

# SEG 2022 Conference: Minerals For Our Future

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## **Remote Sensing of Gudjareti- Khachkovi Gold Ore Field. Adjara-Trialeti Folded Zone, Lesser Caucasus (Georgia)**

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This research consists of interpretations of more than 40 data obtained by remote sensing analyses and techniques in order to detect geological features and potential of probable Gudjareti- Khachkovi ore fields in the area located in South-East Georgia (Adjara-Trialeti folded zone, Lesser Caucasus) using Terra ASTER Multispectral satellite data.

Technical specifications for the ASTER data used are as follows:

Granule ID: AST3A1 0409160806091107270062

Processing Level: 3

Acquisition Date: 20040916

Scene ID: [171, 87, 1]

Processed Bands: "01023N3B0405060708091011121314"

Cloud Coverage: 2

The area is quite intensive in terms of vegetation, snow, glacier, and cloudiness. Therefore, the best satellite data among all ASTER images have been ordered that could represent the area the best way and which has the least snow and cloud cover. The acquisition date of the satellite data is 24.08.2012. It is noticeable that although the time of acquisition is autumn season, excess snow covers still remain on mountain tops. The ASTER image used in this study has approximately 2% cloudiness, 20% vegetation, and 35% snow cover in the whole region. In this very highly vegetated territory, there have been detected different rock types covering 10% of the study area and lithological descriptions, mineral mapping techniques, and analysis towards determination of geological features have been made.