

The diagram illustrates the classification of igneous rocks based on their silica content (SiO₂) and total alkali content (Na₂O + K₂O). The diagram is divided into three main fields: SEDIMENTARY, VOLCANIC/MIXED, and INTRUSIVE. The SEDIMENTARY field includes rocks like Q_{2a}, Q_{2b}, Q_{2c}, Q_{2d}, Q_{2e}, Q_{2f}, Q_{2g}, Q_{2h}, Q_{2i}, Q_{2j}, Q_{2k}, Q_{2l}, Q_{2m}, Q_{2n}, Q_{2o}, Q_{2p}, Q_{2q}, Q_{2r}, Q_{2s}, Q_{2t}, Q_{2u}, Q_{2v}, Q_{2w}, Q_{2x}, Q_{2y}, Q_{2z}. The VOLCANIC/MIXED field includes rocks like N₂, Q_{2s}, Q_{2t}, Q_{2u}, Q_{2v}, Q_{2w}, Q_{2x}, Q_{2y}, Q_{2z}. The INTRUSIVE field includes rocks like P₂, Q₂, Q_{2s}, Q_{2t}, Q_{2u}, Q_{2v}, Q_{2w}, Q_{2x}, Q_{2y}, Q_{2z}. The METAMORPHIC field includes rocks like X₂, Q₂, Q_{2s}, Q_{2t}, Q_{2u}, Q_{2v}, Q_{2w}, Q_{2x}, Q_{2y}, Q_{2z}.

Q_{ua}	Conglomerate and sandstone (Holocene) —Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
Q_{up}	Conglomerate and sandstone (Holocene and late Pleistocene) —Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
Q_{uplc}	Fan alluvium and colluvium (Holocene and late Pleistocene) —Fan alluvium and colluvium: shingly and detrital sediments, gravel, sand, clay
Q_{us}	Conglomerate and sandstone (late Pleistocene) —Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
Q_{uol}	Loess (late Pleistocene) —Loess more abundant than sand, clay
Q_u	Conglomerate and sandstone (middle Pleistocene) —Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
Q_u	Conglomerate and sandstone (early Pleistocene) —Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
N_{cpts}	Conglomerate and sandstone (Pliocene) —Gray conglomerate, grit, sandstone more abundant than siltstone, clay, limestone, grit, gypsum, salt; acid to mafic volcanic rocks

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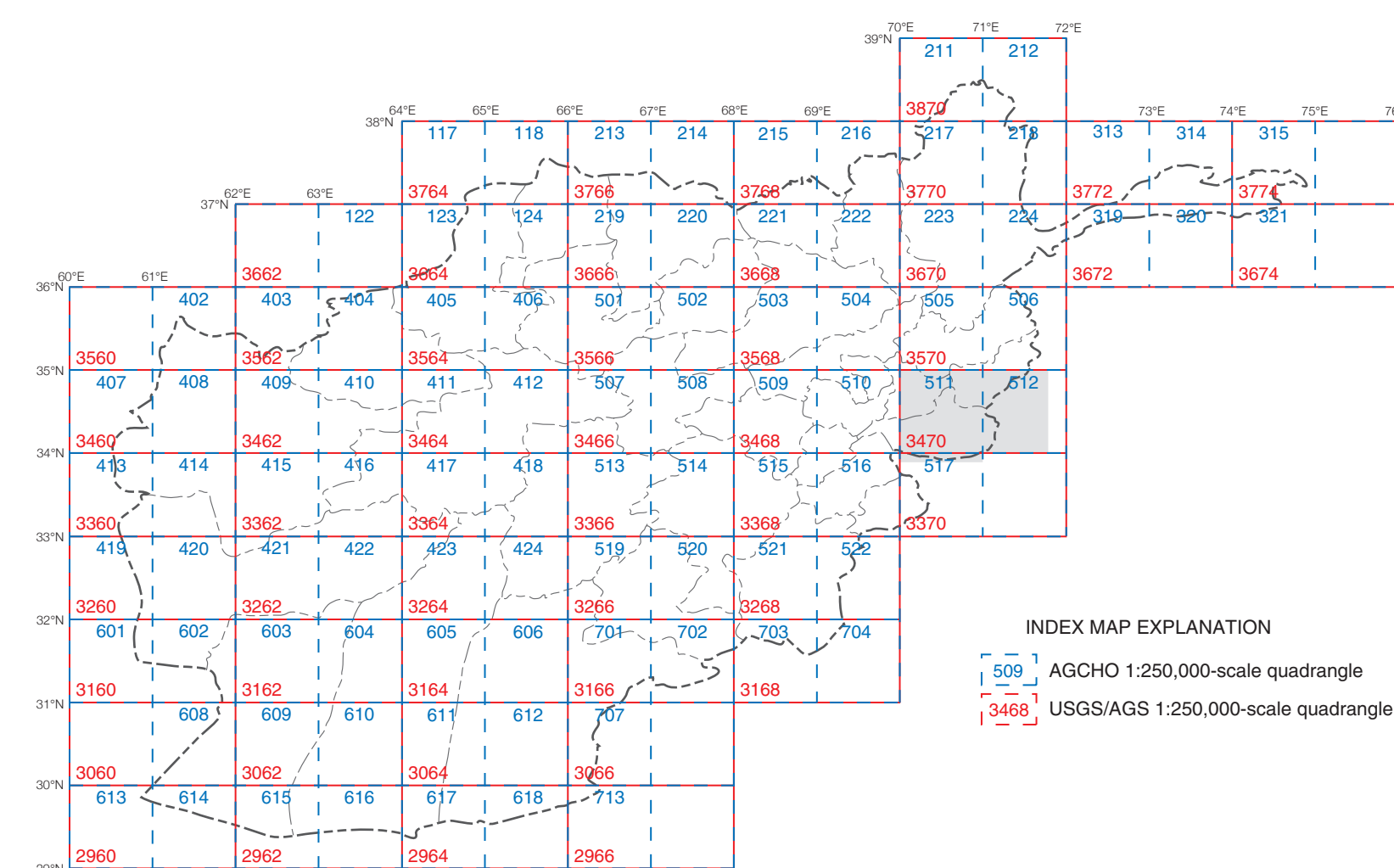
— · · · **Fault**—Dashed where approximately located; dotted where concealed

This map was produced from several digital datasets. Topography was derived from Shuttle Radar Topography Mission (SRTM) 85-meter digital data. Gaps in the original dataset were filled with data digitized from contours on 1:200,000-scale Soviet General Staff Sheets (USSR, 1960s). The 85-meter elevation data were reprojected to the UTM projection and 1:250,000 NTM30 surface-digitized capabilities. Cultural data were extracted from files downloaded from the Afghanistan Information Management Service (AIMS) Web site (<http://www.aims.af.mil>). The AIMS files were originally derived from maps produced by the Afghanistan Government and the United States Central Intelligence Agency. The international boundary of Afghanistan were taken directly from Abdullah and Chmyrov (1977).

It is the primary intent of the U.S. Geological Survey (USGS) to present the geologic data in a useful format while making them publicly available. These data represent the state of geologic knowledge as of the time of publication. The USGS does not intend to change the data (Abdullah and Chmyrov, 1977). The USGS has made no attempt to modify original geologic map-unit boundaries and faults; however, modifications to map-unit symbology, and minor modifications to map-unit descriptions, have been made to clarify lithostratigraphy and to improve the map's readability. The USGS has also made minor changes to the map's interpretation of the original data, because no CMU diagram was presented by Abdullah and Chmyrov (1977).

This map is part of a series that includes a geologic map, a topographic map, a Landsat natural-color map, and a Landsat false-color image map for the USGS AGS (Afghanistan Geological Survey) quadrangles shown on the index map. The maps for any given quadrangle have the same open-file number but a different letter suffix, namely, A-, B-, C-, and D for the geologic, topographic, Landsat natural-color, and Landsat false-color maps, respectively. The present map series is the first of its kind. A second map series, in which the Landsat false-color image is a composite of remote sensing data from a limited time frame, and library data, is to be produced by the USGS in cooperation with the AGS and AGCHO.

³Geospatial analysis software developed by MicroImages, Inc., Lincoln, NE 68508-2010.



Compiled by
Robert G. Bohannon and Kenzie J. Turner
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