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# *Interactive comment on* "Recognition of a porphyry system using ASTER data in Bideghan – Qom province (central of Iran)" *by* F. Feizi and E. Mansouri

**Anonymous Referee #2**

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The paper's topic is appropriate for the scope of Solid Earth however it does not offer significantly original remote sensing science apart from the specific area of study within Iran. The introduction and description of the area and its geology are fair however the details or reference listing of the ASTER sensor, its data products and associated issues (eg instrument crosstalk) and relevant previous ASTER case studies, is lacking. The methodology and its description are poorly described and show problems with an understanding of mineral focused remote sensing targeting relevant absorption features (rather than reflectance "highs"). Within the method and results section Tables 2-4 require further explanation as to the derivation of "0" and "+ - 1.0" values. No explanation is supplied as well for the MNF band combinations used for mapping various



mineral zonations. Integration of the processed alteration mapping with interpreted lineament analysis is a useful and positive technique well included. However the field validation of these results isn't convincing and lack either sample or field spectral measurements or laboratory analysis to confirm the interpreted mineralogy. The conclusion regarding the existence of a porphyry system therefore lacks confidence and should either involve the inclusion of other data or recommend further work.

Major revision is required. Corrections to the grammar and spelling is needed. Checking of the references within the text and end listing is required.

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Interactive comment on Solid Earth Discuss., 6, 1765, 2014.