

Ilmenite exploration at Abu Ghalaga area,
South Eastern Desert, Egypt, using remote
sensing and field Hyperspectral measurements

Salem SM

¹ Salemmoher058@gmail.com

The interpretation of the remote sensing and ASD field spectrometer measurements at Abu Ghalaga area have interpreted new ilmenite occurrences in the gabbroic rocks neighboring the known Abu Ghalaga ilmenite old mine. The fieldwork confirmed the remote sensing results; where the locations and distributions of the detected ilmenite are correspond the image processing illustrations. The ilmenite ore is constituted by hematite, magnetite and ilmenite minerals forming up to 80% of the bulk of the ore. Some magnetite and goethite rich bands were also detected in the north and south of the Abu Ghalaga mine. The gabbroic rocks form the dominant exposures being the host of the ilmenite minerals in the study area. They are intruded in the old volcanics and tuffs of intermediate composition, in turn; they are intruded by tonalite rocks showing variable deformations and alterations in parts. Some mafic and felsic dykes and quartz veins are crosscut the country rocks of the study area.