Nevada Bureau of Mines and Geology

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PRELIMINARY GEOLOGIC MAP OF THE RUSSELLS QUADRANGLE, LANDER COUNTY, NEVADA

# PRELIMINARY GEOLOGIC MAP OF THE RUSSELLS QUADRANGLE, LANDER COUNTY, NEVADA


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2003

**Alluvial Flat Deposits**

Medium- to fine-grained alluvial deposits of Sheep Creek. Deposits are mostly moderately to well-sorted fine sand and silt, and some pebble gravel. Clast lithologies are predominantly Tertiary volcanic rocks.

- $Qaf_1$
- $Qaf_2$
- $Qaf_3$
- $Qaf_4$

**Alluvial deposits of the Humboldt River**

- $Qoh_1$
- $Qoh_2$

**Eolian deposits**

- Qd
- Qe

**Piedmont and slope deposits**

Coarse-grained alluvial fan deposits and landslide deposits originating from west escarpment of Sheep Creek Range. Alluvial fan deposits are typically angular to subrounded, poorly to moderately sorted, and poorly to moderately stratified. Surficial deposits contain large amounts of fine-grained eolian or reworked eolian material (predominantly fine sand) principally derived from adjacent Humboldt River floodplain. A dominantly eolian deposit caps all but the youngest alluvial gravels and thickens from a few tens of centimeters at fan heads to a few meters on distal parts of fans. Fan deposits flanking Sheep Creek Range consist of pebble to boulder gravels derived from Miocene basalt and andesite sequence exposed at top of escarpment east of quadrangle and Paleozoic rocks (Devonian Slaven Chert and minor Cambrian and Ordovician Valmy Formation) that crop out along west slope of range (Ramelli and others, 2001). Landslide deposits range in composition from poorly sorted, angular boulders to debris flow deposits of silt, sand, and boulders.

- $Qay_1$
- $Qay_2$
- Qai
- Qao
- Ql

- $Qf_1$ modern floodplain deposits
- $Qf_2$ late Holocene floodplain deposits
- $Qm_2$ late Holocene meanderbelt deposits
- $Qm_4$ late Pleistocene meanderbelt deposits
- $Qf_4$ late Pleistocene floodplain deposits

(nomenclature from House, et. al. 2001, NBMG Map 130, Geologic map of the Battle Mountain Quadrangle, Lander County, Nevada)

Alluvial deposits of the Humboldt River: $Qoh_1$, $Qoh_2$

Eolian deposits: Qd, Qe

Piedmont and slope deposits: $Qay_1$, $Qay_2$, Qai, Qao, Ql

Alluvial flat deposits: $Qaf_1$, $Qaf_2$, $Qaf_3$, $Qaf_4$

**Contact** Dashed where approximately located; queried where uncertain.

**Fault** Dashed where approximately located, dotted where concealed; ball on downthrown

Scale 1:24,000

0 0.5 1 kilometer

0 0.5 1 mile

0 1000 2000 3000 4000 5000 feet

CONTOUR INTERVAL 20 FEET

Base map: U.S. Geological Survey Russells, NV 7.5' Quadrangle, 1965
Projection: Nevada Coordinate System, central zone (transverse Mercator) 1927 North American Datum


Field work 2003.

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**DRAFT**

Preliminary geologic map.
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May be revised before publication.


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