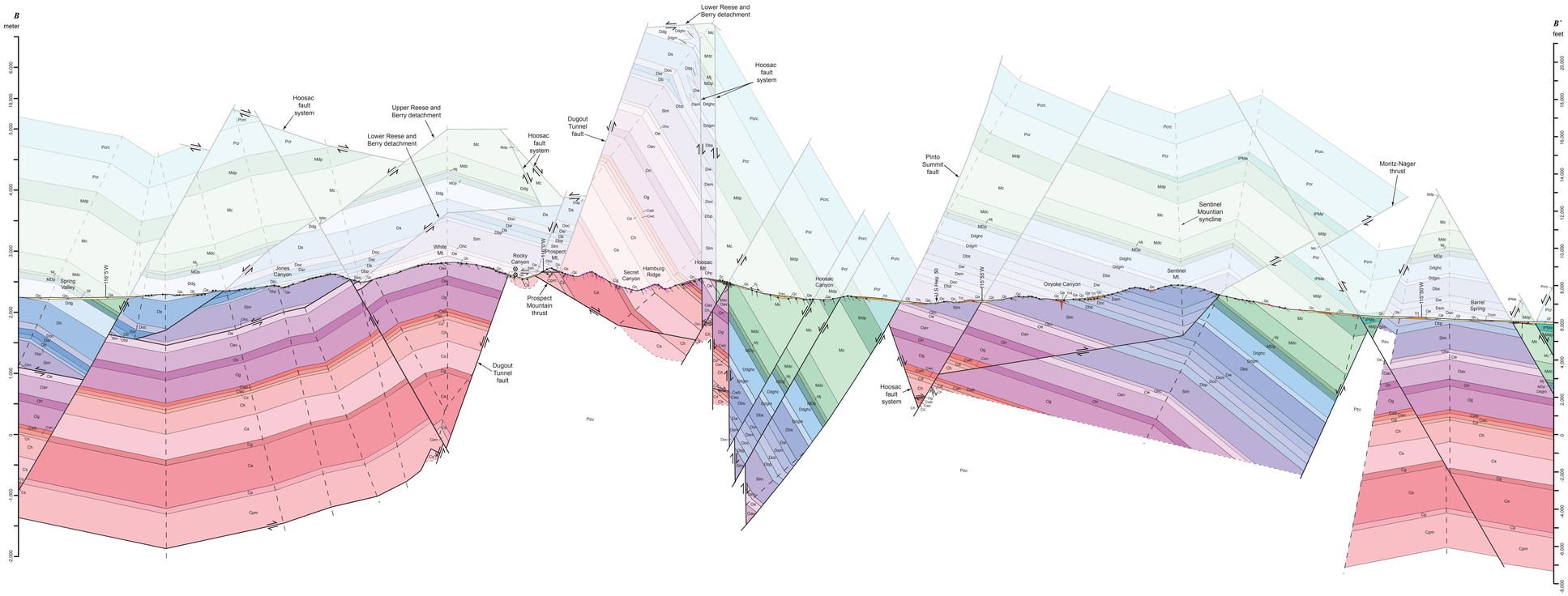
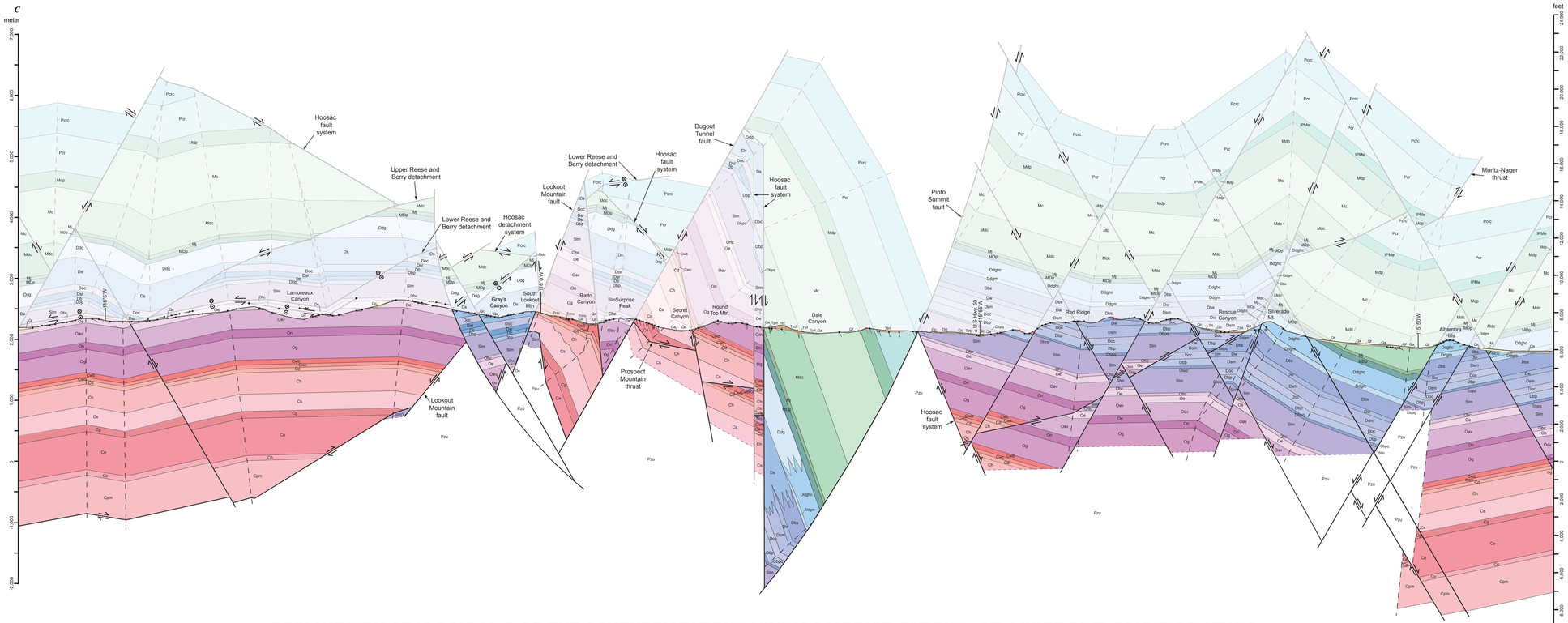
Prepared as part of the STATEMAP component of the National Cooperative Geologic Mapping Program in cooperation with the U.S. Geological Survey.





PRELIMINARY GEOLOGIC MAP OF THE SOUTHERN EUREKA MINING DISTRICT, EUREKA AND WHITE PINE COUNTIES, NEVADA
Plate 2 of 2

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2012

Including preliminary geology of the Northern Fish Creek Range, Southern Mountain Boy Range, and Southern Diamond Range.

Map unit correlation chart

Quaternary

- Qm — **Artificial fill, including mine tailing dumps**
- Qa, Qf, Qc, Qls — **Alluvium, alluvial fan deposits, colluvium, landslide deposits, and terrace deposits**

Tertiary

- QTg — **Capping gravel mostly composed of Paleozoic rocks (possibly equivalent to Tgm)**
- Tmh — **Magpie Hill Basalt**
- Tmc — **Conglomerate below Magpie Hill Basalt**
- Tnh — **Nine Hill Tuff**
- Tps — **Pancake Summit Tuff**
- Tpc — **Conglomerate below Pancake Summit Tuff**
- **Late volcaniclastic and sedimentary deposits**
  - Tgm — **Gravel composed of mixed Paleozoic and Cenozoic rocks**
  - Tgv — **Gravel mostly composed of mixed volcanic rocks**
  - Torm — **Gravel mostly composed of Richmond Mountain andesite**
  - Tcl — **Conglomerate composed of Paleozoic limestone**
  - Tsc — **Sandstone**
- Tr, Trbx, Trbf, Trt, Trtd, Trx — **Target Hill Rhyolite**
  - **Lava domes**
  - **Coarse breccia adjacent to lava domes**
  - **Lava flows**
  - **Pyroclastic-flow, fall, and surge deposits**
  - **Dikes**
  - **Intrusive breccia**
- Trmv, Trma — **Richmond Mountain Dacite and Andesite**
  - **Porphyritic dacite volcaniclastic deposits**
  - **Aphyric andesite lava flows**
- Trtd, Trt — **Undivided rhyolite dikes**; **Undivided pyroclastic-flow, fall, and surge deposits**
- Tpr, Tprx, Tprf, Tprl, Tprd, Trc, Trs — **Pinto Peak Rhyolite**
  - **Lava domes**
  - **Coarse breccia adjacent to lava domes**
  - **Lava flows**
  - **Pyroclastic-flow, fall, and surge deposits**
  - **Dikes**
  - **Conglomerate of Paleozoic limestone**
  - **Siltstone and sandstone**
- Trs, Trsv, Trsl, Trsd, Trsp — **Ratto Springs Rocks (dacite-low Si rhyolite)**
  - **Lava flows**
  - **Coarse volcaniclastic deposits**
  - **Tuffaceous and sedimentary deposits**
  - **Dikes**
  - **Breccia and conglomerate of Paleozoic rocks**
- Tc — **Eocene(?) conglomerate**
- Ti — **Cenozoic(?) intrusions**
- Tj — **Jasperoid of unidentified protolith (alteration likely Cenozoic)**

Cretaceous

- Kg — **Late Cretaceous granite**
- Knc — **Newark Canyon Formation (Lower Cretaceous)**

Pennsylvanian

- Porc — **Carbon Ridge Formation, upper conglomerate**
- Por — **Carbon Ridge Formation**
- IPMe — **Ely limestone**

Mississippian

- Mdp — **Diamond Peak Formation**
- Mc — **Chainman shale**
- Mdc — **Dale Canyon Formation**
- Mj — **Joana limestone**
- MDp — **Pilot shale**

Devonian

- Ddg — **Devil's Gate limestone, locally divided into:**
  - Ddghc — **Hayes Canyon member (Diamond Range)**
  - Ddgm — **Meister member (Diamond Range)**
- **Nevada Formation - Diamond Range**
  - Dbs — **Bay State dolomite member**
  - Dw — **Woodpecker limestone member**
  - Dsm — **Sentinel Mountain dolomite member**
  - Doc — **Oxyoke Canyon sandstone member**
  - Dbp — **Beacon Peak dolomite member**
  - Dbpq — **Basal quartzite of Beacon Peak dolomite member**
- **Fish Creek and Mountain Boy ranges**
  - Ds — **Simonson dolomite member**
  - Doc — **Oxyoke Canyon sandstone member**
  - Dsr — **Sadler Ranch member**
  - Db — **Bartine member**
  - Dbp — **Beacon Peak dolomite member**

Silurian

- Slm — **Lone Mountain dolomite**
- Ohc — **Hanson Creek dolomite**
- Oe — **Eureka quartzite**

Ordovician

- **Pogonip Group**
  - Opu
    - Oav — **Antelope Valley Formation**
    - Oh — **Ninemile Formation**
    - Og — **Goodwin Formation**
    - **Windfall Formation**
      - Owb — **Bullwhacker member**
      - Owc — **Catlin member**
    - Od — **Dunderberg shale**
  - Ch — **Hamburg dolomite**
  - Cs — **Secret Canyon shale**
  - Cg — **Geddes limestone**
  - Ce — **Eldorado dolomite**
  - Cp — **Pioche shale**
  - Cpm — **Prospect Mountain quartzite**

Cambrian

Symbology (per FGDC-STD-013-2006)

Contact: Solid where certain and location accurate, long-dashed where approximate, dotted where concealed, showing dip bearing.

Internal contact: Solid where certain and location accurate.

Normal fault: Solid where certain and location accurate, long-dashed where approximate, dotted where concealed. Ball on downthrown side. In cross section, dot towards observer; a away from observer.

Thrust fault: Solid where certain and location accurate, long-dashed where approximate, dotted where concealed.

Detachment fault: Solid where certain and location accurate, long-dashed where approximate, dotted where concealed.

Anticline: Solid where certain and location accurate, long-dashed where approximate, dotted where concealed.

Syncline: Solid where certain and location accurate, long-dashed where approximate, dotted where concealed.

Boundary of Open Pit Mine

A — A' **Line of cross section**

Strike and dip of bedding[1]: Inclined, Vertical, Horizontal, Overturned, Apparent Dip, In Cross Section

Strike and dip of bedding[2]: Inclined, Vertical, Overturned, Apparent Dip, In Cross Section

Strike and dip of bedding[3]: Inclined, Overturned, Apparent Dip, In Cross Section

Strike and dip of bedding[1]: Inclined, Vertical, Overturned

Strike and dip of joints[1]: Inclined

Strike and dip of igneous foliation[1]: Inclined

Strike and dip of foliation in ash-flow tuff[1]: Inclined

[1] From the authors.

[2] Nolan, T.B., 1962, The Eureka Mining District, Nevada: U.S. Geological Survey Professional Paper 406, 78 p.

[3] Nolan, T.B., Merriam, C.W., and Blake, M.C., Jr., 1974, Geologic map of the Pinto Summit quadrangle, Eureka and White Pine counties, Nevada: U.S. Geological Survey Miscellaneous Investigations Series, Map I-793, 1:31,680-scale, 14 p., 2 plates.

[4] From Timberline Resources Corporation.

Geologic data from Nolan et al. 1974 shown in gray.

Suggested citation:
Long, S.P., Henry, C.D., Muntean, J.L., Edmondo, G.P., and Thomas, R.D., 2012, Preliminary geologic map of the southern Eureka mining district, Eureka and White Pine Counties, Nevada: Nevada Bureau of Mines and Geology Open-File Report 12-6, 1:24,000.

UTM GRID AND
1990 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Adjoining 7.5' quadrangle names

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

1 Hay Ranch
2 Devon Peak
3 Eureka
4 Diamond Peak
5 Mount Black Pass
6 Combs Peak
7 Spring Valley Summit
8 Pinto Summit
9 Silverado Mountain
10 Sadler Canyon
11 West of Bellvue Peak
12 Bellvue Peak
13 Pinto Summit SW
14 Black Point
15 Pancake Summit SW

Scale 1:24,000

0 — 0.5 — 1 kilometer

0 — 0.5 — 1 mile

0 — 1000 — 2000 — 3000 — 4000 — 5000 feet

CONTOUR INTERVAL 40 OR 20 FEET

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

Base map: U.S. Geological Survey Spring Valley Summit 7.5' quadrangle (Provisional edition 1990)
Pinto Summit 7.5' quadrangle (Provisional edition 1990)
Silverado Mountain 7.5' quadrangle (Provisional edition 1990)

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

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

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Cartography and map production in ESRI ArcGIS v9.3 (ArcGeology v1.3) by Irene M. Seesar
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