Proposed Haib Copper Project on EPL 3140, Noordoewer, //Karas Region

BACKGROUND INFORMATION DOCUMENT

ENVIRONMENTAL SCOPING STUDY

MEFT application number: APP-006117.

BACKGROUND

Haib Minerals (Pty) Ltd, a Namibian-registered company, operates as a subsidiary of Koryx Copper Inc., a Canadian copper development Company, focused on advancing the 100% owned Haib Copper Project in Namibia.

The Haib Copper Project is located approximately 9 km north-east of Noordoewer, along the southern border of Namibia. The Orange River runs immediately to the south of the site boundary. The Haib deposit straddles the Volstruis River, a tributary of the Haib River, which is an ephemeral tributary of the Orange River.

The Project is a large, advanced (PEA-stage) copper/molybdenum porphyry deposit with a long history of exploration and project development by multiple operators. Exploration activities are ongoing, regulated under Exclusive Prospecting License (EPL) 3140, issued to Haib Copper in 2007 by the Ministry of Industries, Mines and Energy (MIME) and associated Environmental Clearance Certificate (ECC 01233) issued in 2014 by the Ministry of Environment Forestry and Tourism (MEFT).

The Project would benefit the Namibian economy through revenues during the construction phase, royalties, levies and taxes during the Life of Mine (LoM), and positive contributions towards employment and infrastructure development.

Although the Project is currently in the exploration and studies phase whereby the feasibility of the Project is being defined through ongoing investigations and analysis, the Project has advanced sufficiently the point where Haib Minerals is applying to the Executive Director, Ministry of Industries, Mines and Energy (MIME), and the Environmental Commissioner, Ministry of Environment, Forestry and Tourism (MEFT), for an Environmental Clearance Certificate (ECC) in terms of Environmental Management Act, 2007 and the Regulations (2012) for the Haib Copper Mining Project. *MEFT application number: APP-006117.*

Haib Minerals appointed DRA Global Limited, Knight Piésold Consulting (Pty) (KP), Qubeka, The MSA Group (Pty) Ltd (MSA), SRK Consulting (Pty) Ltd to support the development of the Project studies and design. KP Namibia was appointed to support in the development of environmental scoping and impact studies and ongoing regulatory compliance associated with the Haib Copper Project.

Mr. Joseph Mülders and Dr. Lima Maartens, under capacity of independent Environmental Assessment Practitioners (EAPs) are undertaking an Environmental Assessment (Scoping, Impact Assessment and Environmental Management Plan) for the proposed activities. To date, various specialist assessments have been undertaken for the proposed project area, including cultural heritage, water resources and water demand, terrestrial biodiversity and aquatic biodiversity, whereas other assessments are currently ongoing, including air quality, noise, groundwater and socio-economic assessments.

This document aims to provide background information on the proposed Project to enable Interested and Affected Parties (I&APs) to provide their comments or concerns.

PROJECT DESCRIPTION

Haib Minerals is proposing the development and operation of a copper mine and associated infrastructure. The Project comprises a large copper and molybdenum resource to be mined from an open pit and processed through a crushing, milling and flotation concentrator and hydrometallurgical plant as well as a smaller heap leaching facility designed to accommodate oxide material and lower grade mineralisation. The mining throughput is predicted at 87.5 million tonnes per annum (Mtpa) for a life of mine of approximately 19 years with a total of 1.58 billion tonnes of material to be mined. Although the mine development is at an advanced conceptual phase, the key components, and potential options to be further assessed include the following:

1. A single large open pit
2. A concentrator processing plant (crushing, milling and flotation circuit with capacity of 24 Mtpa)
3. A heap leach, solvent extraction and electrowinning plant (capacity of 11 Mtpa with two alternative sites provided)
4. A tailings storage facility (TSF) (three alternatives provided)
5. Two Waste Rock Dumps (WRDs) (192 and 546 Mt)
6. A solar photovoltaic (PV) plant (150 MWp)
7. Two storm water attenuation dams (SWAD) above the open pit
8. Off-channel water storage
9. Water abstraction works, pipeline and associated infrastructure
10. Ancillary infrastructure (access roads, transmission lines, labour accommodation camp, offices etc)

The mining method will include mining predominantly copper mineralised material from a large open pit. These mining operations will involve drilling and blasting of all excavated material, which will then be graded and selected for further processing. Mineral recovery will use a concentrator (milling and flotation) for high-grade mineralised material and heap leaching for low-grade mineralised material.

The power supply includes a hybrid solution combining a solar photovoltaic (PV) plant and a connection to the regional grid system from NamPower. The mines peak demand may be up to a maximum of 145 MVA with an annual consumption of 1,123.3 GWh, however power optimisation studies are still ongoing and expected to provide improvements through introducing efficiencies.

Waste will be generated in the form of process waste (both hazardous and non-hazardous) as well as domestic/municipal waste. Three Tailings Storage Facility (TSF) options are currently being assessed where process waste disposal will meet local Government and other statutory bodies' requirements. General and industrial waste will be removed and disposed of at an appropriate recycling or disposal facility off-site. A dedicated waste management and recycling facility and wastewater treatment plant will be built on site to manage hazardous waste and sewerage.

The Project's water demand is 20 million m^3/yr of which supply is being investigated from two options including the Orange River and Neckartal Dam. Off-channel storage is sized towards offsetting the impacts of water abstraction from the Orange River. Abstraction of 6 million m^3/annum from the Orange River for the Haib Copper Project has been accounted for in various basin water management strategies since 2004.

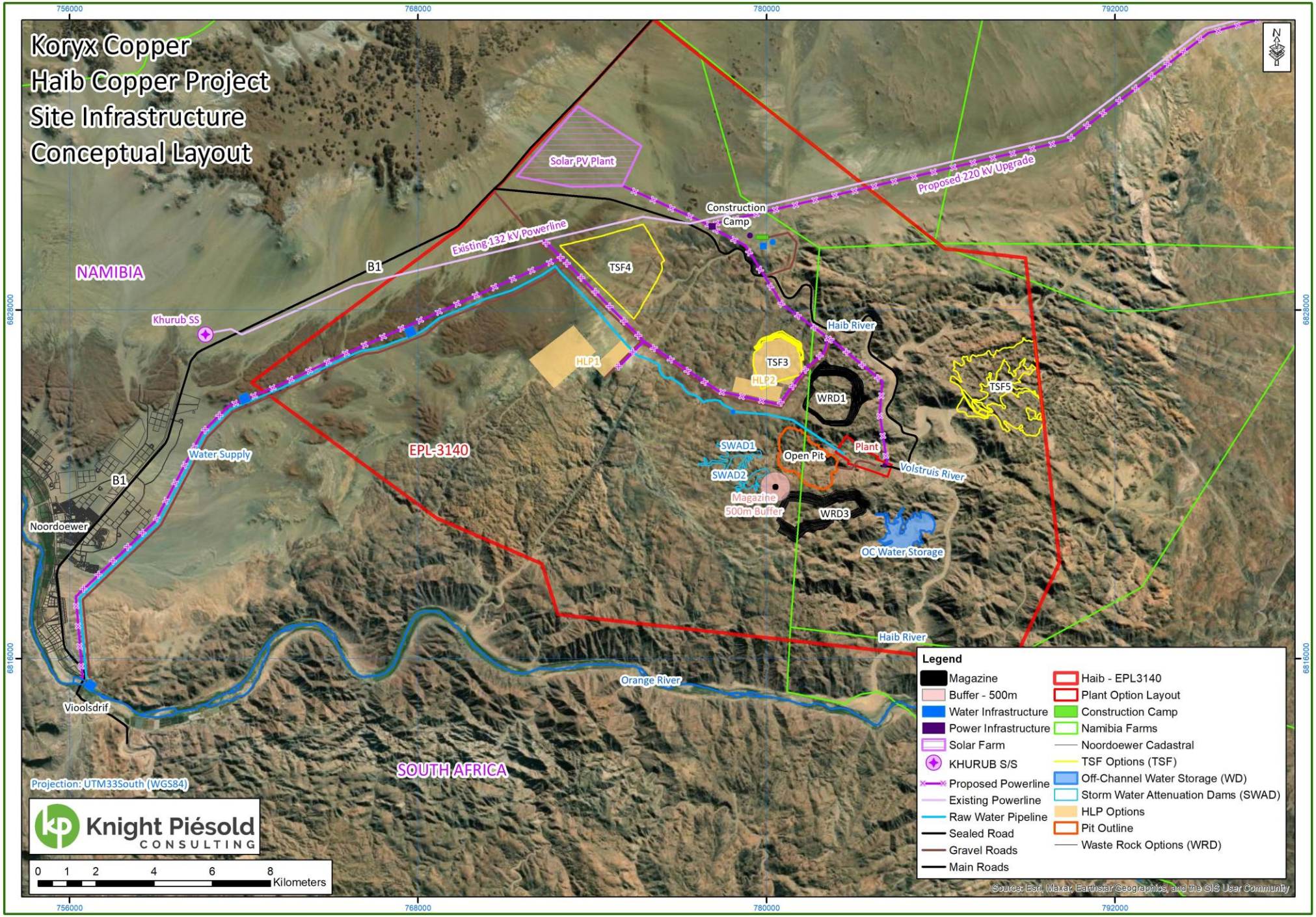
Preliminary economic assessments estimate on the Haib project will be presented in the PEA towards the end of 2025. The current mine plan indicates that a maximum of 2,500 staff during construction and maximum of 1,140 during operations will be required by the Project. This will provide direct benefits through income and thus livelihoods to these households as well as support the broader economy for a minimum of 19 years of production in addition to the construction period of about 2 years.

Although alternatives have been provided, the final Project description and site layout will be informed by specialist impact studies, the broader environmental and social impact assessment, public and consultations with I&APs as well as the ongoing design process. Overall, any changes are anticipated to be in the order of landscape optimisation and no fundamental changes are expected.

The map below provides the proposed Project location and site layout.

Potential environmental impacts identified are presented in the table below. Towards managing anticipated potential impacts, the following specialist baseline and impact assessment studies have been identified: Archaeology and heritage, biodiversity (aquatic and terrestrial), air and noise quality, hydrology, geochemistry, water demand and water resources and socio-economic studies and associated routine monitoring.

Anticipated Impacts and Proposed Mitigation	
Possible Impact	**Mitigation**
Impact on heritage resources	• Demarcate sensitive areas and declare these as "no go" areas • Implement a Chance Find Procedure
Increase noise levels	• Working hours restricted • All vehciles and machinery to conform with regional noise standards
Decreased air quality	• Dust management • Emissions management
Increase in water use	• Apply for a water use licence • Implement water demand and water conservation measures • Off channel storage
Increase in water contamination	• Protection of aquifers • Runoff and contaminant management
Reduced biodiversity	• Design facility and operate as per mitigation hierarchy (avoid, minimise, manage, rehabilitate and offset) • Active management • Ongoing restoration/rehabilitation
Soil contamination	• Spill kits and permeability management
Increased surface water runoff	• Implement erosion control measures • Implement storm water management measures (culverts and drains)
Increased traffic volumes	• Traffic management plans
Influx impacts	• Community management plans • Workforce management plans
Socio economic benefit	• A number of job opportunities will be created


Koryx Copper
Haib Copper Project
Site Infrastructure
Conceptual Layout
N
Solar PV Plant
Proposed 220 kV Upgrade
Construction Camp
Existing 132 kV Powerline
B1
NAMIBIA
TSF4
Khurub SS
Haib River
HLP1
TSF3
HLP2
TSF5
WRD1
SWAD1
Open Pit
Plant
Water Supply
EPL-3140
SWAD2
Volstruis River
Magazine
500m Buffer
WRD3
B1
Noordoewer
OC Water Storage
Haib River
Orange River
Vioolsdrif
SOUTH AFRICA
Projection: UTM33South (WGS84)
Knight Piésold CONSULTING
0 1 2 4 6 8 Kilometers
Legend
Magazine
Buffer - 500m
Water Infrastructure
Power Infrastructure
Solar Farm
KHURUB S/S
Proposed Powerline
Existing Powerline
Raw Water Pipeline
Sealed Road
Gravel Roads
Main Roads
Haib - EPL3140
Plant Option Layout
Construction Camp
Namibia Farms
Noordoewer Cadastral
TSF Options (TSF)
Off-Channel Water Storage (WD)
Storm Water Attenuation Dams (SWAD)
HLP Options
Pit Outline
Waste Rock Options (WRD)
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
756000
768000
780000
792000
6828000
6816000

ENVIRONMENTAL SCOPING AND IMPACT ASSESSMENT PROCESS

In terms of the Environmental Management Act, 7 of 2007, gazetted on 27 December 2007 (Government Gazette No. 3966), and the Environmental Impact Assessment Regulations promulgated on 6 February 2012, an Environmental Impact Assessment (EIA) for the proposed Project must be approved by the Ministry of Industries, Mines and Energy (MIME), the Competent Authority. This process involves seeking an Environmental Clearance Certificate (ECC) through the ECC application process as required by the Ministry of Environment, Forestry and Tourism (MEFT). The procedure requires an application phase, followed by a scoping phase, an environmental impact assessment (EIA) and an Environmental Management Plan (EMP) phase, to apply for the ECC as per the EIA Regulations. This sequence ensures adherence to regulatory requirements and facilitates the assessment and management of environmental and social impacts associated with the proposed Project. This Background Information Document (BID) serves as the start of the Environmental Scoping and Public Participation Process for the Project.

All Interested and Affected Parties (I&APs) are invited to register as such and participate in the Public Consultation Process. To register as an I&AP, please submit your full name and contact details to Knight Piésold at the details provided below with the project title as the email subject. The scoping report, once ready, will be made available online for a public review period of 30 days. Registered I&APs will be informed of the review period dates and details via email and sms.

FOR FURTHER INFORMATION PLEASE CONTACT:

Joseph Mulders
+ 27 72 754 2603
or
Bianca Eiases
+264 61 307 297
or
Lima Maartens
+26 46 125 5750
HaibESIA@knightpiesold.com
or
Heidri Nel
+26 48 165 17336
ESIAHaib@udanam.com