GEOLOGIC MAP OF THE NAVAJO COUNTRY ARIZONA, NEW MEXICO, AND UTAH

Scale 500,000

10 5 0 10 20 Miles

10 5 0 10 20 Kilometers

1916

LEGEND

SEDIMENTARY ROCKS

TERTIARY

- **T** / **Tc** — Sandstone and shale (locally separated into two formations) Chuska sandstone, Tc (gray and white sandstone with lenses of conglomerate) — Eocene ?
  - UNCONFORMITY ?
- **Tt** — Tohatchi shale, Tt (shales and thin sandstones, banded; with lenses of lignite) — Eocene ?
  - UNCONFORMITY

CRETACEOUS — Upper Cretaceous

- **Kmv** — Mesaverde and later formations (sandstone and shales with coal)
- **Km** — Mancos shale (argillaceous and arenaceous shales)
- **Kd** — Dakota sandstone (gray and brown coarse sandstones and conglomerates)
  - UNCONFORMITY

JURASSIC ?

- **Jme** — McElmo formation (sandstones and shales, green, white, and banded)

JURASSIC — La Plata group

- **Jn** / **n** / **Jw** — Navajo sandstone, Jn (light-red massive cross-bedded fine and variegated sandstone) Todilto formation, it (limestone, calcareous and arenaceous shales) Wingate sandstone, Jw (light-red massive cross-bedded sandstone)
  - UNCONFORMITY ?

TRIASSIC

- **Trc** — Chinle formation (shales with thin sandstones and limestone conglomerates; variegated; abundant fossil wood)
  - UNCONFORMITY ?
- **Trs** — Shinarump conglomerate (gray conglomerate and sandstone; much fossil wood)
  - UNCONFORMITY

CARBONIFEROUS

- **Cdc** — De Chelly sandstone (light-red massive cross-bedded sandstone) — Permian ?
  - UNCONFORMITY
- **Cm** — Moenkopi formation (chocolate-red and banded arenaceous shales and sandstones; gypsiferous) — Permian ?
  - UNCONFORMITY
- **Ck** — Kaibab limestone (buff arenaceous limestone) RELATIONS UNKNOWN — Pennsylvanian
- **Cg** — Goodridge formation (buff and red limestone and sandstones) — Pennsylvanian
  - UNCONFORMITY

PRE-CAMBRIAN ?

- Quartzite (massive and bedded gray quartzite)

IGNEOUS ROCKS

TERTIARY

- **Te** — Extrusive volcanics (lavas, ash, and tuff)
- **Ti** — Intrusive volcanics (necks, dikes, sheets, and laccoliths)

Ch — Undifferentiated Shinarump conglomerate and De Chelly sandstone

- Dip and strike
- Horizontal bed
- Mine or quarry
- Prospect

Base compiled by U.S.Geological Survey for map on scale 1:1000000 with additional information obtained by Herbert E.Gregory in 1908-1913.

Geology by Herbert E. Gregory, assisted by K. O. Heald, J. E. Pogue, and W. B. Emery
Surveyed in 1908-1913

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