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MAP 58
GEOLOGIC MAP OF THE LAKETOWN QUADRANGLE, RICH COUNTY, UTAH

Base from U.S. Geological Survey
Topographic quadrangle: Laketown,
Utah, 1969.

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

Approximate Mean Declination, 1965

Archives Approval No. 81000085
Appropriations No. 016103

ERA	SYSTEM	FORMATION	SYMBOL	THICKNESS IN FEET (METERS)	DESCRIPTION
CENOZOIC	QUATERNARY		Qal, Qls, Qc		Alluvium and lake deposits, landslide debris, colluvium.
CENOZOIC	TERTIARY (EOCENE)	WASATCH FORMATION	Tw	1000+ (305+)	Gray to red shale, sandstone, and conglomerate; fresh-water limestone, locally pisolitic or oncolitic; not measured.
					MAJOR UNCONFORMITY
MESOZOIC	JURASSIC	TWIN CREEK LIMESTONE	Jtc	NOT EXPOSED	Limestone and shale, medium to light gray; weathers into long, splintery, dark colored fragments (Imlay, 1953). Approximately 2300 feet (701 meters) penetrated in Marathon Oil No. 1-15 South Eden Canyon well (NE corner of quadrangle).
MESOZOIC	JURASSIC	NUGGET SANDSTONE	Jn	1300 (?) (396 ?)	Quartz sandstone, white to red, fine to medium grained, cross-bedded; not measured.
MESOZOIC	TRIASSIC	ANKAREH FORMATION	TRa	938+ (286+)	Shale, siltstone, and sandstone, gray to red, calcareous; thin-bedded shaly limestone.
MESOZOIC	TRIASSIC	THAYNES FORMATION	TRt	1060 (323)	Massive limestone at base and top, gray to brown weathering; middle part gray to tan siltstone, shale, and thin-bedded limestone; fossiliferous.
MESOZOIC	TRIASSIC	DINWOODY-WOODSIDE FORMATIONS UNDIVIDED	TRdw	1178 (359)	Siltstone and calcareous shale, drab colored; olive to brownish-gray, thin-bedded limestone; red bed tongues.
MESOZOIC	PERMIAN	PHOSPHORIA FORMATION	Pp	218 (67)	Dark oolitic, pelletoidal, phosphatic shale at base; upper part yellowish chert.
MESOZOIC	PENNSYLVANIAN	WELLS (?) FORMATION	IPw	579 (177)	Cherty limestone, gray to yellowish-brown, sandy; limestone breccia, and medium-grained calcareous quartz sandstone.
MESOZOIC	MISSISSIPPIAN	MONROE CANYON LIMESTONE	Mmc	287 (88)	Bioclastic limestone, bluish-gray, medium to thick-bedded; cherty in middle, dolomitic at top.
MESOZOIC	MISSISSIPPIAN	LITTLE FLAT FORMATION	Mlf	700 - 800 (213 - 244)	Dark phosphatic shale and thin, cherty limestone at base; interbedded yellowish-gray to brown thick-bedded sandy dolomite and calcareous sandstone.
MESOZOIC	MISSISSIPPIAN	LODGEPOLE LIMESTONE	Ml	703 (214)	Cherty limestone, gray, thin-bedded.
PALEOZOIC	DEVONIAN	THREE FORKS FORMATION	Dt	233 (71)	Limestone, solution (?) breccia, and shale; reddish-orange, halite casts.
PALEOZOIC	DEVONIAN	HYRUM FORMATION	Dh	700 - 900 (213 - 274)	Dolomite, brown weathering, thick-bedded, cliff forming. Sandstone (Beirdneau Formation ?) at top, light-colored. Partial equivalent of Jefferson Formation.
PALEOZOIC	DEVONIAN	WATER CANYON FORMATION	Dwc	239 (73)	Dolomite and sandstone, gray to brown, thin-bedded, argillaceous; fish scales.
PALEOZOIC	SILURIAN	LAKETOWN DOLOMITE	Sl	1124 (343)	Dolomite, light gray, thick-bedded, cliff forming.
PALEOZOIC	ORDOVICIAN	GARDEN CITY LIMESTONE	Ogc	948 (289)	Platy limestone, gray, thin-bedded, fossiliferous; locally argillaceous with pastel-colored shaly partings. Flat pebble conglomerate. May include dark, cherty Fish Haven dolomite at top.
PALEOZOIC	CAMBRIAN	ST. CHARLES FORMATION	Csc	645+ (197+)	Dolomite, gray to tan, thick-bedded, base not exposed.
PALEOZOIC	CAMBRIAN	NOUNAN FORMATION	Cn	NOT EXPOSED	Limestone, massive to medium-bedded, blue-gray (Richardson, 1941).
PALEOZOIC	CAMBRIAN	BLOOMINGTON FORMATION	Cb	NOT EXPOSED	Limestone, and shale, thin-bedded, grayish, fossiliferous (Richardson, 1941).
PALEOZOIC	CAMBRIAN	BLACKSMITH DOLOMITE	Cbl	319+ (97+)	Dolomite and limestone, light to dark bluish-gray, cliff former, neither base nor top exposed.
PALEOZOIC	CAMBRIAN	UTE FORMATION	Cu	1103 (336)	Limestone, thin-bedded, gray; shale, green calcareous; fossiliferous.
PALEOZOIC	CAMBRIAN	LANGSTON FORMATION	Cl	594+ (181+)	Limestone and dolomite, tan to bluish-gray, thin to thick-bedded; base not exposed.
PALEOZOIC	PRECAMBRIAN-CAMBRIAN	BRIGHAM QUARTZITE	PC-Cbr	THICKNESS UNKNOWN	Massive appearing quartzite, brownish to pinkish-gray, pebbly; partially exposed.

FEET 1000 500 0

EXPLANATION

CENOZOIC
- QUATERNARY
  - Qal — Alluvium and lake deposits
  - Qls — Landslide debris
  - Qc — Colluvium
- TERTIARY
  - Tw — Wasatch Formation
  - MAJOR UNCONFORMITY
- MESOZOIC
  - JURASSIC
    - Jtc — Twin Creek Limestone
    - Jn — Nugget Sandstone
  - TRIASSIC
    - TRa — Ankareh Formation
    - TRt — Thaynes Formation
    - TRdw — Dinwoody-Woodside fomations
  - PERMIAN
    - Pp — Phosphoria Formation
  - PENNSYLVANIAN
    - IPw — Wells (?) Formation
  - MISSISSIPPIAN
    - Mmc — Monroe Canyon Limestone
    - Mlf — Little Flat Formation
    - Ml — Lodgepole Limestone
- PALEOZOIC
  - DEVONIAN
    - Dt — Three Forks Formation
    - Dh — Hyrum Formation
    - Dwc — Water Canyon Formation
  - SILURIAN
    - Sl — Laketown Dolomite
  - ORDOVICIAN
    - Ogc — Garden City Limestone
  - CAMBRIAN
    - Csc — St. Charles Formation
    - Cn — Nounan Formation
    - Cb — Bloomington Formation
    - Cbl — Blacksmith Dolomite
    - Cu — Ute Formation
    - Cl — Langston Formation
  - PRECAMBRIAN-CAMBRIAN
    - PC-Cbr — Brigham Quartzite

LINE SYMBOLS
(dashed where inferred, dotted where concealed)

Contact

Fault
Arrows show relative horizontal displacement

Thrust Fault
Sawteeth on hanging wall

High-Angle Fault
U, upthrown side; D, downthrown side

FOLDS
Showing trace of axial plane and direction of plunge

Anticline

Overturned Anticline

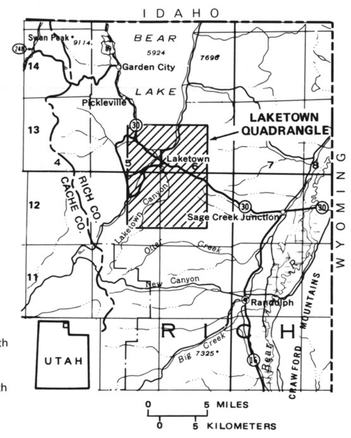
Syncline

Well drilled for oil and/or gas temporarily abandoned; total depth

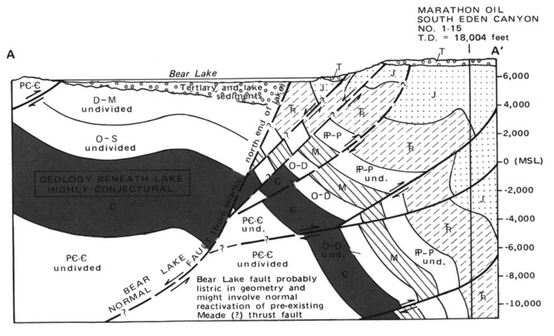
Staked well location; target depth

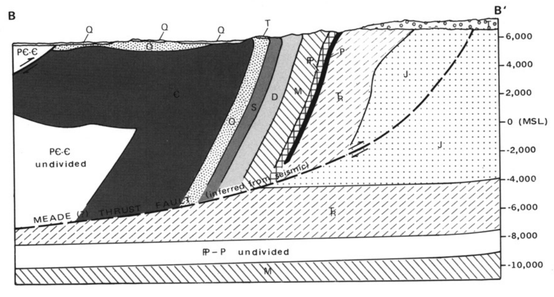
Mineral Prospect
Mn = Manganese P = Phosphate

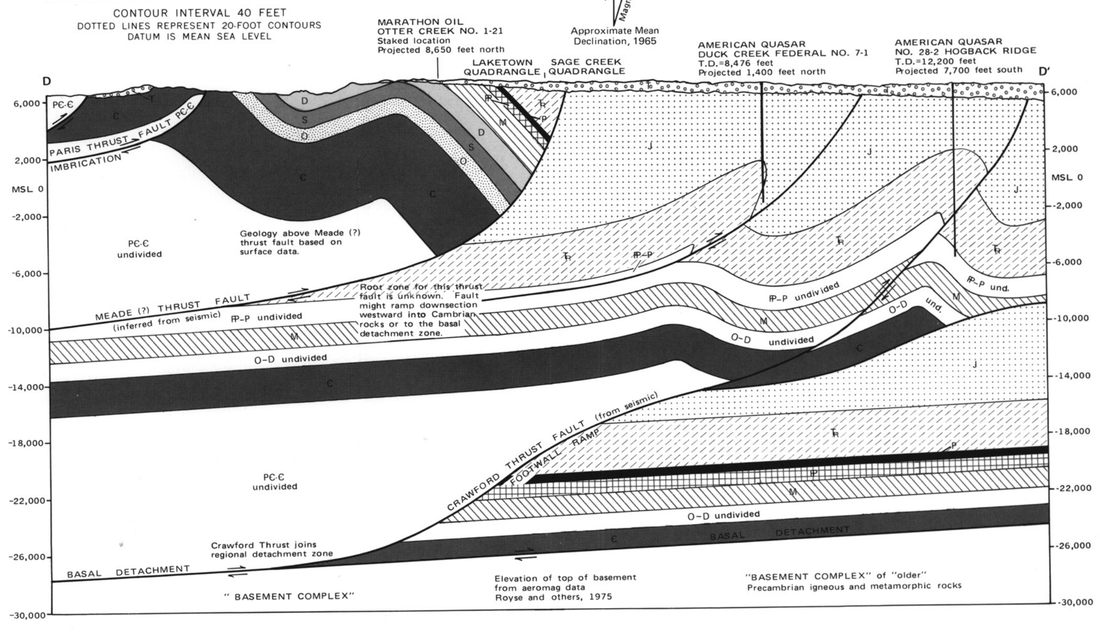
STRIKE AND DIP OF BEDS
Horizontal Inclined Vertical Overturned

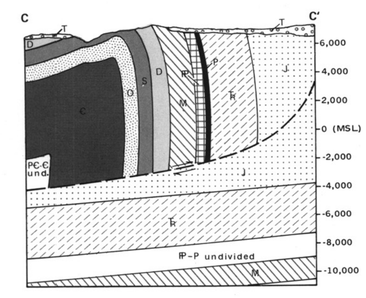


LOCATION MAP









EXPLANATION FOR CROSS-SECTIONS ONLY

- Q QUATERNARY
- T TERTIARY
- J JURASSIC
- TR TRIASSIC
- P PERMIAN
- IP PENNSYLVANIAN
- M MISSISSIPPIAN
- D DEVONIAN
- S SILURIAN
- O ORDOVICIAN
- Є CAMBRIAN
- PC PRECAMBRIAN

ALL PERIODS UNDIVIDED
Not all Quaternary deposits are shown

Feet 5,000 0 — 0 Feet 5,000

MAP 58
PRELIMINARY GEOLOGIC MAP OF THE LAKETOWN QUADRANGLE, RICH COUNTY, UTAH

June 1982

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