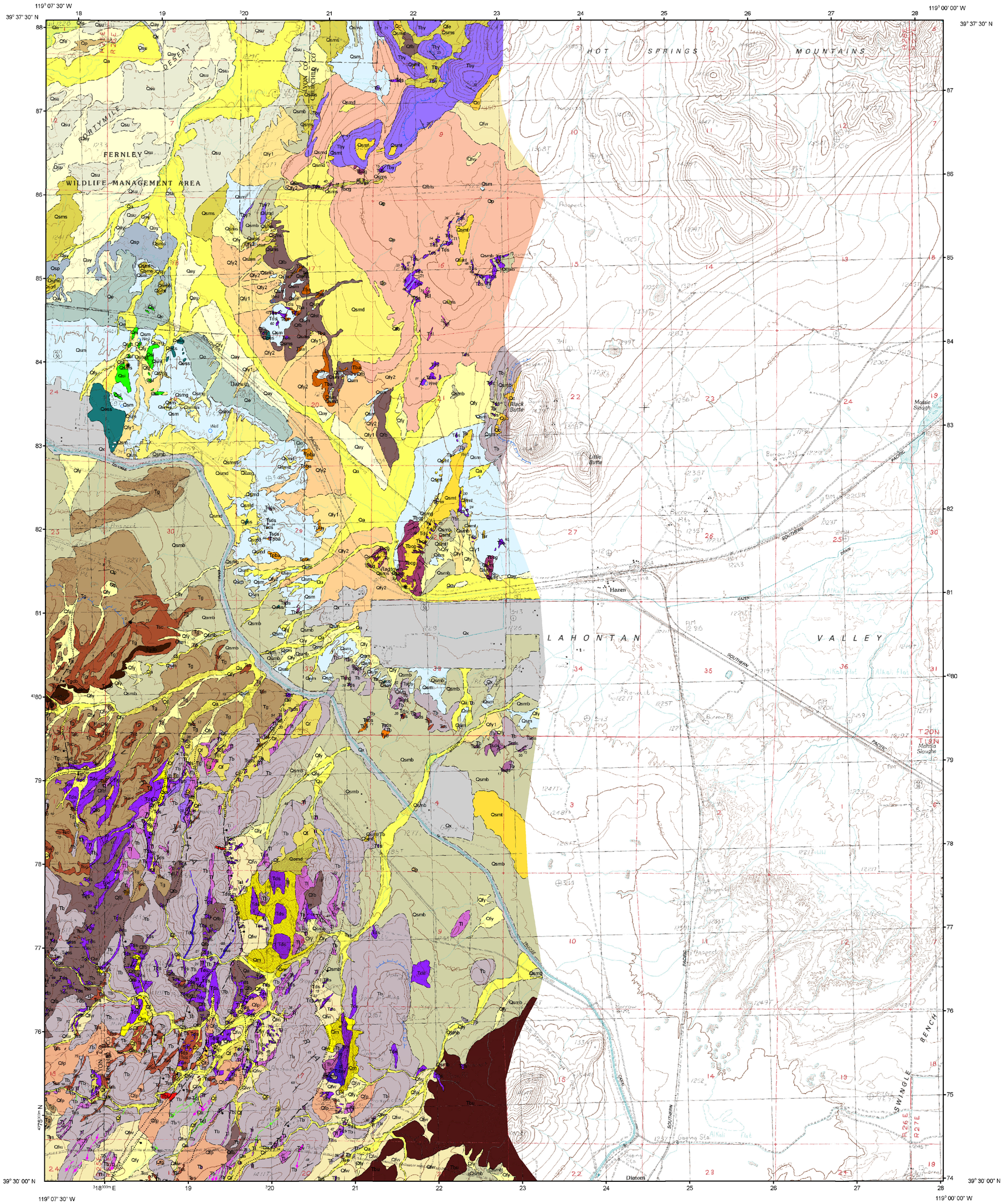
NEVADA BUREAU OF MINES AND GEOLOGY

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

OPEN-FILE REPORT 09-11

PRELIMINARY GEOLOGIC MAP OF THE WEST HALF OF THE HAZEN QUADRANGLE, LYON AND CHURCHILL COUNTIES, NEVADA



QUATERNARY DEPOSITS

Piedmont and Hillslope Deposits

- Qa — Alluvium in recently active washes (late Holocene to historic)
- Qay — Young alluvial flat deposits (late Holocene)
- Qfy — Young alluvial fan deposits (undivided)
- Qfy1 — Young alluvial fan deposits (late to middle Holocene)
- Qfy2 — Young alluvial fan deposits (middle to early Holocene)
- Qfw — Alluvial fan deposits of the Wyemaha alloformation (late Pleistocene)
- Qfp — Alluvial fan deposits of the Paiute alloformation (middle to early Pleistocene)
- Qf — Alluvial fan deposits (undivided)
- Qfb — Basalt-dominated alluvial fan deposits (undivided)
- Qc — Colluvial deposits

Quaternary Lacustrine Deposits

- Qfe — Eolian deposits of the Fallon alloformation (late to middle Holocene)
- Qsu — Upper Sehoo member (early Holocene? to late Pleistocene
- Qsub — Upper Sehoo member, beach deposits (late Pleistocene)
- Qsm — Middle Sehoo member (late Pleistocene)
- Qsms — Middle Sehoo member, silt deposits (late Pleistocene)
- Qsmg — Middle Sehoo member, gravel deposits (late Pleistocene)
- Qsmb — Middle Sehoo member, beach deposits (late Pleistocene)
- Qsmd — Middle Sehoo member, tufa capped dendritic terrace (late Pleistocene)
- Qsmt — Middle Sehoo member, tufa deposits (late Pleistocene)
- Qsmss — Middle Sehoo member, silicified sands (late Pleistocene)
- Qe — Eetza member (late? to middle Pleistocene)
- Qess — Eetza member, silicified sands (late? to middle Pleistocene)
- Qsi — Silicified muds and silts

Other Units

- Qx — Anthropogenic deposits (recent)
- Qemd — Eolian reworked diatomite mine waste (recent)
- Qm — Mine waste (recent)
- Qsp — Spring deposits (recent)
- Qp — Playa deposits (recent to late Holocene)

MIOCENE - EARLY PLIOCENE STRATA

- Tg — Roundstone fluvial gravels (late Miocene to early Pliocene)
- Tgdb — Roundstone gravels with abundant large dacite boulders (late Miocene to early Pliocene)
- Tsc — Sandstone and lesser fluvial gravels (late Miocene to early Pliocene)
- Tby — Younger aphanitic basalt lavas (late Miocene)
- Tsds — Silicified diatomaceous shale (late Miocene)
- Tt — Tephra (late Miocene)
- Tds — Diatomaceous shale (late Miocene)
- Tss — Massive, commonly tuffaceous sandstone (late Miocene)
- Tdss — Diatomaceous shale and lesser sandstone, siltstone (late Miocene)
- Tdl — Diatomaceous shale, limestone, and siltstone (late Miocene)
- Tl — Limestone (late Miocene)
- Tst — Siltstone (late Miocene)
- Tbcg — Basaltic conglomerate (late Miocene)
- Tsr — Siltstone and tuffs (late Miocene)
- Tb — Aphanitic basalt lavas and breccia (late Miocene)
- Tbb — Basaltic breccia (late Miocene)
- Tba — Basaltic andesite (late Miocene)
- Tpba — Porphyritic basaltic andesite (late Miocene)
- Tyb — Altered yellowish basalt (late Miocene)
- Tbu — Basalt lavas and lesser sedimentary rocks, undivided (late Miocene)

MIOCENE INTRUSIONS

- Tcv — Calcite veins (late Miocene)
- Tql — Silicified ledges, commonly jasperoidal (late Miocene)
- Tbi — Basalt intrusions (late Miocene)

Symbology (per FGDC-STD-013-2006)

Contact Long-dashed where approximate, short-dashed where inferred, queried if identity or existence uncertain.

Normal fault Long-dashed where approximate, dotted where concealed; queried if identity or existence uncertain. Showing dip; Ball on downthrown side.

Strike-slip fault Dotted where concealed. Arrows show relative motion.

Former shoreline Long-dashed where approximate.

Strike and dip of bedding
47 Inclined

Strike and dip of foliation in igneous rocks
33 Inclined

Strike and dip of joints
Vertical

Well **Geothermal well**

Spring

Tufa mound

Adjoining 7.5' quadrangle names

1	2	3
4	5	6
7	8	9

1 Two Tips
2 Eagle Rock
3 Soda Lake NW
4 Fernley East
5 Hazen
6 Soda Lake West
7 Silver Springs North
8 Lahontan Dam
9 Sheckler Reservoir

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 10 METERS

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

Base map: U.S. Geological Survey Hazen 7.5' Quadrangle (1985)

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

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