

EXPLANATION

QUATERNARY

- Qa alluvium
- Ql loess
- Qp pediment gravels

unconformity

TERTIARY

North Horn Formation

- Tf Flagstaff Limestone
- TKnhu upper member
- TKnhl lower member

Price River Formation

- Kpru upper member
- Kppl lower member

Castlegate Sandstone

CRETACEOUS

Starpoint Sandstone

- Kcg Castlegate Sandstone
- Kbm4 Mudstone 4 Member
- Kbs Sunnyside Sandstone Member
- Kbm3 Mudstone 3 Member
- Kbk Kenilworth Sandstone Member
- Kbm2 Mudstone 2 Member
- Kba Aberdeen Sandstone Member
- Kbm1 Mudstone 1 Member
- Kbs Spring Canyon Sandstone Member
- Kss Storrs Sandstone Member
- Ksp Panther Sandstone Member

Mancoos Shale

- Km1-4 Undifferentiated mudstone beds
- Kae2 Emery Sandstone Member
- Kgau Garley Canyon Sandstone Member (upper)
- Kagl Garley Canyon Sandstone Member (lower)

subsurface units

- Kmf Ferron Sandstone Member
- Kmt Tununk Shale Member
- Jd Dakota Sandstone
- Jcm Cedar Mountain Sandstone Formation
- Jm Morrison Formation

JURASSIC

SYMBOLS

- Dip and Strike
- Contact
- Inferred Contact
- Structure Contour Lines
- Inferred Structure Contour Lines
- Mine Portal

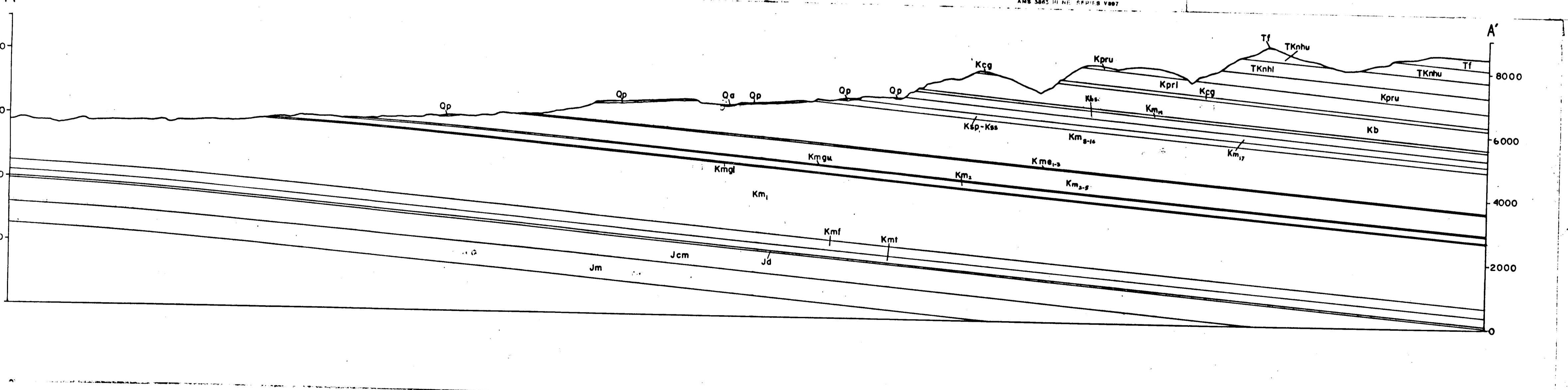
Scale 1:24,000

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION

- Primary highway: Light duty road hard or hard surface
- Secondary highway: Improved surface
- Unimproved road: hard surface
- Interstate Route
- U.S. Route
- State Route

HELPER, UTAH
NE 1/4 CASTLE GATE 18 QUADRANGLE
N3937.5-W11045.7.5
1977
AMB 5885 (11 IN. EDITION) 1987



INTERIM GEOLOGIC MAP OF THE HELPER QUADRANGLE, CARBON COUNTY, UTAH

by
Michael P. Russon

Reference: Russon, M.P., 1987, Geology, depositional environments, and coal resources of the Helper 7 1/2 quadrangle, Carbon County, Utah; Brigham Young University Geology Studies, v. 34, pt. 1, p. 131-168.
Thesis chairman: J. Keith Rigby
Field work during 1985