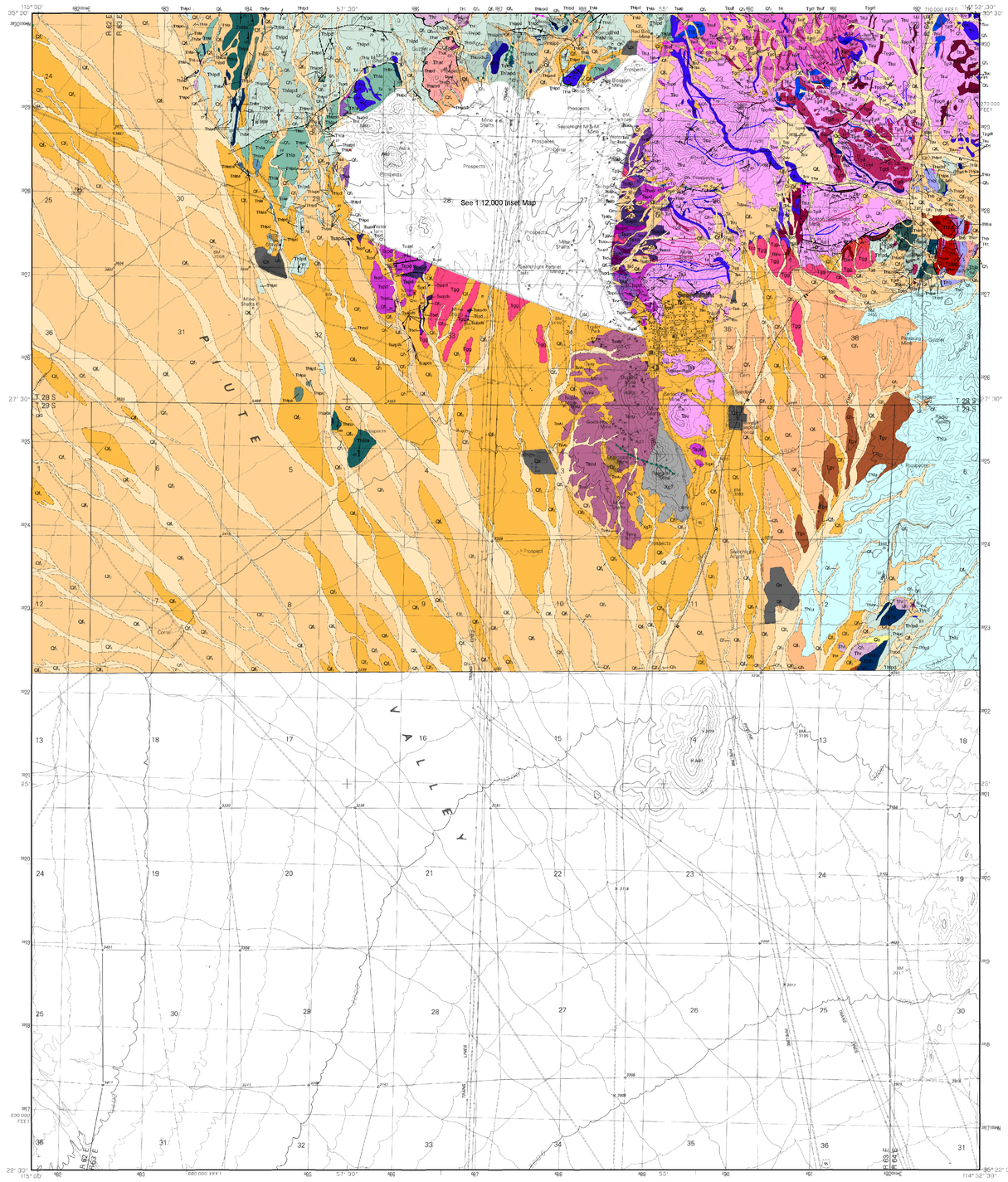
NEVADA BUREAU OF MINES AND GEOLOGY

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

PRELIMINARY GEOLOGIC MAP OF THE NORTH HALF OF THE SEARCHLIGHT QUADRANGLE, CLARK COUNTY, NEVADA OFR 06-15



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

Base map:
U.S. Geological Survey Searchlight 7.5' Quadrangle, 1985
Universal Transverse Mercator projection,
1927 North American Datum

PRELIMINARY GEOLOGIC MAP OF THE NORTH HALF OF THE SEARCHLIGHT QUADRANGLE, CLARK COUNTY, NEVADA

James E. Faulds, Alan R. Ramelli, and Haroldo Lledo
2006

QUATERNARY DEPOSITS

- Qm — Manmade deposits
- Qmt — Mine waste

Alluvial-fan deposits of northern Piute and western Cottonwood Valleys

- Qat — Alluvial tailings (Holocene)
- Qf_4 — Young alluvial-fan deposits (Holocene)
- Qf_3 — Alluvial-fan deposits (late Pleistocene)
- Qf_2 — Alluvial-fan deposits (middle Pleistocene)
- Qf_1 — Alluvial-fan deposits (early Pleistocene)
- Qc — Colluvial deposits (Holocene to Pleistocene)

LATE TERTIARY SEDIMENTARY DEPOSITS

- Tgv — Gravels, volcanic clasts (Pliocene to late Miocene)
- Tgg — Gravels, granitic clasts (Pliocene to late Miocene)
- Trc — Conglomerate (Pliocene to late Miocene)
- Tc — Conglomerate and sandstone (late to middle Miocene)

BRECCIA DEPOSITS (MIDDLE MIOCENE)

- Tbr — Fault breccia
- Tbrb — Tuff of Bridge Spring megabreccia
- Tbba — Basaltic andesite megabreccia
- Tbv — Andesite-dacite megabreccia

VOLCANICS OF THE HIGHLAND RANGE (MIDDLE TO EARLY MIOCENE)

Upper mafic sequence, volcanics of the Highland Range (middle Miocene)

- Thb — Basaltic andesite lavas
- Tha — Andesite lavas

Middle felsic sequence, volcanics of the Highland Range (middle to early Miocene)

- That — Altered tuffaceous rocks
- Thar — Altered rhyolite lavas
- Tht — Tuffaceous sedimentary rocks and nonwelded tuffs
- Thr — Rhyolite lavas
- Tharb — Altered rhyolite breccia
- Thrb — Rhyolite breccia
- Thrd — Rhyodacite or dacite lavas

Lower intermediate sequence, volcanics of the Highland Range (middle to early Miocene)

- Thlb — Basaltic trachyandesite lavas
- Thld — Rhyodacite lavas
- Thlad — Altered trachyandesite-trachydacite lavas
- Thlde — Transitional trachyandesite-trachydacite lavas
- Thlapds — Strongly altered porphyritic trachydacite lavas
- Thlapd — Altered porphyritic trachydacite lavas
- Thlpd — Porphyritic trachydacite lavas
- Thld — Trachydacite lavas
- Thlv — Volcanic breccia
- Thlaas — Strongly altered trachyandesite lavas
- Thlaa — Altered trachyandesite lavas
- Thla — Trachyandesite lavas
- Thlapa — Altered porphyritic trachyandesite lavas
- Thlpa — Porphyritic trachyandesite lavas
- Thlu — Trachydacite and trachyandesite flows - undivided

SEARCHLIGHT VOLCANIC COMPLEX (MIDDLE TO EARLY MIOCENE)

- Tsapds — Strongly altered porphyritic trachydacite-trachyandesite
- Tsap — Altered porphyritic trachydacite-trachyandesite
- Tsapds — Strongly altered porphyritic trachydacite
- Tsapd — Altered porphyritic trachydacite
- Tspd — Porphyritic trachydacite
- Tscpd — Trachydacite porphyry
- Tsapds — Strongly altered trachyandesite
- Tsaas — Altered trachyandesite
- Tsa — Trachyandesite
- Tspa — Porphyritic trachyandesite
- Tsdi — Diorite intrusions
- Altered granodiorite
- Tspgd — Porphyritic granodiorite
- TwVu — Searchlight volcanic complex - undivided

OTHER MIOCENE TUFFS (EARLY MIOCENE)

- Tpt? — Peach Springs Tuff

MIOCENE INTRUSIONS

Searchlight pluton (middle to early Miocene)

- Tsud — Upper Searchlight pluton, diorite to monzodiorite phase
- Tsu — Upper Searchlight pluton, equigranular quartz monzonite
- Tsuf — Upper Searchlight pluton, equigranular quartz monzonite

DIKES AND VEINS

- Tbdi — Basaltic andesite dikes (middle Miocene)
- Tcv — Calcite veins (middle to early Miocene)
- Tqv — Quartz veins (middle to early Miocene)
- Tql — Quartz ledges and bodies (middle to early Miocene)
- Tarv — Altered rhyolite intrusions (middle to early Miocene)
- Tri — Rhyolite intrusions (middle to early Miocene)
- Tqmd — Quartz monzonite porphyry dikes (middle to early Miocene)
- Tgd — Granodiorite dikes (middle to early Miocene)
- Tpgd — Porphyritic granodiorite dikes (middle to early Miocene)
- Tdi — Andesite and diorite dikes (middle to early Miocene)
- Tdi — Diorite intrusions (middle to early Miocene)
- Tapdi — Altered porphyritic dacite intrusions (middle to early Miocene)
- Tpdi — Porphyritic dacite intrusions (middle to early Miocene)

PROTEROZOIC BASEMENT

- Xq — Quartzite (?) (Early Proterozoic?)
- Xms — Mica schist (Early Proterozoic?)
- XgTi — Early Proterozoic orthogneiss and Miocene dikes (undifferentiated)

Lithologic contact Dashed where inferred or approximately located, locally showing dip of contact.

Moderately to steeply dipping normal fault Showing dip; ball on downthrown side; arrow near dip symbol shows trend of strias on fault surface or inferred slip direction; dashed where inferred or approximately located; queried where uncertain; dotted where concealed.

Gently dipping normal fault Showing dip; hachures on downthrown side; arrow near dip symbol shows trend of strias on fault surface or inferred slip direction; dashed where inferred or approximately located; queried where uncertain; dotted where concealed.

Mainly strike-slip fault Arrows on either side of fault indicate sense of strike separation; arrow near dip symbol shows trend of strias on fault surface or inferred slip direction; dashed where inferred or approximately located; dotted where concealed.

Syncline axial trace Dashed where inferred or approximately located; dotted where concealed.

Anticline axial trace Dashed where inferred or approximately located; dotted where concealed.

Vein Showing dip.

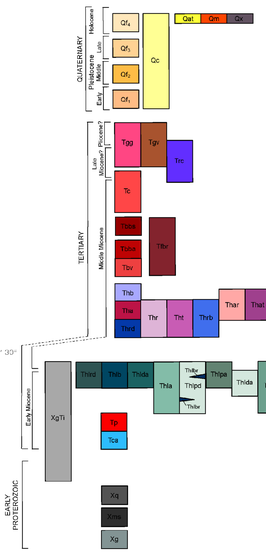
Ledge Showing dip.

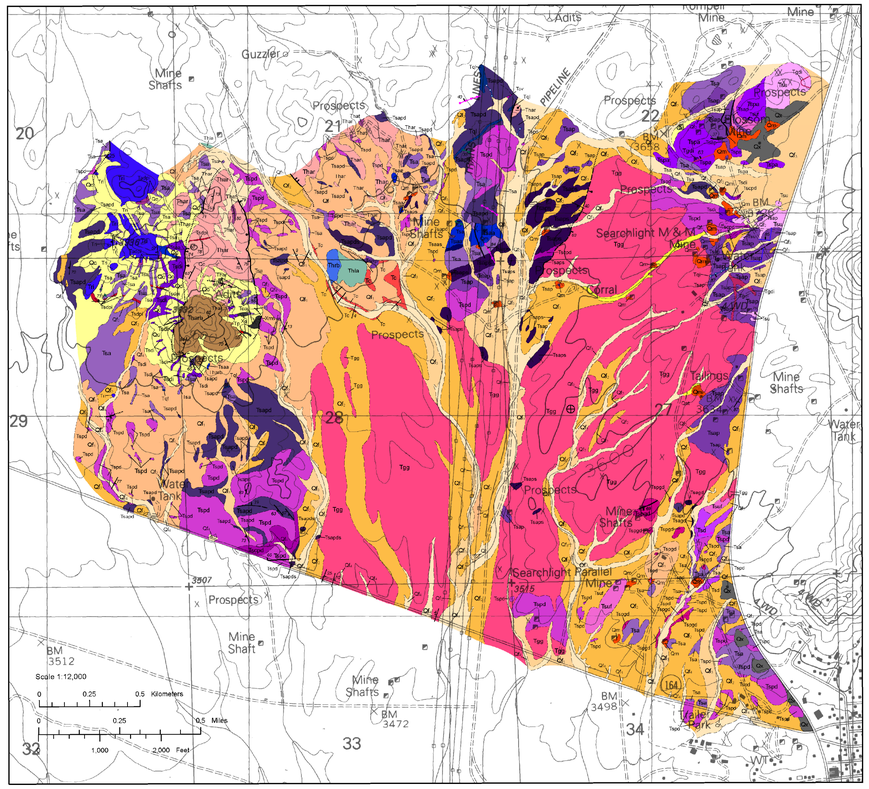
Strike and dip of beds: Inclined, Vertical, Horizontal, Overturned

Strike and dip of compact foliation in ash-flow tuff

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

Strike and dip of foliation in metamorphic rocks: Inclined





Adjoining 7.5' quadrangle names

1	2	3
4	5	
6	7	8

1 Highland Spring
2 Nelson SW
3 Ireteba Peaks
4 Hoops Well
5 Fourth of July Min.
6 Hart Peak
7 Nelson Well
8 Searchlight SE

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DRAFT
Preliminary geologic map.
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Will be revised before publication.

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