



**CORRELATION OF MAP UNITS**

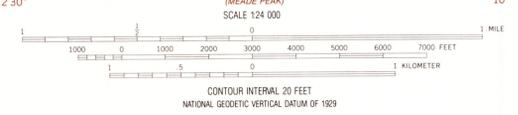
Qa	Qs	}	QUATERNARY
Qts			QUATERNARY AND TERTIARY
Qtb	}	}	QUATERNARY OR TERTIARY
Tsl			Pleistocene or Pliocene
Tw	}	}	TERTIARY
Jt			Pliocene and Miocene
Tt	}	}	JURASSIC
Td			Eocene
Ppr	}	}	PERMIAN
Ppm			Middle Jurassic
PPw	}	}	PERMIAN AND PENNSYLVANIAN
Mc			Lower Triassic
Mm			MISSISSIPPIAN

- DESCRIPTION OF MAP UNITS**
- Qa ALLUVIUM (QUATERNARY) - Unconsolidated sedimentary deposits along stream valleys; may include colluvium in Fossil Canyon quadrangle and hillwash and alluvial fans in Dry Valley quadrangle
  - Qs SURFICIAL DEPOSITS (QUATERNARY) - Includes colluvium, older alluvium, hillwash, talus, alluvial-fan, landslide, mudflow, and boulder deposits
  - \* Qts SEDIMENTARY DEPOSITS (QUATERNARY AND TERTIARY) - Undivided surficial deposits and Salt Lake Formation
  - \* Qtb BASALT (PLEISTOCENE OR PLIOCENE) - Olivine and augite-olivine basalt
  - \* Tsl SALT LAKE FORMATION (PLIOCENE AND MIOCENE) - Limestone, sandstone, and chert conglomerate, and rhyolitic tuff
  - \* Tw WASATCH FORMATION (LOWER EOCENE) - Red conglomerate and sandstone
  - Jt TWIN CREEK LIMESTONE (MIDDLE JURASSIC) - Limestone, siltstone, and sandstone. Approximately 2,610 ft thick
  - \* Tt THAYNES LIMESTONE (LOWER TRIASSIC) - Sandstone, limestone, siltstone, and shale. As mapped, may include the Lanes Tongue of the Ankaeh Formation
  - Td DINWOODY FORMATION (LOWER TRIASSIC) - Siltstone, shale, and limestone. As mapped, may include tongue of the Woodside Shale. Approximately 1,200 to 1,600 ft thick
  - Ppr PHOSPHORIA FORMATION (PERMIAN) - Includes: Rex Chert Member (Lower Permian) - Chert. As mapped, may include cherty shale member of the Phosphoria Formation and lentils of the Franson Member of the Park City Formation. Approximately 280 ft thick
  - Ppm Meade Peak Phosphatic Shale Member (Lower Permian) - Phosphorite and mudstone. Approximately 150 to 200 ft thick
  - PPw WELLS FORMATION (PERMIAN AND PENNSYLVANIAN) - Sandstone and limestone. As mapped, may include the Grandeur Tongue of the Park City Formation. Approximately 1,500 to 1,600 ft thick
  - Mc CHESTERFIELD RANGE GROUP (UPPER AND LOWER MISSISSIPPIAN) - Limestone, sandstone, and siltstone. Approximately 1,650 ft thick
  - \* Mm MADISON LIMESTONE (UPPER AND LOWER MISSISSIPPIAN) - Limestone

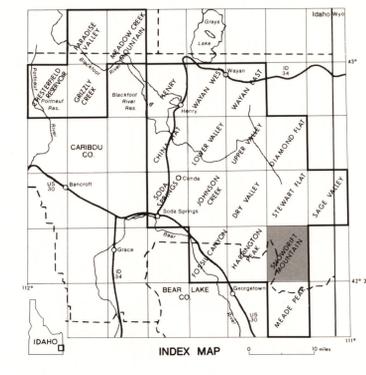
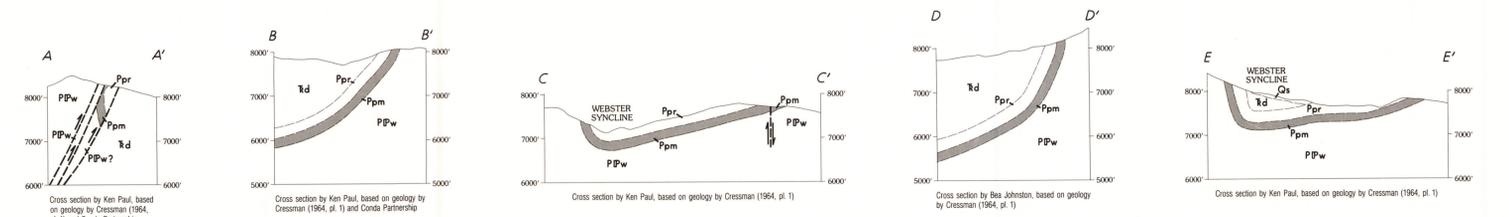
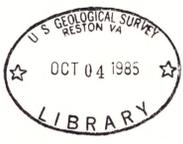
- CONTACT - Dashed where approximately located, gradational, indefinite or inferred; dotted where concealed; queried where doubtful
- FAULT - Dashed where approximately located or inferred; dotted where concealed; queried where doubtful. U, upthrown side; D, downthrown side; arrows show relative horizontal movement
- THRUST FAULT - Sawtooth on upper plate. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
- ANTICLINE - Showing crestline. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
- SYNCLINE - Showing troughline. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
- OVERTURNED ANTICLINE - Showing direction of dip of limbs. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
- OVERTURNED SYNCLINE - Showing direction of dip of limbs. Dashed where approximately located or inferred; dotted where concealed; queried where doubtful
- STRIKE AND DIP OF BEDS - Inclined; overturned; vertical; horizontal
- PHOSPHATE DRILL HOLE - For computing resource tonnages
- PHOSPHATE TRENCH - As of September 1979

- FAULT SEPARATION - No calculated resource
- FAULT OVERLAP - Twice calculated resources if covered by 1500 ft. or less of overburden
- FAULT TRACE AT DEPTH
- STRUCTURE CONTOURS - On top of the Meade Peak Phosphatic Shale Member of the Phosphoria Formation. Contour interval 200 feet. Approximately located; dashed where contours are projected past control points or where structure is uncertain. Structure contours of overturned beds may not be shown in secs. 20, 29, 30 and 31, T. 9 S., R. 45 E., sec. 6, T. 10 S., R. 45 E., and sec. 1, T. 10 S., R. 44 E.
- Index Contour
- Intermediate Contour

Base from U.S. Geological Survey, 1949



Geology compiled by Pamela Palmer from Cressman (1964, pl. 1) and Conda Partnership; geologic interpretation by Ken Paul, Bea Johnston, and R. David Hovland; structure contours by Ken Paul and Pamela Dunlap Derkey; pt boundaries by Pamela Dunlap Derkey; drill hole and trench logs analyzed by Alexandra Zemanek and Mahasti Fakourbayat; assisted by Marge Lane; cartography by David Taylor and Gibb C. Johnson



**STRUCTURE CONTOURS ON THE TOP OF THE MEADE PEAK PHOSPHATIC SHALE MEMBER  
MAPS SHOWING SELECTED GEOLOGY AND PHOSPHATE RESOURCES OF THE SNOWDRIFT MOUNTAIN QUADRANGLE,  
BEAR LAKE AND CARIBOU COUNTIES, IDAHO**

By  
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1985



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