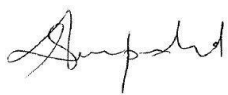
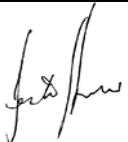
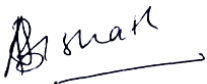




Advisory and Consulting

Technical Report on the Molulu Copper/Cobalt Project in the Democratic Republic of The Congo (DRC).

10 August 2022

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IMPORTANT NOTICE

This Technical Report, following JORC 2012 rules and guidelines, was prepared for Critical Metals PLC (“Critical Metals”) by Luhlaza Advisory and Consulting (Pty) Ltd (“Luhlaza”). The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in Luhlaza’s services, based on:

i) Information available at the time of preparation, ii) data supplied by outside sources, iii) and the assumptions, conditions, and qualifications set forth in this Report.

This Report can be filed as a Technical Report with Securities Regulatory Authorities pursuant to JORC 2012, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under any applicable securities law, any other uses of this Report by any third party are at that party’s sole risk.

This Technical Report contains estimates, projections and conclusions that are forward-looking information within the meaning of applicable laws. Forward-looking statements are based upon the responsible Competent Person’s (“CP”) opinion at the time they are made but, in most cases, involve significant risks and uncertainty. Although each of the responsible CPs has attempted to identify factors that could cause actual events or results to differ materially from those described in this Report, there may be other factors that could cause events or results not be as anticipated, estimated or projected. There can be no assurance that forward-looking information in this Report will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements or information, accordingly, readers should not place undue reliance on forward-looking information. Forward-looking information is made as of the effective date of this Technical Report, and none of the CPs assume any obligation to update or revise it to reflect new events or circumstances, unless otherwise required by applicable laws.

COMPETENT PERSON'S REPORT

The Directors
Critical Metals PLC
20 Primrose Street
London EC2A 2EW
United Kingdom

August 10th, 2022

Dear Sirs,

Luhlaza Advisory and Consulting (Pty) Ltd ("Luhlaza") has prepared this independent report (the "CPR" or the "Report") at the request of the management at Critical Metals PLC ("Critical Metals" or the "Company") on the Copper/Cobalt Project owned by Amani Minerals Katanga SA located in the Democratic Republic of Congo ("DRC"), referred to in this report as the "Copper/Cobalt Project" or the "Project". This Report was prepared by Mr. Dexter S. Ferreira, B.Sc. (Geology), B.Eng. (Mining). Mr. Ferreira is a member of the South African Council for Natural Scientist and has over 30 years' experience as an exploration geologist, geostatistician and mining engineer, and has worked with Luhlaza since 2016 specializing in mineral deposit modeling, due diligence work for the acquisition of deposits, preparing Competent Person reports for public companies and ensuring full disclosure with Ni 43-101, SAMREC and JORC codes. He has prepared valuations and technical reports for listings on the Vancouver, London, Johannesburg, and Australian Stock Exchanges. Amongst other assignments he has worked on appraisals and evaluations of mineral deposits, including lithium, in Africa, Asia, Latin America and North America. Further details of his qualifications and experience are contained within Section 20 of this Report.

Scope of Work, Materiality, Limitations and Exclusions

This Report is based on 1) information supplied by Critical Metals; 2) Luhlaza's extensive knowledge of the associated geology and related deposits; and 3) a site visit with data gathering to the permit area in early 2021. All data held by Critical Metals PLC was released to Luhlaza for review. Luhlaza reviewed source data, such as environmental clearance certificates and licenses. All requests for information to the employees of Critical Metals PLC were addressed immediately where possible and a candid approach to all queries was in evidence throughout the review.

All opinions, findings and conclusions expressed in this report are those of Luhlaza and are based on information provided by Critical Metals PLC, the author's extensive experience with copper/cobalt projects, and review by Luhlaza of source data.

Luhlaza checked the current status of the mineral license based on the documents provided which verifies the interest of the Amani Minerals Katanga SA (the 'AMK') in the license for the project. At no time during the course of preparation of the Report did Luhlaza become aware of either withholding of information or of the changing of records to influence the conclusion of

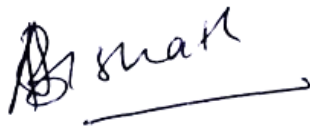
the Report. Luhlaza have endeavored to ensure that no error of fact is contained within the Report. Any such error is not intentional and is not a deliberate effort to mislead.

Capacity and Independence

This CPR is signed on behalf of Luhlaza by Mr. Dexter S. Ferreira, although a number of professionals contributed towards this Report. Further details of the other contributors' qualifications and experience are contained within Section 20 of this Report.

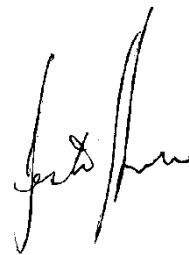
Other than for the purposes of completing the Report as described in this document, neither Luhlaza nor any person involved in the preparation of this Report has any commercial interest in Critical Metals AMK or any associated companies. Neither Luhlaza nor its directors, senior management and its advisors has economic or beneficial interest (present or contingent) in the Critical Metals PLC, AMK or in any of the mineral assets being evaluated. Luhlaza will be paid normal professional rates for completing the CPR for Critical Metals PLC.

Yours Faithfully



Dr. Avinash Bisnath (Pr.Sci.Nat.)

Managing Director/Geologist



Mr. Dexter Ferreira (Pr.Sci.Nat.)

Mining Engineer/Geostatistician

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Summary Introduction

This Technical Report, on the copper/cobalt deposit in the Democratic Republic of Congo ("DRC") has been prepared for Critical Metals PLC ("Critical Metals" or *the "Company"*), in compliance with the provisions of the JORC 2012 standards of disclosure for mineral projects.

Luhlaza Advisory and Consulting (Pty) Ltd ("Luhlaza") has provided the exploration targets, and integration services for all aspects of the Technical Report ("The Report") on the Copper/Cobalt Project with the participation of other professionals.

The responsibilities for each section of the Report are shown in Section 2 and identify the Competent Person ("CP") responsible for their section or sub-section.

This Report follows the guidelines as outlined with the provisions of JORC 2012 standards of disclosure for mineral projects, including Tables 1 and 2 as dictated by the Code.

The reader is reminded that the exploration work completed on this property is predominately surface pitting with some trenching. No exploration drilling has ever been done on the property, and therefore the project should be considered at a greenfields level.

Property Description and Location

The Molulu project area is accessible from Lubumbashi City travelling northwest on the N1 on tarred road of relatively good condition. From Tumbwe, approximately 20km one travels in a northeast direction to the Molulu project area which is accessible through a farm on poor dirt road for approximately 50km.

Accessibility, Climate, Local Resources, Infrastructure and Physiography Accessibility

The Molulu Project area is approximately 100km from Lubumbashi. The project is located in the Kasenga territory, 30 kilometers northwest from the village of Malambwe.

Climate

Two broad climatic areas can be distinguished in the DRC. The Congo River basin, which lies on the equator and forms around one-half of the country's area, consists of low-lying rainforest, which receives rainfall all year round. Temperatures are not as high as might be expected at the equator, but humidity is generally high. The remainder of the country, comprising the area around Kinshasa, and Kivu, Kasai and Katanga provinces, experiences distinct rainy and dry seasons. Katanga province, lying largely at an elevation of 1000 m or greater, experiences a climate with cooler, drier air than the majority of the country.

Local Resources and Infrastructure

The DRC has considerable hydroelectric power generating capacity, which is controlled and distributed by the national power utility, Société Nationale de Electricité ("SNEL"). Kolwezi lies along the transcontinental railroad system and has access to both east and west coast ports of Tanzania and Angola, as well as South Africa. Lubumbashi, some 300 km southeast of Kolwezi, is the commercial and industrial center of the Katanga Province and hosts an international airport.

Physiography

The vegetation consists primarily of Miombo woodlands with riverine forest along river edges and in deeply incised areas, sporadic seasonal marshes occur throughout the concession. The Molulu project area comprises an undulating and incised landscape obscured from satellite based DEMs due to the homogenizing effect of canopy cover.

History

The concession has been the subject of a historical coarse soil geochemistry, grab sample and trenching and pitting survey in 2011. More recently a Chinese group conducted diamond core drilling in the region of the southern Cu Co anomaly.

It is apparent from historical exploration and current small-scale mining that the Molulu Project (as defined by the amalgamation of ZEAs 353, 355 & 356) hosts two distinct geological targets namely the Roan sequence that is prospective for both copper and cobalt mineralization and zones of stratabound copper in the Ki and Ks Groups (*Lower Kundulungu and Upper Kundulungu respectively*).

Geological Setting and Mineralization Regional Geology

The mineralized zones are at the western end of the Katangan Copperbelt, one of the great metallogenic provinces of the world, and which contains some of the world's richest copper, cobalt and uranium deposits.

These deposits are hosted mainly by metasedimentary rocks of the late Proterozoic Katangan system, a 7km thick succession of sediments with minor volcanics, volcanoclastics and intrusives. Geochronological data indicate an age of deposition of the Katangan sediments of about 880 million years and deformation during the Katangan orogeny at less than 650 million years (Armstrong, 2005). This deformation resulted in the NS-SE trending Lufilian Arc, which extends from Namibia on the west coast of Africa through to Zambia, lying to the south of the DRC. Within the DRC, the zone extends for more than 300 km from Kolwezi in the north-west to Lubumbashi in the south-east.

Local Geology

The Concession is composed of the Kundelungu Superior (*Upper Kundelungu*), Kundelungu inférieur (*Lower Kundelungu*) and Roan Groups based on regional geological maps of the area.

The Kundelungu superior (Ks) group lies on the northeastern portion of the ZEA license area, it is composed of the Ks 1.2 lithology which broadly comprises carbonated shales, sandy and argillaceous shales and sandstones. (Cailteux, 1994). To date some minor malachite and azurite filled secondary fractures in a grey mudstone have been found in one location on the junction of this lithology and the northeastern boundary of the concession, further assessment is required to determine the exploitability of this.

Deposit Types

The MM and NCA can be classified as sediment hosted stratabound silicatic copper deposit. Mineralization occurs either as green copper oxides or as a dark lustreless copper sulphides hosted in a well sorted medium grained sandstone bound on either side by barren fine grained red to purple mudstones and shales.

Exploration

A total of 78 points with a sample spacing of 100m was selected across strategic geochemical targets to determine reliability and relative accuracy of historical data. Historical samples were analyzed in a laboratory and it was therefore expected that handheld XRF data and historical data will not correlate precisely, particularly at lower detection levels common in soil geochemical surveys.

The soil sample results indicated a favorable relative correlation between historical data and twinned data.

The MM area trenches have been positioned to intercept potential extensions of the currently mined orebodies exploited in pits 1 and 4. The purpose is to determine possible extension as well as to conduct 3D structural mapping of the orebodies and to analyze the grade of the orebody extension at approximately 2m below current topographic surface. Three 30m trenches have been dug in the area:

- MMW1_T1;
- MME1_T2;
- MME1_T1.

All three trenches have intercepted the Molulu Main orebody exploited in pits 1 and 4. Mapping confirmed that the orebody is composed of a variable sandstone to siltstone lithological package occasionally bifurcated by a fine grained, friable mudstone package of variable thicknesses. The trenches reach an average depth of 2m from surface.

From all the pit and trench excavations, it is evident that the mineralization is continuous, at least from observations to a depth of at least 6m. since the latter is the deepest excavation on site. Extrapolating this information, the CP has arrived at exploration targets for this project area; see table below.

Exploration Targets - %Cu

Area	Low Tonnes	High Tonnes	%Cu		%Co	
			Low Grade	High Grade	Low Grade	High Grade
Molulu Main Pit 1	48,000	144,000	2.50%	10.00%	1.25%	7.00%
Molulu Main Pit 4	60,000	180,000	2.50%	10.00%	1.25%	7.00%
Main Strike Extension East	122,000	366,000	2.50%	10.00%	1.25%	7.00%
Main Strike Extension West	79,000	237,000	2.50%	10.00%	1.25%	7.00%
Molulu Main Pit 2 trike/East/West	336,000	1,008,000	2.50%	10.00%	1.25%	7.00%
Molulu Main Pit 3	233,000	699,000	2.50%	10.00%	1.25%	7.00%
Northern Cu Anomaly	3,333,000	9,999,000	2.50%	10.00%	1.25%	7.00%
Totals	4,221,000	12,633,000	2.50%	10.00%	1.25%	7.00%

The JORC code stipulates that exploration results require an explanation of how the values were determined. These are given in Section 3.6.

Drilling

Not applicable to this report.

Sample Preparation, Analysis and Security

Not applicable to this report.

Data Verification

Not applicable to this report.

Mineral Processing and Metallurgical Testing

Not applicable to this report.

Mineral Resource Estimates

Not applicable to this report.

Mineral Reserve Estimates

Not applicable to this report.

Mining Methods

Not applicable to this report.

Recovery Methods

Not applicable to this report.

Project Infrastructure

Not applicable to this report.

Market Studies and Contracts

Not applicable to this report.

Environmental Studies, Permitting and Social or Community Impact

Not applicable to this report.

Capital and Operating Costs

Not applicable to this report.

Economic Analysis

Not applicable to this report.

The Democratic Republic of Congo

The Democratic Republic of the Congo (*République démocratique du Congo*), often referred to as the DRC, and formerly known or referred to as Congo Free State, Belgian Congo, Congo-Léopoldville, Congo-Kinshasa, and Zaire, is the third largest country by area on the African continent. Though it is located in the Central African UN sub-region, the nation is economically and regionally affiliated with Southern Africa as a member of the Southern African Development Community (“SADC”).

It borders the Central African Republic and Sudan to the north, Uganda, Rwanda, and Burundi to the east, Zambia and Angola to the south, and the Republic of the Congo to the west, and it is separated from Tanzania by Lake Tanganyika to the east. Kolwezi is the main administrative center of the mineral-rich Kolwezi District. It is about 240km west of Lubumbashi, the capital of Katanga Province. The town is on one of the most significant watersheds in Southern Africa. Rivers flowing northward join the great Congo River system, and those flowing south feed the Zambezi. Since independence in 1960, the Democratic Republic of the Congo has endured a series of disruptive political events, including several outbreaks of civil war. Since 2001, however, the overall socio-political and economic climate has improved.

Against this background, the local economy of Kolwezi has moved through phases of boom and bust. The most serious downturn occurred from 1997 onwards, when Gecamines’ management and financial problems led to drastic cuts in production (*around 90%*), and to widespread delays in the payment of salaries. The decline of Gecamines precipitated a serious and ongoing economic recession in Kolwezi. The World Bank is currently supporting efforts to restructure and recapitalize Gecamines.

Introduction

This Technical Report, on the copper/cobalt orebody in the DRC has been prepared for Critical Metals PLC ("Critical Metals" or the "Company"), in compliance with the provisions of the JORC code of 2012 for the disclosure for mineral projects. The JORC code is a professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves.

Terms of Reference

The following document was prepared in compliance with the provisions of the JORC code of 2012 for the disclosure for mineral projects. This Report was compiled by Luhlaza Advisory and Consulting (Pty) Ltd ("Luhlaza") at the request of Critical Metals PLC. ("Critical Metals"), with its office at:

20 Primrose Street
London EC2A 2EW
United Kingdom

Sources of Information

This Report is based, in part, on internal technical reports and maps, published government reports and public information as listed in the References within Section 22 of this Report. Several sections from reports authored by other consultants have been directly quoted in this Report.

Section	Section Title	Competent Persons And Contributors
1	Summary	Dexter Ferreira & Selleen
2	Introduction	Dexter Ferreira & Selleen
3	Reliance on Other Experts	Dexter Ferreira & Selleen
4	Property Description and Location	Selleen
5	Accessibility, Climate, Local Resources, Infrastructure and Physiography	Selleen
6	History	Dexter Ferreira
7	Geological Setting and Mineralization	Dexter Ferreira
8	Deposit Types	Dexter Ferreira
9	Exploration	Dexter Ferreira
10	Drilling	Not Applicable to this Report
11	Sample Preparation, Analysis and Security	Not Applicable to this Report
12	Data Verification	Not Applicable to this Report
13	Mineral Processing and Metallurgical Testing	Not Applicable to this Report
14	Mineral Resource Estimates	Not Applicable to this Report
15	Mineral Reserve Estimates	Not Applicable to this Report
16	Mining Recovery	Not Applicable to this Report
17	Recovery Methods	Not Applicable to this Report
18	Project Infrastructure	Not Applicable to this Report
19	Market Analysis	Not Applicable to this Report
20	Environmental Studies, Permitting and Social or Community Impact	Not Applicable to this Report
21	Capital and Operating Costs	Not Applicable to this Report
22	Economic Analysis	Not Applicable to this Report
23	Adjacent Properties	Dexter Ferreira
24	Other Relevant Information	Dexter Ferreira & other CPs
25	Interpretation and Conclusions	Dexter Ferreira & other CPs
26	Recommendations	Dexter Ferreira & Selleen

Effective Date and Declaration

This Report is considered effective as of 10th August 2022.

It should be understood that the Exploration Targets presented in this Report are estimates of the size and grade of the deposit based on a number of historical pits and trench samples and on assumptions and parameters currently available. The level of confidence in the estimates depends upon a number of uncertainties. These uncertainties include, but are not limited to, future changes in product prices and/or production costs, differences in size and grade and recovery rates from those expected, and changes in Project parameters.

Site Visit

The Competent Person (“CP”) is Mr. Dexter S. Ferreira. No site visit was undertaken by the CP due to the Covid-19 pandemic. However, a site visit was undertaken by Dr. Avinash Bisnath, a Director of Luhlaza Advisory and Consulting (Pty) Ltd. Dr. Bisnath personally visited the tenements from 27 to 28 May 2021.

Units and Currency

In this Report, all currency amounts are United States Dollars (“US”, “\$”) unless otherwise stated, with commodity prices also expressed in US Dollars (“USD”). Quantities are generally stated in *Système International d’Unités* (“SI”) metric units, the standard international practice, including metric tons (“tonnes, t”) for weight, and kilometers (“km”) or meters (“m”) for distance. Abbreviations used in this Report are listed in Section 21.

Reliance on Other Experts

The CP prepared this Report using reports and documents as noted in Section 0. The Authors wish to make clear that they are Competent Persons only in respect to the areas in this Report identified in their “Certificates of Competent Persons”, submitted with this Report.

Any statements and opinions expressed in this Document are given in good faith and in the belief that such statements and opinions are neither false nor misleading at the date of this Report.

The CP who prepared this Report relied on information provided by experts who are not CPs. The CPs who authored the sections in this Report believe that it is reasonable to rely on these experts, based on the assumption that the experts have the necessary education, professional designations, and relevant experience on matters relevant to the Technical Report.

The CPs used their experience to determine if the information from previous reports was suitable for inclusion in this Technical Report and adjusted information that required amending. This Report includes technical information, which required subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the CPs do not consider them to be material.

The Author only reviewed the land tenure in a preliminary fashion and has not independently verified the legal status or ownership of the property or any underlying agreements. However, the Author has no reason to doubt that the title situation is other than what is presented in this technical report. The Author is not qualified to express any legal opinion with respect to property titles or current ownership.

Property Description and Location

The Molulu project is located approximately 100km north of Lubumbashi in the DRC and can be accessed by route RN1 from Lubumbashi, see **Error! Reference source not found..**

Location

The Molulu project area is approximately 100 km north of Lubumbashi City, within the Kasenga Administrative District (**Error! Reference source not found.**). The Molulu project area is accessible from Lubumbashi City travelling northwest on the N1 on tarred road of relatively good condition. From Tumbwe, approximately 20km one travels in a northeast direction to the Molulu project area which is accessible through a farm on poor dirt road for approximately 50km.



Figure 0-2: Location Map

The details of the mineral lease are shown in **Error! Reference source not found.**

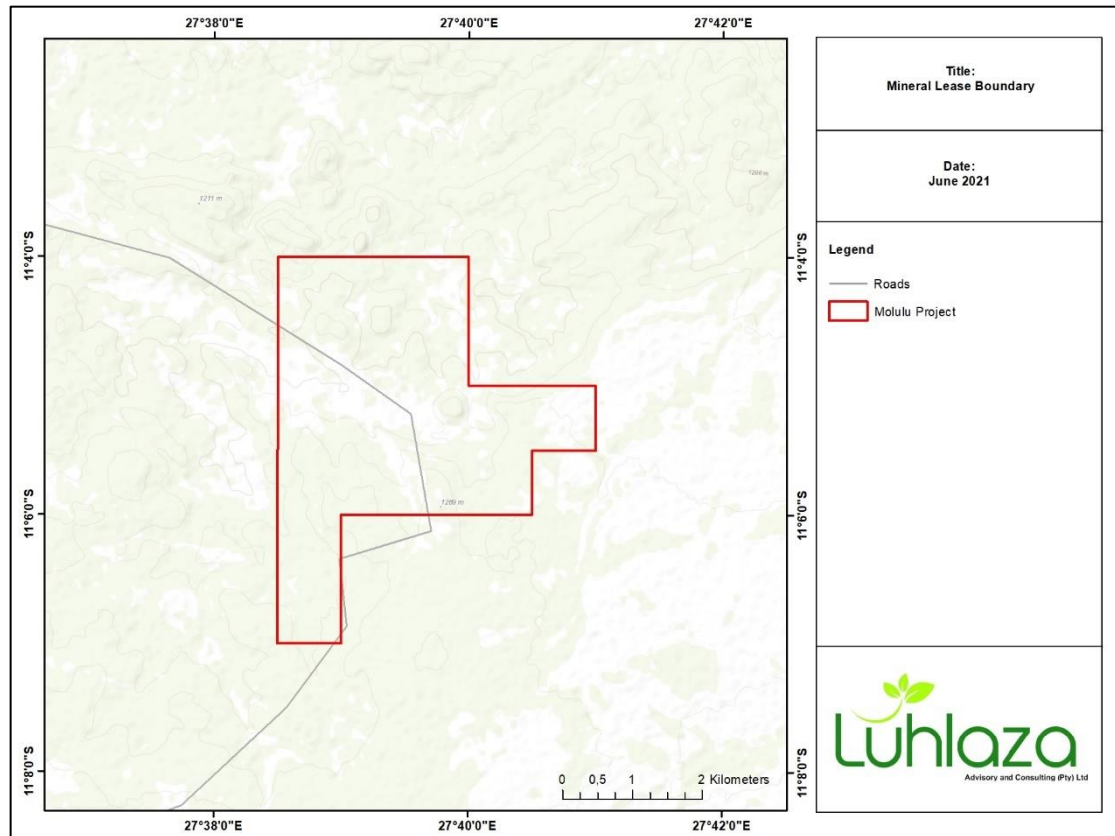


Figure 0-3: Mineral Lease Boundary

Ownership

The Molulu Project is defined by the amalgamation of ZEAs 353, 355 & 356. Ministerial decrees allocated the ZEAs to a specific cooperative.

- **ZEA 353 to cooperative Amani:** Arrêté Ministériel No.0777-CAB.MIN-MINES-01-2015 du 15 Mai 2015;
- **ZEA 355 to cooperative Kazi:** Arrêté Ministériel No.0775-CAB.MIN-MINES-01-2015 du 15 Mai 2015;
- **ZEA 356 to cooperative Ujamaa:** Arrêté Ministériel No.0779-CAB.MIN-MINES-01-2015 du 15 Mai 2015.

The ZEAs are surrounded by the following permits:

- **West:** PR4696 belonging to Walni Mineral Company SARL, 64 carré. Small scale mining operation is taking place;
- **South and East:** PR808 belonging to Société Chinoise pour le Développement du Congo sarl, 134 carré. The Chinese are busy with exploration;
- **North:** PR12359 belonging to Da Fei Mining sarl, 102 carré. Small scale mining operation is taking place in this area.

Table 0-1: Mining Lease Coordinates

ZEA 353		
Idx	Longitude	Latitude
1	27° 38' 30.0001" E	11° 07' 0.0001" S
2	27° 38' 30.0001" E	11° 04' 59.9999" S
3	27° 40' 0.0001" E	11° 04' 59.9999" S
4	27° 40' 0.0001" E	11° 06' 0.0000" S
5	27° 39' 0.0000" E	11° 06' 0.0000" S
6	27° 39' 0.0000" E	11° 07' 0.0001" S
ZEA 355		
Idx	Longitude	Latitude
1	27° 40' 0.0001" E	11° 04' 59.9999" S
2	27° 40' 59.9999" E	11° 04' 59.9999" S
3	27° 40' 59.9999" E	11° 05' 30.0001" S
4	27° 40' 30.0000" E	11° 05' 30.0001" S
5	27° 40' 30.0000" E	11° 06' 0.0000" S
6	27° 40' 0.0001" E	11° 06' 0.0000" S
ZEA 356		
Idx	Longitude	Latitude
1	27° 38' 30.0001" E	11° 04' 0.0001" S
2	27° 40' 0.0001" E	11° 04' 0.0001" S
3	27° 40' 0.0001" E	11° 04' 59.9999" S
4	27° 38' 30.0001" E	11° 04' 59.9999" S

Royalties and Other Fees

Not applicable to this report.

Royalties Payable to The State

Not applicable to this report.

Surface Rights Payable to The State

Under Article 198 of the Mining Code, AMK are required to pay surface rights fees of US\$ 5 per hectare per year or US\$ 424,78 per carré for exploitation permits. Additional surface fees will be payable by AMK as holder of an exploitation mining right to the central government of the DRC pursuant to Article 238 of the Mining Code at the rate of US \$0,08 per hectare.

Regulatory Law

The DRC introduced the current Mining Code (Law No. 007/2002) (the “Code”), on 11 July 2002. The Code was supplemented by the Mining Regulations (Decree No. 038/2003 of 26 March 2003) (“MR”). The right of ownership of the deposits of mineral substances constitutes in principle a right that is separate and distinct from the rights resulting from the surface area.

However, subject to any rights of third parties over the surface, the holder of an exploitation license has the right, pursuant to Articles 64 and 283 of the Code, to use the land surface necessary for his activities and in particular to build installations and infrastructures required for its mining exploitation, and to establish inside or outside his demarcated perimeter means of communication and transport of any type. The exploitation license also entails the right to

exploit artificial deposits (*i.e.*, *stockpiles and tailings*) located within the mining perimeter covered by the license.

The period of validity of new exploitation permits granted under the Code (*Permis d'Exploitation*) ("PE") is 30 years. The term of validity of a PE that derives from a Concession issued pursuant to the legal regime applicable prior to the enactment of the Code, however, expires on the original expiry date (*Articles 336 of the Code and 580(c) of the MR*).

However, it is renewable several times for durations of fifteen years. In terms of DRC property law (Law No. 73/020 of July 20, 1973), the soil and sub-soil are the exclusive and inalienable property of the State. Rights to use the land can be obtained pursuant to a grant of concession (*concession ordinaire ou perpétuelle*) by the State under the general principles of property law; pursuant to a lease from the holder of a concession or pursuant to a grant of rights to the minerals or timber located on the land.

In terms of the Code, any occupation of land depriving the rightful occupants of enjoyment of the surface rights, any modification rendering the land unfit for cultivation, will cause the holder of the mining rights, at the request of the rightful holders of the surface rights, to pay fair compensation, corresponding to either the rent or the value of the land at the time of its occupation, plus 50 per cent. Land means the ground on which the individuals have always carried out or are effectively carrying out any activity. However, the usual occupants of the land may, in agreement with the holder, continue to exercise their right to cultivate the land provided that the work in the fields does not hinder the mining activities.

The owner of the surface rights may then no longer continue to construct buildings on it. Simply passing through the land by the holder does not entitle the owner to any compensation if no damage results there from (the Code, Article 281). The PE entitles the holder to use the underground water and water courses within the permit area for the requirements of the mining exploitation in compliance with the requirements set forth in the environment plan to be submitted for the Project and approved by the Direction chargée de la Protection de l'Environnement Minier ("DPEM") and subject to the authorization of the Governor of the province (*Articles 64 and 283 of the Code*).

The MR require the holder of a PE that is obtained pursuant to the transformation of a pre-existing mining right to submit an Environmental Adjustment Plan ("EAP") for approval (Article 408 of the MR). Since the MR require that all exploitation activities should be undertaken in compliance with the relevant approved plan for the protection of the environment (*Article 404 of the MR*), failure to deliver the EAP may lead to suspension of works decided by the Minister in accordance with Articles 292 of the Code and 570 of the MR.

Once an EAP is approved, the holder of the PE will be required to put in place a financial guarantees security for the performance of the rehabilitation obligations as determined in the EAP, which must be acceptable to the DPEM. This security must be maintained until certification of satisfaction of the obligations has been obtained. The amount of the security as well as any other sums that maybe provisioned by the titleholder for rehabilitation of the site are deductible in determining taxable income up to 0,5 per cent of the turnover for the tax year during which the provision is made.

In terms of the Code, a legal entity incorporated pursuant to Congolese law and that has its registered administrative office in the DRC and whose corporate purpose is mining activity is eligible for mining rights irrespective of the percentage equity interest held by an individual of foreign nationality or a legal entity incorporated pursuant to foreign law (*Code, Article 23*). The holder of a mining exploitation title will be subject to the mining royalties due to the Treasury (at a rate of 2 per cent for non-ferrous metals) on the amount of sales minus the costs of transport, analysis concerning the quality control of the commercial product for sale, insurance, and costs

relating to the sale transaction (*Code, Articles 240 and 241*). Liability for mining royalties starts upon commencement of exploitation. Such royalties are due upon sale of the product.

The transfer of a PE does not relieve the initial holder from its obligations regarding rehabilitation of the environment (*Article 186 of the Code*). Liability for damages deriving from works prior to the transfer is joint and several for both the former and the new title holder. The former holder is required, however, to inform the new holder of any significant dangers or disadvantages resulting from exploitation, insofar as it is aware of them. Failing which, in case of any environmental liability arising prior to the transfer of the PE, the new holder will have the option to cancel or terminate the transfer or to recoup a portion of the transfer price. The new holder can also request, at the expense of the former title holder, the former title holder to eliminate the dangers or to suppress the inconveniences that may be caused to third parties (*Article 280 of the Code*) Permits and Environmental Liabilities.

Accessibility, Climate, Local Resources, Infrastructure, OHS & Physiography Accessibility

The Molulu Project area is approximately 100km from Lubumbashi it is located in the Kasenga territory, 30 kilometers northwest from the village of Malambwe.

Access to the project area is from Lubumbashi City to Malambwe village travelling northwest on the N5 (*Kasenga road*) on good tarred road, from Malambwe one travels in a NE direction to the Molulu project area which is accessible through “Mama Sifa’s” farm on poor dirt road.

Lubumbashi Area

Lubumbashi is the main airport for the Katanga province and caters for international flights. The airport has refueling facilities, but there are occasional problems obtaining fuel supplies. Maintenance facilities are available. If charter flights are proceeding to other destinations in the province, customs and immigration must be cleared at Lubumbashi.

Climate

Two broad climatic areas can be distinguished in the DRC. The Congo River basin, which lies on the equator and forms around one-half of the country’s area, consists of low-lying rainforest, which receives rainfall all year round. Temperatures are not as high as might be expected at the equator, but humidity is generally high. The remainder of the country, comprising the area around Kinshasa, and Kivu, Kasai and Katanga provinces, experiences distinct rainy and dry seasons. Katanga province, lying largely at an elevation of 1000 m or greater, experiences a climate with cooler, drier air than the majority of the country.

At only 10° latitude, daylight and night hours are almost equal, daylight lasting broadly from 06:00 to 18:00. Rapid temperature drops occur after sunset during the dry season as a result of lack of cloud cover.

Five distinct seasons can be readily distinguished, namely:

- Cool dry season May – July;
- Hot dry season August – September;
- Early rainy season October – November;
- Full rainy season December – August; and
- Late rainy season March - April.

Local Resources, Infrastructure and Occupational Health and Safety

The DRC has considerable hydroelectric power generating capacity, which is controlled and distributed by the national power utility, Société Nationale de Electricité (“SNEL”). Kolwezi lies along the transcontinental railroad system and has access to both east and west coast ports of Tanzania and Angola, as well as South Africa. Lubumbashi, some 300 km south east of Kolwezi, is the commercial and industrial center of the Katanga Province and hosts an international airport.

The previous camp area utilized by the artisanal miners is in the process of being upgraded as a site to conduct operations from. The area has been cleared of refuse and debris.

Several structures have been kept for the interim to accommodate members of the exploration team and to house equipment. A priority upgrade/construction has been given to ablutions (*a shower and a toilet*), kitchen area and to accommodation for geology staff and have been completed at year end 2018.

Appointed mining contractors will provide source and provide local labor for the project and will also be responsible for maintaining occupational health and safety standards. The mining contractor's health and safety standards will be assessed as part of their engagement.

Physiography

The vegetation consists primarily of Miombo woodlands with riverine forest along river edges and in deeply incised areas, sporadic seasonal marshes occur throughout the concession

The Molulu project area comprises an undulating and incised landscape obscured from satellite based DEMs due to the homogenizing effect of canopy cover. The area can be broadly separated into two distinct terrains;

- High terrain to the south east with moderately pronounced relief, consisting of a minor escarpment edge sometimes terminating in steep slopes, the altitudes vary between 1200m to 1300m;
- Lower ground whose altitudes vary between 1100m and 1200m located in the north western portion of the project area, consist mainly of incised valleys and river channels with abundant Riparian forest and wetlands.

Three minor perennial rivers run through the area known locally as; the Masassa river in the center of the three concessions, the Milulu river to the East and that Luampoko river to the north.

The area contains a number of small swampy seasonal wetlands that drain into seasonal river channels during the rainy season.

History

Regional historical geological maps are available covering the area, although it should be noted that these geological maps differ substantially and are only suitable as a general reference; these maps should be utilized with caution.

The center of the concession, the Molulu Main area (“MM”) is host to four open pits which have recently been exploited for the copper minerals Azurite, Malachite and Chalcocite. The largest of the open cast areas, Pit#1, is in excess of 100m in length and is 20m at current depth below surface with reported grades (*from artisanal miners*) of up to 50 per cent Copper at the deepest mining level (*currently flooded*).

The concession has been the subject of a historical coarse soil geochemistry, grab sample and trenching and pitting survey in 2011. More recently a Chinese group conducted diamond core drilling in the region of the southern Cu Co anomaly.

It is apparent from historical exploration and current small scale mining that the Molulu Project (*as defined by the amalgamation of ZEAs 353, 355 & 356*) hosts two distinct geological targets namely the Roan sequence that is prospective for both copper and cobalt mineralization and zones of stratabound copper in the Ki and Ks Groups (*Lower Kundulungu and Upper Kundulungu respectively*).

Each of these mineralization types form targets for the AMK.

Geological Setting and Mineralization

Regional Geology

The mineralized zones are at the western end of the Katangan Copperbelt, one of the great metallogenic provinces of the world, and which contains some of the world's richest copper, cobalt and uranium deposits. These deposits are hosted mainly by metasedimentary rocks of the late Proterozoic Katangan system, a 7km thick succession of sediments with minor volcanics, volcanoclastics and intrusives. Geochronological data indicate an age of deposition of the Katangan sediments of about 880 million years and deformation during the Katangan orogeny at less than 650 million years. This deformation resulted in the NS-SE trending Lufilian Arc, which extends from Namibia on the west coast of Africa through to Zambia, lying to the south of the DRC. Within the DRC, the zone extends for more than 300 km from Kolwezi in the north-west to Lubumbashi in the south-east; see **Error! Reference source not found.**

Stratigraphically, the rich copper and cobalt deposits found in Zambia and the DRC are localized in the Roan Supergroup ("Roan"). The Roan occurs at the base of the Katanga succession, unconformably overlying the basement rock of Kibaran age (*mid-Proterozoic*). The Roan is separated from the overlying rocks of the Upper and Lower Kundelungu supergroups by a conglomerate, the "Grand Conglomerate". The Lower Kundelungu is composed of sandstones and shales with a basal conglomerate, while the Upper Kundelungu consists essentially of sediments and is separated from the Lower Kundelungu by a conglomerate, the "Petit Conglomerate".

Within the Lufilian Arc are large-scale E-W to NW-SE trending folds with wavelengths extending for kilometers. The folds are faulted along the crests of the anticlines through which rocks of the Roan have been diapirically injected into the fault zones, squeezed up fault planes and over-thrust to lie above rocks of the younger Kundelungu. The over-thrust Roan lithologies occur as segments or "fragments" on surface. The fragments are intact units that preserve the original geological succession within each. A fragment could be of hundreds of meters aligned

across the fault plane. In the Katangan Copperbelt, mining for copper and cobalt occurs in these outcropping to sub-outcropping fragments (Bartholomé, 1969).

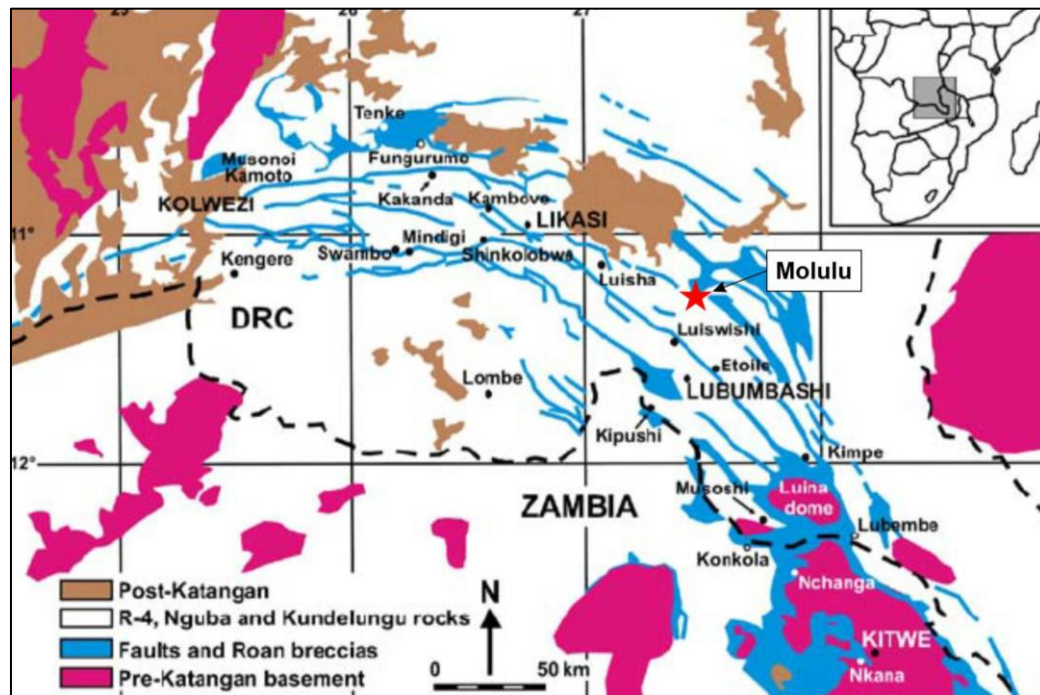


Figure 0-4: Overview and extent of the copper belt

Both primary mineralization, (*mineralization related to syngenetic processes i.e. deposition at the same time as stratigraphy was deposited*) and secondary mineralization (minerals remobilized through hydrothermal activity or through supergene processes) occur within the extent of the copper belt.

General Stratigraphy

The generalized stratigraphy of the Katangan System is shown in **Error! Reference source not found.** The Roan has been correlated across the Katangan Copperbelt into four main formations or groupings, R1 to R4. The divisions between each of the R series are often marked by an unconformity. The main ore-body lithologies belong to the R2 Formation, but R3 and R4 Formations are also known to contain mineralization. Within each of the R series are subdivisions identifying the different lithological units. Rocks belonging to the Roan Supergroup are described briefly below from the oldest to the youngest:

Brèche heterogene or heterogeneous breccia (BH):

This breccia is composed of angular and sometimes well rounded fragments of all the various rock types of the Roan. The fragments vary in size from a few millimeters to several tens of millimeters in diameter, while the matrix is made up of finer-grained sandy particles of the same material as the fragments.

Brèche RAT or brecciated RAT (B RAT):

A reddish-pink brecciated rock with calcite and silica veinlets and is at times well mineralized with specular hematite, occurring as veinlets.

Roches Argileuses Talqueuses (RAT):

The RAT is considered the boundary between the R2 and R1 units and consists of an upper RAT Grises (R2) and a lower RAT Lilas (R1). Both are massive but sheared in places, silty or sandy, dolomitic rocks. Mineralization in the form of malachite and black oxides occurs associated with the upper RAT.

Dolomie Stratifiée or Stratified Dolomite (D Strat):

This is a well-bedded to laminated, argillaceous dolomite, which forms the base of the traditional “Lower Ore Zone” in Gecamines’ nomenclature. The mineralization consists of copper and cobalt oxides.

Roches Siliceuses Feuilletées Foliated (Laminated) and Silicified Rocks (RSF):

These are grey to light-brown, thinly bedded laminated and highly silicified dolomites. The unit is generally well mineralized with copper and cobalt oxides. Together with the D Strat, the RSF comprise the Ore body Inferior (“OBI”).

Roches Siliceuses Cellulaires or Siliceous Rocks with Cavities (RSC):

Vuggy and infilled massive to stromatolitic silicified dolomites. Copper mineralization is almost absent in these rocks, which were therefore regarded as barren. However, the infillings are enriched in wad (*manganese oxide*) and heterogenite (*cobalt oxide*), and RSC is the target of artisanal activity.

Schistes De Base or Basal Schists (SDB):

Reddish-brown to grey silty and nodular dolomite to siltstone. This unit is well mineralized with copper and cobalt in varying amounts and forms the Ore-body Superior (“OBS”).

Shales Dolomitiques Supérieurs or Upper Dolomitic Shales (SDS):

Yellowish, cream-to-red, bedded laminated dolomitic siltstones and fine-grained sandstones. The rock is sparsely mineralized with malachite.

KATANGA SYSTEM						STRATIGRAPHY	
System	Series	Formation	Local Name			Description	Thickness (m)
	UPPER KUNDELUNGU					Sediments	30-50
	LOWER KUNDELUNGU					Sediments, sandstones and shales	200-500
KATANGA	ROAN	R4-1 AND 2	MWASHYA			Shales, siltstone, sandstone to dolomites	50-100
		R3-2	DIPETA			Shales and sandy schists	1000
		R3-1	RGS			Roches Greseuse Superieur	100-200
		R2-3	CMN			Calcaire a Minerais Noirs	130
		R2-2	SDS			Schistes Dolomitc Superieur	50-80
		R2-1	SDB	UOB	COMBINED OREBODY	Schistes Dolomitc Superieur	10-15
			RSC	IOB		Schistes De Base	12-25
			RSF	LOB		Roches Silicieuses Cellulaire	5
			D STRAT			Roches Silicieuses Feuilletees	3
			RAT Grises			Dolomie Stratifiee, argillic dolomite	2-5
			RAT 2			Roches Argilleuses Talceuse	190
		R1	RAT 1			Roches Argilleuses Talceuse	40
			POUDINGUE			Unknown formation, transgression conglomerate	?

Figure 0-5: General Stratigraphy of the Kantangan System

Calcaire a Minerais Noirs or Calcareous Unit with Black Minerals (CMN):

A slightly banded and laminated light-grey to grey, silicified dolomite mineralized with black oxide of iron, manganese and cobalt. The unit bears some similarities with the RSC.

Dipeta (R3):

Greyish to dark red or brown stratified shales and micaceous schist.

Mwashya (R4):

Altered stratified greyish siliceous dolomitic rock with oolitic horizons and a few bands of light-yellow, talcose schist. Nodules of hematite often occur.

Copper and Cobalt

Copper and Cobalt ore is produced primarily in the Katanga province of southern Congo. The minerals are occur as sulphides in primary stratiform deposits or as oxides and sulphides in secondary hydrothermal or supergene deposits.

Pre-colonial mines were visited by Belgian and German scientific groups from the early 1880s to 1890s sites such as today's Kanmwali, Luishwishi, Kamdumba and Kambwe were documented. The basic stratigraphy of the Copperbelt was published by Jules Cornet in 1894 and a geological map of the region was generated by Studt et al in 1908 (Zientek et al, 2014).

Current anecdotal evidence from the artisanal miners at the Molulu Main mining area show that oxides (*predominantly Malachite*) with an average grade of 7.5 per cent contained Cu occur below 5m from surface to 10m below surface, from 10m to around 14m ore is a mixture of oxides and sulphides (*predominantly Malachite and Chalcocite*) with an average grade of 15 per cent contained copper, this increases thereafter from 14 to 20 meters (*current depth of mine*) to a pure sulphide layer (*primarily Chalcocite*) at an average grade of 25 per cent contained copper.

The artisanal mining concessions ZEA 353, ZEA 355 and ZEA 356 (*referred to hereafter as Molulu project area*) exhibit the potential for medium scale exploitable as well as the potential of medium scale Cobalt potential.

Local Geology and Mineralization

The Concession is composed of the Kundelungu Superior (*Upper Kundelungu*), Kundelungu inférieur (*Lower Kundelungu*) and Roan Groups based on regional geological maps of the area.

The Kundelungu superior (Ks) group lies on the north eastern portion of the ZEA license area, it is composed of the Ks 1.2 lithology which broadly comprises carbonated shales, sandy and argillaceous shales and sandstones. (Cailteux, 1994). To date some minor malachite and azurite filled secondary fractures in a grey mudstone have been found in one location on the junction of this lithology and the north eastern boundary of the concession, further assessment is required to determine the exploitability of this.

From roughly the Northern border of the concession the lithological sequence changes from the Kundelungu inferior (Ki) to the Roan (R) in the south. Broadly speaking the sequence is youngest to the north east (*within the limits of the concession*). The sequence runs from north

to souths as follows; Ks1.3 (carbonated shales and siltstones), Ks1.2 (*dolomites and limestones with shales*), Ks1.1 (*diamictite famously known as the Petit Conglomerate*) and finally into the R1 which is composed of argillaceous or dolomitic siltstones and shales.

A map showing generalized geology of the ZEA is shown in **Error! Reference source not found..**

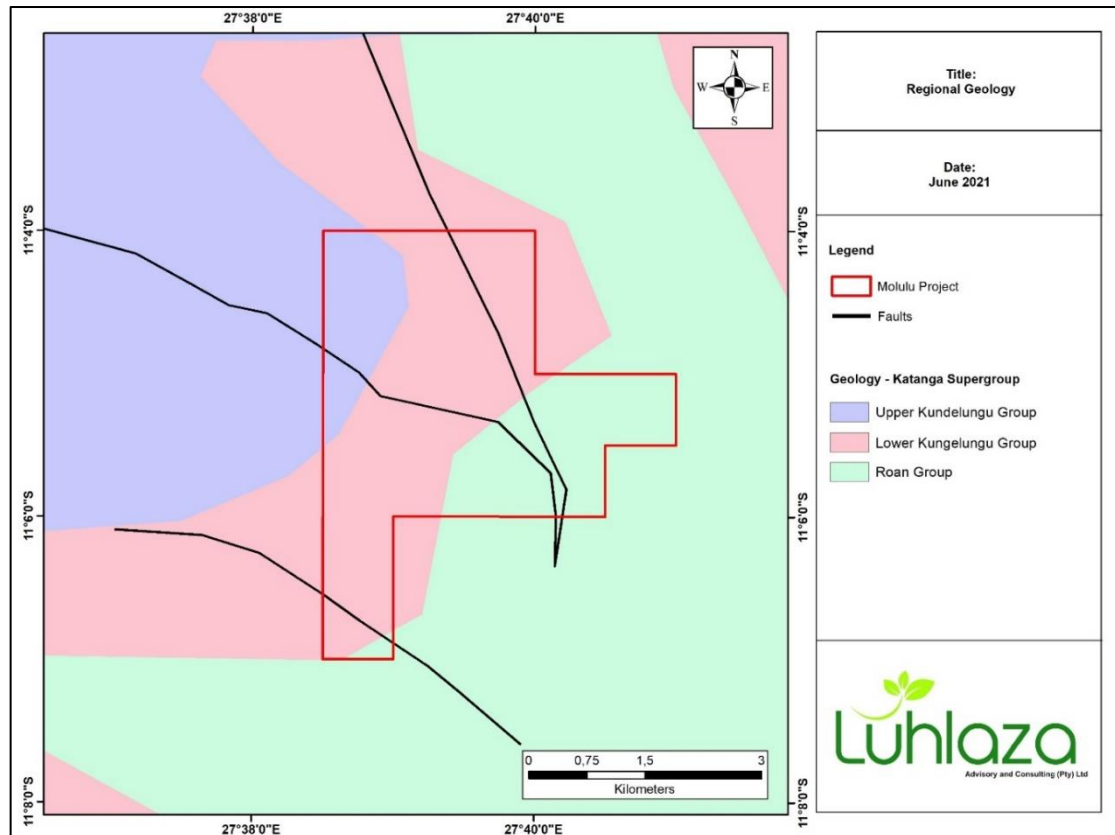
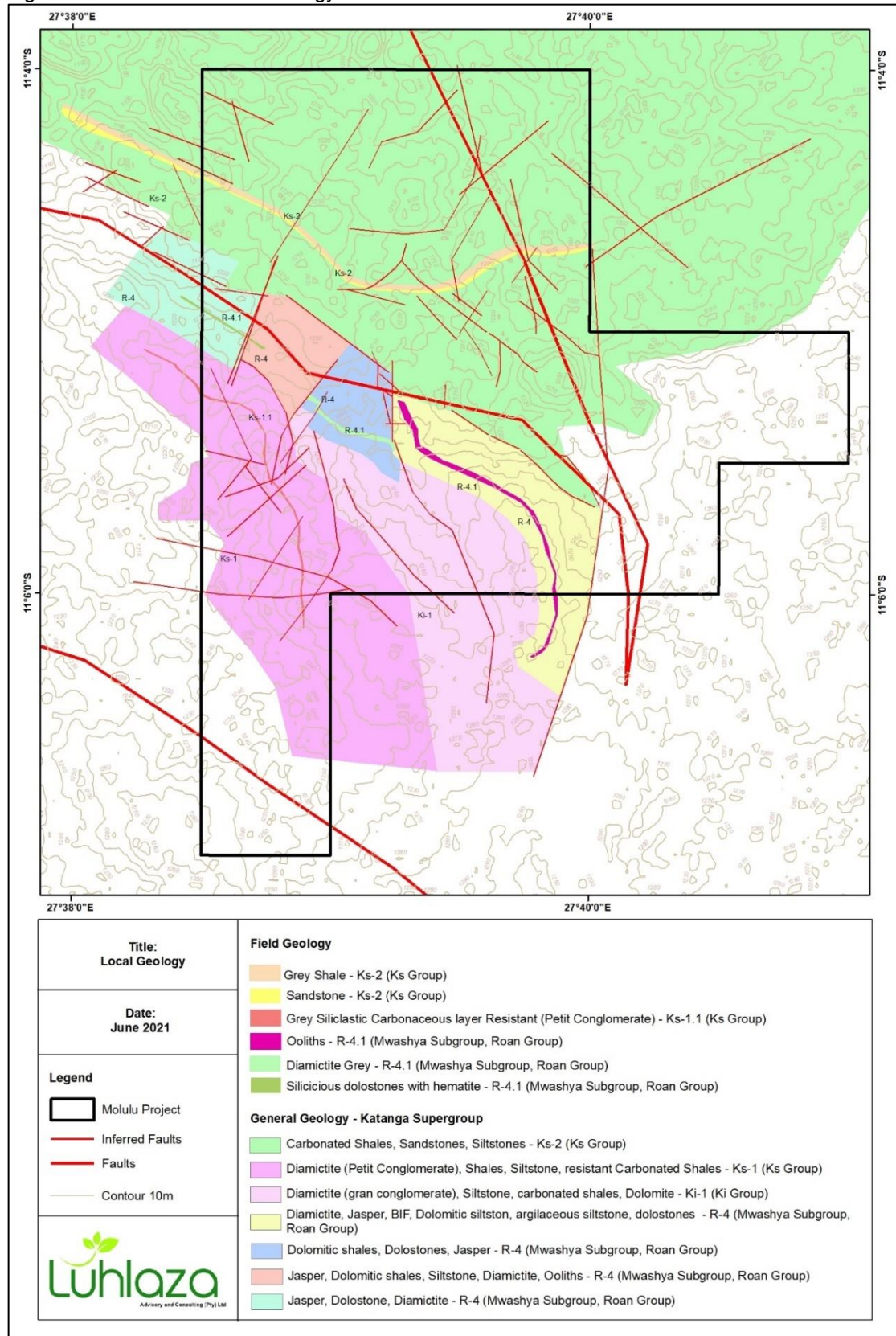


Figure 0-6: Local General Geological Map

Extensive surface mapping of outcrop from identified marker layers has been conducted (Figure 5). The Roan Group (R) is composed of argillaceous or dolomitic siltstones and shales occurring along a northwest to southeast trend in the center of the Molulu Project Area. The Kundelungu Superior (Ks) Group is composed of the Ks-1 lithology which includes Ks1.3 (carbonated shales and siltstones), Ks1.2 (*dolomites and limestones with shales*), Ks1.1 (*diamictite famously known as the Petit Conglomerate*) and Ks-2 lithology which consists of carbonated shale and sandstone. The Kundelungu Inferior (Ki) comprises mainly Ki-1 (*diamictite commonly referred to as Grand Conglomerate*), siltstone, carbonated shales and dolomite which occurs only in the southern part of the Molulu Project area.

A detailed map of the local geology is shown in Figure 0-.

Figure 0-7: Detailed Local Geology



The discovery of several distinct marker layers visible at surface are key in the identification of the lithological continuity and secondary structure (*fault*) interpretations. Three major marker horizons have been found:

- A resistant carbonitic (reacts to HCl acid), grey shale with occasional bright silver, >1mm euhedral sulphide crystals in fresh rock (possibly arsenopyrite as there are arsenic anomalies in the soil geochemistry near these layers). This is one over several resistant layers within the diamictite layer (“Petit Conglomerate”) that marks the Ks1.1 (base of the Kundelungu Superior Group).
- A resistant siliceous grey shale near Jasper, hematite and oolite beds occurs as a marker layer for the Roan 4.1 (Mwashya Subgroup. An exposure of the large pebbled diamictite (Grand Conglomerate) is found to the west of this area and a coarse grained diamictite is found to the east (most likely “Conglomerate de Mwashya”).
- A resistant band of sandstone with a high anomalous Cu value acts as a marker layer for the NCA. This layer may consist of a reduced grey sandstone, grey quartzite, reduced red, pink or purple siltstone and occasionally deeply weathered white sandstone. A parallel layer of resistant grey shale lies immediately to the north of it. Both lithologies form small ridges in the landscape. The surrounding rocks of this broader lithological package extend to the MM area. This package comprises red to purple shales and siltstones with several cupriferous sandstone to siltstone lithologies. The generic nature of this lithological package makes it challenging to allocate it to a specific geological group. Historical geological maps have allocated it to Lower Kundelungu (Ki-1 to Ki-3.2 – After Francios or Ki -1.1 to Ki 1.2 after Zientek et al, 2014) the author has tentatively allocated it to the Upper Kundelungu group specifically the Kiubo (Ks -2) due to the lack of carbonate material in the sequence.

Copper mineralization, in categorization of grade, can be seen as dark parallel lamellae or massive dark blotches cross cutting original bedding containing between 10 to >50 per cent Cu, as dark minerals in evenly spaced lamellae within the sandstone (*but more visibly in a greenish siltstone*) package 5 to 15 per cent Cu, and as oxides in the form of Azurite, Malachite and Chrysocolla as a supergene product or in late secondary structures (*hydrothermally remobilized*) crosscutting the sandstone and adjacent mudstone packages.

Current mining activity as well as historical exploration data have significantly added value to target generation and de-risked the investment potential of the concession.

Deposit Types

Sediment-hosted stratabound copper mineralization occurs throughout the Katanga stratigraphic section but predominantly in the rocks of the Roan (“R”), Kundelungu inferior (“Ki”) and the Kundelungu Superior (“Ks”). (Zientek et al, 2014) (Bartholomé, 1974).

Two broad target areas have been the focus of current exploration efforts, the Molulu Main area (“MM”) and the Northern Copper Anomaly (NCA).

Further potential for Co and Cu occurs to the south, however the MM and NCA have been earmarked due to the immediately exploitable nature of these targets, and their potential to generate rapid cashflow for the project.

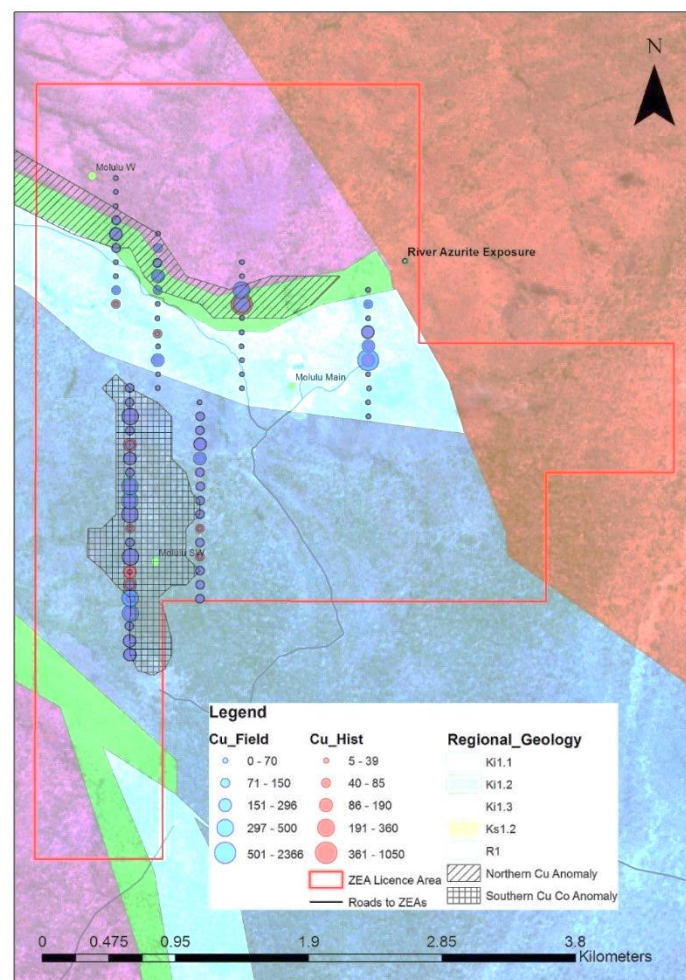
The MM and NCA can be classified as sediment hosted stratabound silicalstic copper deposit. Mineralization occurs either as green copper oxides or as a dark lustreless copper sulphides hosted in a well sorted medium grained sandstone bound on either side by barren fine grained red to purple mudstones and shales.

Exploration

A total of 78 points with a sample spacing of 100m was selected across strategic geochemical targets to determine reliability and relative accuracy of historical data. Historical samples were analyzed in a laboratory and it was therefore expected that handheld XRF data and historical data will not correlate precisely, particularly at lower detection levels common in soil geochemical surveys. It was however expected that both handheld XRF data and historical data will show similarity in relative trends across geochemical lines.

The soil sample results indicated a favorable relative correlation between historical data and twinned data (Figure 0-). Historical field data (Cu_Hist) correlates reasonably well with collected / twin field data (Cu_Field) considering variables in detection methods and geographic variation. Considering all the variables in play it is reasonably safe to suggest that the historical data can be trusted and that the Vanta C series handheld XRF is sufficiently reliable for rough field estimates and a rapid sampling program designed to identify anomalies.

Figure 0-8: Overview of Concession with Twin Holes for Soil Geochemistry



A coarse scale soil geochemical survey has been conducted over the concession area to determine target areas for both Cu and Co. Coarse data has been supplemented with grab samples and pitting data where appropriate. Several large-scale targets were identified.

Field geochemical results were entered into SAGA GIS and data interpolation was conducted on both Cu and Co results, using the ordinary Kriging method. Grade distribution is relative and should be interpreted as such for the purposes of preliminary target generation.

Copper anomalies

Two large areas displaying promising potential as greenfield targets for copper have been identified outside of the MM area (Figure 0-).

The Northern Copper Anomaly (NCA)

The NCA lies along a north-western trending line parallel to the north road exiting the concession on the north western border of the concession. Recent geochemical work indicates that the NCA strike changes ENE approximately 500m north of the MM area and continues beyond the western extremity of the concession.

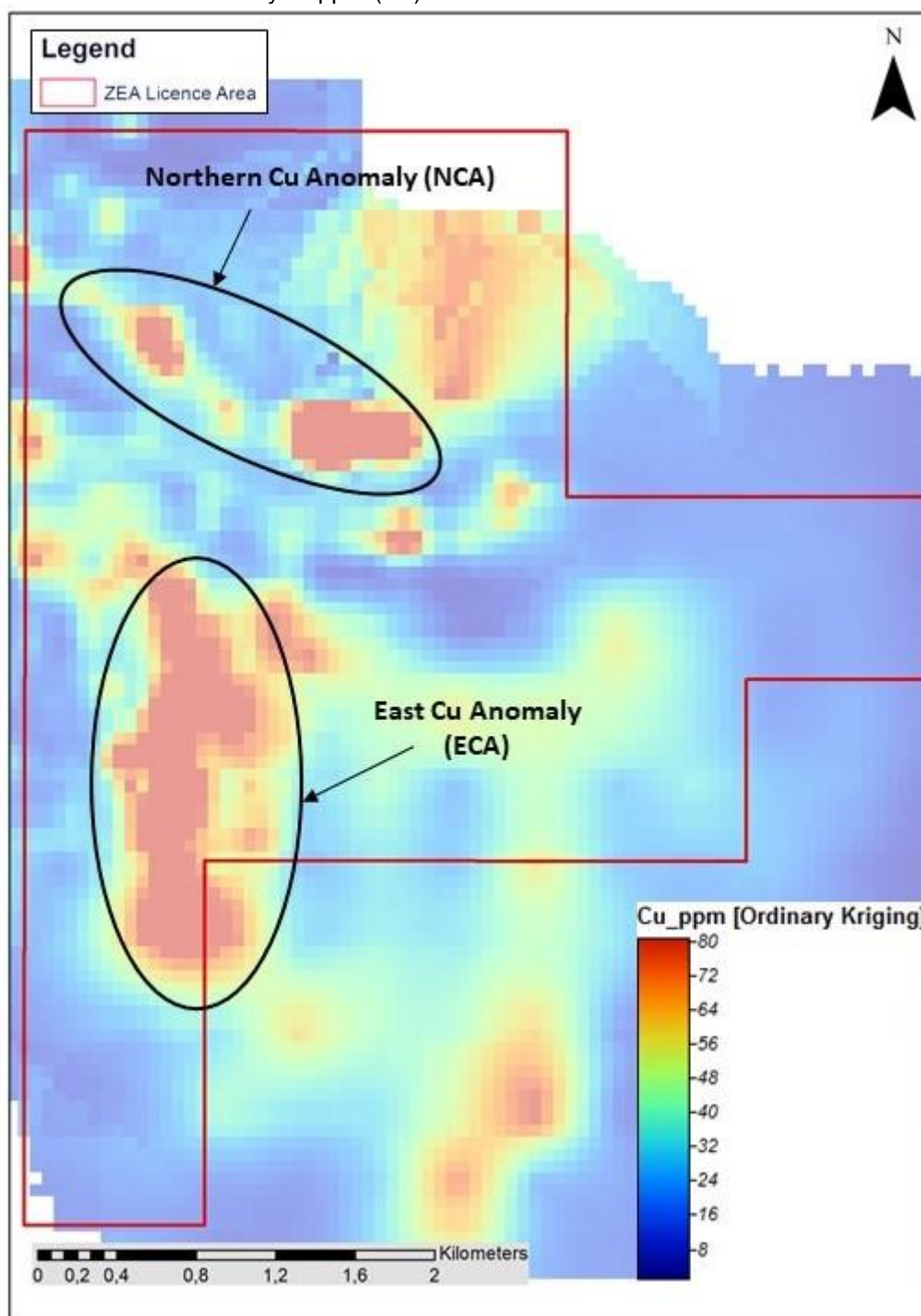
A historical artisanal mine occurs on the north-western extension of this anomaly near the concession area. Numerous trenches have been dug along strike of this feature in the vicinity of the historical mine.

Geochemical traverses and reconnaissance trips have revealed that within the concession area there are no visible artisanal mines along the strike of the feature. A large quantity of crystalline quartz float that occurs at surface is suggestive of hydrothermal activity. The size of the feature extends well beyond the border of the concession area. Within the bounds of the concession area the feature has a strike length of 3.15km with a maximum thickness of 350m, across 3 distinct anomalies.

The East Copper Anomaly (ECA)

This is a particularly large and broad feature in the eastern portion of the concession. The anomaly appears to occur consistently over an area of 2km in length and 700m at its widest point. There have been yet no signs of artisanal activity or outcropping copper mineralization. The ECAs proximity to two large Cobalt anomalies makes this an enticing target. The ECA has been recently integrated into the CCoA due to its proximity to the Cobalt anomalies and the likely association with Roan Group lithology (*based on regional geological maps*).

Figure 0-9: Soil Geochemistry Copper (Cu) Anomalies



Cobalt Anomalies

Two large areas displaying promising potential as greenfield targets for Cobalt have been identified outside of the MM area (Figure 0-).

The Central Cobalt Anomaly (CCoA)

The CCoA covers an approximate area of 1100m x 800m and has been revealed by coarse resolution soil geochemistry. Reconnaissance has been conducted over the area and has revealed outcrop comprising siltstones, sandstones, shales and dolomitic rocks, jasper, massive hematite and oolites. There is evidence of recent drilling, trenching, and pitting in the area by an unknown group.

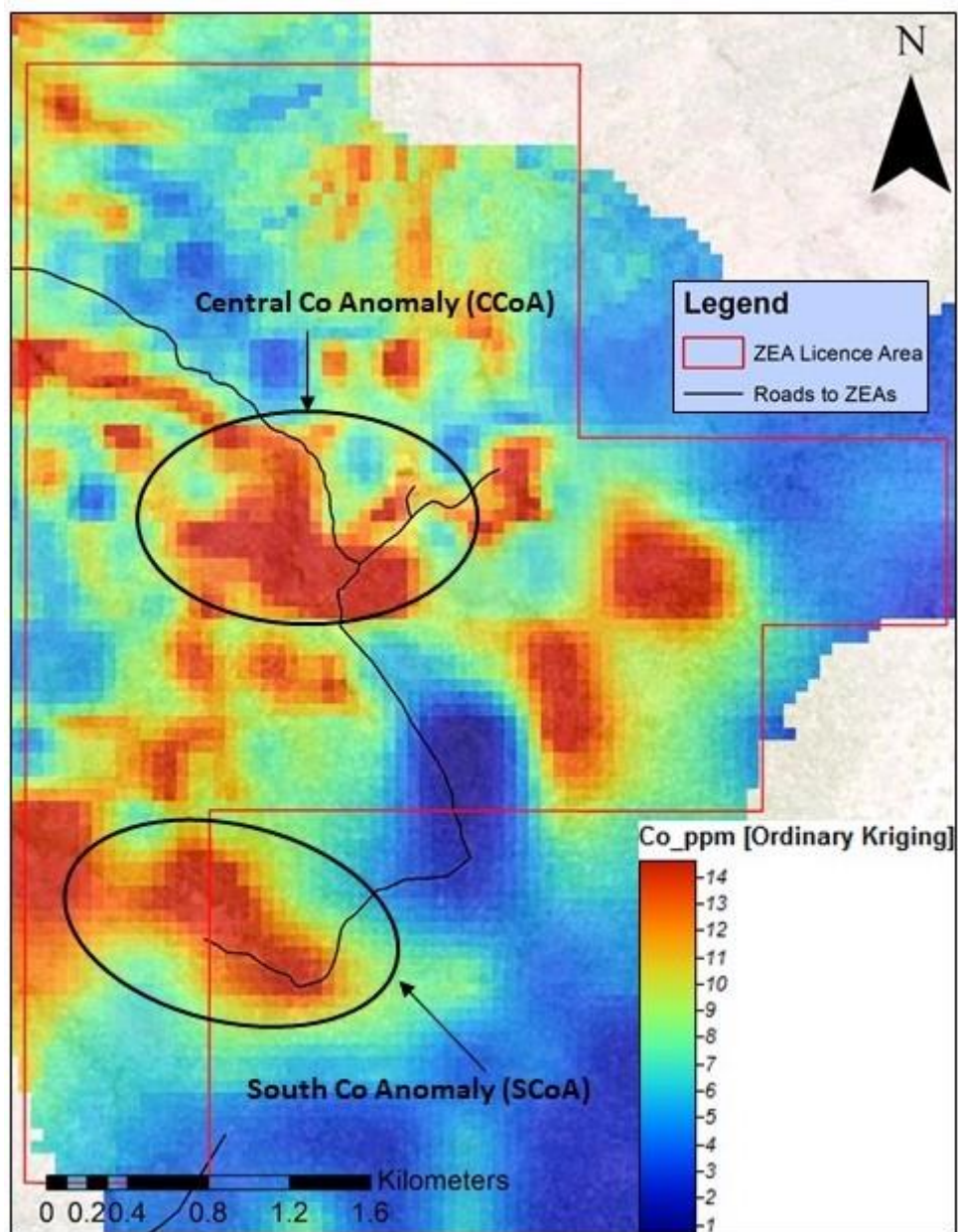
Preliminary analyses, lithological and structural analysis indicate that this anomaly extends in a north-westerly trending arc that extends across the concession.

The South Cobalt Anomaly (SCoA)

Little is known at this stage about this area other than what has been revealed by coarse resolution soil geochemistry. Some drilling has been done in the vicinity by an unknown group. Regional geological maps include this as a part of the same lithological package as the CCoA. This evidence along with its proximity to the ECA is suggestive that it is closely associated with the CCoA.

The size of this anomaly and its association with related outcrop in the concession indicates a secondary Copper target as extensive as the CCoA.

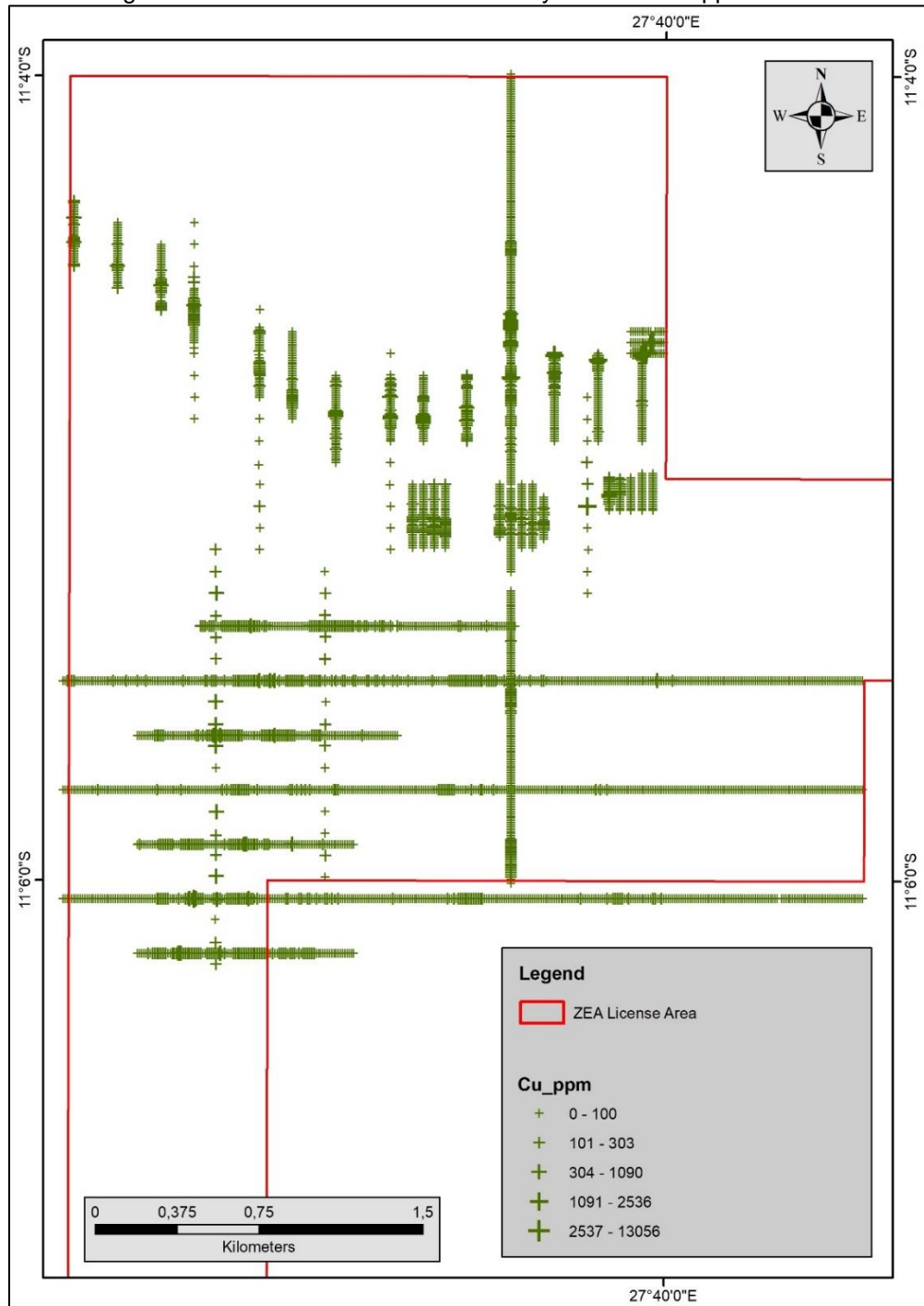
Figure 0-10: Soil Geochemistry of Cobalt (Co) Anomalies



High Resolution Infill Soil Geochemistry Sampling

More than 2800 soil geochemical samples have been collected and analyzed over the extent of the concession (Figure 0-) for multiple element analysis as part of a soil geochemistry survey.

Figure 0-11: High Resolution Soil Geochemical Survey Overview Copper Results

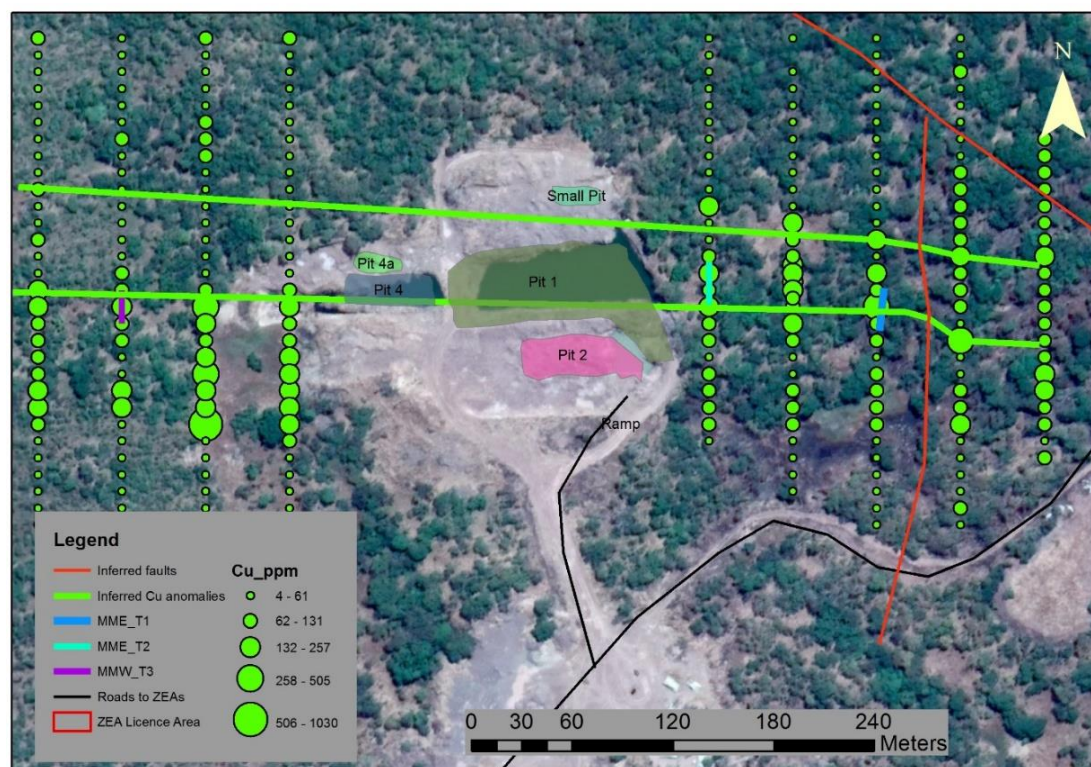


Coarse resolution geochemistry has identified broad target areas and provided a foundation for a more focused analysis of copper anomalies realized by the high-resolution soil geochemical program. Within the context of the Molulu Main project, potential cupriferous bodies appear to be limited to stratigraphic horizons between 2m and 6m in (*true*) width with strike continuity of greater than several hundred meters.

Due to the highly mobile nature of copper and its responsiveness to detection with the Vanta XRF, a sample resolution of 10m along sample lines spaced 50 to 150 meters apart has been used. The purpose of the high-resolution survey was to determine the extents and morphology of discrete ore bodies and to isolate their approximate locations for follow-up trenching and drilling.

Molulu Main area

A soil geochemical survey at a 10m sample interval on the eastern and western extension of the MM area has identified two distinct copper anomalies (Figure 0-). Pit 1 is the primary location of mining in the MM area. Two smaller pits occur in the immediate area: Pit 2 which has a parallel strike to Pit 1 and Pit 4 which is on strike with Pit 1. These pits lie to the south and west



of Pit 1, respectively.

Figure 0-12: Molulu Area - Opencast Pits, Mineralization Strike & Soil Geochemical Results

Sandstone is the host of copper mineralization in Pit 1 (

Figure 0-). This was confirmed by samples collected from stockpiles whereby field analysis using a Handheld XRF indicate significantly higher grades in the sandstone than in adjacent mudstone lithologies from both in situ rock sampling in the pit and from rock samples from

contact zones in the stockpile (see Table 0-; *Sample SP_005*). An average strike of 093° recorded from bedding of the mineralized sandstone in Pit 1 shows a strong geographical correlation to the geochemical data. Geochemical signatures indicate anomaly extensions along strike approximately 250m east of the eastern boundary of Pit 1 and 150m west from the western boundary of Pit 4.

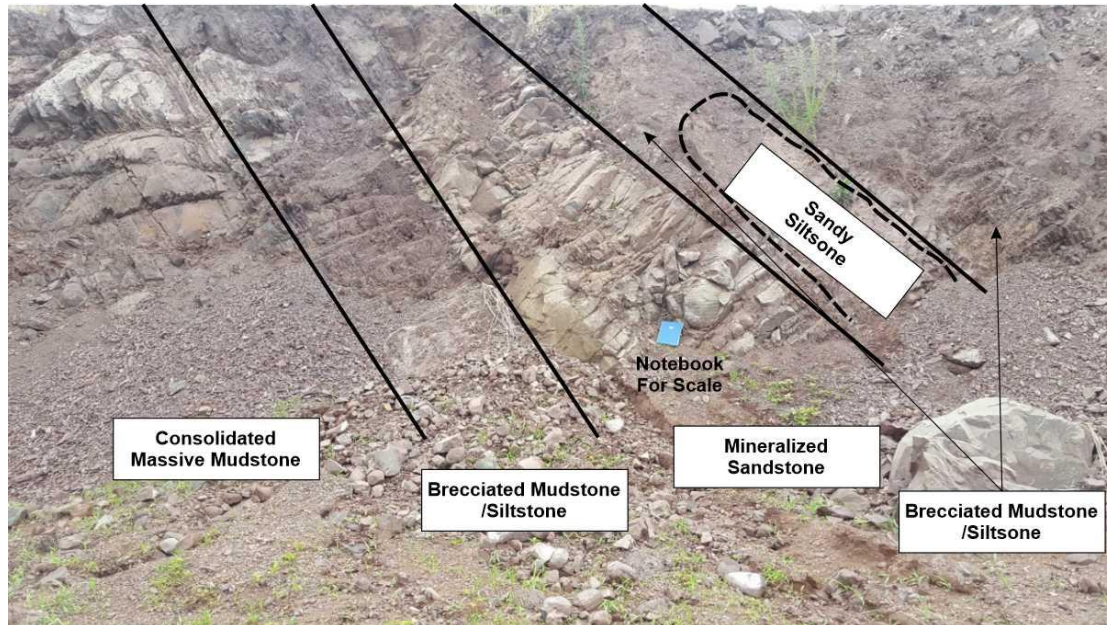


Figure 0-13: Pit 1 Western Wall Showing Mineralized Sandstone

Anecdotal evidence from artisanal miners maintain that all three pits (Pits 1, 2 and 4) were productive. Mining activities have focussed on Pit 1 which is substantially longer and deeper than the other two pits in the area and hosts a higher copper grade (*at current depth*) than the other two pits.

Further anecdotal evidence suggests that the mineralization profile comprises 10m from surface oxides at 8-9 per cent Cu, followed by a 4m layer of mixed zone (*oxides and sulphides*) and followed finally by a layer of pure sulphides for up to 6m the current maximum depth of the pit (Figure 0-).

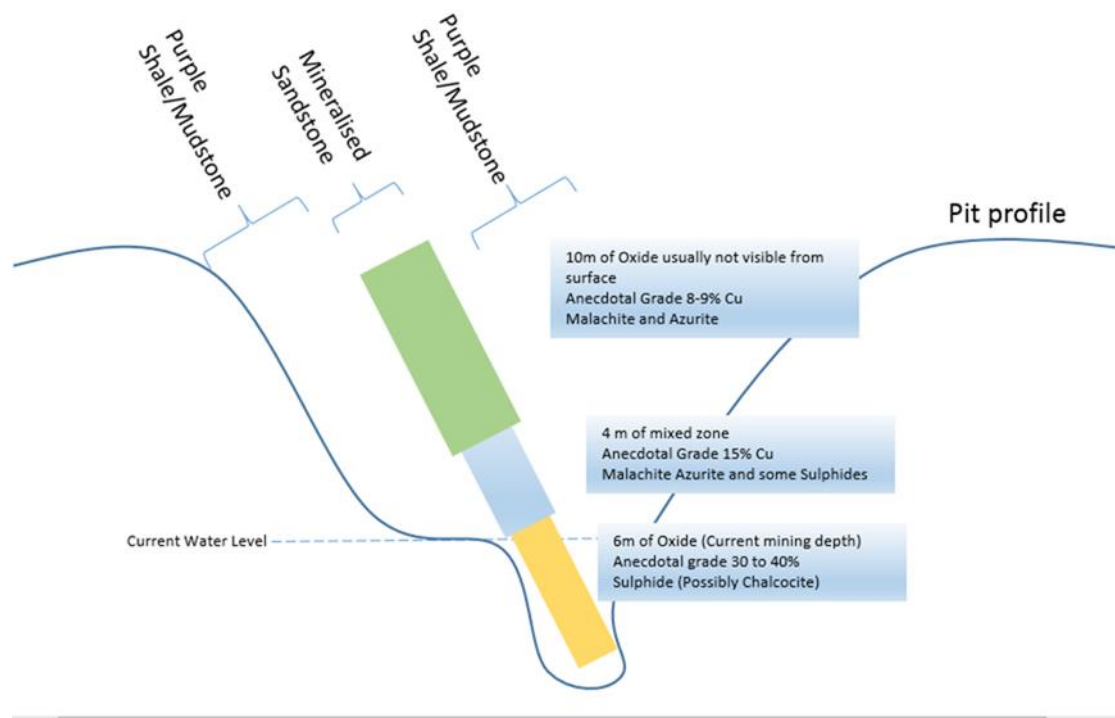


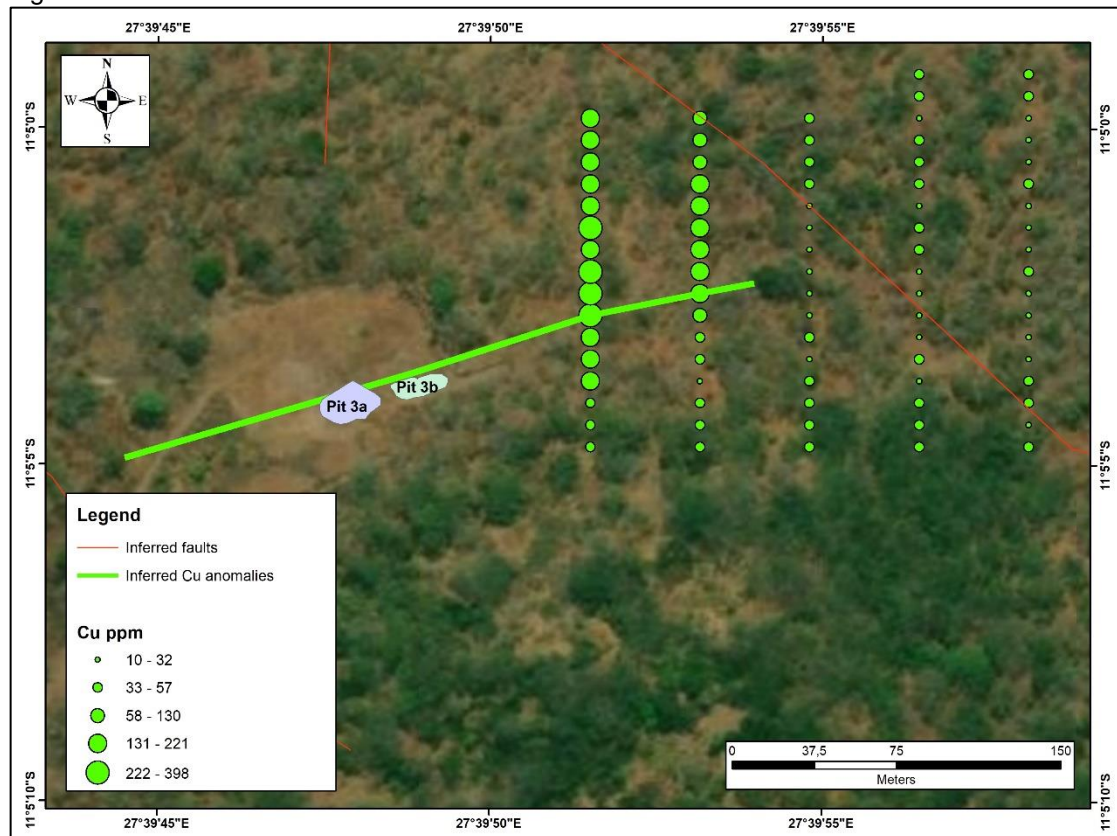
Figure 0-14: Pit#1 Profile with Mineralization and Depth

The MM Pit 3 area is located approximately 400m east of the eastern boundary of pit 1. Geochemical sampling has identified copper anomalies along mineralization strike trends which correspond with structural trends that have been observed in MM Pit 3 (Figure 0-).

A soil geochemical survey at a 10m sample interval on the eastern extension of the MM Pit 3 area has identified a broad (>60m) geochemical anomaly that stretches approximately 150m to the east (*from the eastern boundary of pit 3*).

An average strike of 074° recorded from bedding of the mineralized sandstone in Pit 3 corresponds with the location of the geochemical anomaly. The orebody is situated along the northern slope of a steep hill. This may have affected the mobilization of copper in solution, which accounts for the broadness of the copper anomaly.

Figure 0-15: Molulu Main Pit#3 Area

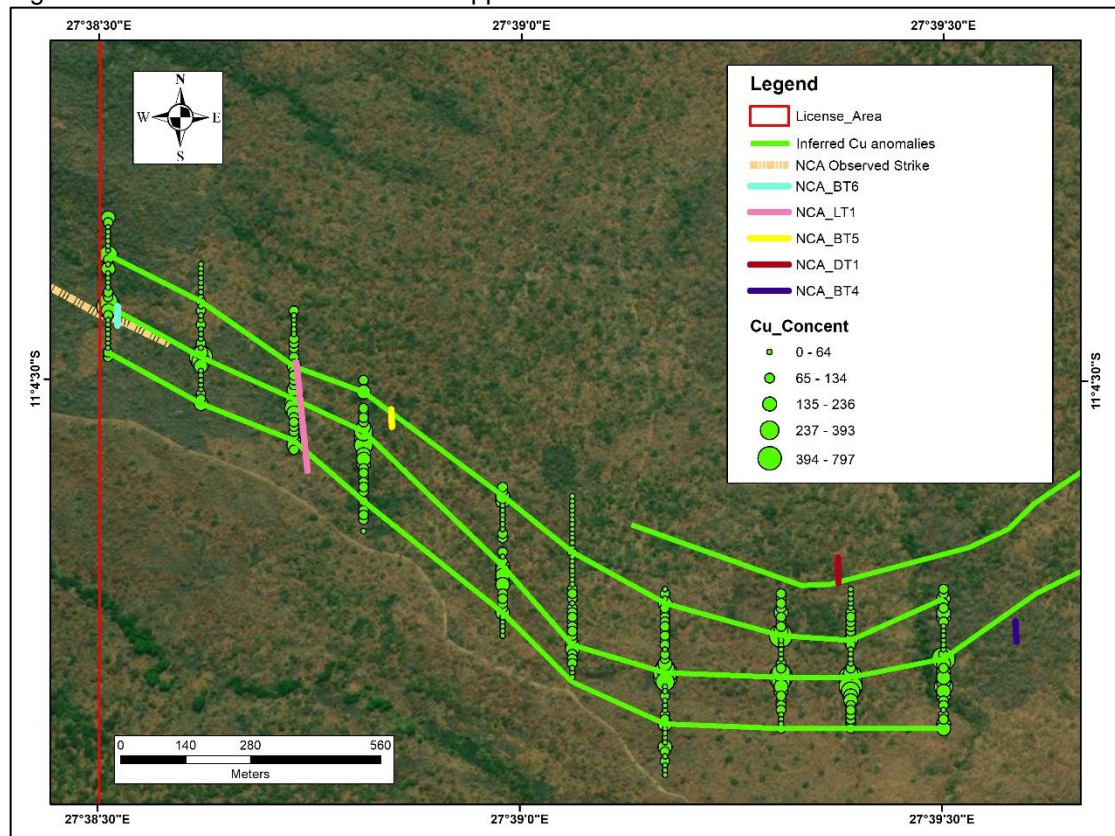


NCA – Northern Copper Anomaly

A fine resolution (10m sample interval) geochemical survey indicates three distinct anomalous copper signatures along line transects trending northwest to southeast (see Figure 0-). These geochemical anomalies are most likely related to distinct copper hosting lithologies. Variations in positions and lengths are likely dependent on structural rotation of separate fault blocks, or topographic variation.

The central anomaly corresponds with the opencast mine area pit 0 and can be traced back to this point by surface outcrop. Two other copper anomalies run parallel to this central anomaly (*north and south respectively*) and require further investigation to determine their origin and exploitability.

Figure 0-16: NCA Soil Geochemical Copper Anomalies



CCoA – Central Cobalt Anomaly


A fine resolution (10m sample interval) geochemical survey has been completed across the generalized strike of the CCoA. Supplemental outcrop mapping was conducted simultaneously and subsequently to provide more insight into the structural nature of this feature.

A resistant grey rock (Figure 0-, *GPS points labelled "GRY"*) outcrops in the area and has been used as a marker layer to define the lithological trend. The results from both the geochemical and outcrop mapping indicate a generalized north-south trend in the southern portion of the concession area.


The copper anomalies appear to be spread broadly on either side of the marker layer. In the center of the concession area the general geology indicates an arcuate north-west digression in strike. The copper anomaly in this area appears to be restricted to the eastern side of the marker layer. Geochemical signatures are likely smeared due to variations in topography however the continuous and relatively discrete signature on the eastern side of the marker layer warrant further investigation.

Table 0-2: Collected Samples - Stockpiles


Table 0.2: Collected Samples - Stockpiles




Sample Name	Units	Cu ppm	S ppm
SP-001	ppm	500425	47343
SP-001	ppm	267824	33012
SP-001	ppm	323087	44295
AVG	ppm	363779	41550



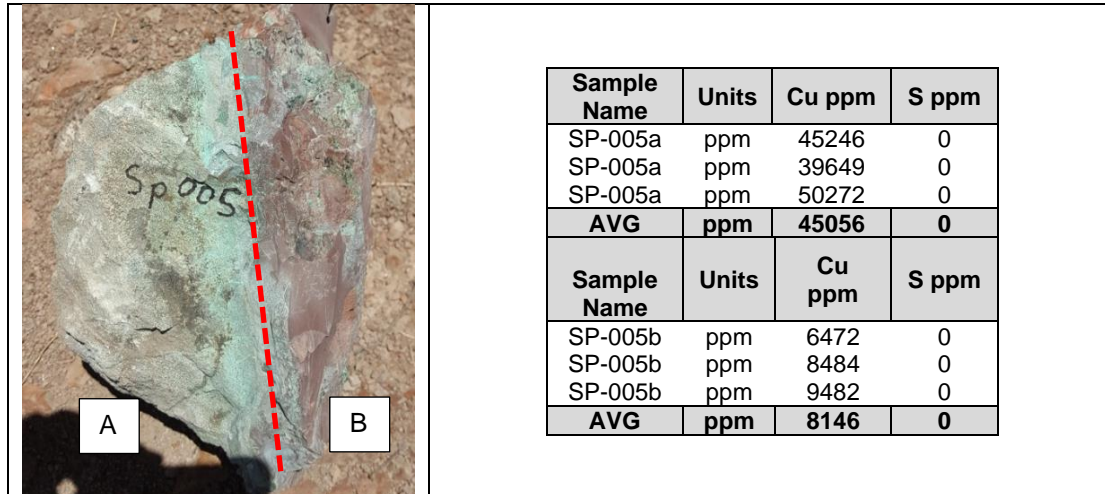
Sample Name	Units	Cu ppm	S ppm
SP-002	ppm	370627	35793
SP-002	ppm	292119	31402
SP-002	ppm	101381	8361
AVG	ppm	254709	25185



Sample Name	Units	Cu ppm	S ppm
SP-003	ppm	93151	6215
SP-003	ppm	117083	7877
SP-003	ppm	67776	3494
AVG	ppm	92670	5862



Sample Name	Units	Cu ppm	S ppm
SP-004	ppm	369223	48205
SP-004	ppm	328127	45596
SP-004	ppm	297521	38582
AVG	ppm	331623	44128



Analysis of the stockpile samples show that mineralization occurs predominantly as dark colored lamellae (*most likely disseminated chalcocite*). The grades vary widely in the samples. Anecdotal evidence suggested that grade increases with depth. The Copper grade can be determined visibly (the darker the lamellae the higher the grade).

A brief analysis of specimens from the stockpiles confirm that grade is hosted in the Sandstone (see Table 0-; *Sample SP-005a Sandstone, SP-005b purple siltstone*).

Trenching Program

New exploration trenches as well as existing historical trenches in the immediate area have been utilized to gather detailed 3D structural, lithological and geochemical data of the potential orebodies on the concession. Existing trenches have been cleaned and rehabilitated and new exploration trenches have been dug perpendicular to geological strata and linear geochemical anomaly trends. A plan view of the trenches excavated in the Molulu Project area are shown in Figure 0-.

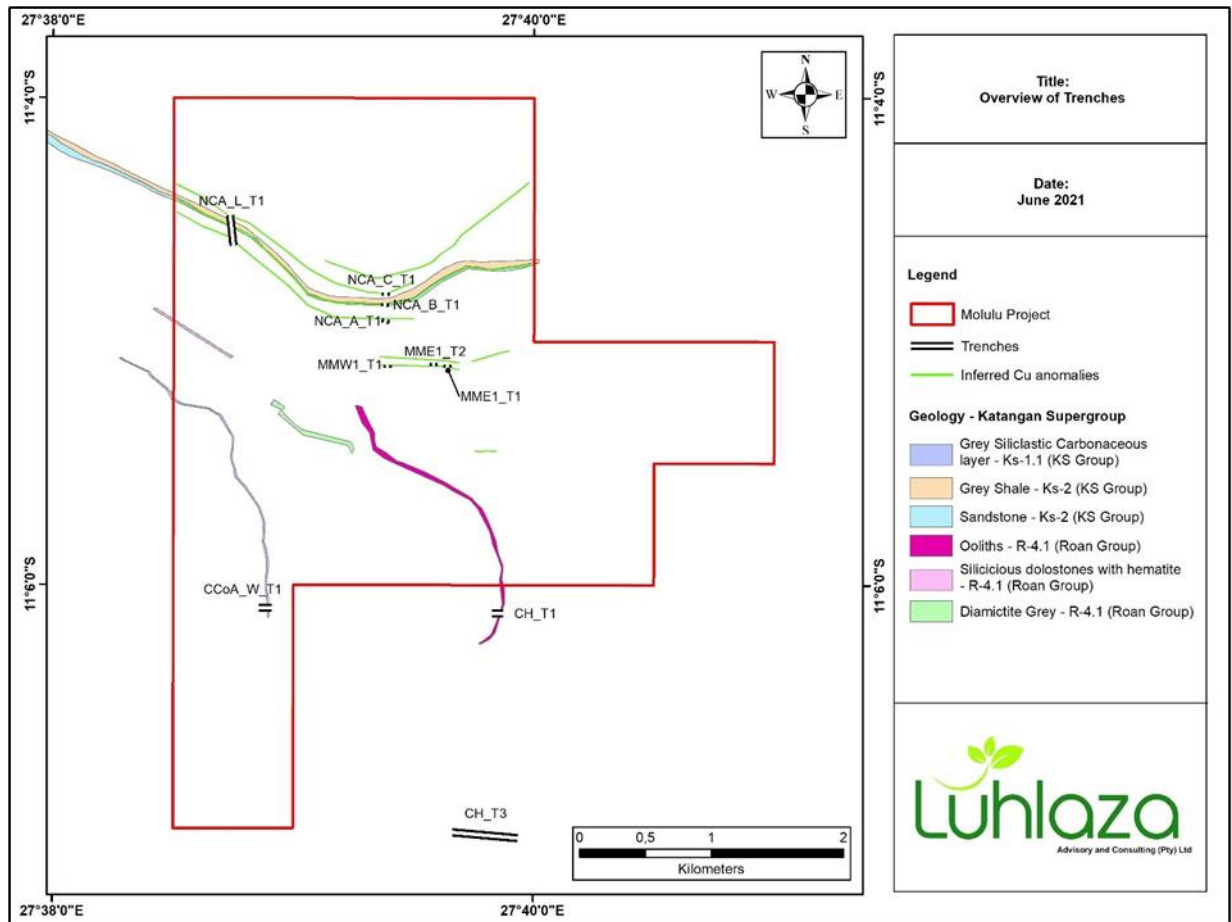


Figure 0-18: Plan View of Trenches – Molulu Project Area

Molulu Main Area Trenches

The MM area trenches have been positioned to intercept potential extensions of the currently mined orebodies exploited in pits 1 and 4. The purpose is to determine possible extension as well as to conduct 3D structural mapping of the orebodies and to analyze the grade of the orebody extension at approximately 2m below current topographic surface. Three 30m trenches have been dug in the area:

- MMW1_T1;
- MME1_T2;
- MME1_T1.

All three trenches have intercepted the MM orebody exploited in pits 1 and 4. Mapping confirmed that the orebody is composed of a variable sandstone to siltstone lithological package occasionally bifurcated by a fine grained, friable mudstone package of variable thicknesses.

The trenches reach an average depth of 2m from surface. The profiles indicate deep weathering as expected in the region. The lithology is poorly preserved and is normally lateralized to >1.5m below surface however, at these shallow depths the orebody has been weathered to a sandy soil rather than a fine-grained clay soil that is generated from the weathering of surrounding mudstones. Rounded fragments of grey, more consolidated rocks can be found within the sandstone packages. These are usually distinctly higher in copper grade than the surrounding weathered rock. The sandstone package and contact zones are significantly higher in copper grade than country rock.

A series of weathered secondary structures occur throughout all the trenches in the concession area. These are commonly filled with either a yellow/brown weathered clay or a greenish/white clay interpreted as hydrated limonite and sericite (respectively) fills as secondary products due to hydrothermal alteration of local rocks. These secondary features display high anomalous copper values along the narrow structures.

NCA Trenches

The NCA trenches have been positioned to intercept extensions of the three major linear anomalies discovered in the high-resolution soil geochemical surveys (*related to the artisanal mine Pit 0*) extending past the northwest boundary of the Molulu concession area. The purpose was to determine the extent of these anomalies as well as to understand the lithology of the area, conduct 3D structural mapping of the orebodies and to analyze the grade of the orebody at approximately 1m to 2m below current topographic surface.

Preliminary results indicate that the central anomaly (NCA_B) has a maximum horizontal width of 48m with a high-grade zone of 10m. Anomalous high grades in this zone warrant a priority for exploration drilling to determine grades in un-weathered rock. NCA_B is at this point is the most prospective of the three anomalies based on size, grade and historical exploitation (Pit 0).

NCA_B is a copper bearing siliciclastic lithostratigraphic package consisting of a variety of interbedded facies ranging from sandstones, siltstones, mudstones (*these normally occur as thin filaments between facies*) and consolidated quartzites. All facies exhibit both reduced and oxidized phases and variable degrees of weathering. The strike is variable across its 3km traverse of the concession but follows a general west to east trend and has an average dip of 50°N. It is bound on either side by shales. A notable and conspicuous (*usually*) grey colored reduced shale of resistant consistency is found immediately to the north (*between 20 and 50m*) of NCA_B, this marker layer usually forms resistant ridges and commonly occurs as outcrop in the area.

Historical Trenches

CH_T1

This trench is 92m in length and runs W-E exposing the distinctive lithology of the Roan 4.1 lithostratigraphic series (*Mwasha sub-group*) to the immediate south of the Molulu concession boundary. The series consists of silicified dolostones, jasper, massive hematite, a silicified oolite layer and shales. A notable occurrence of “Grand Conglomerate”; a diamictite containing large (>100mm) sub-rounded clasts has been found 200m to the west of this trench

The oolite/jasper/silicified dolomite marker layer extends as outcrop in a northerly to northwesterly trending arc throughout the concession. This extension has been the focus of a large-scale drilling program, several historical drill holes (*by unknown groups*) have been found along the northwest boundary contact of the above-mentioned marker layer. Anecdotal evidence from artisanal miners indicates that this is a cobalt rich zone which was corroborated by coarse resolution soil geochemistry.

Pit Dewatering, Survey and Sampling

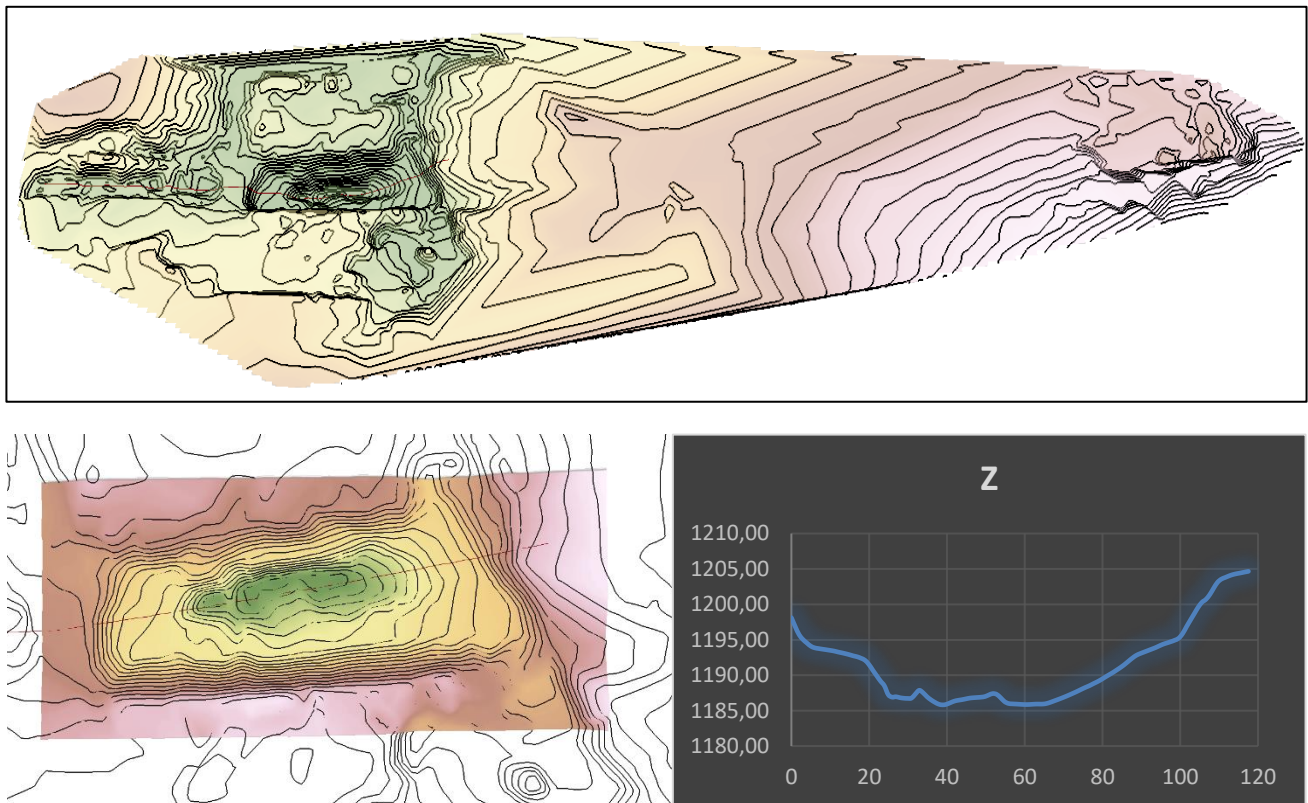
Dewatering

The dewatering of Pit 1 took place from July 11th, 2019 to July 23rd, 2019 by “DST pumping” - a local DRC contractor. A volume of 23,850m³ (*pit volume*) and an additional estimated 1629.6m³ due to groundwater ingress, with a combined total volume of 25,479m³ was removed from Pit 1.

Survey and Mine Plan

After dewatering of Pit 1, a survey was conducted by N.I. Constructions for the MM area ranging from Pit 4 on the west to Pit 3 on the east; see Figure 0-.

Figure 0-19: Three Dimensional Survey – Molulu Project Area



Channel Sampling

Several channel samples were taken transecting the surface width of the orebody in Pit 1. The results have indicated that:

- Copper grade is variable within the constraints of the ore body;

- The headwall and footwall are brecciated and mineralized with copper oxides;
- The orebody is composed of both reduced and oxidized facies;
- Secondary structures occur in the pit indicating multiple phases of both brittle and ductile deformation of the orebody and surrounding rock.

The high contrast in grade variability and the limited accessibility to the orebody have made it challenging to determine a reliable data set for grade modelling of the orebody. Copper sulphide grades in the reduced portion of the ore body range from 3 per cent contained copper (*in rock exposed to groundwater*) up to 50 per cent (*in rock indicated not alteration to the Chalcocite*).

Copper oxide grades on contact zones of the orebody specifically the brecciated zone of mudstones at the head and footwall of the sandstone body.

Exploration Targets

From all the pit and trench excavations, it is evident that the mineralization is continuous, at least from observations, to a depth of at least 6m. since the latter is the deepest excavation on site. Extrapolating this information, the CP has arrived at exploration targets for this project area; see

Table 0-.

Table 0-3: Exploration Targets - %Cu

Area	Low Tonnes	High Tonnes	%Cu		%Co	
			Low Grade	High Grade	Low Grade	High Grade
Molulu Main Pit 1	48,000	144,000	2.50%	10.00%	1.25%	7.00%
Molulu Main Pit 4	60,000	180,000	2.50%	10.00%	1.25%	7.00%
Main Strike Extension East	122,000	366,000	2.50%	10.00%	1.25%	7.00%
Main Strike Extension West	79,000	237,000	2.50%	10.00%	1.25%	7.00%
Molulu Main Pit 2 trike/East/West	336,000	1,008,000	2.50%	10.00%	1.25%	7.00%
Molulu Main Pit 3	233,000	699,000	2.50%	10.00%	1.25%	7.00%
Northern Cu Anomaly	3,333,000	9,999,000	2.50%	10.00%	1.25%	7.00%
Totals	4,221,000	12,633,000	2.50%	10.00%	1.25%	7.00%

The assumptions utilized in the calculations above are:

- The main portion of the mineralized zones, as revealed through pits and trenches, appear to be 2m wide;
- The Molulu Main Pit 3, as revealed through pits and trenches, appear to be 4m wide;
- The Northern Cu Anomaly, as revealed through pits and trenches appear to be 6m wide;
 - The *wide* mineralized halos, surrounding the zones, have not been included;
 - Only the higher-grade mineralized zones were considered;
- The strike lengths of the various showings were mapped and used to multiply the respective zone's thickness by a depth of 100m. This value is based on the depth of open pits in the area and some underground mining. The maximum depths of the Molulu and Northern Copper Anomaly determined in the site visit is 6m. No boreholes have been drilled;
- A specific gravity of 2.5 was utilized;
- Grades come from the descriptive grades achieved through XRF analyses;
 - For both Cu and Co.
 - Assumed 0.5%Cu for oxide material;
 - Assumed 2.5%Cu for mixed material;

- Assumed 10.0%Cu for sulphide material.
- Thicknesses for each respective ore type were assumed as follows:
 - 10m for oxide material;
 - 15m for mixed material;
 - 100m for sulphide material.

Drilling

No drilling has been done on the property.

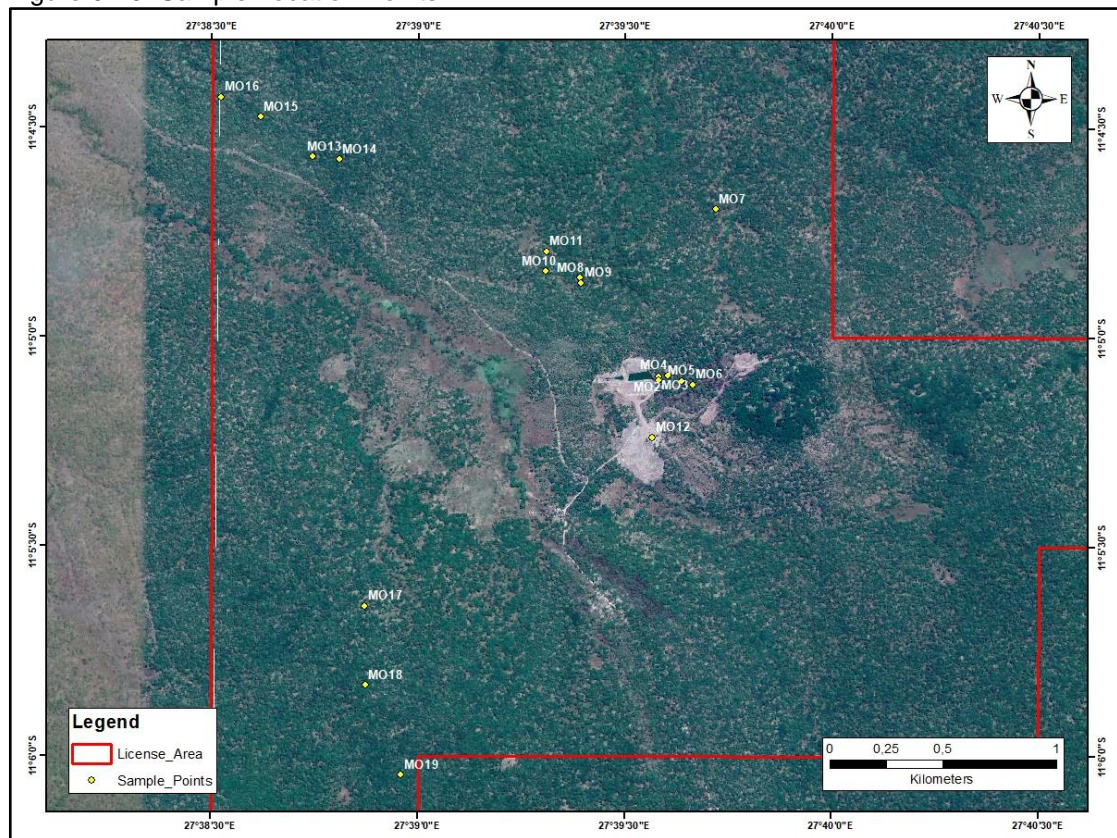
Sample Preparation, Analysis and Security

Not applicable to this report.

Data Verification

A number of samples were taken at 19 field stations in order to verify the historical grades. A total of 27 samples (including duplicates) were collected at various sites; see Figure 0-.

Figure 0-20: Sample Location Points



A total of 27 samples (*including duplicates*) were then prepared as follows:

- Crushed to 1mm at 100% passing;
- Pulverized to 750m at 85% passing;
- Then analysed using ICP-AES² for both Cu and Co.

The current values (“duplicates”) show excellent correlation to the original values; see Figure 0-11 and Figure 0-22.

Figure 0-11: Original vs. Duplicates – Cu ppm

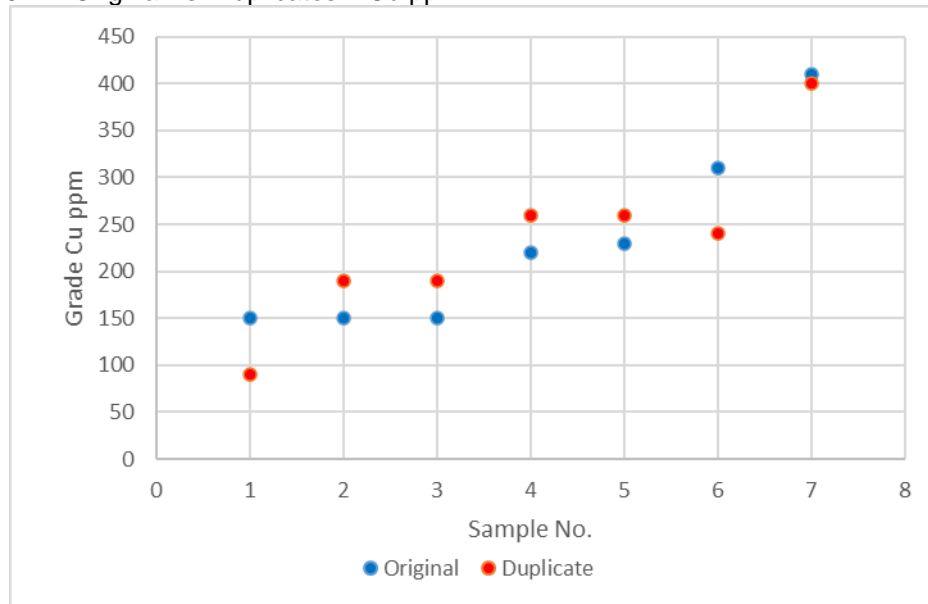
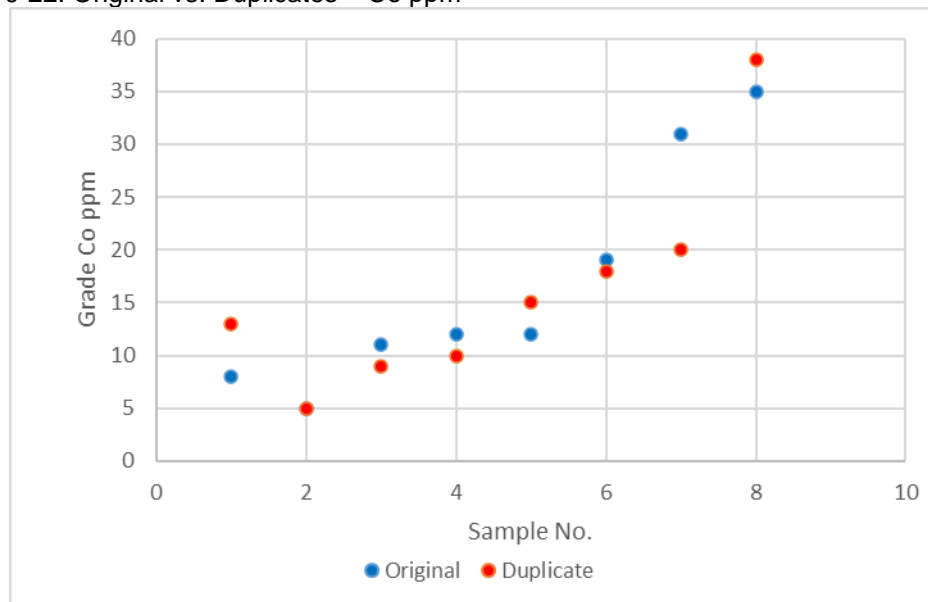


Figure 0-22: Original vs. Duplicates – Co ppm



Both plots show excellent repeatability of both Cu (ppm) and Co (ppm) grades. Although only 19 samples were collected and assayed, it lends credibility to the historical database. Because of the excellent repeatability of the historical results, the CP has a high degree of confidence in the field XRF results.

Coordinates of samples collected for data verification.

Sample ID	Latitude	Longitude
MO1	-11,085002	27,659708
MO2	-11,084865	27,659682
MO3	-11,085019	27,659664
MO4	-11,084836	27,660058
MO5	-11,085061	27,660604
MO6	-11,085193	27,661040
MO7	-11,078212	27,661963
MO8	-11,080953	27,656503
MO9	-11,081155	27,656542
MO10	-11,080692	27,655095
MO11	-11,079901	27,655144
MO12	-11,087302	27,659432
MO13	-11,076154	27,645694
MO14	-11,076261	27,646782
MO15	-11,074578	27,643604
MO16	-11,073776	27,642017
MO17	-11,094032	27,647849
MO18	-11,097183	27,647876
MO19	-11,100759	27,649311
MO20	Duplicate of MO2	
MO21	Duplicate of MO5	
MO22	Duplicate of MO8	
MO23	Duplicate of MO10	
MO24	Duplicate of MO12	
MO25	Duplicate of MO13	
MO26	Duplicate of MO16	
MO27	Duplicate of MO19	

ALS Sample Results

		JB21168578	JB21168578	JB21168578	JB21168578	JB21168578
	Method	WEI-21	ME-OG62	ME-OG62	Cu-AA05	Co-AA05
	Analyte	Recvd Wt.	Co	Cu	Cu	Co
		kg	ppm	ppm	ppm	ppm
		0,02	5	10	10	100
1	M01	0,17	17	110	30	<100
2	M02	0,15	8	150	60	100
3	M03	0,14	53	840	50	<100
4	M04	0,13	8	150	30	100
5	M05	0,17	19	150	20	<100
6	M06	0,15	39	220	20	<100
7	M07	0,2	23	690	90	100
8	M08	0,22	12	410	80	<100
9	M09	0,21	10	220	40	<100
10	M010	0,19	12	230	40	<100
11	M011	0,14	17	250	100	<100
12	M012	0,08	<5	175500	55600	<100
13	M013	0,05	31	310	110	100
14	M014	0,13	7	420	60	<100
15	M015	0,14	17	600	50	<100
16	M016	0,14	35	150	40	<100
17	M017	0,17	21	480	60	<100
18	M018	0,17	19	390	60	<100
19	M019	0,18	11	220	50	<100
20	M020	0,16	13	90	30	<100
21	M021	0,07	18	190	50	<100
22	M022	0,16	10	400	70	<100
23	M023	0,13	15	260	60	<100
24	M024	0,13	<5	113500	39700	<100
25	M025	0,07	20	240	80	<100
26	M026	0,13	38	190	50	<100
27	M027	0,17	9	260	100	<100

Mineral Processing and Metallurgical Testing

Not applicable to this report.

Mineral Resource Estimates

Not applicable to this report.

Mineral Reserve Estimates

Not applicable to this report.

Mining Methods

Not applicable to this report.

Project Infrastructure

Not applicable to this report.

Market Studies and Contracts

Not applicable to this report.

Environmental Studies, Permitting and Social/Community Impact

Not applicable to this report.

Capital and Operating Costs

Not applicable to this report.

Economic Analysis

Not applicable to this report.

Adjacent Properties

Not applicable to this report.

Other Relevant Information

Not applicable to this report.

Interpretation and Conclusions

The preliminary geological interpretation, along with the verified sample values indicates that this tenement is highly prospective for Cu. The long strike length and varying widths indicate a that there is a possibility of a viable Cu deposit of suitable tonnage.

Due to the nature and depth of mineralization, open cast mining is anticipated to be the main mining method, with the use of mining contractors being the most cost effective option

Recommendations

The author recommends that some preliminary drilling be completed on the tenement. This initial drilling can be completed using reverse circulation drills in order to minimize costs. The drillholes should be spaced 200m apart and drilled at an angle such that mineralized zone can be intersected at *nearly* right angles. All the drillholes can be collared on the same side of the mineralized zone.

If the above campaign proves successfully, it is suggested that it is followed by another campaign of drilling but with diamond drillholes. A number of the RC holes should be twinned (*within 2m of each other*), in order to ascertain whether or not both methods yield similar results.

These diamond drillholes should be spaced at least 100m apart and no more than 160m long – or approximately 80m below surface elevation.

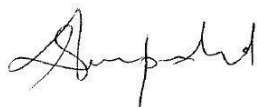
Certificates of Competent Persons

Authors Certificate Selleen Sewpershad

As a contributing author to the report entitled “**Critical Metals PLC, Technical Report, Copper/Cobalt Project, DRC**” with an effective date of 10 August 2022, I hereby state:

1. My name is Selleen Sewpershad and I am an employee at Luhlaza Advisory and Consulting as a geologist.
2. I am a practicing geologist and registered as a Professional Natural Scientist with the South African Council for Natural Professionals (SACNASP).
3. I have a BSc (Hons) in Geology.
4. I have 6 years of mining industry experience. I have practiced my profession continuously since 2015. I have over 5 years of relevant experience having completed been involved on various properties with similar mineralization.
5. I am responsible for assisting with the compilation of the report.
6. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission of which would make the Report misleading.
7. I declare that this Report appropriately reflects the Competent Person's/author's view.
8. I am independent of Critical Metals PLC.
9. I have read the JORC Code (2012) and the Report has been prepared in accordance with the guidelines of the JORC Code.
10. At the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated at Johannesburg and 10 August 2022.



Ms Selleen Sewpershad

Authors Certificate Dexter Ferreira

As a contributing Competent Person to the report entitled “**Critical Metals PLC, Technical Report, Copper/Cobalt Project, DRC**” with an effective date of 10 August 2022, I hereby state:

11. My name is Dexter S Ferreira and I am subcontracted to Luhlaza Advisory and Consulting as a geologist/geostatistician and mining engineer.
12. I am a practicing geologist and registered as Professional Natural Scientist with the South African Council for Natural Professionals (SACNASP).
13. I have a BSc (Hons) (Geology) and an MEng (Mining)
14. I have 40 years of mining industry experience. I have practiced my profession continuously since 1985. I have over 5 years of relevant experience having completed mineral resource estimations on various properties.
15. I am a 'Competent Person' as defined in the JORC Code (2012 Edition).
16. I am responsible for the Exploration Targets declaration for the Copper/Cobalt Project including the compilation of the majority of the report.
17. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission of which would make the Report misleading.
18. I declare that this Report appropriately reflects the Competent Person's/author's view.
19. I am independent of Critical Metals PLC.
20. I have read the JORC Code (2012) and the Report has been prepared in accordance with the guidelines of the JORC Code.
21. At the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated at Johannesburg and 10 August 2022.



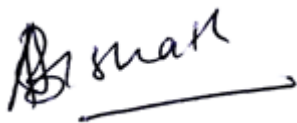
Mr Dexter S Ferreira

Authors Certificate Avinash Bisnath

As a contributing Competent Person to the report entitled “**Critical Metals PLC, Technical Report, Copper/Cobalt Project, DRC**” with an effective date of 10 August 2022, I hereby state:

1. My name is Avinash Bisnath and I am Director at Luhlaza Advisory and Consulting as a geologist.
2. I am a practicing geologist and registered as a Professional Scientist with the South African Council for Natural Professionals (SACNASP).
3. I have a PhD in Geology.
4. I have 20 years of mining industry experience. I have practiced my profession continuously since 2006. I have over 5 years of relevant experience having completed mineral resource estimations on various properties.
5. I am a 'Competent Person' as defined in the JORC Code (2012 Edition).
6. I am responsible for the site visit and review of the report.
7. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission of which would make the Report misleading.
8. I declare that this Report appropriately reflects the Competent Person's/author's view.
9. I am independent of Critical Metals PLC.
10. I have read the JORC Code (2012) and the Report has been prepared in accordance with the guidelines of the JORC Code.
11. At the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated at Johannesburg and 10 August 2022.



Dr Avinash Bisnath

List of Abbreviations

Abbreviation	Description
µm	Microns, Micrometer
'	Feet
"	Inch
\$	Dollar Sign
\$/m ²	Dollar per Square Meter
\$/m ³	Dollar per Cubic Meter
\$/t	Dollar per Metric Tonne
%	Percent Sign
% wt	Percent Solid by Weight
¢/kWh	Cent per Kilowatt hour
°	Degree
°C	Degree Celsius
2D	Two-Dimensional
3D	Three-Dimensional
Al	Aluminum
ARD	Acid Rock Drainage
ASL	Above Sea Level
BFD	Block Flow Diagram
BFS	Bankable Feasibility Study
Ca	Calcium
CA	Certificate of Authorization
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditures
CDWA	Conservation and Development of Wildlife Act
cfm	Cubic Feet per Minute
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CL	Concentrate Leach
CLA	Community Liaison Agent
cm	Centimeter
Co	Cobalt
COG	Cut-off Grade
Cu	Copper
d	Day
DC	Bicarbonate Decomposition
DD	Diamond Drilling/Drillholes
DEM	Digital Elevation Model
DMS	Dense Media Separation
DTH	Down-the-Hole
EIA	Environmental Impact Assessment
EPS	Enhanced Production Scheduler
EQA	Environmental Quality Act

Abbreviation	Description
ESIA	Environmental and Social Impact Assessment
ESS	Energy Storage System
Fe	Iron
FEL	Front End Loader
FOB	Free on Board
FS	Feasibility Study
ft	Feet
FX Rate	Exchange Rate
gm	Grams
G&A	General and Administration
GIS	Geographical Information System
GPS	Global Positioning System
h	Hour
h/d	Hours per Day
h/y	Hour per Year
H ₂	Hydrogen
ha	Hectare
HG	High Grade
HIMS	High Intensity Magnetic Separator
HME	Heavy Mobile Equipment
HMI	Human Machine Interface
HQ	Drill Core Size (6.4cm Diameter)
HVAC	Heating Ventilation and Air Conditioning
I/O	Input / Output
ICP-AES	Inductively Coupled Plasma – Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma – Mass Spectroscopy
ICP-OES	Inductively Coupled Plasma – Optical Emission Spectroscopy
IRMS	Induced Roll Magnetic Separator
IRR	Internal Rate of Return
ISP	Internet Service Provider
ITSP	Internet Telephone Service Provider
IX	Ion Exchange
kg	Kilogram
kg/y	Kilogram per Year
km	Kilometer
kPa	Kilopascal
kW	Kilowatt
kWh	Kilowatt-hour
kWh/t	Kilowatt-hour per Metric Tonne
L	Liter
LC	Lithium Hydroxide Carbonization
LCE	Lithium Carbonate Equivalent
LCT	Lithium-Cesium-Tantalum Bearing (<i>Pegmatite</i>)
LFP	Lithium-Iron-Phosphate
LG	Low Grade
LG-3D	Lerchs-Grossman – 3D Algorithm
m	Meter
M	Million
m ²	Square Meter
m ³	Cubic Meter
m ³ /d	Cubic Meter per Day
m ³ /s	Cubic Meter per Second
m ³ /y	Cubic Meter per Year

Abbreviation	Description
mA	Milliampere
Mb/s	Mega Bits per Second
Mm ³	Million Cubic Meters
MCC	Motor Control Center
ME	Membrane Electrolysis
Mg	Magnesium
mm	Millimeter
mm/d	Millimeter per Day
Mm ³	Million Cubic Meter
Mm ³ /y	Million Cubic Meter per Year
Mn	Manganese
MSO	Mineable Stope Shape Optimizer
Mt	Million Metric Tonne
Mt/y	Million Metric Tonne per year
MV	Medium Voltage
MVA	Mega Volt-Ampere
MVR	Mechanical Vapor Recompression
MW	Megawatts
Na	Sodium
Na ₂ O	Sodium Oxide
Nb	Niobium
NCA	Nickel-Cobalt-Aluminum
NE	Northeast
Ni	Nickel
NiCd	Nickel-Cadmium
NI	National Instrument
NMC	Noble Metal Cathode
NPV	Net Present Value
NQ	Drill Core Size (4.8 cm diameter)
NSR	Net Smelter Return
OK	Ordinary Kriging
OPEX	Operating Expenditures
P1P	Phase 1 Plant
PEA	Preliminary Economic Assessment
PF	Process Flow
PFD	Process Flow Diagram
PFS	Pre-Feasibility Study
pH	Potential Hydrogen
PP	Pre-Production
ppm	Part per Million
QA/QC	Quality Assurance/ Quality Control
QP	Qualified Person
ROM	Run-of-Mine
rpm	Revolutions per Minute
RQD	Rock Quality Designation
s	Second
S	Sulfur
S/R	Stripping Ratio
Sc	Scandium
SG	Specific Gravity
Si	Silica
SIR	Secondary Impurity Removal
Sn	Tin
Std. Dev.	Standard Deviation
SW	Southwest

Abbreviation	Description
t	Metric Tonne
t/d	Metric Tonne per Day
t/h	Metric Tonne per Hour
t/m ³	Metric Tonne per Cubic Meter
t/y	Metric Tonne per Year
Ta	Tantalum
ton	Short Ton
tonne	Metric Tonne
TSS	Total Suspended Solids
U	Uranium
\$US or USD	United States Dollar
USA	United States of America
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
V	Volt
VFD	Variable Frequency Drive
VLF	Very Low Frequency
W	Watt
WHIMS	Wet High Intensity Magnetic Separation
XRD	X-Ray Diffraction
XRF	X-Ray Fluorescence
yr	Year
Zn	Zinc
Zr	Zirconium

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Table 0-4: JORC (2012) Table 1 – Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralization that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30-g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Historical sampling was done using surface pitting and trenching techniques. Historical assaying was done using a handheld Olympus Vanta Series C XRF instrument. Subsequent twin sampling (<i>i.e., sampling nearest to a historical sampling</i>) was carried out. These twin samples were assayed at ALS Laboratory in Johannesburg using ICP-AES. The statistics reveal excellent repeatability of results.
Drilling Techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> No drilling has been done on the property.
Drill Sample Recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximize sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drilling has been undertaken on the property. 100 per cent of samples were recovered using pitting and trenching techniques.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support 	<ul style="list-style-type: none"> No drilling has been done on the property.

	<p>appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p> <ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> The logging done on each pit and trench is qualitative in terms of colour and grain size, and quantitative in terms of dimensions. All the pits and trenches were measured (widths, lengths and depths).
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> No drilling has been done on the property – therefore no core is available. The majority of samples were geochemical in nature and collected in pits and trenches. No quality control procedures were adopted by the historical sampling campaigns, although the recent twinning of grab samples and subsequent laboratory analysis (ICP-AES) show excellent repeatability. Sample sizes are considered appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory results	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established 	<ul style="list-style-type: none"> Historical assaying was done by handheld XRF method which is considered appropriate for the style of mineralization. The technique is considered total. There are no records of certified standards or blanks used during the sampling. There are no records for laboratory repeats. There is no information regarding QAQC. All sample assays are consistent in grade, within expected limits, of the grade of the small artisanal stockpiles.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> All historical and recent sampling campaign results were reviewed by Dr. A. Bisnath and Mr. D.S. Ferreira. The recently collected 19 samples are within close proximity to historical sample sites and demonstrate excellent repeatability.

	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No adjustments have been recorded as having taken place.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> The locations of historical and recent samples were surveyed using handheld GPS units. WGS84 UTM grid was used for all points. The quality of the surveyed points is adequate for exploration targets.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> The trenches excavated are preliminary in nature and thus positioned at various spacings in order to understand the continuity of the mineralization. The spacing of the pits and trenches is only sufficient to establish exploration targets. No mineral resource estimates were made therefore no compositing was required.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> The trenches were excavated at right angles to the perceived mineralization therefore precluding orientation bias. The pits were dug on regular grid in lines 100m apart therefore precluding orientation bias.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Nothing is known about the security of any collected historical sample. The recently collected 19 verification samples were security delivered to a commercial courier for delivery to Johannesburg for assaying.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data 	<ul style="list-style-type: none"> There are no known audits or reviews.

Table 0-5: JORC (2012) Table 2 – Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	<ul style="list-style-type: none"> The Molulu Project is defined by the amalgamation of ZEAs 353, 355 & 356. Ministerial decrees allocated the ZEAs to a specific cooperative. <ul style="list-style-type: none"> ZEA 353 to cooperative Amani: Arrêté Ministériel No.0777-CAB.MIN-MINES-01-2015 du 15 Mai 2015; ZEA 355 to cooperative Kazi: Arrêté Ministériel No.0775-CAB.MIN-MINES-01-2015 du 15 Mai 2015; ZEA 356 to cooperative Ujamaa: Arrêté Ministériel No.0779-CAB.MIN-MINES-01-2015 du 15 Mai 2015. The ZEAs are surrounded by the following permits: <ul style="list-style-type: none"> West: PR4696 belonging to Walni Mineral Company SARL, 64 carré. Small scale mining operation is taking place; South and East: PR808 belonging to Société Chinoise pour le Développement du Congo sarl, 134 carré. The Chinese are busy with exploration; North: PR12359 belonging to Da Fei Mining sarl, 102 carré. Small scale mining operation is taking place in this area.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The concession has been the subject of a historical coarse soil geochemistry, grab sample and trenching and pitting survey in 2011. More recently a Chinese group conducted diamond core drilling in the region of the southern Cu Co anomaly.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralization. 	<ul style="list-style-type: none"> The MM and NCA can be classified as sediment hosted stratabound silicalstic copper deposits. Mineralization occurs either as green copper oxides or as dark lustreless copper sulphides hosted in a well sorted medium grained sandstone bound on either side by barren fine-grained red to purple mudstones and shales.
Drillhole information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> eastings and northing of the drillhole collar 	<ul style="list-style-type: none"> No drilling has ever been done on the property.

	<ul style="list-style-type: none"> ○ elevation or RL (Reduced Level – elevation above sea level in meters) of the drillhole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. <ul style="list-style-type: none"> • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • In reporting of exploration results, no weighting, averaging to outlier top-cuts (“trimming limits”) were used. • No weighting of Cu or Co grades to intersection widths were used. • No metal equivalents were used.
Relationship between mineralization widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’). 	<ul style="list-style-type: none"> • Since the project is at greenfields stage, no such relationships were yet determined. • All trenches were excavated to intersect the perceived mineralization strikes at right angles.
Diagrams	<ul style="list-style-type: none"> • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views 	<ul style="list-style-type: none"> • Maps and sections are presented throughout the body of the text.
Balance reporting	<ul style="list-style-type: none"> • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high 	<ul style="list-style-type: none"> • Comprehensive reporting of results is shown on maps as symbols to indicate their grade ranges. Legends explain the symbol sizes.

	grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> All the exploration results are presented herein.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Planned further work has not been included in the document. Areas of possible extensions are included in the diagrams throughout this report.

