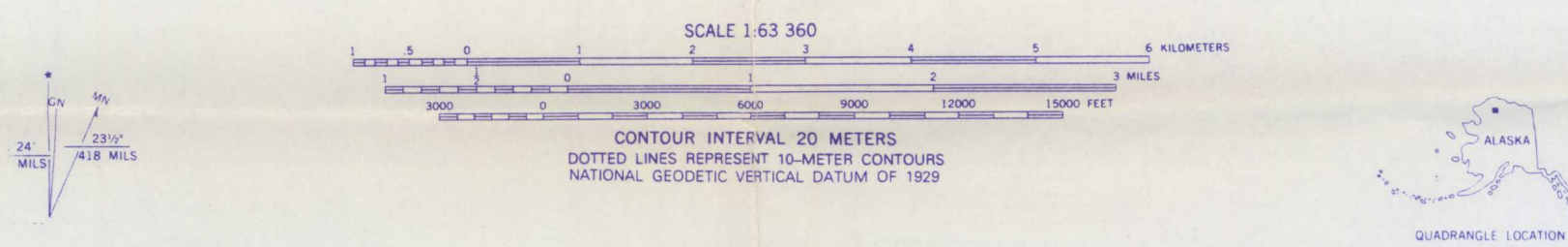
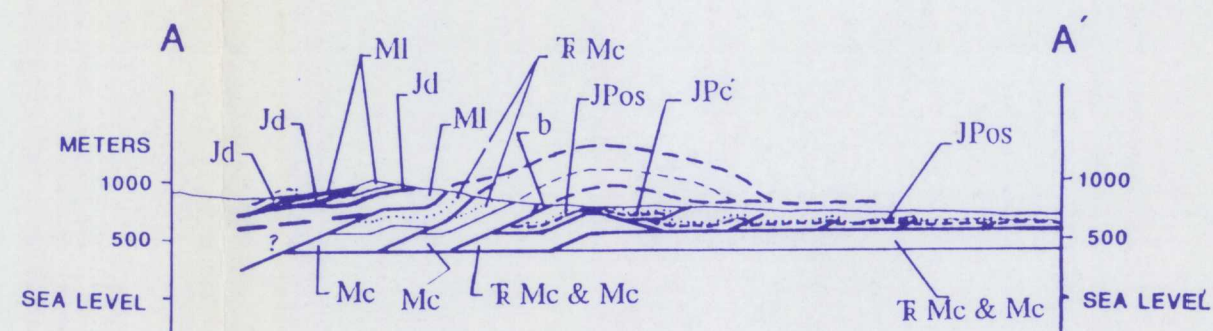


Base from
U.S. Geological Survey Howard Pass
C-3 quadrangle, 1984.

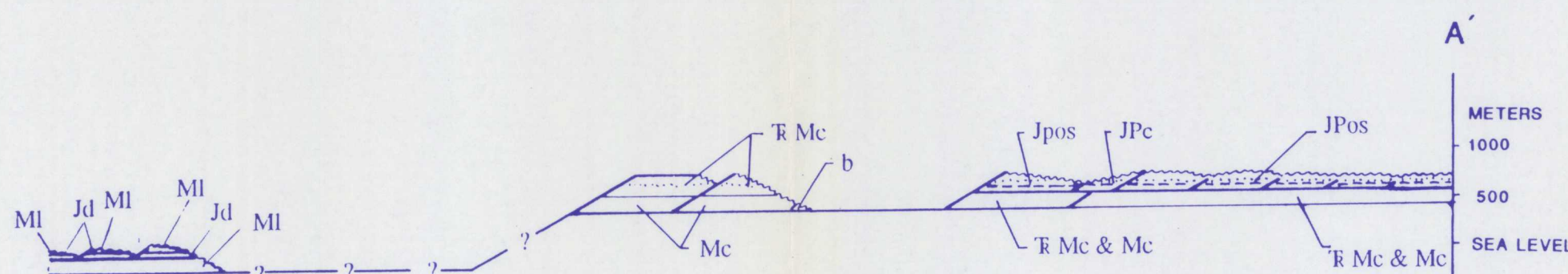
Geology modified from
1984 Tailleir and others, 1966
Tailleur and others, 1966 and field investigations by
Kelley, 1990 and Kelley and Tailleir, 1991.



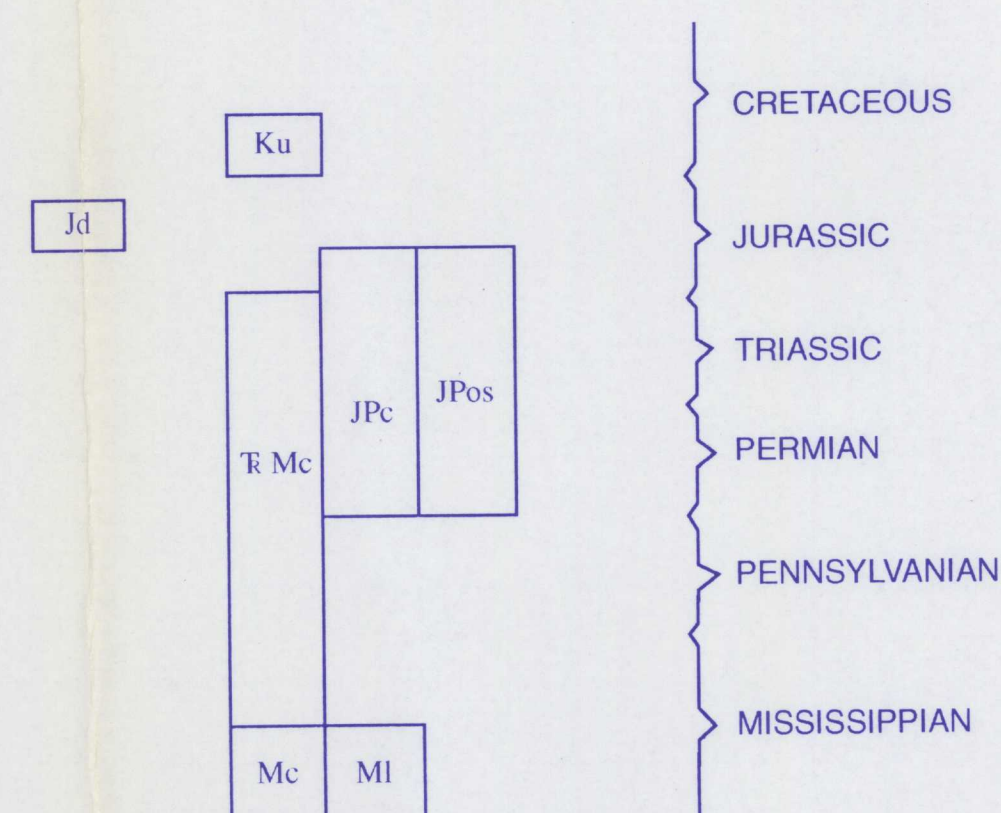
CROSS SECTION



RESTORED CROSS SECTION



CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Ku** Sandstone, conglomerate, and mudstone (Lower Cretaceous)-- Greenish-gray chert lithic wacke, granule conglomerate, and mudstone. Locally present as thin selvages of strata that unconformably overlie Lower Jurassic and older rocks in thrust sheets.
- Jd** Diabase (Jurassic ?)-- Dark-gray coarse- to very coarse grained gabbro. Present in sills that intrude Mississippian limestone.
- JPos** Otuk and Siksikuk Formations undivided (Lower Jurassic, Triassic, and Permian)-- Otuk Formation is rhythmically bedded chert, limestone, and shale. Otuk Formation includes distinctive yellowish-gray-weathering beds containing coquina. Only thin upper-most part the Otuk Formation, the Blankenship Member of the Otuk Formation, is Early Jurassic in age. The Siksikuk Formation is reddish-brown and grayish-red cherty mudstone and chert with scattered nodular lenses of barite. Siksikuk Formation is locally present in scattered rubbly outcrops and in felsenmeer.
- JPC** Chert and Otuk and Siksikuk Formations undivided (Lower Jurassic ?, Triassic, and Permian)-- Yellowish-green, greenish-gray, and very light gray rhythmically bedded chert and yellowish-gray to very light gray-weathering very cherty limestone and chert. The shale unit of the Otuk Formation, recognized elsewhere, is not recognized among these rocks.
- R Mc** Upper chert of the Cutaway area (Triassic, Permian, Pennsylvanian, and Mississippian)--Rhythmically bedded greenish-gray and light-medium-gray radiolarian ribbon chert. These rocks include strata lithologically indistinguishable from strata adjacent to map area from which radiolarians Permian to Late Triassic in age have been extracted and identified by K.M. Reed (written commun., 1992).
- Mc** Lower chert of the Cutaway area (Mississippian)-- Rhythmically bedded dark- and medium-gray radiolarian ribbon chert with black siliceous shale partings and thin interbeds. Includes limestone and tabular bodies of barite (b).
- MI** Rhythmically bedded limestone and chert of the Lisburne Group (Mississippian)-- Includes limestone beds that are normally graded and have sole marks suggestive of turbidites. Includes intervals of dark-gray and black shale and sooty black shaly limestone (sh). Nodular-form bedded chert replaces limestone and locally makes up to 50% of the section.

SYMBOLS

- Strike and dip of beds
 - Inclined
 - Vertical
 - Dip direction
- Fold axis- showing direction of plunge; dashed where approximate
 - Anticline
 - Anticline of syncline
- Contact-dashed where approximate
- Thrust fault-dashed where approximate; teeth on upper plate
- Fault-dashed where approximate
- Boundary of geologic mapping

FIGURE 4. Geologic map, cross section, and retrodeformed cross section of the Abby Creek barite deposit.