

MINERALOGY, GEOCHEMISTRY AND GENESIS OF DASHKASAN-BAHARLOU ANTIMONY-GOLD DEPOSIT SE OF QORVEH(WEST OF IRAN).

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Dashkasan-Baharlou antimony-gold deposit located in the west of Iran(Kordestan province). This area belongs to Sanandaj-Sirjan metamorphic-magmatic belt. Based on Geological observation, the oldest unit in this area is Jurassic slate and deformed dolomitized limestone that locally thrust over the Eocene intermediate to acid volcanics and tuffs. This sequence later overlain by fossiliferous Miocene limestone and younger volcano-plutonic rocks respectively. Textures of igneous rocks are mainly porphyritic and microgranular. This deposit is considered as vein type antimony-gold deposit that mineralization is controlled by tectonic structures. The deposit is hosted by trachyandesites, dacites, breccia tuff and granodiorite subvolcanic rocks, that mainly associated with silicic and argillic alterations. Three types of mineral paragenesis can be seen in this deposit: (1) pyrite-quartz-gold-stibnite-realgar and orpiment. (2) pyrite-quartz-stibnite-realgar and orpiment. (3) pyrite-quartz-galena and sphalerite. Results of analysis from the stibnite veins indicate that high grade gold content is limited to silicic zone of stibnite veins. Fluid inclusion studies reveal that homogenization temperatures vary from 183 to 255 with salinity from 8.9 to 18.8 wt/NaCl for primary inclusions. Observation and laboratory investigations show a close relationship between gold, stibnite and quartz and suggest that this mineralization belongs to epithermal group and acid-sulfate type.