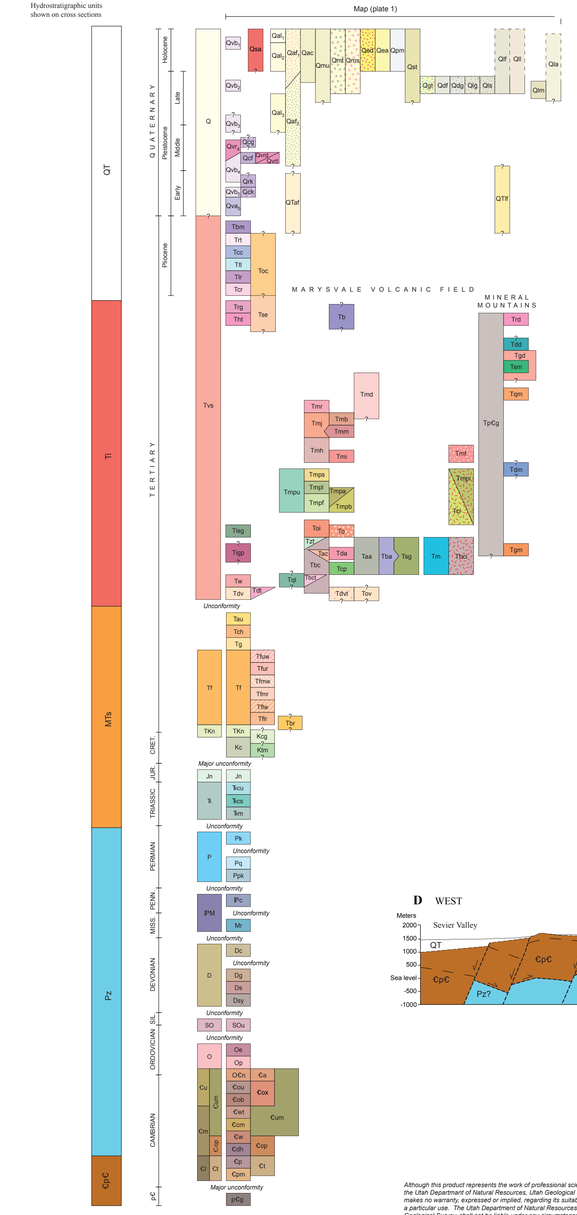
UTAH GEOLOGICAL SURVEY
*a division of*
Utah Department of Natural Resources

Plate 2
Special Study 140
Geologic and Hydrologic Characterization of Regional Nongeothermal Groundwater Resources in the Cove Fort Area, Millard and Beaver Counties, Utah

## CORRELATION OF GEOLOGIC UNITS

Hydrostratigraphic units shown on cross sections

Map (plate 1)




Correlation diagram modified from Hintze and others (2003).
See text and appendix B for complete geologic and hydrostratigraphic descriptions.

## EXPLANATION

Simplified hydrostratigraphy shown on cross sections, see text for further description

- QT — High to moderate-permeability Quaternary and Tertiary basin fill; includes sedimentary basin fill and volcanics
- Ti — Low-permeability Tertiary plutonic and volcanic rocks; includes igneous rocks of the Mineral Mountain and Tushar Mountains and rocks associated with Marysvale volcanic field
- MTs — Moderate-permeability Mesozoic and early Tertiary sedimentary rocks; includes sandstone, mudstone, shale, and minor carbonate
- Pz — Moderate to high-permeability Paleozoic carbonates; includes limestone, dolomite, also includes minor sandstone, siltstone, and shale
- CpC — Low-permeability Precambrian and Lower Cambrian rocks; includes quartzite, phyllite, shale, and minor limestone; also includes Precambrian metamorphic rocks

## SYMBOLS

- Fault; dashed where approximately located; arrow gives relative slip direction
- Contact; dashed where approximately located
- well g / TD 5207' — Well, ID corresponds with tables A.1 and A.2; TD is total depth
- SDD — Sevier Desert detachment (see discussion in text under "cross sections")

## SOURCES USED TO CONSTRUCT CROSS SECTIONS

Davis, R.L., 1983, Geology of the Dog Valley-Red Ridge area, southern Pavant Mountains, Millard County, Utah: Brigham Young University Geology Studies, v. 30, part 1, p. 19–36, scale 1:24,000.

George, S.E., 1985, Geology of the Fillmore and Kanosh quadrangles, Millard County, Utah: Brigham Young University Geology Studies, v. 32, part 1, p. 39–62, scale 1:24,000.

Hintze, L.H., 1984, Geology of the Cricket Mountains, Millard County, Utah: U.S. Geological Survey Open-File Report 84–683, 9 plates, scale 1:24,000.

Hintze, L.H., and Davis F.D., 2002, Geologic map of the Wah Wah Mountains North 30' x 60' quadrangle and part of the Garrison 30' x 60' quadrangle, southwest Millard County and part of Beaver County, Utah: Utah Geological Survey Map 182, 2 plates, scale 1:100,000.

Hintze, L.H., and Davis, F.D., 2003, The geology of Millard County, Utah: Utah Geological Survey Bulletin 133, 305 p.

Hintze, L.H., Davis, F.D., Rowley, P.D., Cunningham, C.G., Steven, T.A., and Willis, G.C., 2003, Geologic map of the Richfield 30' x 60' quadrangle, southeast Millard County, and parts of Beaver, Piute, and Sevier Counties, Utah: Utah Geological Survey Map 195, 2 plates, scale 1:100,000.

Nash, W.P., 1981, Geologic map of the South Twin Peak-Cove Creek area, west-central Utah: Unpublished report, University of Utah Department of Geology and Geophysics, 12 p., scale 1:24,000.

Rowley, P.D., Vice, G.E., McDonald, R.E., Anderson, J.J., Machette, M.N., Maxwell, D.J., Ekren, E.B., Cunningham, C.G., Steven, T.A., and Wardlaw, B.R., 2005, Interim geologic map of the Beaver 30' x 60' quadrangle, Beaver, Piute, Iron, and Garfield Counties, Utah: Utah Geological Survey Open-File Report 454, 27 p., 1 plate, scale 1:100,000.

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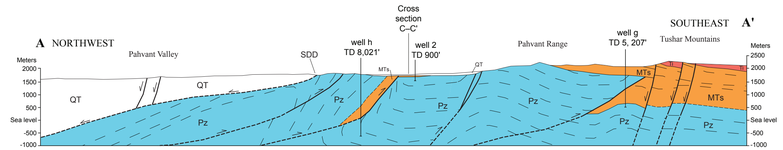


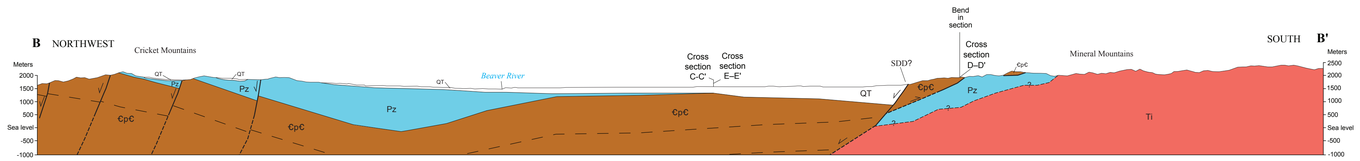


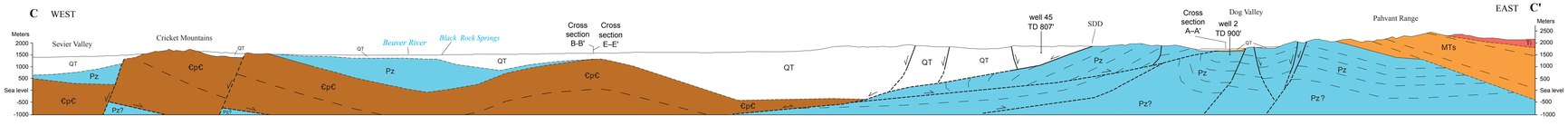


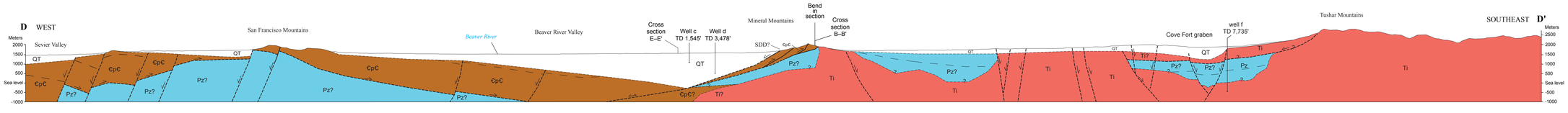


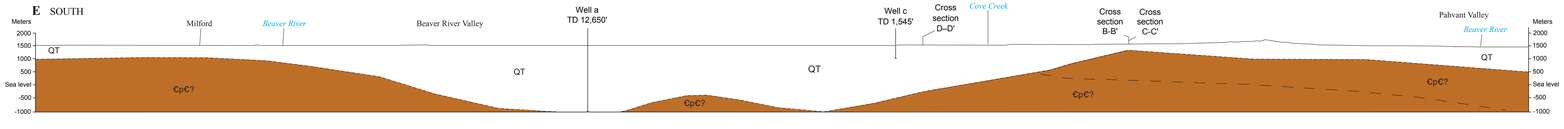


0 1.25 2.5 5 miles
0 2 4 8 km
No vertical exaggeration