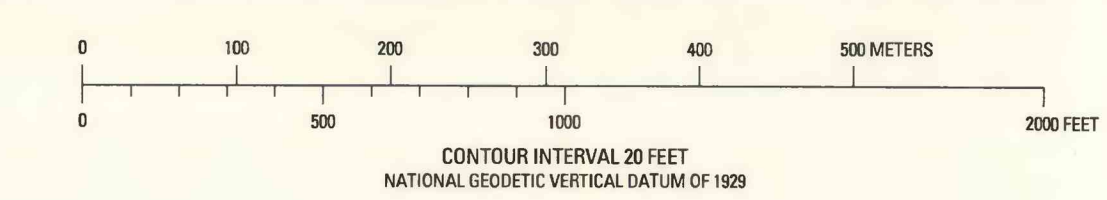
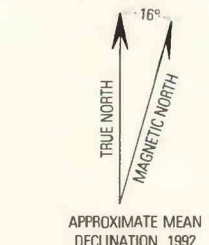


- DESCRIPTION OF MAP UNITS**
[See plate 1 for location of mapped area. Mapping is preliminary and differs from that on plate 1.]
- Qa** Alluvial deposits (Quaternary)—Unconsolidated sand and gravel. May include silt, older alluvium, younger alluvium, and fanglomerate deposits.
- POSTMINERAL INTRUSIONS**
- Tb** Basalt (Tertiary)—Black aphanitic basalt, locally vesicular, crops out mostly near Bentley and Little Giant Mines.
- Tpb** Pebble dikes (Tertiary)—At east end of Long Ridge and near Copper Queen Mine. Spatially associated with quartz latite porphyry dike and includes fragments of quartz latite porphyry, mineralized fragments of various igneous phases and metasedimentary rocks of Cretaceous molybdenum system, and unmineralized black chert presumably from the Devonian Scott Canyon Formation.
- Tqlp** Quartz latite porphyry (Tertiary)—Present in west-dipping swarms of dikes that range from 1 to 100 m in thickness and cut molybdenum mineralization of Buckingham system.
- Tqf** Quartz-biotite-feldspar porphyry (Tertiary)—Relatively abundant quartz phenocrysts set in grayish-green to brown aphanitic groundmass. Crops out west of West stock and is generally coextensive with biotite feldspar porphyry.
- Tbf** Biotite feldspar porphyry (Tertiary)—Biotite and feldspar phenocrysts set in grayish-green to brown aphanitic groundmass. Crops out west of West stock and coextensive with quartz-biotite-feldspar porphyry.
- Thp** Hornblende porphyry (Tertiary)—Dikes generally 1-3 m thick that crop out near Bentley and Gold Top Mines and contain about 20 percent hornblende phenocrysts set in greenish-gray aphanitic groundmass.
- Tr** Rhyolite porphyry (Oligocene or Eocene)—Confined mostly to two plug-like masses in general area of Little Giant Mine. Surface exposures contain small phenocrysts of quartz, potassium feldspar, and plagioclase set in an aphanitic quartz- and potassium-feldspar-bearing groundmass.
- INTERMINERAL INTRUSIONS**
- Kap** Aplite (Cretaceous)—Includes aplite intrusion breccia and intermineral porphyry, both of which contain weak to absent quartz veining. Disseminated molybdenite derived from wallrock assimilation.
- Kkmp** Large K-feldspar porphyry (Cretaceous)—Contains relatively abundant, conspicuous, large potassium feldspar phenocrysts, moderately large quartz phenocrysts, and a fine- to medium-grained groundmass. Dikes of large K-feldspar porphyry clearly truncate quartz-molybdenite veins in hornfels and earlier igneous phases.
- PRE- AND SYNMINERAL INTRUSIONS**
- Kkmp** K-feldspar quartz monzonite porphyry (Cretaceous)—Forms much of central East stock where it crops out on north and south flanks of Long Ridge. May be equivalent to quartz-K-feldspar porphyry recognized only in diamond drill core.
- Kqmp** Quartz monzonite porphyry (Cretaceous)—Small distinct biotite phenocrysts and rare potassium feldspar phenocrysts set in aplitic groundmass. Quartz eyes usually not obvious in hand specimen. Present in both East and West stocks where it forms southern margin of intrusive phases. Also crops out as east-west-striking dikes astride Vail Ridge.
- COUNTRY ROCKS**
- DOdb** Diabase (Devonian and/or Ordovician)—Crops out in general area of Buckingham Camp as sills and dikes metamorphosed by West stock. Typically, felted plagioclase-rich groundmass weakly sericitized, whereas plagioclase phenocrysts replaced completely by sericite.
- Dac** Scott Canyon Formation (Devonian)—Bleached, metagranite in fault block northwest of Little Giant Mine.
- Ch** Harmony Formation (Cambrian)—Includes probable remnant basaltic flows at depth in general area of West stock, and, as mapped, small bodies of Devonian Scott Canyon Formation in general area of Buckingham Mine (see pl. 1).
- Contact—Dashed where approximately located; dotted where concealed; queried where uncertain.
- Fault—Dashed where approximately located; dotted where inferred; queried where extent uncertain. May show dip.
- ▲ De Witt thrust fault
- 42 Strike and dip of beds
Inclined
Vertical
- 72 Strike and dip of joints
Inclined
Vertical
- Breccia
- 88 Shatter zone—May show dip
- Unidirectional solidification texture
- High silica alteration
- Drill hole—T.D., total depth, in feet
- ⊗ Mine
- x Prospect
- Shaft
- Adit
- Boundary of Buckingham stockwork molybdenum deposit projected to surface—Dashed where conjectural; dotted where concealed

Base from Aerial Mapping Co., Boise, Idaho, for Climax Molybdenum Company, 1973.
1,000-foot Universal Transverse Mercator grid ticks from 10,000-foot state grid ticks, Nevada central zone.



Preliminary mapping based on field traverses by Thomas A. Loucks, G.A. Johnson, and L.L. Malinconico, Jr., 1978-83.
Note: Dual 1500 series drill hole locations approximate.

GEOLOGY OF THE BUCKINGHAM STOCKWORK MOLYBDENUM DEPOSIT, LANDER COUNTY, NEVADA

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1992

Thomas, T.G., Blake, D.W., Loucks, T.A., and Johnson, C.A., 1992, Geology of the Buckingham stockwork molybdenum deposit and surrounding area, Lander County, Nevada: U.S. Geological Survey Professional Paper 798-D.