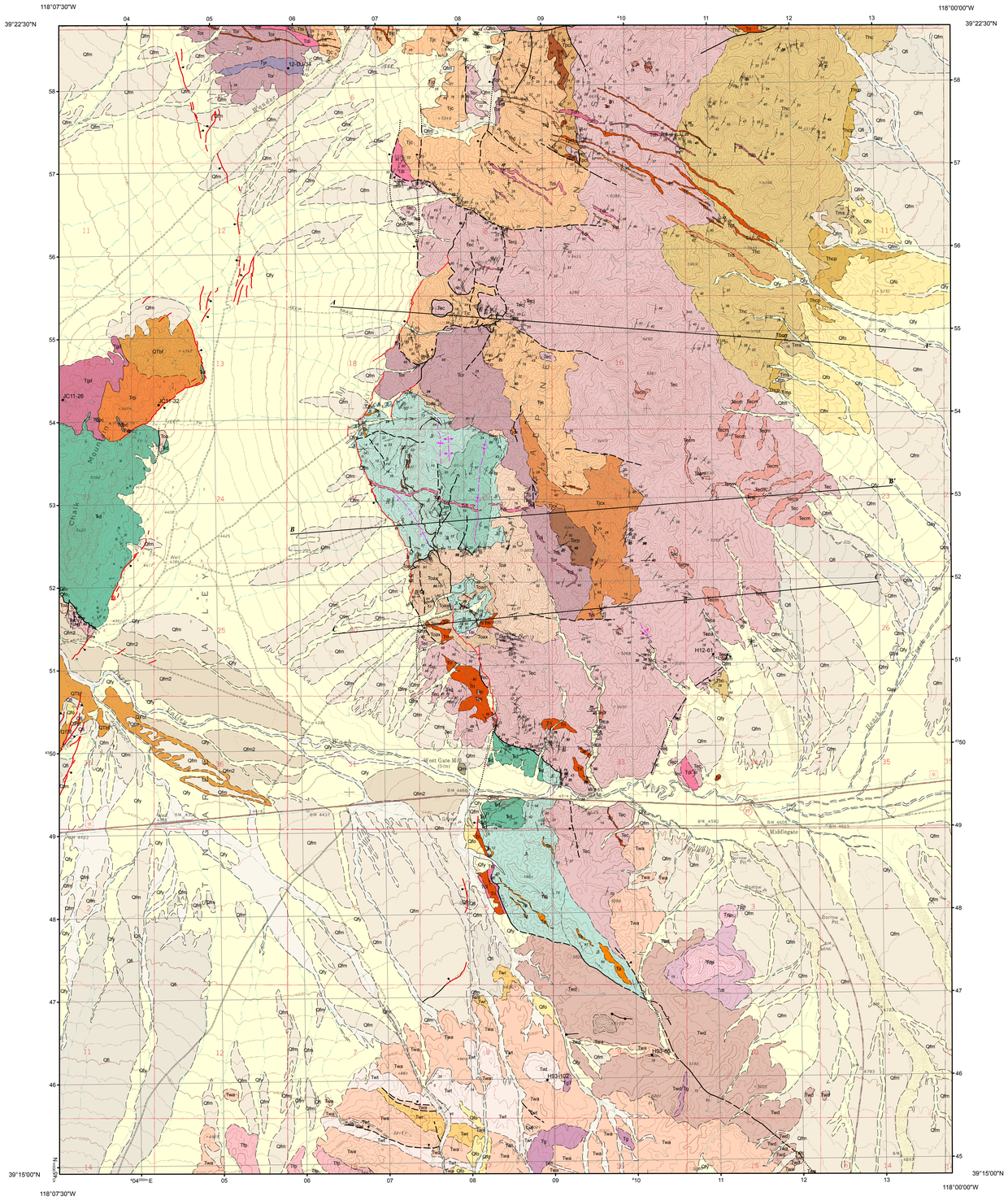


PRELIMINARY GEOLOGIC MAP OF THE WEST GATE QUADRANGLE, CHURCHILL COUNTY, NEVADA

Christopher D. Henry[1], John W. Bell[1], David A. John[2], and Joseph P. Colgan[2]
[1]Nevada Bureau of Mines and Geology, [2]U.S. Geological Survey, Menlo Park, California

2013

QUATERNARY UNITS

Anthropogenic Deposits

- Qay — **Recently active and modern axial wash and fan alluvium**
- Qm — **Mill tailings**
- Qt — **Tufa**

- Qfy — **Late Holocene alluvial fan and wash alluvium**
- Qfm — **Late Pleistocene to mid-Holocene alluvial fan deposits**
- Qfm2 — **Late Pleistocene to mid-Holocene alluvial fan deposits**
- Qfi — **Late Pleistocene alluvial fan deposits**
- Qfo — **Early to mid-Pleistocene alluvial fan deposits**
- QTbf — **Late Pliocene to early Pleistocene basin fill deposits**

TERTIARY ROCKS

- Tg — **Gravel**
- Tms — **Tuffaceous sediments**

Rocks of the Fairview Peak caldera

- Tdp — **Porphyritic dacite lava dome**
- Tdt — **Porphyritic dacite tuff**
- Tfp — **Tuff of Fairview Peak**

Lavas and tuffs of West Gate

- Twt — **Tuff and tuffaceous sedimentary rocks**
- Twa — **Porphyritic andesite lavas**
- Twr — **Rhyolite lavas**
- Twd — **Porphyritic dacite lavas**

Rocks of the Elevenmile Canyon caldera

- Thc — **Tuff of Hercules Canyon**
  - Thcr — **Megabreccia blocks of older rhyolite (in cross section only)**
  - Thcp — **Poorly welded zones**
- Tec — **Tuff of Elevenmile Canyon**
  - Teq — **Megabreccia**
  - Teca — **Older andesite**
  - Tecr — **Older rhyolite**
  - Tecm — **Irregular lenses of mesobreccia**

- Tc — **Conglomerate**
- Tpcl — **Tuff of Poco Canyon**
- Trfl — **Rheomorphically flowed tuff**
- Tjc — **Tuff of Job Canyon**
- Tjcx — **Megabreccia**
- Tts — **Tuffaceous sedimentary rocks**
- Tor — **Older rhyolite**
- Torp — **Abundantly porphyritic older rhyolite**
- Toa — **Older andesite lava and conglomerate**
- Toax — **Coarse conglomerate/ sedimentary breccia**

INTRUSIVE ROCKS

- Tri — **Porphyritic rhyolite**
- Tdi — **Porphyritic dacite**
- Trd — **Composite rhyolite – dacite**
- Tdh — **Hornblende dacite/andesite**

Intrusions of Chalk Mountain

- Tdpc — **Porphyritic dacite of Chalk Mountain**
- Tgd — **Granodiorite of Chalk Mountain**
- Trp — **Porphyritic rhyolite of Chalk Mountain**
- Tyr — **Younger rhyolite**
- Tai — **Andesite intrusion**
- Ta — **Aplite dikes and sills**

JURASSIC AND TRIASSIC ROCKS

- Jm — **Middle Jurassic calcareous quartz arenite and limestone**
- Jl — **Lower Jurassic shale and limestone**
- Ꞧd — **Upper Triassic dolomite**

Symbology (per FGDC-STD-013-2006)

Contact Solid where certain and location accurate, long-dashed where approximate; queried if identity or existence uncertain. Tic shows dip value and direction.

Internal contact Long-dashed pattern where certain and location accurate, short-dashed pattern where approximate.

Normal fault Solid where certain and location accurate, long-dashed where approximate, dotted where concealed; queried if identity or existence uncertain. Ball on downthrown side. Arrows show relative motion (in cross section only).

Anticline Long-dashed where approximate. Arrow shows direction of dip.

Syncline Long-dashed where approximate. Arrow shows direction of dip.

Monocline Long-dashed where approximate, dotted where concealed; queried if identity or existence uncertain. Arrow shows direction of dip.

Caldera margin Solid where certain and location accurate. Long-dashed where approximate. Hachures point downscarp.

1954 Fault scarp Solid where certain and location accurate. Long-dashed where approximate. Ball on downthrown side.

Vein, veinlet, or mineralized stringer Solid where certain and location accurate. Tic dip shows value and direction.

A — A′ **Line of cross section**

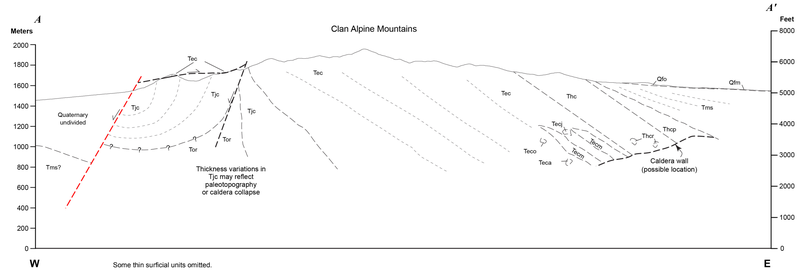
Silicified

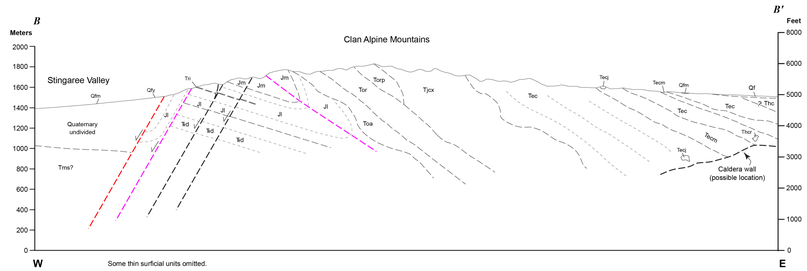
Strike and dip of bedding
Inclined; Overturned

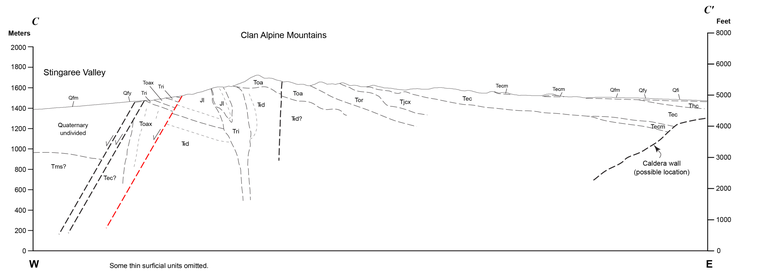
Strike and dip of compaction foliation in ash-flow tuff
Inclined

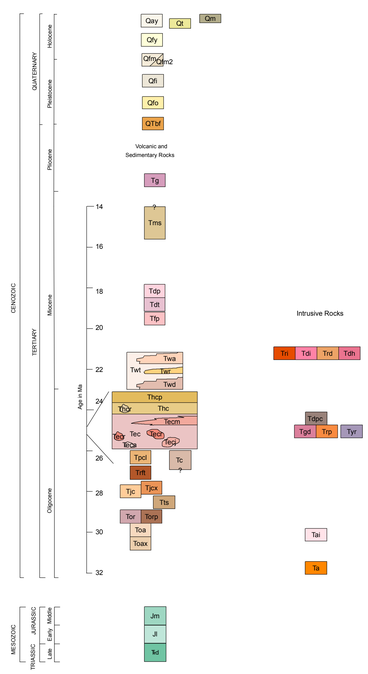
Strike and dip of flow banding or flow foliation in volcanic rocks
Inclined

12-DJ-34 **Dated Sample Locality**









See accompanying text for full unit descriptions, references, and age dates for this map.

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UTM GRID AND
1972 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Adjoining 7.5′ quadrangle names

1	2	3
4	5	6
7	8	9

1 Pirouette Mountain
2 Wonder Mountain
3 Camp Creek Canyon
4 Drumm Summit
5 West Gate
6 Eastgate
7 Bell Canyon
8 Bell Mountain
9 Quartz Mountain NW

Map location

Scale 1:24,000

0 — 0.5 — 1 kilometer

0 — 0.5 — 1 mile

0 — 1000 — 2000 — 3000 — 4000 — 5000 feet

CONTOUR INTERVAL 40 FEET

Projection: Universal Transverse Mercator, Zone 11, North American Datum 1927 (m)

Base map: U.S. Geological Survey West Gate 7.5′ quadrangle (1972)

Nevada Bureau of Mines and Geology
Mackay School of Earth Sciences and Engineering
College of Science
University of Nevada, Reno

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DRAFT
Preliminary geologic map
Has not undergone office or field review
Will be revised before publication

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Nevada Bureau of Mines and Geology
2175 Raggio Pkwy.
Reno, Nevada 89512
ph. (775) 682-8766
www.nbmg.unr.edu; nbmg@unr.edu
2341