Geologic Controls on Mineralization at Khoemacau’s Zone 5 Cu-Ag Deposit, Kalahari Copper Belt, Botswana

Introduction

- The Kalahari Copper Belt (KCB) is host to a number of strata-bound Cu-Ag deposits and mining operations in southern Africa.
- The Khoemacau Project area is located within this belt and hosts the Zone 5, high grade Cu-Ag deposit.
- Recent drilling at Khoemacau’s Zone 5 deposit has outlined an estimated 100.3 Mt @ 2.0 % Cu and 20 g/t Ag at a 1.0 % Cu cut-off that remains open at depth and along strike.

Location

- The KCB forms the southern margin of the Pan-African Damaran Orogeny.
- Crustal shortening, regional folding, thrusting and shearing resulted in northeast trending, doubly plunging antiforms.
- The lower D’Kar formation hosts high grade Cu & Ag (>1.0 % Cu) and is part of the Ghanzi Group Sediments.
- The Ghanzi Group sediments were deposited during the Neoproterozoic into an intra-cratonic rift basin.

Zone 5 Deposit

Continuity

- High grade Cu-Ag mineralization intersected at depths > 1,200 m below surface.
- Ore is situated between two competent, thick sandstone units (NPF & MSST).
- Vein shears are sub-parallel to bedding and cross cut host rock assemblages.
- > 425 holes and > 190,000 m of drilling at Zone 5.
- Khoemacau Copper Mining drilled > 325 core holes, ~170,000 m (27 rigs operating in 2015).

Conclusions

- Sediment hosted strata-bound deposit.
- Mineralization is hosted within siltstones and sandstones within the D’Kar formation near the Ngwako Pan formation contact.
- Copper sulfide mineralization is predominately bornite, chalcopyrite and chalcocite.
- Mineralization is typically zoned vertically and laterally.
- Progressive structural deformation lead to multiple episodes of mineralization and an extensive system of quartz and quartz carbonate shears and brecciation.

Regional Setting and Stratigraphy

- Regional Mineralization
  - Disseminated Strata-bound Copper
  - Hydrothermal Trap Site Environment
  - Ore Styles
    - Hydrothermal Breccia Vein Hosted Copper
    - Disseminated & Cleavage Veinhosted Copper
    - Hydrothermal Reactivated Vein Shear Hosted Copper

Mineral Resource Tabulation

- Zone 5 – July 2015 1% Cu cut-off (sulfide only)
- Recent drilling has confirmed an additional 24 Mt grading 1.9 % Cu and 20 g/t Ag.
- In the last year, drilling increased the total contained Cu by 39% at a higher grade of 2.0 % Cu from 1.9 % Cu.
- Historic resource conversion rate of 100%.

Recent Drill Results – Zone 5 Cu Grade Long Section

- M tonnes Cu% Ag g/t Measured 16.1 2.2 20 Indicated 24.3 2.0 19 Inferred 35.9 1.9 20 Total All 76.3 2.0 20

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