**Table 9-2. Representative deposits and deposit types in the Al Amar district (after Doebrich et al., 2007)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Deposit type** | **Host rocks** | **Relative age** | **Mineralization** | **Examples** |
| Khnaiguiyah type Zn-Cu-Fe-Mn | Al Amar volcanics | Syn- to late-Al Amar group volcanism | Stratiform, hematite, ilmenite, pyrite, sphalerite, chalcopyrite, Ag-, Pb-, and Bi tellurides, local scheelite | Khnaiguiyah, Qid, Qad, Wadi Sidarah |
| Epithermal Au-Ag-Zn-Cu-barite | Al Amar group; located in volcanic centers; proximal to rhyodacite intrusive complexes | Syn- to late-Al Amar group volcanism | Veins and stockwork: quartz, sphalerite, chalcopyrite, galena, barite, gold, covellite, chalcocite, rutile, polybasite | Al Amar, Umm ash Shalahib, Umm adh Dabah |
| Porphyry Cu | Porphyritic intrusive rocks | Syn- Al Amar-associated TTG  | Veins and stockwork: malachite, chalcopyrite, magnetite, hematite | Al Eitaby, Umm ash Shash |
| Fe-oxide Cu-Au (magnetite rich) | TTG intrusives and Al Amar volcanics | Late to post-TTG | Metasomatic replacements of disseminated magnetite and fault controlled massive magnetite: magnetite, apatite, hematite (martite), actinolite, chalcopyrite, chalcocite, covellite | Jabal Idsas |
| Fe-oxide Cu-Au (hematite rich) | TTG intrusives and Al Amar volcanics | Late to post-TTG | Mineralized fault and breccias and replacement veins: hematite, tourmaline, magnetite, rutile, apatite, chalcopyrite | Dwarah |
| Orogenic(low S quartz-Au veins) | Throughout the district | Post TTG and al Amar volcanism: pre alkali granite (syn terrane amalgamation?) | Massive, tabular and lensoid quartz veins in fault zones: quartz, carbonate, pyrite, gold, malachite, chrysocolla | Selib, Fawarah, Bi’r Sidriyah  |