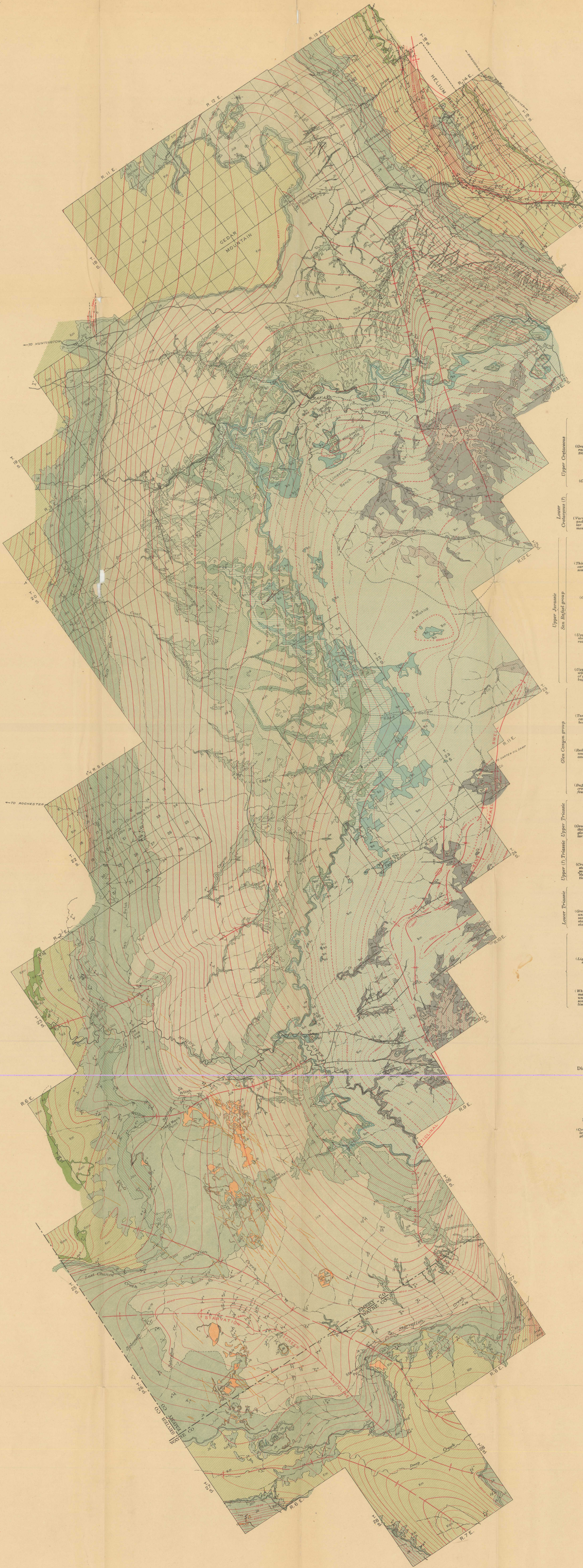




EXPLANATION
SEDIMENTARY ROCKS

- Upper Cretaceous**
- Mancos shale**
(Gray marine shale; sandy beds in lower part; rather persistent sandstone members about 800 and 600 feet above base)
- Dakota (?) sandstone**
(Conglomerate, coarse and fine sandstone, gray and greenish clay)
- EROSIONAL UNCONFORMITY**
- Morrison formation**
(Variegated clay and shale, gray sandstone, earthy red-brown sandstone and shale; some gypsum and limestone)
- EROSIONAL UNCONFORMITY**
- Summerville formation**
(Thin-bedded chocolate-colored sandstone, earthy red-brown sandstone and shale; some gypsum and limestone)
- Curtis formation**
(Green-gray conglomerate and shale and black-bedded gray sandstone)
- UNCONFORMITY**
- Entrada sandstone**
(Upper part, massive red-brown earthy sandstone; lower part, thin-bedded red shale and red-brown earthy sandstone)
- Carmel formation**
(Upper part, dominantly red and green shale with thin beds of sandstone and black beds of gypsum; lower part, dense limestone and buff and red sandstone)
- UNCONFORMITY (?)**
- Navajo sandstone**
(Tan to light-gray massive cross-bedded calcareous sandstone with, locally, a few thin beds of limestone)
- Todilto (?) formation**
(Red-brown sandstone, green and red shale, and conglomerate irregularly interfingering and channelled)
- Wingate sandstone**
(Buff to tan, pink, and dark-gray massive cross-bedded calcareous sandstone, with a few thin lenses of limestone)
- MARKED UNCONFORMITY**
- Chinle formation**
(Green-gray and micaceous sandstone and thin beds of red-brown shale, limestone conglomerate, and variegated mud, all interfingered, channelled, and interfingering)
- Shinarump conglomerate**
(Cross-bedded lenticular conglomerate, sandstone, clay, and shale, all interfingering; much micritic wood; quartz and chert pebbles predominate in the conglomeratic portions)
- EROSIONAL UNCONFORMITY**
- Moenkopi formation**
(Green-gray argillaceous shale, argillaceous green and red shale, red micaceous ripple-marked sandstone, gray to buff sandstone, red sandstone calcareous throughout; Shinarump limestone member from 160 to 300 feet above base)
- EROSIONAL UNCONFORMITY**
- Kaibab limestone**
(Light-gray to cream-colored cherty limestone; some white; somewhat mostly in places)
- Cocoonino sandstone**
(White to buff, argillaceous, friable to hard, massive, highly cross-bedded sandstone of uneven grain; dominantly fine grained, some grit toward base; lower 10 feet largely limestone; base not exposed by erosion)
- IGNEOUS ROCKS**
- Analcite diabase dikes**
- Diabase and syenite composite sills**
- Fault**
U, upthrow; D, downthrow
- Structure contours on base of Shinarump conglomerate**
(Contour interval, 100 feet; datum means sea level. Broken lines indicate that the conglomerate has been removed by erosion)
- Strike and dip**
- Anticlinal axis**
- Synclinal axis**
- Gas well**
- Dry hole**
- Mine**

Base compiled from township plats of the U.S. General Land Office where surveyed, and from field sheets of the U.S. Geological Survey.

MAP OF PART OF THE SAN RAFAEL SWELL, UTAH
Showing areal geology and structure of the Shinarump conglomerate
Scale 1:250,000

Geology by James Gilluly and E. M. Spieker, assisted by E. T. McKnight, S. S. Nye, C. H. Dane, D. J. Fisher and W. H. Newhouse. Surveyed in 1924 and 1925.