UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PRELIMINARY GEOLOGIC MAP OF DELTA 2° QUADRANGLE, WEST-CENTRAL UTAH

By
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Open-File Report
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U. S. Geological Survey
OPEN FILE REPORT
This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.
DESCRIPTION OF MAP UNITS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTs</td>
<td>SEDIMENTARY DEPOSITS (Quaternary and Tertiary)—Chiefly valley-fill deposits and alluvium; includes both the Salt Lake Formation, here of Pliocene age, and the Quaternary Lake Bonneville deposits</td>
<td></td>
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<tr>
<td>Qbu</td>
<td>BASALT FLOWS, UNDIFFERENTIATED (Quaternary)—Chiefly isolated exposures of uncertain affinity</td>
<td></td>
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<tr>
<td>Qb₁-₄</td>
<td>BASALT FLOWS (Quaternary)—Subscript numbers indicate successively younger flows, one being the oldest, in any mountain range. Mostly separate, distinctive flows in local eruptive centers</td>
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<tr>
<td>Qbc</td>
<td>BASALT CONE (Quaternary)—Chiefly identifies Pavant Butte, a tuff cone</td>
<td></td>
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<tr>
<td>Qt</td>
<td>BASALT TUFFS AND GRAVELS (Quaternary)</td>
<td></td>
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<tr>
<td>Tb</td>
<td>INTRUSIVE BRECCIA (Miocene)—Occurs as breccia pipes</td>
<td></td>
</tr>
<tr>
<td>Teb</td>
<td>EXTRUSIVE BRECCIA (Miocene)—Material erupted from breccia pipes</td>
<td></td>
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<tr>
<td>Tyg</td>
<td>YOUNGER GRANITIC ROCKS (Miocene)—Chiefly porphyritic stocks, plugs, and large dikes</td>
<td></td>
</tr>
<tr>
<td>Tya₁-₂</td>
<td>YOUNGER ACIDIC VOLCANIC ROCKS (Miocene)—Subscript numbers indicate successively younger units. Includes Topaz Mountain Rhyolite of Erickson (1963) and related volcanic units</td>
<td></td>
</tr>
</tbody>
</table>
Tyi  YOUNGER INTERMEDIATE VOLCANIC ROCKS (Miocene)—Chiefly latite and quartz latite

Tyt₁₋₂  YOUNGER TUFFS (Miocene)—Subscript numbers indicate successively younger units in any mountain range

Tls  LANDSLIDE DEPOSITS (Miocene)—Extensive coherent landslide masses in northeastern Drum Mountains

Tgr  GRAVEL (Miocene)—Semiconsolidated conglomerate below Miocene volcanic rocks in East Tintic Mountains

Tog₁₋₃  OLDER GRANITIC ROCKS (Oligocene)—Subscript numbers indicate successively younger units in any mountain range. Chiefly monzonite and quartz monzonite porphyry stocks, plugs, and large dikes

Togs  OLDER GRANITIC SILLS (Oligocene)—Thick and extensive sills in the East Tintic Mountains

Toa₁₋₂  OLDER ACIDIC VOLCANIC ROCKS (Oligocene)—Subscript numbers indicate successively younger units in any mountain range. Chiefly includes Needles Range Formation

Toi₁₋₃  OLDER INTERMEDIATE VOLCANIC ROCKS (Oligocene)—Subscript numbers indicate successively younger units in any mountain range. Chiefly latite or quartz latite

Tob₁₋₅  OLDER BASIC VOLCANIC ROCKS (Oligocene)—Subscript numbers indicate successively younger units in any mountain range
OLDER TUFFS (Oligocene)—Range from acidic tuffs and breccias to basic tuffs and breccias.

OLDER VOLCANO-SEDIMENTARY ROCKS (Oligocene)—Subscript numbers indicate successively younger units in any mountain range. Includes Sage Valley Limestone Member of Muessig (1951) and an older volcanic conglomerate in east-central part of map area.

PREVOLCANIC SEDIMENTARY DEPOSITS (Oligocene)—Chiefly fanglomerate and alluvium.

FLAGSTAFF LIMESTONE (Eocene and Paleocene)—Mostly algal limestone interlayered with continental deposits.

NORTH HORN FORMATION (Paleocene and Upper Cretaceous)—Chiefly continental red beds.

PRICE RIVER FORMATION (Upper Cretaceous)—Synorogenic conglomerate with some sandstone and shale.

INDIANOLA GROUP (Upper Cretaceous)—Synorogenic conglomeratic with some sandstone and shale.

DIKES (Lower Jurassic)—Quartz monzonite porphyry dikes in northern House Range.

HOUSE RANGE INTRUSION (Lower Jurassic)—Quartz monzonite stock in House Range.

NAVAJO SANDSTONE (Lower Jurassic)—In lower plate of Pavant thrust fault, Pavant Range, southeastern part of map area.
THAYNES LIMESTONE (Lower Triassic)--Exposed locally in Confusion Range

PARK CITY GROUP AND PARK CITY FORMATION (Upper and Lower Permian)--
Group includes Kaibab, Plympton, and Gerster Formations in Confusion Range and Kaibab Limestone, including a tongue of Meade Peak Phosphatic Shale Member in the East Tintic Mountains

ARCTURUS FORMATION (Lower Permian)--Exposed in Confusion Range

DIAMOND CREEK(?) SANDSTONE (Lower Permian)--Exposed in southern East Tintic and Gilson Mountains

ELY LIMESTONE (Lower Permian, Pennsylvanian, and Upper Mississippian)--Chiefly in western part of map area

OQUIRRH GROUP (Lower Permian and Pennsylvanian)--Includes West Canyon, Butterfield Peaks, Bingham Mine, and Furner Valley Formations in eastern part of map area

UPPER MISSISSIPPIAN STRATA--Chiefly includes Chainman Shale in western part of map area and Deseret, Humbug, and Great Blue Formations in eastern part of map area

LOWER MISSISSIPPIAN STRATA--Chiefly includes Fitchville and Gardison Formations in eastern part of map area. Locally includes some Upper Devonian strata in lowest part of Fitchville Formation
MD  MISSISSIPPIAN AND DEVONIAN STRATA, UNDIFFERENTIATED (Lower Mississippian and Upper Devonian)—Includes Chainman Shale, Joana Limestone, and Pilot Shale in central and northern Confusion Mountains, and Joana Limestone and Pilot Shale in southern Confusion Mountains

Du  UPPER DEVONIAN STRATA—Includes Guilmette Formation, which locally contains some Middle Cambrian beds, in western part of map, and Victoria Formation and Pinyon Peak Limestone in eastern part of map area

Dm  MIDDLE DEVONIAN STRATA—Consists of Simonson Dolomite in central and western parts of map area

Dl  LOWER DEVONIAN STRATA—Consists of Sevy Dolomite in central and western parts of map

Sm  MIDDLE SILURIAN STRATA—Includes Laketown Dolomite in western part of map area and Bell Hill, Harrisite, Lost Sheep, and Thursday Dolomites in central part of map area

Ou  UPPER ORDOVICIAN STRATA—Includes Ely Springs Dolomite in western part of map area, Ely Springs and Floride Dolomites in central part of map, and Fish Haven Dolomite in eastern part of map area

DOb  BLUEBELL DOLOMITE (Upper, Middle, and Lower Devonian, Middle Silurian, and Upper Ordovician)—Chiefly in East Tintic Mountains
SO  LAKETOWN AND FISH HAVEN DOLOMITES, UNDIFFERENTIATED (Middle Silurian and Upper Ordovician)—Chiefly small, isolated, and unfossiliferous exposures

Om  MIDDLE ORDOVICIAN STRATA—Includes Swan Peak or Watson Ranch Quartzite, Crystal Peak Dolomite, and Eureka Quartzite in western part of map area, and Swan Peak or Eureka Quartzite in central part of map area

Ol  LOWER ORDOVICIAN STRATA—Includes Pogonip Group in western and central parts of map and equivalent Opohonga Limestone in the East Tintic Mountains

OC  CHOKECHERRY DOLOMITE (Lower Ordovician? and Upper Cambrian)—Occurs in Deep Creek Mountains

Cu  UPPER CAMBRIAN STRATA, UNDIFFERENTIATED

Cuu  UPPER PART OF UPPER CAMBRIAN SECTION—Includes the Notch Peak Formation, which locally includes a few feet of Upper Ordovician strata at top, in middle part of map area

Cu1  LOWER PART OF UPPER CAMBRIAN SECTION—Includes chiefly the Weeks, Orr, Dunderberg, Johns Wash, and Corset Spring Formations in the central part of the map area. Locally the Weeks Limestone contains some Middle Cambrian beds

Cm  MIDDLE CAMBRIAN STRATA, UNDIFFERENTIATED
Cmn  UPPER PART OF MIDDLE CAMBRIAN SECTION--Chiefly includes the Marjum Formation in the central part of the map area

Cml  LOWER PART OF MIDDLE CAMBRIAN SECTION--Chiefly includes Tatow, Howell, Chisholm, Dome, Whirlwind, Swasey, and Wheeler Formations in central part of map area

C1  LOWER CAMBRIAN STRATA--Includes Prospect Mountain, Cabin, Busby, and Pioche Formations in western and central parts of map area, and Tintic Quartzite in eastern part of map area

G  PALEOZOIC STRATA, UNDIFFERENTIATED--Chiefly small thrust slices in the Sheprock and West Tintic Mountains

Zmi  MUTUAL AND INKOM FORMATIONS (Precambrian Z)--Prominently exposed in Drum, Sheprock, and Canyon Mountains

Yu  SHEEPROCK GROUP OF HARRIS (1958), UNDIFFERENTIATED (Precambrian Y)--Prominently exposed in Sheprock Mountains and Canyon Range. Includes questionable Big Cottonwood Formation in East Tintic Mountains

Ysu  UPPER PART OF SHEEPROCK GROUP (Precambrian Y)--Weakly metamorphosed in most exposures, but moderately to strongly metamorphosed in southern Deep Creek Mountains

Ydp  DUTCH PEAR TILLITE OF COHENOUR (1959) (Precambrian Y)--Distinctive boulder phyllite extensively exposed in Sheprock Mountains; moderately metamorphosed in southern Deep Creek Mountains
Ysl

LOWER PART OF SHEEPROCK GROUP (Precambrian Y)—Extensively exposed in Simpson and Sheeprock Mountains; moderately metamorphosed in southern Deep Creek Mountains

Contact

Fault; dotted where concealed

Thrust fault; dotted where concealed

In crowded areas, staple indicates same map unit on both sides of fault
REFERENCES


Harris, DeVerle, 1958, The geology of Dutch Peak area, Sheeprock Range, Tooele County, Utah: Brigham Young Univ. Research Studies Geology Ser., v. 5, no. 1, 82 p.