Wadi Khyam Area

Geologic Setting and Mineralization

Centered about 10 km south of Hufayrah at lat 22°44' N. and long 44°58' E., the occurrences in the Wadi Khyam area consist of sulfide-bearing quartz veins within amphibolite gneiss and diorite, southwest of a major Najd transcurrent fault. Two clusters of gold occurrences, **Wadi Khyam** (MODS 0097 and 0098) and **Wadi Arakah** (MODS 0427-0432) lat 22°26' N., long 45°03' E., have been found in the area (fig. 40).

Extent and Status of Exploration

The gold occurrences at Wadi Khyam were first mapped and sampled by BRGM as part of a regional program. Ancient workers mined quartz-carbonate veins in sheared amphibolite of the Ajal group (Lacombe and Letalenet, 1970). Chip sampling of pit walls at MODS 0097 and 0098 returned values up to 3.5 g/t Au. Compilations of gold potential by Riofinex and BRGM have listed the occurrence but no detailed exploration work has been recorded (Viland and others, 1987).

The Wadi Arakah occurrences to the south were mapped and sampled by BRGM in 1973. Six ancient workings within Hulayfah volcanic rocks and associated diorite intrusions returned between 1.0 and 10 g/t Au in grab samples. Anomalous copper and lead were noted where quartz veins contained appreciable pyrite. A northwest-trending fault cuts the volcanic units adjacent to the gold occurrences.

Adequacy of Exploration

Chip and grab sampling of the prospects has been adequate to indicate anomalous gold but there has been no prospect-scale exploration. Detailed follow-up is warranted to determine the extent and gold tenor of the vein systems.

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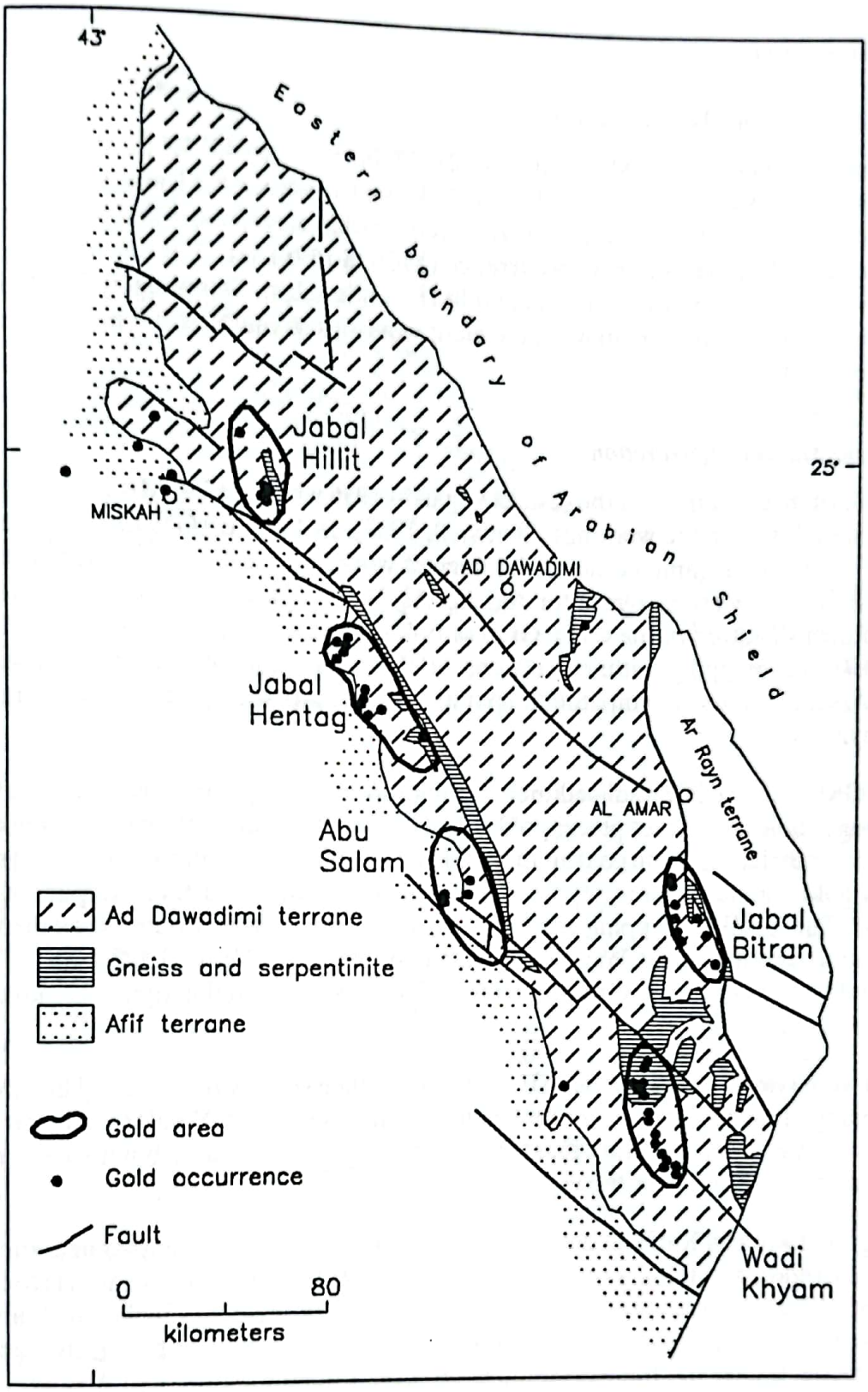


FIGURE 40.—Gold areas within the Ad Dawadimi terrane (after Viland and others, 1987).