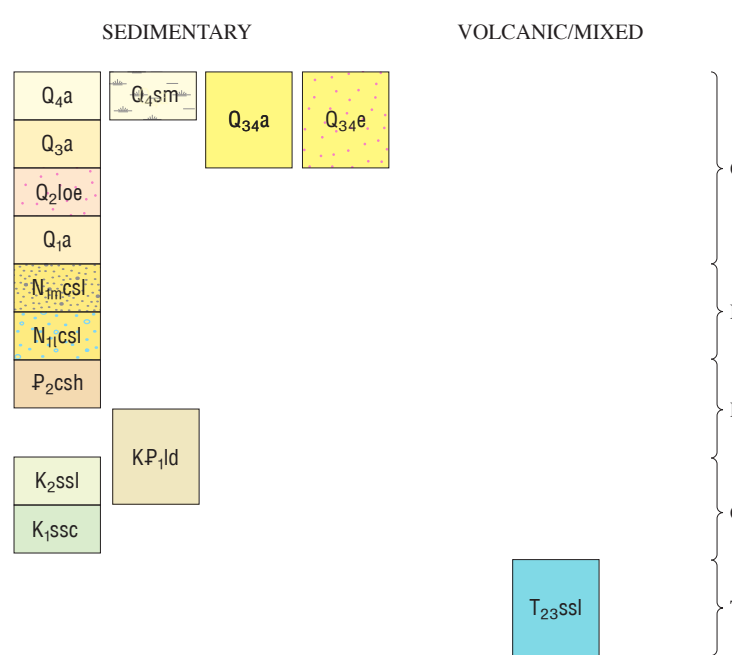


CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Q_{al}** Conglomerate and sandstone (Holocene)—Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
- Q_{al} (H)** Salt marsh deposits (Holocene)—Mud, silt, and clay more abundant than sand, limestone, gypsum, and salt
- Q_{al}** Conglomerate and sandstone (Holocene and late Pleistocene)—Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
- Q_{al} (H)** Eolian deposits (Holocene and late Pleistocene)—Sand
- Q_{al}** Conglomerate and sandstone (late Pleistocene)—Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
- Q_{al} (H)** Loess (middle Pleistocene)—Loess more abundant than sand, clay
- Q_{al}** Conglomerate and sandstone (early Pleistocene)—Alluvium: shingly and detrital sediments, gravel, sand more abundant than silt and clay
- N_u (C)** Clay and siltstone (middle Miocene)—Brown clay, siltstone more abundant than sandstone, conglomerate, limestone
- N_u (C)** Clay and siltstone (early Miocene)—Red clay, siltstone more abundant than sandstone, conglomerate, limestone
- P_g (C)** Clay and shale (Eocene)—Clay, shale, siltstone more abundant than sandstone, limestone, marl, gypsum, conglomerate
- K_g (C)** Limestone and dolomite (Paleocene and Late Cretaceous)—Limestone, marl, dolomite more abundant than sandstone, clay, siltstone, gypsum, conglomerate
- K_g (C)** Sandstone and siltstone (Late Cretaceous)—Sandstone, siltstone more abundant than clay, limestone, marl, conglomerate, gypsum
- K_g (C)** Sandstone and conglomerate (Early Cretaceous)—Red sandstone, conglomerate more abundant than siltstone, gypsum, clay
- T_g (C)** Sandstone and siltstone (Late and Middle Triassic)—Sandstone and siltstone more abundant than mudstone, carbonaceous shale, limestone, marl, conglomerate, felsic and mafic volcanic rocks

EXPLANATION OF MAP SYMBOLS

- Contact**
- Fault**—Dashed where approximately located; dotted where concealed

DATA SUMMARY

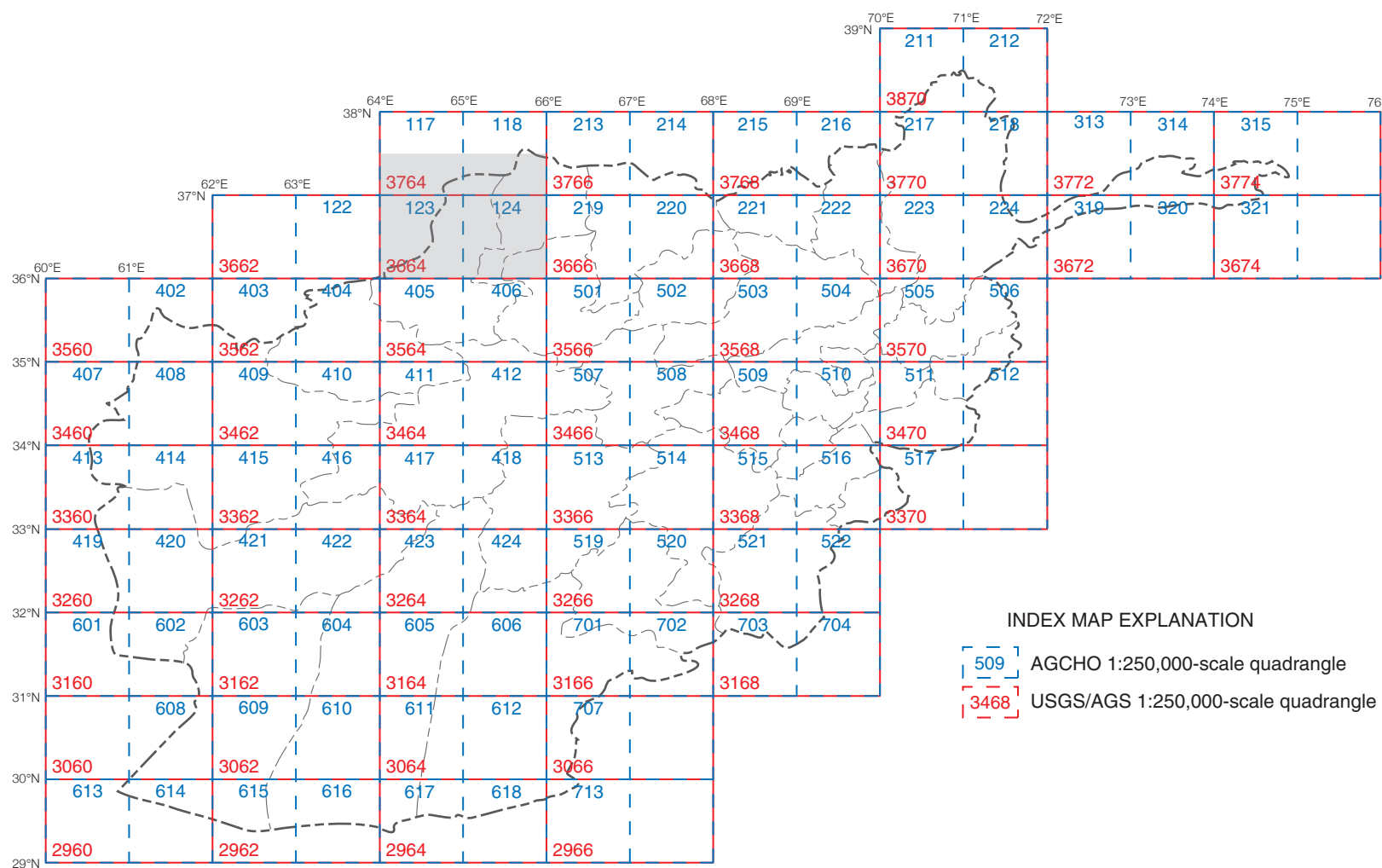
This map was produced from several larger digital datasets. Topography was derived from Shuttle Radar Topography Mission (SRTM) 85-meter digital data. Gaps in the original dataset were filled with data digitized from contours on 1:200,000-scale Soviet General Staff Sheets (1978-1997). Contours were generated by cubic convolution averaged over four pixels using TNTmips' surface-modeling capabilities. Cultural data were extracted from files downloaded from the Afghanistan Information Management Service (AIMS) Web site (<http://www.aims.org.af>). The AIMS files were originally derived from maps produced by the Afghanistan Geodesy and Cartography Head Office (AGCHO). Geologic data and the international boundary of Afghanistan were taken directly from Abdullah and Chmyriov (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 mapping in Afghanistan as of 2005, although the original map was released in the late 1970s (Abdullah and Chmyriov, 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 modernize terminology. The generation of a Correlation of Map Units (CMU) diagram required interpretation of the original data, because no CMU diagram was presented by Abdullah and Chmyriov (1977).

This map is part of a series that includes a geologic map, a topographic map, a Landsat natural-color-image map, and a Landsat false-color-image map for the USGS/AGS (Afghan 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 to be followed by a second series, in which the geology is reinterpreted on the basis of analysis of remote-sensing data, limited fieldwork, and library research. The second series is to be produced by the USGS in cooperation with the AGS and AGCHO.

REFERENCE CITED

Abdullah, Sh., and Chmyriov, V.M., eds., 1977, Map of mineral resources of Afghanistan: Kabul, Ministry of Mines and Industries of the Democratic Republic of Afghanistan, Department of Geological and Mineral Survey, V/O "Technoexport" USSR, scale 1:500,000.

¹Geospatial analysis software developed by MicroImage, Inc., Lincoln, NE 68508-2010.



INDEX MAP EXPLANATION

- AGCHO 1:250,000-scale quadrangle**
- USGS/AGS 1:250,000-scale quadrangle**

GEOLOGIC MAP OF QUADRANGLES 3764 AND 3664, JALAJIN (117), KHAM-AB (118), CHAR SHANGHO (123), AND SHEBERGHAN (124) QUADRANGLES, AFGHANISTAN

Compiled by
Ronald R. Wahl
2005