

## **Intrusion related gold mineralization in the eastern desert of Egypt: The Anbat-Shakoosh gold district**

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The Eastern Desert of Egypt has a rich mining history which can be traced as far back as the pre-dynastic period, 3100 BC. It is generally considered that the oldest recorded geological map in history, the Turin papyrus, was drawn some 3000 years ago, detailing Wadi Hammamat and the nearby Fowakhir gold mining area. Early mining was confined to near surface high grade quartz veins of which there are hundreds of recorded occurrences. One of these occurrences at Anbat, 120 km north of the Sudan boarder, 30 km inland from the Red Sea, has led Thani Stratex Resources (TSR) to the discovery of the Anbat – Shakoosh gold district located within its 100% owned Hodine concession.

Geologically, the Eastern Desert region belongs to the Arabian-Nubian Shield, which is a Neoproterozoic fold belt within the East African Orogen. This orogenic belt formed during the continental collision between East and West Gondwana. The Arabian-Nubian Shield is interpreted as an intercalation of largely juvenile oceanic arcs, back arcs, associated ophiolitic remnants plus some microcontinental fragments. The Hodine concession is characterised by tectonically interleaved remnants of oceanic and island-arc material and high-metamorphic-grade gneisses associated with orogenesis which occurred shortly after terrain accretion. Late-stage igneous intrusives intrude greenschist facies metamorphic basement. Gold mineralization within the Anbat-Shakoosh district is closely associated with the emplacement of these felsic–intermediate intrusive rocks.

TSR has identified a number of prospects across the district. Mineralization styles include (1) gold-bearing, shallow dipping, sheeted quartz veins in quartz sericite altered diorite intrusive (2) gold-bearing, steeply dipping smoky grey quartz veins hosed in granodiorite stock, (3) low to moderate grade disseminated gold in variably quartz-sericite altered dacitic porphyry sills associated with the granodiorite stock, (4) high grade, steeply dipping smoky quartz veins in diorite. Mineralization at all prospects within the Anbat-Shakoosh district all display a gold-arsenic-molybdenum signature characteristic of intrusion related systems.

To date, three prospects have been drilled within the Anbat – Shakoosh district; Shakoosh, North Anbat, and Anbat. The latter, a site of historical drilling, required a geological rethink when mineralization previously interpreted to be dykes were found to be flat-lying sills.