Independent Geological Report on the Cu-Ag-Au-(W) skarn and orogenic Au Deposit, Karibib District, Namibia

# **GOAS PEGMATITE EXPLORATION (PTY) LTD**

Dr. Johan Hattingh March 2021



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Prepared by Johan Hattingh

March 2021

**Geological & GIS Consulting** 

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### 1. Executive Summary

The Karibib Project is owned by Goas Pegmatite Exploration (Pty) Ltd (Goas) through its Exclusive Prospecting License, EPL 4663 which covers some 40 986 ha in the Erongo District in central Namibia. The EPL is located approximately 45 km south of the town of Karibib, 135 km west north-west of the capital Windhoek and approximately 130 km east north-east of Namibia's port-town of Walvis Bay. EPL 4663 is located 26km south of the active Navachab Gold Mine owned by QKR Namibia Ltd and 50km south of the significant Twin Hills Au discovery made by Canadian listed Osino Resources Corporation in 2019.

Goas plans to systematically explore EPL 4663, with a view to defining a JORC compliant mineral resource.

EPL 4663 is situated within the same mineralisation zone and shares striking geological similarities with the Navachab Gold Mine and Osino's Twin Hills deposit. Osino's success arises from their efforts to re-explore portions of the Kalahari Gold Field covered by their exclusive prospecting licenses. Companies such as Goldfields, Anglo American and various junior explorers historically explored these areas and EPL 4663 during the 1980's. These early explorers did not have the benefit of sophisticated modern exploration equipment and techniques such as those used by Osino in making its multiple recent discoveries.

Goas has conducted a re-evaluation of historical exploration results and incorporated modern-day geospatial datasets over EPL 4663. This re-evaluation produced new geological perspectives and indicates significant exploration potential that warrant further detailed exploration. From the investigation Goas discovered a Northeast-Southwest trending, 1 to 2.5 km wide and 20 km long structural feature corresponding with known mineralisation and with historical base- and precious-metal soil and stream geochemical anomalies.

Limited historical and current reconnaissance rock-chip and channel sampling of exposed mineralisation within the newly identified structural feature has yielded significant results which suggest that an epigenetic Cu-Ag-Au-W skarn- and polymetallic replacement vein-type mineralisation-system is present along its extent. In the south-western portions of the structural feature, a total of 8 rock-chip samples were collected, with an average grade of 2.4 wt. % Cu, 17.23 g/t Ag, 1.25 g/t Au and 0.33 wt. % WO<sub>3</sub>, and a maximum grade of 3.15 wt. % Cu, 36.4 g/t Ag, 1.79 g/t Au and 1.05 wt. % WO<sub>3</sub>, being obtained. In the north-eastern portions of the same structural feature, a total of 8 channel samples of a 70 m long mineralised calc-silicate unit have also yielded a significant average grade of 1.28 m @ 2.72 wt. % Cu, 56.7 g/t Ag, 0.45 g/t Au and 0.23 wt. % WO<sub>3</sub>, with one sample yielding 2 m @ 4.10 % Cu, 252 g/t Au, 0.80 g/t Au and 0.21 wt. % WO<sub>3</sub>. In addition, there are also several

neglected (and decisively inconclusive) historical base and precious-metal geochemical anomalies which link and trend between these two mineralised areas within the structural feature. Up until present day these anomalies and mineralised exposures were never conclusively placed within any project-scale geological framework or explored using modern exploration methods.

Based on remotely sensed unsupervised land-classification, it is indicated that approximately 40 - 60 % of this highly prospective structural feature is covered by eluvial, alluvial and/or rock-float regolith, thereby suggesting that regolith mapping and orientation, which has to date not been conducted at all on the property, is also likely to be a critical factor in locating unknown mineralisation and expanding on known mineralisation within the prospective structural feature. The reinterpretation of the significance of low order historical anomalies is likely to be fruitful, as is the case with Twin Hills.

Goas has done some reconnaissance work on its EPL but did not made sufficient progress in its exploration programme, the samples were not sufficient in numbers and spacing to be considered truly representative or spaced close enough to demonstrate grade continuity to allow any of the exploration targets in the permit areas to be considered for classification in terms of a JORC resource. For this reason, the property of Goas in terms of Cu-Ag-Au-(W) skarn and orogenic Au sulphide mineralisation is considered an exploration project at this stage.

The Project does not contain any Ore Reserves or Mineral Resources, as defined by the JORC Code. Under the definition provided by the ASX and in the VALMIN Code, the Karibib Project is classified as an 'exploration project', which is inherently speculative in nature. The Project is considered to be sufficiently prospective, subject to varying degrees of risk, to warrant further exploration and development of their economic potential, consistent with the programs proposed by Creo.

## 2. Introduction and Terms of Reference

### 2.1. Introduction

This report has been prepared as a technical review document recording the current status of exploration work of the Cu-Ag-Au-(W) skarn and orogenic Au deposit on EPL 4663 and it therefore reflects exploration results to date and declares resources that was defined by results from the current exploration campaign.

The report was prepared at the request of the Board of Goas ("Goas") and in the execution of the mandate, a technical assessment has been prepared for Goas in compliance with and to the extent required by the JORC Code issued by the Australasian Institute for Mining and Metallurgy ("AusIMM"), under whose technical jurisdiction these mineral resources fall. The guidelines as set out in the JORC Code are considered by Goas to be a concise recognition of the best practice reporting methods for this type of mineral development, and accord with the principles of open and transparent disclosure that are embodied in internationally accepted Codes for Corporate Governance.

This report describes the exploration results and mineral resource at the EPL 4663 and has been based upon exploration data provided by the geologists of Goas, which has been thoroughly due diligenced by the author.

### 2.2. Competent Person, Site Visit and Data Validation

Johan Hattingh employed by Creo as a geologist with 30 years of experience, is the author responsible for the preparation of this Resource Statement. Johan Hattingh is a Competent Person (CP), as defined by the JORC Code. The Competent Person considers the JORC Code to be the most appropriate standard for the Public Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code sets out minimum standards, recommendations, and guidelines for Public Reporting.

Johan Hattingh has been involved with the skarn gold and copper deposits in the Karibib region of Namibia since 2007, where he conducted numerous field studies on the exploitation of skarn hosted minerals. Johan visited the Karibib Project area and surrounds a number of times since 2007. The technical information used in this Resource Statement was provided by Goas and was used in good faith by Creo. Where possible, Creo have satisfied itself that such information is both appropriate and valid to ensure JORC compliance in terms of the level of disclosure.

Johan Hattingh is independent from Goas with no current or historical involvement directly or indirectly with the company other than arm's length resource verification on an ad hoc basis. The author also does not have any shareholding in Goas, or in a subsidiary company or any other company that is currently contracted to Goas.

Compensation for the technical report is exclusively based on a market related remuneration fee.

## 3. Corporate Structure

### 3.1. Location

EPL 4663 is situated in the Karibib magisterial district of the Erongo Region, some 45 km south the town of Karibib, 140 km east of the port-town Walvis Bay and 130 km west-north-west of Namibia's capital city of Windhoek (Figure 1).

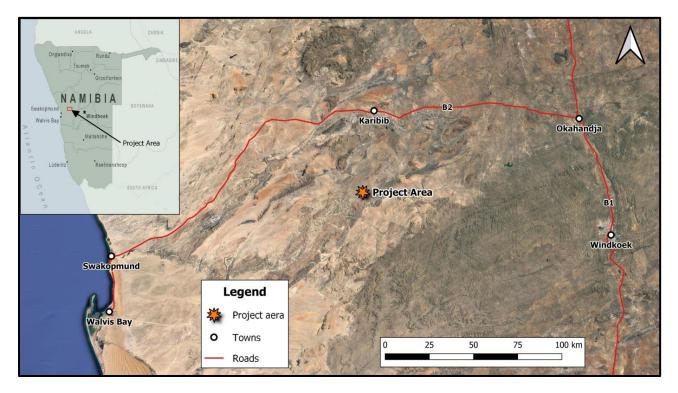


Figure 1: Location map of the project area.

The Karibib Project area (EPL 4663) with an area of 40,986 ha (Figure 2) covers the farms of Ukuib West, Ukuib, Kamandibmund, Gamikaub, Goas and the Otjimbingwe Reserve.

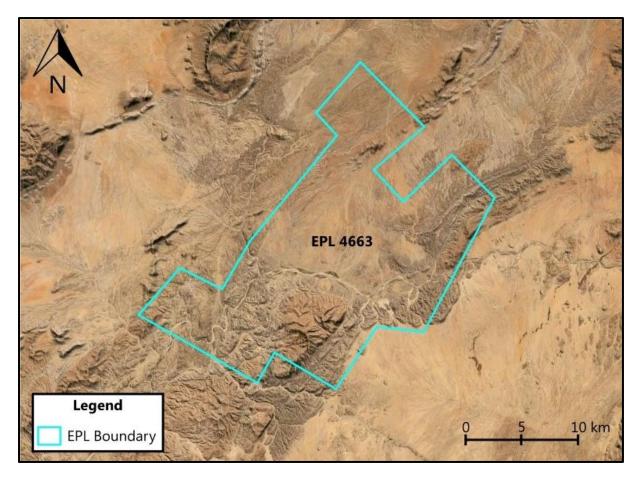


Figure 2: Map indicating the boundary of EPL 4663 (40,986 ha) and the general surface features.

#### 3.2. Company Details

Goas is a Namibian registered company (reg. 2018/0732) with head offices in Windhoek, Namibia. Goas currently holds the EPL 4663.

Karibib Pegmatite Exploration (Pty) Ltd (Karibib) is a Namibian registered company (Reg. 2018/0021) holds 85% of the shares in Goas, which in turn is the owner of EPL 4663. The remaining 15% of Goas is owned by a local company, Rina's Investment CC (Rina).

Arcadia Minerals Limited holds a see-through interest of 68% in the Karibib Project by virtue of it owning 80% of Karibib, which company in turn owns 85% of Goas.

#### 3.3. Mineral Tenure

Creo's Competent Person has reviewed the mineral tenure related to the Goas exploration areas at the Karibib Cu-Ag-Au-(W) skarn and orogenic Au Project and has independently verified the legal status and ownership of the Permits including underlying property and mining agreements.

Rina was the original owner of EPL 4663. Goas undertook an assessment of the EPL during 2017. The company concluded that the EPL has good potential for copper, silver and gold

and an agreement was subsequently signed with Rina October 2017. The EPL was then transferred into Goas during August 2018.

The EPL has since been renewed by the Minister and Mines and Energy on the 8th of May 2019 for a period of 2 years and is therefore valid until 9 May 2021. A second renewal application was lodge on the 29 January 2021 (well within the 90 days requirement period).

Table 1: EPL 4663 Information

Licence:	Exclusive Prospecting Licence
Licence Number:	EPL 4663
Holder:	Goas Pegmatite Exploration (Pty) Ltd
Size:	40,986 hectares
Commodities:	Base and Rare Metals, Dimension Stone, Industrial
	Minerals, Precious Metals, Precious Stones
Farms:	Ukuib West, Ukuib, Kamandibmund, Gamikaub, Goas
	and the Otjimbingwe Reserve

#### 3.4. Land Use Agreement

A land-use agreement, including access to the property for exploration activities has been signed with the owners of the farms Ukuib West, Ukuib, Kamandibmund, Gamikaub, Goas and the Otjimbingwe Reserve (Figure 3).

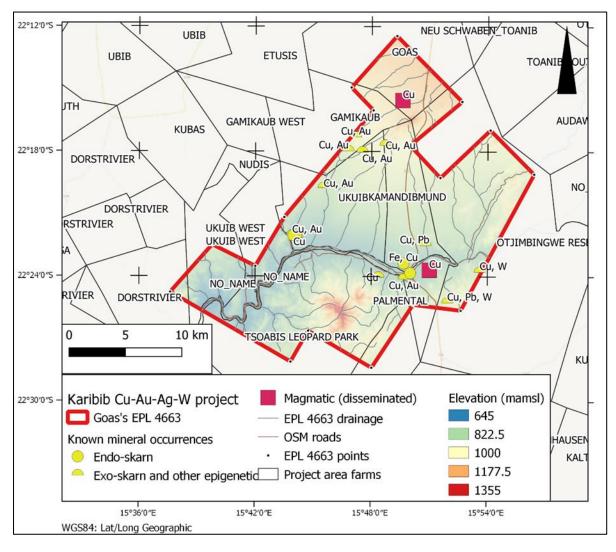
## 4. Accessibility, Climate, Infrastructure and Physiography

#### 4.1. Topography and Elevation

On a national scale three distinct regional features dominate the Namibian topography. The west of the country is characterized by a narrow coastal plain that extends inland for approximately 120 km, also known as the Namib Desert. An eroded escarpment, which forms part of southern Africa's great escarpment lies at the eastern edge of this coastal plain, stretching in a north-south direction from the Kunene River on the Angolan border, southwards and terminating against the Huab River.

To the east of the escarpment lies a vast interior plateau, with elevations that varies between 1 000 m to 1 500 m amsl. This plateau continuous southwards towards the Orange River, on the border with the Republic of South Africa.

More locally EPL 4663 lies between 740 – 1150 m above sea level just below the Great Escarpment. The project area is drained by the south-west flowing ephemeral Swakop River which marks the most prominent topographic feature in the area. The area alongside the



river is relatively flat, with higher elevations occurring towards the north-east and southwest (Figure 3).

Figure 3: Map indicating the elevation of the EPL 4663 area and the farms covered by the EPL. (Also note the mineral occurrences indicated in the area).

Drainage systems here form part of the head water streams of south-west-draining tributaries of the Swakop River. All streams are perennial.

#### 4.2. Vegetation and Wildlife

The area is sparsely vegetated with thorn-veld and grass land type vegetation. Among the rocky slopes of prominent ridges, African-star Chesnutt trees (*Sterculia Africana*) can be found. In addition, a number of *Commiphora* species grow among the rocky ridges. Blue leave Corkwood (*Commiphora glaucescens*) is the more dominant species on the slopes while Rock Corkwood (*Commiphora saxicola*) occurs on top of the rocky ridges.

Some 200 of the total of 658 species of birds recorded in Namibia are reported in the Karibib area. The bird species recorded in the area, include the yellow-billed hornbill (Tockus leucomelas), the colourful lilac breasted roller (Coracias caudatus) and the crimson bou bou (Laniarius atrococcineus) The following type of mammalian species can be found in the Karibib surrounds are: kudu (Tragelaphus strepsiceros), blesbok (Damaliscus pygargus), springbok (Antidorcas marsupialis), steenbok (Raphicerus campestris), mountain zebra (Equus zebra), and warthog (Phacochoerus africanus).

#### 4.3. Climate

EPL 4663 area has a semi-desert climate, characterised by a large range of temperatures, low rainfall, and high evaporation, with an annual average temperature of  $21.9^{\circ}$ C. Hot summers and mild winters are typical in the area. The rainy season occurs during the summer months of January – April, with occasional thunderstorms. The average sunshine hours per day ranges between 9 – 10 hours. Summer temperatures can however exceed 40°C and frosts are common in the winter. The prevailing wind direction is south-west and the minimum speeds recorded are 15 km/hour.

#### 4.4. Infrastructure

All the main towns/cities within this region are connected by paved roads, while the well maintained C32 gravel road passing through EPL 4663 from north to south, connect to the paved B2 national road. The B2 national road connects the coastal towns of Swakopmund and Walvis Bay (Namibia's largest commercial deep-water port) to Okahandja, while the B1 National road connects Okahandja to Windhoek. Karibib is situated on the B2 national road. Both Windhoek and Walvis Bay have international airports, while Windhoek is serviced by daily commercial flights from South Africa. Karibib is connected to the TransNamib freight-railway network, with the next station to the west being Kranzberg, the junction for the branch railways to Tsumeb and Grootfontein from the line to the capital of Windhoek. Windhoek will be able to supply most exploration and mining requirements that is necessary to implement an exploration and mining programme and what is not available there can be obtained in South Africa. Skilled workers can be contracted out from smaller regional centres.

### 5. Geological Background

The geological background of EPL 4663 presented here is a reflection of Goas's interpretation of all the geospatial data available at present, which includes, but is not limited to, regional aeromagnetic-, lithological-, metallogenic- and geotectonic datasets

(Anthonissen, 2010; Burnett, 1992; Kisters *et al.*, 2004; Miller, 2008; Underwood, 2019; Steven *et al.*, 1994; & GIS datasets purchased from the Namibian Geological Survey, Windhoek), project-specific historical exploration datasets (Decker, 1983; Esterhuizen, 1984; Misiewicz, 1984) and recently conducted reconnaissance geological mapping (field- and remote sensing mapping) and field observations (Schloemann, 2019). The minerals-system interpretation applied by Goas, mainly pertaining to Cu-Ag-Au-W skarn-, polymetallic replacement vein-type models, is largely based on descriptive- and minerals-system criterion models of similar mineralised geological settings known to occur globally (Groves *et al.*, 1998; Harnmarstrom *et al.*, 1986; Morris *et al.*, 1986; Theodore *et al.*, 1991).

#### 5.1. Tectonometamorphic framework

EPL 4663 is located within the NE-trending South-Central Zone of the Neoproterozoic Damara Belt, which comprises the intra-continental branch of the mostly sialic Pan-African (550 – 500 Ma) Orogenic Cycle associated with the amalgamation of the Gondwana supercontinent (Figure 4) (Miller, 2008).

The South-Central Zone has been widely interpreted as a tectono-stratigraphic domain comprising the magmatic- and accretionary axis of the orogen, with thick metaturbuditic sequences of sialic schists, meta-psammites, marbles and calc-silicates being present and which are also intruded by numerous pre-, syn- and post-tectonic Damaran granitoids (Miller, 2008). The entire supra-crustal accretionary sequence overlies the crystalline Congo Craton basement, which itself has been thrust over the Kalahari Craton and has subsequently also experienced thick-skinned deformation in the process (Anthonissen, 2010).

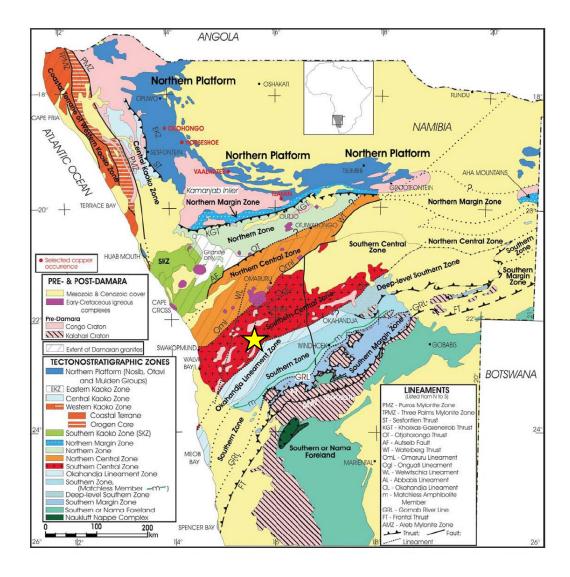


Figure 4: Tectonostratigraphic domains of the Damara Orogen (modified after Miller 2008 & Anthonissen 2010). The South-Central Zone contains especially voluminous pre-, syn- and post-tectonic magmatic activity and is comprised mostly of thick accretionary metasedimentary sequences. The yellow star indicates the location of Goas's EPL 4663, and the relative location of the so called Karibib Gold Fields

The South-Central Zone, as on EPL 4663, can essentially be characterized as a mid-crustal section through a high-angle (i.e. co-axial dominant) continental suture-zone between the Congo Craton in the NW and the Kalahari Craton in the SE, positioned well into the leading edge of the overriding Congo Craton and into the magmatic-arc axis (Figure 5) (Anthonissen, 2010). The overall peak metamorphic conditions obtained in this part of the Damara Orogen (i.e. in the region of EPL 4663) are high-T/Low-P and "mesothermal" (amphibolite facies; 2-4 kbar @ 550–600°C) conditions, thereby also coinciding with ductile-dominant conditions (Groves *et al.*, 1998; Underwood, 2019). The high-T nature of this part of the South-Central Zone is attribute to an elevated geothermal gradient associated with the voluminous granitoid magmatism which has occurred within it (Anthonissen, 2010; Miller, 2008).

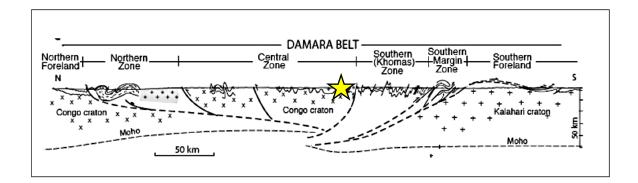


Figure 5: A schematic cross section of the different tectonostratigraphic domains of the Damara Orogen. Taken from Anthonnisen (2010). The southern margin of the Central Zone (i.e. South-Central Zone) represents the leading overriding edge of the continental suture zone. The YELLOW STAR indicates the location of Goas's EPL 4663, and the relative location of the so called Karibib Gold Fields.

Table 2: Deformation fabrics	metamorphism and r	magmatic activity	framework of	EPL 4663 as
adopted and modifie	d from Anthonissen, (20	010) & Kisters et al.	(2004).	

Deformation phase	Deformation fabrics, metamorphism and magmatic activity	Age
$D_1$	Tight to isoclinal (intrafolial/axial planar) $F_1$ folds, resulting in penetrative $S_0/S_1$ foliation. Local shallow-dipping thrusts resulting reorientation of $F_1$ folds into large scale recumbent and sheath-like $F_1$ folds. Overall, $F_1$ folds retain sub-horizontal axial planes. $L_1$ linear fabrics defined by silliminite, feldspar and cordierite porphyroblasts.	> 560 Ma (pre- collisional phase)
D <sub>2</sub>	Local folding of $F_1$ folds and $S_0/S_1$ foliation into upright $F_2$ folds with a penetrative $S_2$ foliation. Development of NE plunging $L_2$ lineation. Early-stage syn-tectonic mafic to intermediate magmatism dominant.	± 550 Ma (main- collisional phase)
D3	Late-stage constructional folding of $F_1$ and $F_2$ folds resulting in doubly plunging dome-like $F_3$ folds. Peak metamorphic conditions. Late-stage to post-tectonic felsic magmatism dominant.	< 542 Ma (late- collisional phase)

The deformation styles observed on EPL 4663 can be characterized by co-axial dominant polyphase deformation comprising three main progressive deformation phases, namely D1, D2 and D3. All D1, D2 and D3 structural fabrics are often observed in the field, with the D1 structural fabric being most prominent on outcrop scale, and D2 and D3 structural fabrics being more prominent on an aerial-scale. The main characteristics of the various deformation phases are presented in table 2 (Anthonissen, 2010; Kisters et al., 2004).

#### 5.2. Lithostratigraphic framework

The substrate in the licence area represents the meta-sediments of the Damara Supergroup and intrusive rocks of the belonging mainly to the Goas Suite of the Damara Intrusive sequence.

The meta-sedimentary rocks on EPL 4663 mainly comprise amphibolite facies mica-schist, calc-silicate, marble and hornfelsic equivalents thereof. Numerous syn-D2 to post-tectonic granitoid intrusions occur with a predominating calc-alkaline and metaluminous dioritic composition (Miller, 2008; Goas, 2020). The formal lithostratigraphy of EPL 4663 is given in tables 3 & 4 and figures 6 & 7 (Anthonissen, 2010; Miller, 2008; Goas, 2020). Field exposures of the dominant lithologies on EPL 4663 are shown in figures 8 – 11.

Unit	Туре	Suite/Sub-suite	Description	
Karoo-aged intrusives		Dolerite dykes and s	ills	
	Late syn-D <sub>2</sub> , D <sub>3</sub> ,	Pegmatites	Pegmatite dykes, sills and plugs,	
Damara Intrusives	post-tectonic <b>, 534 –</b> <b>527 Ma</b>	Kubos Granite	Post tectonic granite, nor foliated	
	Middle syn-D2 <b>, 540 –</b> <b>560 Ma</b>	Salem Suite	Porphyritic monzogranite and granodiorite, foliated	
		Otjimbingwe Complex	Syenite, foliated	
	Early syn-D <sub>2</sub> , <b>558 –</b> <b>564 Ma</b>	Palmental- and Goas Diorite Suite	Diorite, foliated	

#### Table 3: Formal stratigraphy of Damara intrusive units.

Navachab	Kuiseb Tinkas	Quartz-bioite schists, meta-psammites and minor calc-silicate felses and marbles, > 3000 m thick Banded schists, calc-silicate felses and marbles, transitional	± 635 Ma Older than 635 Ma
Navachab	Tinkas	-	than 635
	Karibib	Recrystalized, brecciated and banded marbles, 500 – 600 m thick	Older than 635 Ma
		- Unconformity	
sib	Etusis	Quartzo-feldspathic arenites and minor grits	770 – 760 Ma
	Unco	onformity	
		Unco	SID FTUSIS

#### Table 4: Formal stratigraphy of metasedimentary sequences occurring on EPL 4663.

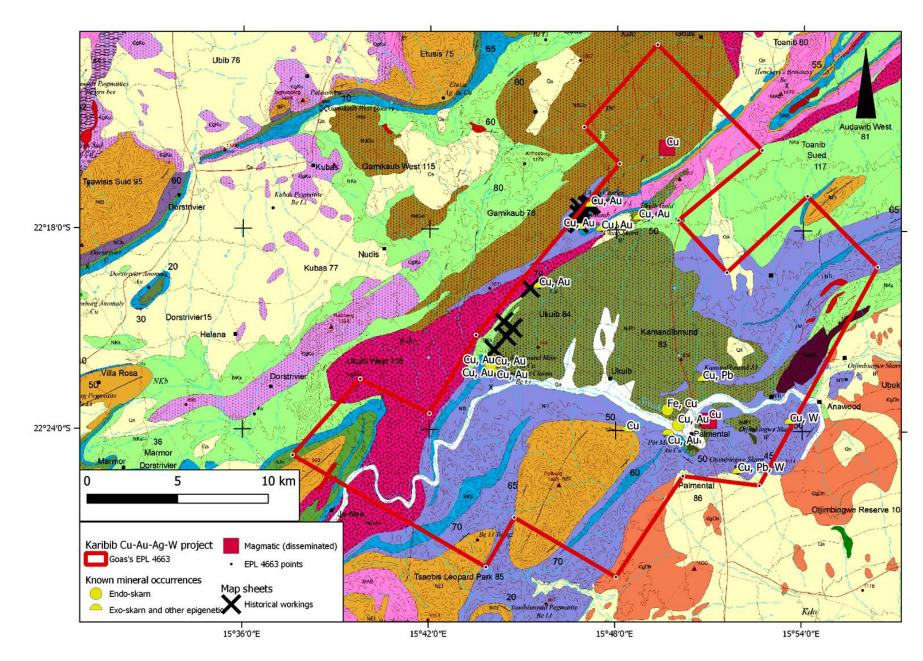


Figure 6: Portion of the 2215B Usakos 1: 250 000 scale geological map which covers EPL 4663 (Geological survey of Namibia). See legend in figure 8.

#### LEGEND 2215B USAKOS

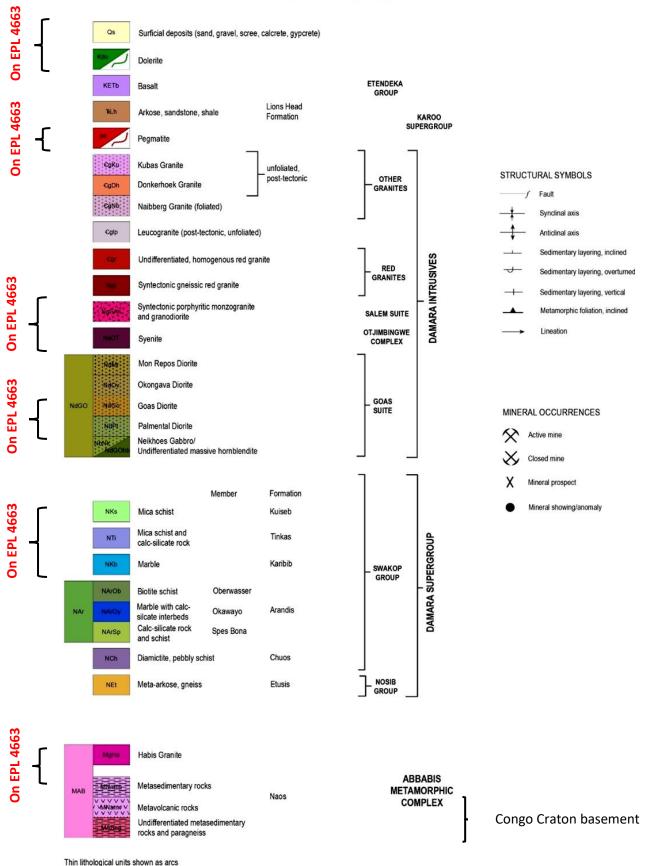


Figure 7: Geological legend of the 2215B Usakos 1: 250 000 scale geological map (Geological Survey of Namibia). The lithological units present on EPL 4663 are indicated.



Figure 8: Goas Diorite Suite on EPL 4663. Note the peraluminous nature with both biotite and hornblende being present. The diorite exhibits a syn-D2 foliation which formed just after its intrusion and partial crystallization.

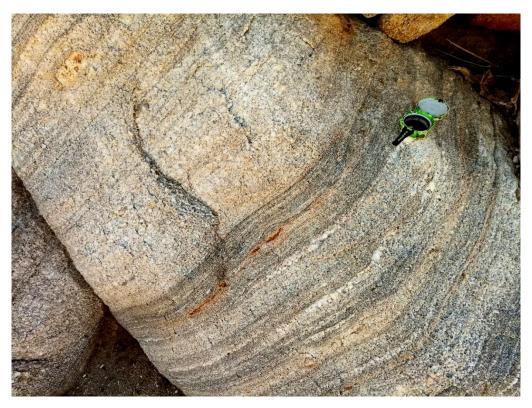


Figure 9: Laminated calc-silicate rich Karibib Formation Marbles of the Navachab Sub-group on EPL 4663.



Figure 10: Strongly foliated quartz-biotite schist belonging to the Kuiseb Formation of the Navachab-Sub-group. Note the presence of diagnostic cordierite porhyroclasts which conform to the foliation.



Figure 11: The transitional Tinkas Formation of the Navachab Sub-group. Note the interbedded sequence which consists of meta-psammitic, calc-silicate and marble. The boudinage indicates the co-axial-dominant strain to which this rock package was exposed to.

#### 5.3. Metallogenic framework

The Damara Belt, and South-Central Zone in particular, is characterized by an exceptional endowment of epigenetic-style mineralisation mainly associated with syn- to late-tectonic intrusions of various Damara-age granitoid suites (Miller, 2008; Steven *et al.*, 1994). The epigenetic mineralisation associated with the Damara-age granitoid suites are mainly represented by:

- Cu-Ag-Au ± W contact skarn- and associated polymetallic replacement vein-type mineralisation and its varieties.
- Structurally hosted orogenic (epithermal) Au mineralisation and its varieties.
- Lithium-caesium-tantalum-type pegmatite hosted Sn-Li-Ta ± Be-REE-(Ce) mineralisation and its varieties.

Sedimentary and/or volcanic exhalative (Cu-Pb-Zn  $\pm$  Ag-Au) sulphide- and Mississippi Valley Type (Cu-Pb-Zn) base- and precious metal mineralisation styles and its varieties are also known to occur within the pre-tectonic volcano-sedimentary successions of the Damara Orogen and in the South Central Zone (Steven *et al.*, 1994).

The epigenetic mineralisation encountered in the Karibib area, as well as on EPL 4663, is mostly peak amphibolite facies contact skarn- and/or associated polymetallic replacement vein type mineralisation (Goas, 2020; Steven *et al.*, 1994). The Navachab Gold Mine is a good example of this type of mineralisation-style which is common in this area, which in reality represents a continuum of both the contact-skarn and polymetallic replacement vein type mineralisation styles, with its reserve-tonnage being constituted of about 60 % skarn and 40 % sheeted quartz veins (Vollgger *et al.*, 2015). It is generally accepted that the emplacement of the polymetallic veins was controlled by pre-existing anisotropies that later became zones of dilation during the retrograde stages associated with late-stage deformation. Thereby, attesting to a strong orogenic component influencing local and regional mineralisation (i.e. post-skarnification) (Steven *et al.*, 2015).

In addition to the structural control on emplacement of polymetallic replacement veins, mineralisation was further controlled by favourable wall rocks that reacted with the mineralizing hydrothermal fluid and caused the precipitation of metallic minerals in the veins. Economic mineralisation therefore formed in areas where the structural and wall rock compositional conditions were favourable and where the heat source and the source of the hydrothermal fluid were proximal (Wicker, 2019). On a local scale, polymetallic replacement veins are common across small plutons and within fold-hinge regions of broad anticlinal arches (Madrid, 1987).

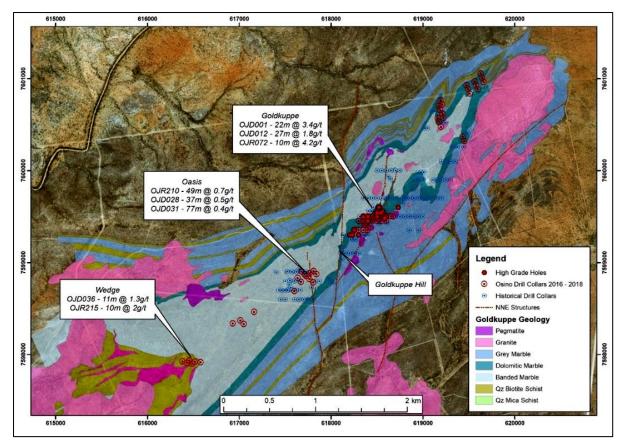


Figure 12: General geology of the Osino Resources Corporation's project illustrating the relationship between mineralisation, structure and granitoid intrusions. Note that Osino Resources also exhibits both contact-skarn type and replacement vein type mineralisation styles, both of which retain a strong orogenic component. https://www.juniorminingnetwork.com/junior-miner-news/press-releases.

Figure 12, featuring the Osino Resources Corp's project, clearly illustrate the relationship between granitoid intrusions, carbonate rich metasedimentary host rocks and structure, which have shown to be fruitful exploration targets in the region.

#### 5.4. General Observations

The first derivative of the regional total magnetic intensity data and its interpretation is presented in figure 13. Where it clearly illustrates several regional scale magnetic lineaments as well as local scale conjugate-type and/or secondary magnetic structures. The regional scale magnetic lineaments are mostly defined by laterally extensive NE-SW trending structures in the northern portions of EPL 4663 and by NW-SE trending structures align to the overall structural grain of this part of the Damara Orogen, while the regional NW-SE trending structures mostly align to the strain-softened Okanhandja Lineament Zone proximal to the voluminous Donkerhuk Batholith to the immediate south of EPL 4663 (Anthonissen, 2010; Miller, 2008) (Figure 4).

The km's long NE-SW trending magnetic structures in the northern portions of EPL 4663 represent highly deformed amphibolite facies mica-schist, calc-silicate, marble and hornfelsic meta-sedimentary formational contacts belonging to the Kuiseb-, Tinkas- and Karibib Formations of the Navachab Sub-group (Goas, 2020) (Figure 13). Collectively these NE-SW trending magnetic structures (and/or meta-sedimentary formational contacts) clearly define a NE-SW trending, 1 - 2.5 km wide and 20 km long structural feature (Figures 13, 14 & 15; as on EPL 4663) which is considered to be a good regional exploration target. This structural feature hosts local-scale magnetic structures ("Supracrustral magnetic lineaments" in figure 13 & 15) which appear to represent conjugate-type and/or secondary fault structures possibly of late- tectonic origin (Underwood, 2019; Wicker, 2019). The NE-SW trending structural feature is wedged between two voluminous syn-D2 dioritic intrusions belonging to the Goas Diorite Suite ("Magnetic structure of the Palmental Diorite Intrusion"; Goas, 2020; Anthonissen, 2010), with their intrusive contacts clearly defined by circular and/or curvilinear magnetic lineaments (Figures 13, 14 & 15). The structural type and relative dip direction of identified regional scale magnetic lineaments ("Sheared thrust"), "Sheared (thrust) inferred", "Sheared (sedimentary)", "Sheared (sedimentary) inferred", "Intrusive" and "Sedimentary") was mostly inferred from limited lithological and structural field mapping conducted in the area by Anthonissen (2010).

The NE-SW trending structural feature retains a relatively enriched Total Count (U-Th-K) background radiometric value as opposed to geological similar low background value NW-SE trending metasediments occurring in the southern portions of EPL 4663 (Figure 14). The relatively elevated Total Count (U-Th-K) background radiometric value may indicate pervasive potassic alteration and/or prominent feldspar-enriched cover sediments.

Based on Sentinel 2 data from 25 March 2020, it is clear that the NE-SW trending structural feature is 40 – 60 % covered by various types of eluvial, alluvial and rock-float cover sediment (classified as "Outcrop" or "Cover Sediment", figure 14). Field investigations suggest that "Outcrop" portions are mostly defined by the positively weathering quartzo-feldspathic D3 gneissic-domes of the basal Etusis Formation and by the D3 crystalline granitic domes of the pre-tectonic Abis Ababba Metamorphic Complex. Much of the metasedimentary sequences present (i.e. Kuiseb-, Tinkas- and Karibib Formations) consisting of sialic schists, meta-psammites, marbles and calc-silicates and also most of the Goas Diorite Suite intrusions, seem to be overlain by cover sediments, especially in the central- and north-western portions of EPL 4663 (where most of the artisanal workings and mineral occurrences are indicated/located; figures 13, 14 & 15).

Most of the known mineral (Cu-Au) occurrences and historical artisanal workings are clearly confined to the NE-SW trending, 1 - 2.5 km wide and 20 km long structural feature and are epigenetic relative to the syn-D2 voluminous diorite intrusions occurring adjacent to it

(Goas, 2020; Decker, 1983; Esterhuizen, 1984; Misiewicz, 1984). In addition, all the areas of interest which were identified primarily through regional historical exploration stream sediment and rock-chip sampling activities of Decker (1983), Esterhuizen (1984), Marsh (1989) and Misiewicz (1984) are also confined to this NE-SW trending structural feature, albeit unknown to them at that time.

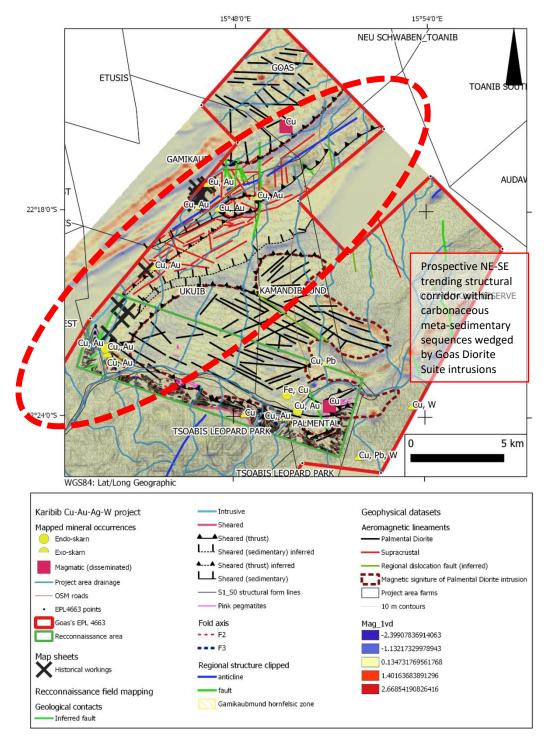


Figure 13: Regional aeromagnetic interpretation of EPL 4663 indicating the presence of a highly prospective NE-SW trending structural feature adjacent to the Palmental Diorite pluton. Known historical workings and Cu-Au mineral occurrences are located along this structural feature.

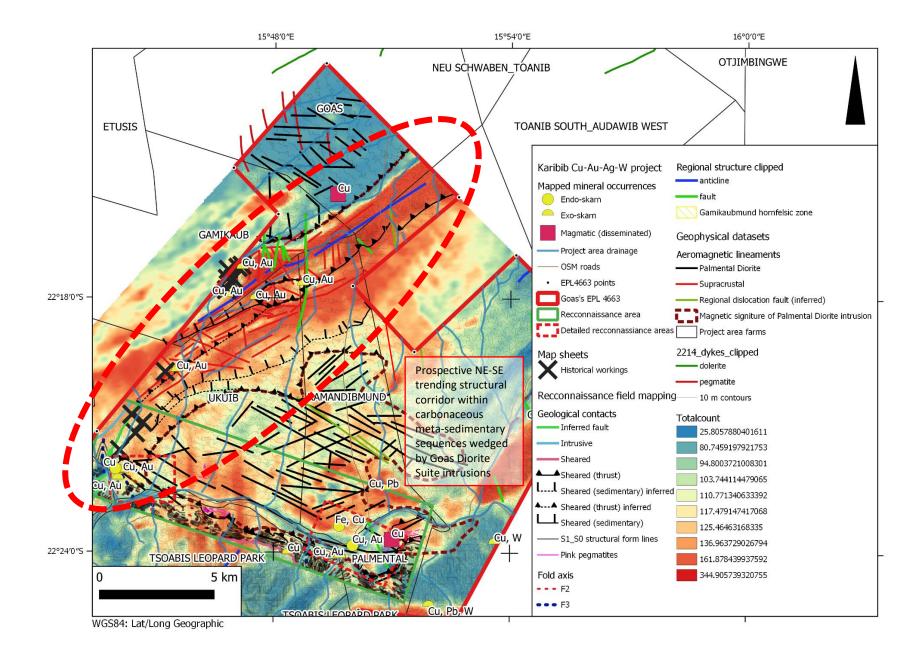


Figure 14: Total count (U-Th-K channel) radiomentric dataset obtained for EPL 4663. Note the relatively high total count background in the proposed prospective structural feature.

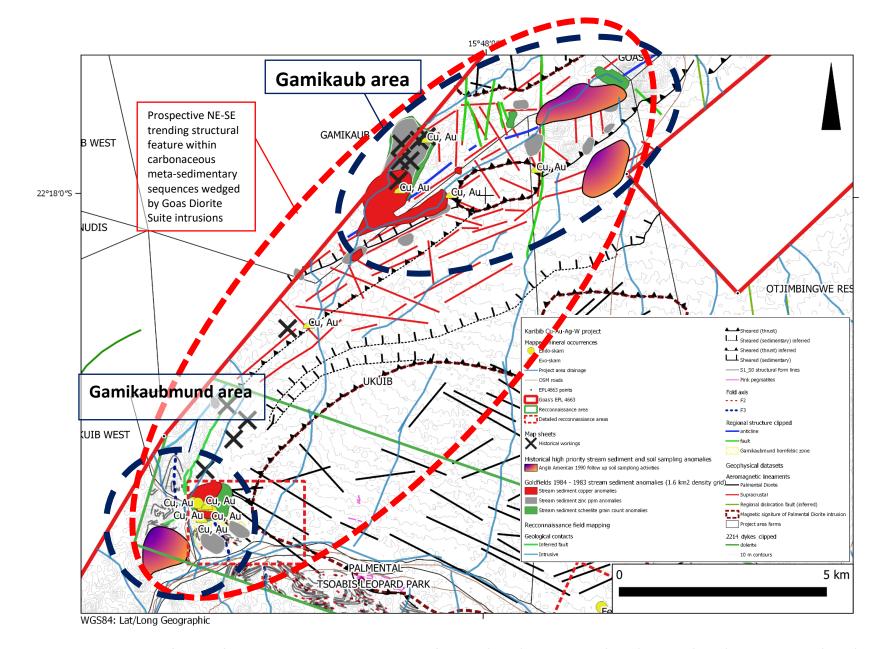


Figure 15: Relative locations of areas of interest and historical anomalies of Decker (1983), Esterhuizen (1984), Marsh (1989) and Misiewicz (1984) relative to Goas's proposed prospective structural feature.

Overall, the identified structural feature defines a zone of anomalous mineralisation. Within this zone of anomalous mineralisation, historical workings and regional historical exploration geochemical anomalies are indicated within its south-western- and northeastern-most limits (figure 15). The south-western extreme concentration of known mineral occurrences, historical workings and regional historical exploration geochemical anomalies is referred to as the "Gamikaubmund" area and the north-eastern extreme concentration as the "Gamikaub" area, after Decker (1983) (Figure 15).

It is also evident from field observations and evaluation of available geospatial datasets that the 1:250 000 scale geological map (Geological Survey of Namibia) lacks detail with respect to project scale geological characteristics. This is exemplified within the NE-SW structural feature which has simply been mapped as Goas Diorite Suite on the 1:250 000 scale geological map, but in reality consists of a complex lithological assemblage which includes a diverse metasedimentary sequence of the Navachab Sub-group (see figure 6).

### 6. Mineralisation

Only the Gamikaubmund area of the identified structural feature was investigated in detail during the geological reconnaissance and ground-truthing field survey by Goas (see figure 15). It could clearly be established that the encountered epigenetic mineralisation, is spatially and temporally associated with contact margins of the syn-D2 Goas Diorite Suite intrusions. The overall mineralisation style can generally be attributed to a typical contact-skarn-type minerals system with peripheral polymetallic replacement veins, as is known to occur in the region (Steven *et al.,* 1994). On EPL 4663, both endo- and exo-skarn mineralisation-styles were identified, with the exo-skarn variety manifested as both contact-proximal- and more distal replacement vein-type mineralisation with a strong orogenic component (Schloemann, 2019; Goas, 2020). A syn-D2 structural control on the emplacement of mineralizing fluids could be observed, and mineralisation was significantly ductile-deformed during D2 and D3 deformation phases, which were mostly high-angle/co-axial in nature (Anthonissen, 2010; Goas, 2020).

Mineralisation recorded in the field and the indications thereof appear to be associated with diagnostic retrograde hydro-silicate alteration, viz. garnet (andradite-grossular), pyroxene (diopside-hedenbergite), wollastonite, chlorite, epidote-clinozoisite, scapolite, quartz, actinolite-tremolite, prehnite, potassium feldspar, plagioclase, calcite and serpentine, which are generally typical of a contact-skarn- and associated replacement vein-type minerals systems (Hammerstrom, 1986; Morris, 1986).



Figure 16: Mineralised and supergene altered calc-silicate assembled 10's – 100's of meters from the diorite intrusive contact (south western portion of the mineralised structural feature). Note the pervasive calcite matrix.



Figure 17: Mineralised and supergene altered (gossanous) calc-silicate assemblage 10's – 100's of meters from the diorite intrusive contact (south western portion of mineralised structural feature).



Figure 18: Chalcopyrite-pyrrhotite-bornite-pyrite-bismuthite enclosed within a calcite-garnet replacement skarn assemblage. Note the coarse grain size of the sulphide cluster. This material contains significant Cu, Ag, Ag and W. Gamikaubmund area (south western portion of mineralised structural feature). A pseudo-zonation, from proximal to distal, of marble, wollastonite, diopside-hedenbergite to grossular-andradite, with or without retrograde tremolite-actinolite-epidote-chlorite ± calcite assemblages, could also be seen in some of the exposures that exhibits mineralisation or within their vicinities (Goas, 2020) (Figure 20). Metal bearing minerals include pyrite, chalcopyrite, pyrrhotite, bornite, arsenopyrite, magnetite, hematite, scheelite and bismuth minerals (especially bismuthinite and native bismuth; figures 18 & 21). Most of the mineralisation was supergene enriched to varying degrees, with copper staining in the forms of malachite and chrysocolla commonly seen (Figures 19 & 20).

Historical rock-chip results of some of these mineralised exposures of some of these assemblages may also contain native gold, electrum, sphalerite, galena, tellurides (commonly those of Au, Ag, Ni, and Pb), tetrahedrite, tetradymite, marcasite, loellingite, stibnite, and other W- and Mo-bearing minerals, which are typical in similar minerals systems globally (Hammerstrom, 1986; Morris, 1986). The potential existence of cobalt associated with this mineralisation style should not be ruled out without due investigation. Based on the field observations the mineralisation encountered broadly belongs to the Au-As-Te-Bi-Se geochemical association.

#### 6.1. General minerals-system interpretation

Field observations and historical exploration results suggest that a structurally controlled (orogenic), relatively high-T/Low-P Cu-Ag-Au-type skarn- and peripheral polymetallic replacement-vein minerals-system, associated with syn-D2 Goas Diorite Suite intrusions, is present at EPL 4663. Wall-rock alteration textures and cross-cutting relationships suggest that mineralisation occurred during both prograde and retrograde stages of syn-D2 magmatic intrusions. Primary and more proximal calc-silicate wall rock alteration is associated with the prograde stages, while more distal late-stage replacement quartz veins and hydro-silicate alteration are associated with retrograde stages. In addition, mineralisation appears to have been synchronous with ductile crustal conditions and/or also occurred during co-axial dominant late-D2 and D3 deformation stages. Thereby, resulting in significant syn- and post-mineralisation structural modification; making a structural understanding of the area critical in the process of project-scale mineral exploration.

Distribution of known mineralisation exposures, historical exploration geochemical anomalies and the trends thereof, show that mineralisation is spatially associated with the identified NE-SW trending, 1 - 2.5 km wide, 20 km long and prospective structural feature. The prospective structural feature is also host to several conjugate-type and/or secondary magnetic structures/lineaments, which likely represent late-tectonic faults and/or shears cross-cutting Navachab Sub-group metasedimentary lithologies. The magnetic structures/lineaments or faults/shears potentially represent key trap-sites within deformed Navachab Sub-group metasedimentary lithologies, which may have controlled migration and emplacement of mineralizing fluids derived from adjacent dioritic intrusions.



Figure 19: View of a mineralised calc-silicate lens with a late stage mineralised quartz vein within an old artisanal trench. Note that the quartz vein hosts (Cu,Fe,Mo,As)-sulphides and bismuth minerals within a granoblastic vein-quarts matrix.



Figure 20: Supergene altered and moderately folded mineralised calc-silicate lens in the Gamikaubmund area as seen within a historical prospecting trench. Note the pervasive copper staining with depth in the form of Malachite and Chrysocolla. This face exhibits both retrograde and prograde contact skarn facies with granitite and pervasive hydrosilicates being present.



*Figure 21: Well mineralised specimen of calc-silicate (calcite dominant) with a variety of metallic sulphide minerals present. Collected at a prospecting trench in the Gamikaubmund area.* 

According to available descriptive models for economic Cu-Ag-Au-W type skarn deposits, which here include peripheral polymetallic replacements veins, the median Au- and Aggrade and tonnage for such deposits typically fall within 213 000 - 330 000 tons @ 3.7 - 8.6 g/t Au, 5.0 - 37 g/t Ag range, if Au is the primary economic commodity. However, if significant Cu and WO<sub>3</sub> grade is present the Au grades can be reduced to as low as 0.5 g/t Au for such deposits in order to be viable (Theodore *et al.*, 1991; Harnmarstrom, 1991). Theodore et al. (1991) and Harnmarstrom (1991) define significant mineralisation of these deposits as having baseline average grades of > 0.7 g/t Au, > 9 g/t Ag, > 0.5 wt. % Cu and/or > 0.3 % WO<sub>3</sub>, indicating that known mineralisation on EPL 4663 is of similar tenure (Decker, 1983; Esterhuizen, 1984; Misiewicz, 1984; Schloemann, 2019). Based on metallic sulphides observed in the field as well as knowledge of the Au grades from historical works, the mineralisation can be associated to an Au-As-Te-Bi-Se trace element geochemical system (Stevens et al., 1994; Theodore et al., 1991; Harnmarstrom, 1991). This suggests that elements As, Te, Be and Se (in conjunction to Au) should be present in above background values in the overlying regolith, although not necessarily exclusively so, depending on its proximity to its mineralised source. Pyrrhotite was also observed, suggesting that such mineralisation may attain above background magnetic responses. Goas is of the opinion that EPL 4663 may yield potential for significant cobalt mineralisation; however, this potential remains totally untested to date.

In a number of mining districts that contain Cu-Ag-Au-W skarns, deposits are often zoned from a core area of Cu ± Au and Ag mineralisation, to an intermediate zone of Au-skarn or other types of gold mineralisation, to the peripheral area of dominantly Zn + Pb + Ag ± Au mineralisation. Furthermore, the polymetallic replacement vein-type mineralisation known on EPL 4663 of Au-As-Te-Bi-Se geochemical association is here inferred to represent peripheral and/or later-stage expressions of a proximal Cu-Ag-Au-type skarn mineralisation system as a whole (Bunrett, 1992, Steven et al., 1994).

It should be noted that the available information is from the Gamikaubmund area only, which was surveyed as a part of the Goas exploration. Potential grades of 1.26 g/t Au, 2.41 % Cu, 17.48 g/t Ag and 0.33 Wt. % WO<sub>3</sub> are already being recorded (average grades taken from Esterhuizen, 1984; Decker, 1983; Esterhuizen, 1984; Misiewicz, 1984; Schloemann, 2019; Goas, 2020) (Table 4). This data would further suggest that the mineralisation encountered in the field appears to be diagnostic of a Cu-Ag-Au-W skarn- and peripheral polymetallic metallic vein minerals system present on EPL 4663, as outlined in the descriptive models and criteria for such deposits by Theodore *et al.* (1991) and Harnmarstrom, (1991). It also aligns to the general epigenetic mineralisation-styles known in the broader region as detailed by Steven *et al.* (1994). Therefore, the entire structural feature should be considered as a target area for such mineralisation.

## 7. Historical Background

EPL 4663 is situated within the same mineralisation zone and shares striking geological- and historical exploration similarities with the Navachab Gold Mine and Osino's Twin Hills deposit.

Osino's success arises from their efforts to re-explore portions of the Kalahari Gold Field covered by their exclusive prospecting licenses. Companies such as Goldfields, Anglo American and junior explorers historically explored these areas and EPL 4663 during the 1980's. These early explorers did not have the benefit of important modern exploration methods that were decisive to Osino in making its multiple recent discoveries.

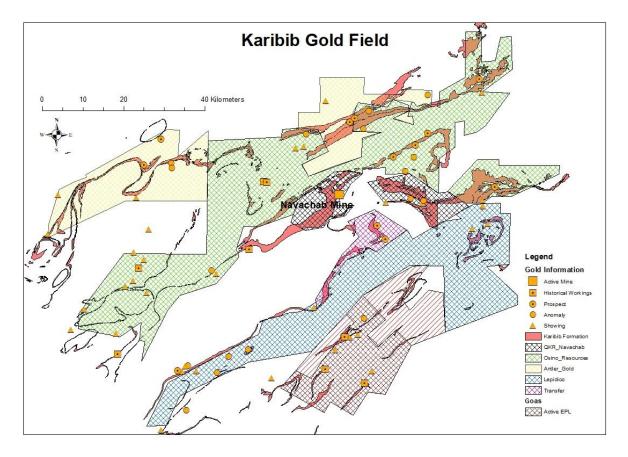


Figure 22: Map showing the Karibib gold fields and EPL owners.

EPL 4663 has been subjected to very limited and mainly regional historical exploration activities during 1983 – 1984 by Goldfields (Decker, 1983; Esterhuizen, 1984; Misiewicz, 1984) and again during 1988 - 1989 by Anglo American (Marsh, 1989). The EPL cover a relatively small portion of the entire area investigated by these companies. Goldfields's exploration partially covered the central to northern portions of EPL 4663, while Anglo American's work partially covered the central to southern portions of EPL 4663. Anglo American did however also conduct limited work in the west-central to north-western portions of EPL 4663 (Marsh, 1989) (Figure 15). The spatial distribution of the 1983 – 1984

Goldfields- and 1988 – 1989 Anglo American historical exploration soil sampling anomalies in relation to the prospective structural feature identified by Goas is presented in figure 15.

At present, there is no record of intensive exploration activities such as drilling, detailed geophysical surveys, close-spaced grid soil sampling and/or project-scale detailed structuraland alteration mapping to have ever been conducted on EPL 4663. This area has not been subjected to any means of exhaustive exploration and therefor the true mineral potential presently remains unknown.

### 7.1. 1983 – 1984 Goldfields historical exploration results

The 1983 – 1984 Goldfields's historical exploration activities mostly consisted of very-wide spaced ( $\pm$  1.2 km<sup>2</sup>/sample) stream-sediment- and very limited follow-up single-line soil-sampling activities which only analysed for Cu, Zn, Au and scheelite grain counts. The applied anomalous cut-offs were defined as 20 ppb for Au, 31 ppm Cu, 71 ppm for Zn and a 20-grain count for scheelite. The Au cut-off value applied by Goldfields was nearly 2 times higher than what Osino Resources Corp has applied in its recent exploration successes to the immediate north of EPL 4663 (Underwood, 2019). In addition, the region's most effective path-finder elements, namely As, Bi and Te, which are relevant to the prevailing Cu-Au-Ag-W contact-skarn- and replacement vein-type minerals-system now known to be present, were totally neglected during all historical exploration surveys conducted to determine the path-finder elements and correlations between them. In general Goldfields appeared to use relatively unsuitable cut-offs for anomalies and analysed for an incomplete path-finder geochemical suite.

Goldfields also collected a limited number of rock-chip and channel samples (totalling 16) mainly from the Gamikaubmund- and Gamikaub areas where a concentration of mineralised outcrops occurs (Table 5).

In addition, Goldfields also conducted very basic prospect-scale geological mapping of the Gamikaubmund- and Gamikaub areas. Based on the Goldfields Gamikaubmund prospect scale geological map, and field observations made by Goas during their investigation, a total of 11 mineralised calc-silicate and/or polymetallic replacement veins were identified on surface.

Sample No.	Sampler	Farm on EPL 4663	Sample Type	Au (g/t)	Cu (%)	Ag (g/t)	WO₃ (g/t)
1			1.5 m Channel	1.60	1.90	24.00	ND
2	_		2.0 m Channel	0.80	4.70	28.00	0.15
3			Rock-chip	0.30	2.55	36.00	0.21
4		aub	2.0 m Channel	0.80	4.00	252.00	0.21
5		Gamikaub	1.5 m Channel	0.35	4.10	55.40	0.27
6		G	0.3 m Channel	0.10	1.08	15.60	0.07
7	lds		1.0 m Channel	0.30	2.35	32.00	0.81
8	 Goldfields		2.0 m channel	0.08	1.14	10.60	0.05
	- ŭ	Gamikau	ıb Average	0.54	2.72	56.70	0.22
9			Rock-chip	0.71	2.15	25.20	1.05
10		g	Rock-chip	1.79	3.15	14.00	0.50
11		unu	Rock-chip	1.75	2.30	36.40	0.48
12		uqr	Rock-chip	1.21	2.60	24.40	0.02
13		kaı	Rock-chip	1.46	2.50	21.00	0.38
14		Gamikaubmund	Rock-chip	0.25	1.45	14.60	0.01
15		ő	Rock-chip	1.46	2.30	20.40	0.19
16			Rock-chip	1.42	2.85	8.20	0.01
		Gamikaubn	nund Average	1.26	2.41	17.48	0.33

Table 5: Rock-chip results from the 1983 – 1984 Goldfields exploration campaign. The analytical methods used on these samples are unknown to Goas. It is believed that these results represent similar mineralisation as encountered by Goas during its field work. The exact sample coordinates could not be verified from the historical exploration literature.

Goldfields did not consider the mineralisation sufficiently enough, the rock-chip grades high enough nor any of its Cu, Zn, Au or scheelite soil sampling anomalies significant enough to warrant any follow up work. They thereby allowed their licence to expire in 1984 without having conducted any further exploration activities (Esterhuizen, 1984). No indication exists that Goldfields conducted any additional drilling, detailed geophysical surveys, close-spaced grid soil sampling and/or detailed structural- and/or alteration mapping.

### 7.2. 1988 – 1989 Anglo American historical exploration activities

The 1988 – 1989 Anglo American exploration campaign was more regional in extent than that of the Goldfields exploration campaign and consisted only of regional stream sediment sampling ( $\pm$  1.6 km<sup>2</sup>/ sample) with limited follow up sampling. Anglo American only analysed for Au to a detection limit of 0 ppb Au. Overall, a background value of 0 ppb Au was used, and anomalous areas were defined as having > 1 ppb Au, with peak values not exceeding 35

ppb Au. Subsequently, Anglo American identified 3 anomalous areas of primary interest with average Au values between 2 – 7 ppb, which are all situated within the prospective structural feature identified by Goas. However, these values were never followed up as these anomalous values were too close to background values (Marsh, 1989). It is important to note that Osino Resourcs Corp's cut-off for anomalous Au values is 10 - 30 ppb and have subsequently delineated sub-outcropping mineralised structures as well as successful drill targets from such values (Underwood, 2019). The exact sample coordinates could not be verified from the available historical exploration literature

Anglo American interpreted the area as having no further potential as based on their soil sampling results, even though significant mineralisation occurs in various places on EPL 4663. They also never conducted any additional drilling, detailed geophysical surveys, close-spaced grid soil sampling and/or detailed structural- and/or alteration mapping before allowing their licence to expire in 1990. It is unsure if Anglo American had access to the Goldfields data at the time.

## 8. Exploration and Data collection

Goas is probably the first explorer to re-evaluate and explore EPL 4663 since 1989. However, to date, Goas has only conducted reconnaissance level investigations on the property (Schloemann, 2019; Goas, 2020). Goas's work to date was primarily aimed at confirming historically documented mineralisation and at investigating its proposed structural feature which Goas believes to be of primary interest on EPL 4663.

## 8.1. Reconnaissance

This section focuses on presenting a general summary of reconnaissance work completed by Goas to date on EPL 4663. It includes general individual and composite interpretations of the following available datasets:

- 1:250 000 scale (general) digital lithological datasets from the Geological Survey of Namibia.
- Field datasets collected during reconnaissance surveys (i.e. recorded mineralisation, lithological mapping and structural measurements etc. with focus on a structurally controlled Cu-Ag-Au ± W contact skarn- and associated polymetallic replacement veintype mineralisation model):
  - Mineralisation-styles, mineralogical (alteration/sulphide/oxide) assemblages and relative timing of mineralisation

- Overall structural trends and controls on mineralisation
- Overall spatial distribution of lithological assemblages, especially mineralised host rocks
- Overall spatial distribution of historical artisanal diggings and mineral occurrences
- Overall improvement of the 1:250 000 scale geological map of the Geological Survey of Namibia
- Survey of prominent magnetic lineaments and their preliminary structural classification
- o Reconnaissance rock-chip sampling of mineralised areas
- Remote sensing datasets consisting public domain Sentinel 2 satellite imagery and 15 cm pixel digital orthophotos from the Surveyor General in Windhoek.
- Homogenised and merged 500 250 m cell size regional magnetic and radiometric datasets compiled by the Geological Survey of Namibia in collaboration with the Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) in Germany.
- Historical exploration datasets consisting of geospatially referenced historical geochemical anomalies and historical areas of geological interest (Decker, 1983; Esterhuizen, 1984; Marsh, 1989; Misiewicz, 1984).

Goas is of the opinion that it is the first time that any of the above-mentioned datasets have been used individually or in combination during the exploration history of EPL 4663. The digital datasets were not available during the historical exploration activities conducted on EPL 4663 during the early 1980's (Decker, 1983; Esterhuizen, 1984; Marsh, 1989; Misiewicz, 1984).

## 8.2. 2019 – 2020 Goas exploration activities

Besides the general reconnaissance activities, Goas has also collected a total of 5 rock-chip samples, 12 grab samples from historical workings and 12 stream sediment samples from the Gamikaubmund area during its field survey programme. These samples were only analysed for Au and Cu at Scientific Services (Pty) Ltd., a laboratory based in Cape Town, South Africa. The rock-chp and grab samples were analysed using a fire assay analytical method, while the stream sediment samples were analysed using BLEG. The sampling results are given in tables 6, 7 & 8.

Table 6: Goas reconnaissance random rock-chip sample results from the Gamikaubmund area. Thesesample results confirmed the presence of significant Au and Cu mineralisation occurring onthe property, without analysing for Ag and W.

Sample No.	Location (WGS84 UTM33S)	Sampler	Farm on EPL 4663	Sample Type	Au (g/t)	Cu (%)
1	X- 575591; Y- 7526145			Rock-chip	0.28	1.13
2	X- 575657; Y- 7526167	Pegmatite loration	punu	Rock-chip	0.43	2.89
3	X- 575692; Y- 7526173	aas Pegmati Exploration	aubn	Rock-chip	0.61	2.45
4	X- 575801; Y- 7526129	Goas F Expl	Gamikaubmund	Rock-chip	0.53	2.71
5	X- 575652; Y- 7526250	Ū	Ğ	Rock-chip	0.26	3.89
			Gamikaubm	und Average	0.42	2.61

#### Table 7: Results of the stream sediment sampling by Goas.

Sample_Nr	Sample_ID	Lab_ID	Sample_Type	WGS84_Lat	WGS84_Long	Au_ppb	Cu_T_ppm
KPF024	KSS01	Y1252	Stream_Sediment	-22.384	15.753	<3.0	24.6
KPF025	KSS02	Y1253	Stream_Sediment	-22.386	15.753	<3.0	31.7
KPF026	KSS03	Y1254	Stream_Sediment	-22.385	15.765	<3.0	30.7
KPF027	KSS04	Y1255	Stream_Sediment	-22.385	15.763	<3.0	19.1
KPF029	KSS05	Y1256	Stream_Sediment	-22.385	15.782	5.2	10.8
KPF030	KSS06	Y1257	Stream_Sediment	-22.388	15.796	<3.0	7.7
KPF031	KSS07	Y1258	Stream_Sediment	-22.394	15.807	<3.0	15.6
KPF032	KSS08	Y1259	Stream_Sediment	-22.397	15.815	<3.0	21.8
KPF033	KSS09	Y1260	Stream_Sediment	-22.403	15.828	<3.0	16.1
KPF034	KSS10	Y1261	Stream_Sediment	-22.404	15.832	5.7	24.3
KPF035	KSS11	Y1262	Stream_Sediment	-22.408	15.844	<3.0	13.7
KPF036	KSS12	Y1263	Stream_Sediment	-22.409	15.843	<3.0	12.2

#### Table 8: Results of the grab samples Goas took from historical workings.

Sample_Nr	Sample_Id	Lab_ID	Sample_Type	Location	X_UTM_33S	Y_UTM_33S	Description	Au_g/t	Cu_%
KPF003	KG01	Y1240	Grab	Gamikaubmund	575 591	7 526 145	Diorite / Sediment Contact, with Malachite Staining	0.28	1.13
KPF004	KG02	Y1241	Grab	Gamikaubmund	575 657	7 526 167	Diorite / Sediment Contact, with Malachite Staining	0.43	2.89
KPF005	KG03	Y1242	Grab	Gamikaubmund	575 692	7 526 173	Diorite / Sediment Contact, with Malachite Staining	0.61	2.45
KPF006	KG04	Y1243	Grab	Gamikaubmund	575 801	7 526 129	Diorite / Sediment Contact, with Malachite Staining	0.53	2.71
KPF008	KG05	Y1244	Grab	Gamikaubmund	575 652	7 526 250	Diorite / Sediment Contact, with Malachite Staining	0.26	3.89
KPF012	KG06	Y1245	Grab	Pot Mine Extentior	585 208	7 523 825	Gossanous Diorite Dump, with Malachite Staining	0.18	1.19
KPF013	KG07	Y1246	Grab	Pot Mine Extentior	585 209	7 523 823	Gossanous Diorite Dump, with Malachite Staining	0.38	1.44
KPF015	KG08	Y1247	Grab		585 442	7 524 772	Ferrugenous Diorite	0.01	0.00
KPF016	KG09	Y1248	Grab	Pot Mine	585 809	7 522 988	Ferrugenous Diorite, with Malachite Staining	1.73	
KPF017	KG10	Y1249	Grab	Pot Mine	585 760	7 522 989	Ferrugenous Diorite, with Malachite Staining	0.32	0.33
KPF018	KG11	Y1250	Grab	Pot Mine	585 731	7 522 986	Ferrugenous Diorite, with Malachite Staining	0.68	1.57
KPF019	KG12	Y1251	Grab		586 565	7 525 480	Diorite Gossan	<0.05	0.01

## 9. Mineral Resource Estimates

#### 9.1. Introduction

Several geological similarities between mineralisation-styles occurring on EPL 4663 and mineralisation styles occurring at the Navachap Gold Mine (27 Mt @ 2.4 g/t) and on Osino

Resources Corp's recent gold discovery occurring to the north of EPL 4663 have been identified. Available descriptive models for economic Cu-Ag-Au-W type skarn deposits, which include peripheral polymetallic replacements veins, suggests median baseline average grades of > 0.7 g/t Au, > 9 g/t Ag, > 0.5 wt. % Cu and/or > 0.3 % WO<sub>3</sub>. Historic sampling corroborated by recent field surveys presented grades for mineralised areas on EPL 4663 of 1.26 g/t Au, 2.41 % Cu, 17.48 g/t Ag and 0.33 Wt. % WO<sub>3</sub> and fall within the range of the descriptive models, indicating that known mineralisation on EPL 4663 could be of similar tenure.

### 9.2. Resource Potential

Detailed investigations concerning mining-, processing-, metallurgical-, infrastructure-, economic-, marketing-, legal-, environmental-, government- and social factors ("modifying factors'; JORC, 2012) have not been undertaken to date.

There is insufficient information (regarding crucial modifying factors) to estimate a Mineral Resource (JORC, 2012) at this date and currently no information regarding the spatial extent of the mineralisation is available.

### 9.2.1. Data Acquisition Audit Procedure and Quality Assurance/Control

The complete set of historic samples, lithology and related geological information, sample ID, and assay results, are stored electronically in an Excel<sup>™</sup> database. The original sample logs were captured into Excel<sup>™</sup> and verified by the project geologist. All laboratory results were received in Excel<sup>™</sup> format and were incorporated into the main database.

The Excel<sup>™</sup> database is exported into GIS software for validation purposes. Preliminary mapping provides a visual check that the sample locations plot correctly on the survey plan and that assay values are displayed correctly. Any errors identified are investigated by the responsible geologist prior to the commencement of more detailed two-dimensional modelling. Creo has not independently verified the underlying sampling and assay data. Creo considers that given the general sampling programme, geological investigations, check assaying and, in certain instances, independent audits, the procedures reflect an appropriate level of confidence.

## 9.2.2. Verification of Quality and Spatial of Data

Although limited sampling was conducted, Creo is satisfied that the correct quality assurance and quality control procedures were followed during the sample processing and that survey techniques capturing spatial data was accurate and true.

#### 9.2.3. Volume estimation parameters and method

No volume estimations nor variography or advanced geostatistical methods were applied during this early stage of exploration.

#### 9.2.4. Grade and tonnage estimation results

No grade or tonnages were estimated.

#### 9.2.5. Grade Profile

Insufficient data prevents any attempt at statistical analysis of grade distribution as this would not be meaningful for this small number of samples.

## **10.**Mineral Resource Classification

### 10.1. Introduction

This section describes the status of the Goas Karibib Cu-Ag-Au-(W) skarn and orogenic Au Project in terms of its classification into an appropriate resource category.

#### 10.2. Resource Statement

#### 10.2.1. Mineral Resource

For the Goas area or any portion thereof to be considered a Mineral Resource it must be an occurrence of Cu-Ag-Au-(W) skarn and orogenic Au sulphide of economic interest in such form, quality and quantity that there are reasonable and realistic prospects of Cu-Ag-Au-(W) extraction for the Cu-Ag-Au-(W) market. Here, location, quantity, grade, continuity and other geological characteristics of this mineral resource should be known, estimated from specific geological evidence and knowledge.

Cu-Ag-Au-(W) skarn and orogenic Au sulphide mineralisation demonstrates an inherent high variability and therefore, sampling this type of deposit requires a large number of samples. Standard drilling techniques are able to provide sufficient sample volumes and, therefore, the required data to enable estimation of tonnages and grades. Conventional drilling provides sufficient information to determine the volume of the mineralisation zones, and its relationship to geological features. Therefore, for a deposit to be considered a Mineral Resource it is highly dependent on the availability of the results of appropriate spatial distribution and number of samples.

#### 10.2.2. Classification

The Project does not contain any Ore Reserves or Mineral Resources, as defined by the JORC Code. Under the definition provided by the ASX and in the VALMIN Code, the Karibib Project is classified as an 'exploration project', which is inherently speculative in nature. Goas' Project is considered to be sufficiently prospective, subject to varying degrees of risk, to warrant further exploration and development of its economic potential, consistent with the programs proposed by Creo.

## 11.CREO's Comments

Goas has demonstrated that very good potential exists at its Cu-Ag-Au-(W) skarn and orogenic Au sulphide mineralisation at the Karibib Project. The Exclusive Prospecting Licence EPL 4663 has significant potential for Cu-Ag-Au-(W) skarn and orogenic Au sulphide mineralisation in its precious and base metal bearing lithologies.

Goas made good advances in understanding the geology of the region and the local mineralisation parameters. With a well-managed exploration plan such as Goas intends in launching it will have a good chance in unlocking the potential of this project.

## **12.Next Exploration Phase**

Goas' technical team considers the structural corridor on EPL 4663 as highly prospective and believes that it warrants further detailed and systematic exploration efforts. Such efforts should comprise, but not be limited to:

- 1. Stream sediment sampling of all tributaries across the structural corridor while analysing for a full geochemical suite.
- 2. High-level mineralogical test work of known mineralisation in order to geochemically and mineralogically characterise their mineral assemblages.
- 3. High-level geochemical orientation
  - a. Collection of several soil, weathered rock-chip and laterite samples at or near known mineralisation and analyse with various analytical methods in order to determine the most suitable method.
  - b. Investigate the geochemical signatures of the orientation samples and determine which elements are present as pathfinder elements and if there are any correlations between them.

- 4. Follow up investigation of prospective magnetic lineaments and stream sediment sampling:
  - a. Detailed grid-based soil- and rock-chip sampling
  - b. Detailed geological mapping
  - c. IP and magnetic Geophysical surveys
  - d. Pitting and trenching
- 5. Outline RAC/RC drill targets and trench targets

The above-mentioned exploration activities are to be focused on the prospective structural corridor and the contact zones of the Goas Diorite Suite intrusions identified on EPL 4663. The results of the proposed program will be interpreted to delineate drill targets. A subsequent follow-up exploration campaign would consist of RAB and/or RC drilling activities or potentially large-scale trenching.

### 12.1. Work programme

Goas has developed an exploration budget for an allocation of AUD 488,400 over two years which is summarised in Table 9. The majority of the exploration budget is assigned to drilling the various drill-ready targets within the project.

Creo has reviewed the proposed budget and it is considered appropriate and reasonable for the mineralisation styles within the project and the stage of exploration. The proposed exploration budget exceeds the minimum required expenditure commitment for the Project.

Exploration Budget - Karibib	1	(ear 1 (\$)	Year 2 (\$)	Total (\$)
Licence Fees and Environmental	\$	3,000	\$ -	\$ 3,000
Field Expense	\$	5,000	\$ 8,000	\$ 13,000
Soil / Grab Sampling	\$	32,000	\$ -	\$ 32,000
Geophysical Survey	\$	51,000	\$	\$ 51,000
Drilling	\$	-	\$ 164,000	\$ 164,000
Project Administration	\$	20,500	\$ 20,500	\$ 41,000
Lexrox - Consultancy Agreement	\$	70,000	\$ 70,000	\$ 140,000
Sub - Total	\$	181,500	\$ 262,500	\$ 444,000
Contigency (10%)	\$	18,150	\$ 26,250	\$ 44,400
Total	\$	199,650	\$ 288,750	\$ 488,400

#### Table 9: Proposed work programme budget.

## 13.Recommendations

As demonstrated by the neighbouring Osino exploration campaign, a systematic exploration programme is required to optimally explore EPL 4663. Future exploration by Goas will have to comprise of reconnaissance mapping consisting of remote sensing mapping from high resolution commercial multi- and hyper-spectral datasets, structural mapping with a focus on identifying and characterising regional scale structures and the identification of associated mineralisation styles as well as secondary structures. Surveys will have to be conducted to correlate remotely sensed data with data collected in the field and a high-level geochemical orientation, detailed magnetometry and a follow-up investigation of prospective magnetic lineaments and stream/sediment sampling will have to be conducted. This could be followed up by detailed grid-based soil- and rock-chip sampling, trenching and geological mapping with the purpose of outlining Reverse Air Core and Reverse Circulation drilling targets.

The exploration activities will have to be focused on the prospective structural feature with subsequent follow-up exploration campaigns to consist of RAB and/or RC drilling.

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## **Competent Person's Consent**

Pursuant to the requirements of Listing Rules and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

### Report name

Independent Geological Report on the Cu-Ag-Au-(W) skarn and orogenic Au deposit, Karibib District, Namibia.

Released by Arcadia Minerals Ltd

*On* the Cu-Ag-Au-(W) skarn and orogenic Au deposit, Karibib District, Namibia on which the Report is based, for the period ended 23 March, 2021.

March 2021



## Statement

## I, Johan Hattingh

confirm that I am the Competent Person for the Report and that:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code 2012 Edition, having twenty two years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am registered with the South African Council for Natural Scientific Professions.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of Creo Design (Pty) Ltd and have been engaged by Arcadia Minerals Ltd to prepare the documentation on the Cu-Ag-Au-(W) skarn and orogenic Au deposit, Karibib District Namibia on which the Report is based, for the period ended 23 March, 2021.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources.

## Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Arcadia Minerals Ltd

Signature of Competent Person

23 March 2021

Date:

South African Council for Natural Scientific Professions Professional Membership:

gum

Signature of Witness:

#400112/93

Membership Number:

Riaan Zeeman Print Witness Name and Residence:

Robertson

# Appendix I JORC Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Sampling was undertaken using industry standard practices including rock-chip, grab and stream sediment sampling, by Goas Pegmatite Exploration (2019-2020).</li> <li>Goas collected a total of 5 rock-chip samples, 12 grab samples from historical workings and 12 stream sediment samples from the Gamikaubmund area</li> <li>The Goas sample locations are mapped in WGS84 UTM zone 33S.</li> <li>Measures taken by to ensure sample representivity and the appropriate calibration of any measurement tools or systems used are not known, because this information is not recorded in available documents.</li> <li>Historically Goldfields conducted exploration activities between 1983 and 1984. The activities were very-wide spaced stream-sediment-and very limited follow-up single-line soil-sampling.</li> <li>Goldfields also collected 7 channel and 9 rock-chip samples.</li> <li>Between 1988 and 1989 Anglo American conducted regional stream sediment sampling.</li> <li>Details about the stream sediment and soil sampling methods and techniques used by Goldfields and Anglo American are not known, because it is not stated in available dokuments.</li> <li>It is assumed that industry best practices of the time ("1980s") was used by Goldfields and Anglo American, however, measures taken by to ensure sample representivity and the appropriate calibration of any measurement tools or systems used are not known, because this information is not recorded in available documents.</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling was conducted by Goas.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	No drilling was conducted Goas .
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>No drilling was conducted Goas .</li> <li>The Goas rock-chip, grab and stream sediment samples have been logged according to industry standards.</li> <li>It is assumed that the Goldfields channel and rock-chip samples have been logged according to industry standards at the time, however the specific logging techniques used are not stated in available documents.</li> <li>Logging was qualitative.</li> <li>A mineral resource was not estimated from the logged samples</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>It is assumed that sampling was undertaken using industry standard practices.</li> <li>No information is available on sub-sampling techniques and sample preparation, because such procedures are not recorded in available documents.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> </ul>	<ul> <li>The Goas samples were analyzed at Scientific Services (Pty) Ltd.</li> <li>The Goas grab and rock-chip samples were only analysed for Au and Cu using a fire assay analytical method, while the stream sediment samples were analysed using BLEG.</li> <li>The analytical methods used to analyze the Goldfields and Anglo American samples are not stated in available documents.</li> <li>It is assumed that industry best practices was used by the laboratory</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying Location of data points	<ul> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>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.</li> <li>Specification of the grid system used.</li> </ul>	<ul> <li>to ensure sample representivity and acceptable assay data accuracy, however the specific QAQC procedures used are not recorded in available documents</li> <li>All samples and data were verified by the project geologist.</li> <li>Creo reviewed all available sample and assay reports.</li> <li>The original assay data has not been adjusted.</li> <li>Recording of field observations and that of samples collected was done in field notes and transferred to and electronic data base following the Goas Standard Operational Procedures.</li> <li>The locations of all the samples by Goas were recorded.</li> <li>The Goas sample locations is GPS captured using WGS84 UTM zone 33S.</li> </ul>
	<ul> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The quality and accuracy of the GPS and its measurements is not known, because it is not stated in available documents.</li> <li>The exact sample coordinates could not be verified from the available historical exploration literature.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>No information about the sample spacing of Goas is known, because it is not stated in available documents.</li> <li>The Goldfields stream sediment sampling was done at ± 1.2 km<sup>2</sup>/ sample. The data spacing and distribution of the channel and rock-chip samples could not be verified from the available historical exploration literature.</li> <li>The Anglo American stream sediment sampling was done at ± 1.6 km<sup>2</sup>/ sample.</li> <li>The lack of data spacing and distribution information, makes it insufficient to establish the degree of geological and grade continuity that is appropriate to delineate a mineral resource.</li> <li>No information about sample compositing is recorded in available</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>documents.</li> <li>Orientation of the sampling data in relation to the geological structure is not known, because it is not recorded in available documents.</li> </ul>
Sample	The measures taken to ensure sample security.	Measures taken to ensure sample security have not been recorded in

Criteria	JORC Code explanation	Commentary
security		available documents.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Audits and reviews were limited to the Goas Standard Operational Procedures in as far as data capturing was concerned during the sampling.</li> <li>Creo considers that given the general sampling programme, geological investigations and check assaying the procedures reflect an appropriate level of confidence.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>EPL 4663 is situated in the Karibib magisterial district of the Erongo Region, 45 km south the town of Karibib.</li> <li>The EPL 4663 has an area of 40,986 ha.</li> <li>Goas Pegmatite Exploration currently holds the EPL 4663.</li> <li>Karibib Pegmatite Exploration holds 85% of the shares in the Karibib Project through its shareholding in Goas.</li> <li>The remaining 15% of Goas is owned by Rina's Investment CC.</li> <li>Arcadia Minerals Limited holds a see-through interest of 68% in the Karibib project by virtue of it owning 80% of Karibib Pegmatite Exploration.</li> <li>A land-use agreement, including access to the property for exploration activities has been signed with the owners of the farms Ukuib West, Ukuib, Kamandibmund, Gamikaub, Goas and the Otjimbingwe Reserve</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Goldfields and Anglo American did some exploration work during the 1980's.</li> <li>Osino Resources Corporation did exploration in the area before settling just north of the EPL.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>It is a epigenetic Cu-Ag-Au-W skarn- and polymetallic replacement vein-type mineralisation-system.</li> <li>The overall mineralisation style can generally be attributed to a typical contact-skarn-type minerals system.</li> </ul>

Criteria	JORC Code explanation	Commentary
		The mineralisation is mainly associated with syn- to late-tectonic intrusions of various Damara-age granitoid suites.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	No drilling was conducted.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No data aggregation took place.
Relationship between mineralisatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	No drilling was conducted.
Diagrams	<ul> <li>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.</li> </ul>	The appropriate diagrams and tabulations are supplied in the main report.
Balanced	Where comprehensive reporting of all Exploration Results is not	This report has been prepared to present the prospectivity of the

Criteria	JORC Code explanation	Commentary
reporting	practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	project and results of historical and recent exploration activities
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Remote sensing datasets consisting public domain Sentinel 2 satellite imagery and 15 cm pixel digital orthophotos from the Surveyor General in Windhoek.</li> <li>Homogenised and merged 500 - 250 m cell size regional magnetic and radiometric datasets compiled by the Geological Survey of Namibia.</li> <li>Reconnaissance studies made use of digital lithology data sets from the Geological Survey of Namibia. Field datasets were collected during reconnaissance surveys (i.e. recorded mineralisation, lithological mapping and structural measurements etc.)</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further work should include detailed reconnaissance mapping using remote sensing date.</li> <li>Several surveys will have to be conducted to correlate remotely sensed data with data collected in the field.</li> <li>Detailed grid-based soil- and rock-chip sampling, trenching and geological mapping must be conducted with the purpose of outlining Reverse Air Core and Reverse Circulation drilling targets.</li> <li>See sections 12 and 13 for detailed recommended further exploration activities.</li> </ul>