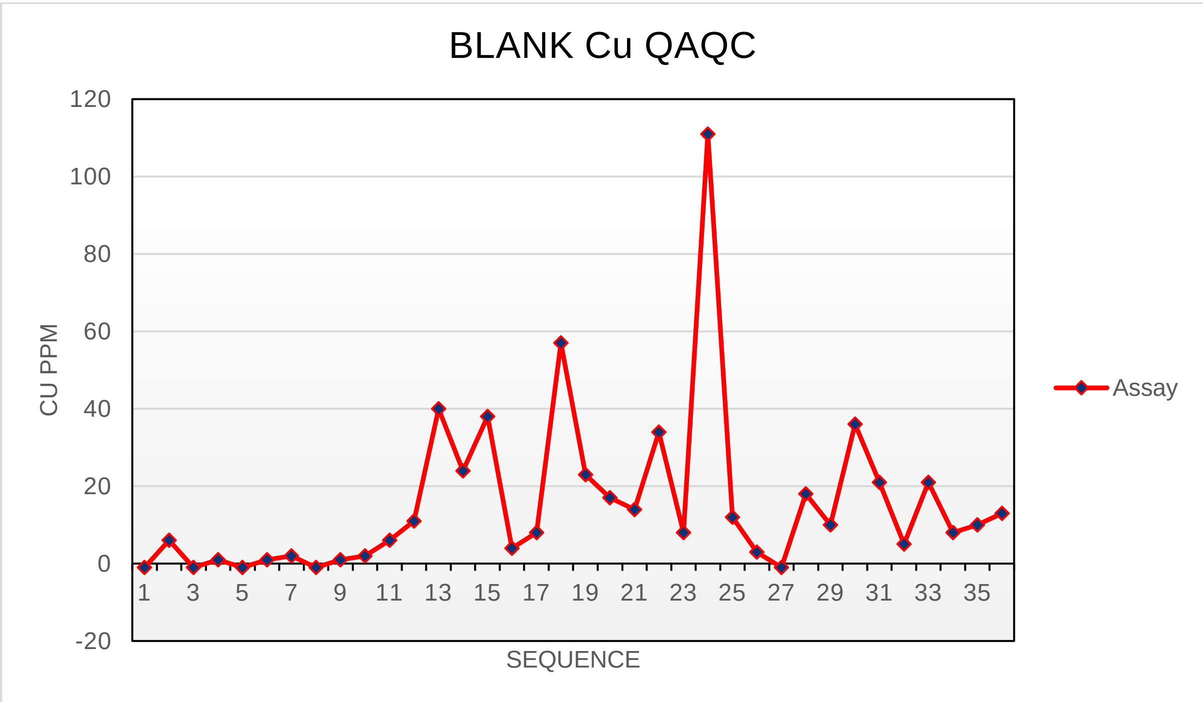
Geostat GBM 309-14 Cu QAQC
34000
32000
30000
28000
26000
24000
22000
CU PPM
1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64 67 70 73 76 79
SEQUENCE
Assay
Cert. Mean
+1 SD
+2 SD
+3 SD
-1 SD
-2 SD
-3 SD

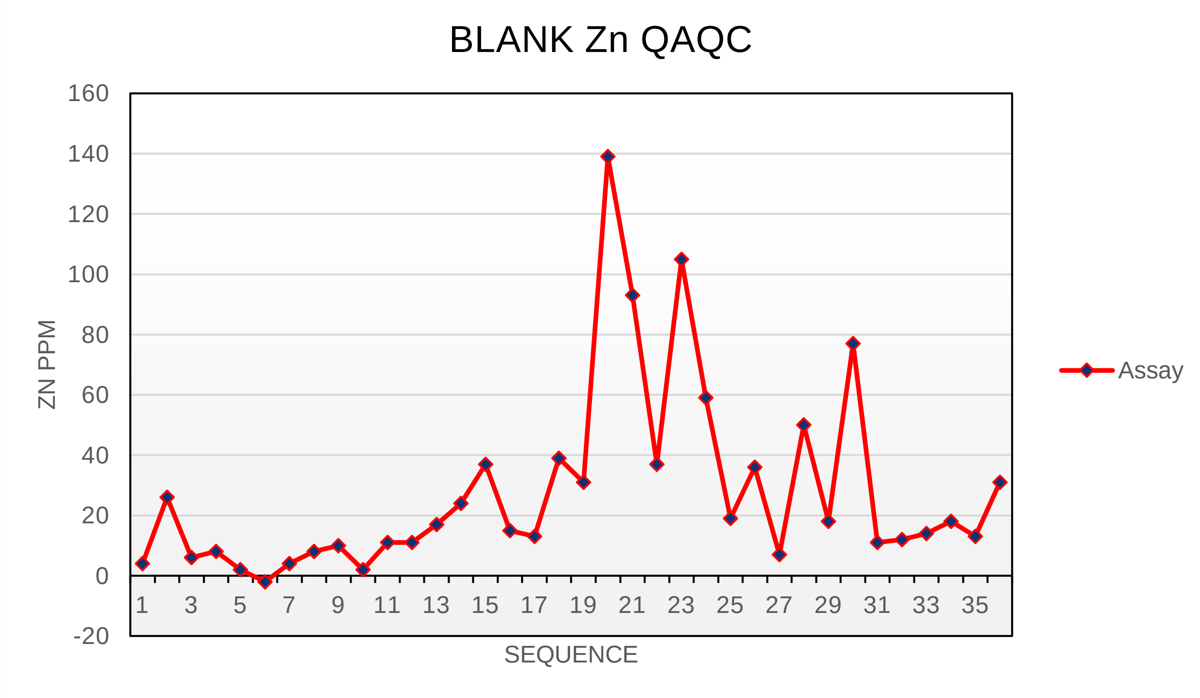


Geostat GBM 309-14 Zn QAQC
270000
260000
250000
240000
230000
220000
210000
200000
190000
ZN PPM
1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64 67 70 73 76 79
SEQUENCE
Assay
Cert. Mean
+1 SD
+2 SD
+3 SD
-1 SD
-2 SD
-3 SD

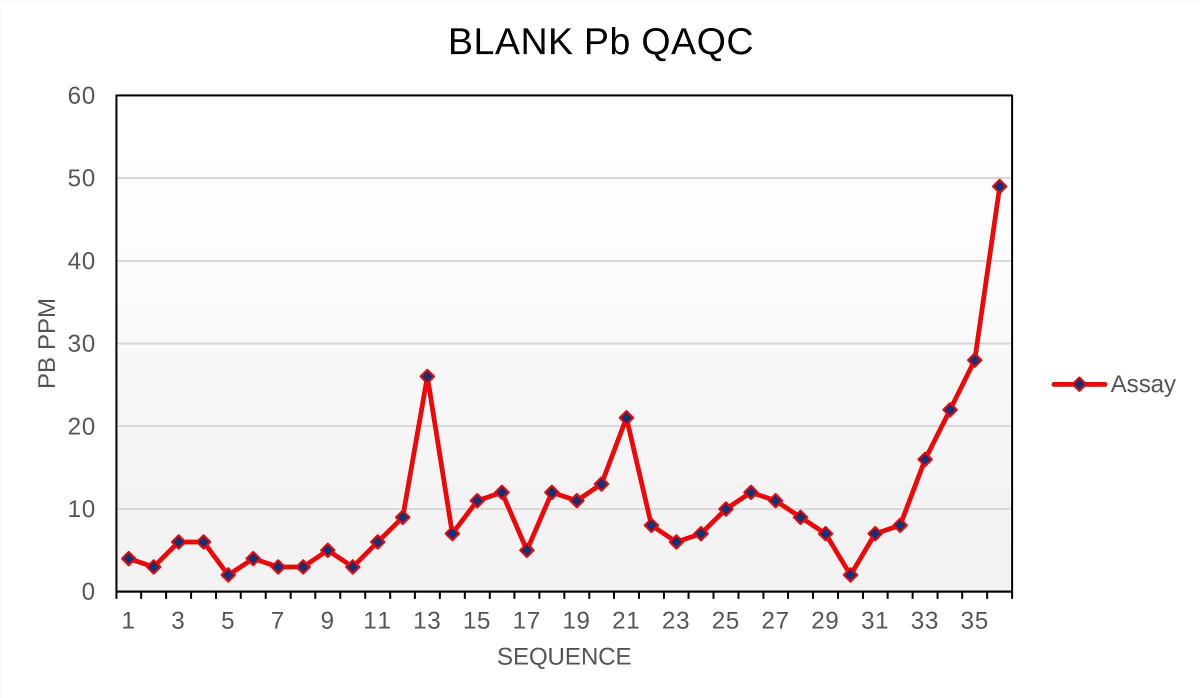


Blanks – AKN Drilling

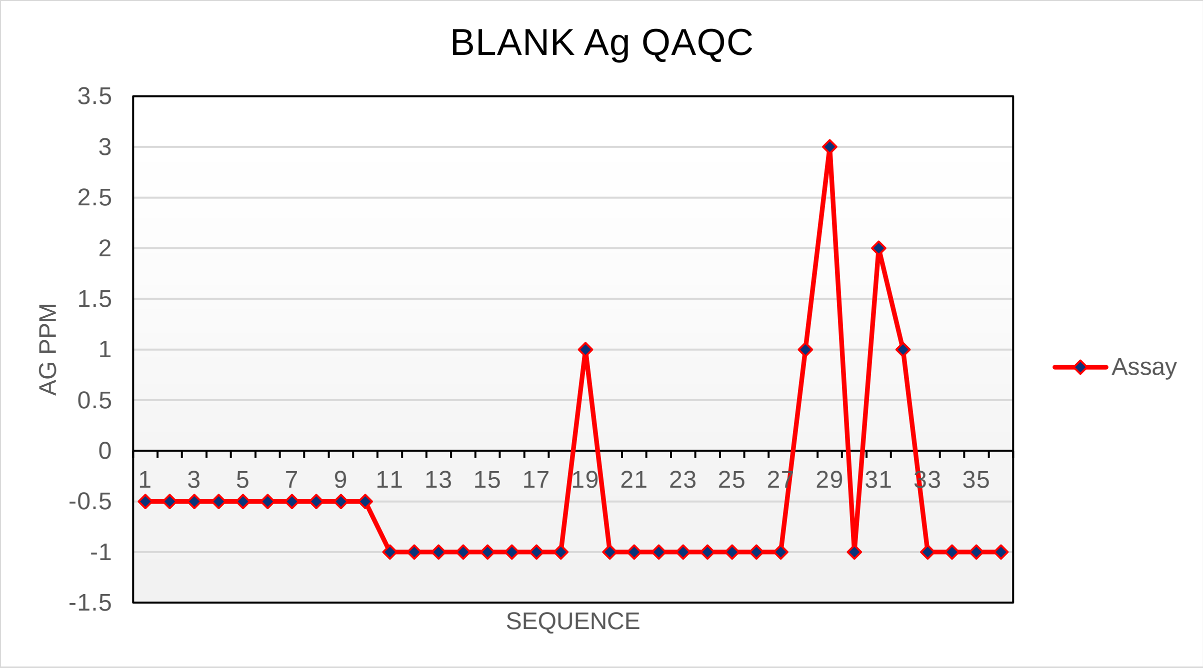




BLANK Zn QAQC
160
140
120
100
80
60
40
20
0
-20
ZN PPM
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
SEQUENCE
Assay

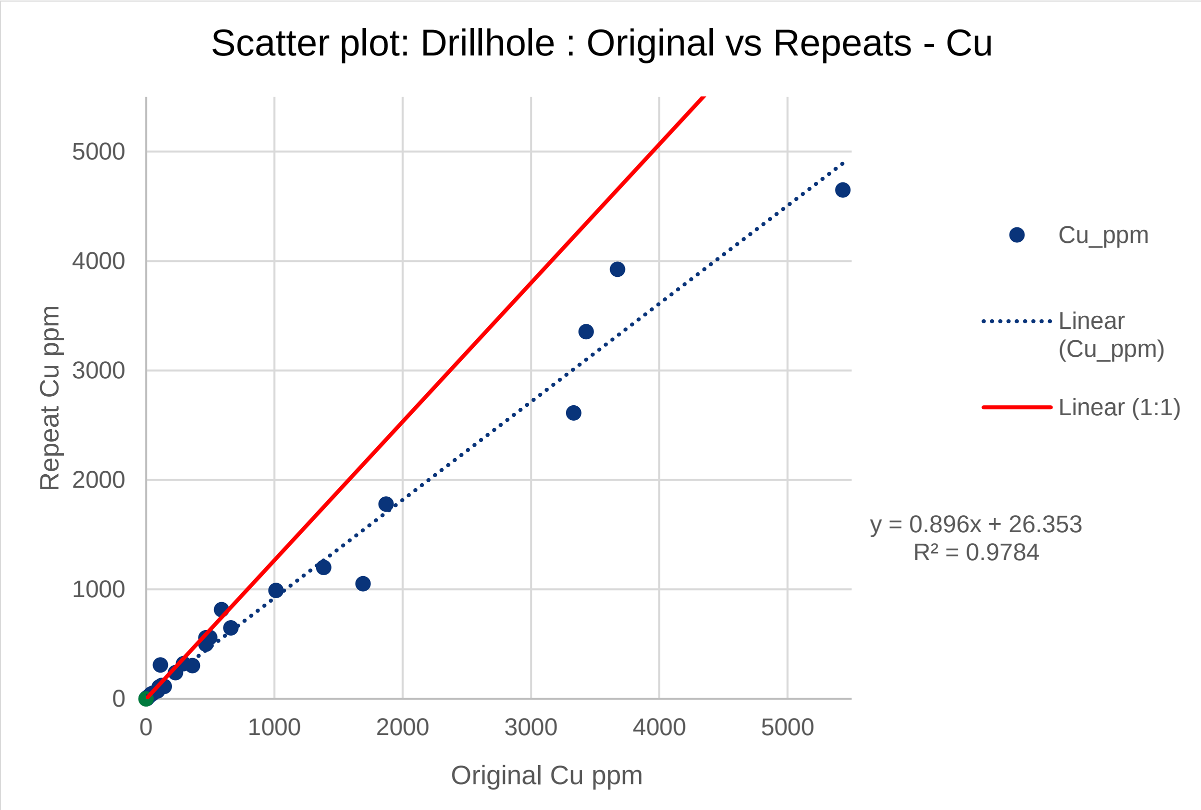


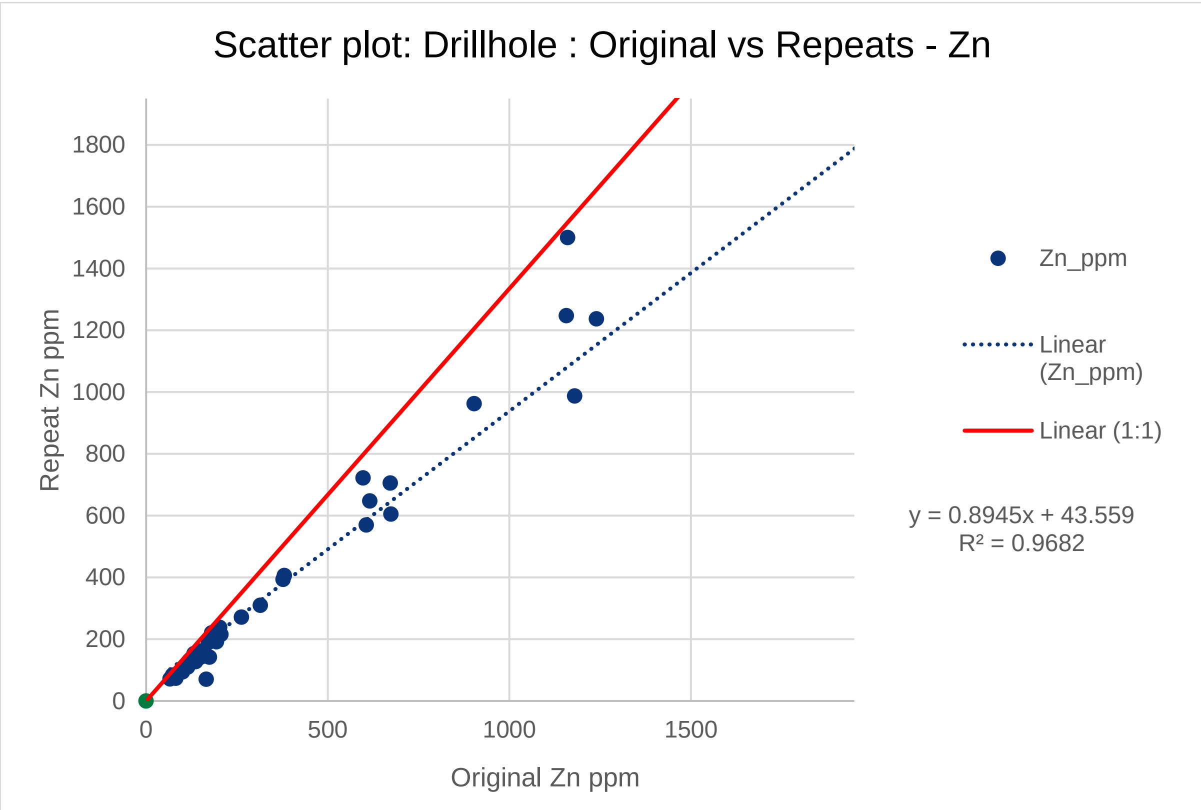
BLANK Pb QAQC
60
50
40
30
20
10
0
PB PPM
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
SEQUENCE
Assay

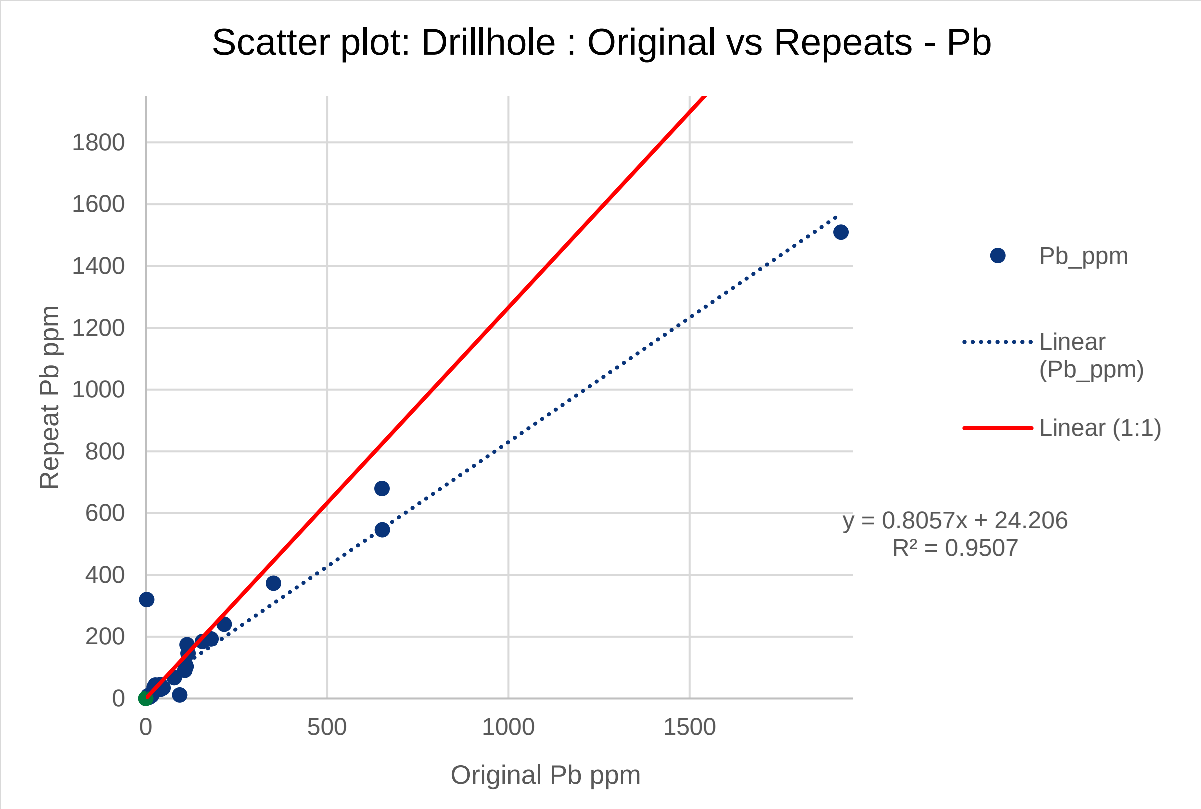


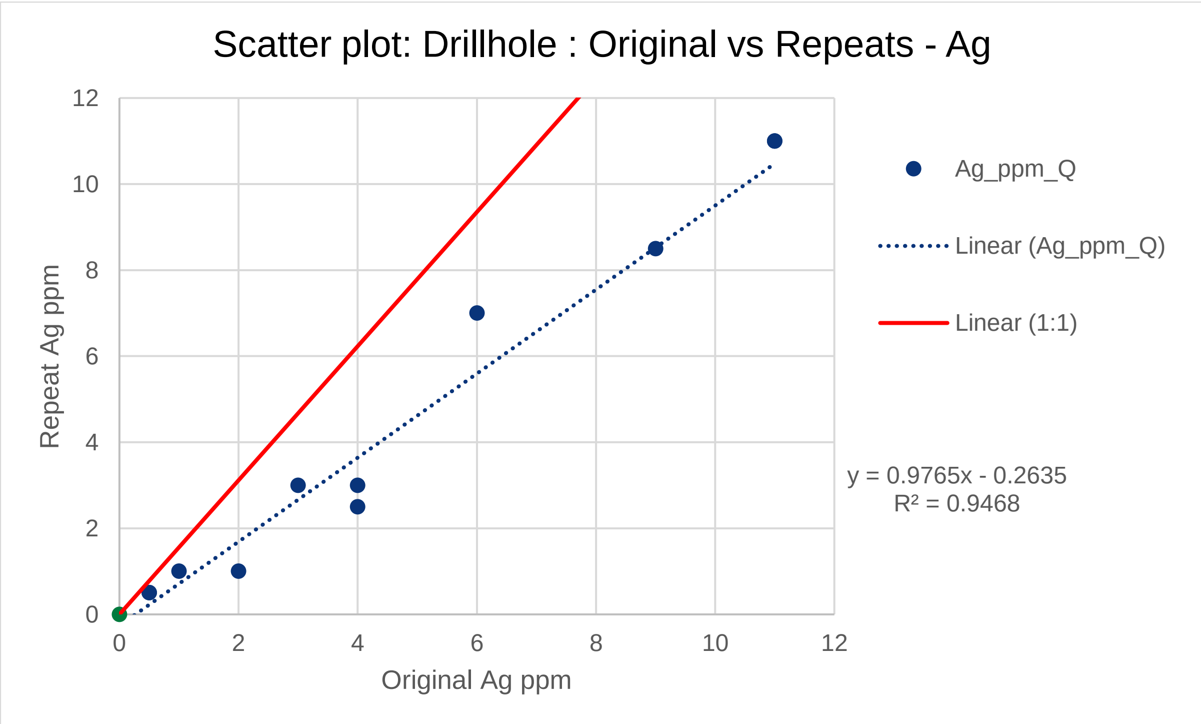
BLANK Ag QAQC
AG PPM
3.5
3
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
SEQUENCE
Assay

Field Duplicates – AKN Drilling






Scatter plot: Drillhole : Original vs Repeats - Pb
Repeat Pb ppm
Original Pb ppm
0
200
400
600
800
1000
1200
1400
1600
1800
0
500
1000
1500
Pb_ppm
Linear (Pb_ppm)
Linear (1:1)
y = 0.8057x + 24.206
R² = 0.9507


Scatter plot: Drillhole : Original vs Repeats - Ag
Repeat Ag ppm
Original Ag ppm
0
2
4
6
8
10
12
Ag_ppm_Q
Linear (Ag_ppm_Q)
Linear (1:1)
y = 0.9765x - 0.2635
R² = 0.9468

Appendix 6 – Statistical Analysis

1m Composite Statistics for Domain 1

Assay	cu_ppm	zn_ppm	pb_ppm	ag_ppm
Samples	1,504	1,504	1,504	1,398
Minimum	60	36	3	0.25
Maximum	20,100	174,000	8,770	32.83
Mean	2,752	4,769	924	4.83
Std. Dev.	1,842	11,069	1,076	4.50
CV	0.67	2.32	1.16	0.93
10%	746	187	69	1.00
20%	1,171	297	123	1.36
30%	1,650	514	191	2.00
40%	2,096	829	296	2.50
50%	2,500	1,400	510	3.50
60%	2,891	2,514	811	4.50
70%	3,368	4,156	1,200	6.00
80%	3,960	5,972	1,580	7.50
90%	4,965	9,466	2,250	10.50
95%	6,098	17,970	3,009	13.01
97.50%	7,348	33,680	3,662	17.00
99%	8,620	47,515	4,999	22.02

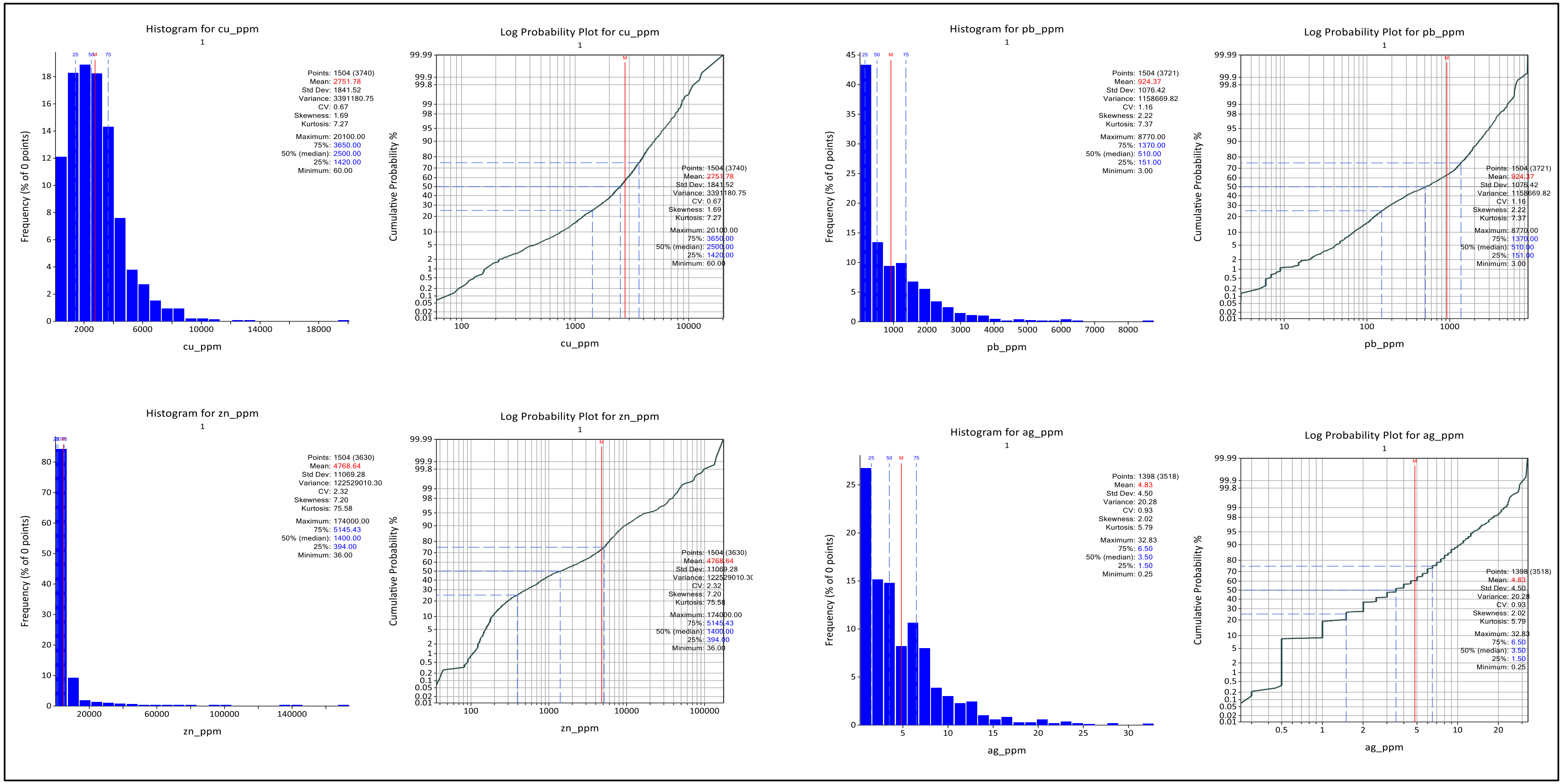
1m Composite Statistics for Domain 3

Assay	cu_ppm	zn_ppm	pb_ppm	ag_ppm
Samples	1,082	972	1,082	1,041
Minimum	38	100	56	0.35
Maximum	25,100	144,000	41,275	393.00
Mean	3,055	6,786	1,634	8.46
Std. Dev.	2,393	15,791	2,863	19.62
CV	0.78	2.33	1.75	2.32
10%	869	367	255	2.00
20%	1,261	692	421	2.66
30%	1,637	986	605	3.50
40%	2,021	1,350	764	4.50
50%	2,510	1,960	967	5.50
60%	2,980	2,700	1,250	7.00
70%	3,590	4,160	1,550	8.00
80%	4,420	7,842	2,070	10.00
90%	5,820	15,000	3,003	13.00
95%	7,122	25,164	4,138	17.89
97.50%	8,859	51,029	7,580	25.99
99%	11,507	81,092	14,054	60.18

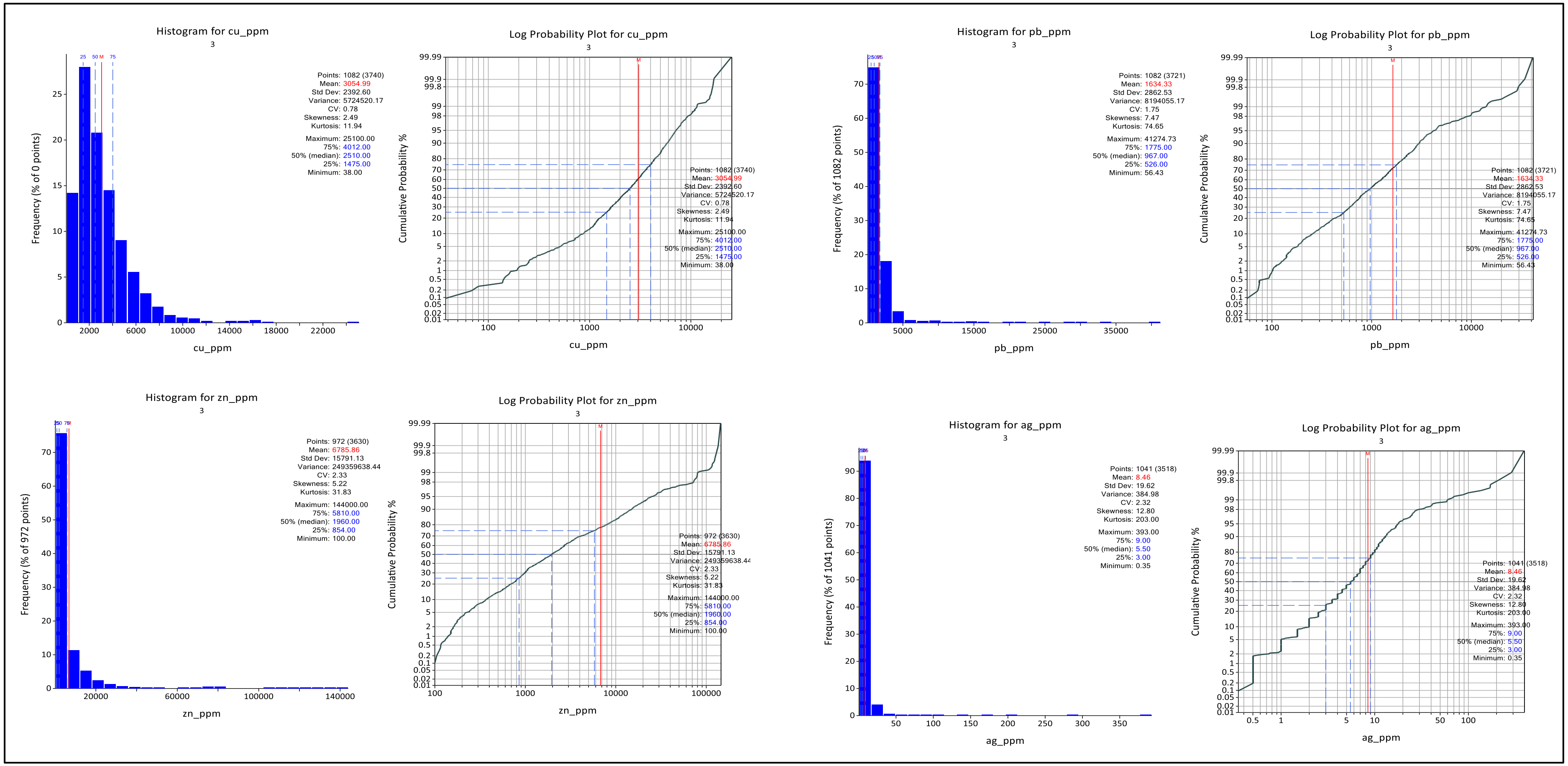
1m Composite Statistics for Domain 5

Assay	cu_ppm	zn_ppm	pb_ppm	ag_ppm
Samples	1,003	1,003	984	941
Minimum	24	28	2	0.05
Maximum	29,400	223,513	8,060	34.81
Mean	2,428	4,615	942	4.67
Std. Dev.	2,085	13,214	1,199	4.68
CV	0.86	2.86	1.27	1.00
10%	462	187	102	1.00
20%	914	293	156	1.10
30%	1,280	490	212	1.91
40%	1,620	774	285	2.14
50%	2,000	1,267	421	3.00
60%	2,368	1,877	670	4.00
70%	2,834	3,161	1,017	5.49
80%	3,603	5,164	1,592	7.50
90%	4,806	9,025	2,514	10.30
95%	6,190	14,370	3,255	13.48
97.50%	7,067	30,867	4,192	17.65
99%	9,073	65,100	6,098	24.00

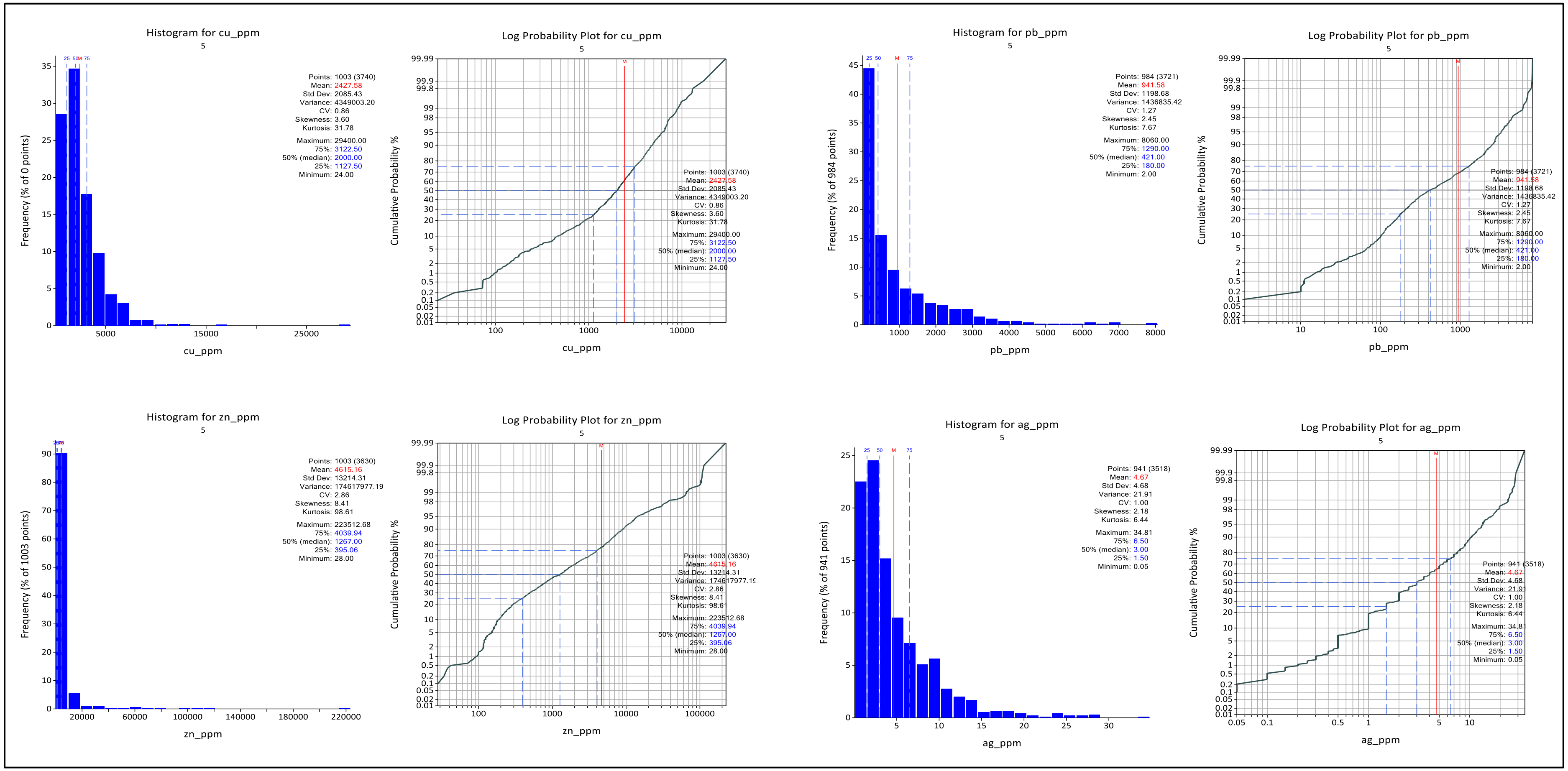
Statistical Plots – Domain 1



Statistical Plots – Domain 3



Statistical Plots – Domain 5



Correlation Matrix – Domain 1

	cu_ppm	zn_ppm	pb_ppm	ag_ppm
cu_ppm	1.00			
zn_ppm	0.35	1.00		
pb_ppm	0.32	0.24	1.00	
ag_ppm	0.43	0.32	0.79	1.00

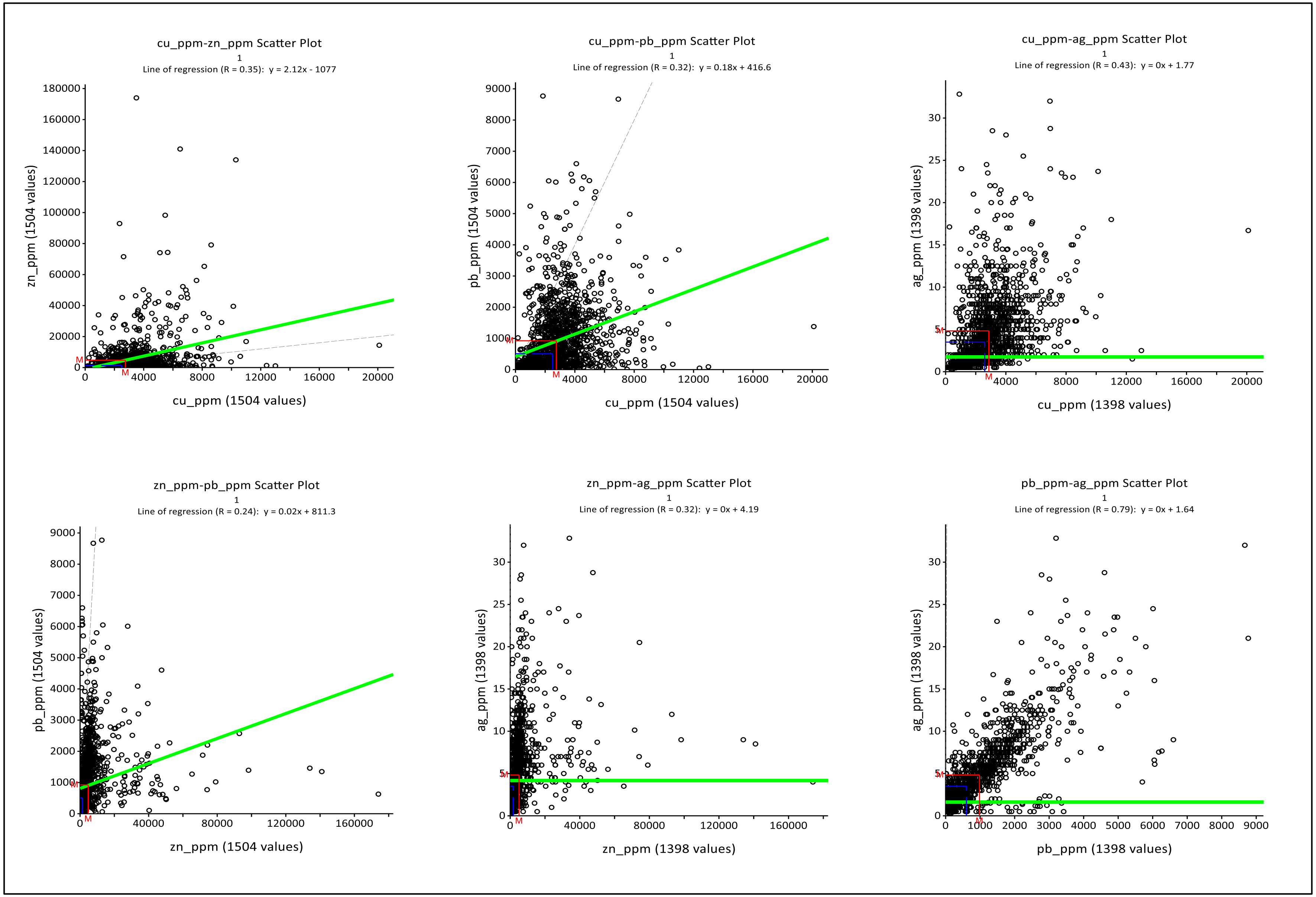
Correlation Matrix – Domain 3

	cu_ppm	zn_ppm	pb_ppm	ag_ppm
cu_ppm	1.00			
zn_ppm	0.28	1.00		
pb_ppm	0.45	0.07	1.00	
ag_ppm	0.38	0.02	0.87	1.00

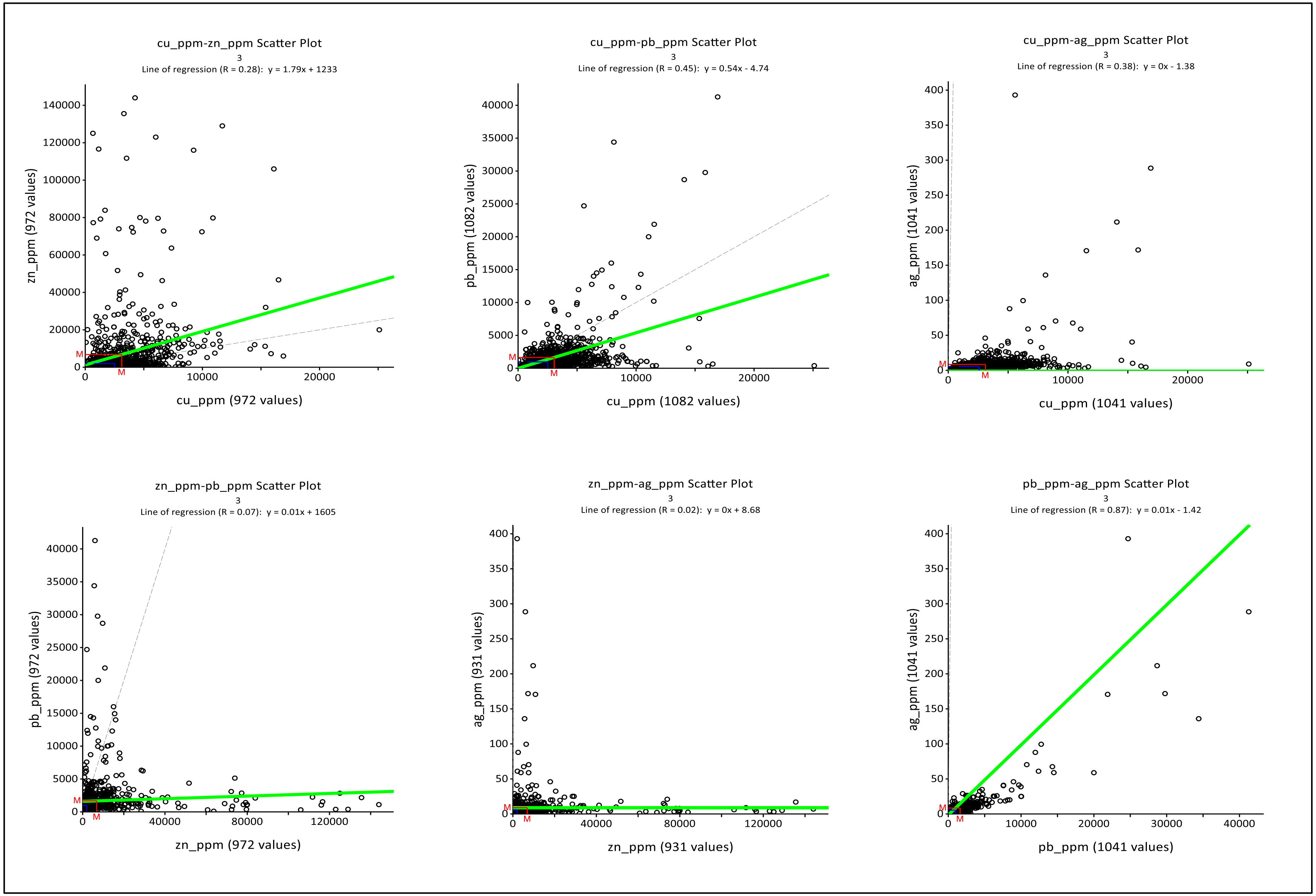
Correlation Matrix – Domain 5

	cu_ppm	zn_ppm	pb_ppm	ag_ppm
cu_ppm	1.00			
zn_ppm	0.29	1.00		
pb_ppm	0.28	0.23	1.00	
ag_ppm	0.52	0.22	0.84	1.00

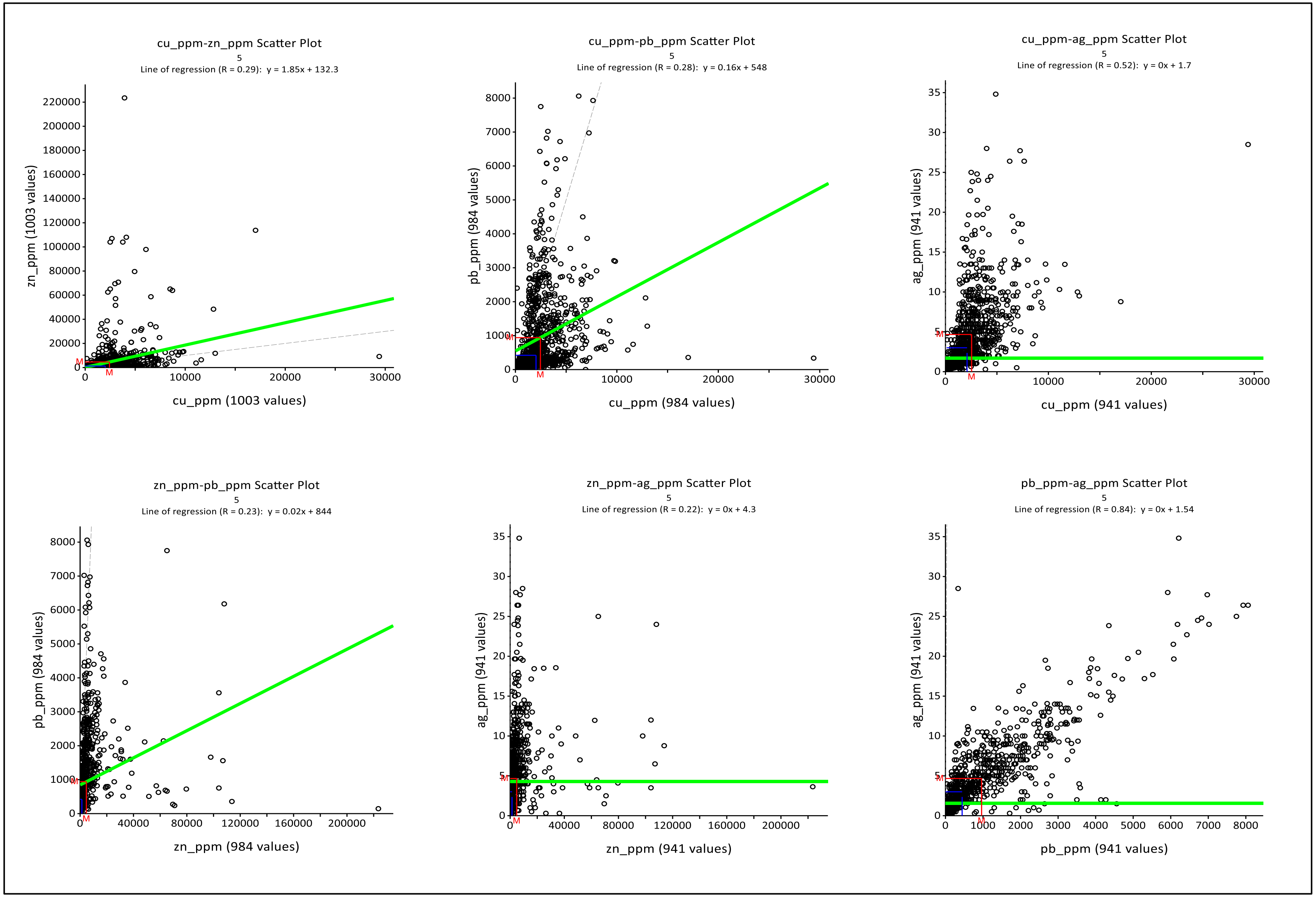
Scatter Plots – Domain 1



Scatter Plots – Domain 3

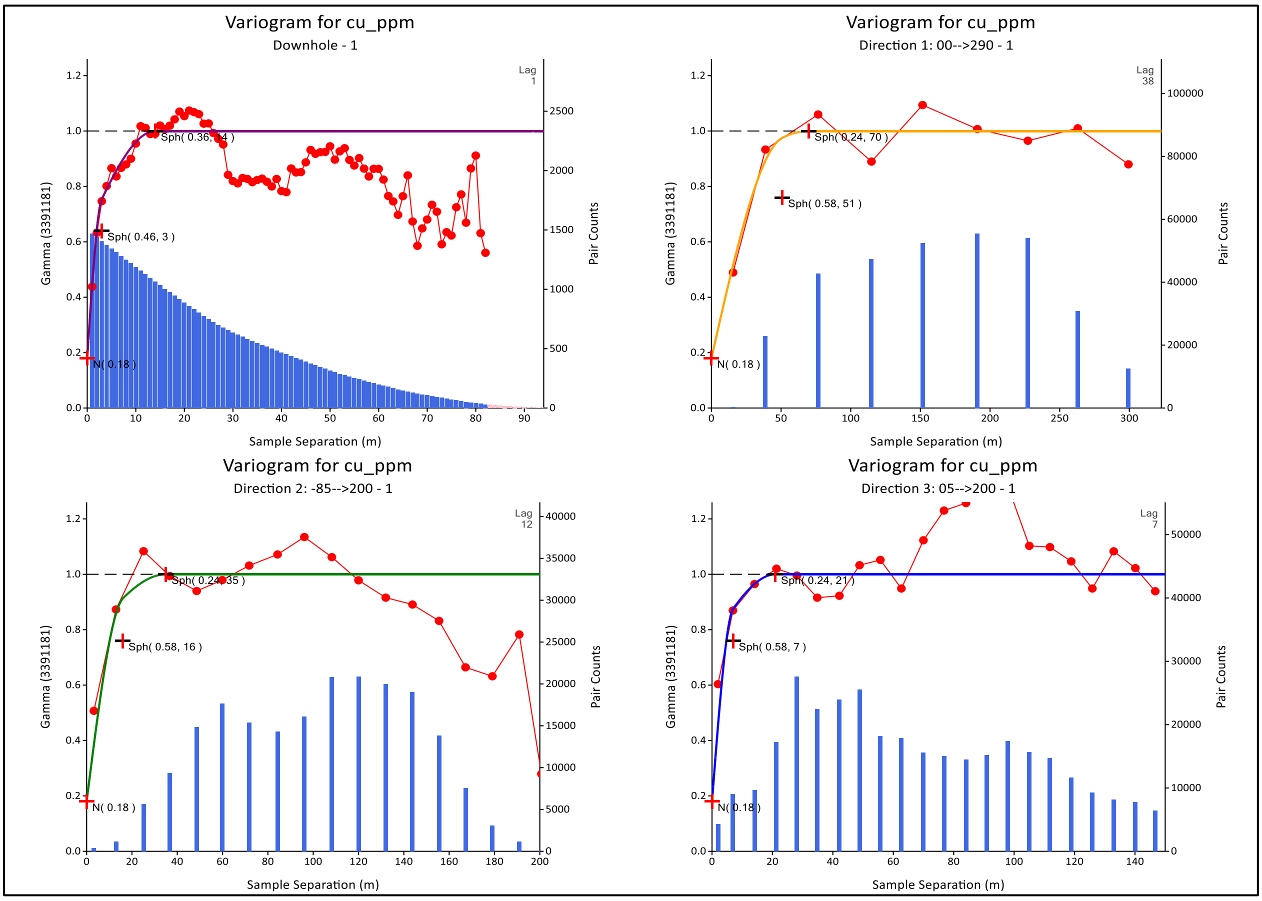


Scatter Plots – Domain 5

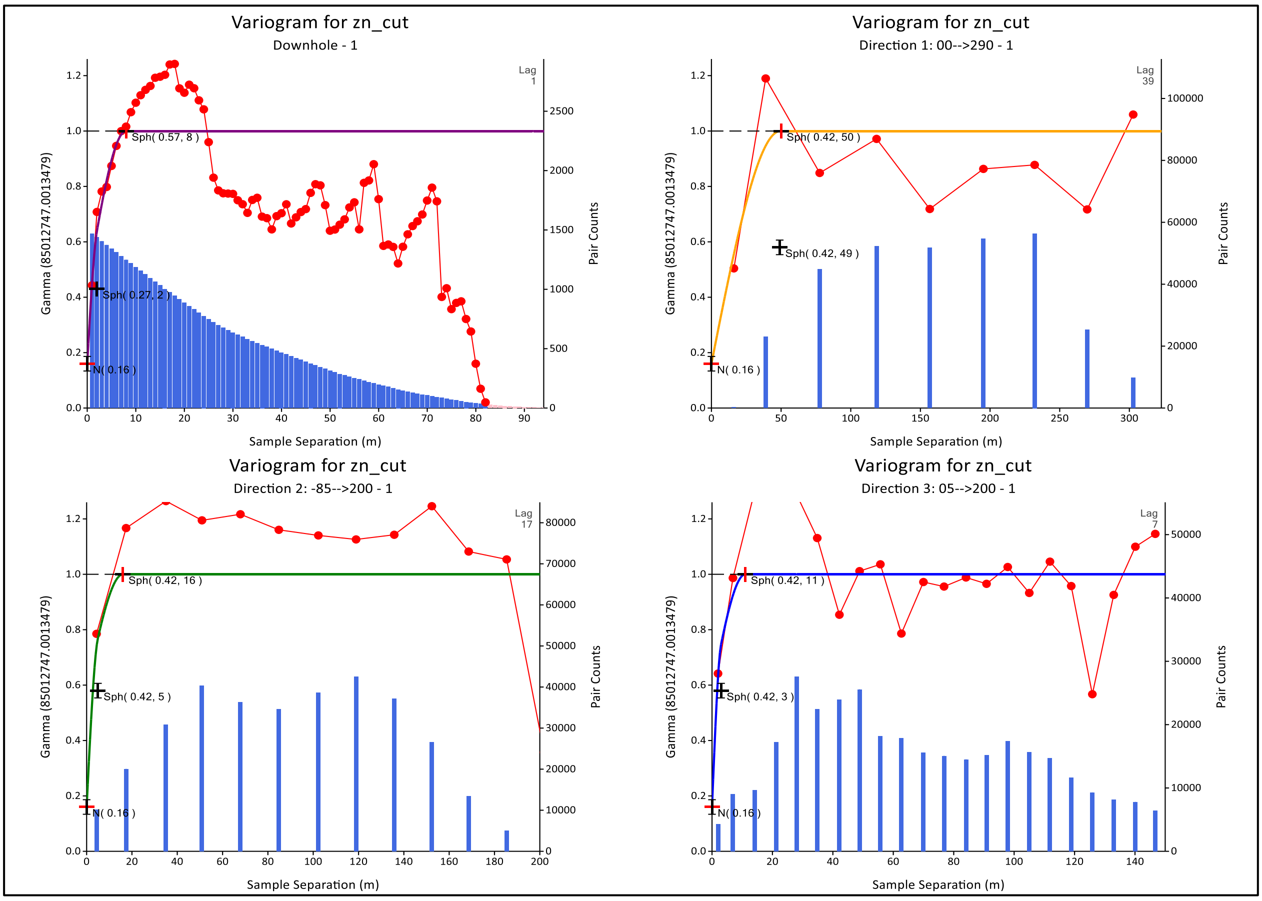


Appendix 7 – Variography

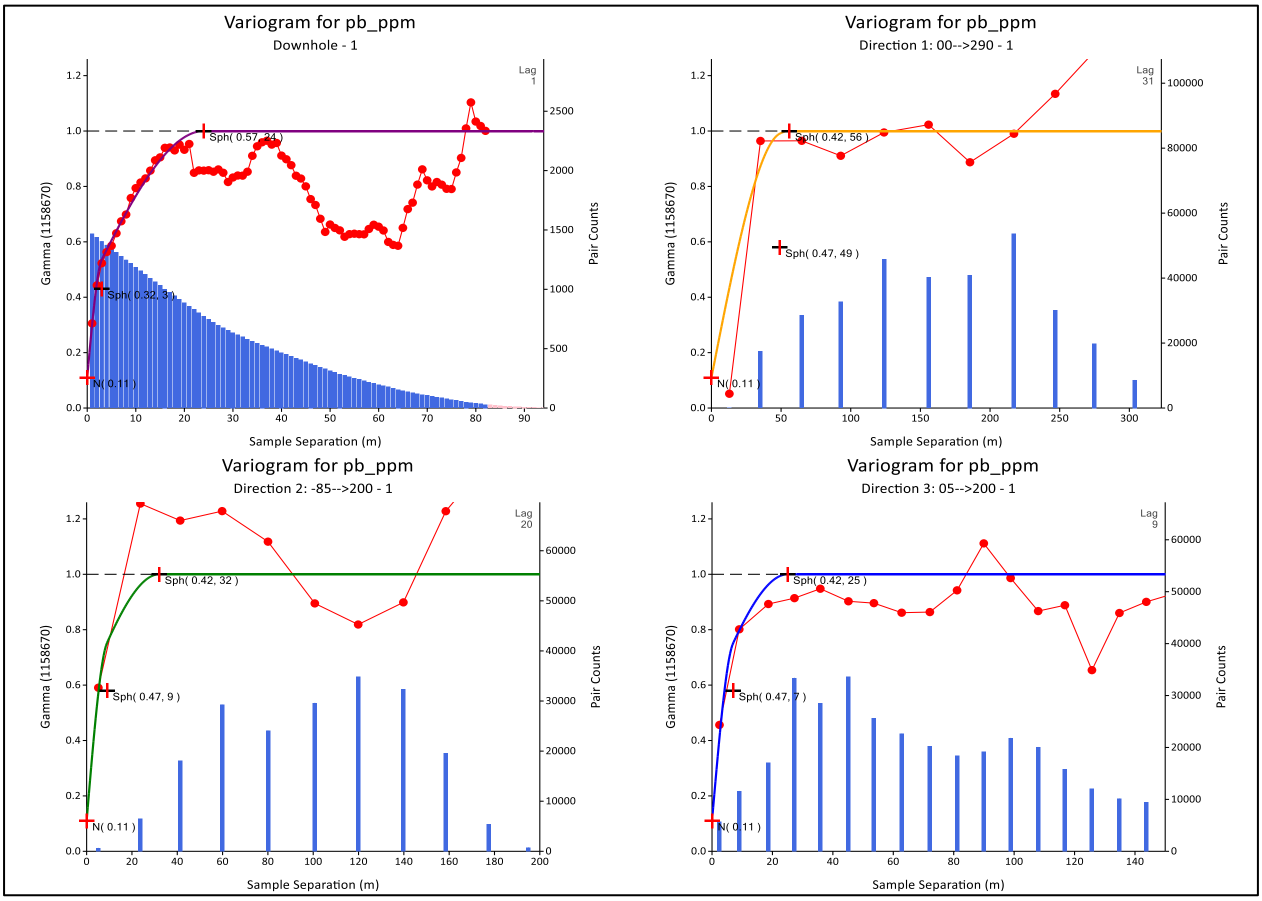
Cu Variograms for Domain 1



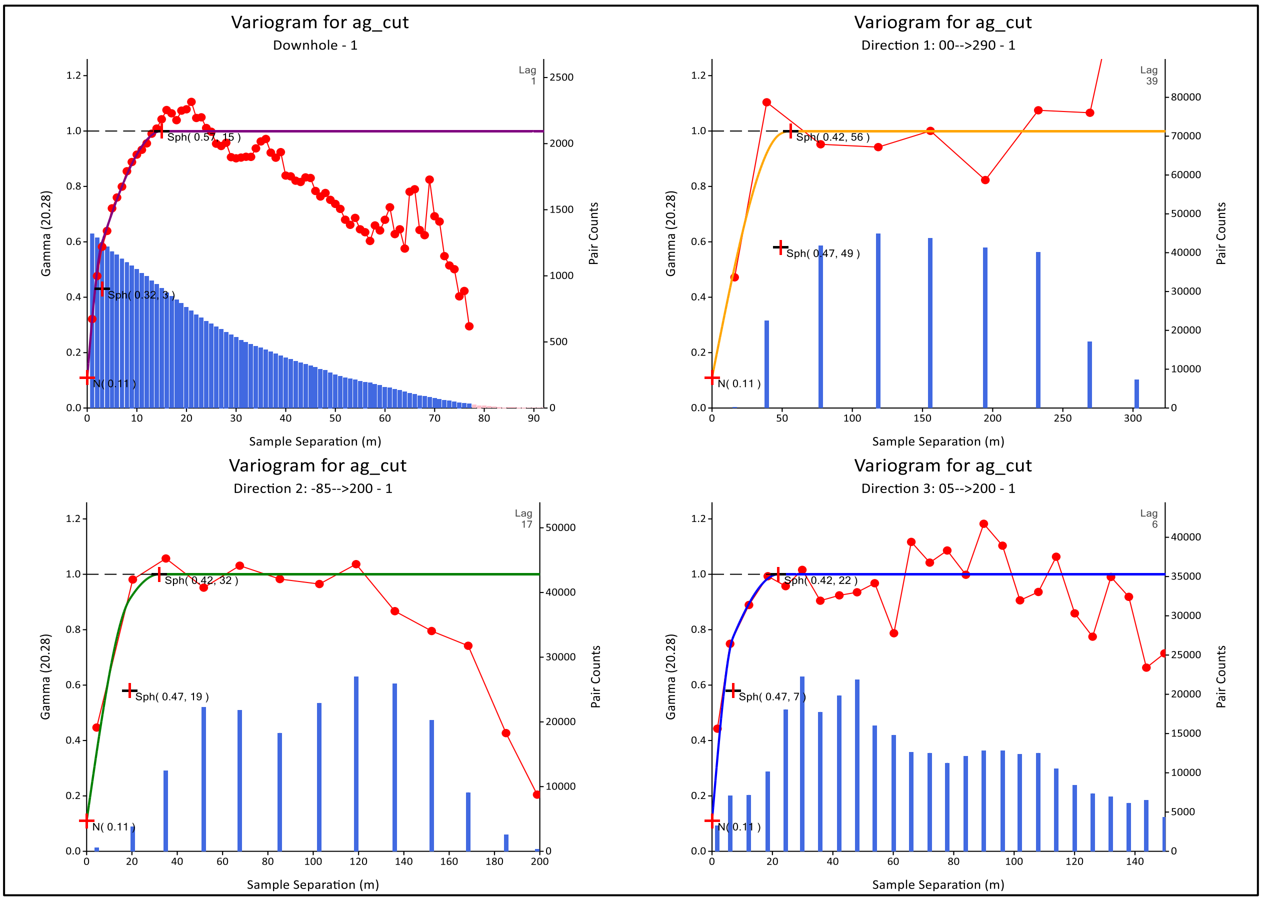
Zn Variograms for Domain 1



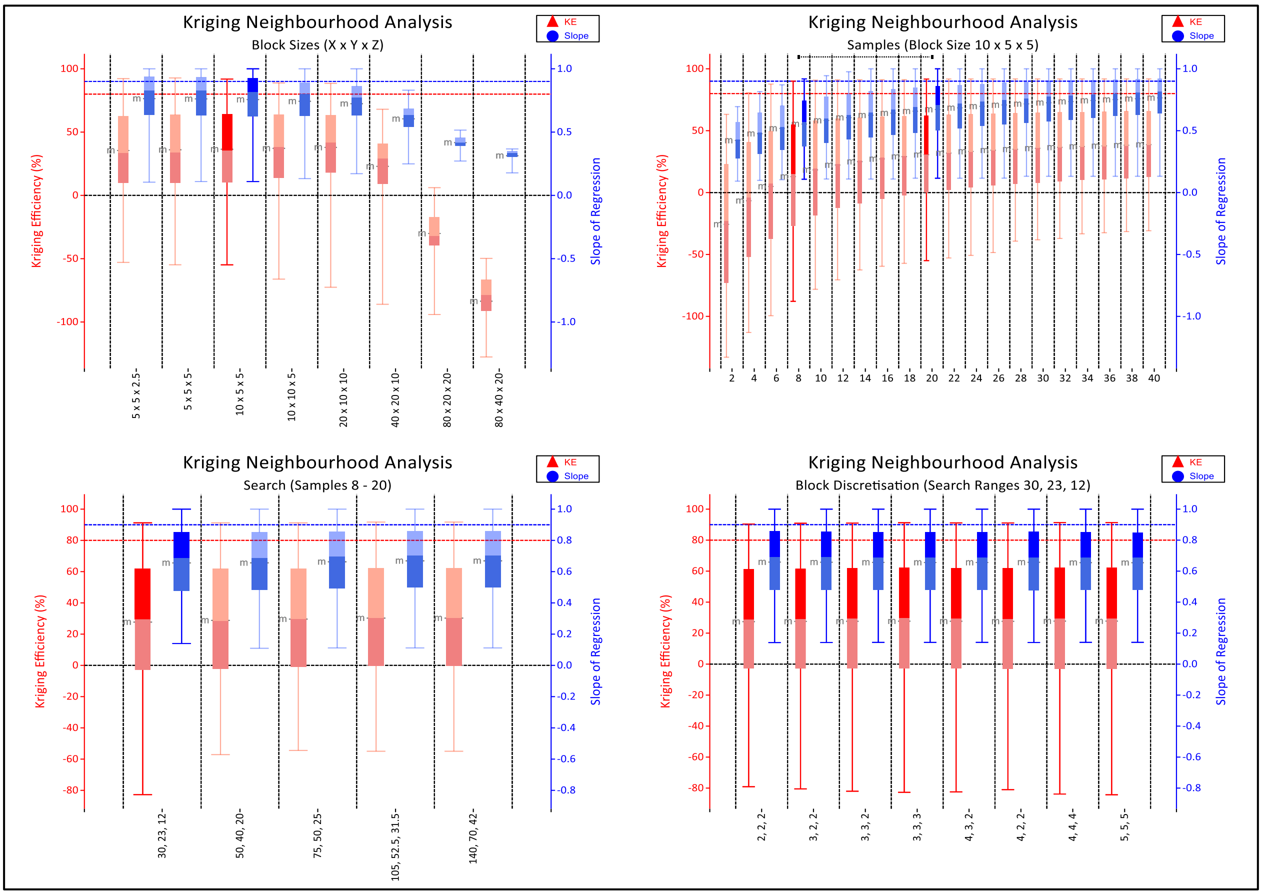
Pb Variograms for Domain 1



Ag Variograms for Domain 1



KNA for Domain 1



End of Report