RECONNAISSANCE GEOLOGIC MAPS OF THE SLUMBERING HILLS AND SURROUNDING AREAS, HUMBOLDT COUNTY, NEVADA 1:100,000-SCALE

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This information should be considered preliminary. It has not been edited or checked for completeness or accuracy.
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Slumbering Hills and Surrounding Areas,
Humboldt County, Nevada
1:100,000
by
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LEGEND

Qafw  Holocene alluvium: unconsolidated sand and gravel of modern stream channels.
Qp  Playas: silts and clays of intermittent Holocene age playa lakes of valley floors; generally contain standing water during part of each year. Unvegetated.
Qkf  Alkali flats: silts and clays of Holocene age alkali flats of valley floors; may contain standing water during part of each year. Generally sparsely vegetated and covered by algal mats and/or salt encrustations.
Qt  Holocene talus: accumulation of loose, broken, angular rock debris below steep outcroppings of rock.
Qd  Dunes: active Holocene dune fields of valley floors; mainly quartz sand, fine, minor heavy minerals and micaceous minerals; individual dunes range up to approximately 50' in height. Consist mainly of barchan, compound barchan, and coalesced barchans forming barchanoid ridges.
Qds  Dunes and sand sheets: Pleistocene(?) to Holocene sand dunes and sand sheets of valley floors and mountain flanks, stabilized to partially stabilized by vegetation; mainly quartz sand, fine, with local occurrences of arkosic sand in areas topographically below Kgd outcrops; thickness unknown, but generally thin. Dunes consist of parabolic and linear (seif) dunes.
Qafy  Alluvial fans, younger: latest Pleistocene and Holocene (post-Sehoo age) alluvial fans and coalescing alluvial fans developed on lower slopes of mountain ranges. Consist of unconsolidated sand, gravel, and silt of various lithologies. Depositional surface morphology well to moderately-well preserved; sparsely to well vegetated.
Qafw  Alluvial fans, wave-washed: Pleistocene alluvial fans and coalescing alluvial fans developed on middle to lower slopes of mountain ranges; surface moderately to heavily reworked by wave activity in shore zone of Lake Lahontan. Consist of unconsolidated sand and gravel, rounded to subrounded, of various lithologies, overlying and modifying underlying older (pre-Sehoo age) fan deposits. Surface morphology consists of a series of parallel, stair-stepped ridges (strandlines) and possibly some nearshore/offshore bars superimposed on a generally somewhat subdued and rounded topography; usually well vegetated.
Qafo  Alluvial fans, older: Pleistocene (pre-Sehoo age) alluvial fans and coalescing alluvial fans of middle to upper slopes of mountain ranges. Consist of unconsolidated to slightly consolidated sand and gravel, angular to subangular, of various lithologies. Surface morphology generally somewhat subdued and rounded; well vegetated.
Qafu  Alluvial fans and coalescing alluvial fans, undifferentiated.

* to be issued as an NBMI Open-File Map
Q1 Lake plains: flat, undissected lake-bottom plains of massive to stratified sand, silt, clay, and minor fine gravel deposited in late Pleistocene Sehoo-age Lake Lahontan (older, earlier Lake Lahontan deposits found at depth in valleys, as in pit of AMAX Sleeper Mine in northeastern Desert Valley). Deposits locally mantled and modified by younger alluvium (Oafy), and by extensive thin deposits of aeolian silts and sands (loess; unmaapped), and by sand dunes and/or sand sheets (Qd, Qds). Generally sparsely vegetated by native vegetation (parts of Q1 of Silver State Valley intensively cultivated).

Tba Flows of Tertiary basalt and andesite: medium to dark grey or brown, dense to vesicular; composed of microlites and/or medium to coarse lath-shaped crystals of plagioclase (An 45-65) feldspar, with or without accessory olivine, pyroxene, magnetite and iddingsite.

T1 Flows, dikes, sills, and tuffs of Tertiary latite, quartz latite, and rhyolite, white to light grey or brown, lavender or pink, aphanitic to porphyritic, massive to lineated or banded; composed predominantly of a groundmass of potassium feldspar microlites exhibiting a felty or trachytic texture, to a cryptofelsitic groundmass; phenocrysts consist of potassium and plagioclase (An 55-70) feldspars, with or without accessory pyroxene, quartz, magnetite and hematite.

Tr Plug or dome of Tertiary rhyolite (Bottle Hill): light grey, porphyritic, massive to flow-banded; composed of potassium feldspar, plagioclase feldspar, quartz and biotite.

Tvu Flows, dikes, sills and tuffs of Tertiary volcanic rocks, undifferentiated. Includes an intrusive diorite of Jurassic(?)-Cretaceous age in the eastern part of "Dry Hills", along with Pernian to Triassic volcanic rocks, undifferentiated, in the western part of Dry Hills (see map in Willden (1964)).

Tvm Volcanic rocks, metamorphosed, age unknown: dark grey porphyritic rock composed predominantly of potassium feldspar, with lesser amounts of muscovite, pyroxene, quartz and plagioclase feldspar.

Ka Cretaceous(?) to Tertiary(?) aplite dikes: white to light grey or brown, fine to medium grained potassium feldspar, quartz, plagioclase and muscovite and/or biotite.

Kgm Cretaceous(?) to Tertiary(?) quartz monzonite: light brown-grey, medium to coarse grained feldspar, quartz and biotite.

Kgd Cretaceous(?) to Tertiary(?) granodiorite: stock of light grey to light brown, coarse grained feldspar, quartz and biotite; locally weathers to gruss. Identified as Late Cretaceous to early Tertiary in age by Willden (1964); one lead-alpha age determination given by Willden from the granodiorite stock of the Slumbering Hills gave a calculated age of 50±10 m.y.

JTRm Triassic and Jurassic(?) metasediments: predominantly phyllite, light to dark grey, fine grained, thinly foliated. Extensively intercalated with quartzite, dark grey to brown, fine to medium grained, thinly bedded to locally massive; quartzite occurs within the phyllite as beds and lenses of 1/4" to 3' in thickness, with minor thicker beds and channel-fill deposits to approximately 20' in thickness. Metasediments locally calcareous, and phyllite commonly exhibits "spots" (incipient porphyroblasts), composed of fine-grained quartz, feldspar and mica, along with fine pyrite(?), occurring in contact zones around granodiorite stock. Unit includes minor amounts of black shale/slate, conglomerate, and tectonic(?) breccia.
Symbols

Geologic contact, dashed where location approximate or inferred.

Lahontan Beach: highest discernable strandline of Lake Lahontan, believed to be of Sehoo-age. Dashed where poorly developed or location approximate; dashed and dotted where overlain by thin cover of more recent deposits resulting in a vague surface expression.

Selected linear to arcuate shoreline features lying below Lahontan Beach. Generally well-developed to moderately well-developed linear features on lower mountain slopes best seen on aerial photographs or from ground during times of low sun elevation. Generally subtle low-lying linear features of valley floors best seen on aerial photographs; valley floor shoreline features believed to represent shorelines of low-lying post-Sehoo age Lake Lahontan.

Linear to arcuate ridges up to 40' high of rounded, unconsolidated fine to medium gravel and sand formed along margins of mountain ranges. Believed to represent spits formed in nearshore zone of Lake Lahontan. Locally contain gastropod and ostracod tests intercalated with sand and gravel of spits.

(Structure Maps): - Fault, dashed where inferred, ball on down-thrown side
- Air-photo linears
\[ \hat{s} \] - Strike and dip of bedding.
\[ \hat{s}_v \] - Strike of vertical beds
\[ \hat{s}_f \] - Strike and dip of bedding foliation in metasediments, or of flow/compaction foliation in volcanic rocks.
\[ \hat{m}_j \] - strike and dip of joint
\[ \hat{m}_v \] - strike of vertical joint


1:100,000-scale map compiled from unpublished 1:24,000-scale mapping conducted for U.S. Department of Energy Superconducting Super Collider (SSC) project in Nevada; project funded by Nevada Commission on Economic Development.)