GEO-TECHNICAL REPORT ON EXPLORATION WORK CONDUCTED OVER EPL-6909 IN THE KARIBIB DISTRICT, ERONGO - NAMIBIA.



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#### I. Introduction and setting

#### 11 EPL LICENSE AND INTERESTS

The EPL 6909 was acquired by Luxury Investment Pty Ltd on the 02/05/2018 and was valid till the 02/05/2021. The EPL covers an area of 6638.224 hectares and has exploration rights for Base and Rare Metals, Dimension Stone, Industrial Minerals and Precious Metals.

The majority of work completed on EPL 6909 involved investigating various mineral occurrences (Li, Li-Be, Au and Cu) with an emphasis on Lithium mineralization in the pegmatites, with the intention of discovering an economic mineral deposit of Lithium. To give emphasis on Li globally, its market size was USD 3.64 billion in 2020. The market is projected to grow further from USD 3.83 billion in 2021 to USD 6.62 billion in 2028 at a compound annual growth rate of 8.1% during the 2021-2028 period. Li is a critical battery raw material for electric vehicle growth. Demand for Li is rising exponentially due to the growing adoption of electric vehicles (EVs) and grid-scale Li-ion batteries for energy storage.

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1.2 LOCATION, GEOGRAPHICAL AND ACCESS ...... ERROR! BOOKMARK NOT DEFINED.
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The EPL is located approximately 30 km south of the town of Karibib, 120 km west north-west of the capital Windhoek and approximately 130 km east north-east of Namibia's port-town of Walvis Bay.



EPL 6909 is located 15 km south of the active Navachab Gold Mine owned by QKR Namibia Ltd and 20km west of Rubicon Lithium Mine owned by Lepidico limited. Luxury Investment Pty Ltd plans to explore lithium, copper-silver-gold-tungsten deposits within the EPL and develop the EPL to the completion of a successful pre-feasibility study. EPL 6909 is situated within the same mineralization zone and shares striking geological similarities with the Navachab Gold Mine deposit. This mineralization zone is structural controlled, such structural feature has yielded significant results which suggest that an epigenetic Cu-Ag-Au-W skarn- and polymetallic replacement vein type mineralization-system.

#### **Geographical Location of Namibia and Climate**

Namibia is located in the southwest of the African continent, west of the Atlantic Ocean, with a coastline of more than 1500 km. The north shares a 1600 km border with Angola. To the east are Zambia and Botswana. The Orange River in the south separates it from South Africa. The country is located in the west of the South African plateau, most of the territory of 1000-1500 meters above sea level, Brandberg Mountain is the highest point 2610 meters above sea level. To the west along the entire coast is the Namib Desert, and to the east the Kalahari desert grasslands. Located in the north of the tropical high pressure zone in the southern hemisphere, most of the country has a tropical arid and semi-arid climate with a large temperature difference between day and night. The average annual rainfall of 270 mm, annual average temperature of 18 to 22 °C. With an area of 824,000 km2 and a population of about 2.5 million, Namibia is one of the regions with the smallest population density in the world. The Country's official languages are English, Afrikaans and German, and the local languages are Bantu and Khoisan. Eighty percent of the country's population is Christian, and some tribes in the north practice traditional fetishism. The transportation infrastructure of the whole territory is relatively good, with a total length of 58,000 km of roads and 2382 km of railways in the territory, and airports in major cities.

Mining, fishing and agriculture are the three pillars of the economy. The country is rich in mineral resources and the fourth largest mineral Country in Africa. The mining output value accounts for 20-25% of the GNP, and more than half of the foreign exchange income comes from the export of mineral products. The main minerals are diamond, uranium, copper, gold, silver, lead and zinc. The coordinates of the area

The Ubib Mine situated on the boundary of the Ubib 76 and Naob 69 is within EPL-6909 on its Southern border, and geologically on the southern limb of the chous syncline. Patchy disseminated copper mineralization, primarily chalcopyrite and bornite occurs on the contact between minor discontinuous quartzite and anthophyllite schist over a strike length of 1000m and up 1.5 in width. Although Scott (1976) does not mention gold in his ore reserve calculations, grab sampling of old prospect working by catterall and Land (1988) gave assay results ranging between 0.5 and 2.6 g/t gold.

Another prospect is the Henderson and Ehlers Mine Naob 69, the abandoned copper mine is about is about 6 km west of EPL-6909, and about 13 km southwest Usakos, was initially developed prior to 1914 with two vertical and two inclined shafts. Copper mineralization on the contact between Abbabis granitic gneiss and biotite-amphibolite schist/calc-silicaterock footwall and Noib Quartzite has been mined to a depth of about 70 m (Anon 1967).

#### 2 REGIONAL GEOLOGICAL FEATURES

EPL 6909 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 (Miller, 2008).



Figure 5: 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 has been widely interpreted as a tectono-stratigraphic domain comprising the magmatic- and accretionary axis of the orogen, with thick meta-turbuditic 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). The South-Central Zone, as on EPL 6909, 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 (Anthonissen, 2010). The overall peak metamorphic conditions obtained in this part of the Damara Orogen (i.e. in the region of EPL 6909) are high-T/Low-P and "mesothermal" (amphibolite facies; 2-4 kbar (a) 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).

The deformation styles observed on EPL 6909 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.

#### <u>3 Geology of the Area</u>

The area lies within the Damara Orogen, the tectonic evolution began 1000 to 900 Ma ago with the formation of three parallel intracontinental rifts. With distinctive asymmetry in sedimentary facies and structural styles from north to south within the branch of the Orogen, related to multiple detachment faults during the early rifting stage (Henry et al., 1990). The lifting is followed by end volcanic activity (Miller, 1983a). Which occurred same time with Spreading and intense subsidence facilitated the sedimentation of several thousands of meters of carbonates in the Northern and Southern Zones (Abenab, Kudis and Ugab Subgroups). At the same time only 200 m of carbonate and gritty quartzite (Rössing Formation) were laid down in the Central Zone (CZ), pointing to a varying and comparatively shallow water depositional environment. During a subsequent period of crustal instability and high basinal relief, mixtitic sediment (Chuos Formation) was derived from uplifted basement and older Damara rocks, probably under the influence of glacial action.



The rocks in the area are located within the northeastern part of the Southern Zone or Khomas trough of the Pan-African Damara Oregen. This terrane is dominated by flysch-type metasedimentary rocks of the Kuiseb formation that predominantly comprise a uniform succession of quartz-plagioclase-biotite schists, with lesser graphitic and garnet -, kyanite-staurolite bearing varieties, as well as minor calc-silicate and amphibole-epidote meta-volcanic layers. The schists are thought to have had a turbiditic origin, with politic and psammitic layers, seemingly grated, arranged in bouma cycles. Deposition of the Kuiseb pelites was succeeded by a reversal of spreading and continental convergence, which led to intense deformation in CZ, as well as the intrusion of the first diorites and granites. Following the main phase of granite emplacement, isostatic uplift of the tectonically thickened CZ caused various high-level post-tectonic.

#### 6 CURRENT WORK DONE

The Geological survey work mainly includes locating target point with good anomalies and collecting sample for analysis. The topographic map was preliminarily analyzed, and the working area reconnaissance, GPS location selection and rock burial were carried out and survey points were layout.

FID	LAT	LON	NAME	DATETIME	
0	+7550609.588	+563716.1986	NAOB	44772.4182639	
1	+7553997.248	+571726.2736	ABB2	44772.4478472	
2	+75 <mark>48</mark> 519.254	+568659.5612	NAR	44772.4504514	
3	+7553527.746	+572553.8907	PIT1	44772.4810301	
4	+7553971.675	+572137.3882	PIT2	44772.5134028	
5	+7554104.459	+572196.6875	AB1	44772.5289120	
6	+7554441.399	+572440.8373	PIT3	44772.5434606	
7	+7559014.408	+574955.3912	PIT	44772.5741667	
8	+7559087.953	+575015.9973	PIT-4-1	44772.5788079	
9	+7559150.510	+575059.6303	PIT4-2	44772.5826852	

EPL-6909 Sample Points for Analysis Li, Sn, Ta

According to the work design four point were selected for sampling. The above pictures is highlighting the four sampling points that were ID due to previous exploration activities namely (NAME) PIT1, PIT2, PIT-4 1 and PIT 4 2.

### PIT 1 Geological Sampling Point



The contact between the schist on the north and pegmatite south.

PIT1: This point as indicated in the picture above, show a trench of previous small scale mining that was done in the area. The trench shows a significant example of contact between granites and sedimentary rock which is called a Skarn. This deposit type is similar to Navachab Gold Mine deposit. The Gold Mineralization in Namibia at the Navachab Gold deposit is associated with alteration often described as skarn mineral or Skarnoid mineralization related to either metamorphic or granite related hydrothermal fluid. This mineralization zone is structural controlled, such structural feature has yielded significant results which suggest that an epigenetic Cu-Ag-Au-W skarn- and polymetallic replacement vein type mineralisation-system exist. The geologist with good industry stand, and standard operation procedures (SOPs) for all Exploration operations, Including Sampling, Sample preparation, sample security and analytical quality Assurance and quality control (QAQC). He modeled the sampling

procedures, dividing trench in 5 equal parties or sampling lines, and sampled both the granite and the sedimentary in each lines. In total 19 samples were collected at this, Named as follows: **Pit1-1**, **Pit1-2**, **Pit1-3**, **Pit1-4**, **Pit1-5**, **up to Pit1-10**. (Pending assay results)

## **PIT2 Geological Sampling Point**



Pit 2 historical activities on top of the mountain, S: 22 07'04.0" E: 015 41'57.9"

This area has a small excavation of about 1m deep that is evident of post exploration activities within the pegmatite, on top of the mountain. The possible Gold mineralization deposit at this point is contained within the secondary veins or Quartz veins, hosted by damara age, metamorphosed, sedimendary rocks and its classified as orogenic or mesothermal gold mineralization. The pegmatite in the surrounding shows the same setting as Rubicon lithium deposit, at Rubicon a series of stacked Sub parallel pegmatites intrude a viable dioritic and pegmatitic granite sequence.



Similarly to Rubicon the pegmatite at this area form a prominent ridge approximately 200m long, striking WNW and dipping to the northeast at about 45 degree. The area has green muscovite, big quartz veins and petalite. Petalite or castorite is a lithium aluminium phyllosilicate mineral. The petalite in the area is colourless to pink grey. The area was well sampled and sample list with results will be shown in Samples analyses.

# Geological Vein of Pegmatite of PIT3 and PIT4 Geological Sampling



Quartzofeldspathic pegmatites are potentially the major source of mica in Namibia and occur in the central portion of the Damara Orogen, aligned along distinct tin-belts, including the Karibib pegmatite District, as well as in southern Namibia (Karasburg District). In the past, most of the mica was produced as a by-product of small-scale mining of zoned, Li-bearing and un-zoned cassiterite bearing rare metal megmatites of late Pan-African age.



**Pit 3** S:22 07'04.0" E: 015 41'57.9" **Pit4** S:22 07'04.0" E: 015 41'57.9" The picture shows two different areas that were named as Pit 3 and Pit4 with similar geological setting and mineralization, pegmatite of about 400 m respectively.

The two areas have pegmatites that are outcroping and streaking east west for about 400m long. The Li mineralised quartz K-feldspar pegmatite, primary indicate that the lithium minerals are within the Lithium Mica, (lepidolite and petalite). These pegmatite has green to redish muscovite as good indicate of lithium content in the mica. Similarly green muscovite, big quartz veins and petalite. Petalite or castorite is a lithium aluminium phyllosilicate mineral. The pegmatite intruded into Marble and Cal silicates of the Karibib formation with tantalite and berly minerals. No drilling took place but with the positive assay results more detailed mapping and drilling will be required to better understand the Li type deposit.

## 1. 1.3. Samples analyses

After the collected samples, the samples were per-analysed with XRF, which gave good reading, of the following elements Sr,K,Mn,Pb,S,Mo,Sb,Se and Rb which are good indicator of lithium deposit.

#### Conclusions and Suggestions for Future Work

Luxury Investment (Pty) Ltd 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 JORC. For this reason, the property of Luxury Investment (Pty) Ltd in terms of Cu-Ag-Au-(W) skarn and orogenic Au sulphide mineralisation (which is Pit 1,2 and 4) is considered a Geological Target and not a Mineral Resource at this stage. Luxury Investment (Pty) Ltd is planning to invest detailed geological mapping, more on rock and soil sampling, to clearly understand the depositional setting of the area, that will be followed by trenches to be dogged and sampled. And at the later stage Luxury Investment (Pty) Ltd is planning to drill some holes to confirm the mineralization or defining the deposit.

REPUBLIC OF NAMIBIA				
MINISTRY OF MINES A	ND ENERGI			
REFERENCE NO: 14/2/4/1/6909	PERMIT NO: ES 38570			
PERMIT FOR SINGLE CONSIGNMENT EX (Issued in terms of Section 127 of the Minerale (Prospectin	PORT OF MINERALS ty and Mining) Act, No. 33 of 1982)			
Permission is hereby granted to: MUTILIFA TALENI In case of person, ID/Psesport No: 89082700645 Networking	Y NAMBIAN			
In case of company, company registration No.				
As a result of application dated: 12 AUGUST 2022 to export				
For purposes other than sale or disposal X For sale of	r disposal			
Controlled minerals X Uncontroll	ed minerais			
Name of mineral(a): PEGMATITE FOR LITHUM, NOIBIUM, BERYLLIUM	TANTALUM, GOLD AND COPPER			
Estimated mass or volume: 2 KG				
Nature: Unprocessed Form				
Processed Form				
Estimated value in NS and foreign currency if relevant. NO COMMECIAL 1	VALUE			
Packaged in: SAMPLE BAGS PLACED INSIDE COURIER BOX AND CO	OURIER BAG			
Mode and route of transport. AIR				
To /destantion/ SOLIDE ACR/A				
Namilian Customs and Exclass and point HOSEA SUTAKD INTERNATIO	WAL AIRPORT/ EROS AIRPORT			
This permit is valid until: 12 SEPTEMBER 2022				
And is subject to the following terms and conditions (if any): N/A				
Prepared by (Full Name): HILYA N.O NAMPWEYA	MANAGE TELEVIER S			
America lea.	AND ENERGY			
Verified by (Full Name): 1 KASTUD (LIN 44	Signative Conversioner			
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The holder of this parmit, whether as the holder of a mining claim or a mineral licence, or a dealer in minerals, is obliged to reflect the relevant contents of this permit in the appropriate returns required, in terms of Act 33 of 1992, to the Mining Commissioner.

12 August 2022

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