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Figure 8

Geology of the northern Canyon Range
Millard and Juab Counties, Utah

JOHN C. HOLLADAY
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N NM 16°

UTAH
LOCATION

SCALE 1:24,000
1 0 .5 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER
CONTOUR INTERVAL 80 FEET

EXPLANATION

Q QUATERNARY DEPOSITS Undifferentiated coarse alluvial fan debris, colluvium, stream rubble, and Lake Bonneville silts.

Tc CONGLOMERATE (TERTIARY) Largely unconsolidated boulders and cobbles derived from the Canyon Range Formation.

To OAK CITY FORMATION (MIOCENE) Unconsolidated alluvial outwash of boulders, cobbles and sand; 350 m exposed.

Tf FOOL CREEK CONGLOMERATE (OLIGOCENE) Poorly exposed, consolidated conglomerate of rounded quartzite and limestone clasts.

Tr RED BEDS (TERTIARY) Siltstone and shale, interbedded non-marine limestone, sandstone, and pebble conglomerate; 780 m exposed.

CANYON RANGE FORMATION (UPPER CRETACEOUS AND TERTIARY)

TKcu UPPER MEMBER Interbedded conglomerate, sandstone, siltstone, and shale; non-marine limestone in upper part; 1200 m exposed.

FAULT

TKcm MIDDLE MEMBER Coarse, resistant, quartzite boulder conglomerate; clasts up to 2 m; 125-600 m exposed

TKcl LOWER MEMBER Limestone cobble and boulder conglomerate; minor quartzite clast conglomerate; 265-400 m thick.

CANYON RANGE ALLOCHTHON

Cu CARBONATES UNDIVIDED (UPPER AND MIDDLE CAMBRIAN) Limestone and dolomite, unfossiliferous; 0-360 m thick.

Cwh WHEELER SHALE (MIDDLE CAMBRIAN) Light olive gray, calcareous shale and interbedded medium gray limestone; Elrathia and Peronopsis abundant; 30 m thick.

Cs SWASEY LIMESTONE (MIDDLE CAMBRIAN) Medium gray, massive limestone; 5 percent silty laminations; 186 m thick.

Cw WHIRLWIND FORMATION (MIDDLE CAMBRIAN) Olive gray, calcareous, silty shale and interbedded limestone; Elmaniella hash; 40-50 m thick.

Cd DOME LIMESTONE (MIDDLE CAMBRIAN) Massive, irregularly bedded, medium gray limestone; 5 percent shale interbeds; 50-60 m thick.

Cc CHISHOLM FORMATION (MIDDLE CAMBRIAN) Olive gray, micaceous shale; 35 percent medium gray limestone; Glossopleura hash, oncolitic; 75 m thick.

Ch HOWELL LIMESTONE (MIDDLE CAMBRIAN) Massive,medium gray limestone; oncolitic; 90 m thick.

Cp PIOCHE FORMATION (MIDDLE AND LOWER CAMBRIAN) Micaceous to phyllitic shale; massive, grayish orange quartzite interbeds with Skolithus ; 230 m thick.

Ct TINTIC QUARTZITE (LOWER CAMBRIAN) Grayish orange pink, thick to massive quartzite; some cross-bedding; 10-20 percent conglomerate interbeds; 850 m thick.

MUTUAL FORMATION (PRECAMBRIAN)

pCmu UPPER MEMBER Interbedded pinkish gray siltstone and quartzite; 75-250 m thick.

pCml LOWER MEMBER Pale reddish brown, massive quartzite; some cross-bedding; 5-10 percent conglomerate interbeds; 500 m thick.

pCi INKOM FORMATION (PRECAMBRIAN) Micaceous to phyllitic, light olive gray shale; 90 m thick.

pCc CADDY CANYON QUARTZITE (PRECAMBRIAN) Pale orange, massive quartzite; cross-bedding; minor interbedded conglomerate; 585 m thick.

pCb BLACKROCK CANYON LIMESTONE (PRECAMBRIAN) Medium dark gray, massive limestone; oolitic; 45-170 m thick.

POCATELLO FORMATION (PRECAMBRIAN)

pCpu UPPER SHALE AND QUARTZITE UNIT Phyllitic shale grading southward to siltstone, quartzite; 221-275 m thick.

pCpm MIDDLE QUARTZITE UNIT White to bluish white quartzite; cross-bedding; lower 100 m pebble conglomerate; 400 m thick.

pCpl LOWER SHALE UNIT Poorly exposed shale; forms brown soil; 180 m exposed.

PAVANT ALLOCHTHON

Op POGONIP GROUP (ORDOVICIAN) Thin bedded limestone; 100 m exposed.

Cu CARBONATES UNDIVIDED (UPPER AND MIDDLE CAMBRIAN) Unfossiliferous dolomite with limestone near base; 1050 m thick.

Cp PIOCHE FORMATION (MIDDLE CAMBRIAN) Micaceous shale and interbedded dolomite, limestone, and siltstone; Glossopleura, Alokistocare sp.; 79 m thick.

Ct TINTIC QUARTZITE (MIDDLE AND LOWER CAMBRIAN) Grayish orange pink, massive quartzite; crossbedding; 950 m thick.

pCm MUTUAL FORMATION (PRECAMBRIAN) Pale reddish brown, massive quartzite; 450 m exposed.

SYMBOLS

- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of verticle beds
- Strike and dip of horizontal beds
- Thrust fault, dashed where approximately located, dotted where concealed sawteeth on upper plate
- Normal fault, dashed where approximately located, dotted where concealed ball on downthrown block
- Normal fault in alluvium, hachures on downthrown block
- Tear fault, dashed where approximately located
- Depositional contact, dashed where approximately located
- Synclinal axis
- Anticlinal axis (overturned) Plunge

Oak City (BM 5105)

39 30' 112 20' R.4W. 112 15' R.3W. 10' 112 07'30" 39 30'
39 22'30" 112 20' R.4W. 112 15' R.3W. 112 07'30" 39 22'30"
T.15S. T.16S.