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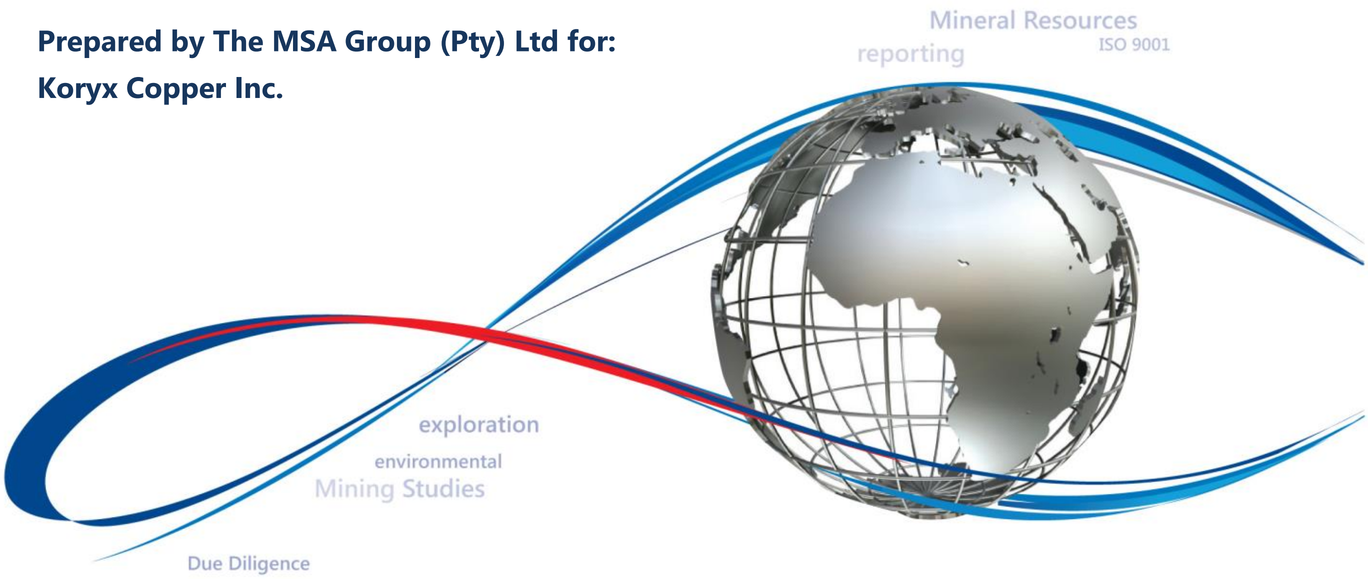
Specialist Consultants to the Mining Industry

NI 43-101 Technical Report – August 2024 Mineral Resource Estimate
Haib Copper Project, Namibia

Prepared by The MSA Group (Pty) Ltd for:
Koryx Copper Inc.



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MSA Project No.: J4408

IMPORTANT NOTICE

This report was prepared as a National Instrument NI 43-101 Technical Report for Koryx Copper Inc. (Koryx) by The MSA Group (Pty) Ltd (MSA), South Africa. The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in MSA's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report.

Koryx filed this Technical Report with the Canadian Securities Regulatory Authorities pursuant to applicable securities laws in Canada. Except for the purposes legislated under applicable securities laws in Canada, any other use of this Technical Report by any third party is at that party's sole risk.

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1 SUMMARY

1.1 Property Description and Ownership

Haib is a porphyry copper exploration project located in the Karas Region of southern Namibia approximately six kilometres north of the border with South Africa and between 12 km and 15 km east of the tarred B1 highway that connects Namibia with South Africa.

Koryx Copper Inc. has a 100% interest in Deep South Mining Company (Pty) Ltd., a Namibian subsidiary which in turn has a 100% interest in Haib Minerals (Pty) Ltd which holds the exploration rights to the Haib Project. Exclusive Prospecting Licence 3140 allows for the exploration of base, rare and precious metals over an area of 36,589 hectares.

1.2 Geology and Mineralisation

Haib is hosted within the coeval, Palaeoproterozoic Orange River Groups volcanic and Vioolsdrif Intrusive Suite plutonic rocks of the Richtersveld Subprovince of the Namaqua-Natal Province. The Orange River Group consists of several northwest trending felsic to mafic volcanic belts. The Vioolsdrif Intrusive Suite intrudes the Orange River group and is composed of felsic to mafic batholiths dominantly composed of granodiorite. The Orange River Group volcanic rocks were intruded by the Vioolsdrif Intrusive Suite with several phases of porphyritic granodiorite, the main mineralised host rocks, termed the Quartz Feldspar Porphyry and the Feldspar Porphyry.

The entire region has undergone two phases of greenschist facies metamorphism, which have mainly produced a metamorphic assemblage of chlorite-calcite-epidote-green biotite without significant deformation. Most of the rock exhibits typical porphyry copper type alteration zones associated with mineralisation. The higher grade copper mineralisation is controlled by a fracture / vein set that parallels a regional structural trend and strikes approximately northwest and dips steeply (-70°) to the southwest. This high-grade zone also appears to plunge at 30° to 40° towards the south-east.

Broad zones of copper mineralisation occur over a strike length of approximately two kilometres that are commonly several hundreds of metres wide. Mineralisation has been intersected by diamond drilling to a maximum depth of 790 m below the topographic surface. Copper mineralisation is predominantly as chalcopyrite in both disseminated and vein form, however pyrite, minor bornite, chalcocite and molybdenite also occur.

1.3 The Status of Exploration

The Haib deposit was discovered around the late 1800s or early 1900s due to the distinct surface expression and copper staining in fractures and joints in the dry riverbed of the Volstruis River. Several exploration programmes were conducted by companies including Falconbridge, King Resources, Rio Tinto Zinc, Revere Resources, Great Fitzroy Mines and Teck. The recent drilling by Koryx Copper Inc. drilled 45 infill diamond drillholes for a total of 9,473.07 metres.

1.4 Mineral Resource Estimation

Haib was visited by Jeremy Witley, who is a Head of Mineral Resources at the MSA Group and the Qualified Person (QP) for this Mineral Resource estimate, from 18 to 21 May 2021 and 11 to 14

March 2024. The occurrences and setting of the copper mineralisation were observed in the field as well as the drilling in progress at the time. The mineralisation was examined in a selection of drillhole cores from the recent Koryx Copper Inc. drilling programme and previous Teck drilling. The QP is satisfied that the procedures and protocols used in drilling are consistent with the CIM Exploration Best Practice Guidelines.

The assay results received from the primary laboratory for the 32 drillholes drilled by Teck in 2020 (Acme Analytical Laboratories, Vancouver, Canada) and the 45 drillholes drilled by Koryx from 2021 to 2024 (ALS, Johannesburg) were subjected to comprehensive Quality Assurance and Quality Control (QAQC) programmes. MSA compared the results of the Teck and Koryx drilling programmes with those of the older drilling campaigns that were not subjected to the same rigorous QAQC external to the laboratory's own processes. Based on the comparison, MSA concluded that the RTZ (120 drillholes from 1972 to 1975) and Great Fitzroy Mines (13 drillholes from 1995 to 1999) drilling data may be used for grade estimation. The Falconbridge and King drilling (comprising 29 drillholes from 1963 to 1969) results did not compare as favourably with the validated data and were not used in the estimate of the Mineral Resource grade.

Three-dimensional models of copper and molybdenum mineralisation were constructed using all the drillhole sample data. Leapfrog Geo software was utilised to create mineralised envelopes taking cognisance of the interpreted structural trends that influence the mineralisation and using a threshold of 0.20% for copper and 0.005% for molybdenum. A low-grade domain was defined outside of the 0.20% Cu grade shell within the drilling grid.

Ordinary kriging was used to estimate the copper and molybdenum grades into a three-dimensional block model. Mean density was assigned to the block model based on interrogation of the density measurements by oxidation state. The total strike length of the modelled portion of the deposit is approximately 2,100 m, with the across strike and down dip portions extending for up to 1,000 m.

The Mineral Resource was estimated using The Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Best Practice Guidelines (2019) and is reported in accordance with the 2014 CIM Definition Standards, which have been incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101). The Mineral Resource is classified into the Indicated and Inferred categories and has been divided into three zones based on mineralisation characteristics (Table 1-1). The Northwest domain is separated from the Southeast domain by a prominent quartz vein filled fault and these two domains are enclosed by a Low-Grade domain.

The Mineral Resource is reported from a Whittle optimized pit shell and a cut-off grade of 0.25% Cu, which the QP considers will satisfy reasonable prospects for eventual economic extraction. The Mineral Resource is reported for copper only. The assumed process route used in the calculation of the cut-off grade and the input for the optimised pit shell is heap leaching. At this stage, no recovery of molybdenum has been allowed for.

Table 1-1
Mineral Resource Statement for Haib as at 31 August 2024 at a 0.25% Cu cut-off grade

Category	Zone	Tonnes (Mt)	Average Cu Grade (%)	Cu Content (Mlbs)	Cu Content (kt)
Measured	Northwest	-	-	-	-
	Southeast	-	-	-	-
	Low Grade	-	-	-	-
	Total	**-**	**-**	**-**	**-**
Indicated	Northwest	300	0.35	2,310	1,048
	Southeast	115	0.36	906	411
	Low Grade	-	-	-	-
	Total	**414**	**0.35**	**3,216**	**1,459**
Measured & Indicated	Northwest	300	0.35	2,310	1,048
	Southeast	115	0.36	906	411
	Low Grade	-	-	-	-
	Total	**414**	**0.35**	**3,216**	**1,459**
Inferred	Northwest	283	0.33	2,052	931
	Southeast	47	0.34	359	163
	Low Grade	16	0.27	93	42
	Total	**345**	**0.33**	**2,503**	**1,136**

Notes:

1. *All tabulated data have been rounded and as a result minor computational errors may occur.*
2. *Mt = Million tonnes, kt = thousand tonnes, Mlbs = Million pounds*
3. *The Mineral Resource Statement for Haib as of 31 August 2024 is reported at a cut-off grade of 0.25% Cu within a conceptual pit shell using the following assumed parameters:*
   - *Base Copper Price USD/lb Cu: 4.50*
   - *Average Mining Cost at reference elevation (AISC) USD/tonne: USD 2.35 / tonne waste mined at pit rim - USD 2.50 / tonne mineralized material mined at pit rim*
   - *Average Processing Cost of mineralized material: 6.00 USD/tonne processed*
   - *Average G&A Overheads for mineralized material: 1.00 USD/tonne processed*
   - *Process Overall Recovery of copper: 80%*
   - *Selling Cost Transport of Concentrate to Smelter USD/lb Cu: 0.10*
4. *Low Grade zone refers to the portion of the block model outside the modelled 0.2% Cu grade shells*
5. *From the assumed parameters, a 0.1% Cu in situ marginal cut-off grade was calculated, which together with the conceptual pit shell demonstrates reasonable prospects for eventual economic extraction (RPEEE) for the Mineral Resource. The assessment to satisfy the criteria of RPEEE is a high-level estimate and is not an attempt to estimate Mineral Reserves.*
6. *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability as may be obtained once a pre-feasibility or feasibility studies have been completed and all modifying factors have been taken into account.*

1.5 Conclusions and Recommendations

This Mineral Resource Estimate represents an update to the previous estimate which had an effective date of 01 February 2021 as reported in a Preliminary Economic Assessment (PEA) dated 08 January 2024. The Indicated Resource has decreased in tonnes by 9% and increased in grade by 13%, and the Inferred Resource has decreased in tonnes by 1% and increased in grade by 14%.

Additional drilling is recommended in order to improve confidence in the Mineral Resource and investigate areas where additional mineralisation potential exists.

A drilling programme is planned as a first phase for 2024 and 2025 consisting of over 8,200 m with the purpose of targeting areas for potential Mineral Resource expansion and confirming and extending higher grade areas. A second phase of exploration as is expected to be required as an additional programme following the 2024 and 2025 drilling programme (Table 1-2) to continue to develop the Mineral Resource, which is contingent on the results of the 2024 to 2025 phase and maybe adjusted accordingly.

Table 1-2
Planned Drilling Programmes

Item	Phase 1: 2024 / 2025 Drill Programme	Phase 2: Additional Drill Programme
Metres planned (m)	8,261	10,000
Cost per metre (NAD/m)	1,900 NAD/m ($148 CAD/m)	1,900 NAD/m ($148 CAD/m)
Drilling Cost (NAD; CAD)	**15,695,900 NAD $1,222,628 CAD**	**19,000,000 NAD $1,480,000 CAD**
Cost per assay (NAD/assay)	476 NAD/assay / $37 CAD/assay	476 NAD/assay / $37 CAD/assay
Assay Cost (NAD; CAD)	3,928,404 NAD $305,973 CAD	4,755,361 NAD $370,382 CAD
Total (NAD; CAD)	**19,624,304 NAD $1,528,485 CAD**	**23,755,361 NAD $1,850,242**
Grand Total (NAD; CAD) (Phases 1 and 2)	**43,379,664 NAD $3,378,727 CAD**	

***Note:**:USD:NAD exchange rate of 17.75 (22-October 2024); $1.3825 CAD/USD.*

Target 1 is relatively well drilled and the focus of the 2024-2025 drilling is infill drilling within Targets 2, 3 and 4 and for assessing the continuity of mineralisation between the original target areas (see Figure 26-1).

2 INTRODUCTION

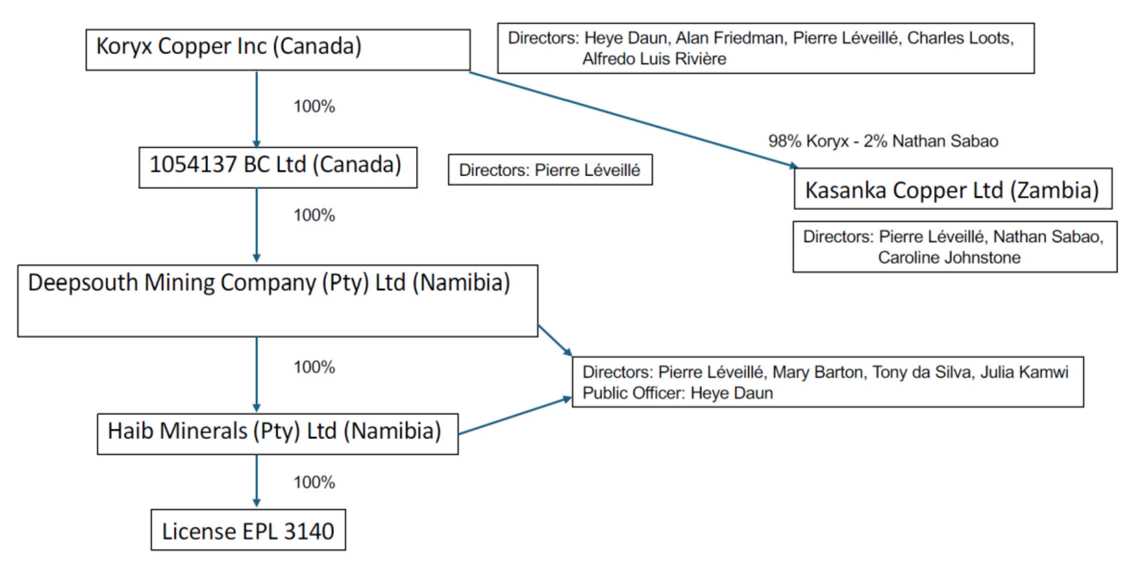
The MSA Group (Pty) Ltd (MSA) has been commissioned by Koryx Copper Inc. (Koryx or the Company) to provide an independent Technical Report and Mineral Resource estimate for the Company's copper exploration property located in Namibia (the Project or the Property). This report has been prepared to comply with disclosure and reporting requirements set forth in Canadian National Instrument 43-101, Companion Policy 43-101CP, Form 43-101F1 and the 'Standards of Disclosure for Mineral Projects'.

The Project property hosts a large Palaeoproterozoic copper mineralised porphyry with minor molybdenum. It is of Precambrian age, unlike the significantly younger (Tertiary or Cretaceous age), well-known producing copper porphyries in North and South America and the Pacific Rim. Koryx has undertaken an infill drilling programme to update the mineralisation model and improve the confidence in the previous Mineral Resource statement with an effective date of 01 February 2021 and reported in a Preliminary Economic Assessment (PEA) dated 08 January 2024.

2.1 Corporate Structure

Koryx (listed on the TSX Venture Exchange) has a 100% interest in 1054137 BC Ltd, which in turn has a 100% interest in Deep South Mining Company (Pty) Ltd. (DSM), a Namibian subsidiary which in turn has a 100% interest in Haib Minerals (Pty) Ltd which holds the exploration rights to the Haib Porphyry Copper property in the Karas Region of southern Namibia. Haib Minerals is the registered holder of Exclusive Prospecting Licence 3140 (EPL) over the property. On 20 June 2008, Teck Resources Ltd (Teck) concluded a joint-venture agreement to acquire 70% of the shares of Haib Minerals (holder of the EPL 3140). Teck acted as the exploration manager up to May 2017 when its interest was acquired by DSM. The current corporate structure as at the effective date of this report is shown in Figure 2-1.

Figure 2-1
Koryx corporate structure



2.2 Principal Sources of Information

MSA has based its review of the Property on information provided by Koryx, along with technical reports by previous tenement holders, and other relevant published and unpublished data as listed in the References section of this Report.

MSA has endeavoured, by making all reasonable enquiries, to confirm the authenticity and completeness of the technical data upon which the independent Technical Report is based. The Independent Technical Report and Mineral Resource Estimate has been prepared on information available up to and including 31 August 2024.

A Preliminary Economic Assessment (PEA) on the Project was completed for Deep South Resources (now Koryx) by METS Engineering (METS) titled "Amended NI 43-101 Technical Report, Preliminary Economic Assessment" which has an effective date of February 01, 2021 and was lodged on SEDAR+ on January 08, 2024. Information considered by the QPs to be both current and relevant was sourced from this document. The August 31, 2024 Mineral Resource Estimate reported in this current Technical Report is substantially different to that on which the January 2024 PEA report was completed and therefore the results of the PEA are not considered current and are no longer relevant.

2.3 Qualifications, Experience and Independence

MSA is an exploration and resource consulting and contracting firm, which has been providing services and advice to the international mineral industry and financial institutions since 1983. The MSA Group is independent of Koryx, its respective directors, senior management and advisers.

Neither MSA, nor the author of this report, has or has had previously, any material interest in Koryx or the mineral properties in which Koryx has an interest. Our relationship with Koryx is solely one of professional association between client and independent consultant. This report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this report.

2.3.1 Qualified Persons and Personal Inspection

The following QPs have contributed to this report:

Jeremy Charles Witley (BSc Hons, MSc (Eng.)) is a geologist with 36 years' experience in base and precious metals exploration and mining as well as Mineral Resource evaluation and reporting. He is Head of Mineral Resources for The MSA Group (an independent consulting company), is registered with the South African Council for Natural Scientific Professions (SACNASP) (nr. 400181/05) and is a Fellow of the Geological Society of South Africa (GSSA).

Damian Edward Gerard Connelly B.Sc. App Sc. is an independent consulting metallurgist. He has worked as a metallurgist for a total of 45 years since graduation from university He has worked as a Metallurgical Consultant to the Mineral Processing Industry for the past 30 years, which has involved working on feasibility studies, detailed design, plant construction, due diligence work and more. He is a professional Metallurgist registered as a Fellow of the Australasian Institute of Mining and Metallurgy (nr. 105679) and a Chartered Professional Engineer (met). He is also a Fellow of Engineers Australia.

Table 2-1 outlines the Qualified Persons (QPs) as defined in National Instrument 43 101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43 101 F1:

Table 2-1
Responsibilities of the Qualified Persons

Qualified Person	Items Responsible for	Items Co-Responsible for
Jeremy Charles Witley	1-12, 14-27	-
Damian Edward Gerard Connelly	13	-

2.4 Site Visits and Scope of Personal Inspection

Site visits were performed as follows:

- Mr Jeremy Witley visited the Project for 4 days from 18 to 21 May 2021 and for 4 days from 11 to 14 March 2024. Mr. Witley inspected the project site and exploration facilities, verified the collars of current and historical drilling, observed active drill rigs in the field, inspected drill core and observed the sampling methodology and security measures in place. The site visits also included discussions of geology and mineralisation interpretations with Koryx's staff, focussing on deposit structure, alteration and mineralisation models.
- Mr Damian Connelly last visited the Haib Project site in January 2006. The objective of the site visit was to assess the surrounding infrastructure, view drill core samples and obtain a general feel for the site.

2.5 Units and Currency

The International System of Units (SI) is used throughout the report, and currency information is based on the Canadian Dollar (CAD), United States Dollar (USD) or Namibian Dollar (NAD) unless otherwise stated.

A table summarising Acronyms and Abbreviations used in this report and a Glossary of Technical Terms, specific to this Technical Report, is set out in Section 2.6 below.

Unless indicated otherwise, all of the coordinates stated in this report are in Universal Transverse Mercator (UTM) 1984 World Geodetic System (WGS84) datum, with a Zone 33 South projection.

2.6 Acronyms and Abbreviations and Glossary of Technical Terms

Acronyms and Abbreviations

Ag	Silver
ACME	Acme Analytical Laboratories
amsl	Above mean sea level
AMT	Audio Magnetotellurics
ASTE	African Selection Trust Exploration

CAD	Canadian Dollar
CMSA	Copper Mines of Southern Africa
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CRM	Certified Reference Material
DSM	Deep South Mining Company
DGPS	Differential global positioning satellite
Cu	Copper
EPL	Exclusive Prospecting Licence
FP	Feldspar Porphyry
G&A	General and administration
GFM	Great Fitzroy Mines
ha	Hectare
HPGR	High pressure grinding rolls
HM	Haib Minerals
ICP-OES	Inductively Coupled Plasma Optical Emission Spectrometry
ISO	International Standards Organization
km	Kilometre
KNA	Kriging neighbourhood analysis
KRC	King Resources of South Africa
kt	kilotonne
lbs	pound
m	metre
Ma	Million years
Mlbs	Million pounds
Mo	Molybdenum
Mt	Million tonnes
MRE	Mineral Resource Estimate
MSA	The MSA Group
NAD	Namibian Dollar
NCM	Namibian Copper Mines Inc.
NCJV	Namibian Copper Joint Venture
NRST	Non Resident Shareholder's Tax
NW	Northwest
OK	Ordinary kriging
ORG	Orange River Group
PAYE	Pay As You Earn

PEA	Preliminary Economic Analysis
ppm	Parts per million
QAQC	Quality Assurance and Quality Control
QFP	Quartz Feldspar Porphyry
QP	Qualified Person
QQ	Quantile Quantile
RMB	Rand Merchant Bank Ltd
RPEEE	Reasonable Prospects for Eventual Economic Extraction
RQD	Rock Quality Designation
RTZ	Rio Tinto Zinc
SE	Southeast
SI	International System of Units
SG	Specific gravity
TSX	Toronto Stock Exchange
USD	United States Dollar
USGS	United States Geological Service
VIS	Vioolsdrif Intrusive Suite
WNW	West-northwest

Glossary of Technical Terms

andesite	An extrusive igneous rock intermediate in composition between rhyolite and basalt.
batholith	A large body of igneous rock formed beneath the Earth's surface by the intrusion and solidification of magma.
biotite	A common group of phyllosilicate minerals within the mica group, with the approximate chemical formula $K(Mg, Fe)_3AlSi_3O_{10}(F, OH)_2$
bornite	A sulphide mineral with chemical composition Cu_5FeS_4.
calcite	A carbonate mineral with the chemical formula $CaCo_3$.
capping	The process of limiting the influence of high-grade outliers during estimation.
chalcocite	Copper mineralized material mineral with the chemical formula Cu_2S.
chalcopyrite	A copper iron sulphide mineral and the most abundant copper mineralized material mineral. It has the chemical formula $CuFeS_2$.
chlorite	Chlorite minerals are the group of phyllosilicate minerals common in low-grade metamorphic rocks and in altered igneous rocks.

Cretaceous	The Cretaceous is a geological period that lasted from about 145 to 66 million years ago.
Diamond drilling	A form of core drilling which uses a rotary drill with a diamond drill bit attached in order to create precisely measured holes.
Differential Global Positioning System	Supplements and enhances the positional data available from global navigation satellite systems
diorite	An intrusive igneous rock formed by the slow cooling underground of magma (molten rock) that has a moderate content of silica and a relatively low content of alkali metals. It is intermediate in composition between low-silica (mafic) gabbro and high-silica (felsic) granite.
dyke	A sheet of rock that is formed in a fracture of a pre-existing rock body.
epidote	A calcium aluminium iron sorosilicate mineral.
disseminated	Said of a mineral deposit (especially of metals) in which the desired minerals occur as scattered particles in the rock, but in sufficient quantity to potentially make the deposit economical.
feldspar	Feldspar is a group of rock-forming aluminium tectosilicate minerals, also containing other cations such as sodium, calcium, potassium, or barium. The most common members of the feldspar group are the plagioclase feldspars and the alkali feldspars.
felsic	A modifier describing igneous rocks that are relatively rich in elements that form feldspar and quartz. It is contrasted with mafic rocks, which are relatively richer in magnesium and iron.
granodiorite	A medium- to coarse-grained rock that is among the most abundant intrusive igneous rocks. It contains quartz and is distinguished from granite by its having more plagioclase feldspar than orthoclase feldspar.
greenschist	Metamorphic rocks that formed under the lowest temperatures and pressures usually produced by regional metamorphism, typically 300–450 °C and 2–10 kilobars (29,000–145,000 psi).
Indicator interpolant grade shell	Grade shells created using a probability of the grade being above or below a cut-off grade.
Inductively Coupled Plasma Emission Spectrometry	An analytical technique used to determine how much of certain elements are in a sample
intermediate	An igneous rock with medium silica composition, equally rich in felsic minerals (feldspar) and mafic minerals (amphibole, biotite, pyroxene).
joints	Planes of separation on which no or undetectable shear displacement has taken place. Although joints can occur singly, they most frequently appear as joint sets and systems.

Kriging Neighbourhood Analysis	A process for optimising estimation parameters, including block size, number of informing samples, search range and the number of discretisation points.
mafic	Relating to or denoting a group of dark-coloured, mainly ferromagnesian minerals such as pyroxene and olivine.
malachite	Copper carbonate hydroxide mineral with chemical formula $Cu_2CO_3(OH)_2$ formed by the weathering of copper orebodies in the vicinity.
matrix	The matrix or groundmass of a rock is the finer-grained mass of material in which larger grains, crystals, or clasts are embedded.
metamorphism	Metamorphism is the transformation of existing rock (the protolith) to rock with a different mineral composition or texture. Metamorphism takes place at temperatures in excess of 150°C , and often also at elevated pressure or in the presence of chemically active fluids, but the rock remains mostly solid during the transformation.
molybdenite	a mineral of molybdenum disulfide, MoS_2.
Ordinary Kriging	A geostatistical estimation process used to interpolate and extrapolate grades into unknown areas.
Palaeoproterozoic	The first of the three sub-divisions of the Proterozoic eon, and also the longest era of the Earth's geological history, spanning from 2,500 to 1,600 million years ago.
phenocryst	A large or conspicuous crystal in a porphyritic rock, distinct from the groundmass.
phyllic	A rock with a foliated texture dominated by micaceous minerals, usually formed by phyllic alteration of igneous rocks.
plutonic	Relating to or denoting igneous rock formed by solidification at considerable depth beneath the earth's surface
porphyry	An igneous rock containing conspicuous crystals, called phenocrysts, surrounded by a matrix of finer-grained minerals or glass or both.
Precambrian	The Precambrian is an informal unit of geologic time, subdivided into three eons (Hadean, Archean, Proterozoic) of the geologic time scale. Occurred 4,600 million years ago - 541 (+/- 1) million years ago.

propylitic	The result of low-pressure- low-medium temperature alteration around many hydrothermal orebodies. The propylitic assemblage usually consists of epidote, clinozoisite. zoisite, chlorite, Mg-Fe-Ca carbonates (calcite, dolomite), quartz, pyrite and albite, altering feldspars, biotite and amphibole within the rock groundmass. It typically includes veining and breccia/fracture filling. It is caused by iron- and magnesium-bearing hydrothermal fluids, removing potassium.
pycnometer	Measures the volume and the density of solid objects in a non-destructive manner.
Semi-variogram	A geostatistical tool that reflects the degree of spatial correlation of measured sample points.
sericite	Sericite is the name given to very fine, ragged grains and aggregates of white micas, typically made of muscovite, illite, or paragonite.
silicic	Relating to, or derived from silica or silicon.
strike	Horizontal direction or trend of a geological structure.
volcanic	Of, relating to, or produced by a volcano, characterised by volcanoes or a volcanic range. Volcanic rocks are formed on the surface of the Earth; magma is brought to the surface through the phenomenon of volcanism (emission of lava).

3 RELIANCE ON OTHER EXPERTS

The Report Contributors have not relied on any other experts in compiling this Report.

MSA has not independently verified, nor is it qualified to verify, the legal status of the Project property. The present status of tenements listed in this Report is based on information and copies of documents provided by Koryx, and the Report has been prepared on the assumption that the tenements will prove lawfully accessible for evaluation. These documents include:

- Exclusive Prospecting Licence – 3140 [provided by Koryx on 31 August 2024]
- Environmental Clearance Certificate issued in accordance with Section 37(2) of the Environmental Management Act (Act No. 7 of 2007) [provided by Koryx on 31 August 2024].

Neither MSA nor the author(s) of this report are qualified to provide extensive comment on the following information and are reliant on the sources as stated:

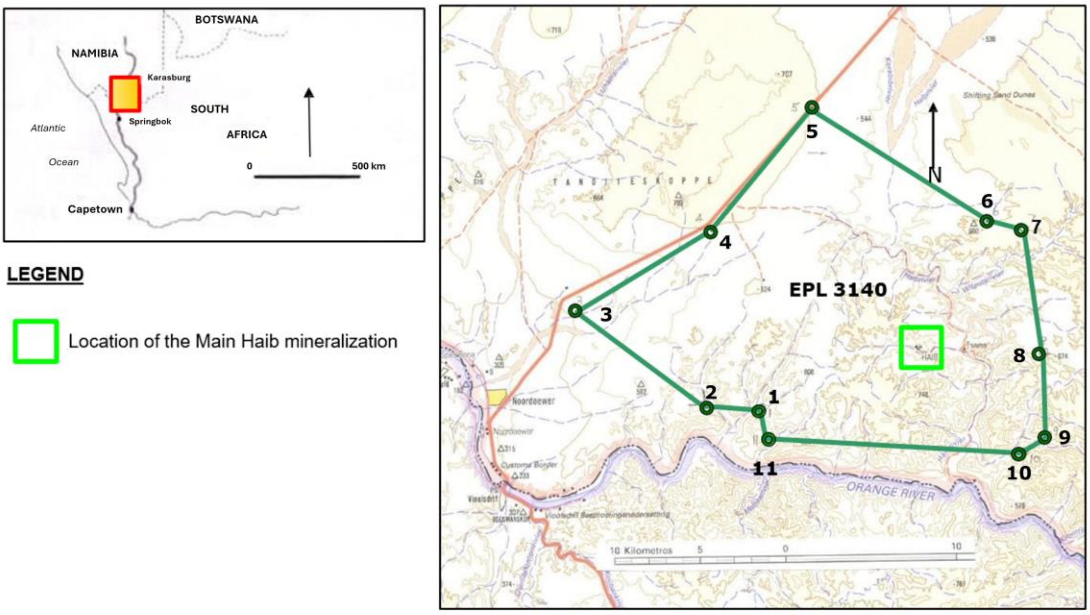
- Legal issues associated with project ownership (as outlined in Section 2.1) have been supplied by Koryx as of 31 August 2024;
- Taxation (as outlined in Section 4.4) source: https://chamberofmines.org.na/mining-tax-regime/ [accessed as of 31 August 2024];
- Environmental issues associated with the Project (Section 4.3 and Section 20) have been supplied by Koryx as of 31 August 2024.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Haib Copper Project is located in the south of the Karas region of Namibia close to the border with South Africa defined by the Orange River (Figure 4-1). The Project is located at a latitude of approximately 28°41’48” and a longitude of approximately 17°52’59”. The Project is situated between 12 km and 15 km east of the main highway connecting South Africa to Namibia (B1). The nearest railway station is located in the town of Grunau, approximately 120 km north on the main highway. The rail connection provides access to the port town of Lüderitz, Walvis Bay via Windhoek, or South African ports via Upington.

Figure 4-1
Haib Copper Project location



Source: *METS Engineering, 2024*

4.2 Mineral Tenure, Permitting, Rights and Agreements

The Haib Project is contained within Exclusive Prospecting Licence (EPL) 3140, which forms an irregular shaped polygon with 11 corner points and a total surface area of 36,589.1879 hectares and allows for the exploration of base, rare and precious metals The EPL 3140 boundary coordinates (Figure 4-1) are provided in the grant documents and listed in Table 4-1. The EPL was renewed on 21 April 2019 for a period of two years. The EPL was further renewed on July 7, 2023 for a period of two years.

Table 4-1 EPL 3140 boundary coordinates		
Corner Point	**Latitude**	**Longitude**
1	-28°43'15.21" S	-17°58'10.95" E
2	-28°45'11.68" S	-17°57'13.53" E
3	-28°44'27.11" S	-17°47'36.07" E
4	-28°43'31.11" S	-17°47'14.65" E
5	-28°42'42.61" S	-17°44'59.71" E
6	-28°40'15.62" S	-17°41'1.13" E
7	-28°37'16.50" S	-17°45'22.14" E
8	-28°33'19.28" S	-17°49'19.27" E
9	-28°37'27.99" S	-17°55'35.62" E
10	-28°37'36.14" S	-17°57'17.92" E
11	-28°41'41.11" S	-17°57'56.12" E

Note: *refer to Figure 4-1 for corner point positions*

The property covers portions of the farms de Villierspunt 353, Tsams 360 and Withoek 387. Surface rights are owned by the state and no access permits or contracts are required.

A water abstraction permit from the Ministry of Water Affairs is required in order to pump water from the Orange River for use in exploration such as drilling and metallurgical test work.

4.3 Environmental Liabilities

Environmental liabilities listed in the EPL grant documents include the following:

- The holder of the EPL shall observe any requirements, limitations or prohibitions on his or her prospecting operations as may, in the interests of environmental protection be imposed by the Minister from time to time.
- That the holder of the exclusive prospecting licence shall enter into an Environmental Contract with the Ministry of Environment and Tourism and that of Mines and Energy within one month of the date of issue of the licence.

The Environmental Clearance Certificate is dated 15 August 2017 and was valid for a period of three years. An audit of the Environmental Clearance Certificate and an updated Environmental Management Plan for renewal application is dated 21 February 2024. The renewed Environmental Clearance Certificate was approved on September 6, 2024. This document was produced by Knight Piesold Consulting and forms part of the accepted commitment towards environmental obligations.

4.4 Royalties and Taxation

Under the Minerals Act 33 of 1992, royalties are levied in terms of a percentage of the market value of the minerals extracted by the licence holder at a rate of 3% for precious and base metals. Company tax rates for mining companies (other than diamond mining companies) is 37.5%. A summary of the mining tax regime is provided in Table 4-2.

Table 4-2
Summary of Namibia mining tax regime

Aspect	Percentage / Guidance
Foreign Ownership allowed	100%
Compulsory government share	No
Foreign Exchange Controls	Limited
Tax stability agreements	None
Corporate tax for non-diamond mining	37.5%
Royalties on gold, copper, zinc & other base metals	3%
Export Levy	Variable
Corporate tax on oil/gas	35%
Tax holidays	None
Deduct exploration costs (when mineral discovery progresses to mine development)	Yes, 100% in first year
Deduct development costs:	Yes, 100% in first three years
Ring fencing	Yes (oil and gas)
Forwarding carry of losses	Yes, indefinitely
Depreciation	Yes, 33.3% straight
Capital gains tax	0%
Value added tax	15%
Non Resident Shareholder's Tax (NRST)	20%
NSRT- If a Non- resident recipient of dividends is a company which holds at least 25% of the capital of Namibian company paying the dividend	10%
Withholding tax	10%
PAYE	Variable
Land tax (on valuation)	Namibian Citizens – 0.75%, Foreign Nationals 1.5%
Provincial taxes:	None
Municipal taxes	Services (Rates on Services)
Exploration & Mining Licence Fees	Yes, schedule available from office of the mining Commissioner
Surface rent	To landowner, on mutual compensation agreement
Mineral ownership	Vested in the State
Training Levy	1% of payroll (Total Cost to Company

Source: *(https://chamberofmines.org.na/mining-tax-regime/):*

4.5 Major Risks

The authors are not aware of any significant risks that may impede the progress of exploration for the Project.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Haib copper deposit is accessible throughout the year by 10 km of gravel road from the main highway to the defunct RTZ campsite, followed by a 5 km track requiring four wheel drive vehicle to access the site. The Project site is very rugged with limited access gained via bulldozed access roads to drilling sites and access to other areas of the Project is largely on foot.

A 1,500 m long airstrip is located on the property however the condition of the airstrip is unknown and inspection would be required before light aircraft would be able to safely land.

5.2 Climate and Physiography

With an average of 300 days of sunshine annually, Namibia is one of the sunniest countries in the world. In general, Namibia's climate can be described as hot and dry, but substantial fluctuations during the seasons or even within one day are typical. The different regions show considerable climatic differences regarding precipitation and temperature. The amount of precipitation increases from the southwest to the northeast regions from an annual 0 mm to a maximum of 600 mm.

The Haib copper deposit is situated in the extreme south of Namibia and is unusual in that it is located on the boundary between the summer and winter rainfall areas. In summer, the temperature can go as high as the mid 40°C, while in winter it can go as low as freezing point. Rainfall in winter is generally light drizzle with occasional harder rainfall. In summer, the rainfall is associated with occasional thunderstorms of short duration but can be of very high intensity. All the streams within the area are ephemeral and can flow very strongly after the summer rainfall. Average annual rainfall is 25 mm to 50 mm. Access to site is possible throughout the year.

The Haib deposit straddles the Volstruis River, which is a tributary of the Haib River. Both are ephemeral tributaries of the Orange River which lies south of Haib. The Haib deposit lies at elevations from a floor elevation of just under 375 metres amsl to over 600 metres amsl. The surrounding area is up to about 650 m amsl at the highest point. The area is rugged with steep sided valleys and rapid local relief (Figure 5-1).

Figure 5-1
Typical topography at the Haib Project (foreground)

Source: *J. Witley, 2024*

The vegetation around the deposit is essentially xerophytic in nature with sparse semi-desert shrubs and grasses with some stunted trees (Adenolobus garipensis, Euclea pseudebenus or wild ebony and others) along water courses.

5.3 Local Resources and Infrastructure

The nearest town of Noordoewer lies on the Orange River approximately 20 km by road to the southwest of Haib. The Haib deposit is approximately 15 km from the main international tar road and limited construction would be required to upgrade the first 10 km of graded gravel access road to the now defunct RTZ campsite. Additional road construction would be required for the proposed process plant site and for the mine site access.

The main north-south national power grid lies approximately 85 km to the east of the Haib and an 85 km link would likely be required should the project develop. Water is expected to be available from the Orange River (about 15 km by pipeline to the south of the Haib deposit).

The nearest rail link is located at Grunau, approximately 120 km north of the deposit. The area between Haib and Grunau is almost completely flat, and potentially a railway link could be laid, providing access to the port of Lüderitz or the port of Walvis Bay via Windhoek, or to South Africa via Upington. Flat lying areas that can potentially be used for heap leach pads and waste rock dumps are available, depending on eventual plant design, for which surface rights would be required to be obtained.

Haib Minerals (Pty) Ltd (HM) rents a facility in Noordoewer that is supplied with municipal water and electricity. This serves for equipment storage, local office, and drillhole core processing and storage (Figure 5-2).

Figure 5-2
Facilities in Noordoewer for equipment storage, core logging and storage

Source: *J. Witley 2021*

6 HISTORY

6.1 Early Mining

The Haib deposit has a distinct surface expression with abundant copper staining on fractures and joint planes particularly in and around the dry riverbed of the Volstruis River. This led to German prospectors identifying the deposit around the late 1800s or early 1900s. Small tonnages of high-grade copper carbonate mineralized material were mined at this time. The word Haib is probably from a local language although the Haib Pforte (fort) is shown on the original German military maps of German West Africa, dating from about 1907. The fort appears to have been a place rather than a structure and the location on the ground is unknown.

After World War II, the prospect owner George Swanson carried out small scale mining and tank leaching operations. Copper carbonate mineralized material was leached with acid. The acid was then run over iron scrap and the copper precipitated as "copper cement". This copper cement was sold for further refining.

6.2 Exploration – Post-1963

From 1963 to 1964 Falconbridge of Africa (Pty) Ltd (Falconbridge) completed a detailed exploration programme focussed on the higher-grade zones within the Haib deposit. Falconbridge drilled eleven boreholes totalling 1,012 metres of drilling. During 1968 and 1969 King Resources of South Africa Pty Ltd (KRC) conducted a further drilling programme and examined both lower and higher-grade sulphide zones, as well as the higher-grade oxide shear zones. Some leach test work was carried out. KRC abandoned its licence area in 1969.

Between 1972 and 1975, Rio Tinto Zinc (RTZ) conducted the first extensive and systematic investigation of the Haib deposit. They drilled one hundred and twenty holes totalling 45,903 metres and conducted various sampling programmes including geochemical and geophysical prospecting.

In 1991 to 1992, Revere Resources SA Ltd, produced a technical brochure and promoted the Haib as a "potential world class copper producer for the 1990s". The intent was to list the Haib as a mining company, possibly on the Johannesburg Stock Exchange. For reasons unknown, this listing never materialised.

In November 1993, Rand Merchant Bank Ltd (of South Africa) (RMB) acquired an option over the Haib property. Venmyn Rand Pty Ltd., mining management consultants to RMB, then undertook a study of the project. Work terminated in 1995.

In March 1995, Great Fitzroy Mines NL (GFM) and RMB executed an agreement in association with George Swanson to acquire 100% of the Haib project. GFM agreed terms with RMB whereby GFM could earn 90% of the project. Subsequently GFM agreed to transfer a 70% interest in the deposit to Namibian Copper Mines Inc. (NCM) in exchange for NCM reimbursing past expenditure and providing GFM with a free 20% carried interest. NCM then purchased the remaining RMB interest leaving GFM with a 20% free carried interest and the management, and NCM held 80%. The operating company was called the Namibian Copper Joint Venture (NCJV). From 1995 to 1999 the NCJV prospected Haib, managed by GFM. The names NCJV and GFM can be read as synonymous.

The mineral rights were held by Copper Mines of Southern Africa (Pty) Ltd (CMSA) as EPL 2152 and worked by the NCJV. The NCJV ran into financial difficulties and work was stopped at the Haib deposit in late 1998 to early 1999.

Rusina Mining Ltd of Perth, Australia, acquired the concession from GFM / NCJV during 1999 to 2000 and they took over ownership of the Haib data. The transfer of the mineral rights to Rusina was apparently not ratified by the Namibian Government. Rusina performed no further exploration work on the Haib deposit.

In 2003 (date uncertain) in response to the Namibian government enforcing the new Namibian Minerals Act, George Swanson was forced to relinquish his Haib claims which allowed Haib Minerals (Pty) Ltd (HM), registered in Namibia, to consolidate a single mineral rights entity over the entire Haib deposit. An initial Exclusive Prospecting Licence 3140 was granted for 3 years from 22 April 2004 to 21 April 2007 over an area of 74,563 ha covering the deposit and a very large surrounding area.

In 2008 Deep South Mining Company (Pty) Ltd. (DSM) concluded a joint venture agreement with Teck, which was amended in 2009 (the "Agreement"). Teck then acted as the exploration operator and manager for HM.

The Agreement with Teck provided that Teck had the right to earn a 70% undivided interest in the Haib copper project in Namibia if it completed an agreed programme of exploration which it duly complied with. Teck then agreed to relinquish exploration management and its 70% interest in HM in exchange for a 35% shareholding in DSM. In May 2017, DSM acquired all of the shares in HM from Teck and now holds a 100% interest of the Haib exploration licence EPL 3140.

The exploration approach taken by Teck was to prospect for adjacent, additional mineralisation by means of remote sensing, regional geophysical and geochemical stream and soil sampling programmes and / or to increase the tonnage and / or the grade by further core drilling to explore the already identified higher-grade portions of the mineralisation. Since the higher grade portions were poorly defined by the historical vertical drilling, targeting inclined drilling was carried out. Teck also completed an extensive programme of quality control and data checks by means of modern surveying of the historical drillhole collars as well as resampling and assaying of many of the RTZ drill cores.

In 2017, METS Engineering Group assisted Deep-South Resources Inc. with the development of a Preliminary Economic Analysis (PEA) for the Haib copper project. The PEA report was to present the findings needed for the development of the Haib project with aims to minimise or manage any possible risks or negative implications. The PEA report was completed in February 2018.

6.3 Historical Estimates

Historical estimates are presented as background information to the project. MSA has not verified any of the historical estimates presented and therefore they are not considered reliable. Furthermore a qualified person has not done sufficient work to classify the historical work as current mineral resources or mineral reserves and the issuer is not treating the historical estimates as current mineral resources or mineral reserves.

In 1975, RTZ used the results of 120 drillholes to estimate the grade and tonnage of the Haib deposit. The results indicated a large copper tonnage at a relatively low grade. Various cut-off grades were presented, however the method of determination of these are unknown. RTZ considered the estimate to fall into the Indicated classification, however this is not stated within the tabulation (Table 6-1).

Table 6-1
1975 RTZ historical estimate for the Haib Project

Cut-off (% Cu)	Tonnage (Mt)	Grade (% Cu)	Contained Cu (t)
0.15	831	0.27	2,244,000
0.20	563	0.32	1,802,000
0.25	374	0.37	1,384,000

In August 1994, Venmyn Rand (Pty) Ltd prepared an information memorandum on the Haib deposit and estimated an in-pit "reserve" using a computer model, although the exact methodology is unknown. They generated the historical estimate presented in Table 6-2.

Table 6-2
1994 Venmyn Rand historical estimate for the Haib Project

Cut-off (% Cu)	Tonnage (Mt)	Grade (% Cu)	Contained Cu (t)
0.3	400	0.4	1,600,000

In 1996, NCJV / GFM used the Venmyn Rand database to re-estimate using what they considered to be a more realistic geological model and pit shell. The pit shell was designed to provide some 22 years of mineable material within a 2-year and 8-year mining pit plan. Geostatistical block modelling was carried out and tonnage and grades reported at a range of cut-offs within the various pit outlines. All drillhole assay results were composited over 7.5 m downhole intervals prior to variography and block kriging. The pit outlines were used to constrain the reporting of the block model tonnes and grade which were thus reported as resource tonnages within a specified pit (Table 6-3). The estimates were made in August 1996 and considered by GFM to be Indicated Resources stated to be chosen "in accordance with accepted mineral industry practices" at that time.

Table 6-3
1996 NCJV / GFM historical estimate for the Haib Project

Pit	0.3% Cu Cut-off		0.1% Cu – 0.3% Cu		0.1% Cu Cut-off		Waste
	Mt	% Cu	Mt	% Cu	Mt	% Cu	Mt
Year 2	21.4	0.39	27.9	0.20	49.1	0.28	2.1
Year 8	73.4	0.36	289.2	0.20	362.4	0.23	21.8
Year 22	135.5	0.38	803.4	0.19	939.1	0.22	95.7
Total	**230.2**	**0.37**	**1120.5**	**0.19**	**1350.7**	**0.22**	**119.5**

In 1998, Behre Dolbear viewed the Haib deposits as resources, not reserves, because at the time of assessment they could not be demonstrated to be economic since no feasibility study had been completed. Therefore, Behre Dolbear undertook, after discussion with GFM, to review potentially mineable resources after the additional work had been completed, all or part of which could then be upgraded to a reserve status. This work was never completed. Behre Dolbear did not independently check the accuracy of the data provided by GFM but accepted the data as supplied for this work.

The drillhole data set provided to Behre Dolbear consisted of assay and survey data from 152 drillholes. The location of the drillholes was based on a local coordinate system. Included in the assay database were primarily the copper assays.

The historical mineral models generated by Behre Dolbear in January 1998 were estimated by generating three–dimensional block models using nearest neighbour, inverse distance squared and kriging estimation techniques. The results using three different techniques are compared with the GFM estimate in Table 6-4.

Table 6-4
1998 Behre Dolbear historical estimate for the Haib Project compared to the GFM Model

Minimum Block Grade	GFM Model		Behre Dolbear's Model					
			Kriging		Inverse Distance Squared		Nearest Neighbour	
	Mt	% Cu	Mt	% Cu	Mt	% Cu	Mt	% Cu
0.1	1350	0.23	1353	0.23	1331	0.23	1184	0.25
0.2	730	0.28	739	0.29	726	0.29	630	0.34
0.3	230	0.37	244	0.37	262	0.38	292	0.46

6.4 Previous estimates by the issuer

In February 2021, Peter Walter of P&E Walker Consultancy conducted a Mineral Resource estimate based on the complete drillhole database and the Leapfrog modelling completed by Teck. The methodology used is documented in the METS Engineering NI43-101 Preliminary Economic Assessment. A total of 201 drillholes were used in the estimate, samples were composited to 10 m lengths and capped for estimation. Directional variograms were used for estimation by ordinary kriging in Geovia-GEMS software. A 3D pit constraint was generated and the cut-off grade was based on a desktop study of similar deposits. The estimate is presented in Table 6-5.

Table 6-5
01 February 2021 Obsidian Consulting and P&E Walker Consultancy - previous estimate for the Haib Project

Resource Class	Tonnes (Mt)	Cu%
Measured	-	-
Indicated	456.9	0.31
M&I	**456.9**	**0.31**
Inferred	342.4	0.29

Note: *Rounding has been applied as appropriate to reflect limits of precision and accuracy*
A cut-off grade of 0.25% Cu has been applied

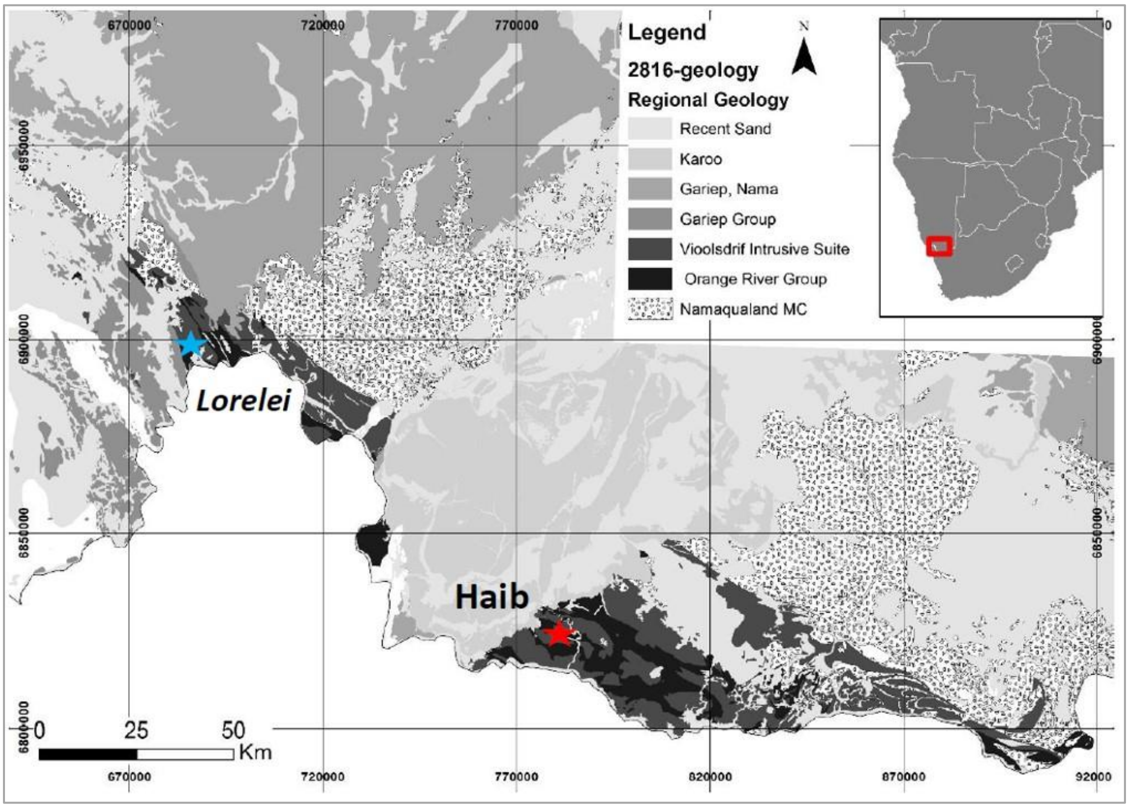
This Mineral Resource was reported in a Preliminary Economic Assessment (PEA) dated 08 January 2024. This estimate has been superseded by the current estimate as reported in Item 14 of this Technical Report and the issuer is not treating the 01 February 2021 estimate as current mineral resources.

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 Regional Geology

The Haib porphyry copper deposit is located within the Richtersveld Subprovince of the Namaqua-Natal Province and consists of 1,800 to 2,000 Ma volcanic and plutonic rocks (Miller, 2008). Haib is hosted within the Palaeoproterozoic Orange River Group (ORG) basaltic-rhyolitic lavas and Vioolsdrif Intrusive Suite (VIS) plutonic rocks, consisting of granites and granodiorites. The ORG and VIS have similar geochemical patterns suggesting they are cogenetic and comagmatic. These rocks have been regionally metamorphosed to greenschist facies, but are not highly altered despite their age.

Figure 7-1
Regional geology of the Haib Project area



Source: *Grumbley, 2015*

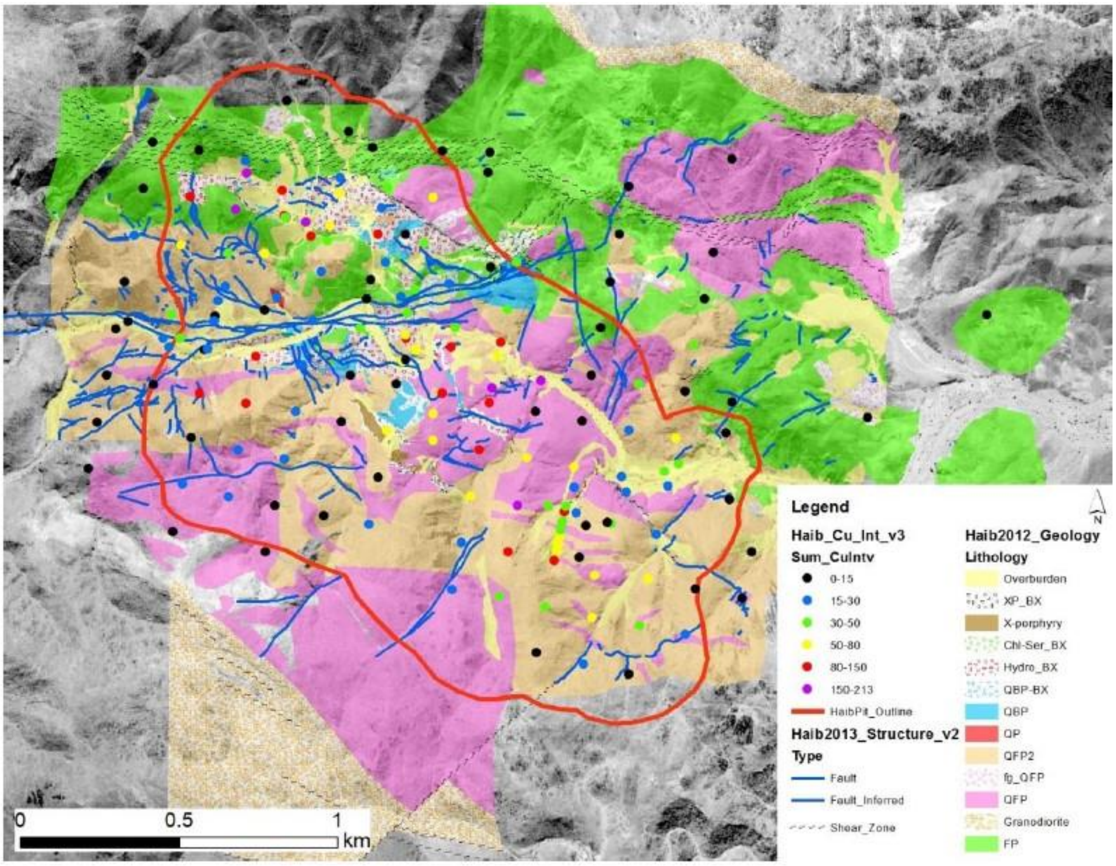
The basement igneous rocks are covered by younger Karoo sediments roughly in the centre of the belt, which are related to the Karasburg Rift Basin, and comprise a basal tillite grading into limestones, siltstones and shales. The basal tillite contains clasts of the Vioolsdrif and Haib basement. The basement and Karoo are all cut by northwest trending dolerite-gabbro dykes and sills of late Cretaceous age.

7.2 Local Geology

The Haib license is underlain by the Haib Subgroup volcanics of the ORG and VIS rocks on the eastern half, with an unconformity into the Karoo Sediments on the western half. The Haib volcanics are primarily composed of a Feldspar Porphyry (FP) andesite with minor amounts of intercalated rhyolite in the north. The VIS intrusives are a mix of granodiorite-granite composition rocks, generally forming large batholiths intruding the Haib volcanics

All the rocks on the license have an east-west orientation/elongation, which is interpreted to be arc-parallel. There are two large east-west shear zones identified on the property: one just north of the deposit which is 20 m to 50 m wide; and broader one several kilometres south of the deposit which is over 1 km wide in parts. A structural analysis shows most veins, faults, and shears trend east-west and dip south, with a minor amount trending north-south and dipping east. There are few faults with large offsets, with the majority of faults having only several metres offset (Figure 7-2). The shear zones accommodate the most displacement.

Figure 7-2
Main geological units and structures at Haib



Source: *Grumbley, 2017*

The Haib deposit contains the main rock types: Granodiorite (GD), Feldspar Porphyry (FP), Quartz Feldspar Porphyry (QFP), Quartz Feldspar Porphyry 2 (QFP2), Quartz Biotite Porphyry (QBP) and X-Porphyry (XP) (Figure 7-2).

FP is the earliest rock type formed, which is intruded by QFP, QFP2, QBP, and XP. All the porphyries before QBP and XP are cut by mineralisation and related veins. The rock type previously recognised as QP (Quartz Porphyry) has now been reinterpreted as a hydrothermal breccia related to an early phase of QBP.

QFP and QFP2 are porphyritic granodiorites and essentially represent the uppermost portions of a granodiorite batholith to the south. There is a broad spectrum of rocks between these two end members, representing the complex nature of the batholith.

The QBP and associated hydrothermal breccia's are found at surface in the northwestern corner of the deposit, dipping at roughly 70° to the south and striking northwest-southeast. They are truncated by a large east-west shear zone in the north, and they are displaced to >400 m depth to the southeast by a north-south, quartz-impregnated shear zone / fault.

XP is a late pulse of dacitic dykes with <4% biotite phenocrysts (FP has no biotite phenocrysts), which intrude all the other rock types. Hydrothermal breccia's containing clasts of the other porphyries are common. It is volumetrically minor, with a zone of dykes and breccia's found along the southwest margin of the deposit (Grumbley, 2017).

7.3 Alteration

Recent age dating of Haib rocks by separation of zircon and apatite, on which laser ablation and inductively coupled plasma mass spectrometry was used to derive the U/Pb ratios, indicated an age of 1,880 Ma for the volcanics (Grumbley, 2015). The entire region has undergone two phases of greenschist facies metamorphism, which have mainly produced a metamorphic assemblage of chlorite-calcite-epidote-green biotite without significant deformation (Miller 2008). Most of the rock exhibits typical porphyry copper type alteration zones associated with mineralisation. A potassic hydrothermal alteration zone coincides with the main mineralised area surrounded by phyllic and propylitic alteration haloes. Propylitic sericite alteration appears to overprint the earlier potassic zones. Silicification, chloritisation and epidotisation are widespread.

7.4 Mineralisation

The principal sulphides within the Haib body are pyrite and chalcopyrite with minor molybdenite. Bornite, digenite, chalcocite and covellite are also occasionally recorded. There is no major development of a supergene zone, probably due to high rates of erosion associated with the Orange River canyon. Near surface oxidation has led to the formation of malachite, azurite, chrysocolla, minor cuprite and chalcocite, generally along fracture zones. Oxide copper rarely extends to depths in excess of 30 m on these fracture zones. While the oxide zone volumetrically represents a fairly minor proportion of the deposit, grades are significantly above average giving the potential for some leachable copper from the oxide material. These portions of the deposit have not been examined in detail and there is significant potential to improve their volume and grade.

A variable thickness transition zone exists over large parts of the deposit, between the surface and a pure sulphide (un-oxidised) zone, of approximately between 10 m and 20 metres thickness.

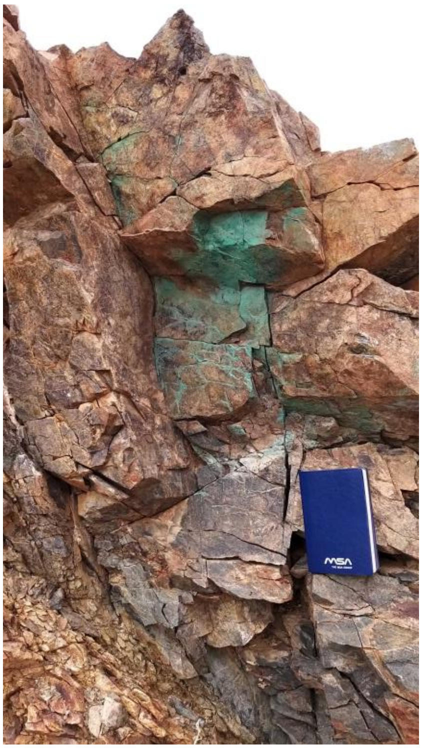
Sulphide minerals are disseminated within the rock mass and found concentrated in blebs and along veinlets and fractures (Figure 7-3). Significant mineralisation commonly occurs along joint planes. High copper grades are typically associated with quartz veins.

Gold, silver and molybdenum are trace constituents associated with the copper mineralisation. Molybdenite is occasionally seen as disseminated flakes and veinlets associated with other sulphides and in minor shears and quartz veins.

Figure 7-3
Examples of mineralisation at Haib

A

B



C

D

A = disseminated chalcopyrite and molybdenite (HM10 @ 70 m)
B = Oxide copper in factures at surface
C = Chalcopyrite veinlets aligned with shear fabric (HM22 @ 296.5 m)
D = Coarse grained chalcopyrite vein (HM06 @ 68.4m)

Source: *A & B – J. Witley 2021, C & D – J. Witley 2024*

8 DEPOSIT TYPES

The Haib copper deposit is a porphyry copper deposit of Palaeoproterozoic age, approximately 1,880 Ma. Porphyry copper deposits are a major world source of copper (also molybdenum, silver and gold) with the best-known examples being concentrated around the Pacific Rim, in North America, South America and areas including the Philippines. Most of these deposits are relatively young, of Tertiary or Cretaceous age. The United States Geological Survey (USGS) defines a porphyry copper deposit as follows:

- One wherein copper-bearing sulphides are localised in a network of fracture-controlled stockwork veinlets and as disseminated grains in the adjacent altered rock matrix.
- Alteration and mineralized material mineralisation at 1 km to 4 km depth is genetically related to magma reservoirs emplaced into the shallow crust (6 km to > 8 km), predominantly intermediate to silicic in composition, in magmatic arcs above subduction zones.
- Intrusive rock complexes that are emplaced immediately before porphyry deposit formation and that host the deposits are predominantly in the form of upright-vertical cylindrical stocks and (or) complexes of dykes.
- Zones of phyllic-argillic and marginal propylitic alteration overlap or surround a potassic alteration assemblage; and,
- Copper may also be introduced during overprinting phyllic-argillic alteration events.

The Haib deposit has all of the above defined geological characteristics. Porphyry copper systems usually occur along subducted zones and commonly occur in clusters. It is interesting to note therefore, that the Lorelei Deposit (120 km WNW of the Haib) is another low grade copper-molybdenum porphyry showing similar alteration zonation and is of a similar age to the Haib. The Tatasberg deposit (80 km WNW of the Haib deposit, across the border in South Africa) is reportedly also a porphyry style Cu-Mo deposit showing typical alteration zoning but is reported to be only some 540 Ma old, although the source of this dating may not be reliable.

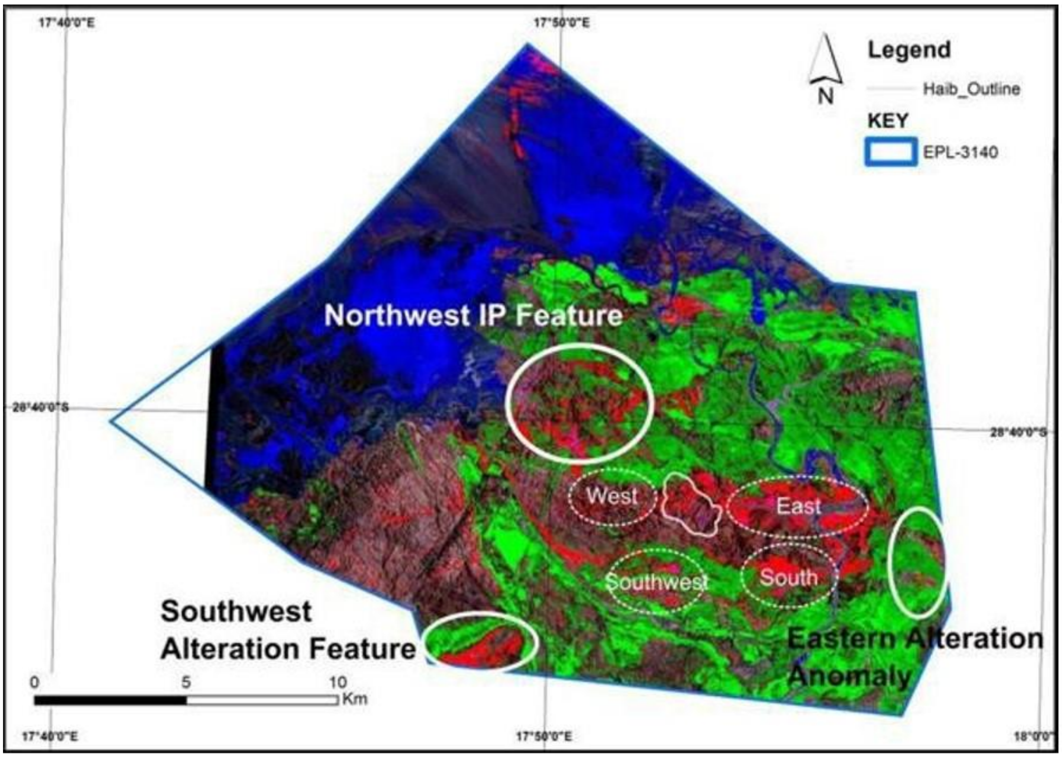
9 EXPLORATION

9.1 Teck Exploration

From 2008 to 2017, Teck held 70% of HM, the holder of EPL 3140 (refer to Item 6), and assumed management of the exploration programme. Teck carried out an exploration programme to investigate the deposit extent, by deep and extension drilling, and to investigate the potential for outlying mineralisation. Teck completed the following work:

- A regional stream sediment sampling programme. A total of 276 samples were collected over an area of 320 km^2. First and second order streams were sampled every 300 m to 500 m. Four adjacent anomalous areas approximately 2 km from the main Haib mineralisation were identified for geophysical follow up (Figure 9-1). Three of the four zones were diamond drilled and found to be low grade distal veining from an unknown porphyry intrusive.

Figure 9-1
Haib deposit anomaly map



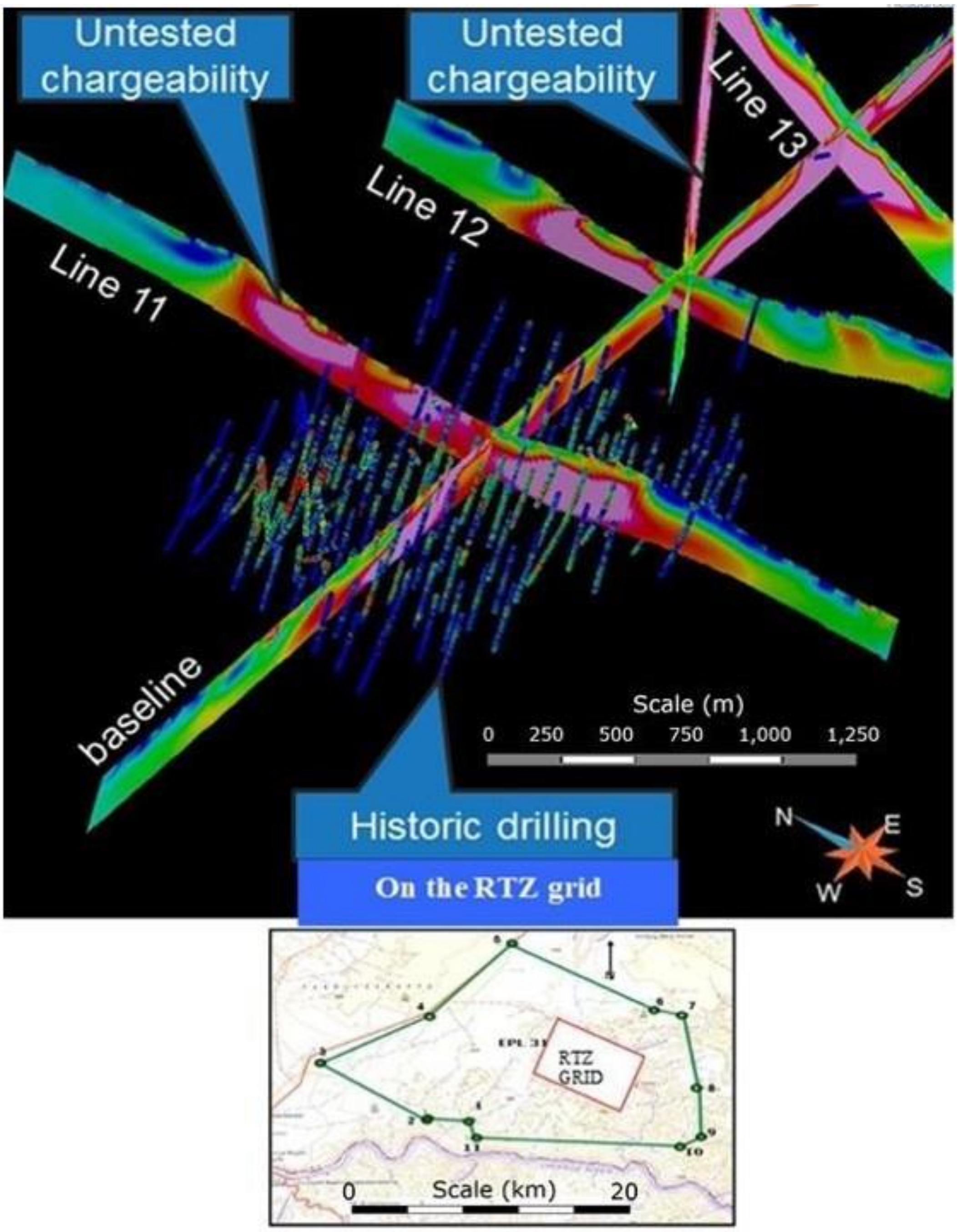
Source: *METS Engineering, 2024, adapted from Grumbley, 2017a.*

- A total of 32 diamond drillholes, totalling 14,252 m (discussed in Item 10) were drilled within the Main Haib mineralisation and on the Eastern, Southern and Western geophysical and geochemical anomalies (Figure 9-1).
- Mapping over approximately 75% (205 ha) of the area around the 275 ha. main deposit (at a scale of 1:10,000) and all (90 ha.) of the main deposit at 1: 2,000 scale, using the Anaconda mapping method, which maps the lithology, alteration, vein type, orientation and intensity on

separate overlays. Teck also mapped the Eastern and Southern IP defined anomalies at a scale of 1:10,000, while the vein zone at Haib West was mapped at a scale of 1: 2,000.

- Relogging of 108 of the 120 RTZ drillholes using the Anaconda method. These were all located within the main Haib deposit area.
- Resampling of 14 of the RTZ drillholes to verify the assay results obtained by RTZ for copper and also to determine the grade of gold, silver and molybdenum.
- Completion of 83-line km of pole-dipole Reconnaissance Induced Polarization (RIP) (Figure 9-2); and another 6-line km of Audio Magnetotellurics (AMT). AMT is a high-frequency magneto-telluric technique for shallower investigations. While AMT has less depth penetration than MT, AMT measurements often take only about one hour to perform, although deep AMT measurements during low-signal strength periods may take up to 24 hours and use smaller and lighter magnetic sensors.

Figure 9-2
Geophysical sections lines across the main Haib deposit.
(The pink and red zones show the zone of mineralisation with a high chargeability)



Source: *METS Engineering, 2024*

- Collection of 636 soil samples on grid lines 150 m apart with sample spacing of 50 m covering an area of 400 ha across three of the satellite targets – the South, Southwest and West anomalies (Figure 9-1).

- Construction of a 3D geological model of the Main Haib zone using Leapfrog Geo modelling software This model combines all the surface and down hole geology, assays and geochemistry to guide the grade envelope for a Mineral Resource estimate.

10 DRILLING

10.1 Historical Drilling

10.1.1 Falconbridge and King Resources

The first drilling was completed by Falconbridge who drilled 1,012 m in eleven drillholes in three principal areas of interest. Aside from drill core assays and the location of the holes, little information remains on this drilling. After Falconbridge, King Resources conducted a drilling programme of 21 holes totalling 3,485 m. Drill core sample assays are available and the drillhole collars have been located in the field. Most of these earlier holes were blocked or difficult to locate. The Falconbridge and King Resources drillholes were steeply inclined in various directions.

10.1.2 RTZ

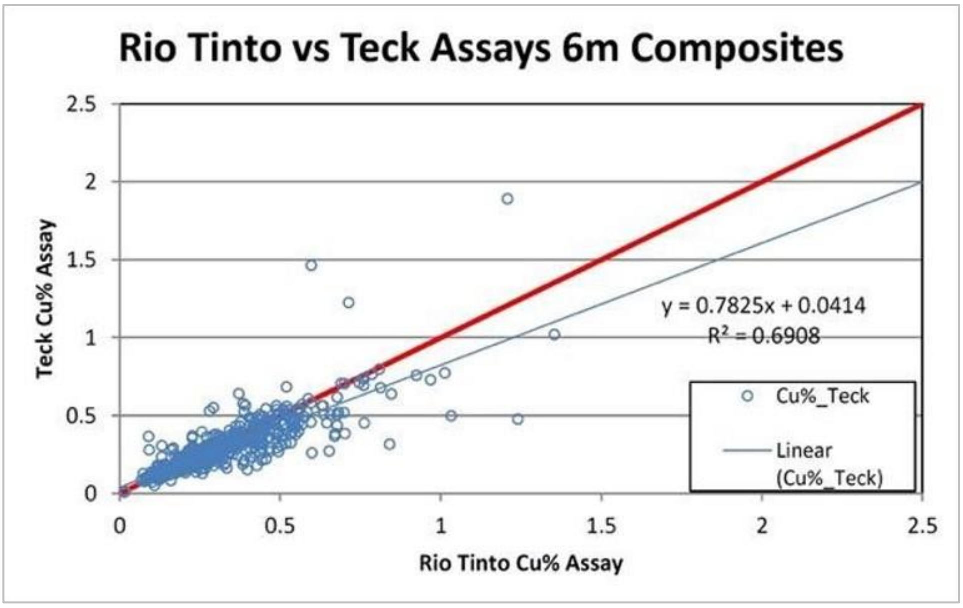
RTZ completed 120 diamond drillholes, mostly vertical, on a systematic 150 m square grid giving a total of 45,903 metres drilled. Holes were generally between 300 m and 400 m deep and core drilling was "N" or "B" sizes.. The cores were preserved in a shed at the old RTZ campsite but the core storage facility was vandalised in 2021 and the cores are no longer available for inspection. Information from these drillholes was verified by GFM and incorporated into its geological model.

A portion of one section line, 86,500 E, was drilled at a 25 m spacing across the zone of high-grade mineralisation where the NCJV later developed an adit for metallurgical sampling.

Sample recovery was reported to be generally good. Most of the historical drillholes were hammer-split and half core composites were sent for assay. The cores were sampled over 2 m intervals for determination of total copper and, where appropriate, acid soluble (oxide) copper. Composite samples from each drillhole were tested metallurgically to determine recoverable copper and were assayed for molybdenum, silver and gold.

In 2010 and 2011, Teck quartered 3,714 metres of RTZ core from 14 drillholes and sampled the quarter core in 3 m sample lengths. These were submitted for assay using an Aqua Regia digestion method and an Inductively Coupled Plasma Emission Spectrometry (ICP-ES) technique to provide a 24 element determination. As the RTZ composite samples were taken in 2 m sample intervals whereas Teck composited at 3 m intervals, a direct comparison of grades could only be made at 6 m intervals. The comparison revealed that below 0.6% Cu the assay results are statistically similar but there is a tendency for the Teck check samples to return higher copper grades than the original RTZ samples in the higher grade range (>0.6% Cu) as shown graphically in the binary X-Y plot (Figure 10-1).

Figure 10-1
Rio Tinto vs Teck 6 m composite sample assay correlation



Source: *METS Engineering, 2024*

10.1.3 NCJV / GFM

NCJV / GFM completed a programme of 12 infill diamond drillholes and 5 large-diameter drillholes for geotechnical work. Technical data is available for these holes.

10.1.4 Teck

Teck drilled 32 diamond drillholes totalling 14,252 m between 2010 and 2014. 22 of these holes were drilled at the main Haib mineralisation to test the predictability of the copper grades in the model derived from historical assay data, confirm the higher-grade portion of the mineralised body and investigate the deeper portions of the mineralisation with the deepest hole at 806 m depth. Another 10 of these holes were drilled to test for mineralisation at the Eastern, Southern and Western anomalies.

10.1.5 Historical drilling database

Venmyn Rand captured the available 1963 to 1975 drillhole data into an electronic database from drillhole logs as the original assay data sheets were unavailable. The database comprised 152 drillholes: 120 from RTZ, 21 from King Resources and 11 from Falconbridge.

The 13 holes drilled by GFM and the 32 drillholes completed by Teck were later added to this database by Koryx.

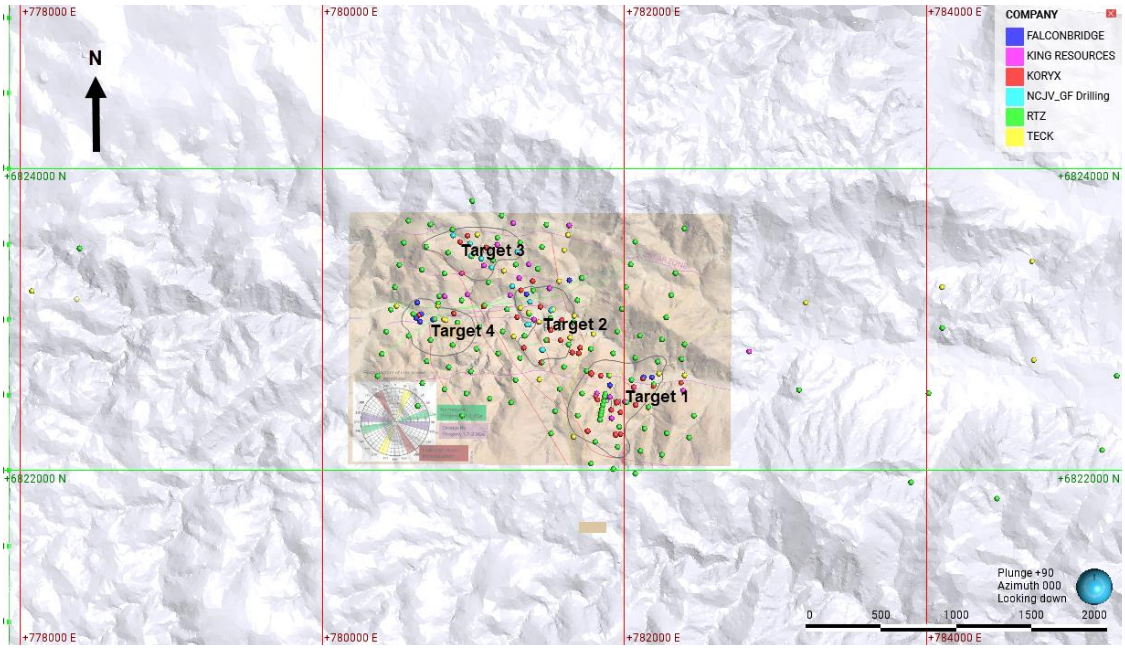
10.2 Koryx Drilling

Koryx drilled a total of 47 holes for 9,473.07 metres from 2021 to 2024 including two re-drills. The holes were targeted infill holes in the conceptual target areas one to four (red points in Figure 10-2).

Drillholes were collared at a dip of 37.6° to 90° to intersect the mineralisation as close to perpendicular as practically possible.

In 2021, two Altas Copco C6C rigs and one Copco SA2000 were utilised for the drilling. In 2024, two Epiroc C6C rigs were used. Drilling was completed using HQ size until competent ground was intersected (generally between 20 m and 40 m) and the hole size was changed to NQ size.

Figure 10-2
Drillhole collars by campaign



Holes were aligned, surveyed, logged and sampled according to Koyx's "Diamond Drill Core Handling Standard Operating Procedure".

Figure 10-3
Drill rig at Haib (HM09)

Source: *J. Witley, 2024*

10.2.1 Drillhole Surveys

Drillhole collars were positioned using a Differential Global Positioning System (DGPS) unit in the Universal Transverse Mercator (UTM) 1984 World Geodetic System (WGS84) datum, with a Zone 33 South projection. Terratec Geophysical Services of Namibia were contracted to survey 47 holes. The DGPS positioning for the survey was collected in RTX mode using the Trimble R2 RTX system. All elevations were converted from the WGS 84 ellipsoid to the geoid using a geoid model EGM08-1.

Downhole surveys were conducted using a Reflex EZ-Trac digital survey instrument and multi-shot receiver. Drillhole dips and dip directions were surveyed at 30 m intervals.

10.2.2 Core Recovery

The geotechnician stationed at the rig recorded and/or marked the following items:

- Core recovery
- Rock Quality Designation (RQD) (pieces >10 cm per 3 m run)
- Metre markings, taking core loss / gain into account

- Orientation lines
- Cutting lines.

Cores were marked with the orientation mark depicting bottom of the hole on core as soon as it was recovered from the core tube and laid out onto the V-rail on site. Core pieces were fitted together, rotated so that the foliation / bedding points downhole and a line along the low point of foliation using a coloured china marker (wax pencil). A red china marker (expressing low confidence) was used to draw the orientation line and downhole arrows within the weathered horizon and fragmented zones. A green marker was used for drawing the orientation lines and arrows in the consolidated zones. A blue line (the cutting line) was drawn 2 cm away from the orientation line to avoid destruction of the orientation line.

Core recovery was typically good with an average core recovery of 99.5%.

Core was packed into core trays and labelled with the hole ID, box number, depth from and depth to. Core boxes were packed securely with a 25 mm foam liner and strapping for transport to the core yard in Noordoewer.

10.2.3 Drillhole Logging

At the core yard, core boxes were carefully unloaded, cleaned and placed in sequential order onto pallets for photography (Figure 10-4). Cores were photographed both wet and dry before being placed onto the core stands for detailed logging.

Figure 10-4
Haib core laid out for photography

Source: *Koryx, 2024*

Coded logging information includes:

- From / To depths
- Oxidation
- Lithology
- Grain Size
- Colour
- Texture
- Alteration and minerals
- Structure
- Vein Style
- Angle
- Mineralisation and style
- Comment

Core was additionally logged for structural detail including the measurement of the structural features on the drill core such as shears, breccias, fractures, foliation, veins and axial fold planes. Structural measurements were only taken within consolidated core zones using a kenometer to measure the alpha and beta angles of the structural feature. Structural descriptions were recorded in the following order:

- Depth from / to
- Interval type (interval or point)
- Structure
- Vein style
- Alpha
- Beta
- Mineralisation
- Mineral style

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Historical Sampling

11.1.1 Pre-Teck

The historical drilling database comprises physical details of each hole, a lithological log, sampling and assay results from approximately 25,000 samples of which most are 2 m half-core composite samples from the Rio Tinto drilling (22,800 samples). The King Resources composite samples averaged 4.5 m in length, while the Falconbridge samples averaged 3.0 m in length .

Of the total samples, approximately 15,000 have values greater than 0.1% Cu but only 1,100 have values greater than 0.5% Cu. The acid soluble copper database comprises 1,980 samples.

Specific gravity (SG) measurements were carried out by RTZ on 40 drillholes giving approximately 7,000 determinations. The RTZ SG values range from 2.43 to 3.35 and average 2.71. GFM continued the process of SG determinations on core samples during its drilling campaign by measurements on every tenth sample.

The details of quality control and assurance and copies of original assay certificates are not available. It is known that the RTZ samples (22,800) were all prepared on site; Rio Tinto having a preparation laboratory fitted with crusher, pulveriser and splitters, parts of which are still on-site (Figure 11-1). It is believed that the actual analyses were done off-site at both the RTZ Rossing mine and RTZ Phalaborwa mine laboratories.

Figure 11-1
RTZ sample preparation equipment and core storage remaining at the RTZ camp-site at Haib

Source: *J. Witley, 2021*

11.1.2 Teck

An internal Teck memorandum details the sample preparation protocols to be employed during both core and geochemical sampling at the Haib project and at the independent preparation laboratory in Windhoek (Analytical Laboratory Services) and the independent assay laboratory (Acme Analytical Laboratories – www.acmelab.com, now a subsidiary of Bureau Veritas; (ACME)) in Vancouver, Canada. Drillholes were sampled from the start to the end of the hole, QAQC samples were inserted at a rate of one in every 20 samples and all data were said to be subjected to routine validation during capture and storage.

According to the procedure, at the independent sample preparation laboratory in Windhoek the entire Teck sample was dried, crushed and check screened to ensure that at least 80% passed 2mm. The entire crushed sample was riffle split to produce an approximately 1 kg sub-sample and this was pulverized in a disk mill to 80% passing 75 microns. The pulp sample was split using a cone and quartering methodology to obtain100 g for assay at ACME. The entire remaining sample was retained and stored by Teck to allow for verification work.

The Teck assays routinely included copper, molybdenum, gold and 21 additional elements all determined by an ICP-OES technique. ACME maintained a quality system compliant with the International Standards Organization (ISO) 9001 Model for Quality Assurance and ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories. In October 2011 the Vancouver facility received formal approval of its ISO/IEC 17025:2005 accreditation from Standards Council of Canada. The Analytical Laboratory Services sample preparation facility in Windhoek was not certified as being ISO 17025 compliant. QA was provided by sieve testing of the crushing and milling.

11.2 Koryx Sampling

Cores were sawn in half using a core cutting machine along the cutting line marked by the geotechnicians at the rig and according to Koryx's SOP. The cut core was placed back into the core trays and onto the core stands for sampling. The sampling team took continuous samples though the hole in 2 m lengths under the supervision of the site geologist. The sampling team first ensured that the core is clean, fits together, is accurately marked and core blocks are placed at the exact depth marking. QAQC samples were placed into the sampling stream by the geologist (refer to section 11.3.2). The sampling team marked the sample position, interval depths and sample IDs on the remaining half core. The cut core was photographed and sampling information was captured onto the sampling sheet for transfer to the sampling spreadsheet.

Sample identification numbers were taped onto the sampling bags by the sampling technicians and samples were weighed and recorded. Several individually bagged samples were placed into polyweave bags up to a weight of 20 kg. The supervising geologist ensured that the correct batch identification number, bag number and sample ticket numbers were written on each polyweave bag. The weighed polyweave bags were dispatched to the sample preparation laboratory in batches.

Samples were received and recorded at the ALS laboratory in Okahandja, Namibia. Samples were crushed to 70% passing 2 mm under code CRU-31. Samples were riffle split to obtain a sub-sample

(SPL-21) for pulverising up to 250 g with 85% passing 75 µm under code PUL-31. Both crushing and pulverising QC tests were performed to ensure that the sample particle size requirements were met.

The prepared samples were analysed for multi elements (33) at ALS utilising four acid digestion and inductively coupled plasma – atomic emission spectroscopy (ICP-AES) with method code ME-ICP61a. A 0.25 g sample was dissolved in a combination of hydrochloric acid, nitric acid, hydrofluoric acid and perchloric acid followed by ICP-AES analysis. Gold was analysed for using fire assay and atomic absorption (AA) finish with method code Au-AA23.

11.2.1 Sample Storage and Security

Several measures are in place to ensure sample integrity and maintain the chain of custody:

- Core was securely transported from the drill rig to the core shed using foam material and strapping.
- The entire sampling process was supervised by the site geologist.
- The Koryx and Teck core is stored within a locked brick-walled core shed.
- Sample submission was accompanied by sample lists with details of the batch number, poly weave bag number and sample identity numbers (and weights).
- ALS has a LIMS system that requires that all samples are logged on arrival.

11.3 Quality Assurance and Quality Control

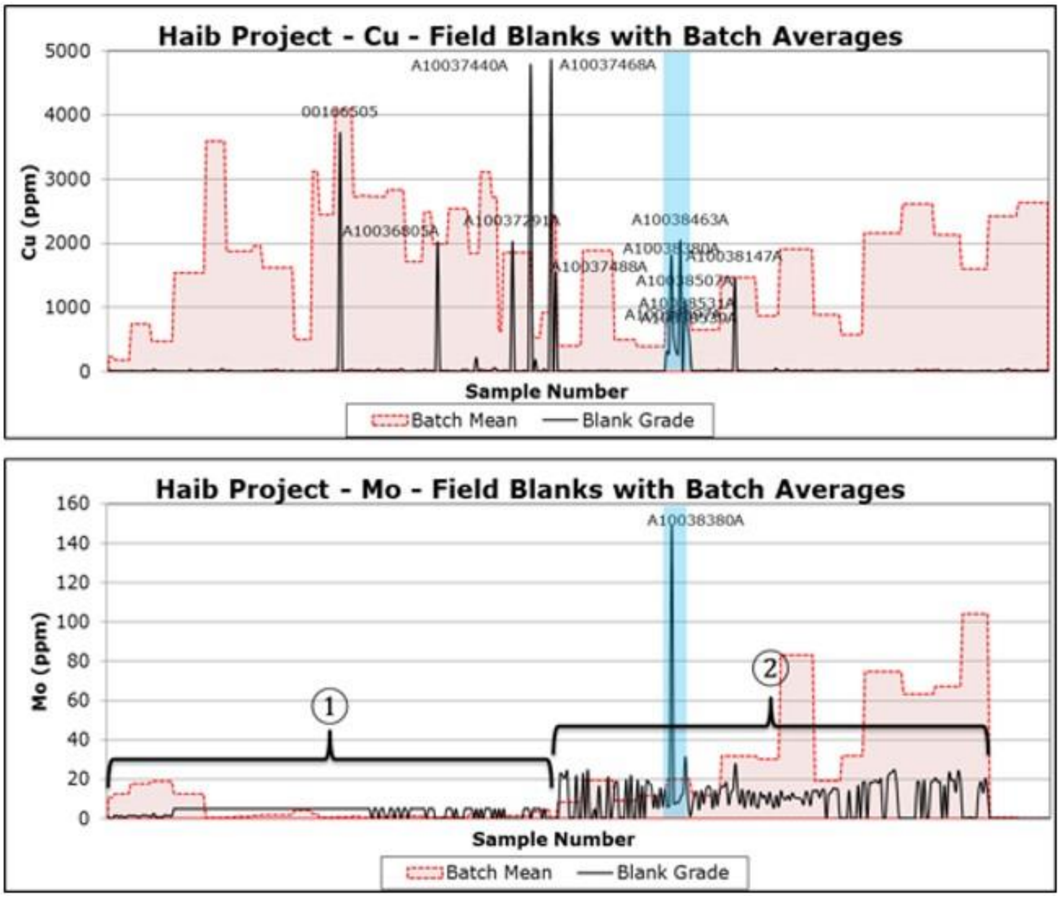
11.3.1 Teck QAQC

The QAQC programme for the 2010 drilling consisted of blank samples, CRM samples and core and coarse duplicate samples. Teck took a proactive approach to QAQC and reported the results of the QAQC on a batch by batch basis including the failures and results of any re-assays. A summary of the QAQC results from the Teck drilling is provided in the following sections.

11.3.1.1 Teck Blanks

The copper results indicate 13 blank failures out of a total of 415 blank samples submitted to the laboratory. Isolated occurrences are not typically a concern, however sequential failures (indicated by the blue bar) would normally be subjected to further investigation. It is assumed that Teck’s protocol would have highlighted the results at the time and the concern would have been resolved with the laboratory. Only one molybdenum assay of the blank sample was highlighted.

Figure 11-2
2010 Blank control chart for Cu and Mo (ppm)



Source: *Koryx (Compilation of QAQC Data.xlsm)*

11.3.1.2 Teck Standards

Teck used 13 different standards (Certified Reference Material, or CRM) as part of its QAQC programme for copper and molybdenum, all of which were certified for 4-acid digestion. The CGS and CM standards cover a range of values from 0.112% Cu to 0.725% Cu, appropriate for the range of grade expected at Haib. Two of the Relincho standards are of very low grade and one standard is relatively high grade (0.832% Cu). The results for copper and molybdenum are shown in Table 11-1.

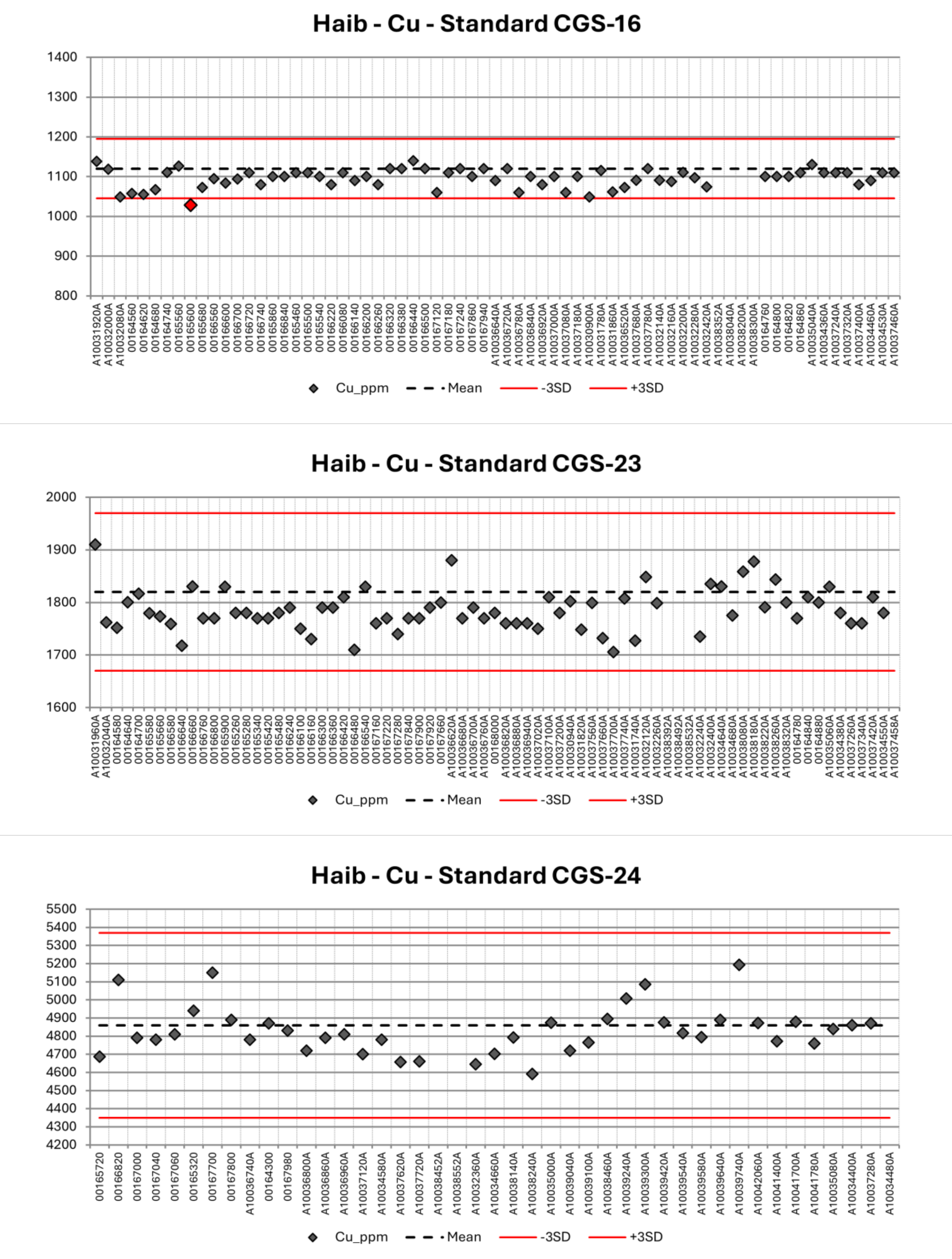
Table 11-1
Teck CRM statistics and results

CRM	Certified Values				Results					
	Cu%		Mo%		Cu			Mo		
	Mean	2SD	Mean	2SD	N	Failures	% Pass	N	Failures	% Pass
CGS-16	0.112	0.005			69	5	93%			
CGS-22	0.725	0.028			14	1	93%			
CGS-23	0.182	0.010			75	4	95%			
CGS-24	0.486	0.034			43	3	93%			
CM-4	0.508	0.025	0.032	0.004	28	2	93%	16	2	88%
CM-5	0.319	0.020	0.050	0.005	41	6	85%	11	0	100%
CM-7	0.445	0.027	0.027	0.002	16	0	100%			
CM-16	0.184	0.014	0.016	0.002	45	1	98%	34	2	94%
CM-20	0.316	0.016	0.030	0.002	32	0	100%	28	2	93%
CM-21	0.527	0.022	0.036	0.002	9	0	100%	7	2	71%
Relincho ST-1	0.018	0.002			13	0	100%			
Relincho ST-2	0.075	0.008			21	0	100%			
Relincho ST-3	0.832	0.032	0.016	0.002	4	2	50%			

Source: *Compiled by MSA from Koryx data (Compilation of QAQC Data.xlsm)*

Figure 11-3 shows plots of standards CGS-16, CGS-23 and CGS-24 with most results plotting within the three standard deviation limit applied by Teck, however most of the values lie below the mean certified value indicating a sight low bias. Several obvious sample swaps were corrected.

Figure 11-3
Teck Control charts for CGS-16, CGS-23 and CGS-24 for Cu (ppm)



Source: *Koryx (Compilation of QAQC Data.xlsm)*

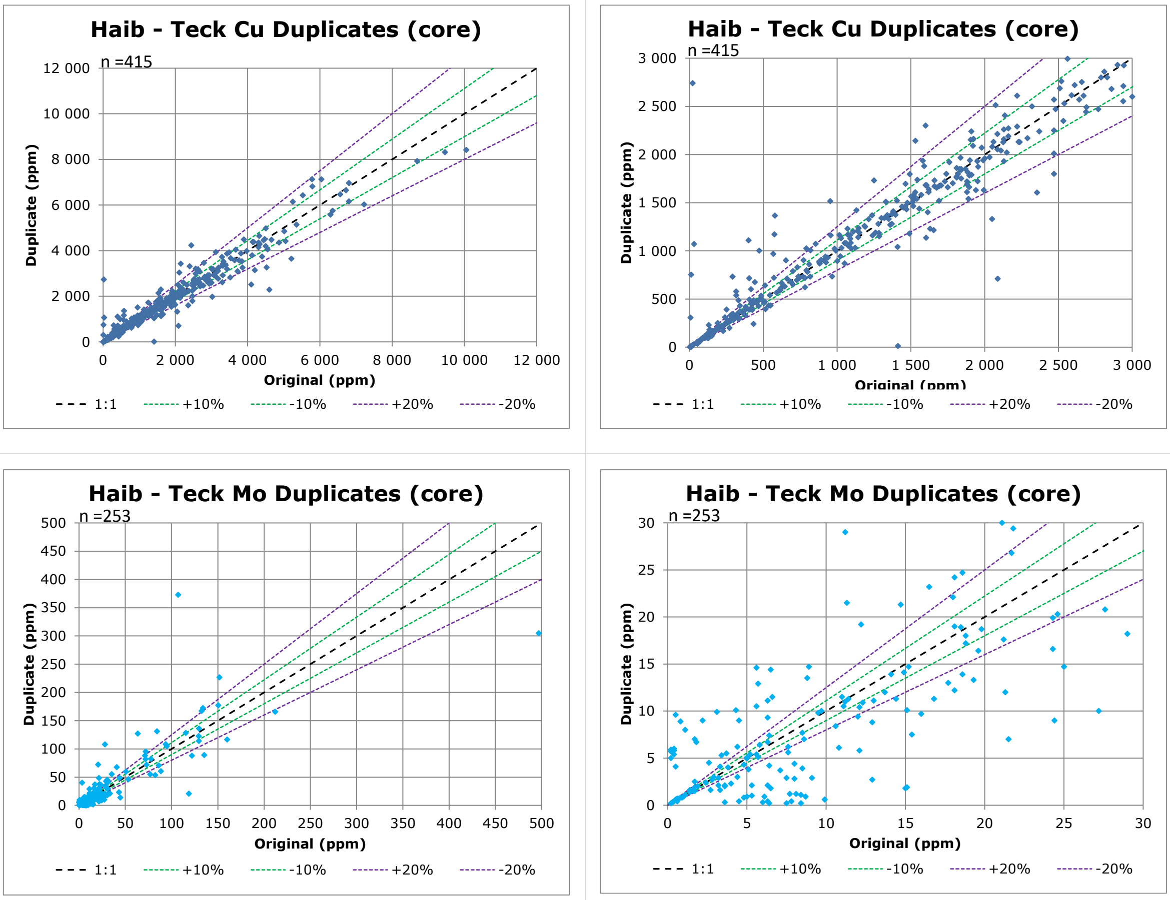
11.3.1.3 *Teck Duplicates*

Quarter core and coarse duplicates were submitted at part of the Teck QAQC programme.

Field Duplicates

Figure 11-4 displays scatterplots of the original verses the duplicate sample for copper and molybdenum (the graphs on the right show the lower grade portion of the distribution). Most core duplicate assay pairs for copper grade plot within the 20% limit lines indicating a reasonable degree of repeatability in the core sampling and assaying process. Repeatability for molybdenum is poor indicating that a quarter core sample is too small for the inherent variability of the mineralisation. There is almost no correlation between the duplicate samples at assays at <10 ppm Mo.

Figure 11-4
Teck quarter core duplicates

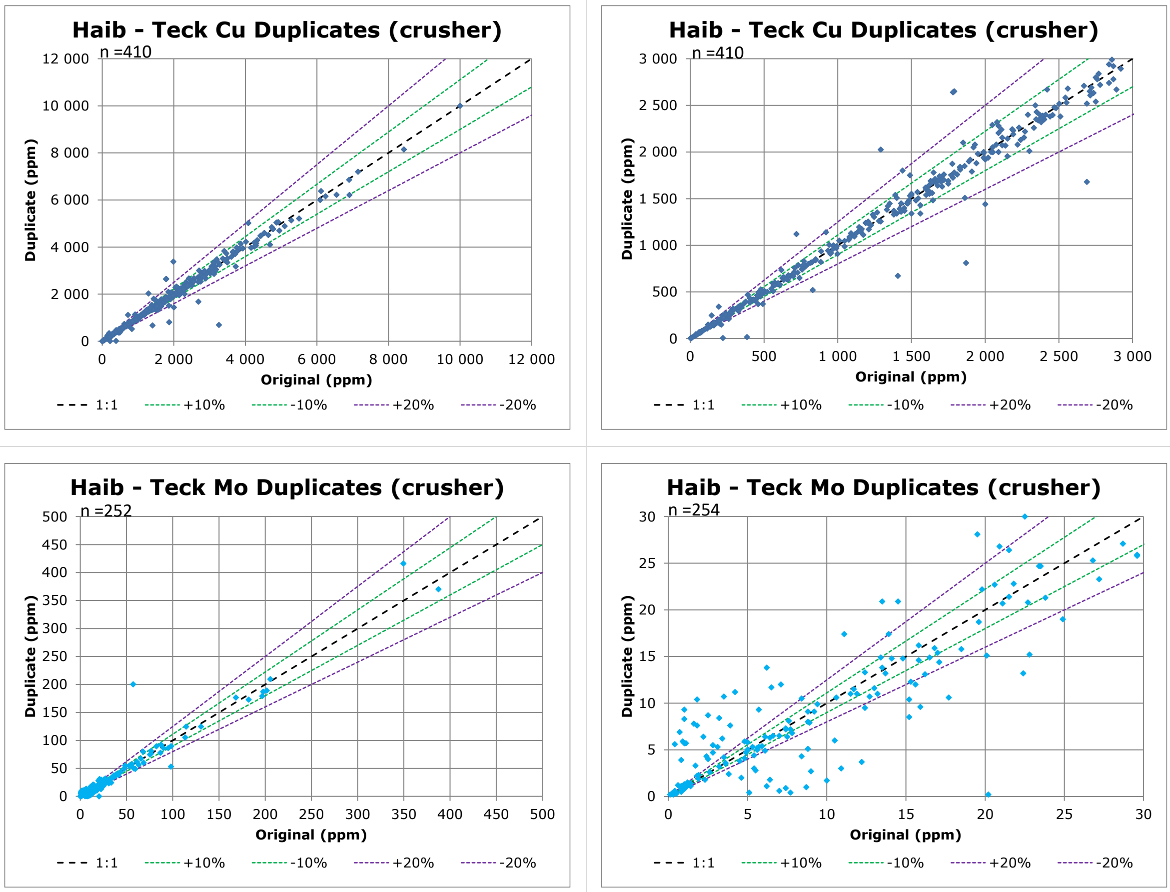


Source: *Compiled by MSA from Koryx data (Compilation of QAQC Data.xlsm)*

Coarse Duplicates

Figure 11-5 displays scatterplots for the coarse duplicates assays. The copper assay results show most samples fall within the 10% limit lines, indicating that the sample was well homogenised after crushing and good repeatability for the pulp sample preparation and assaying procedures. For molybdenum, reasonable correlation is evident at grades of >20 ppm Mo. Similarly to the core duplicates, samples with grades of <10 ppm Mo appear to fall within the "noise range" within which the laboratory is incapable of producing a reliable assay, although the confidence in the sample grade being low (<15 ppm Mo) is reasonably good.

Figure 11-5
Teck coarse crush duplicates



Source: *Compiled by MSA from Koryx data (Compilation of QAQC Data.xlsx)*

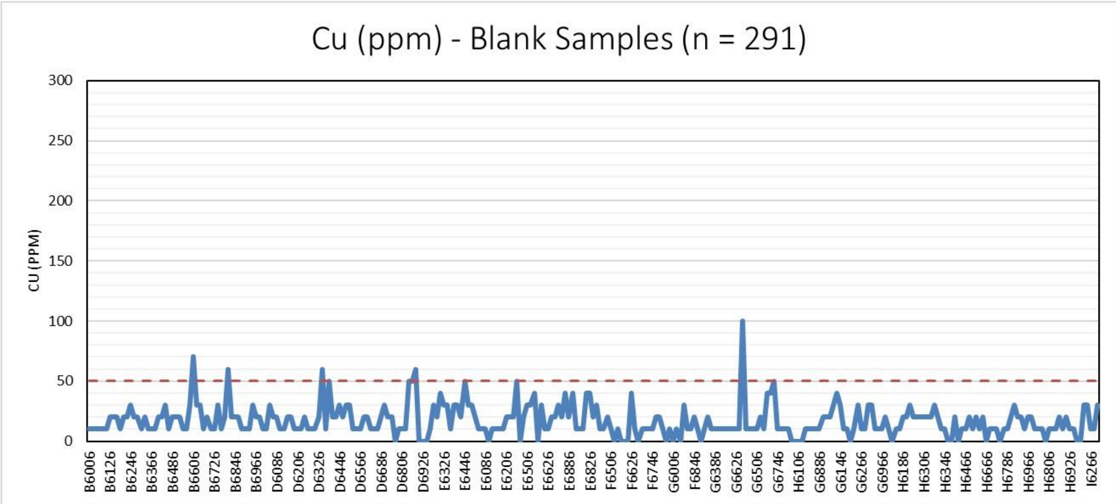
11.3.2 Koryx QAQC

The QAQC programme for the 2021 to 2024 drilling consisted of blank samples, CRM samples and duplicate samples with an insertion rate of approximately one in every twenty samples.

11.3.2.1 Koryx Blanks

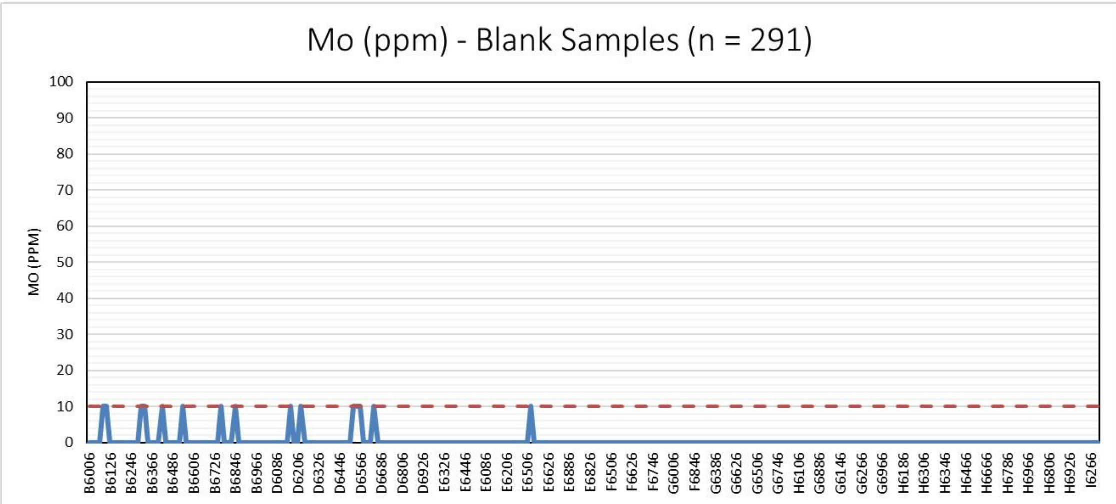
A total of 291 blank samples were inserted sequentially into the sampling stream and underwent the same sample preparation and analysis as the primary samples. MSA checked the results for the blanks using a threshold of five times the lower detection limit (i.e., 50 ppm). No significant levels of contamination were detected for copper, except for one sample (G6426) that returned a grade of 100 ppm Cu (Figure 11-6). The sample was re-assayed and the same results were obtained. The sample is surrounded by two high grade samples (G6425 at 2.69% Cu and G6427 at 1.48% Cu) and some minor contamination may have occurred. All blank samples returned molybdenum assays of zero ppm or 10 ppm, which is the lower limit of detection (Figure 11-7).

Figure 11-6
2021 -2024 Blank control chart for Cu (ppm)



Source: *Koryx, 2024*

Figure 11-7
2021 -2024 Blank control chart for Mo (ppm)



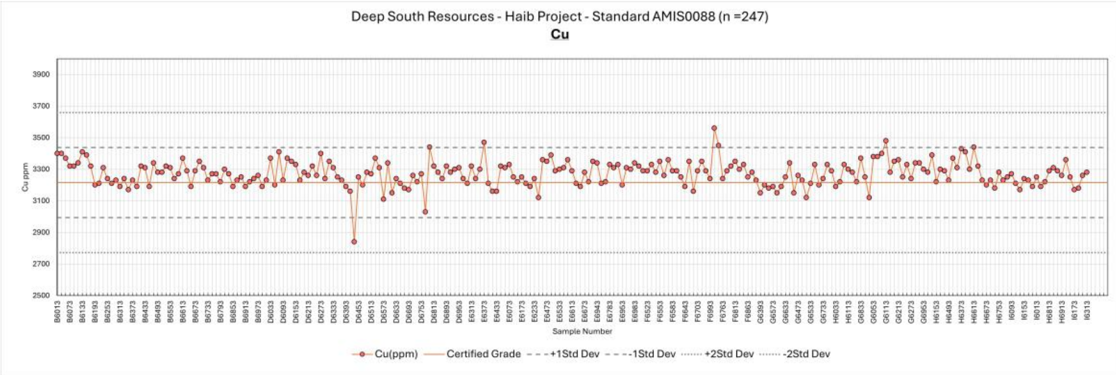
Source: *Koryx, 2024*

11.3.2.2 Koryx Standards

A total of four different CRMs were used for the 2021 to 2024 drilling programme. Commercial standards AMIS0088 and AMIS0695 were used to assess the accuracy of only the copper assays, and AMIS0566 and AMIS0619 were used to assess the accuracy of copper and molybdenum assays. The acceptance criteria was that assays within two standard deviations from the certified mean pass. No failures were noted for either copper of molybdenum.

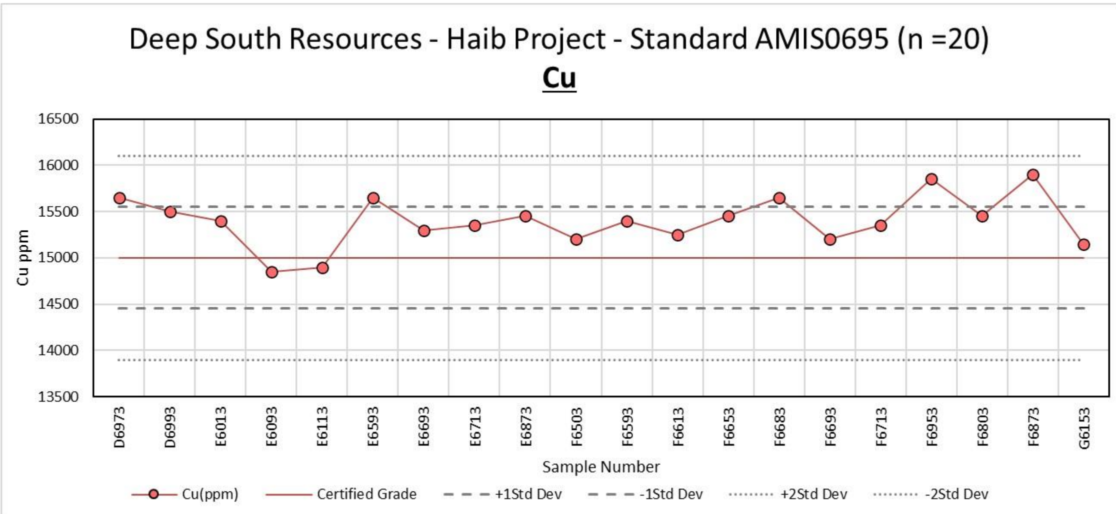
Control charts for Cu and Mo (where applicable) are presented in Figure 11-8, Figure 11-10, Figure 11-11 and Figure 11-9 and a summary of the standard statistics and failure rates are presented in Table 11-2.

Figure 11-8
AMIS0088 control chart for Cu



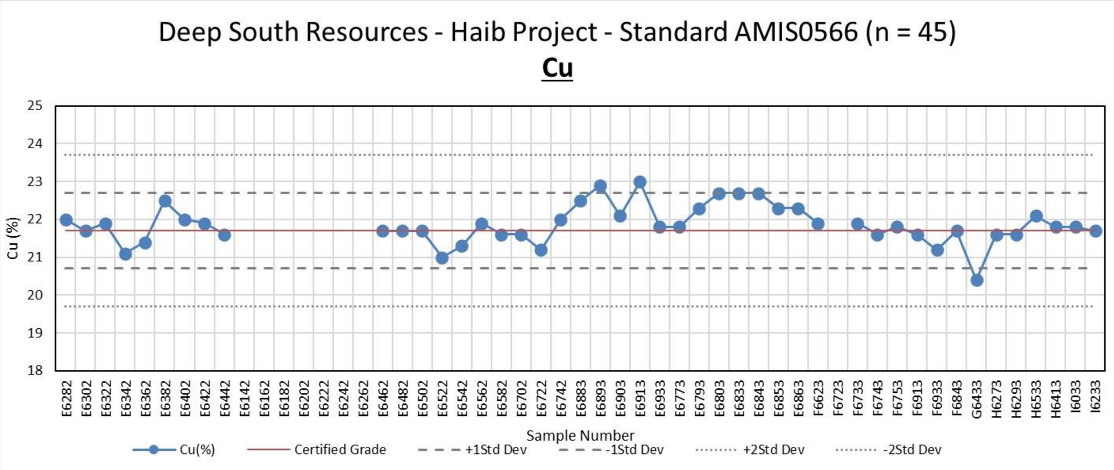
Source: *Koryx, 2024*

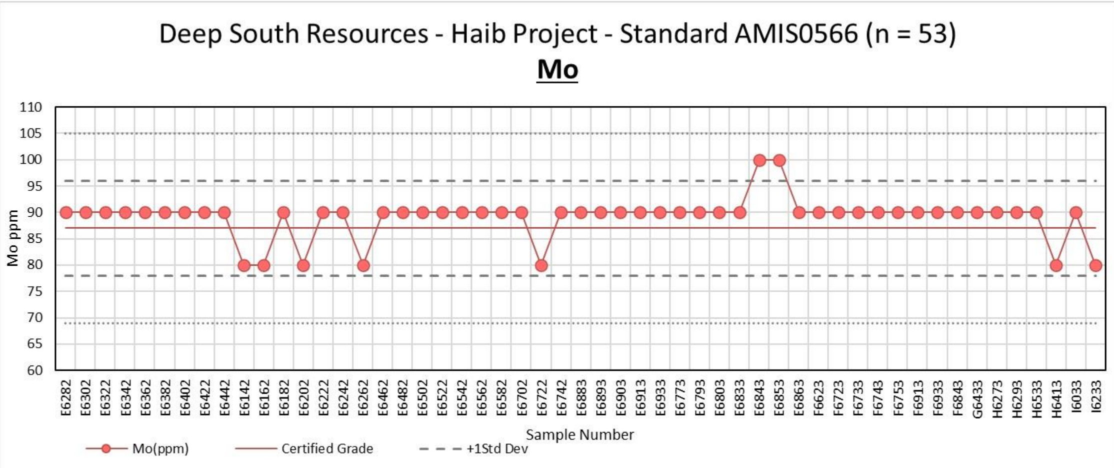
Figure 11-9
AMIS0695 control chart for Cu



Source: *Koryx, 2024*

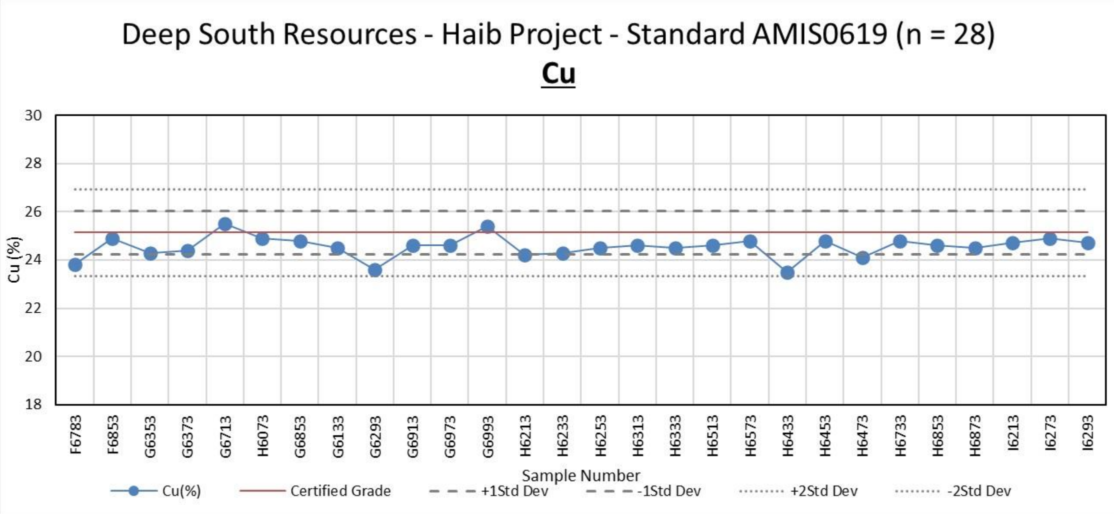
Figure 11-10
AMIS0566 control chart for Cu and Mo

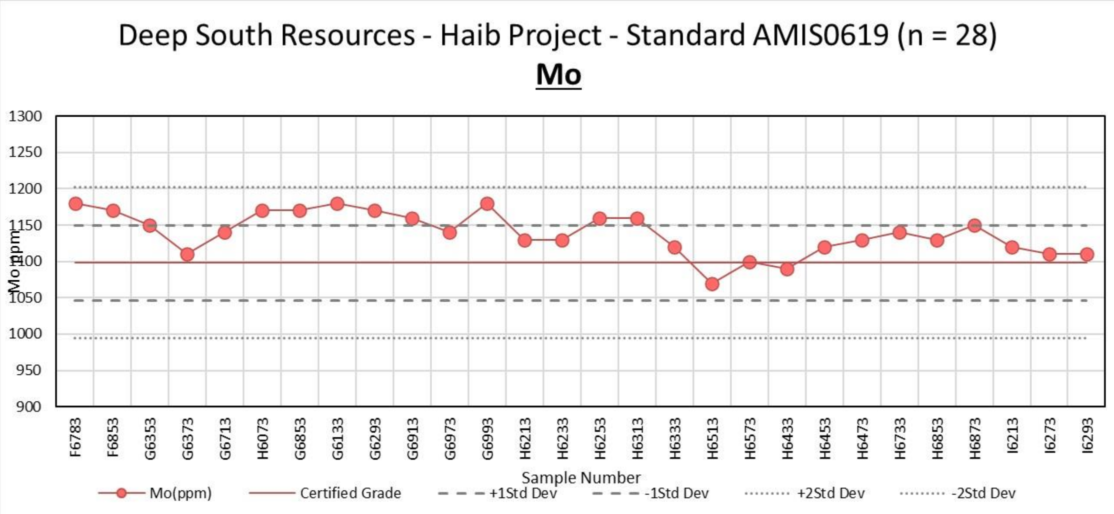




Source: *Koryx, 2024*

Figure 11-11
AMIS0619 control chart for Cu and Mo





Source: *Koryx, 2024*

Table 11-2
CRM summary table

CRM	Number assayed	Certified Value	Assay Average	Bias (%)	% within two standard deviations
			Cu		
AMIS0088 (ppm)	247	3,216	3,273	2%	100%
AMIS0566 (%)	45	21.71	21.86	1%	100%
AMIS0619 (%)	28	25.14	24.55	-2%	100%
AMIS0695 (ppm)	20	15,000	15,395	3%	100%
			Mo		
AMIS0566 (ppm)	53	87	89	2%	100%
AMIS0619 (ppm)	28	1,098	1,139	4%	100%

11.3.2.3 *Koryx Duplicates*

Field Duplicates

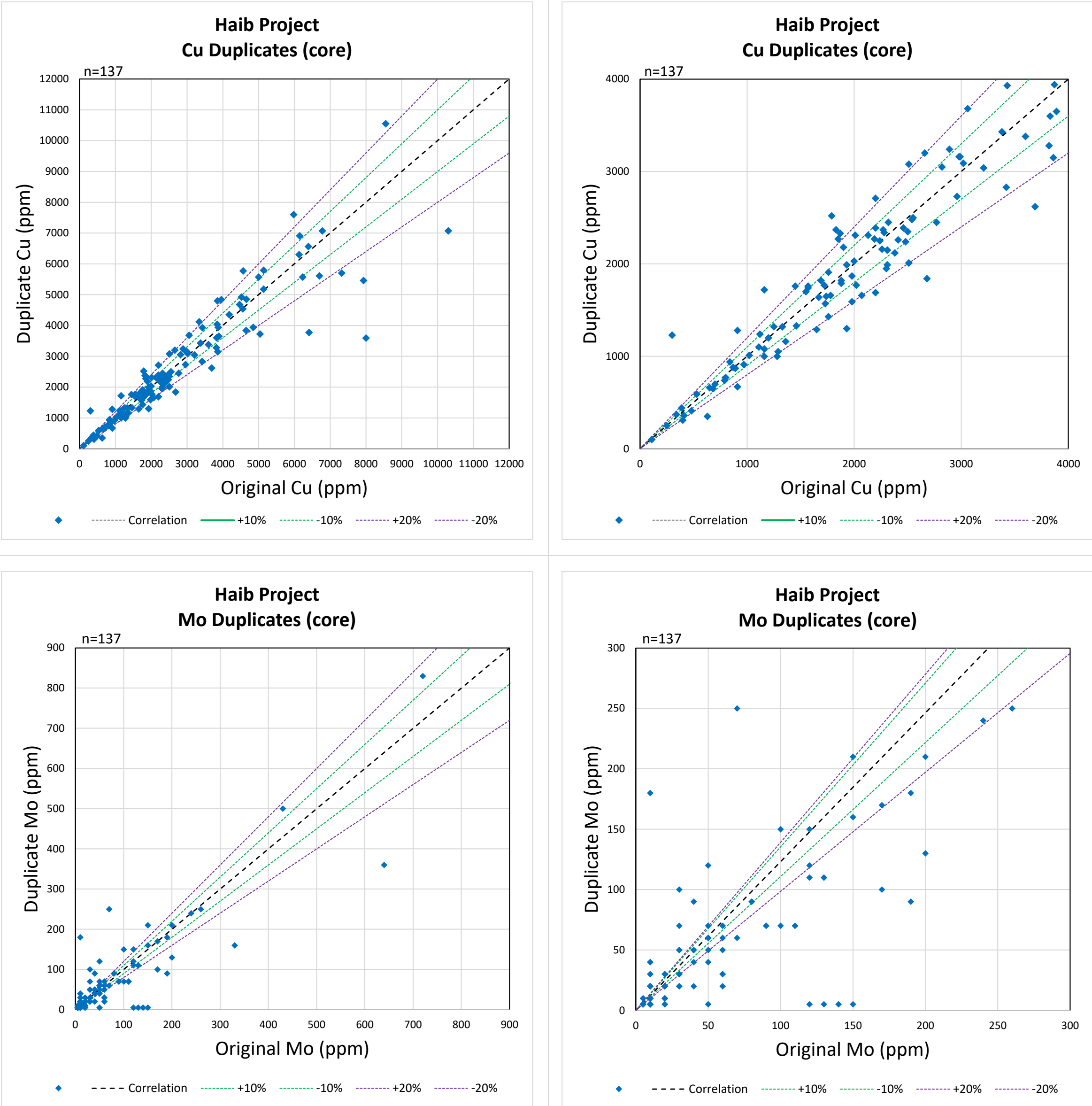
A total of 137 field duplicates (quarter core) were submitted to understand the inherent variability within the core samples. These were taken in the 2021 drilling but were discontinued for the 2023 drilling. The original and duplicate samples were compared statistically and graphically to assess precision. Acceptable precision was demonstrated for field duplicate copper assays with 96% of samples with a half absolute difference (HARD) value of <20%. Molybdenum assays of the field duplicates show poor precision with only 55% of samples with a HARD value of <20%. This indicates that the molybdenum mineralisation is more nuggety than for copper and larger samples are more appropriate than quarter core for the molybdenum mineralisation.

Table 11-3
Summary of quarter core duplicate samples

Variable	Number of Samples	Original Mean (ppm)	Duplicate Mean (ppm)	Percentage Difference	HARD	
					< 10%	< 20%
Cu	137	2,850	2,802	2%	72%	96%
Mo	137	79	64	19%	48%	55%

Scatterplots of the field duplicate pairs for Cu and Mo are shown in Figure 11-12.

Figure 11-12
Scatterplot of Cu and Mo quarter core duplicate assays



Coarse Duplicates

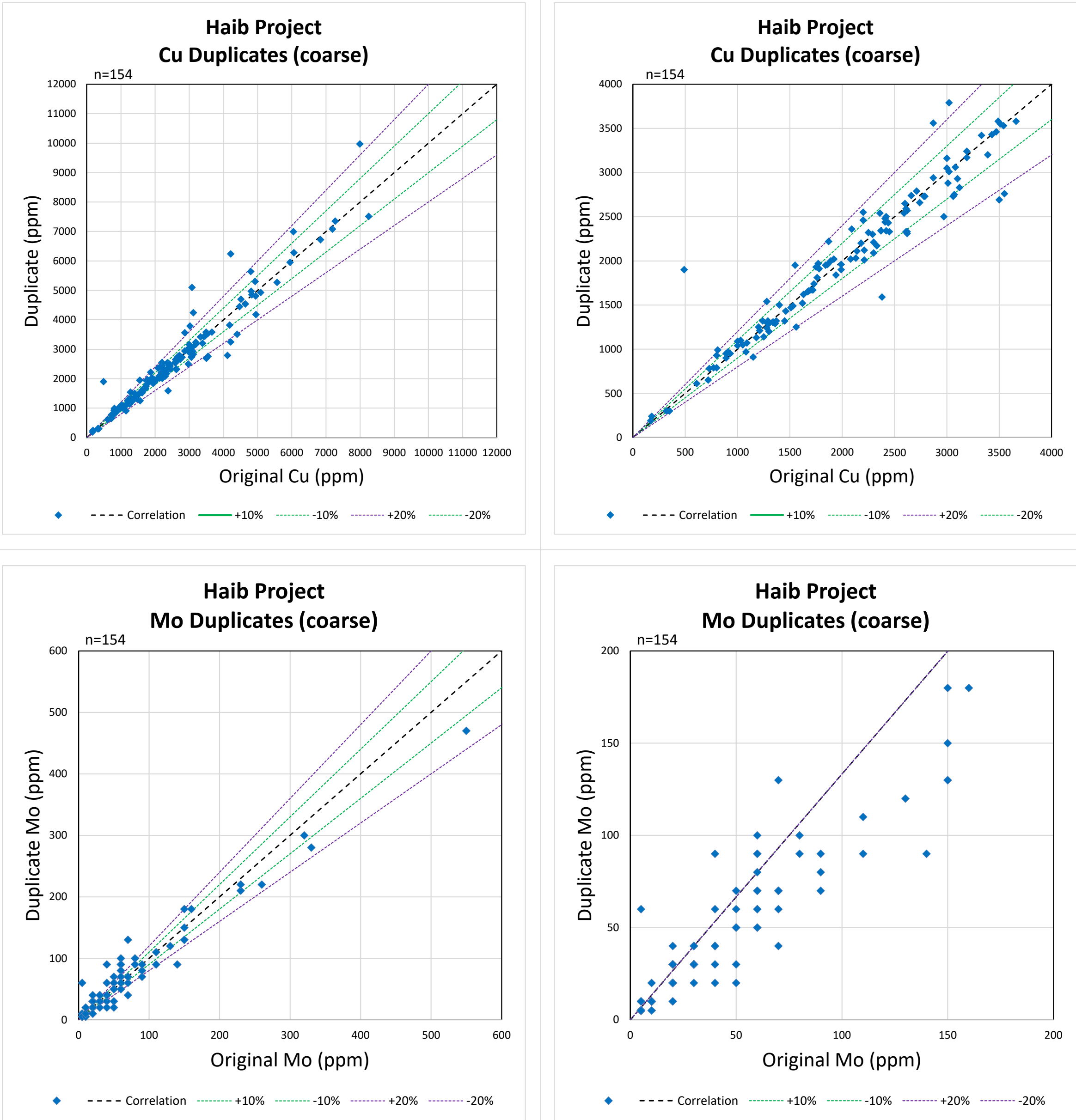
A total of 154 coarse duplicates were submitted to assess the homogeneity of the crushed sample and any error introduced by sub-sampling. The copper assays demonstrate that this process is sound with near to 90% of the duplicates pairs having a HARD value of < 10% (Table 11-4). For the molybdenum assays the precision is poorer, likely due to inherent heterogeneity and the low molybdenum grade of many of the samples.

Table 11-4
Summary of coarse duplicate samples

Variable	Number of Samples	Original Mean (ppm)	Duplicate Mean (ppm)	Percentage Difference	HARD	
					< 10%	< 20%
Cu	154	2,771	2,749	1%	88%	98%
Mo	154	44	44	0%	76%	82%

Scatterplots of the coarse duplicate pairs are shown in Figure 11-13.

Figure 11-13
Scatterplot of Cu and Mo coarse duplicate assays



Pulp Duplicates

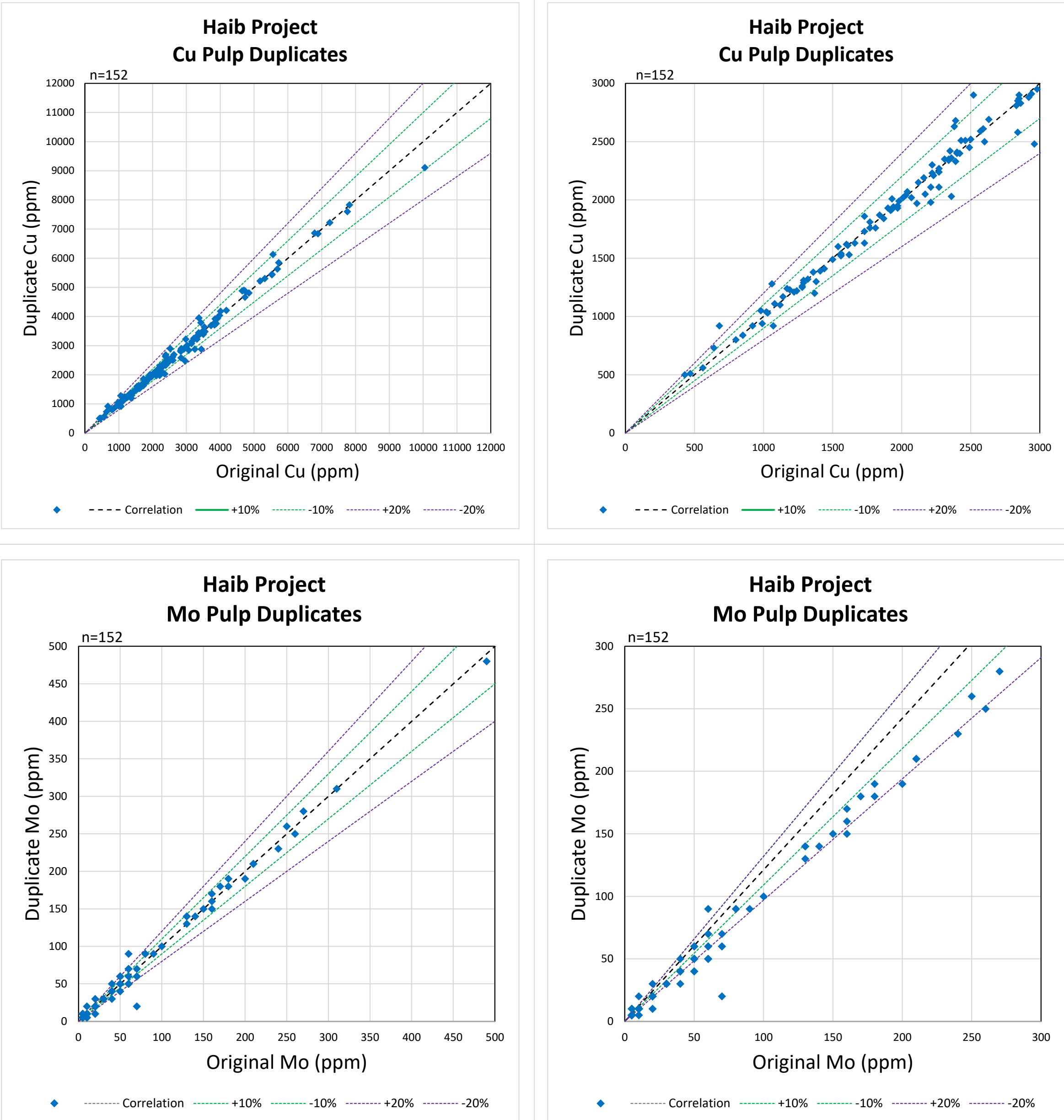
Pulp duplicates samples were inserted at a rate of approximately 1 in every 40 samples (2.5%) in order to assess analytical precision. The results show high analytical precision for copper assays with 99% of the samples with a HARD of <10%. Precision for molybdenum assays is close to acceptable 88% of the duplicate pairs reporting a HARD value of less than 10%. The poorer precision for molybdenum assays is due to the low grade, with many samples having grades close to the noise range of the analytical technique.

Table 11-5
Summary of pulp duplicate samples

Variable	Number of Samples	Original Mean (ppm)	Duplicate Mean (ppm)	Percentage Difference	HARD	
					< 10%	< 20%
Cu	152	2,894	2,882	0%	99%	100%
Mo	152	51	54	-4%	88%	90%

The scatterplots of the pulp duplicate pairs are shown in Figure 11-14.

Figure 11-14
Scatterplot of Cu and Mo pulp duplicate assays



11.4 Adequacy of the Sample Preparation, Security and Analytical Procedures

Routine activities such as aspects of core handling, core marking, core logging, core splitting, bagging, labelling and sample submission are covered by procedures that support the consistent collection of data.

Appropriate security measures including chain-of custody from the drilling rig to the laboratory are in-place.

The results of the QAQC measures in place indicate that the samples were not contaminated, precision within the assaying process is adequate and the laboratory consistently produces accurate assays. The poor precision for molybdenum assays is noted and is largely due to the low concentration of molybdenum in the samples. The quarter core duplicates demonstrate that the sample size is reasonable for the heterogeneity of the copper mineralisation, however larger samples are recommended to cater for the nuggety nature of the molybdenum mineralisation. The poorer precision for molybdenum does not constitute a project risk given the low grade and consequently low value of molybdenum to the project that is largely copper focussed.

It is the QPs opinion that the sample assay results are acceptable for use in a Mineral Resource estimate.

12 DATA VERIFICATION

12.1 Historical Data Verification

MSA completed a data verification exercise to determine if historical data may be considered reliable and be used in this Mineral Resource estimate (MSA, 2023). Only the Koryx and Teck drilling have original records of the drilling data and sample assay QAQC for which an audit trail could be established. Reasonable protocols used for surveying, logging and sampling allowed for comparative method to assess the reliability of the pre-Teck data. A comparison of the RTZ and Teck check samples was completed. A statistical assessment of the data without check samples was also completed

MSA was provided with original assay certificates for the 2021 Koryx drilling and the Teck drilling, which included the check sample data for the RTZ drilling (refer to section 10.1.2). MSA cross-checked several assay results in the Excel database with those in the assay certificates. No transcription errors were found.

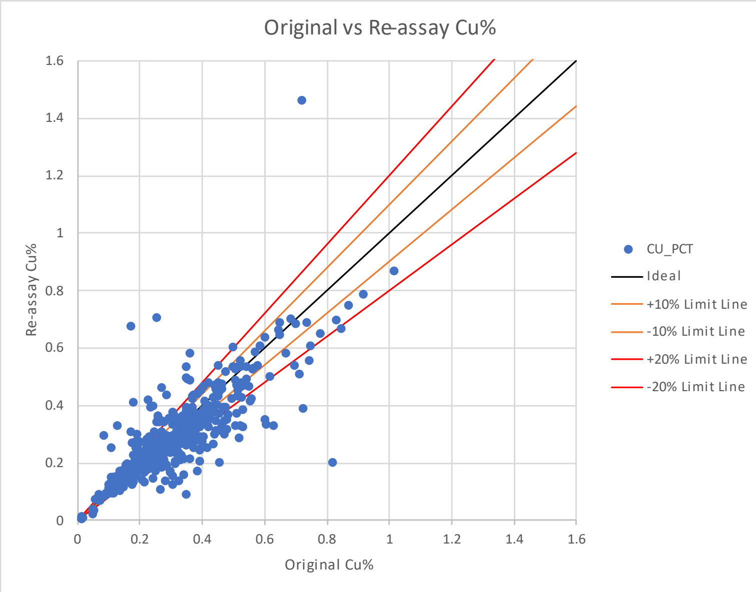
Assay certificates for the NCJV / GFM, King Resources and Falconbridge drillhole sample assays were unavailable for cross-checking and could not be directly verified.

12.1.1 Comparison Between RTZ (original) and Teck (check) Sample Assays

Several Rio Tinto Zinc (RTZ) drillhole cores were resampled by Teck in order to verify the RTZ sample assays. A total of 14 of the RTZ drillholes were resampled, each at 3 m sample intervals for a total of 1,135 duplicate pairs for copper assays and 1134 duplicate pairs for molybdenum assays. MSA composited the assay data to 6 m lengths in order to be able to directly compare the check sample results (3 m sample length) to the original samples (2 m sample length). As the entire hole was not re-sampled, the data was manually manipulated to compare the same depth intervals. The results were assessed using scatterplots, histograms, cumulative frequency distributions, quantile-quantile (QQ) and precision plots.

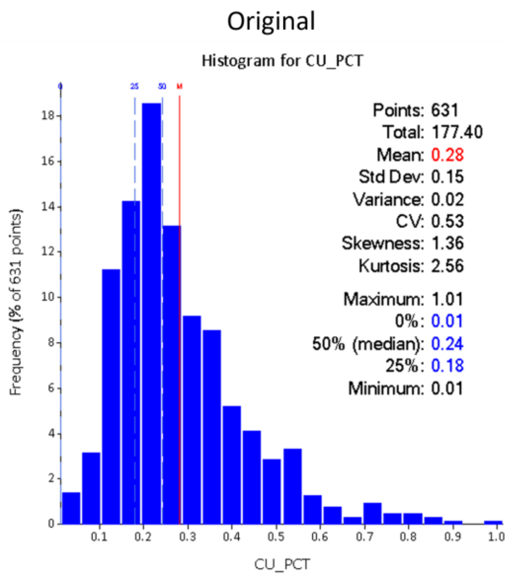
A scatterplot for the original and check sample data is presented in Figure 12-1.

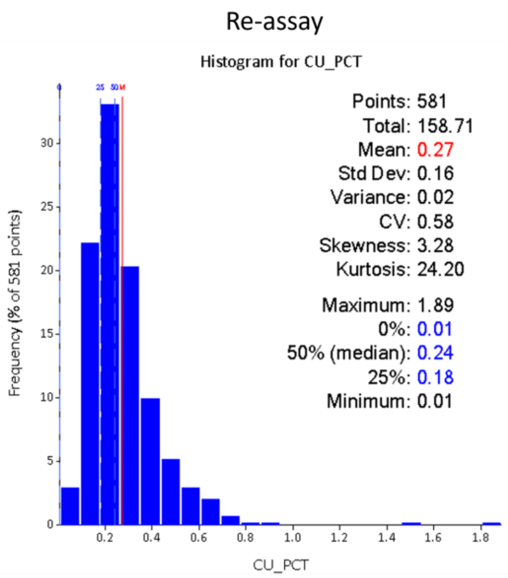
Figure 12-1
Scatterplot comparing RTZ original and Teck check sample results



Histograms and statistical summaries (Figure 12-2) indicate similar distributions for the check and original data. The original data has a mean of 0.28 Cu% and the check sample data has a mean of 0.27 Cu%.

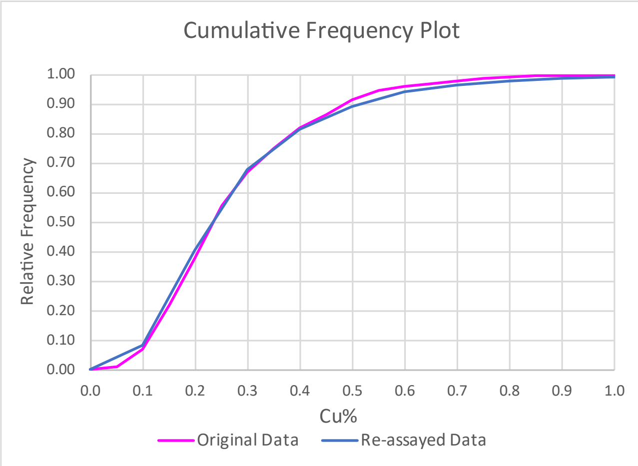
Figure 12-2
Original and check sample histograms and statistical summaries for the 6 m composites





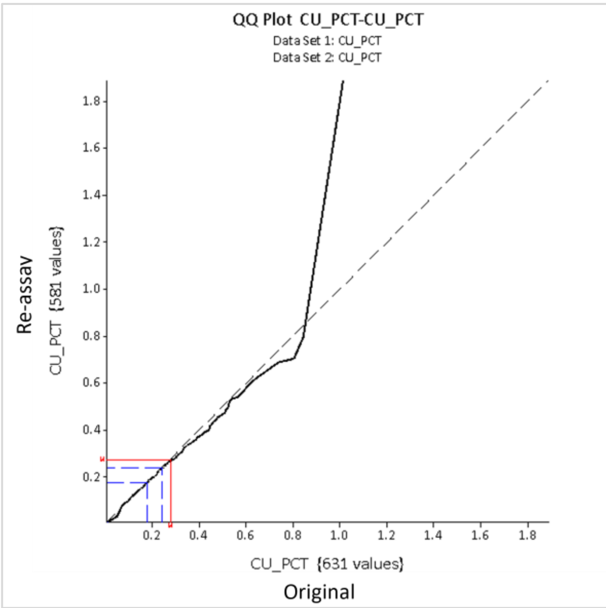
Cumulative frequency plots (Figure 12-3) indicate a good comparison between the original and check sample data. A slight deviation occurs at less than 0.1 % Cu which may be attributed to the lower limits of detection in the check sample data. A bias occurs for the data above 0.4 % Cu where the original data tend to be 0.02 % Cu to 0.03 % Cu higher than the check assays. This is not expected to have an impact on the Mineral Resource estimate.

Figure 12-3
Cumulative frequency distributions of the original RTZ and Teck check sample data



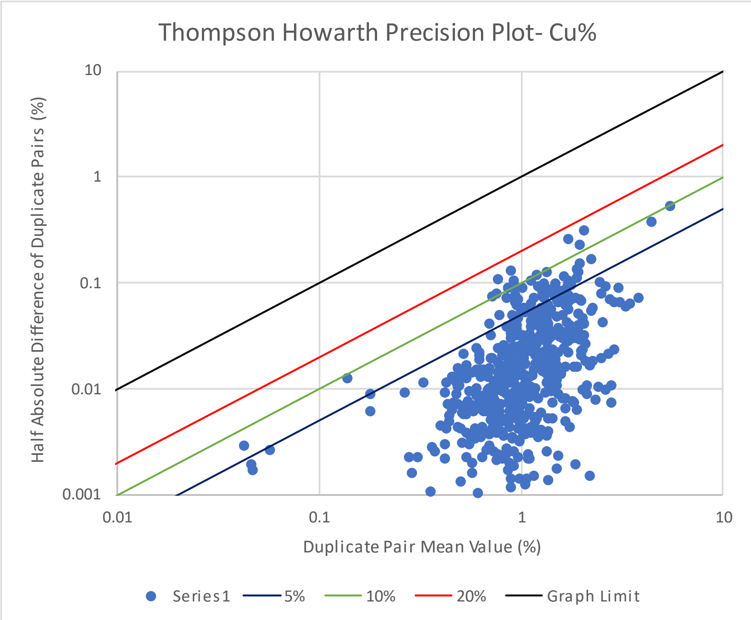
The Q-Q plot (Figure 12-4) confirms a slight high bias in the original data from above 0.3 Cu%. However, this represents only approximately 30% of the resampled data and the magnitude of the bias is too small to have a material impact on the Mineral Resource estimate.

Figure 12-4
Q-Q plot of the original and check sample data



A Thompson Howarth precision plot (Figure 12-5), comparing the original and check sample data shows a high level of precision with 92% of the data with a half absolute relative difference (HARD) of 5% or less. A total of 7% of the data has a HARD value of between 5% and 10%. Only 1% of the data have a HARD value of between 10% and 20% with no pairs with a HARD value of greater than 20%.

Figure 12-5
Thompson Howarth precision plot



12.1.2 Assessment of Historical Data without Check Assays

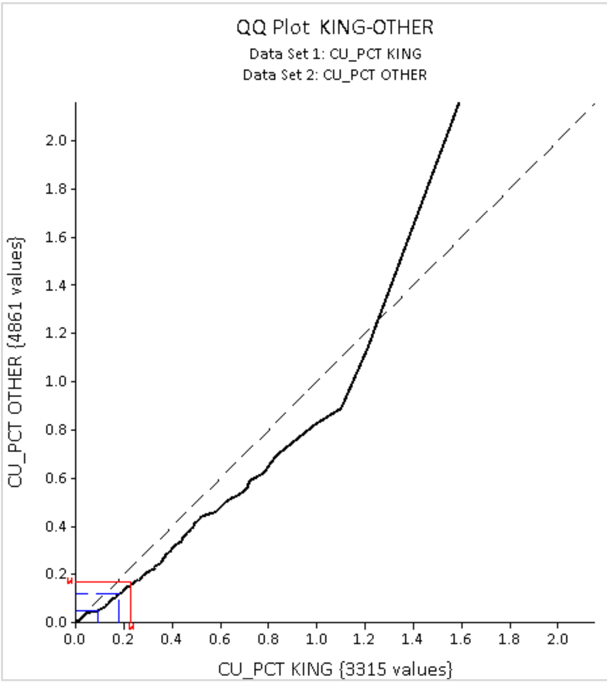
The King Resources, Falconbridge and Great Fitzroy drillholes were not resampled by Teck and therefore could not be directly compared with recent data with appropriate QAQC. Furthermore, no audit trail of the data could be established due to the lack of original records (assay certificates, logs, etc.). Instead, a bias test was carried out by comparing holes from the unvalidated drilling campaign with a subset of the data from the Koryx, Teck or RTZ drilling (other). This was completed by selecting the nearest Koryx, Teck or RTZ drillhole (or portion of) to each of the drillholes from the campaign being assessed. The results were compared statistically and by QQ plots (Figure 12-6, Figure 12-7 and Figure 12-8 and Table 12-1).

Table 12-1
Comparison of copper grade for nearest data pairs

Campaign	Data Set	N	Min	Max	Mean	Std Dev	CV
King Resources	King Resources Data	3,315	0.00	1.59	0.23	0.21	0.90
	Validation Sub-set	4,861	0.00	2.16	0.17	0.19	1.09
Falconbridge	Falconbridge Data	783	0.03	3.23	0.31	0.26	0.82
	Validation Sub-set	844	0.01	2.16	0.20	0.22	1.06
Great Fitzroy Mines	Great Fitzroy Mines Data	4,404	0.00	2.40	0.28	0.22	0.78
	Validation Sub-set	3,867	0.00	1.81	0.26	0.24	0.92

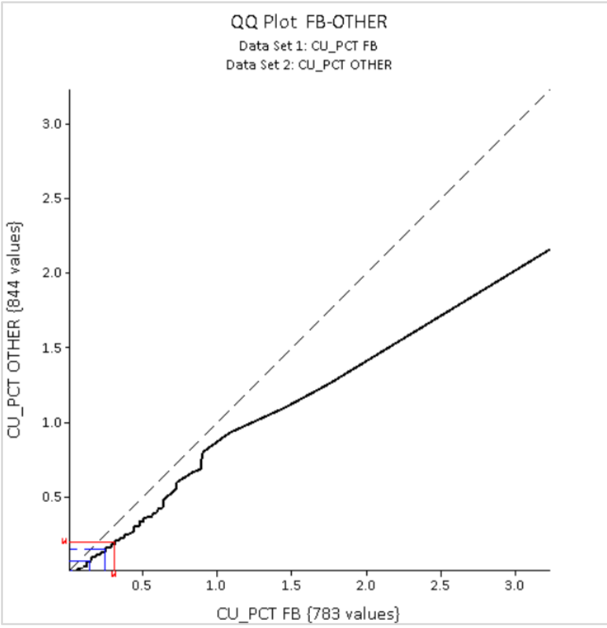
The QQ plot of the King resources drilling (Figure 12-6) shows a consistent high bias relative to assays of the validated data. The mean grade is approximately 35% higher than the validation data. It is expected that this will impact on the Mineral Resource estimation and, as the King Resources data could not be validated by any other means, it will not be used for grade estimation but may have a use in indicating the presence of mineralisation and trends.

Figure 12-6
King Resources Q-Q plot



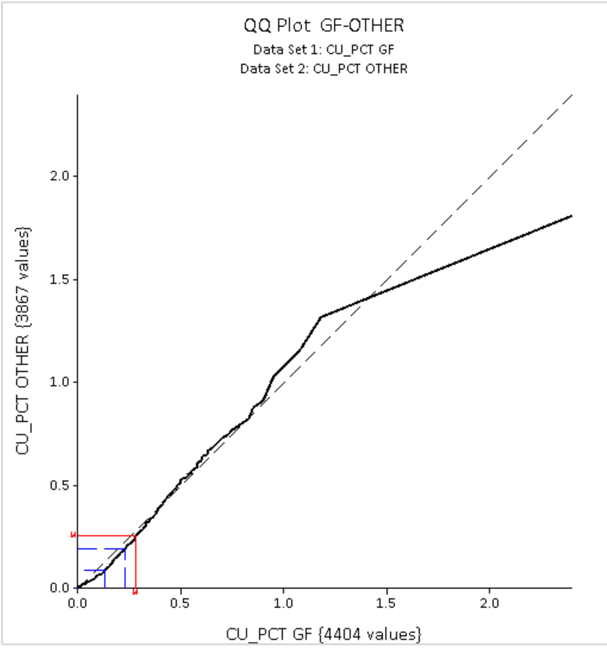
The QQ plot of the Falconbridge drilling (Figure 12-7) shows a high bias relative to assays of the validated data and the means of the two data sets are significantly different. It is expected that this will impact on the Mineral Resource estimation and, as the Falconbridge data could not be validated by any other means, it will not be used for grade estimation but may have a use in indicating the presence of mineralisation and trends.

Figure 12-7
Falconbridge Q-Q plot



The Great Fitzroy Mines assays (Figure 12-8) show good correlation with the validation data set. Although the lower grades tend to be biased slightly high relative to the validation set, the higher grades show the opposite pattern. Given that the mean grades are within 0.02% of one another, MSA considers that the Great Fitzroy Mines assay data may be used for Mineral Resource estimation. Any potential biases would only have a slight impact on the estimate as there is good support from surrounding validated holes.

Figure 12-8
Great Fitzroy Mines Q-Q plot



12.2 Site Visit Verification

The Haib project was visited by Jeremy Witley (the Qualified Person for the Mineral Resource) from 18 May to 20 May 2021 and 11 to 14 March 2024. Cores from the following holes were inspected in order to visually verify the mineralisation and compare the magnitude of the observed mineralisation with that shown by the sample assays:

- 2021
  - HM02, HM06, TCDH026, TCDH029, TCDH030, TCDH031 with assays.
  - HM10, HM13, HM27, HM26, HM29 did not have assays available at the time of the site visit.
- 2022
  - HM06 (again), HM10 (again), HM15R, HM16, HM17, HM21, HM22, HM38, with assays.
  - HM09, HM32, HM42 did not have assays available at the time of the site visit.

The magnitude of the expected grade from core observations was consistent with the assay results.

A selection of both recent and historical drillhole collars were observed in the field and verified by comparing the collar survey with handheld GPS readings.

- 2021
  - HM01, HM05, HM13, HM26, HM27, HM29, HM31R, TCDH31.

- o Sited but not drilled as at the time of the site inspection: HM02, HM03, HM04, HM08, HM11, HM14, HM18 to HM23.
- 2024
  - o GFMHB4, GFMHB6, GFMHB7, GFMHB8, HB4, HB8, HB7, TCDH21, TCDH26, HM09, HM17, HM18, HM19, HM24, HM34, HM41, HM42, & H02.

During the 2024 site visit, the QP witnessed visibly high-grade core intervals of copper and molybdenum being drilled and removed from HM09 (Figure 12-9).

Figure 12-9
Drilled mineralisation from HM09 witnessed at the drillsite (~30 m depth)

A: Coarse grained chalcopyrite	**B: Fine graned disseminated molybdenite**
	

Source: *A & B – J. Witley 2024*

The QP found no issues with the collar survey data.

Koryx competed extensive field verification of the historical collars using a handheld GPS. Some of the historical holes were difficult to locate in the field as they were not well marked or had since been covered, however most of the collars were located. In general the X and Y coordinates compared closely with the handheld GPS check survey, however discrepancies with the Z coordinate (elevation) was noted for some holes. The LiDAR survey was used as a check on the elevation and, where necessary, the historical drillhole coordinates were adjusted to fit the LiDAR survey elevation.

12.3 Opinion of the QP on the Data Verification

The drilling data comprises several phases of drilling by different companies:

- The assays from Koryx pass the relevant QAQC tests and all records and residual sample materials were available for inspection by the QP. The QP verified the magnitude of the mineralisation in a representative number of Koryx drillholes and located the positions of the collars in the field. The QP considers that the Koryx data can be used with high confidence.
- Original assay certificates and a QAQC reports for the Teck drilling are available. Assay results from the Teck drilling are valid. The QP verified the magnitude of the mineralisation in a representative number of Teck drillholes and located the positions of the collars in the field. The QP considers that Teck data can be used with high confidence.
- Neither historical records nor residual sample materials are available for the RTZ drilling, nor are any QAQC results available. A portion of the RTZ core was resampled by Teck for which the results demonstrate that the data are overall unbiased and can be used with a reasonable amount of confidence.
- Neither historical records nor residual sample materials are available for the Great Fitzroy Mines drilling. The copper assays compare well with the validated data and therefore MSA considers that these data can be used for grade estimation with a moderate level confidence.
- Neither historical records nor residual sample materials are available for the Falconbridge or King drilling. The copper assays do not compare well with the validated data and therefore MSA considers that these data should be limited to providing information of the presence and trend of mineralisation rather than for grade estimation.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Previous test work programmes and reviews of the Haib Project identified the two potential options:

- Beneficiation of the mineralized material by dense media separation to reduce the amount of material to be milled for concentration by flotation; and
- Bioleaching of the mineralized material / rejects stream using BioHeap technology, removing the need for concentrating of the mineralized material and subsequent roasting, leaching and electrowinning.

For either of these options to be successful, two key issues need to be addressed. Firstly, most of the resource is contained in disseminated, fine-grained chalcopyrite that is distributed throughout the entire mineralised body. Due to this, there are problems with the difficulty and cost associated with grinding the granite host rock to liberate the copper minerals. Processes such as beneficiation and leaching, however, are generally more efficient when working with smaller particles. Therefore, it must be determined what proportion of the mineralised material can be put through crushing, and to what particle size, and how much material of a certain grade recovered from beneficiation is to be milled for flotation for the operation to remain economical.

Secondly, the intensity of the chalcopyrite mineralisation varies across the deposit. The consequence of this is that a finely tuned beneficiation or leaching procedure may not be applicable to the processing of the entire resource. If it was practical and economic to separate the areas of differing-intensity mineralisation before processing each, this would not be a concern. If not, attention would need to be paid to the characteristics of the host rock for each area, and a process designed for each accordingly.

Multiple Studies and test work have been completed on this deposit over a number of years with extensive studies into the mineralogy that dates back to 1975 when Rio Tinto explored the deposit. There have been previous reports issued by the QP, Damian Connely of METS, on the Haib project with the results of the report outlined below.

METS and Mintek of South Africa have undertaken a metallurgical test work program (2019/2020) to further investigate and assess the treatment response of the Haib mineralised material to different technologies such as mineralized material sorting and heap leaching. The test work has showed positive results from the column bacterial leaching tests achieving a maximum copper recovery over 82.2%.

13.2 Mineralogy

The Haib Copper Deposit is a large sulphide mineralised body. Copper is mainly present as a sulphide in the form of chalcopyrite. Copper is also present as oxides (chrysocolla, plancheite, malachite and azurite), occurring as intrusions in shear zones. Initial test work results showed that the Haib mineralisation is a competent quartz feldspar porphyry rock. It can be seen that the main mineralized material component is copper with only an accessory amount of molybdenum present.

The chalcopyrite also occurs as occasional coarse irregular grains from 0.1 mm to 0.35 mm. It is clear that fine grinding will be required to liberate much of the chalcopyrite.

13.3 Previous Test Work

13.3.1 Comminution

Prior test work has been conducted to determine the characteristics of the mineralized material and its amenability to crushing. Table 13-1 shows the results from a comminution program from Minproc. The data indicates that this is a hard mineralized material that will require large amounts of energy to crush and grind. High pressure grinding rolls (HPGR) on the other hand requires far less energy than conventional grinding.

Table 13-1
Comminution Data

Item	Details	Metric
Head Grade		0.31% Cu
Specific Gravity		2.7
Ore Density	Mass Calculation	1.8 t/m^3
	Volume Calculation	1.65 t/m^3
Crushing Work Index	QFP	21.5 kWh/t
	FP	24.0 kWh/t
	Design	22.3 kWh/t
Unconfined Compressive Strength (UCS)	Design	150 Mpa
Abrasion Index (Ai)		0.485
Angle of Repose		36°
Angle of Reclaim		55°
Ball Mill Work Index (Bwi)	QFP	16.8 kWh/t
	FP	20.3 kWh/t
	Design	18.0 kWh/t
Rod Mill Work Index (Rwi)	QFP	19.8 kWh/t
	FP	25.1 kWh/t
	Design	21.6 kWh/t

Source: *METS Engineering, 2024*

13.3.2 BioHeap Leach

BioHeap™ is a heap leach technology, which it is claimed is able to treat chalcopyrite ores through careful selection of bacteria that attack chalcopyrite preferentially to pyrite. This avoids the build-up of elemental sulphur, a common problem with chemical-based leaching, as it brings about passivation of the mineral surface. Preventing this improves leach kinetics, which is a major advantage of the BioHeap™ process.

Preliminary test work showed that the Haib mineralized material became more susceptible to leaching as the particle size was decreased, and that the actual leaching of copper in preference to iron by the bacteria was very successful. A bacterial leach study by the University of Witwatersrand has been conducted which extrapolates short term results to infer long term. A constant diffusion coefficient is used which doesn't account for passivation layer build-up. The information suggests:

- Copper recoveries are better for smaller mineralized material sizes and worst for larger fractions (i.e., smaller particles have better leaching kinetics)
- Iron concentration was stabilised at 6.5 to 8.5 g/L of Fe(III), periodically removing by sulphuric acid yielded copper extraction increasing by 15%
- Temperature of the column was 30°C but rose to 40°C over 2 weeks
- Magnesium and aluminium build-up were six times faster than copper.

This study suggested that high copper extractions can be achieved in column leaching conditions; however, the method of extrapolating the data may be open to criticism.

Additionally, AMMTEC conducted test work on bacterial oxidation; they conducted bacterial testing on a 100% passing 32 mm crush size. The test work conducted was a single bacteria oxidation test that used a chalcopyrite specific bacteria culture. A 1% w/v milled material to bacteria culture was used and maintained at a pH of 1.8. The results concluded that the mineralised material was amenable to bacterial oxidation and gave high oxidation (95.2%) of copper.

In 2003, heap bacterial leaching test work was performed by Mintek to establish the agglomeration requirements for different crush sizes and to assess the amenability of Haib oxide and sulphide material to heap bioleaching. Mintek's bacterial cultures were used and the columns were operated at a temperature range of 28°C to 30°C for oxide s and 20°C to 70°C for sulphides. This test work programme showed that heap bioleaching can achieve good copper extraction for both oxide and sulphide mineralised materials. The key findings from this test work programme are as follows:

- Oxide heap leaching
    - These tests indicated that the smaller the leached particles and the more acidic the conditions, the higher the copper extraction obtained. The highest extractions were obtained for finer crush sizes.
    - Acid requirements were in the order of 1.4 to 3.1 kg acid/kg copper.
    - The sample material was found to agglomerate relatively easily with acid concentration of around 5 g/L, and higher.
- Sulphide heap bioleaching
    - The tests on the milled samples confirmed particle size and temperature as the primary leach parameters for the Haib sulphide sample.
    - The copper leach kinetics improved with increasing temperature and reduced crush size. High redox potential was also required to maximise copper leach kinetics.
    - The sulphide material is difficult to agglomerate.
    - The best copper extraction was obtained for a crush size of 6 mm and a temperature of 65°C which yielded a copper extraction of 80% after 200 days.

13.3.3 Metallurgical Studies and Process Optimisation

A previous report issued by METS in March 2006, presented and discussed alternative processing options to the conventional roasting for extracting copper from chalcopyrite.

The processing options it was proposed be investigated and tested were:

- Heap leaching by a bacterial-assisted leach technology; and
- Production of a concentrate after beneficiation.

Options for processing a concentrate on site were also examined. A preliminary evaluation of the various processes found that the most attractive options were Intec®, Total POX, Geocoat and Activox®. It was considered that the return per tonne of material treated by any of those routes needed to be increased via beneficiation and flotation to be viable at any scale.

Process options for recovering magnesium and aluminium from leach solutions were presented, as these elements were found to leach in the biological leaching. It was determined that these metals were not able to be extracted economically.

It was recommended that metallurgical test work be carried out to determine the applicability of bacterial leaching technology and of concentrate production using beneficiation and flotation. This was to be done in a number of phases at the laboratory scale and the pilot plant scale.

13.4 2019 / 2020 Metallurgical Test work

METS have undertaken a metallurgical test work programme (2019 / 2020), which is centred on heap bioleaching of the low-grade Haib copper sulphide mineralised material. The objectives of this test work programme are to optimise process parameters and assess process viability especially mineralized material sorting. Some of the key findings from the test work results are summarised below:

- The mineralized material sorting test work showed that nearly half of the mass treated was ejected producing a higher-grade concentrate and achieved an overall copper grade of 1.36% which corresponds to an upgrade factor of 1.73. Although the mineralized material sorting results showed positive results for low-grade Haib mineralised material beneficiation, the loss of copper (~30%) to the tails and additional CAPEX and OPEX of mineralized material sorting suggest that mineralized material sorting is not the preferred route for processing the low-grade Haib mineralised material. Crushing and heap leaching of the mineralised material will provide a higher overall copper recovery than mineralized material sorting followed by heap leaching.
- The HPGR optimisation test work were performed at 30 bar, 60 bar and 90 bar. The results suggested that 60 bar is the optimum pressure.
- The net acid consumption was estimated to be 11 kg/t for a pH of 1.5 and 10 kg/t for a pH of 2. The total acid consumption was calculated to be 11.5 kg/t for a pH of 1.5 and
- 10.5 kg/t for a pH of 2.

- The mineralised material agglomerated without any issues as opposed to the 2003 Mintek test work indicating that the leaching solution will be able to percolate through the heap easily and hence maximise copper dissolution.
- The batch agitated leach tests showed that bacterial leaching is a viable option and achieved good copper recovery. The batch chloride leaching which showed very poor results suggested that it is not suitable for processing the Haib mineralised material.
- The geomechanical stacking test results suggested that a 6 m stacking height can be accommodated for percolation leaching for crush sizes: -2.36 mm, -3.35 mm and -4.75 mm.
- The column leach tests have shown very promising results, achieving copper recoveries ranging from 75% to 82.2% which suggest that bacterial leaching is suitable for processing the low-grade Haib mineralised material. Additional test work will be required to confirm the results and optimise the process parameters.
- In columns, the acid generation from bacterial leaching of the pyrite resulted in a continual decrease of pH. The pH will need to be adjusted to around pH 2 for solvent extraction. Some neutralisation will be required. Column leaching with continuous recycling is required to assess the actual acid requirement which is expected to be very low.
- The iron removal tests showed that an iron removal efficiency of 99% was achieved at a pH of 4 without loss of copper to the precipitate. This suggests that the pH of 4 is the optimal condition for the iron removal process.

It is important to note that the proposed flowsheet was not possible twenty years ago when the project was discovered. Firstly, HPGR was not developed to the state where it is today allowing fine crushing. Secondly chalcopyrite could not be leached. Work over the last ten years has perfected strains that can survive at higher temperatures where the chalcopyrite will not passivate and leaches over time. Mintek has been a global leader in this area of bacterial leaching.

14 MINERAL RESOURCE ESTIMATION

14.1 Introduction

The Mineral Resource Estimate was prepared by Mr Richard Nicholls (MAusIMM(CP), CEng, FIMMM,) who is a Principal Mineral Resource Geologist for MSA Mining Consulting UK Ltd. The work has been reviewed and accepted by the Qualified Person for the Mineral Resource Mr Jeremy Witley who is Head of Mineral Resources for The MSA Group, is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a Fellow of the Geological Society of South Africa (GSSA).

The following criteria have been considered while undertaking the Mineral Resource Estimate (MRE):

- Data quantity - specifically sample data spacing
- Data quality in terms of methodologies followed, recoveries, precision and accuracy and QAQC procedures
- Database compilation
- Assessment of core recovery
- Survey and topographic data
- Density data
- Database creation
- 3D modelled boundaries of the geology and geological domains
- Confidence in geological interpretation and continuity and mineralisation/grade continuity
- Data conditioning (compositing and capping) for geostatistical analysis and variography
- Block modelling and grade estimation, assigning of bulk density
- Block model validation
- Assessment of "reasonable prospects for economic extraction" (RPEEE) and selection of appropriate cut-off grades for an open pit scenario
- Preparation of the Mineral Resource table and grade-tonnage graphs.

14.2 Mineral Resource Estimation Database

The database provided to MSA as at 21 June 2024 includes tables of drillhole collar coordinates, downhole surveys, copper and molybdenum grade, lithology, alteration, weathering, core recovery and dry in-situ bulk density (Table 14-1). The dataset comprises information from diamond drillholes and one underground adit (Table 14-2). The location of the drilling and adit channel sample are illustrated by type and by exploration period in Figure 14-1 and Figure 14-2, respectively.

Table 14-1 Haib database files	
Project	**Files Received**
Haib	Historical Drilling Database - Full Export 21 June 2024.xlsx
	Koryx Drilling Database - Full Export 21 June 2024.xlsx
	Haib_DGPS_Final Data_May_2024.xlsx

Table 14-2 summarises the sample database as at 21 June 2024.

Table 14-2
Summary of Haib drillhole and channel sample database by type and year as at 21 June 2024

Type	Company	Year	Quantity	Metres
DD (Surface Diamond Drillhole)	Falconbridge	1963-1964	11	1,011
	King Resources	1968-1969	21	3,476
	RTZ	1972-1975	121	45,994
	Great Fitzroy Mines	1995-1999	15	4,728
	Teck	2010	32	14,253
	Koryx	2021	21	4,380
		2023	1	344
		2024	25	4,747
Subtotal Diamond Drillholes		**All**	**247**	**78,934**
UGCH (Underground Channels)	Great Fitzroy Mines	1995-1997	1	126
Total			**248**	**79,060**

14.2.1 Data Spacing

With the exception of the single underground adit, the Haib database is comprised of exploration diamond drilling dating from 1963, with the largest metreage completed during the period 1972-1975. The diamond drilling was carried out from surface. For the period 1963-1999, drilling was almost entirely vertical and relatively regularly spaced at approximately 150 m along and across the NW-SE strike of the deposit. Drilling from 2010 onwards is more irregularly spaced and of variable orientation, the latter ranging from vertical to southeast- and southwest-dipping. The overall base of drilling, defined mostly by the 1972-1975 drilling, is between approximately 75 m and 80 m in elevation. Drilling length ranges from 18 m to 843 m and averages 320 m.

The vertical drilling is more appropriate for the shallowly dipping Southeast zone whereas the drilling orientated in a northeasterly direction is better suited to defining the lithological and grade boundaries in the relatively steeply dipping Northwest zone.

Figure 14-1
Plan view illustrating distribution of drilling and underground channel by type

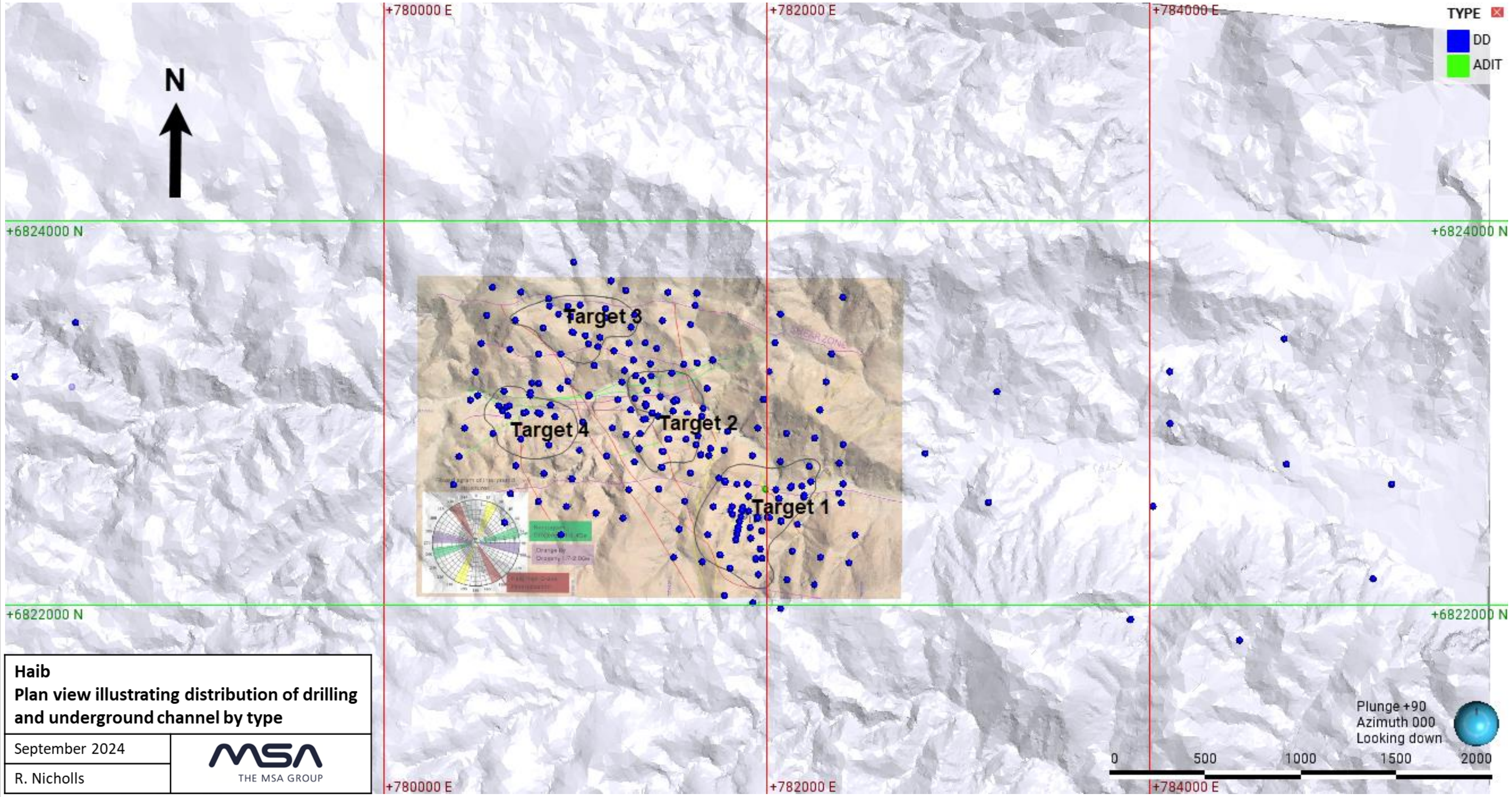
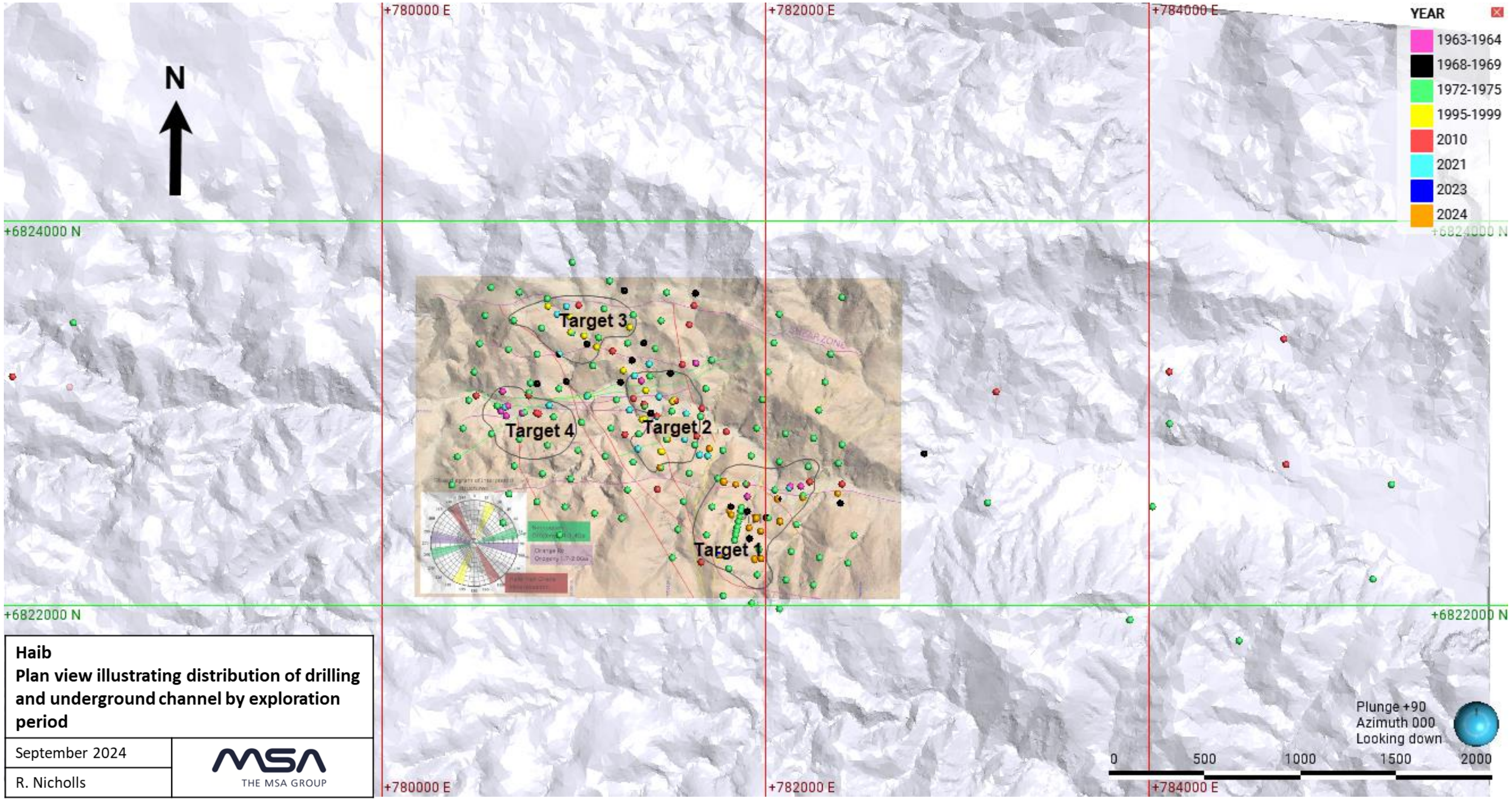


Figure 14-2
Plan view illustrating distribution of drilling and underground channel by exploration period



14.2.2 QP Comments

As per the results of the data verification exercise (refer to Item 12 of this report), the QP is of the opinion that drilling data from 1972-2024 are of a suitable quality and the data is sufficiently reliable to be used for grade estimation purposes. Data from the 1963-1969 drilling campaigns were used for producing the mineralisation wireframes (grade shells) but were not used for grade estimation.

14.3 Data Validation and Raw Data Analysis

14.3.1 Data Validation

A high-level validation process included the following checks of the Haib database:

- Examining the sample assay, collar survey, down-hole survey and geology data to ensure that the data are complete for all the drillholes
- Examining the de-surveyed data in three dimensions to check for spatial errors
- Examination of the assay and density data to ascertain whether they are within expected ranges
- Checks for "FROM-TO" errors, to ensure that the sample data do not overlap one another or that there are no unexplained gaps in the sampling.

Two SG values were found outside of expected ranges (one of 3.6 and another of 6.7), which were removed after checking for unusual chemistry. No other issues were found and the databases was accepted.

14.3.2 Raw Data Analysis

The statistics for the raw (uncomposited), length weighted samples in the 0.2% Cu and 0.005% Mo grade shells are presented in Table 14-3. Examples of log normal histograms showing the positively skewed grade distribution of raw (uncomposited) samples for domains best supported by samples are presented in Figure 14-3.

The length weighted statistics by weathering state for the raw (uncomposited) samples in the 0.2% Cu grade shell are presented in Table 14-4. The copper grade appears to be statistically similar across the weathering boundaries.

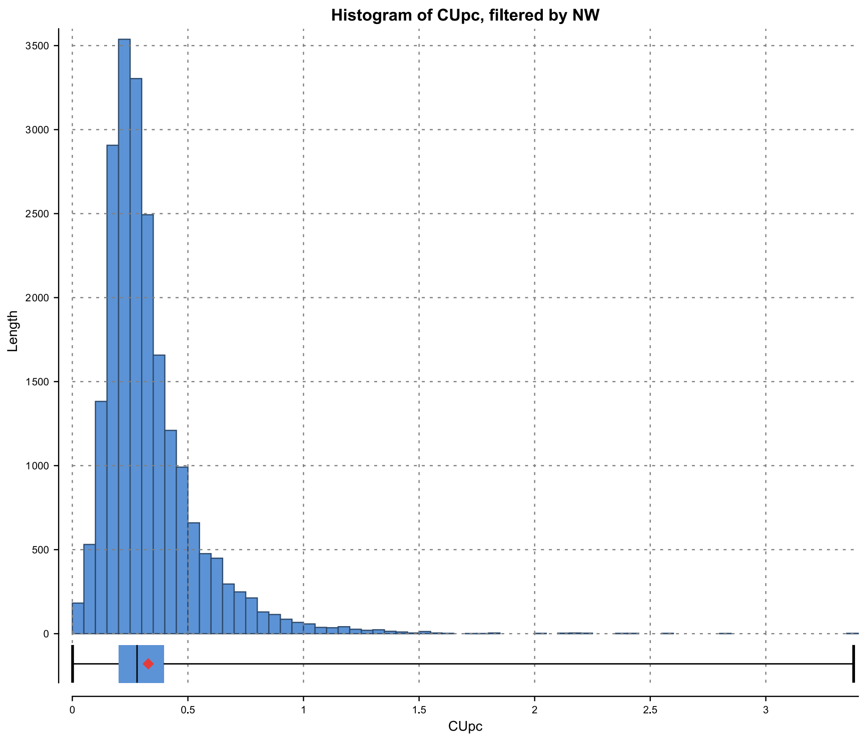
The grade shells included the majority of the high-grade copper and molybdenum samples. A small number of high-grade copper and molybdenum samples were not included in the grade shells as they occurred as isolated unconnected samples around single drillholes and were thus included within the low grade volume outside the grade shells. In these cases, the influence of high-grade samples within the low grade domain was controlled by means of grade capping and outlier restriction during estimation.

Table 14-3
Raw (uncomposited) diamond drillhole sample statistics (length weighted) for 0.2% Cu, 0.005% Mo and low Cu grade domains

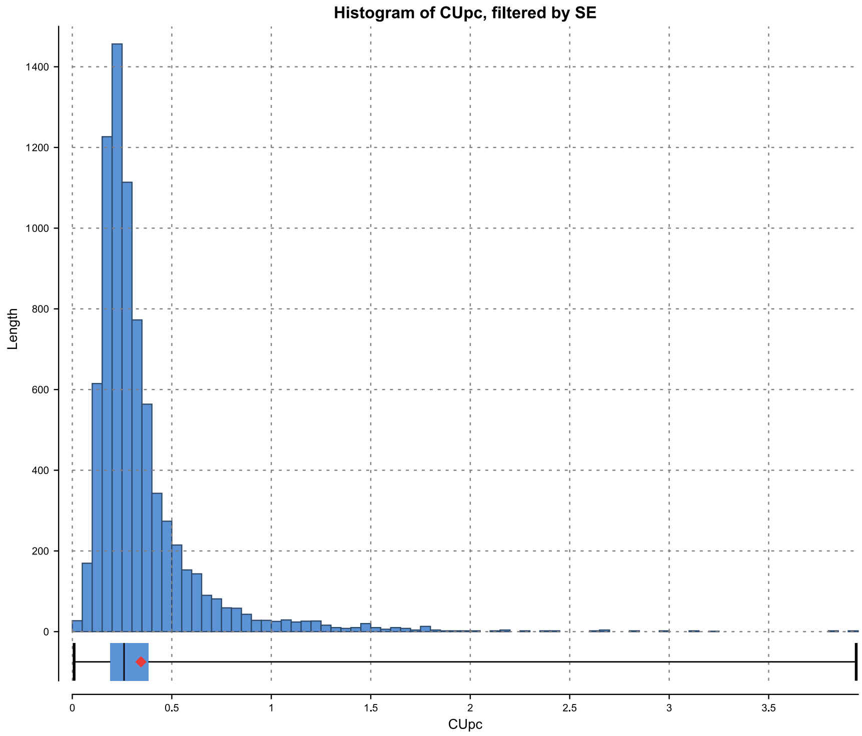
Grade Shell	Domain	Variable	Count	Min. %	Max. %	Mean %	SD	CV
0.2 % Cu	Northwest	Cu %	10,025	0.001	3.38	0.33	0.21	0.63
	Southeast		3,939	0.009	3.94	0.35	0.29	0.85
	NW Low Grade		13,501	0.001	4.47	0.11	0.11	0.95
	NE Low Grade		6,991	0.001	2.00	0.11	0.09	0.77
0.005% Mo	Northwest	Mo %	4,202	0.001	0.49	0.01	0.02	1.58
	Southeast		847	0.001	0.09	0.01	0.01	1.11

Figure 14-3
Examples of histograms showing positively skewed grade distribution of raw (uncomposited) samples for NW and SE domains

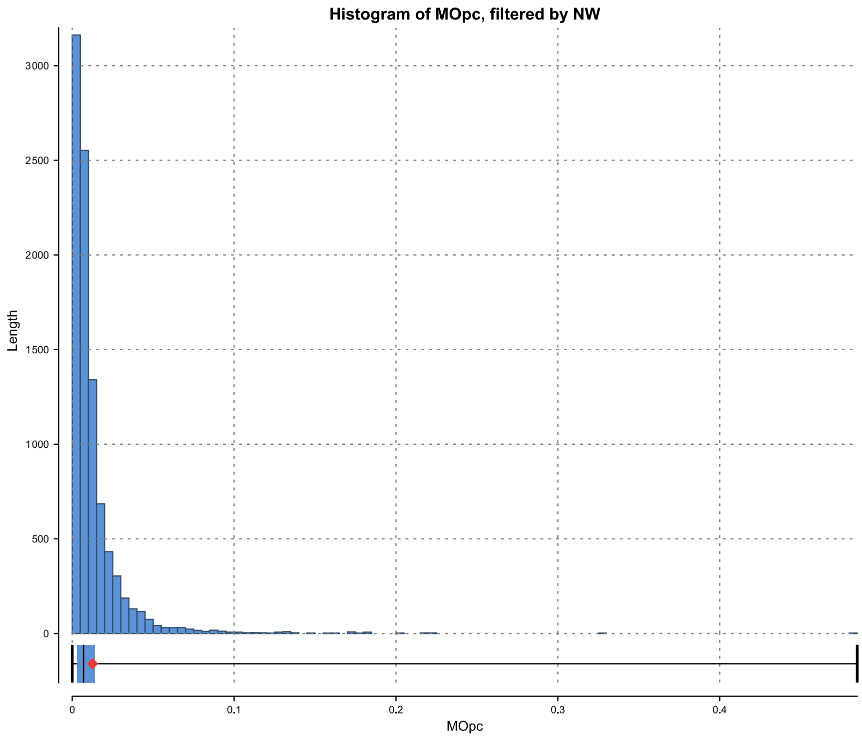
0.2% Cu grade shell – Northwest zone



0.2% Cu grade shell – Southeast zone



0.005% Mo grade shell – Northwest zone



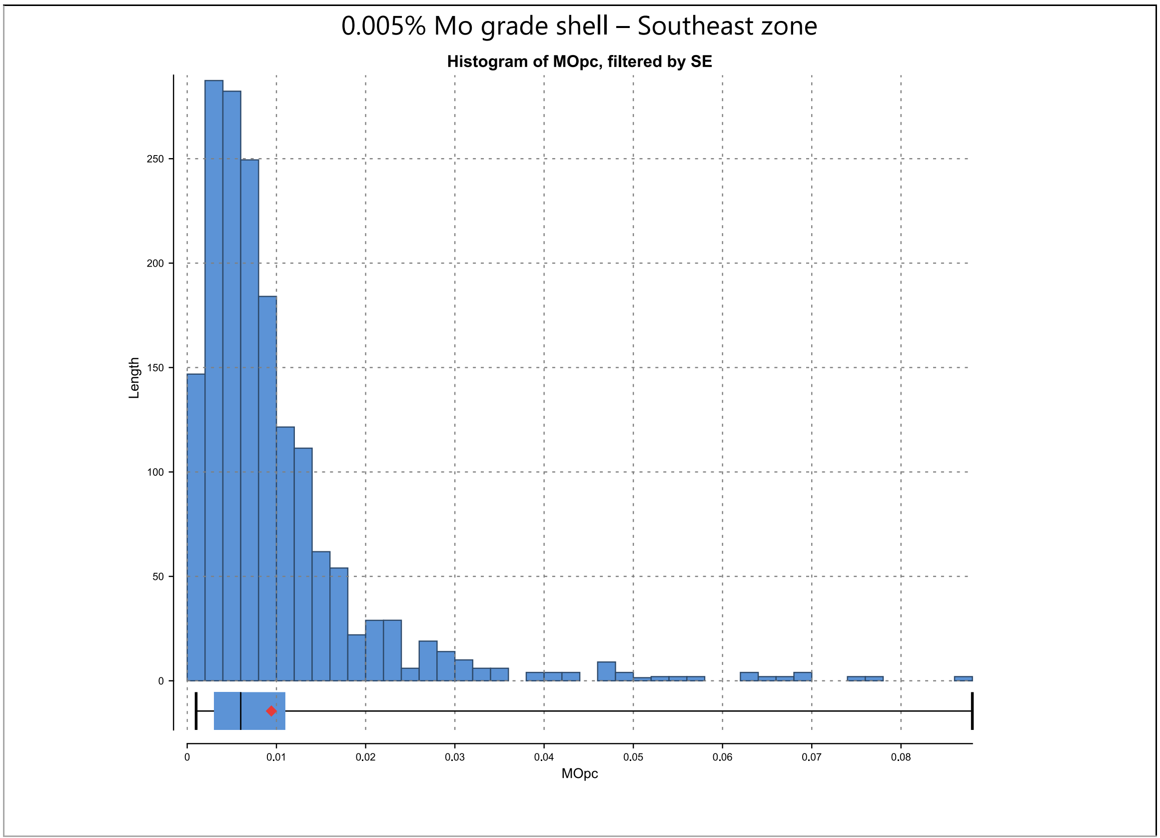


Table 14-4
Raw (uncomposited) diamond drillhole sample statistics (length weighted) for Cu by domain and weathering state

Domain	Oxide State	Variable	Count	Min %	Max %	Mean %
Northwest	Oxide	Cu %	322	0.001	1.08	0.27
	Mixed		254	0.040	2.12	0.31
	Sulphide		9,012	0.001	3.38	0.33
Southeast	Oxide		84	0.060	1.63	0.36
	Mixed		160	0.020	1.61	0.32
	Sulphide		3,595	0.010	3.94	0.34
Low Grade	Oxide		688	0.001	4.47	0.11
	Mixed		1,336	0.001	2.00	0.13
	Sulphide		18,919	0.001	2.00	0.11

14.4 Geological Modelling and Estimation Domains

The Haib mineralisation is hosted within two different structural domains (the Northwest (NW) and Southeast (SE) zones) separated by an approximately N-S striking, 60° E-dipping fault, termed "Quartz Vein". The major large-scale structures with a description of their relative importance and chronology are presented in Figure 14-4. The mineralisation of the Northwest zone effectively terminates against an E-W striking shear zone in the northern part of the project area (Figure 14-5).

The total strike length of the modelled portion of the deposit is approximately 2,100 m, with the across strike and down dip portions typically being 900 m to 1,000 m and 1,000 m, respectively.

The geological modelling and grade estimation for the deposit have been completed by MSA using Leapfrog™ software.

In summary, four mineralisation volumes were modelled:

- High grade shell representing the >0.2% Cu mineralisation in the NW zone
- High grade shell representing the >0.2% Cu mineralisation in the SE zone
- High grade shell representing the >0.005% Mo mineralisation in the NW zone
- High grade shell representing the >0.005% Mo mineralisation in the SE zone.

Two additional volumes were included for estimation of low grade copper outside the mineralisation wireframes in each of the NW and SE zones.

14.4.1 Mineralisation Model

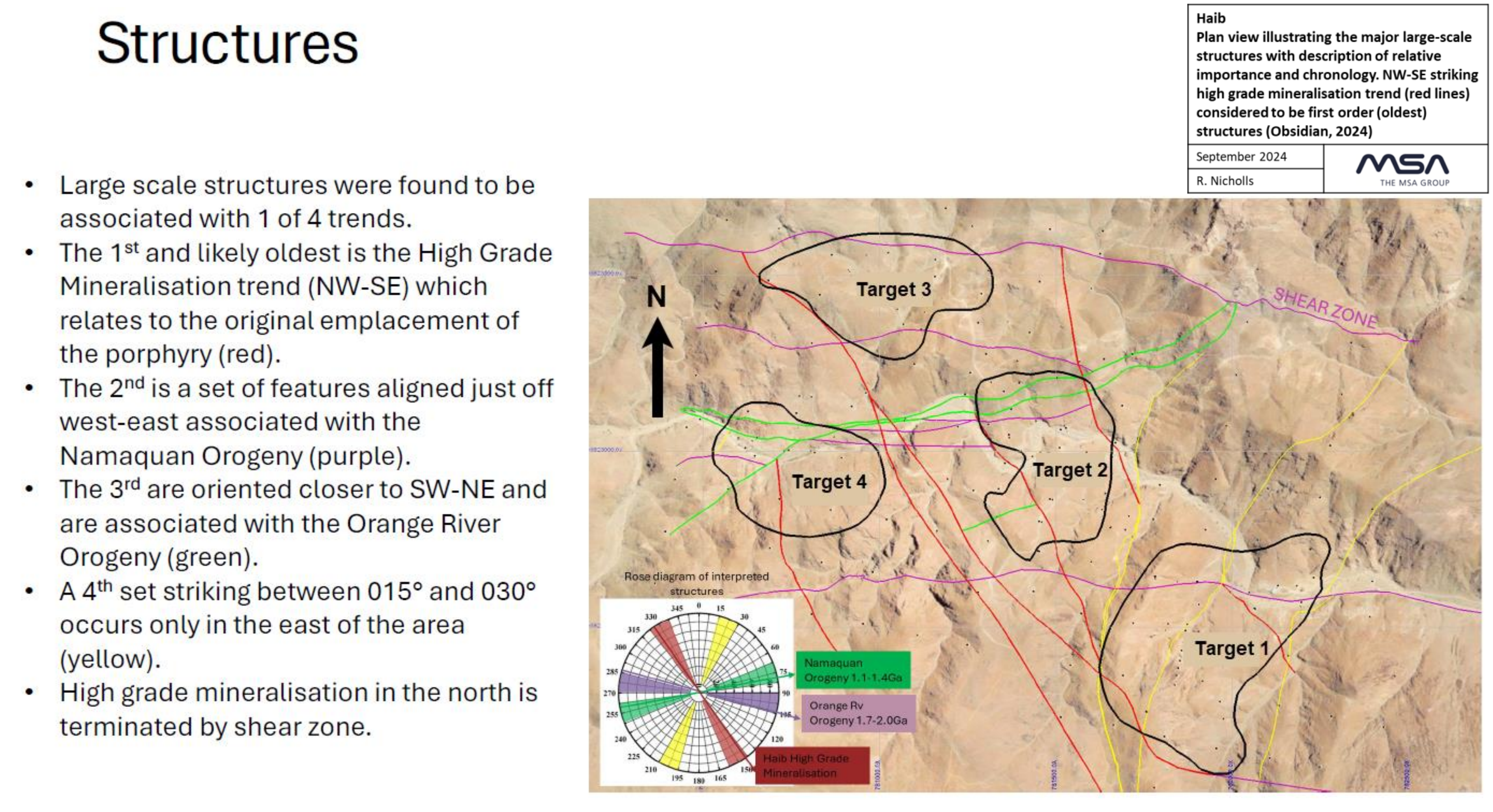
The mineralisation wireframes (grade shells) comprised the following:

- High grade copper wireframes (indicator interpolant grade shell) produced at a threshold of 0.2% Cu and composite sample length of 4 m for both the NW and SE zones using all diamond drilling (Figure 14-6)
- High grade molybdenum wireframes (indicator interpolant grade shell) produced at a threshold of 0.005% Mo and composite sample length of 4 m for both the NW and SE zones using all diamond drilling (Figure 14-7)
- The mineralisation wireframes in the NW zone were clipped to the Shear Zone boundary.

Figure 14-4

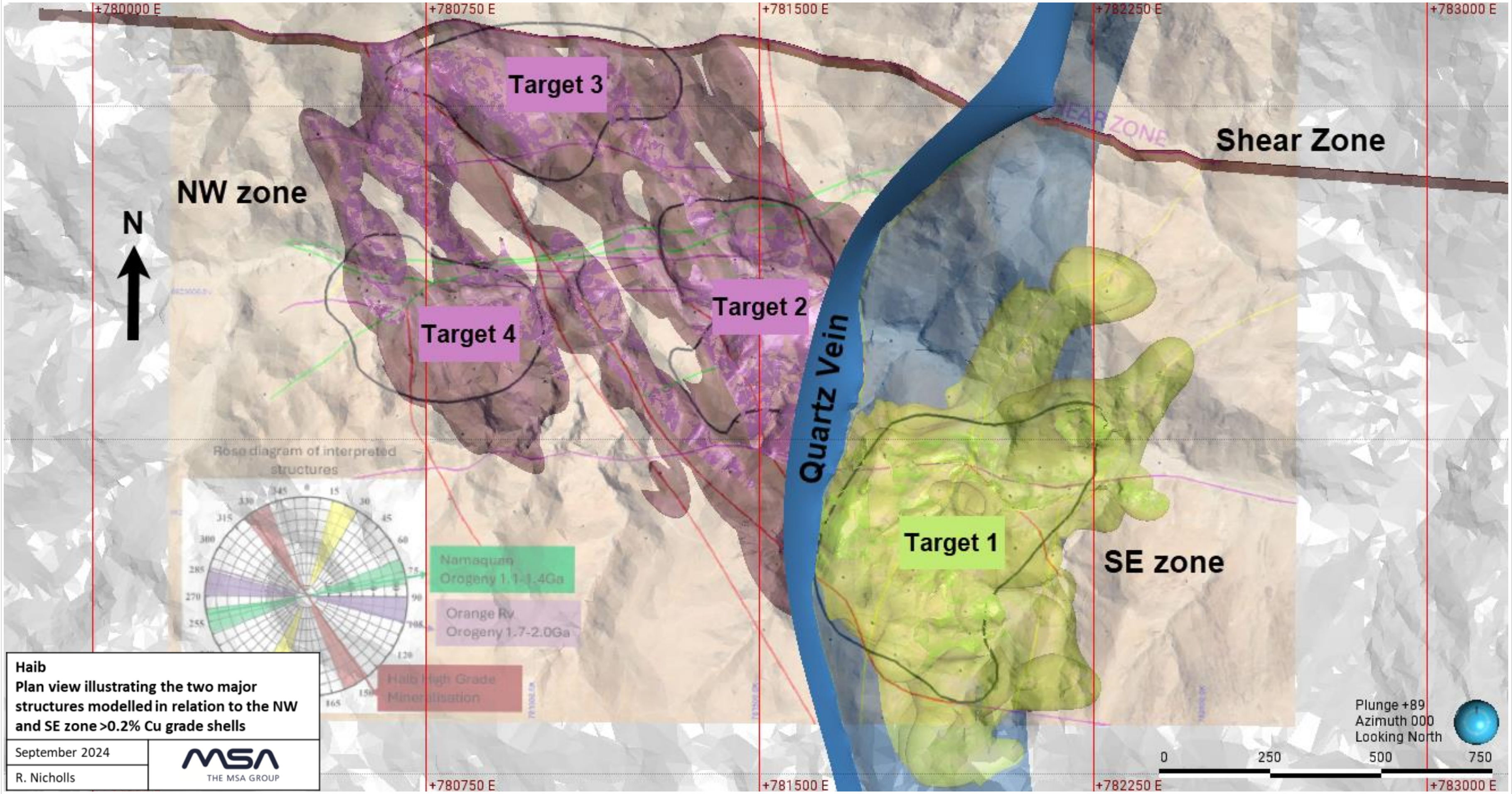
Plan view illustrating the major large-scale structures with description of relative importance and chronology.

NW-SE striking high grade mineralisation trend (red lines) considered to be first order (oldest) structures (Obsidian, 2024)



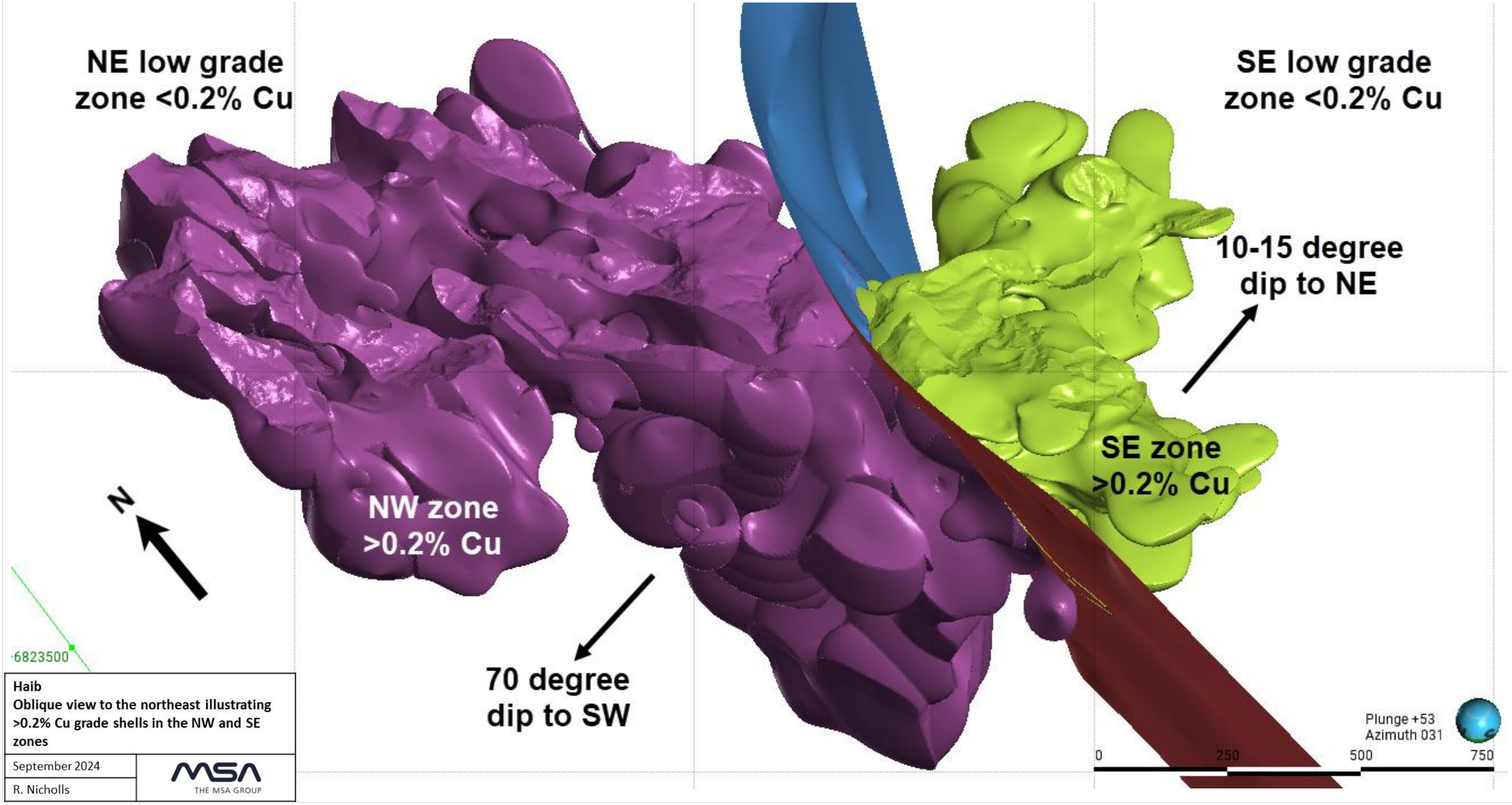
Source: *Obsidian, 2024*

Figure 14-5
Plan view illustrating the two major structures modelled in relation to the NW and SE zone >0.2% Cu grade shells



Source: *Adapted from Obsidian, 2024*

Figure 14-6
Oblique view to the northeast illustrating >0.2% Cu grade shells in the NW and SE zones



Haib
Oblique view to the northeast illustrating >0.2% Cu grade shells in the NW and SE zones

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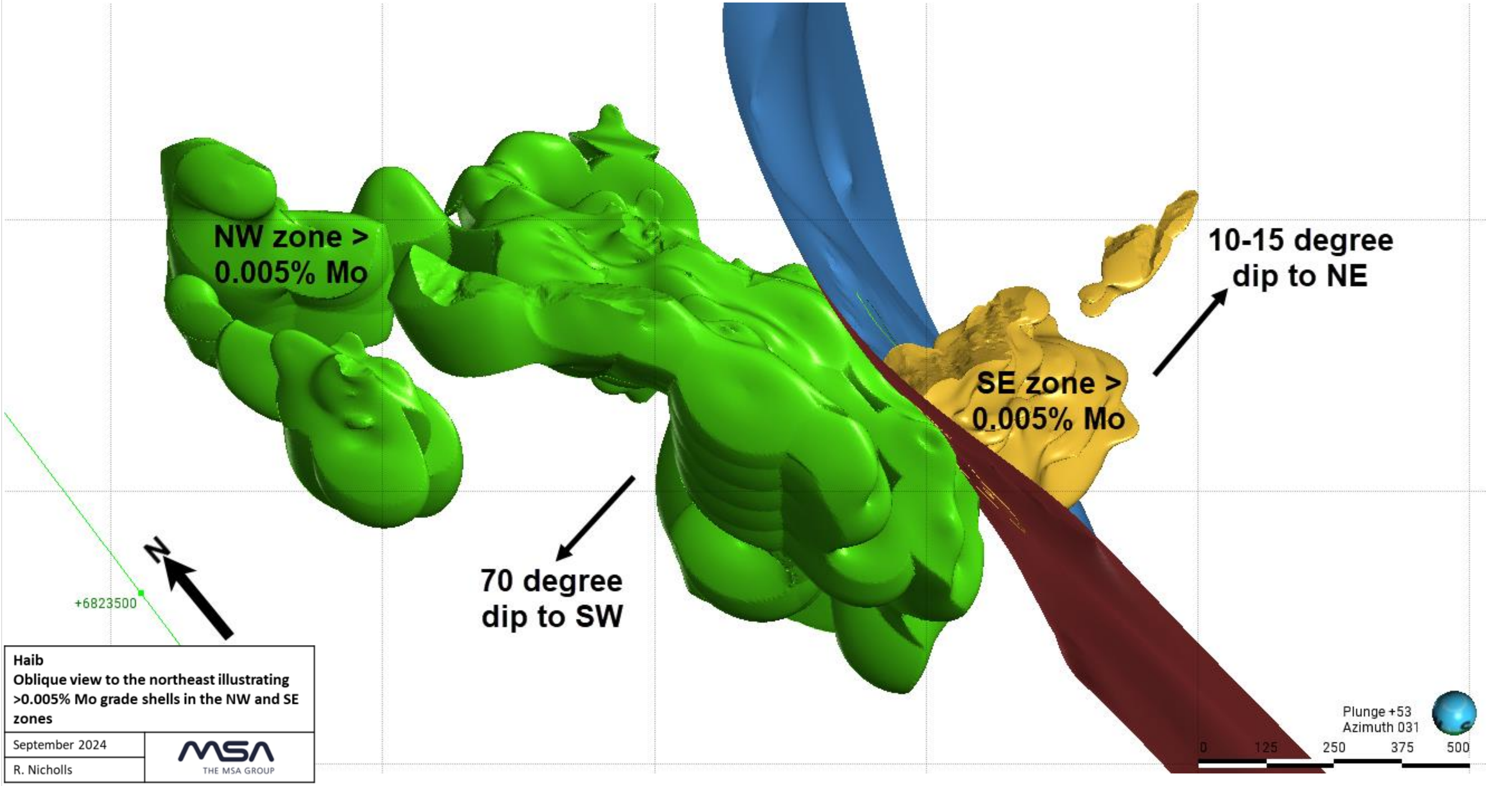
Figure 14-7
Oblique view to the northeast illustrating >0.005% Mo grade shells in the NW and SE zones



14.4.2 Boundary Analysis

Contact analysis confirmed that the copper and molybdenum grade shells for both the NW and SE zones form hard boundaries between the samples within and outside them (Figure 14-8 and Figure 14-9).

Figure 14-8
Contact plot illustrating hard (sharp) boundary between copper grade within and outside the NW domain grade shell

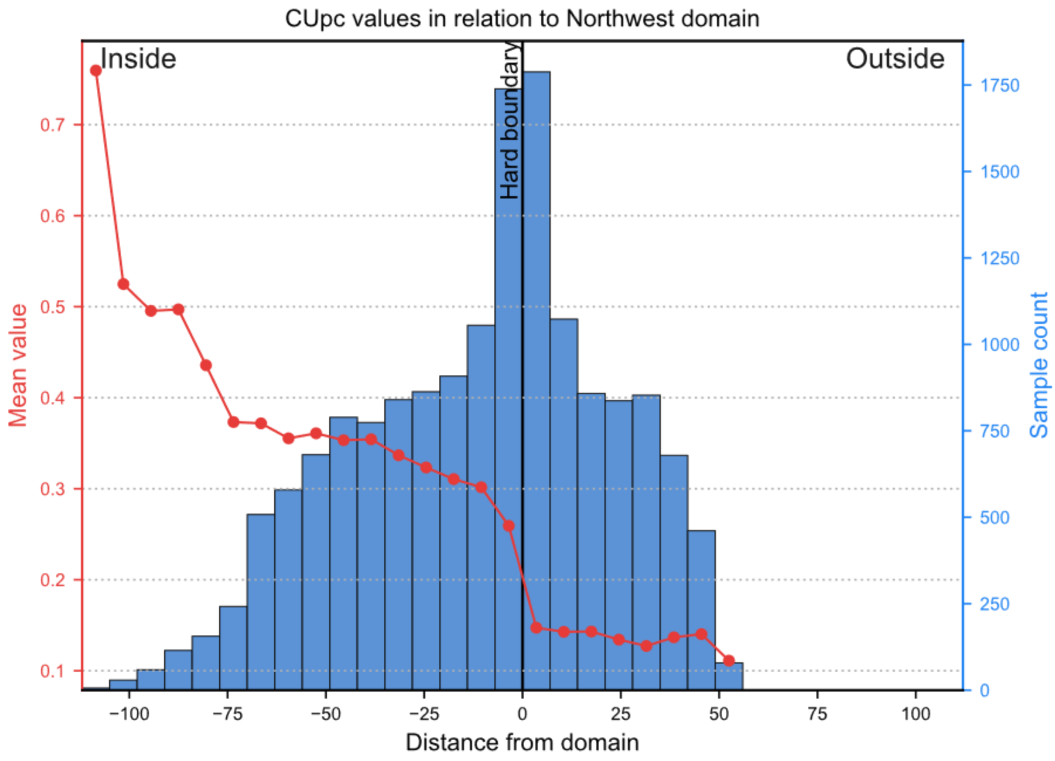
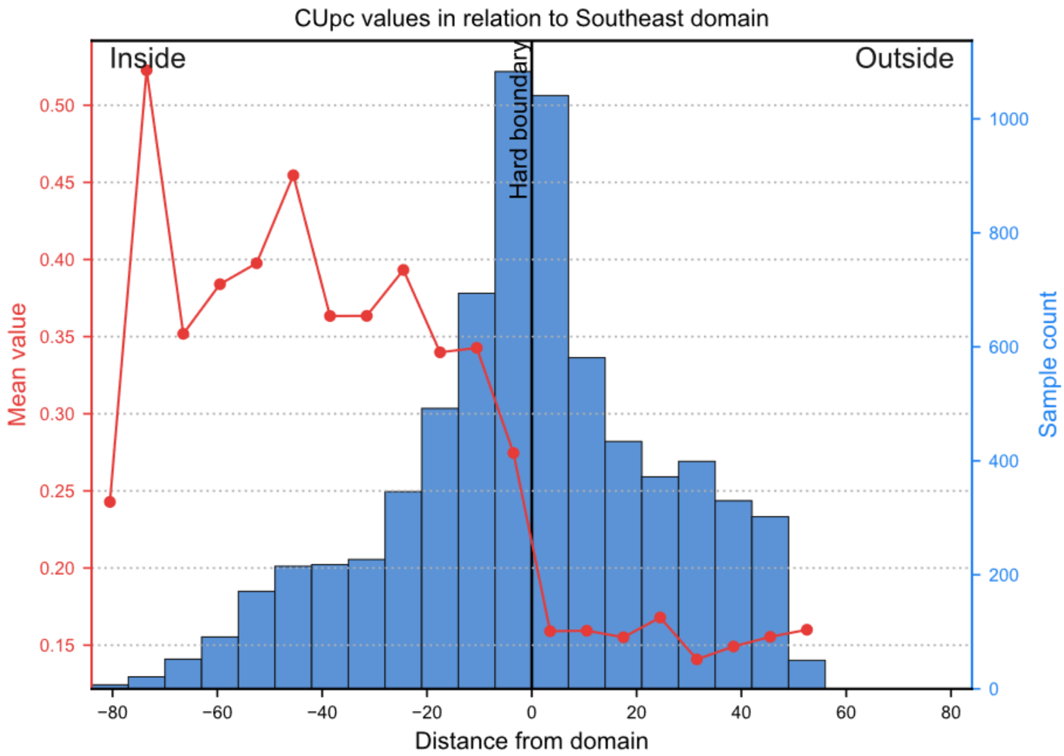


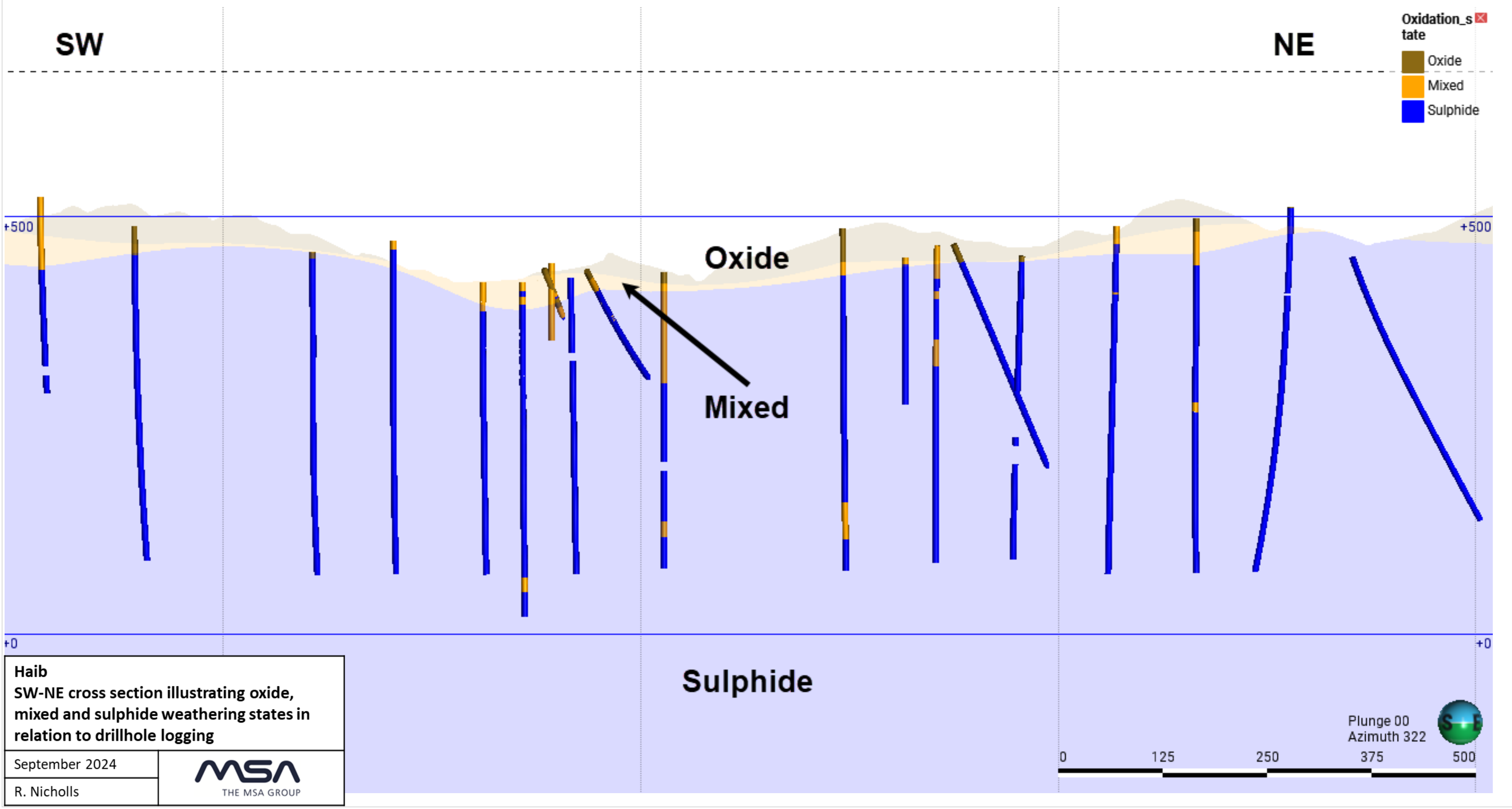
Figure 14-9
Contact plot illustrating hard (sharp) boundary between copper grade within and outside the SE domain grade shell



14.4.3 Weathering (Oxidation) Model

Using the weathering and mineralisation information provided by Koryx, wireframes corresponding to the base of oxide and base of mixed (transition) surfaces were produced by MSA in order to delineate the oxide, mixed and sulphide volumes (Figure 14-10).

Figure 14-10
SW-NE cross section illustrating oxide, mixed and sulphide oxide states in relation to drillhole logging



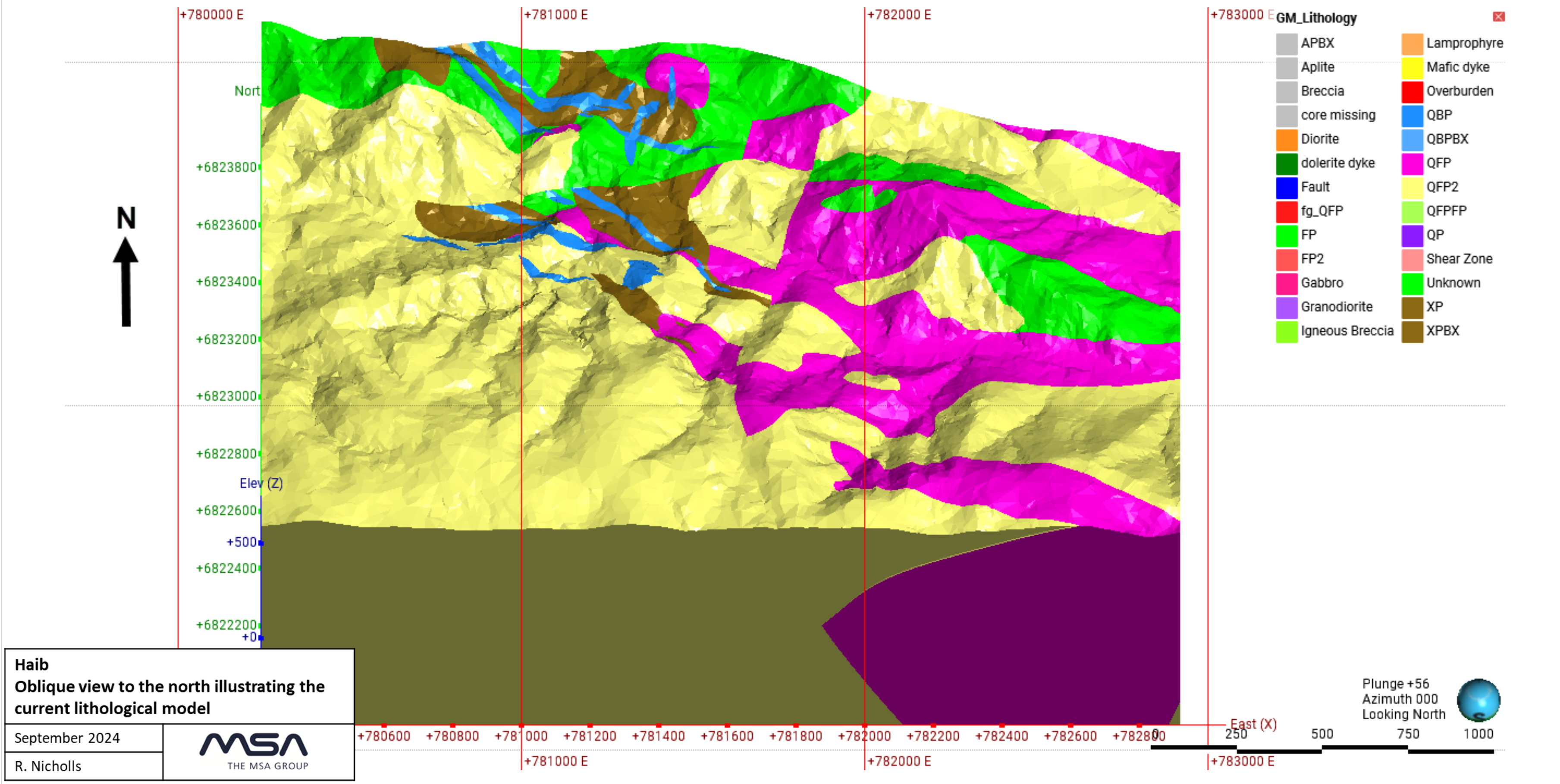
14.4.4 Lithological Model

The lithological model produced by Teck in 2016 is still considered generally fit for purpose and was not updated by MSA. Mineralisation at Haib is not restricted to particular lithological units and hence the mineralisation wireframes were produced on the basis of grade and structural domain (Figure 14-11).

14.4.5 Alteration Model

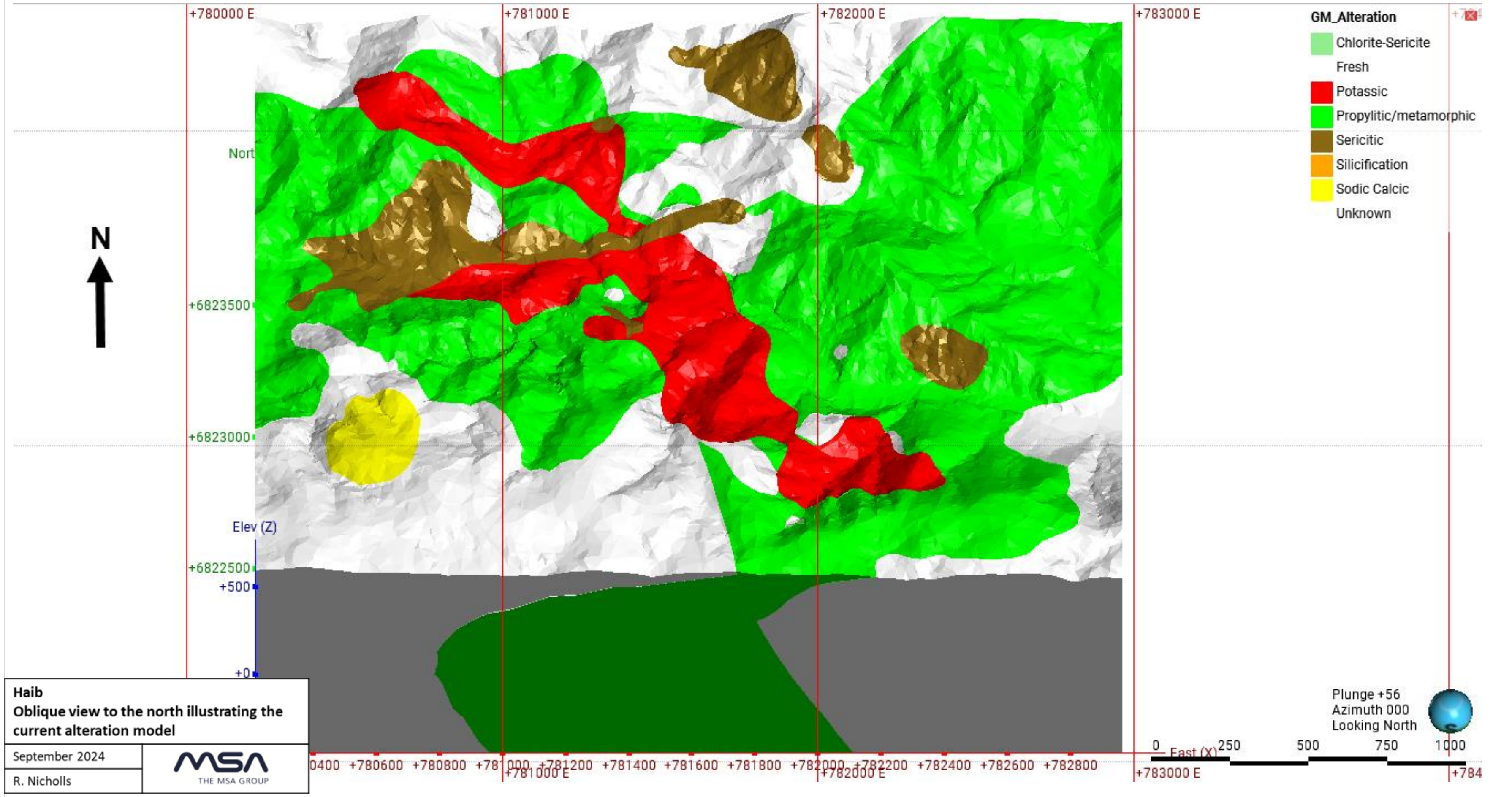
As was the case for the lithological model, the alteration model produced by Teck in 2016 is still considered generally fit for purpose and was not updated by MSA. The Haib mineralisation is not restricted to particular zones of alteration hence the mineralisation wireframes were produced on the basis of grade and structural domain (Figure 14-12).

Figure 14-11
Oblique view to the north illustrating the current (Teck, 2016) lithological model



Source: *Compiled by MSA based on models from Teck*

Figure 14-12
Oblique view to the north illustrating the current (Teck, 2016) alteration model



Source: Compiled by MSA based on models from Teck

14.5 Statistical and Geostatistical Analysis of Composite Data

14.5.1 Sample Compositing

All samples were composited to 2 m for use in grade estimation. Prior to compositing, approximately 91% of samples were equal to or less than 2 m in length. Figure 14-13 illustrates the sample length distribution of the raw (uncomposited) diamond drillhole data within the copper grade shells.

The statistics of the 2 m composite sample copper and molybdenum grades within and outside the various mineralisation wireframes for each estimation domain are summarised in Table 14-5.

Figure 14-13
Histogram of interval length for samples within copper grade shells

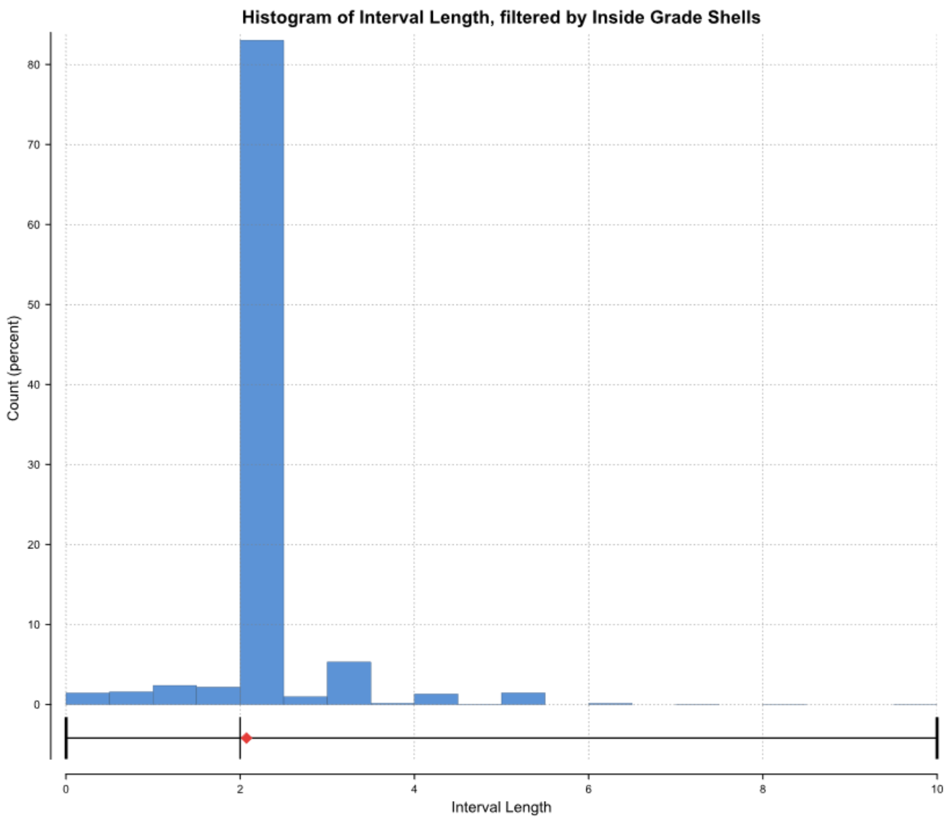


Table 14-5
2 m diamond drillhole composite sample statistics for 0.2% Cu, 0.005% Mo and low copper grade domains

Grade Shell	Domain	Variable	Count	Min. %	Max. %	Mean %	SD	CV
0.2 % Cu	Northwest	Cu %	9,690	0.001	2.43	0.33	0.19	0.59
	Southeast		3,661	0.030	3.94	0.34	0.26	0.77
	NW Low Grade		13,916	0.001	4.47	0.11	0.10	0.91
	SE Low Grade		7,130	0.001	2.00	0.11	0.08	0.73
0.005% Mo	Northwest	Mo %	4,670	0.0003	0.42	0.01	0.02	1.40
	Southeast		851	0.001	0.07	0.009	0.009	0.93

14.5.2 Evaluation of Outliers (Grade Capping)

Grade capping was applied to the 2 m composite samples for each element as necessary to restrict the influence of higher-grade outliers within the sample population. Selection of the top cut (grade capping) grades was based on histograms and log-probability plots with subsequent validation using the coefficient of variation.

A summary of the grade capping applied to the Cu and Mo for each domain is presented in Table 14-6. The "Max" values denote the capped values.

Log histograms with the selected Cu grade caps for the NW and SE domains are illustrated in Figure 14-14 and Figure 14-15, respectively.

Table 14-6
Capped, composited 2 m diamond drillhole sample statistics for 0.2% Cu, 0.005% Mo and Cu low grade domains

Grade Shell	Domain	Variable	Count	No. Capped	Min. %	Max. %	Mean %	SD	CV
0.2 % Cu	Northwest	Cu %	9,690	22	0.001	1.40	0.33	0.19	0.57
	Southeast		3,629	11	0.03	2.00	0.34	0.25	0.74
	NW Low Grade		13,916	23	0.001	0.80	0.11	0.09	0.78
	SE Low Grade		7,130	8	0.001	0.80	0.11	0.08	0.68
0.005% Mo	Northwest	Mo %	4,670	15	0.0003	0.13	0.01	0.01	1.21
	Southeast		851	4	0.001	0.06	0.009	0.009	0.92

Figure 14-14
Log histogram illustrating 1.4% Cu grade cap for NW domain

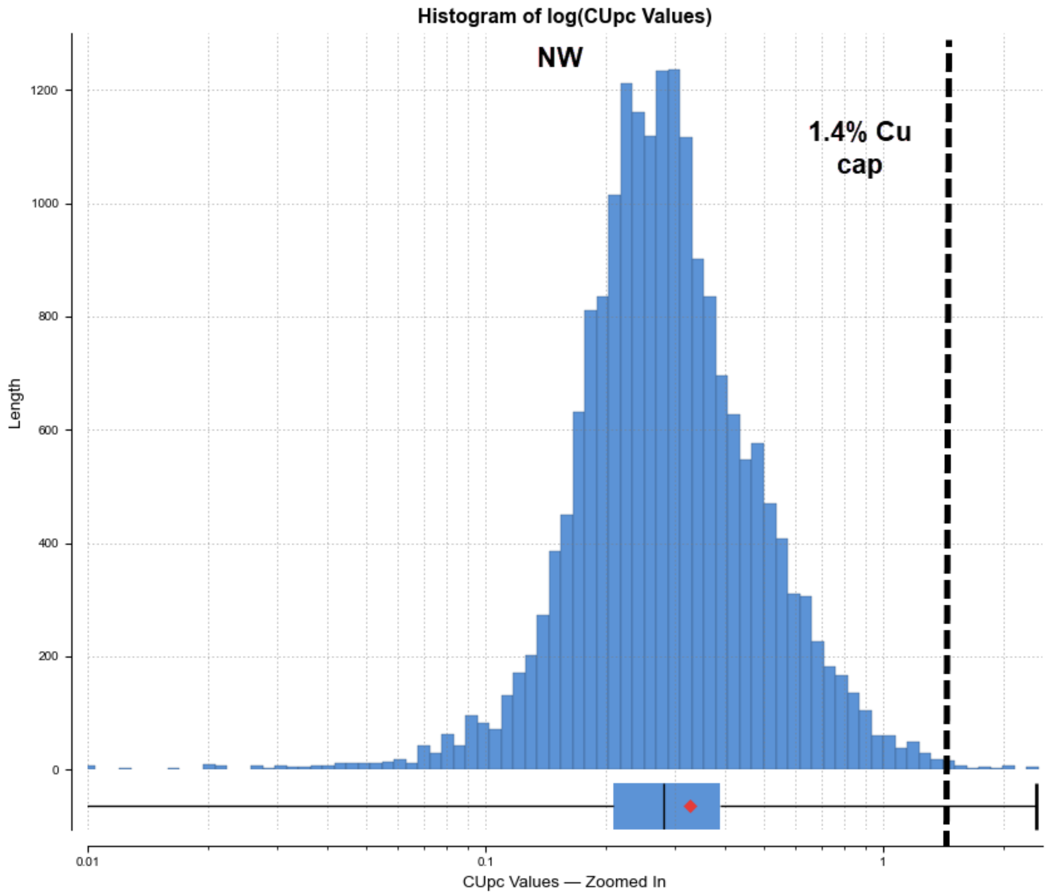
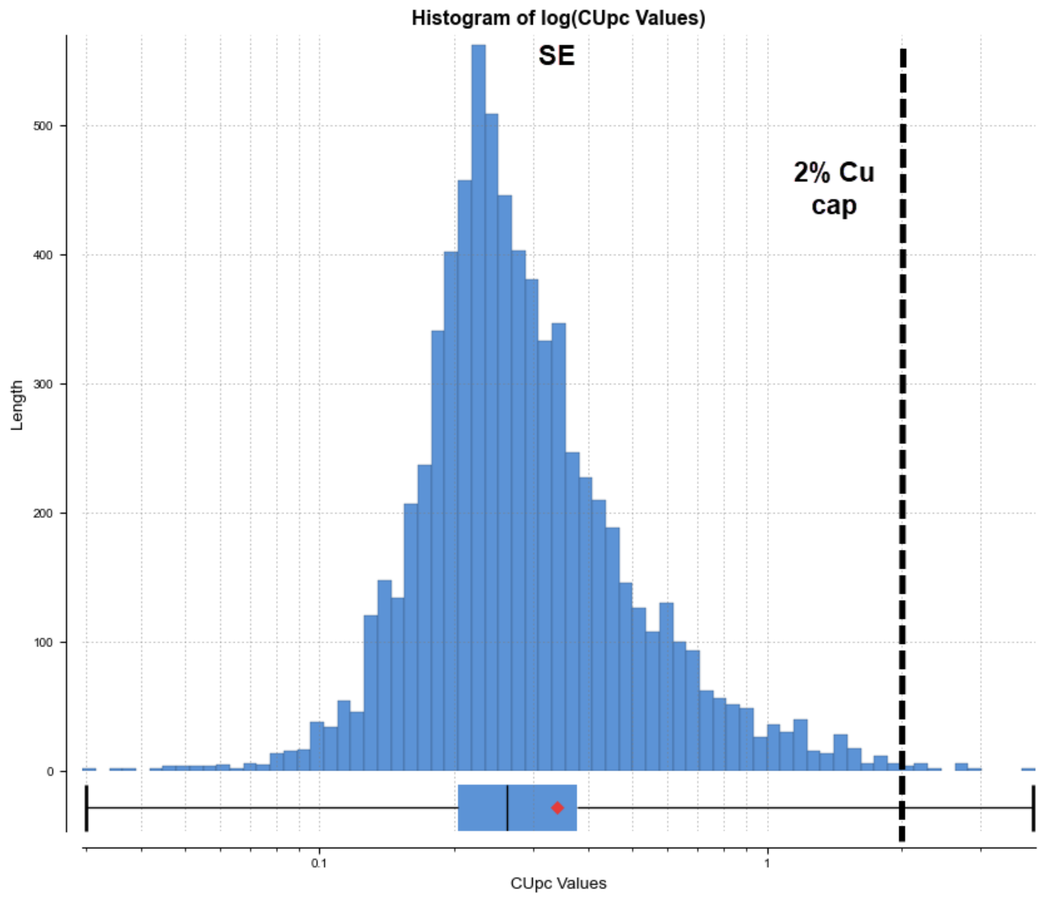


Figure 14-15
Log histogram illustrating 2% Cu grade cap for SE domain



14.5.3 Core Recovery

Core recovery data are available for two periods – 1995 to 1999 and 2021 to 2024. Core recovery is summarised in Figure 14-16 and Figure 14-17. The core recovery is high, averaging approximately 98.5% after gains (>100%) are excluded.

Figure 14-16
Box plot illustrating core recovery mean and range for Haib weathering states

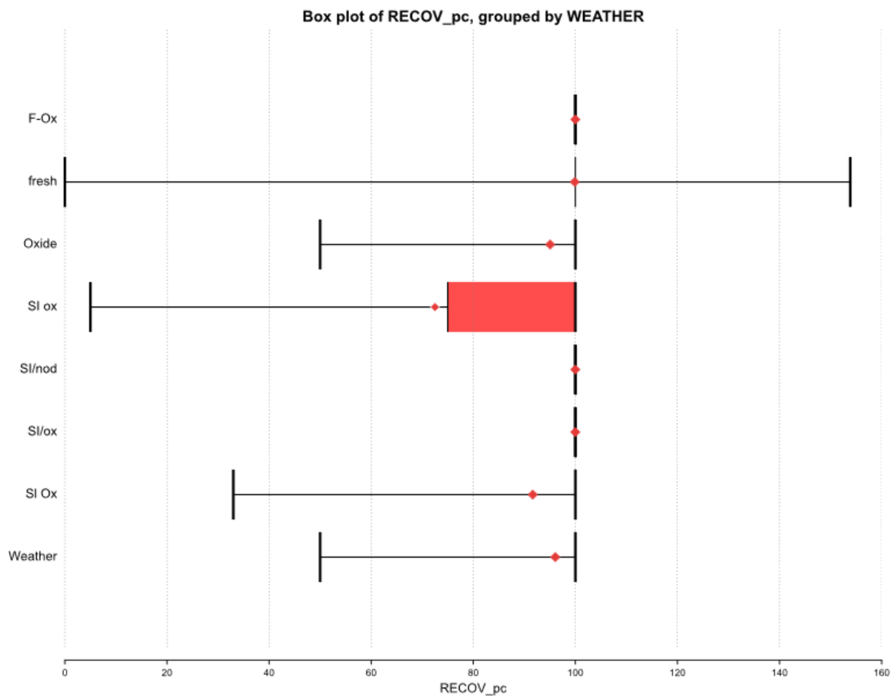
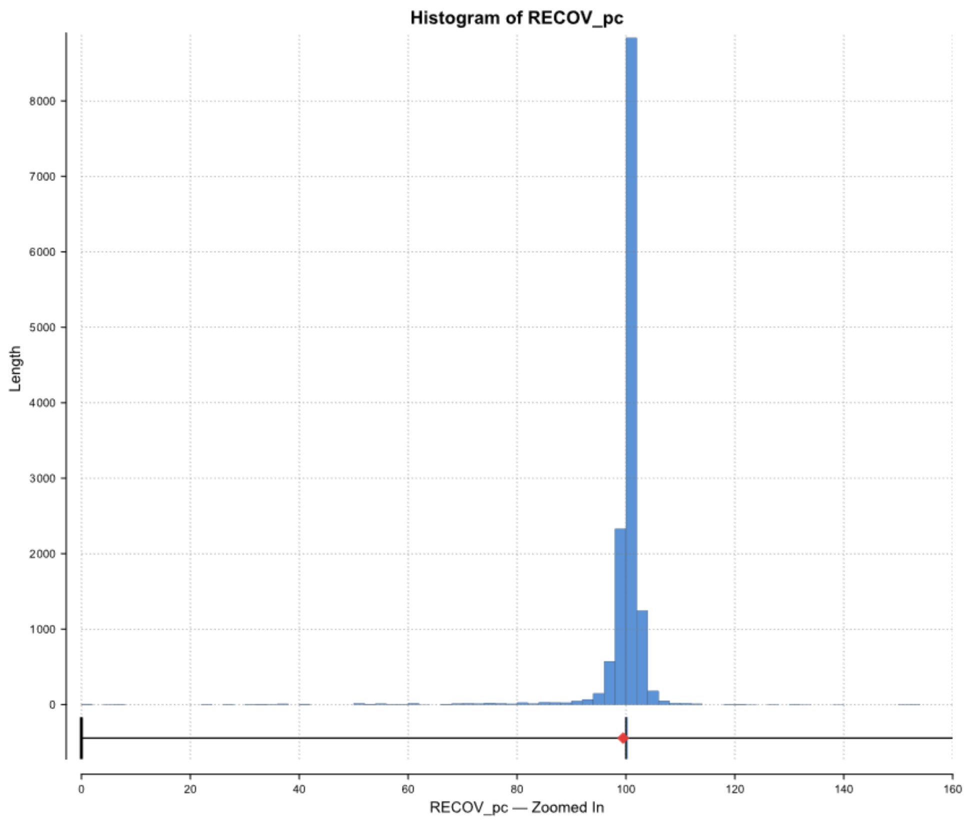


Figure 14-17
Histogram illustrating core recovery mean and range



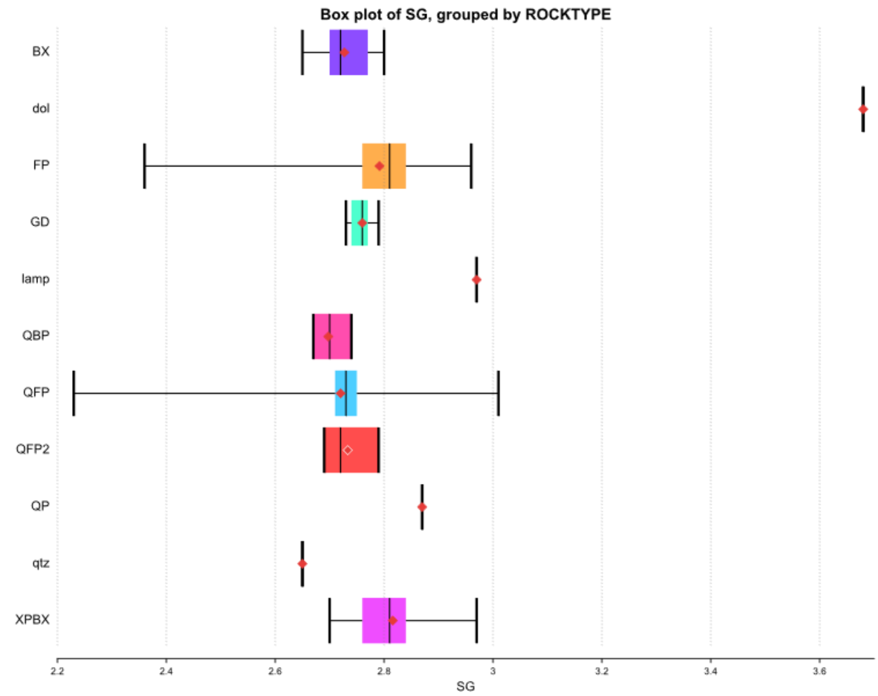
14.5.4 Dry Density

Density was measured by gas pycnometer at the laboratory. An average dry density value of 2.78 t/m^3 was assigned to all weathering types (oxide, mixed and sulphide) in the block model. Summary statistics are summarised in Table 14-7 and presented in Figure 14-18 and Figure 14-19. Overall, the density values do not appear to be highly variable hence the application of an average value is considered appropriate.

Table 14-7
Dry density sample statistics (length weighted) by weathering domain

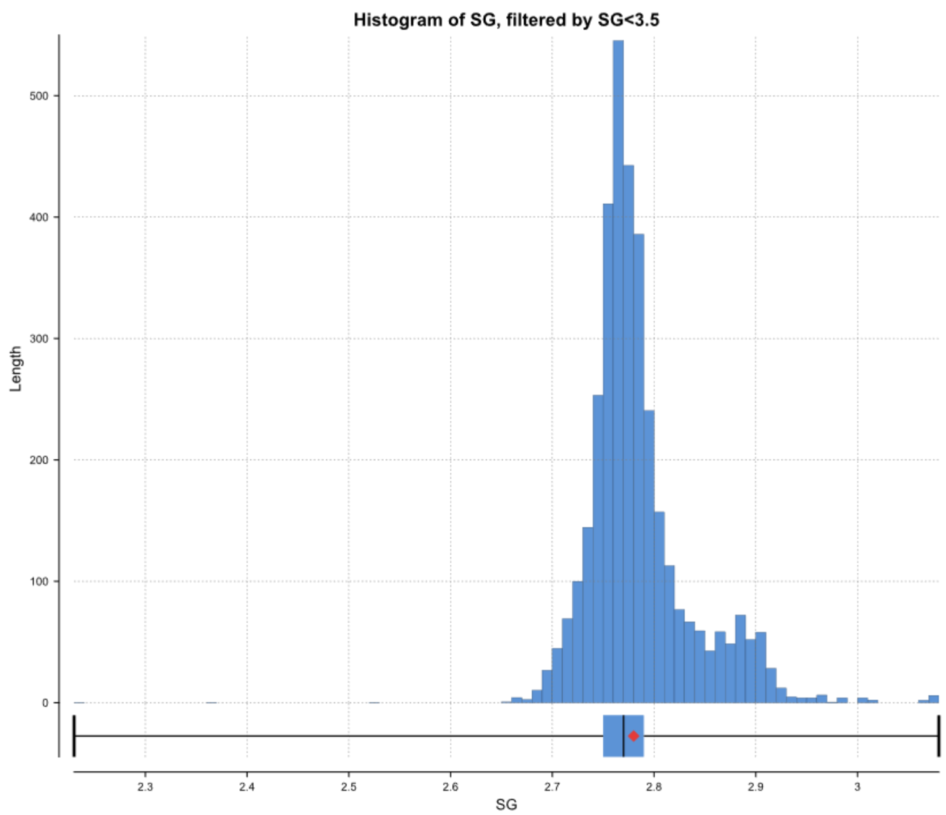
Domain	Count	Min. g/cm^3	Max. g/cm^3	Mean g/cm^3
Oxide	31	2.66	2.87	2.76
Mixed	70	2.71	2.96	2.79
Sulphide	1,728	2.23	3.08	2.78

Figure 14-18
Box plot illustrating dry density means and ranges for Haib lithologies



Note: *An outlier of 3.6 is the only value for dol and has been ignored in later statistical analysis*

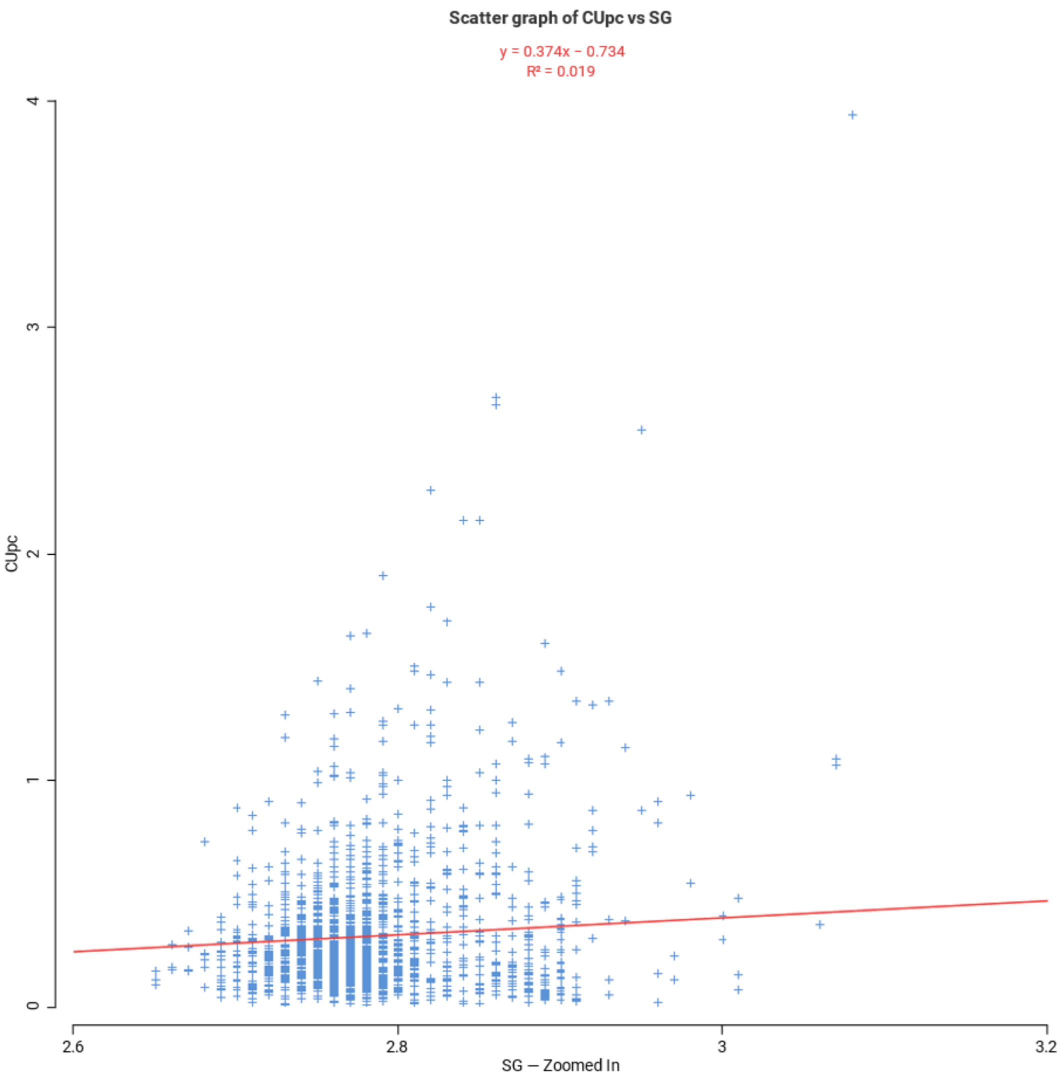
Figure 14-19
Histogram illustrating dry density mean and range – two high outliers excluded



14.5.5 Density verses Grade Relationship

Density and copper grade are poorly correlated. The proportion of copper bearing dense minerals (sulphides) is not significant enough to impact on the density for a disseminated sulphide deposit such as Haib (Figure 14-20).

Figure 14-20
Scatter plot illustrating poor correlation of density and copper grade -– two high density outliers excluded



14.5.6 Moisture

Tonnage was estimate on a dry basis.

14.5.7 Geostatistical Study – Variography

Directional, spherical semi-variograms were modelled for the grade shell (high grade) and low grade (outside grade shell) domains, for both copper and molybdenum.

The semi-variogram parameters are summarised in Table 14-8. Examples of the semi-variograms for the NW and SE domains are illustrated in Figure 14-21 and Figure 14-22. Only copper was considered for the low grade domains outside the grade shells.

The semi-variograms are poorly structured with high nugget effect and ranges of less than the RTZ nominal grid (150 m).

Table 14-8
Semi-variogram parameters for NW and SE high and low grade domains – Cu and Mo

Element	Domain	Variogram Type	Search Direction (°)			Nugget Effect	Nugget Effect (%)	Structure 1				Structure 2			
								Range			Semi-Variance	Range			Semi-Variance
			Dip	Dip Azimuth	Pitch			Direction 1 (m)	Direction 2 (m)	Direction 3 (m)		Direction 1 (m)	Direction 2 (m)	Direction 3 (m)	
Cu	Northwest High Grade	Spherical Normal Scores Transformed	70	238	100	0.0114	31	10	20	8	0.0119	55	140	12	0.0138
	Southeast High Grade		10	41	110	0.0295	43	47	20	8	0.032	100	40	35	0.0077
	Northwest Low Grade		70	238	100	0.004	38	10	20	8	0.0032	55	140	12	0.0032
	Southeast Low Grade		10	41	110	0.0028	41	47	20	8	0.0032	100	40	20	0.0009
Mo	Northwest High Grade		70	238	100	0.0001	46	8	20	8	0.0001	120	100	15	0.0
	Southeast High Grade*		10	41	110	0.0*	59	23	50	8	0.0	110	90	15	0.0

* Total variance: 0.000077

Figure 14-21
Semi-variograms for high grade domains (inside grade shells) – Copper

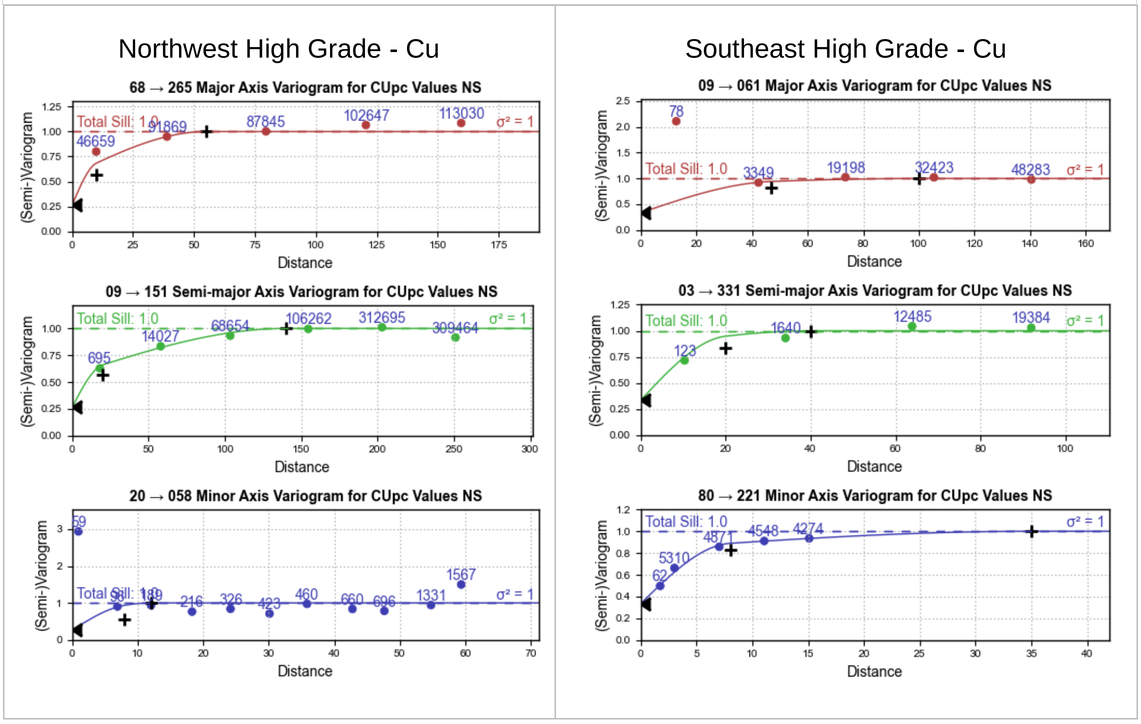
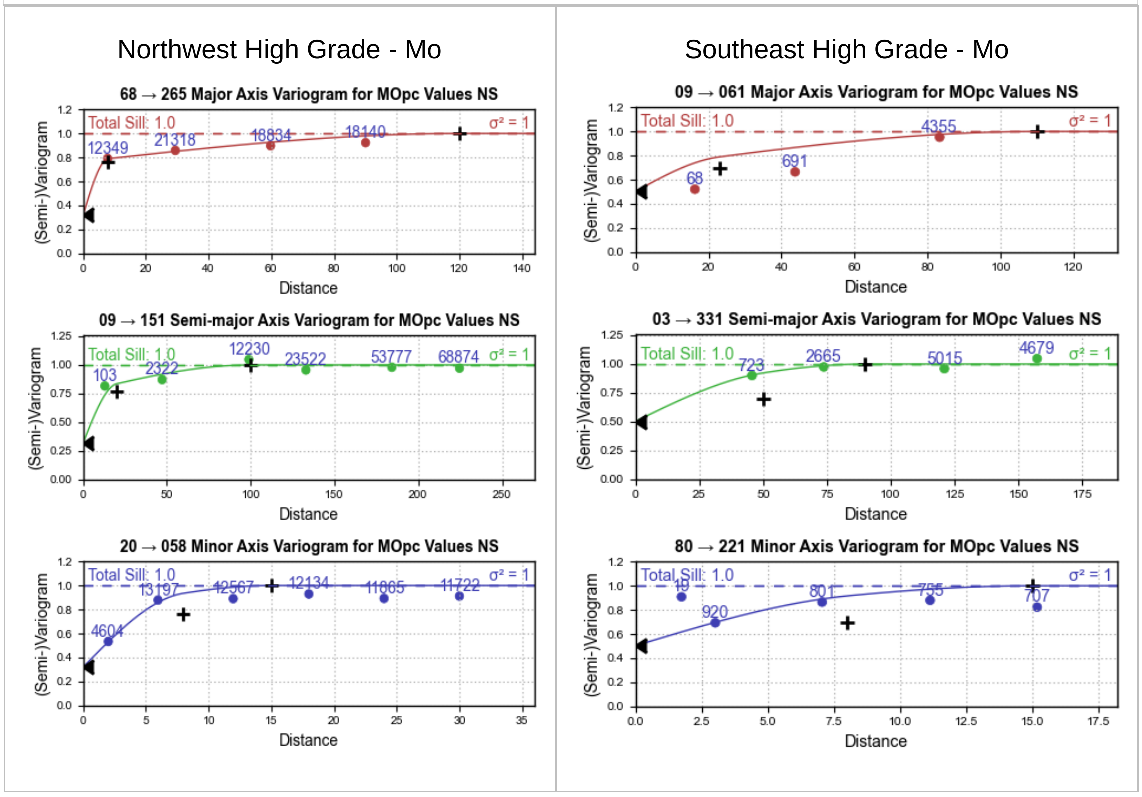


Figure 14-22
Semi-variograms for high grade domains (inside grade shells) – Molybdenum



14.6 Block Model and Grade Estimation

14.6.1 Block Model Parameters

An unrotated block model was produced, with a parent block size of 50 mX by 50 mY by 20 mZ. The X (easting) and Y (northing) dimensions are based on approximately one-third of the average drill spacing. The Z (height) of 20 m for the blocks was selected as being a realistic potential open pit mining bench height while allowing for the scale of the deposit and data variability. A minimum sub-block size of 5 mX by 5 mY by 2 mZ was deemed to be appropriate to accurately fill the wireframes.

14.6.2 Number of Samples

A kriging neighbourhood analysis (KNA) was carried out on the 2 m composite sample copper grade of the NW and SE domains to guide the selection of the final search and estimation parameters. The results of several iterations are summarised for the NW domain in Table 14-9. The SWATH plot of the block grade for the different searches in relation to the capped, composite sample copper grade (red line) for the NW domain is illustrated in Figure 14-23. The search parameters corresponding to the blue line were selected for final grade estimation as highlighted as scenario 3 in Table 14 9. It is evident that fewer blocks were estimated in the search volume for which a maximum number of samples (7) per drillhole was stipulated.

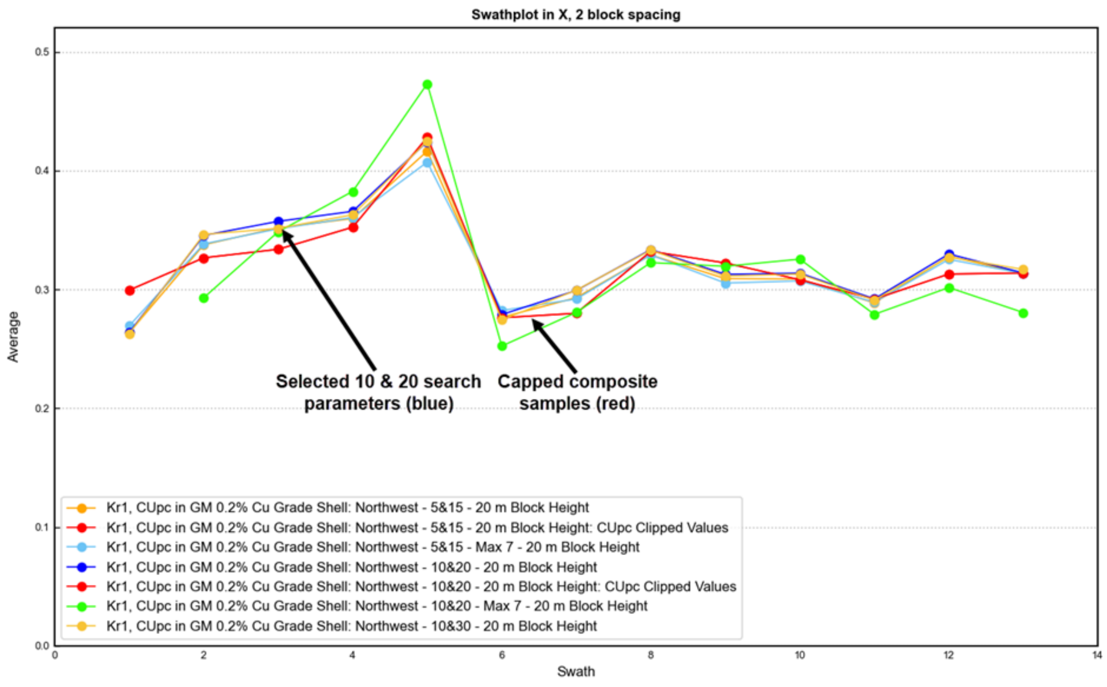
Table 14-9
KNA iterations completed for the NW high grade domain

KNA scenario	Minimum number of samples	Maximum number of samples	Maximum samples per drillhole
1	5	15	-
2	5	15	7
3	**10**	**20**	**-**
4	10	20	7
5	10	30	-

The final search parameters are as follows:

- All domains – Cu and Mo: KNA scenario 3 (minimum 10 samples; maximum 20 samples).

Figure 14-23
SWATH plot in X direction – NW high grade domain - Cu



14.6.3 Search Parameters

Grade estimation was carried out in three passes using search ellipses which were derived from the variogram models. The search and estimation criteria used for the high and low grade domains are listed in Table 14 10.

- The first search ellipse corresponded approximately to the distance of the semi-variogram range
- The second search volume was double the first and extended beyond the semi-variogram range
- • A third search set utilised larger search radii to allow the estimation of blocks not estimated in the previous passes.

Table 14-10
Search and estimation parameters for NW and SE high and low grade domains – copper and molybdenum

Element	Domain	Search Direction (°)			Search 1 (m)			Search 2 (m)			Search 3 (m)			Search 1			Search 2			Search 3		
		Dip	Dip Azimuth	Pitch	Max.	Int.	Min.	Max.	Int.	Min.	Max.	Int.	Min.	Minimum number of samples	Maximum number of samples	Limit	Minimum number of samples	Maximum number of samples	Limit	Minimum number of samples	Maximum number of samples	Limit
Cu	Northwest High Grade	70	238	100	55	140	12	110	280	24	550	1400	120	10	20	-	10	20	-	2	20	-
	Southeast High Grade	10	41	110	150	60	30	300	120	60	1500	600	300									
	Northwest Low Grade	70	238	100	55	140	12	550	1400	120	-	-	-									
	Southeast Low Grade	10	41	110	150	60	30	1500	600	300	-	-	-									
Mo	Northwest High Grade	70	238	100	120	100	15	240	200	30	1200	1000	150	10	20	-	10	20	-	2	20	-
	Southeast High Grade	10	41	110	165	135	23	330	270	46	1650	1350	230									

14.6.4 Grade Estimation

Although all drillholes were used for producing the mineralisation wireframes, sample grade data from the periods 1963-1964 (completed by Falconbridge) and 1968-1969 (King Resources) were excluded for purposes of grade estimation. Using the 2 m composite samples, estimation was carried out by means of Ordinary Kriging (OK) within full parent blocks. Grade estimation was carried out for each of the modelled domains with no distinction based on weathering type (oxide, transition or fresh / sulphide) owing to the grade of these zones being statistically similar. Hard boundaries were utilised so that only samples within each domain were used for the estimation of the grade within that particular domain.

14.7 Block Model Validation

Validation of block-models was carried out by visual comparison of drillhole and block grade, global average grade comparison and swath plots.

14.7.1 Visual Validation

Visual validation checks were carried out to assess whether the block and composite sample grade correlation was of an acceptable level. A composite sample length of 20 m, to match the block height, was selected for the validation. MSA is of the opinion that the grade correlation is acceptable, as illustrated in Figure 14-24 and Figure 14-25.

Figure 14-24
NW-SE long section through the high grade domain illustrating correlation of block and composite sample grade

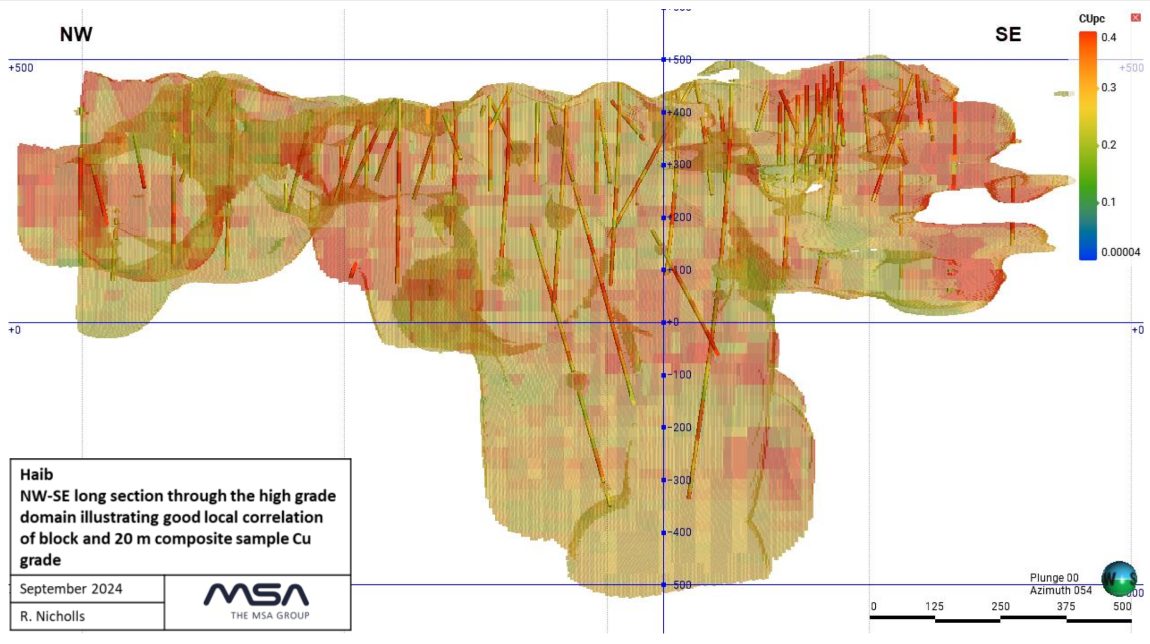
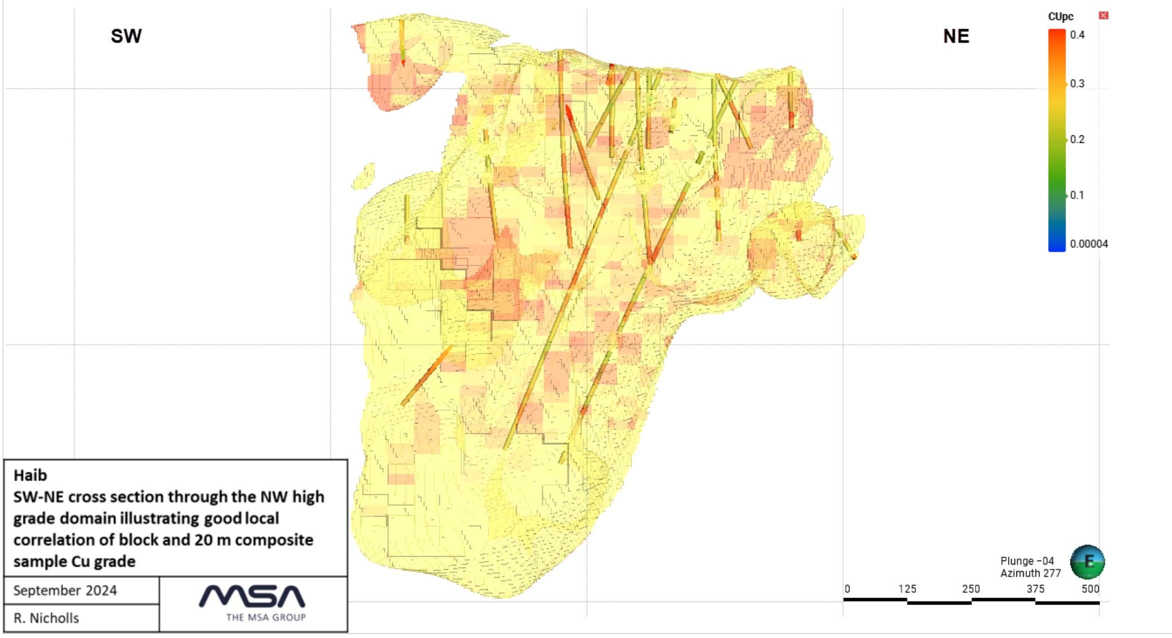


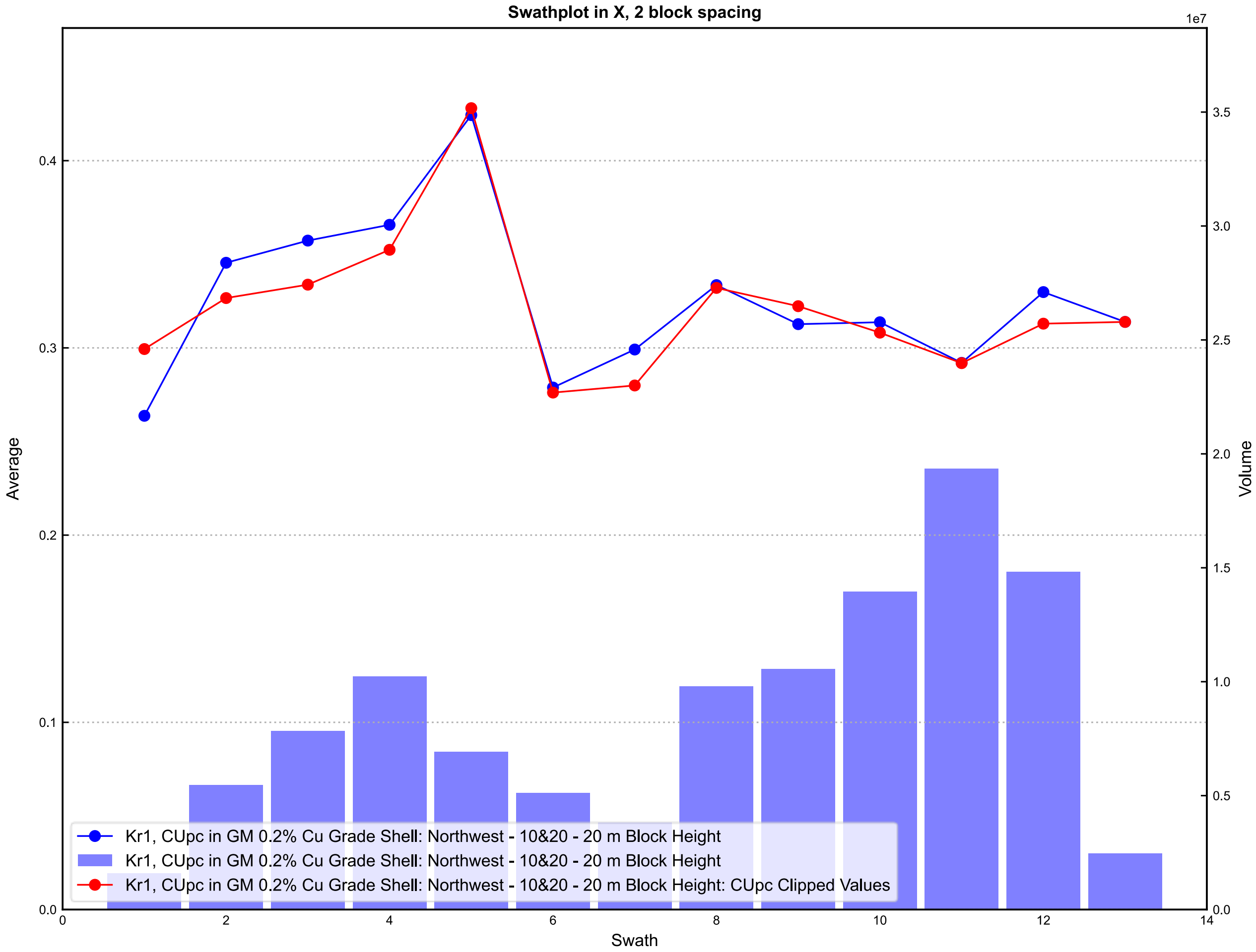
Figure 14-25
SW-NE cross section through the NW high grade domain illustrating correlation of block and composite sample copper grade

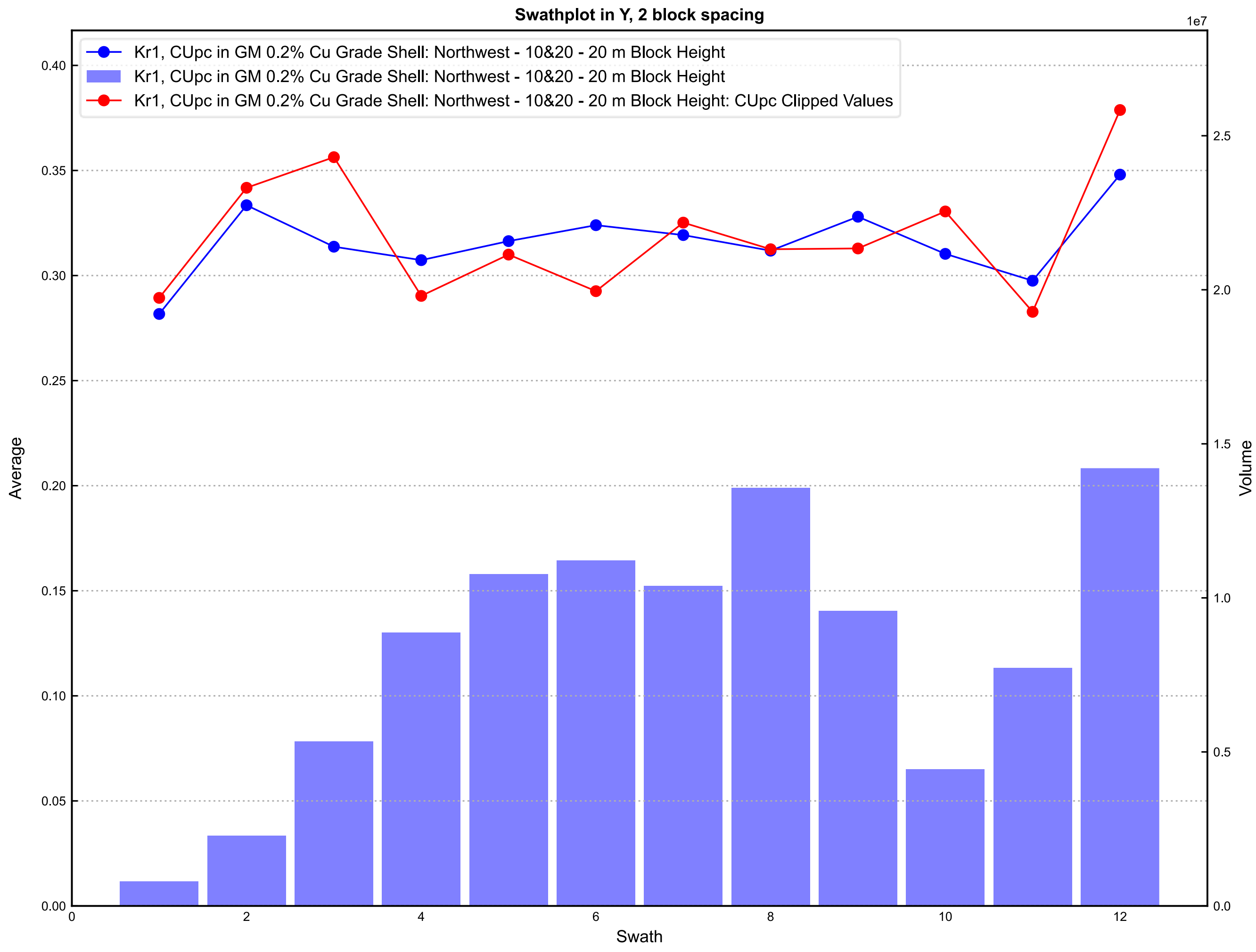


14.7.2 Swath Plots

Swath plots confirmed reasonable local-scale correlation between block and 2 m composite sample grade. This is illustrated in the plots representing the first search volumes for the NW and SE high grade domains for Cu (Figure 14-26 and Figure 14-27). The bars represent the block volume and the lines represent the ordinary kriged grade and the capped, composite sample values, as described in the legends.

Figure 14-26
Swath plots for NW high grade domain copper grade




Swathplot in Y, 2 block spacing
Kr1, CUpc in GM 0.2% Cu Grade Shell: Northwest - 10&20 - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Northwest - 10&20 - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Northwest - 10&20 - 20 m Block Height: CUpc Clipped Values
Average
Volume
1e7
Swath

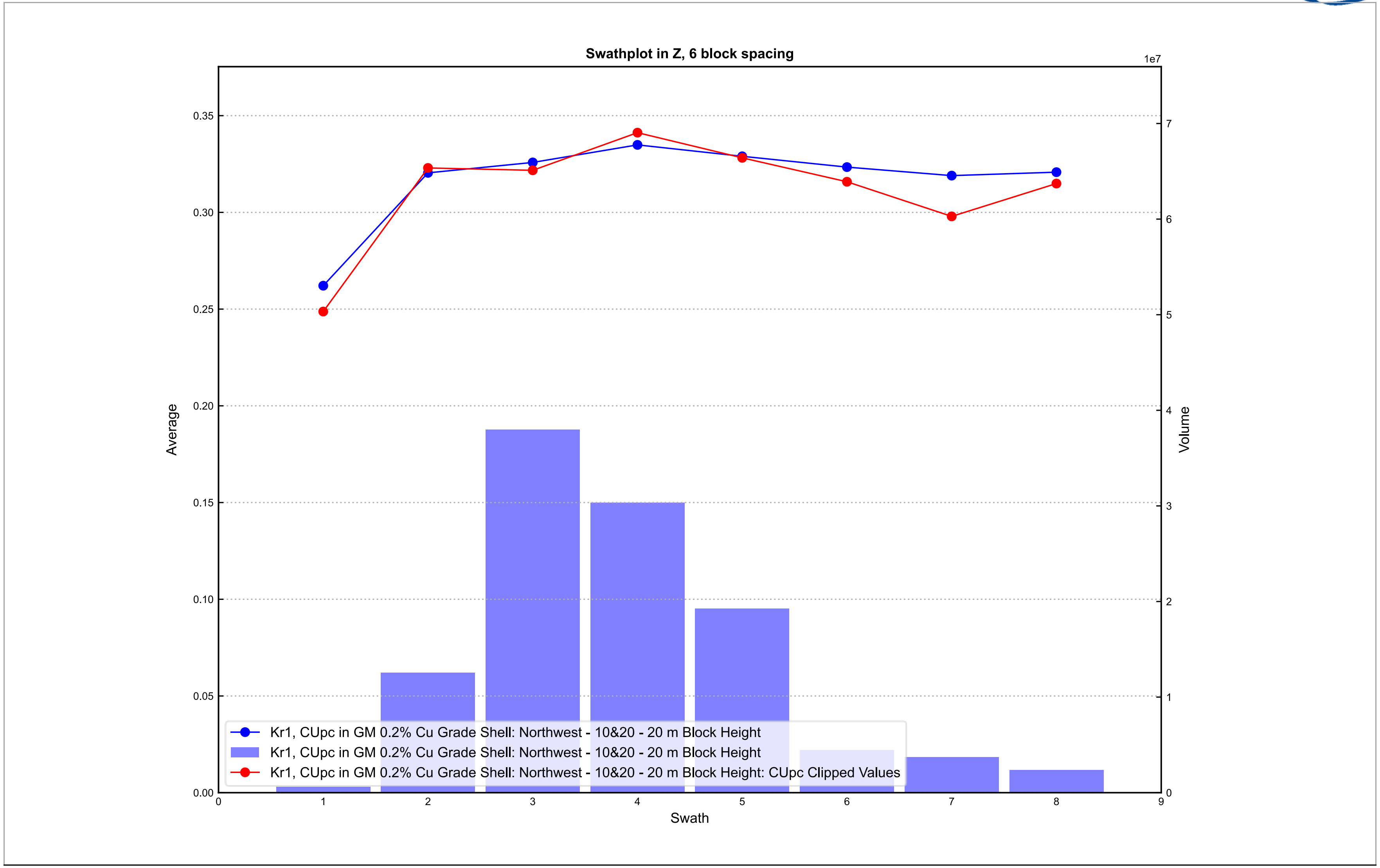
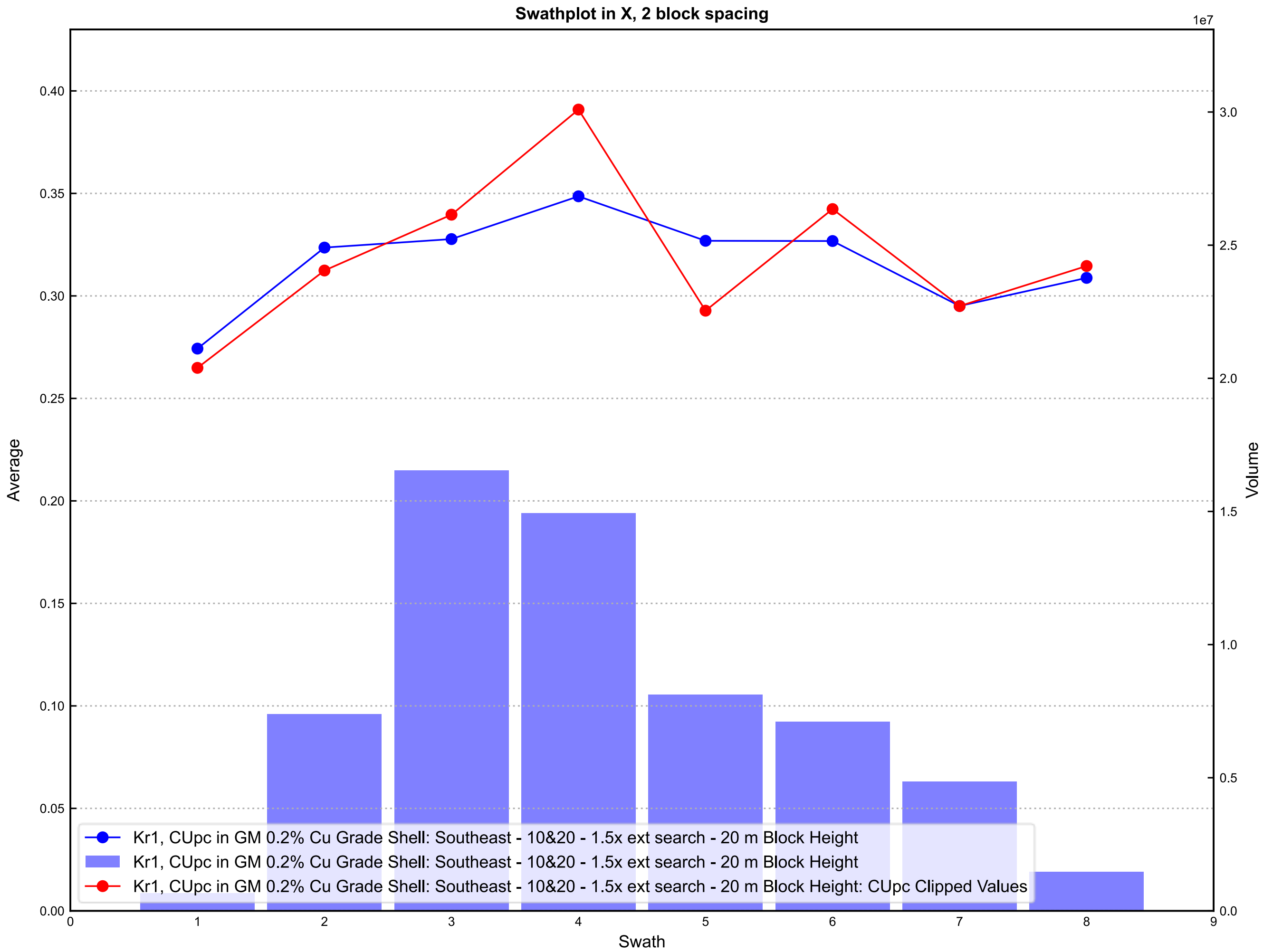
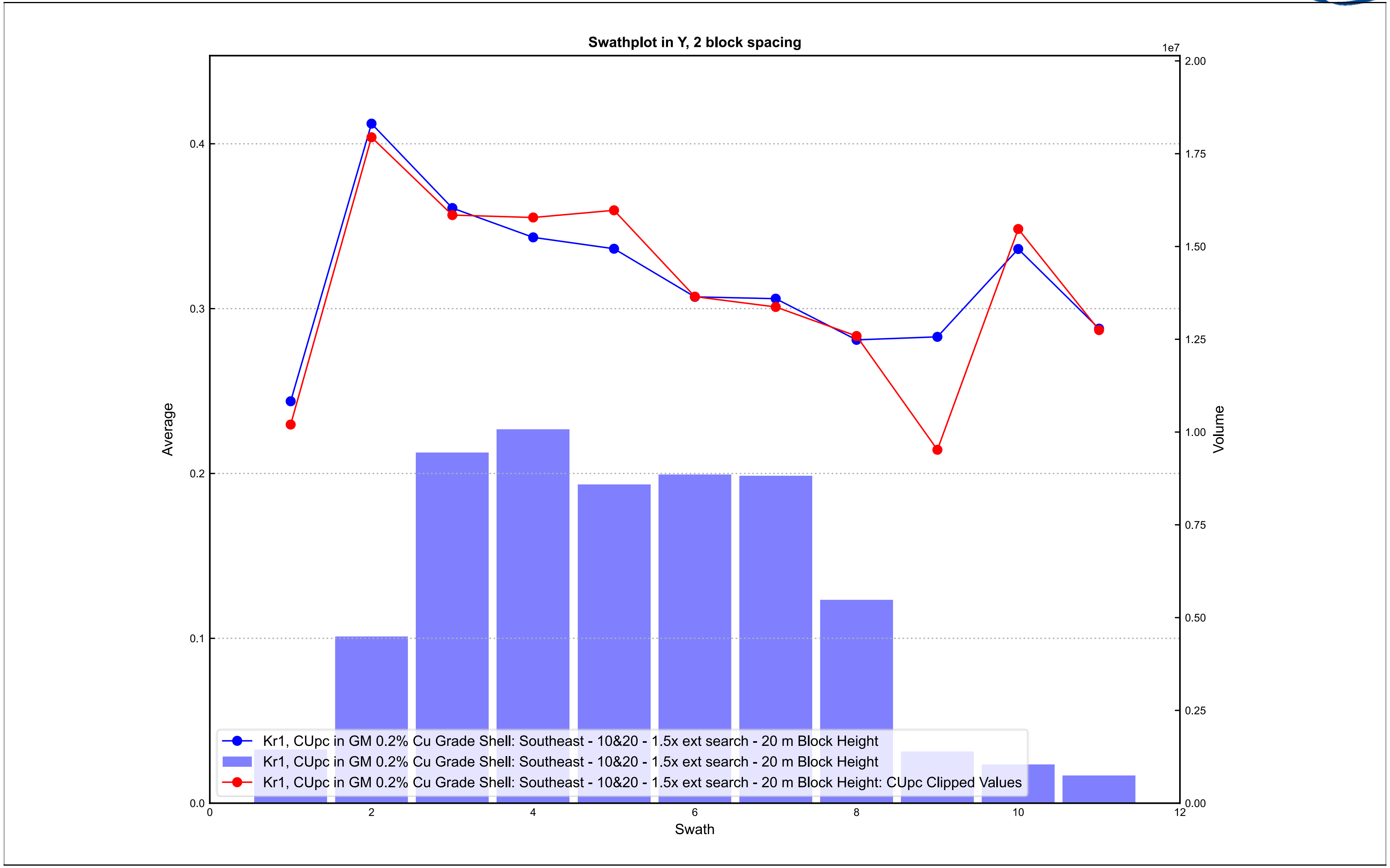
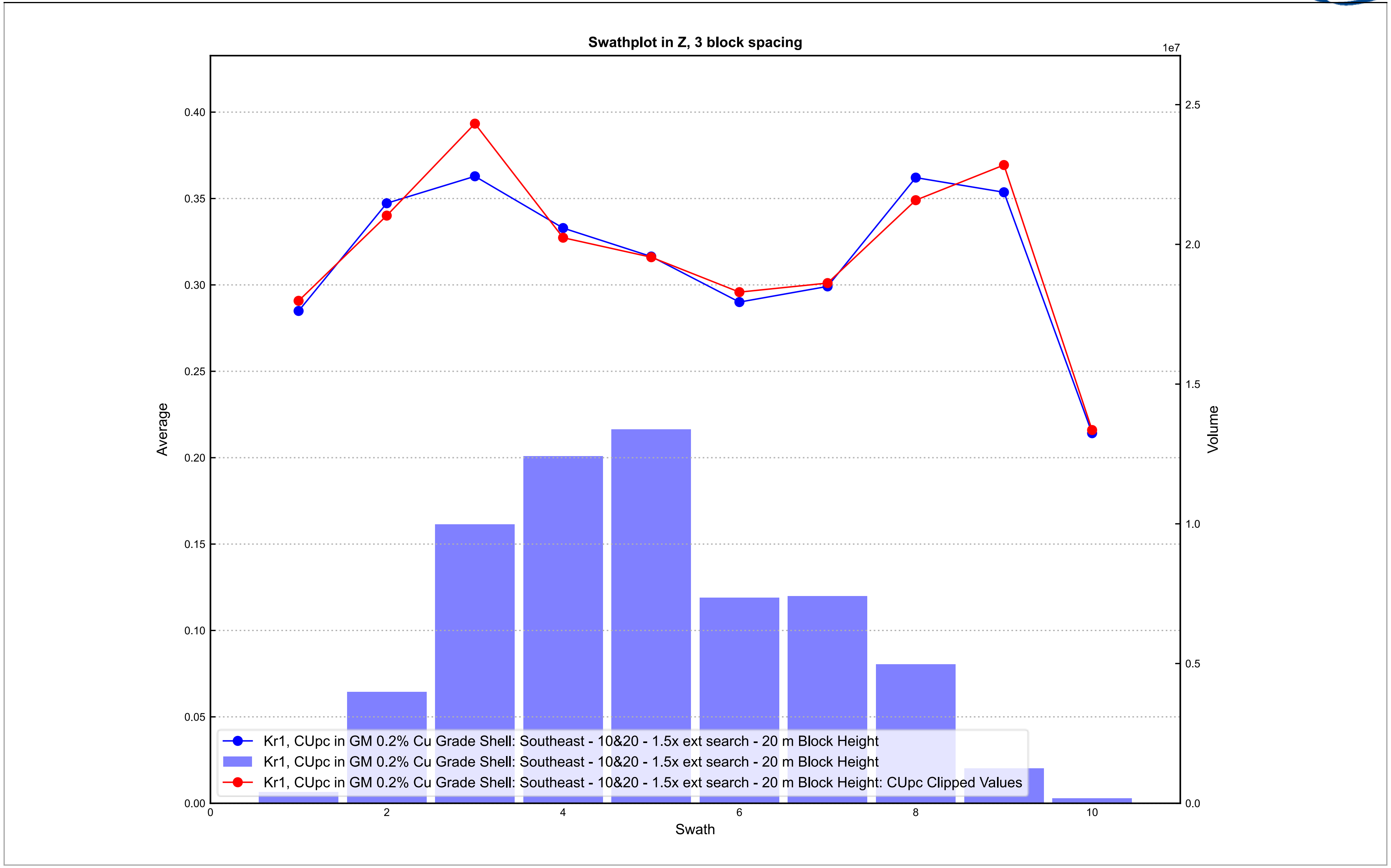

Swathplot in Z, 6 block spacing
Average
Volume
Swath
1e7
Kr1, CUpc in GM 0.2% Cu Grade Shell: Northwest - 10&20 - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Northwest - 10&20 - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Northwest - 10&20 - 20 m Block Height: CUpc Clipped Values

Figure 14-27
Swath plots for SE high grade domain copper grade




Swathplot in Y, 2 block spacing
Average
Volume
1e7
Swath
Kr1, CUpc in GM 0.2% Cu Grade Shell: Southeast - 10&20 - 1.5x ext search - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Southeast - 10&20 - 1.5x ext search - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Southeast - 10&20 - 1.5x ext search - 20 m Block Height: CUpc Clipped Values



Swathplot in Z, 3 block spacing
Average
Volume
1e7
Swath
Kr1, CUpc in GM 0.2% Cu Grade Shell: Southeast - 10&20 - 1.5x ext search - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Southeast - 10&20 - 1.5x ext search - 20 m Block Height
Kr1, CUpc in GM 0.2% Cu Grade Shell: Southeast - 10&20 - 1.5x ext search - 20 m Block Height: CUpc Clipped Values

14.7.3 Statistical Validation

A comparison between the mean block model and 2 m composite sample copper grade is presented in Table 14-11 for both of the high grade domains. The global grade correlation is well within acceptable limits, being within approximately 5% for both domains.

Table 14-11
Statistical comparison of block model copper grade and composite sample copper grade for high grade domains

Domain	Number of samples	Mean block model copper grade (%)	Mean capped composite sample copper grade (%)	Percentage difference between block and composite sample grade
NW High Grade	9,690	0.309	0.326	-5.2
SE High Grade	3,629	0.323	0.339	-4.7

14.7.4 Mine to Mill Reconciliation

No mining has occurred to date at the Project.

14.8 Mineral Resource Classification

14.8.1 Approach to Classification

Classification of the Haib Mineral Resource was based on the degree of geological uncertainty, grade continuity and variability, frequency of the drilling data and confidence in the data.

The main considerations in terms of the Resource classification are as follows:

- Robustness of the geological model
- Grade shell continuity with low variability within and between drilling sections
- Semi-variogram ranges in relation to the general drillhole spacing within the estimation domains
- Correlation of block model and composite sample grade
- Presence and satisfactory performance of QAQC.

14.8.2 Summary of Mineral Resource Classification

Considering the aforementioned criteria, the Haib Mineral Resource has been classified as follows:

- No Measured Mineral Resource was declared
- The Indicated Mineral Resource is underpinned by denser drilling in the central portion of the deposit. This drilling is on an irregular grid of typically 40 m to 80 m with a relatively (for the deposit) high slope of regression

- The Inferred Mineral Resource comprises those parts of the block model for which geostatistical confidence in the grade estimates is low and the drill spacing is approximately 150 m along and across the strike of the deposit.

Plan and long section views illustrating the Resource classification of the Haib block model are illustrated in Figure 14-28 and Figure 14-29, respectively.

Figure 14-28
Plan view of Haib block model with Indicated Resource volumes

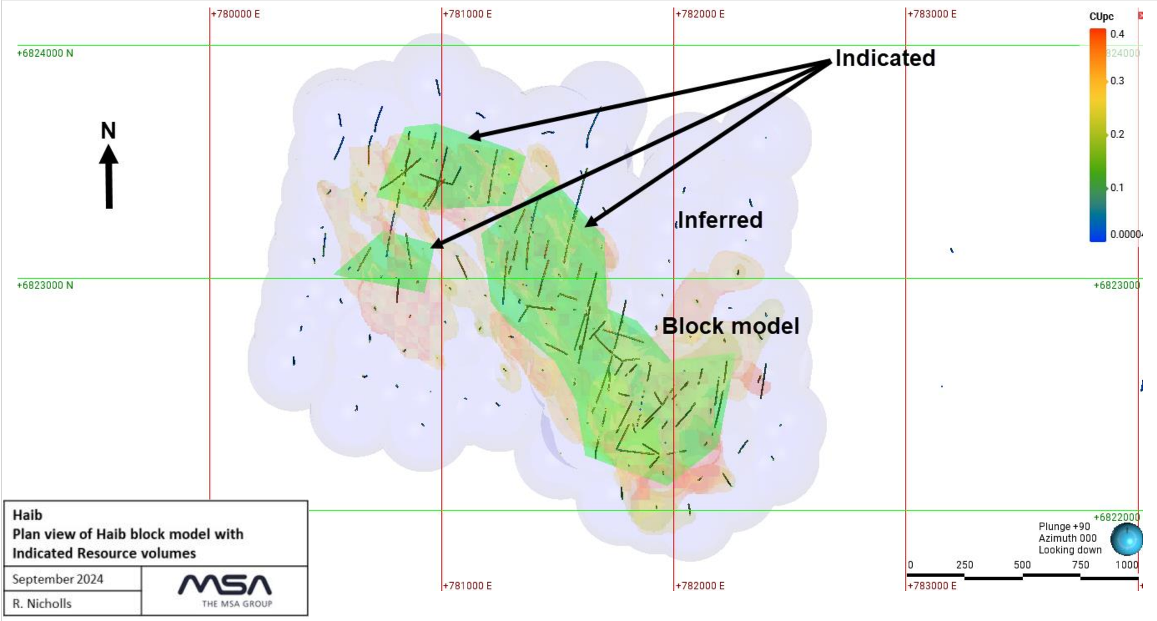
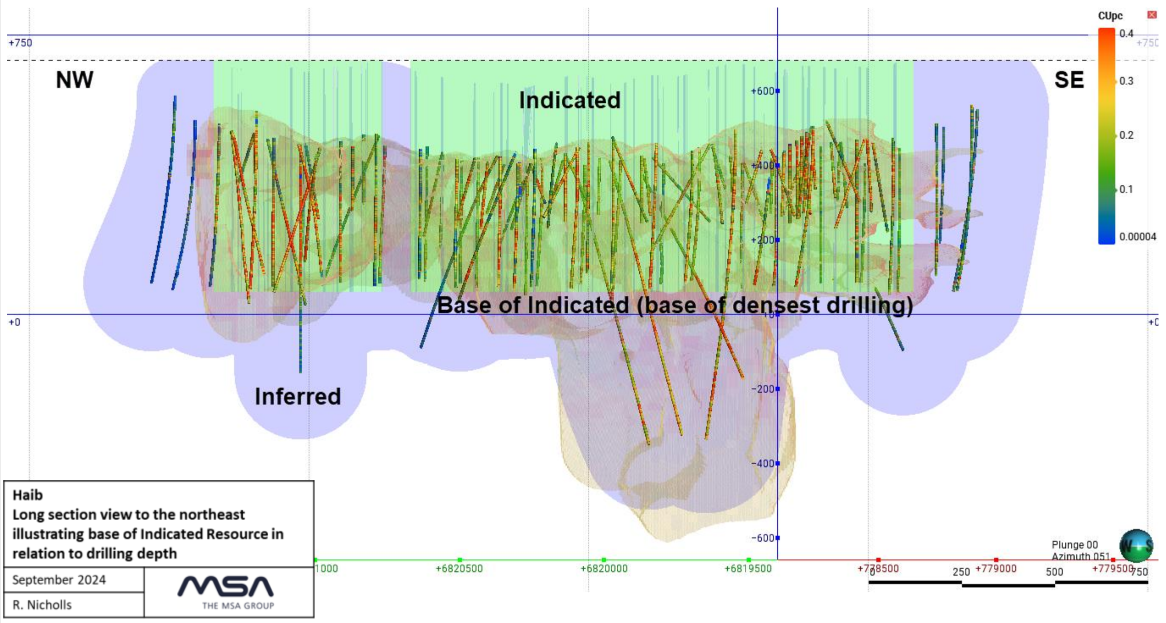


Figure 14-29
Long section view to the northeast illustrating base of Indicated Resource in relation to drilling depth



The Mineral Resource may be affected by further infill drilling, which may result in increases or decreases in subsequent Mineral Resource estimates. Inferred Mineral Resources are higher-risk estimates that may change with additional sampling data. It cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated Mineral Resource through continued exploration. The Mineral Resource may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic and other factors.

14.9 Assessment of Reasonable Prospects for Eventual Economic Extraction (RPEEE)

In assessing "reasonable prospects for eventual economic extraction" (RPEEE), the Mineral Resource was reported from within an optimised pit shell using the following assumed parameters and a cut-off grade of 0.25% Cu:

- Copper price: USD 4.50 / lb Cu
- Mining cost by open pit: USD 2.35 / tonne waste mined at pit rim - USD 2.50 / tonne mineralized material mined at pit rim
- Average processing costs: USD 6.00 / tonne mineralized material processed
- Average G&A overheads cost: USD 1.00 / tonne mineralized material processed
- Government royalty: 3%
- Export levy: 1%
- Process recovery: 80% Cu for both oxide and sulphide (fresh)
- Selling cost (transport): USD 0.10 / lb Cu in concentrate

The reader is advised that the assessment of economic potential that is incorporated in the Mineral Resource is a high-level assessment and is solely for the purpose of reporting Mineral Resources and does not represent an attempt to estimate Mineral Reserves.

Figure 14-30 illustrates the USD4.50 / lb Cu pit shell in relation to the block model. A NW-SE long section of the block model illustrating the Indicated and Inferred Resources is presented in Figure 14-31.

Figure 14-30
Haib resource pit shell and block model – plan view and oblique view to the north

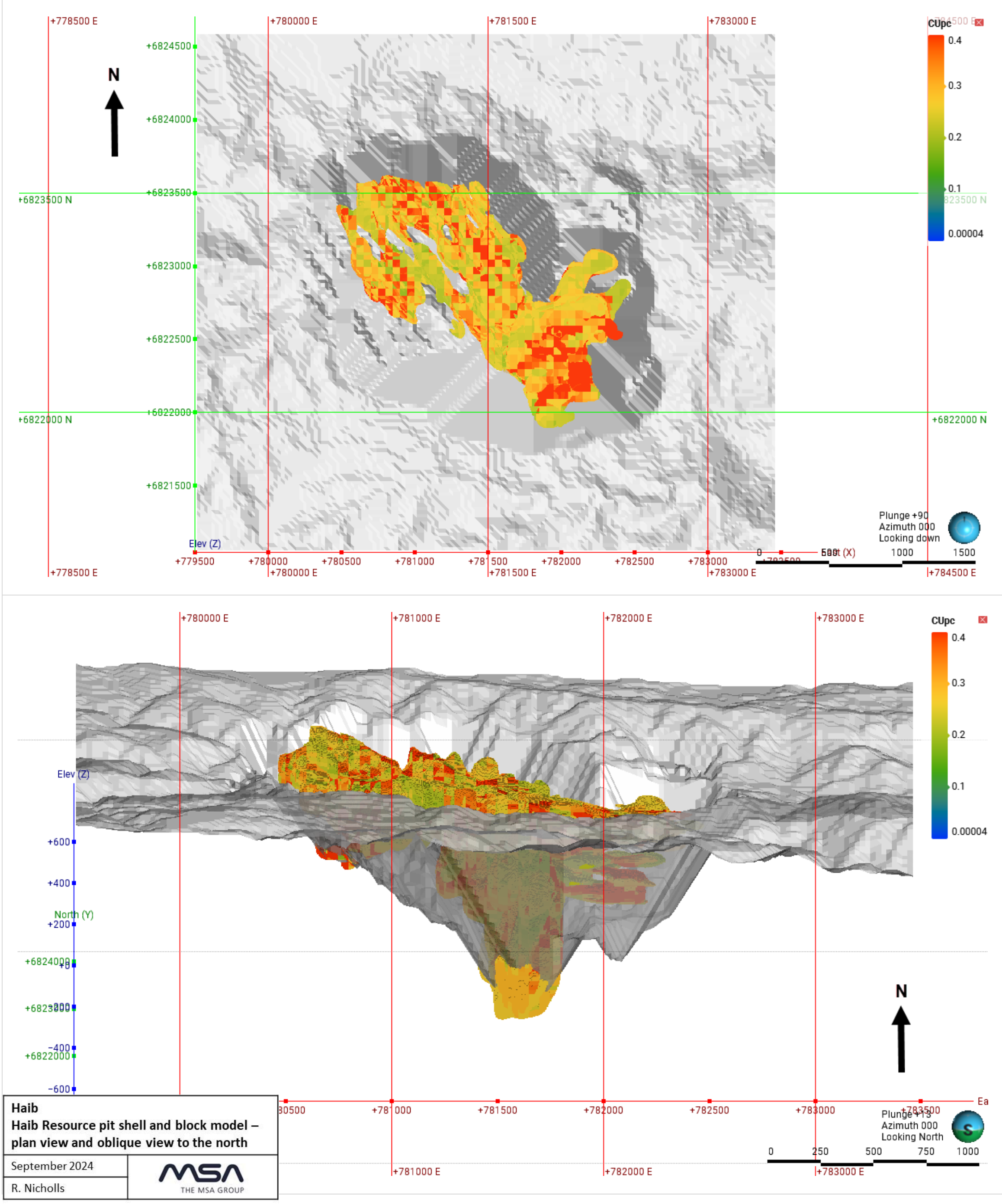
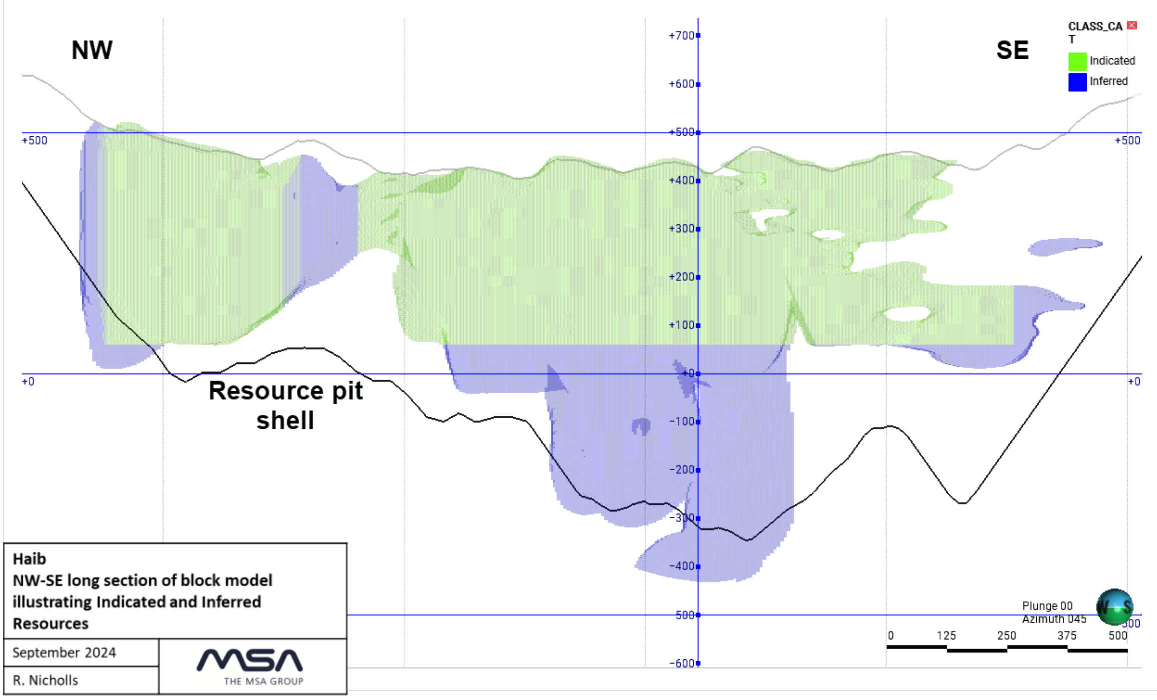


Figure 14-31
NW-SE long section of block model illustrating Indicated and Inferred Resources within the resource pit shell



14.10 Mineral Resource Statement

The Mineral Resource is reported for copper only. The assumed process route used in the calculation of the cut-off grade and the input for the optimised pit shell is HPGR comminution followed by bio-leaching as identified in the 2024 PEA (refer to Item 13 of this report). At this stage, no recovery of molybdenum has been allowed for. The Mineral Resource Statement for Haib as at 31 August 2024 is presented in Table 14-12.

The Mineral Resource is stated at a cut-off grade of 0.25% Cu and is reported within an optimised pit shell.

In the opinion of the Qualified Person, the Mineral Resources reported herein at the selected cut-off grade have “reasonable prospects for eventual economic extraction” (RPEEE), taking into consideration mining and processing assumptions.

Table 14-12
Mineral Resource Statement for Haib as at 31 August 2024 at a 0.25% Cu cut-off

Category	Zone	Tonnes (Mt)	Average Cu Grade (%)	Cu Content (Mlbs)	Cu Content (kt)
Measured	Northwest	-	-	-	-
	Southeast	-	-	-	-
	Low Grade	-	-	-	-
	Total	**-**	**-**	**-**	**-**
Indicated	Northwest	300	0.35	2,310	1,048
	Southeast	115	0.36	906	411
	Low Grade	-	-	-	-
	Total	**414**	**0.35**	**3,216**	**1,459**
Measured & Indicated	Northwest	300	0.35	2,310	1,048
	Southeast	115	0.36	906	411
	Low Grade	-	-	-	-
	Total	**414**	**0.35**	**3,216**	**1,459**
Inferred	Northwest	283	0.33	2,052	931
	Southeast	47	0.34	359	163
	Low Grade	16	0.27	93	42
	Total	**345**	**0.33**	**2,503**	**1,136**

Notes:

1. *All tabulated data have been rounded and as a result minor computational errors may occur.*
2. *Mt = Million tonnes, kt = thousand tonnes, Mlbs = Million pounds*
3. *The Mineral Resource Statement for Haib as of 31 August 2024 is reported at a cut-off grade of 0.25% Cu within a conceptual pit shell using the following assumed parameters:*
   - *Base Copper Price USD/lb Cu: 4.50*
   - *Average Mining Cost at reference elevation (AISC) USD/tonne: USD 2.35 / tonne waste mined at pit rim - USD 2.50 / tonne mineralized material mined at pit rim*
   - *Average Processing Cost of mineralized material: 6.00 USD/tonne processed*
   - *Average G&A Overheads for mineralized material: 1.00 USD/tonne processed*
   - *Process Overall Recovery of copper: 80%*
   - *Selling Cost Transport of Concentrate to Smelter USD/lb Cu: 0.10*
4. *Low Grade zone refers to the portion of the block model outside the modelled 0.2% Cu grade shells*
5. *From the assumed parameters, a 0.1% Cu in situ marginal cut-off grade was calculated, which together with the conceptual pit shell demonstrates reasonable prospects for eventual economic extraction (RPEEE) for the Mineral Resource. The assessment to satisfy the criteria of RPEEE is a high-level estimate and is not an attempt to estimate Mineral Reserves.*
6. *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability as may be obtained once a pre-feasibility or feasibility studies have been completed and all modifying factors have been taken into account.*

14.11 Grade Tonnage Curves

The grade-tonnage curves for the Indicated and Inferred Resources are presented in Figure 14-32 and Figure 14-33, respectively.

Figure 14-32
Grade-Tonnage Curves for Indicated Resource

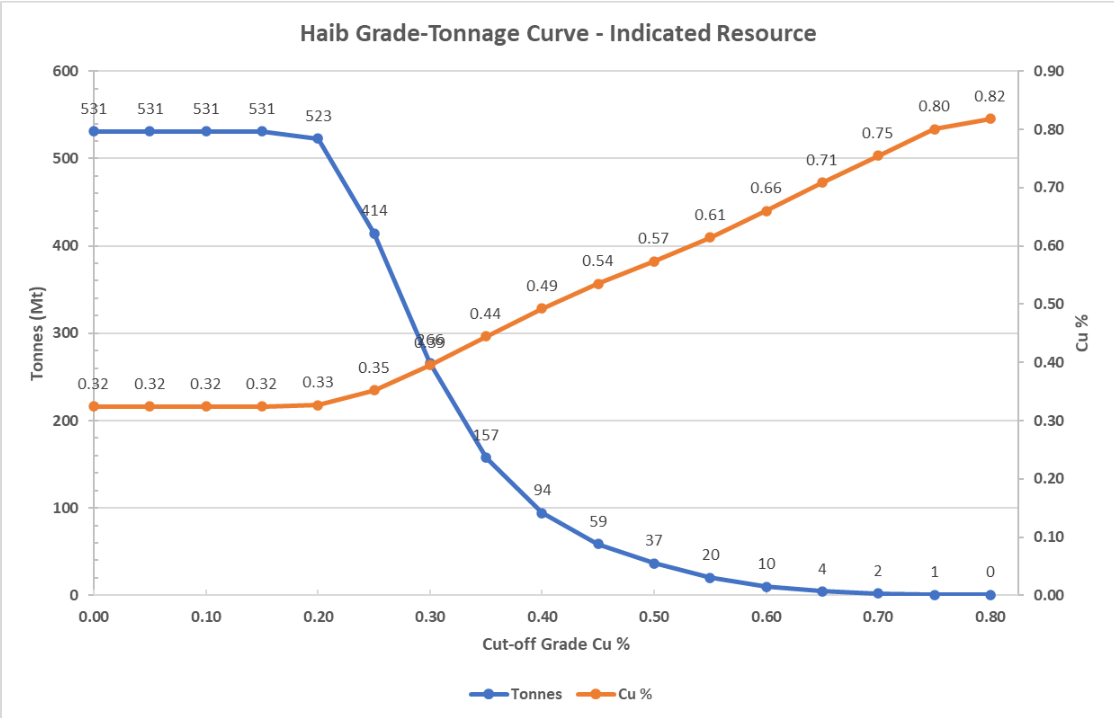
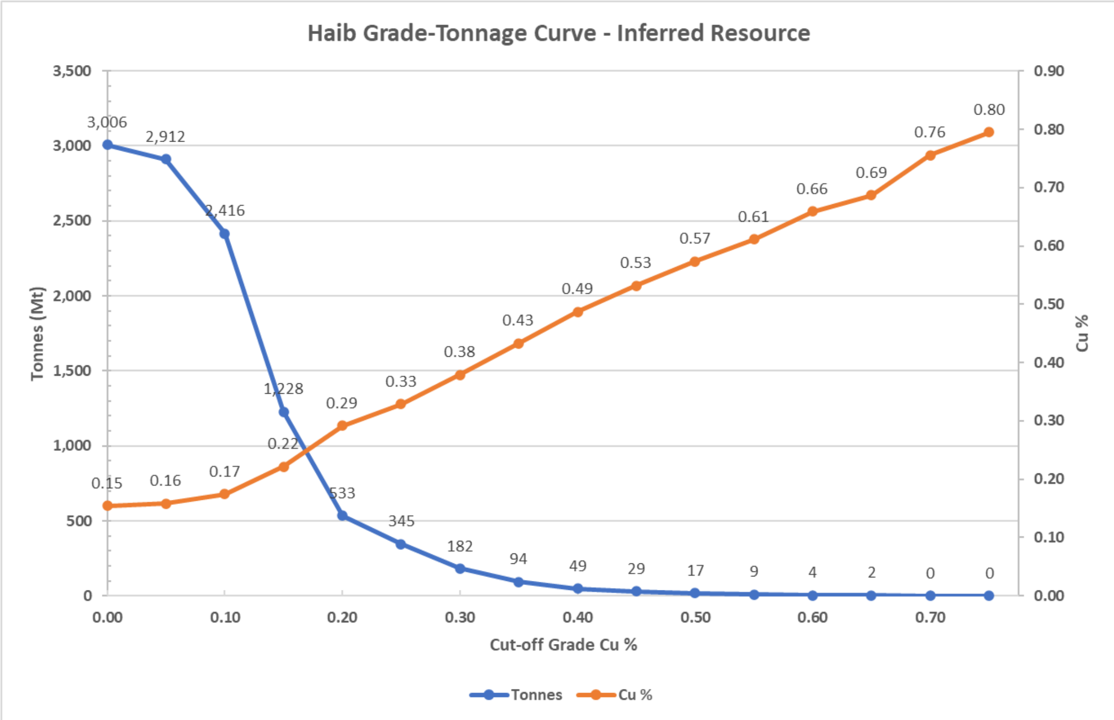


Figure 14-33
Grade-Tonnage Curves for Inferred Resource



15 MINERAL RESERVE ESTIMATES

Not applicable.

16 MINING METHODS

Not applicable.

17 RECOVERY METHODS

Not applicable.

18 PROJECT INFRASTRUCTURE

Not applicable.

19 MARKET STUDIES AND CONTRACTS

Not applicable.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The renewed Environmental Clearance Certificate was issued on the 03 September 2024 for a period of three years.

21 CAPITAL AND OPERATING COSTS

Not applicable.

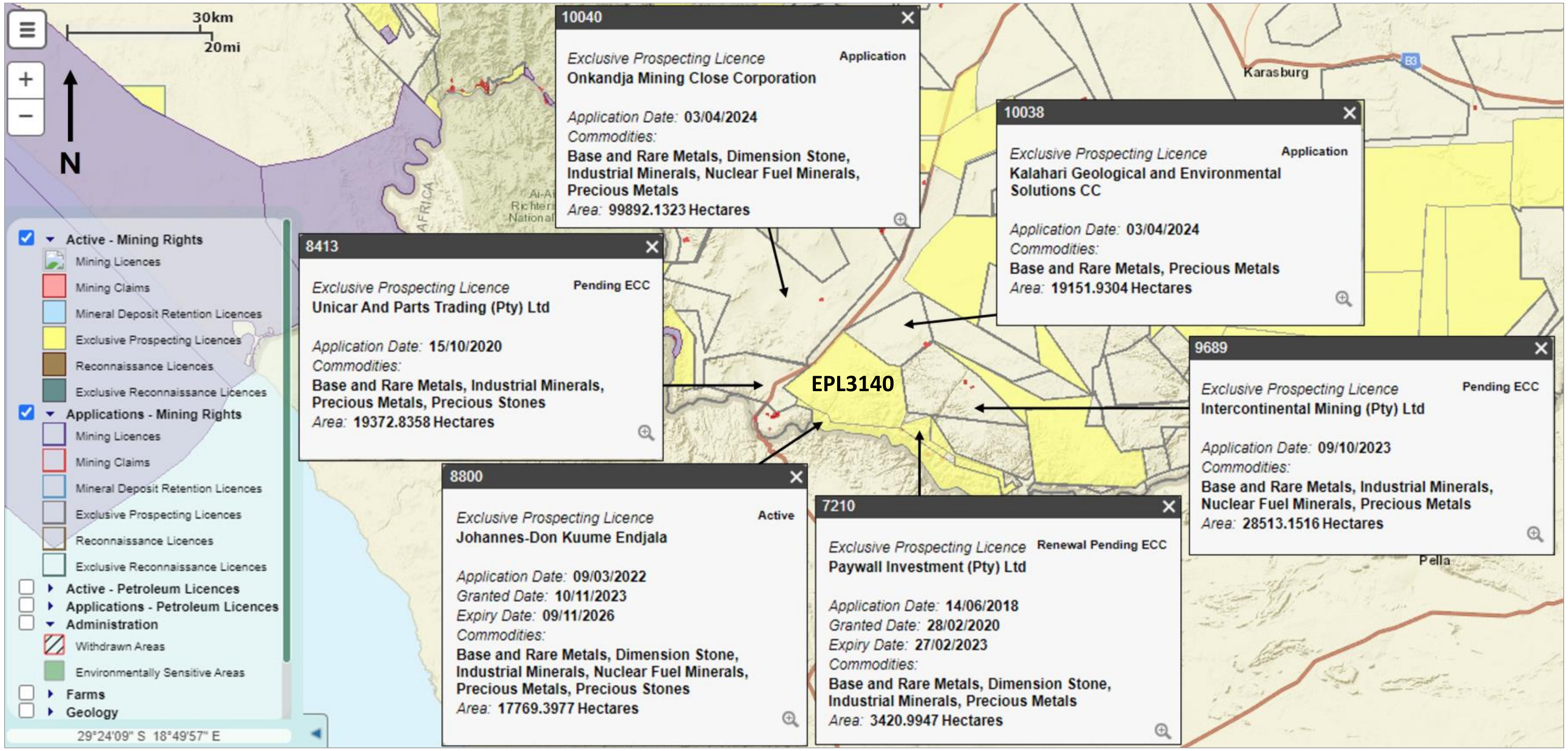
22 ECONOMIC ANALYSIS

Not applicable.

23 ADJACENT PROPERTIES

Several properties held by exploration companies surround the Project property (Figure 23-1). These are early stage exploration properties and no inference as to the prospectivity of Koryx's licences is made.

Figure 23-1
Adjacent properties to EPL3140



Source: *https://portals.landfolio.com/namibia/. Accessed on 4 September 2024.*

24 OTHER RELEVANT DATA AND INFORMATION

There is no other information of relevance that the exclusion of which may make the report misleading.

25 INTERPRETATION AND CONCLUSIONS

On behalf of Koryx, MSA has completed an update to the Mineral Resource estimate for the Haib Project. The 2021 and 2023-2024 drilling was successful in identifying higher grade trends to the mineralisation and furthering Koryx's understanding of mineralisation controls on the higher grade portion of the deposit, which could improve the projects economic viability.

In comparison with the previous Mineral Resource, which was declared in the PEA report published in 2021, the updated Mineral Resource Estimate shows a decrease in tonnes by 9% for Indicated material but an increase in grade by 13%. The Inferred material shows both an increase in tonnes by 1% and an increase in grade by 14%.

The Mineral Resource is reported as Indicated and Inferred Mineral Resources as shown in Table 25-1. The Mineral Resource was estimated using The Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Best Practice Guidelines (2019) and is reported in accordance with the 2014 CIM Definition Standards, which have been incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101).

In the QP's opinion, the Mineral Resources reported herein at the selected cut-off grade have "reasonable prospects for eventual economic extraction", taking into consideration mining and processing assumptions. The Mineral Resource was reported from within a Whittle optimised pit shell at a cut-off grade of 0.25% Cu.

Table 25-1
Mineral Resource Statement for Haib as at 31 August 2024 at a 0.25% Cu cut-off

Category	Zone	Tonnes (Mt)	Average Cu Grade (%)	Cu Content (Mlbs)	Cu Content (kt)
Measured	Northwest	-	-	-	-
	Southeast	-	-	-	-
	Low Grade	-	-	-	-
	Total	**-**	**-**	**-**	**-**
Indicated	Northwest	300	0.35	2,310	1,048
	Southeast	115	0.36	906	411
	Low Grade	-	-	-	-
	Total	**414**	**0.35**	**3,216**	**1,459**
Measured & Indicated	Northwest	300	0.35	2,310	1,048
	Southeast	115	0.36	906	411
	Low Grade	-	-	-	-
	Total	**414**	**0.35**	**3,216**	**1,459**
Inferred	Northwest	283	0.33	2,052	931
	Southeast	47	0.34	359	163
	Low Grade	16	0.27	93	42
	Total	**345**	**0.33**	**2,503**	**1,136**

Notes:

1. *All tabulated data have been rounded and as a result minor computational errors may occur.*
2. *Mt = Million tonnes, kt = thousand tonnes, Mlbs = Million pounds*
3. *The Mineral Resource Statement for Haib as of 31 August 2024 is reported at a cut-off grade of 0.25% Cu within a conceptual pit shell using the following assumed parameters:*
   - *Base Copper Price USD/lb Cu: 4.50*
   - *Average Mining Cost at reference elevation (AISC) USD/tonne: USD 2.35 / tonne waste mined at pit rim - USD 2.50 / tonne mineralized material mined at pit rim*
   - *Average Processing Cost of mineralized material: 6.00 USD/tonne processed*
   - *Average G&A Overheads for mineralized material: 1.00 USD/tonne processed*
   - *Process Overall Recovery of copper: 80%*
   - *Selling Cost Transport of Concentrate to Smelter USD/lb Cu: 0.10*
4. *Low Grade zone refers to the portion of the block model outside the modelled 0.2% Cu grade shells*
5. *From the assumed parameters, a 0.1% Cu in situ marginal cut-off grade was calculated, which together with the conceptual pit shell demonstrates reasonable prospects for eventual economic extraction (RPEEE) for the Mineral Resource. The assessment to satisfy the criteria of RPEEE is a high-level estimate and is not an attempt to estimate Mineral Reserves.*
6. *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability as may be obtained once a pre-feasibility or feasibility studies have been completed and all modifying factors have been taken into account.*

The reader is advised that the assessment of economic potential that is incorporated in the Mineral Resource is a high-level assessment and is solely for the purpose of reporting Mineral Resources and does not represent an attempt to estimate Mineral Reserves.

The Mineral Resource may be affected by further infill drilling, which may result in increases or decreases in subsequent Mineral Resource estimates. Inferred Mineral Resources are higher-risk estimates that may change with additional sampling data. It cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated Mineral Resource through continued exploration. The Mineral Resource may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic and other factors.

26 RECOMMENDATIONS

Further drilling is recommended to confirm down dip extensions of the Haib deposit and infill the current grid with the aim of converting Inferred Mineral Resources to Inferred.

A drilling programme is planned as a first phase for 2024 and 2025 consisting of over 8,200 m with the purpose of targeting areas for potential Mineral Resource expansion and confirming and extending higher grade areas. A second phase of exploration as is expected to be required as an additional programme following the 2024 and 2025 drilling programme (Table 26-1) to continue to develop the Mineral Resource, which is contingent on the results of the 2024 to 2025 phase and maybe adjusted accordingly.

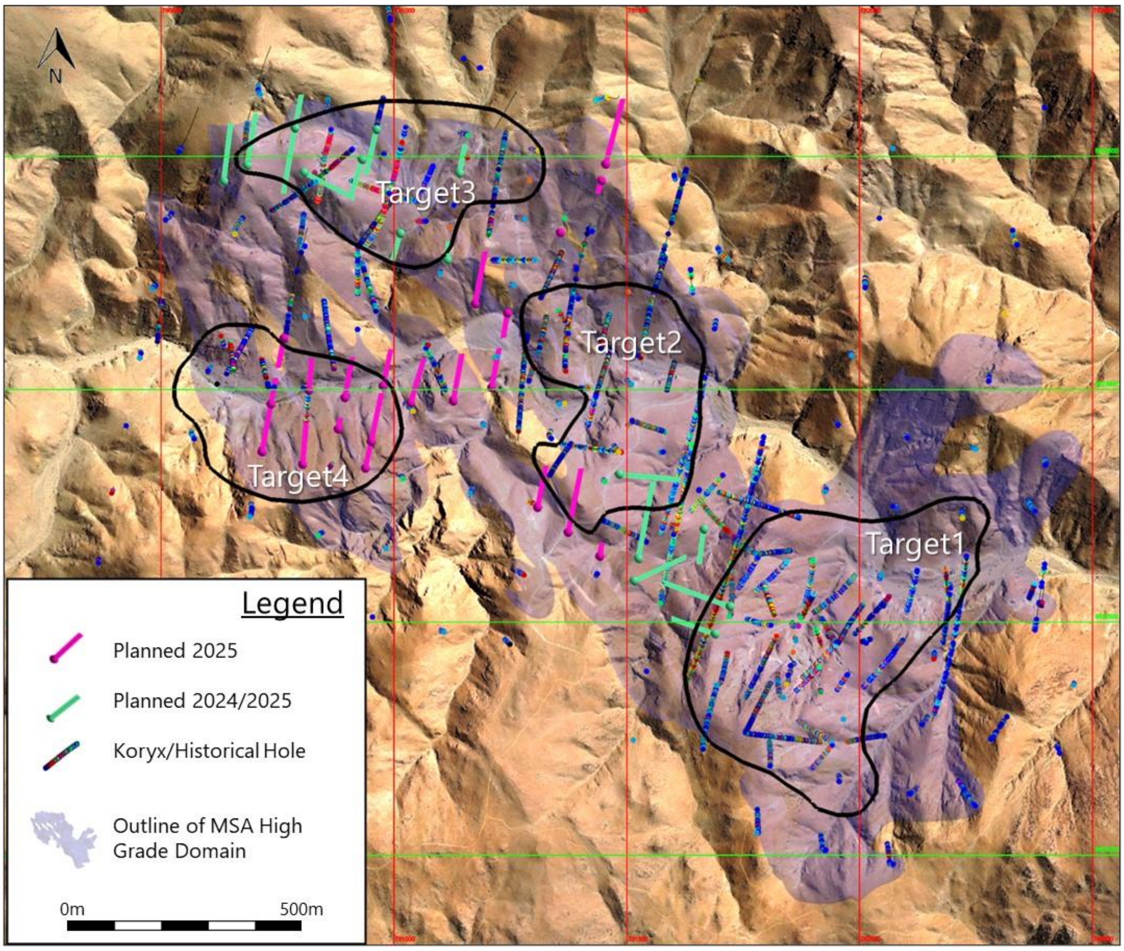
Table 26-1
Planned Drilling Programmes

Item	Phase 1: 2024 / 2025 Drill Programme	Phase 2: Additional Drill Programme
Metres planned (m)	8,261	10,000
Cost per metre (NAD/m)	1,900 NAD/m ($148 CAD/m)	1,900 NAD/m ($148 CAD/m)
Drilling Cost (NAD; CAD)	**15,695,900 NAD $1,222,628 CAD**	**19,000,000 NAD $1,480,000 CAD**
Cost per assay (NAD/assay)	476 NAD/assay / $37 CAD/assay	476 NAD/assay / $37 CAD/assay
Assay Cost (NAD; CAD)	3,928,404 NAD $305,973 CAD	4,755,361 NAD $370,382 CAD
Total (NAD; CAD)	**19,624,304 NAD $1,528,485 CAD**	**23,755,361 NAD $1,850,242**
Grand Total (NAD; CAD) (Phases 1 and 2)	**43,379,664 NAD $3,378,727 CAD**	

Note:*:USD:NAD exchange rate of 17.75 (22-October 2024); $1.3825 CAD/USD.*

Target 1 is relatively well drilled and the focus of the 2024-2025 drilling is infill drilling within Targets 2, 3 and 4 and for assessing the continuity of mineralisation between the original target areas (Figure 26-1).

Figure 26-1
Planned Drilling Programme (2024-2025)



Source: *Koryx, 2024*

27 REFERENCES

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THE MSA GROUP

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Cnr Victory and Rustenburg Roads, Victory Park, 2195
PO Box 81356, Parkhurst, 2120, South Africa

CERTIFICATE OF QUALIFIED PERSON

I, Jeremy Charles Witley do hereby certify that:

1. I am Head of Mineral Resources of:

   The MSA Group (Pty) Ltd
   Henley House, Greenacres Office Park, Victory Park, Randburg, 2195
   South Africa.

2. This certificate applies to the technical report titled "NI 43-101 Technical Report – August 2024 Mineral Resource Estimate for the Haib Copper Project, Namibia", that has an effective date of 31 August 2024 and a report date of 23 October 2024 (the Technical Report).

3. I graduated with a BSc (Hons) degree in Mining Geology from the University of Leicester in 1988. In addition, I obtained a Master of Science degree in Engineering from the University of Witwatersrand in 2015.

4. I am a registered Professional Natural Scientist (Geological Science) with the South African Council for Natural Scientific Professions (SACNASP, Registration Number 400181/05) and I am a Fellow of the Geological Society of South Africa.

5. I have worked as a geologist for a total of 36 years. I have worked in a number of roles, including senior management, in mine geology, exploration projects and Mineral Resource management. I have conducted Mineral Resource estimates, audits and reviews for a wide range of commodities and styles of mineralisation including copper and polymetallic base metal sulphide deposits.

6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.

7. I visited the Haib Copper Project property for 4 days from 18 to 21 May 2021 and for 4 days from 11 to 14 March 2024.

8. I am responsible for the preparation of Items 1 to 12 and 14 to 27 of the Technical Report.

9. I have not had prior involvement with the property that is the subject of the Technical Report.

10. I am independent of the applicant according to the definition of independence described in section 2.2 of National Instrument 43-101.

11. I have read National Instrument 43-101, Form 43-101F1 and the Technical Report and, as of the date of this certificate, to the best of my knowledge, information and belief, those portions of the Technical Report for which I am responsible have been prepared in compliance with that instrument and form.

12. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 23rd Day of October 2024.

"Jeremy Charles Witley" (signed and stamped)
Jeremy Charles Witley, Pr. Sci. Nat (nr. 400181/05)

QUALIFIED PERSON CERTIFICATE

I, Damian Edward Gerard Connelly, B.Sc. App Sc, FAusIMM, FIEAust, do hereby certify that:

1. I am an independent consulting metallurgist operating under the auspices of METS Engineering Group, located at Level 3, 44 Parliament Place, West Perth, 6005, Australia. Tel: +61 (08) 9421 9000.

2. This certificate applies to the report titled "NI 43-101 Technical Report – August 2024 Mineral Resource Estimate for the Haib Copper Project, Namibia" with an effective date of 31 August 2024, and a report date 23 October 2024 (the "Report") for which I am a co-author.

3. I graduated with a Bachelor of Science degree in Applied Science in 1973 from the University of Adelaide, in Australia.

4. I am a Professional Metallurgist registered as a Fellow of the Australasian Institute of Mining and Metallurgy (nr. 105679) and a Chartered Professional Engineer (met). I am also a Fellow of Engineers Australia.

   I have worked as a metallurgist for a total of 45 years since my graduation from university and have been involved in resource project development. I currently lead a team of civil, mechanical, electrical, structural, estimators, drafts persons and process engineers.

   I have worked as a consultant Metallurgical Consultant to the Mineral Processing Industry for the past 30 years, which has involved working on feasibility studies, detailed design, plant construction, due diligence work and more.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, Koryx Copper Inc., its subsidiaries and the property which is the subject of the Report, applying all of the tests in Section 1.5 of NI 43-101.

6. I last visited the site of the Haib Project which is the property that is the subject of the Report in January 2006.

7. I am solely responsible for Item 13 of the Report.

8. My only prior involvement in the property that is a subject of the Report is that on 22nd of March 2006, I authored an independent technical report called "Haib Copper Project, Project Options".

9. I have read NI 43-101 and the Report, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

10. As of the effective date of this Report, to the best of my knowledge, information and belief, this Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

"Damian E. G. Connelly" (signed and stamped)

Damian E.G. Connelly **B.App.Sc. FAusIMM. (CP) Met. FIEAust.**
AusIMM Member 105679
CIM Member 91260

Dated: 23 October 2024