

CORRELATION OF MAP UNITS

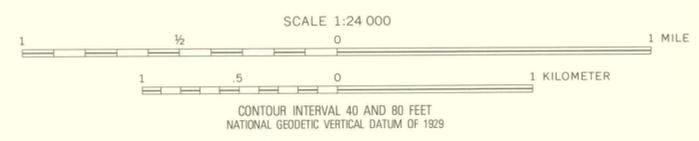
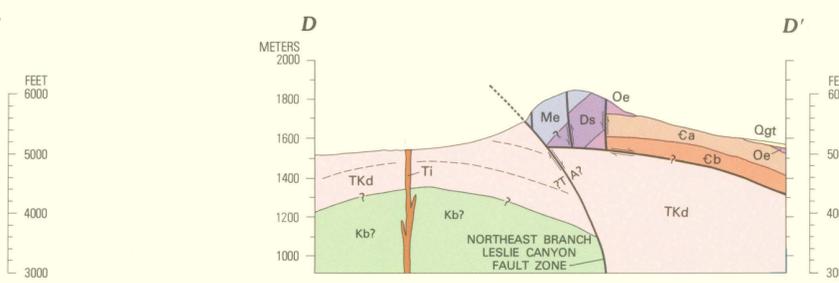
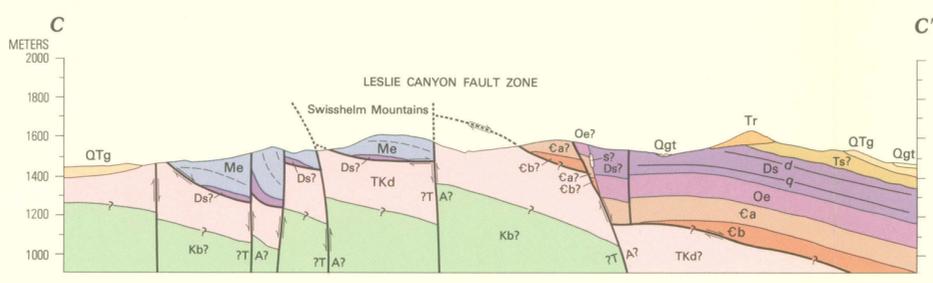
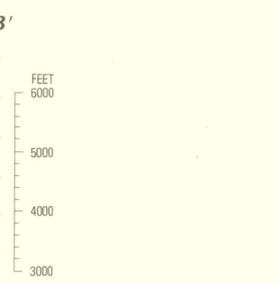
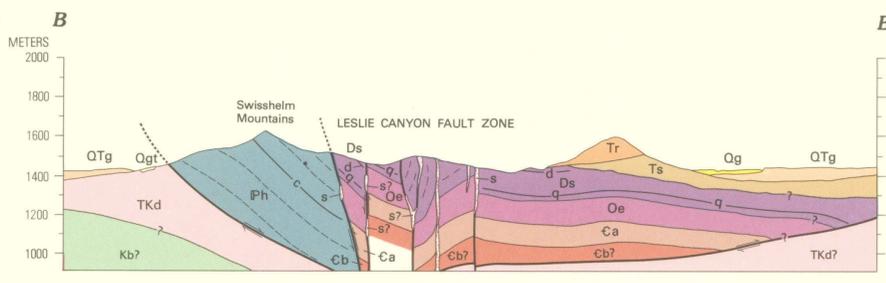
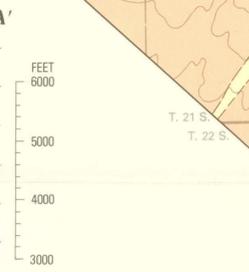
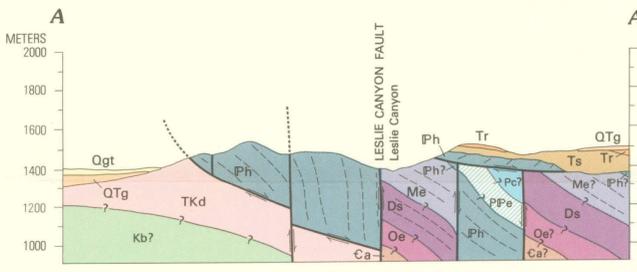
Qg	QUATERNARY
Qgt	QUATERNARY AND TERTIARY
QTg	QUATERNARY AND TERTIARY
Tr	TERTIARY
Tip	TERTIARY
Ti	TERTIARY
Ts	TERTIARY
TKd	TERTIARY AND CRETACEOUS
Kb	TERTIARY AND CRETACEOUS
Pc	PERMIAN
PPe	PENNSYLVANIAN
Ph	PENNSYLVANIAN
Me	MISSISSIPPIAN
Oe	DEVONIAN
Ca	ORDOVICIAN
Cb	CAMBRIAN

DESCRIPTION OF MAP UNITS

Qg	GRAVEL AND SAND (QUATERNARY)—Alluvium on floodplain and low terraces
Qgt	GRAVEL (QUATERNARY)—Alluvium on high terraces
QTg	GRAVEL, SAND, AND BLOCKS (QUATERNARY AND TERTIARY)—Alluvium of basins; includes some colluvial block deposits near Castle Dome
Tr	RHYOLITE AND RHYODACITE (TERTIARY): Volcanic rocks—Lava flows, tuff, and welded tuff; crystal-rich
Tip	Intrusive porphyry—Phenocryst-rich; probably related to the volcanic rocks. In plugs and dikes
Ti	Intrusive rock—Phenocryst-poor. In dikes
Ts	SEDIMENTARY ROCKS (TERTIARY)—Tuffaceous sandstone, and conglomerate
TKd	DACITIC VOLCANIC ROCKS (TERTIARY AND CRETACEOUS)—Flow breccia, lava (?), and intercalated conglomerate and sandstone; pervasively propylitized
Kb	BISBEE FORMATION (LOWER CRETACEOUS)—Olive-gray siltstone, shale, and sandstone, and some intercalated thin-bedded limestone
Pc	COLINA LIMESTONE (LOWER PERMIAN)—In structure section only
PPe	EARP FORMATION (LOWER PERMIAN AND UPPER PENNSYLVANIAN)—Reddish-gray siltstone, marlstone, and sandstone
Ph	HORQUILLA LIMESTONE (UPPER AND MIDDLE PENNSYLVANIAN)—Light-gray to pinkish-gray, thin-bedded and fine-grained to thick-bedded and coarse-grained, cherty, fossiliferous, bioclastic limestone. Includes some beds of dolomitic limestone and intercalated red siltstone
Me	ESCABROSA LIMESTONE (MISSISSIPPIAN)—Medium-gray, coarse-grained, thick-bedded to massive, cherty, bioclastic to crinoidal limestone

Ds	SWISSHELM FORMATION (UPPER EPIS, GILBERT, AND LANGENHEIM, 1957 (UPPER DEVONIAN)—Includes gray, fossiliferous, cherty limestone; brown dolomite and marlstone; shale; and sandstone and quartzite beds, some containing gypsum casts
Oe	EL PASO DOLOMITE (ORDOVICIAN)—Light- to medium-gray limestone and dolomite
Ca	ABRIGO FORMATION (UPPER AND MIDDLE CAMBRIAN)—Thin platy limestone, shale, and sandstone
Cb	BOLSA QUARTZITE (MIDDLE CAMBRIAN)—Thick-bedded coarse-grained quartzite and sandstone

—d— Marker horizon at base of thick brown dolomite unit
 —q— Marker horizon at base of thick sandstone and quartzite unit
 —s— SILICIFIED ROCK
 —c— CONTACT—Showing dip. Dashed where inferred
 —f— FAULT—Dashed where inferred; dotted where concealed
 Normal fault—Showing inclined and vertical dips. Bar and ball on downthrown side
 Thrust fault—Showing dip. Sawteeth on upper plate
 Strike-slip fault—Showing dip. Arrow couple shows relative movement
 Fault on cross section—Arrow couple shows relative movement. A, movement away from viewer; T, toward viewer. Queried where basis for projection is lacking
 STRIKE AND DIP OF BEDS:
 Horizontal
 Inclined
 Vertical
 Overturned
 STRIKE OF VERTICAL FLOW FOLIATION
 MINOR FOLD—Showing strike and dip of axial plane and plunge of axis



Geology by P. T. Hayes, 1968; and Drewes, 1968, 1969, and 1972, assisted by A. J. Toews, 1969, and G. K. Lee, 1972

GEOLOGIC MAP AND STRUCTURE SECTIONS OF THE SOUTHERN SWISSHELM MOUNTAINS, ARIZONA