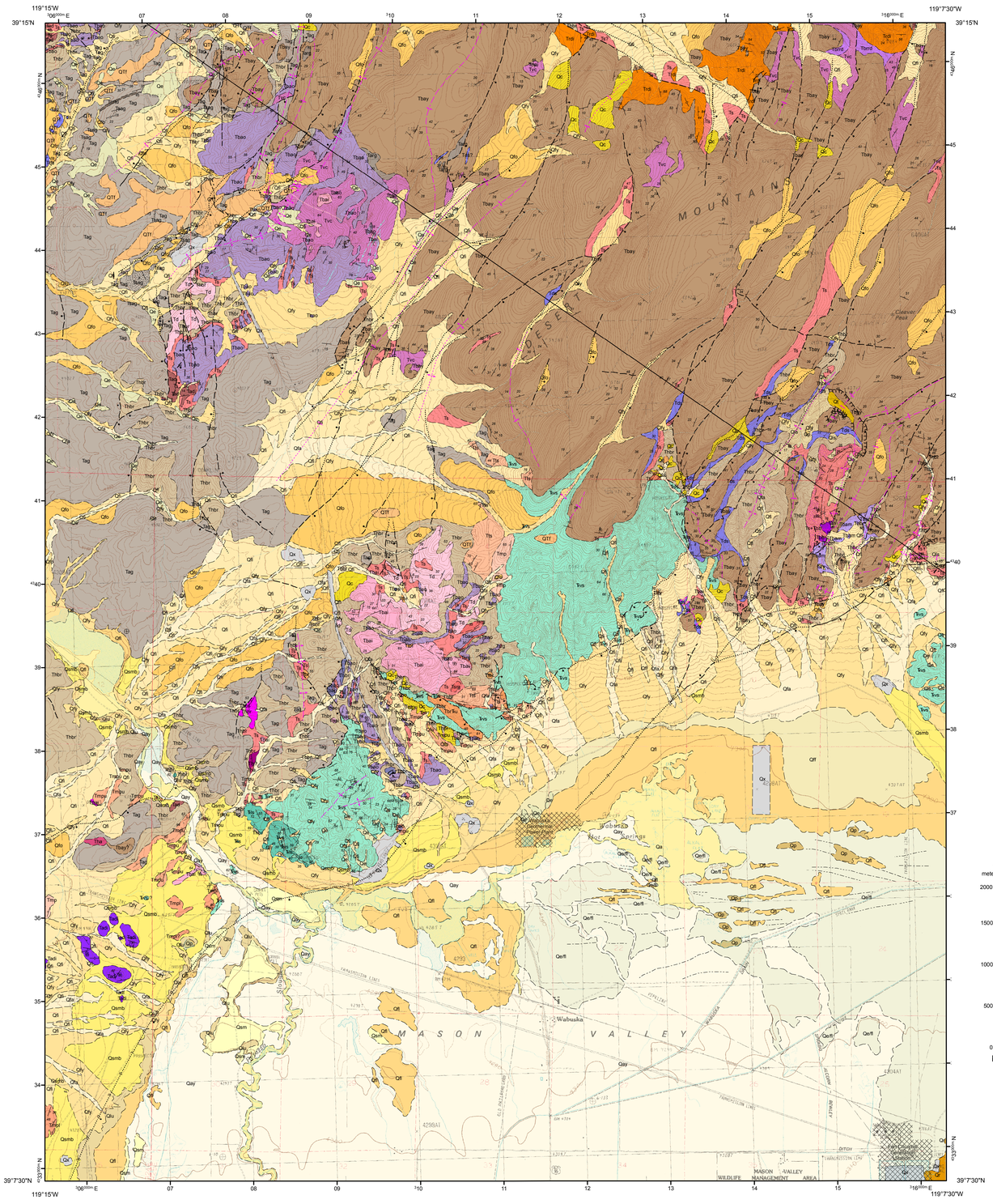
Prepared as part of the STATEMAP component of the National Cooperative Geologic Mapping Program in cooperation with the U.S. Geological Survey and with support from the Department of Energy



QUATERNARY DEPOSITS

- Qx — Anthropogenic deposits
- Qa — Fluvial deposits in recently active washes
- Qfa — Alluvial fan deposits in recently active washes
- Qf — Fluvial deposits of Walker River
- Qp — Playa deposits
- Qfi — Floodplain deposits
- Qay — Young fluvial deposits
- Qfy — Young alluvial fan deposits
- Qff — Fine-grained lacustrine and distal fan deposits
- Qe — Eolian deposits
- Qes/fl — Eolian and floodplain deposits, undivided
- Qls — Landslide deposits
- Qc — Colluvial deposits
- Qt — Talus
- Qfi — Intermediate-aged alluvial fan deposits
- Qsm — Sehoo fine grained deposits
- Qsmb — Sehoo beach gravels
- Qlu — Older lacustrine deposits
- Qfo — Older alluvial fan deposits
- QTf — Plio-Pleistocene gravels

LATE TERTIARY VOLCANIC AND SEDIMENTARY ROCKS (Miocene to Pliocene)

- Tbrd — Rhyodacite breccia associated with Trdi
- Tag — Sandstone, roundstone conglomerate, diatomite, siltstone, and non-welded tuff
  - Tsag — Roundstone conglomerate, locally distinguished from Tag
  - Tsag; — Areas of strong silica cementation of Tag
  - Tmtu — Non-welded Miocene tuff within Tag
- Tds — Diatomite
- Tbay — Young basalt
- Tbam — Middle basalt
- Tad — Fine grained porphyritic dacite
- Tvc — Basaltic andesite cinders--locally agglutinated, and non-welded mafic tuff
- Tbao — Old basalt andesite and andesite
  - Tbap — Abundantly porphyritic basaltic andesite
  - Tha — Hornblende andesite
  - Tbb — Basalt breccia related to Tbao(?)
- Thbr — Breccia composed mostly of coarsely porphyritic hornblende dacite clasts
  - Td — Coarsely porphyritic hornblende plugs, domes, and flows
  - Tbr — Breccia units within Thbr composed of Oligocene ash-flow tuff clasts
- Tls — Miocene(?) Limestone
- Ts+Tbb — Sediments and basalt breccia (Tbao equivelent)
- Ts — Sandstone, siltstone, conglomerate, breccia, and non-welded tuffs
  - Tsrg — Roundstone conglomerate associated with the Ts unit
- Tbr'ku — Oligo-Miocene breccia of clasts of Mesozoic basement

LATE TERTIARY INTRUSIVE ROCKS AND VEINS (Miocene to Pliocene)

- Tqcv — Unmineralized veins composed of quartz and calcite, 10cm to 2m wide
- Trdi — Porphyritic rhyodacite domes
- Tbai — Basaltic andesite plugs, domes, and dikes
- Thai — Hornblende andesite plugs
- Tadi — Fine grained dacite plugs

OLIGOCENE ASH-FLOW TUFFS AND SEDIMENTARY ROCKS

- Tls — Tuff of Singatse, 27.9 Ma (Henry and John, 2013)
- Tmp — Tuffs of Mickey Pass undistinguished
  - Tmpu — Upper tuff of Mickey Pass, 27.3 Ma (Henry and John, 2013)
  - Tmpl — Lower tuff of Mickey Pass, 27.4 Ma (Henry and John, 2013)
- Tso — Fluvial sediments, sandstone and conglomerate
- Tstu — Oligocene ash-flow-tuffs and sediments undistinguished (In cross-section only)
- Ttu — Oligocene ash-flow tuff, undivided

TRIASSIC SEDIMENTARY AND VOLCANIC ROCKS

- Tls — Limestone with minor volcaniclastic sandstone beds
- Tlvs — Marine and fluvial volcaniclastic sediments, subaerial mafic lavas and intermediate to felsic composition ash-flow tuffs, local limestone beds
- Tku — Triassic undistinguished (In cross-section only)

References
Henry, C.D., and John, D.A., 2013, Magmatism, ash-flow tuffs, and calderas of the ignimbrite flareup in the western Nevada volcanic field, Great Basin, USA: Geosphere, v. 9, p. 951–1008.

Suggested citation
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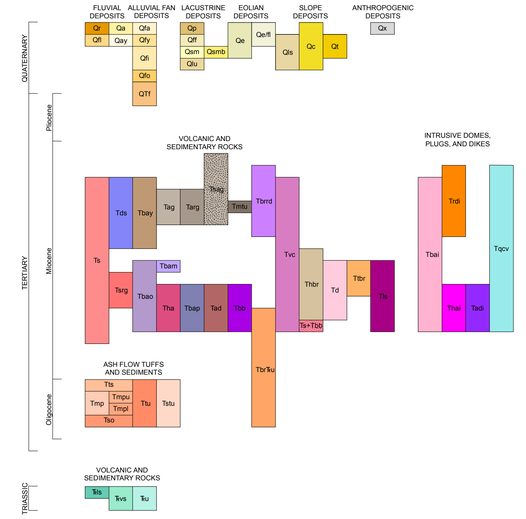

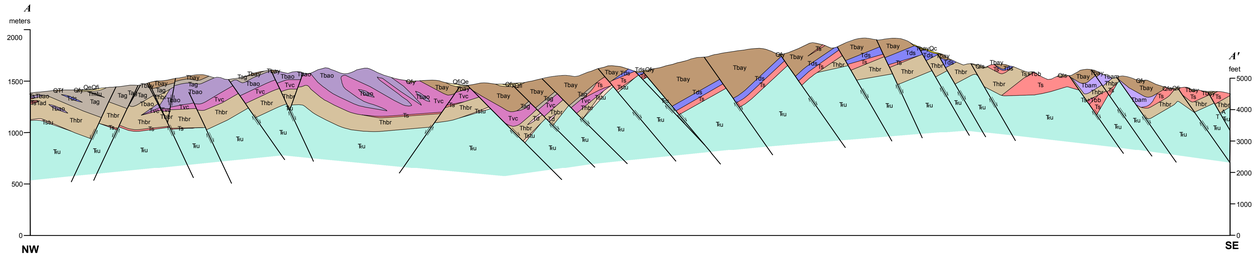

Symbology (per FGDC-STD-013-2006)

Contact Long-dashed where approximate.

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

Fault Solid where certain and location accurate, long-dashed where approximate, dotted where concealed; queried if identity or existence uncertain.

Normal fault Long-dashed where approximate, dotted where concealed; queried if identity or existence uncertain. Ball on downthrown side. Tic shows dip value and direction. Arrows show relative motion, in cross section only.

Oblique-slip left-lateral fault Solid where certain and location accurate, long-dashed where approximate, dotted where concealed. Arrows show relative motion. Ball on downthrown side. A away from observer, T towards observer, in cross section only.

Lineament Single-dashed pattern where certain and location accurate, double-dashed pattern where approximate.

Anticline Long-dashed where approximate, dotted where concealed.

Syncline Long-dashed where approximate, dotted where concealed.

Head or main scarp of landslide Long-dashed where inactive, subdued, indistinct and (or) approximate. Hachures point downscarp.

Erosional shoreline Solid where certain and location accurate.

Vein Solid where certain and location accurate. Tic shows dip value and direction.

Dike Solid where certain and location accurate. Tic shows dip value and direction.

Strike and dip of bedding
Inclined — Vertical — Horizontal

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

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

Line of cross section

References
Henry, C.D., and John, D.A., 2013, Magmatism, ash-flow tuffs, and calderas of the ignimbrite flareup in the western Nevada volcanic field, Great Basin, USA: Geosphere, v. 9, p. 951–1008.

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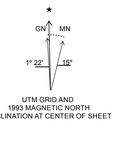
PRELIMINARY GEOLOGIC MAP OF THE WABUSKA QUADRANGLE, LYON COUNTY, NEVADA

Nicholas H. Hinz, Alan R. Ramelli, and James E. Faulds
Nevada Bureau of Mines and Geology, University of Nevada, Reno

2013



UTM GRID AND
1993 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Adjoining 7.5' quadrangle names

1	2	3
4	5	6
7	8	9

1 Churchill Butte
2 Silver Springs South
3 Hooten Well
4 Churchill Canyon Well
5 Wabuska
6 Parker Butte
7 Lincoln Flat
8 Mason Butte
9 Hinkson Slough

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 20 FEET

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

Base map: U.S. Geological Survey Wabuska, 7.5' quadrangle (Provisional Edition 1987)

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

Field work done in 2013
Supported by the U.S. Geological Survey STATEMAP Program (Agreement No. G12AC20157) and the Department of Energy (Agreement No. DE-EE0002748)

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

Compilation by Nicholas H. Hinz and Alan R. Ramelli
Cartography and map production in ESRI ArcGIS v10.1 (ArcGeology v1.3)
- by Verne M. Saxelye
First Edition, October 2013
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