# New Mexico Geological Society

Downloaded from: https://nmgs.nmt.edu/publications/guidebooks/38



## Supplemental road log 6, from Des Moines to Folsom

Adrian P. Hunt, Spencer G. Lucas, and Barry S. Kues 1987, pp. 62-63. https://doi.org/10.56577/FFC-38.62

in:

Northeastern New Mexico, Lucas, S. G.; Hunt, A. P.; [eds.], New Mexico Geological Society 38 th Annual Fall Field Conference Guidebook, 354 p. https://doi.org/10.56577/FFC-38

This is one of many related papers that were included in the 1987 NMGS Fall Field Conference Guidebook.

## Annual NMGS Fall Field Conference Guidebooks

Every fall since 1950, the New Mexico Geological Society (NMGS) has held an annual Fall Field Conference that explores some region of New Mexico (or surrounding states). Always well attended, these conferences provide a guidebook to participants. Besides detailed road logs, the guidebooks contain many well written, edited, and peer-reviewed geoscience papers. These books have set the national standard for geologic guidebooks and are an essential geologic reference for anyone working in or around New Mexico.

### **Free Downloads**

NMGS has decided to make peer-reviewed papers from our Fall Field Conference guidebooks available for free download. This is in keeping with our mission of promoting interest, research, and cooperation regarding geology in New Mexico. However, guidebook sales represent a significant proportion of our operating budget. Therefore, only *research papers* are available for download. *Road logs, mini-papers*, and other selected content are available only in print for recent guidebooks.

### **Copyright Information**

Publications of the New Mexico Geological Society, printed and electronic, are protected by the copyright laws of the United States. No material from the NMGS website, or printed and electronic publications, may be reprinted or redistributed without NMGS permission. Contact us for permission to reprint portions of any of our publications.

One printed copy of any materials from the NMGS website or our print and electronic publications may be made for individual use without our permission. Teachers and students may make unlimited copies for educational use. Any other use of these materials requires explicit permission.

This page is intentionally left blank to maintain order of facing pages.

#### SUPPLEMENTAL ROAD LOGS



FIGURE S-5.3. The Museum in Folsom.

- 24.8 Morrison Formation exposed in roadcuts to right. 0.1
- 24.9 Roadcuts through landslide deposits. 0.9
- 25.8 Capulin Mountain at 11:00. 0.6
- 26.4 Roadside table, Folsom Falls at 9:00. 0.4
- 26.8 Good exposures of "lahar" in roadcuts to right and left for next 0.3 mi (Fig. S-5.2). **1.1**
- 27.9 Sierra Grande at 10:00. 0.1
- 28.0 Robinson Peak at 11:00. 1.0
- 29.0 **Folsom** city limits at elevation 6,400 ft. Lytle Formation in roadcuts to right and left. **0.6**
- 29.6 Bridge and stop sign at junction with NM 72; proceed straight. Museum to left (Fig. S-5.3).
  End of Supplemental Road Log 5.

#### SUPPLEMENTAL ROAD LOG 6, FROM DES MOINES TO FOLSOM

ADRIAN P. HUNT, SPENCER G. LUCAS and BARRY S. KUES

#### Mileage

- 0.0 At junction US-64/US-87 (mile 45.8 on Third-Day Road Log) and NM-72, **turn right** (N) on NM-72 to Folsom; leave Des Moines; Capulin Mountain is visible at 12:00– 12:30. **0.3**
- 0.3 Highway crosses Colorado and Southern Railroad. 0.1
- 0.4 At 3:00 is Dunchee Hill, eroded remnant of an early Clayton-age volcano. An intrusive sill-like body holds up the topographically high areas, and the remainder of the area is composed of pyroclastic material. In hand specimen, small iridescent olivine crystals can be seen partially altered to iddingsite. **1.0**
- 1.4 At mile marker 43, Capulin Mountain is visible at 9:30, Mud Hill at 9:45 and Robinson Peak at 10:00. 0.5
- 1.9 Carr Mountain at 2:00 is an irregularly shaped cone capped with Clayton-age basalt and agglomerate, which forms the eastern rim of the vent. A volcanic breccia associated with the vent is composed of scoria, sand-stone and white limestone. **0.3**
- 2.2 Twin Mountain can be seen at 10:00, and Emery Peak is visible at 2:00, Purvine Mesa is the low hill at 3:00. Twin Mountain is an elongate cinder cone with a trough through the long axis, dividing it into two parts. Probably the result of a fissure eruption, the elongate vent is composed of well-bedded ash, cinders and bombs. Short basalt flows from the vents moved northward for a few miles (Fig. S-6.1). The eruption of Twin Mountain was nearly contemporaneous with that of Baby Capulin to the west and the Purvine Hills to the east. The north flank of Twin Mountain has produced large volumes of ballast for the Colorado and Southern Railroad and material for cinder blocks (Baldwin and Muehlberger, 1959). 1.6

- 3.8 At crest there are views of Twin Mountain at 10:00, Buffalo Head at 1:00, Emery Peak at 2:30 and Alps Mesa at 1:30. **0.3**
- 4.1 Passing basalt from the Purvine Hills immediately to the right. These are a group of four small fissure vents extending from near the highway due east for about 2 mi. Three of the vents are small spatter cones (scarcely 45 ft high), but they produced extensive basalt flows. Lava from the westernmost hill (red hill at 3:00) moved

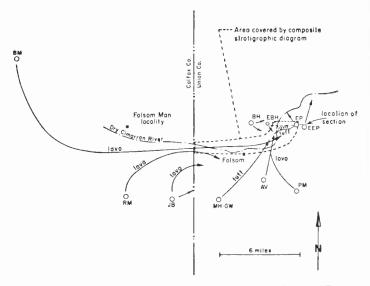


FIGURE S-6.1. Source and general direction of movement of lavas of Folsom sequence of Clayton basalt. EP, Emery Peak, EEP, East Emery Peak, BH, Big Hill, EBH, East Big Hill, AV, Augite Vents, PM, Purvine Mesa, MH, Mud Hill, GW, Great Wall, BM, Bellisle Mountain, RM, Robinson Mountain and JB, José Butte (from Baldwin and Muehlberger, 1959).

westward across the base of Twin Mountain, then northward into the Dry Cimarron Valley. Lava from the eastern pair of vents flowed eastward down Briggs Canyon for several miles, possibly reaching the Dry Cimarron. The fourth vent (second from the road) is a small pyroclastic cone from which only minor amounts of basalt erupted. The low mesa (Purvine Mesa) immediately north of the Purvine vents is covered by several square miles of basalt flows that are slightly younger than 1.8 m.y., and thus much older than the Purvine Hills-Twin Mountain flows (Baldwin and Muehlberger, 1959). **0.5** 

- 4.6 Passing Twin Mountain. Pajarito Formation outcrops in roadcuts to the left and right. The town of Folsom is visible at 12:00. 0.7
- 5.3 Basalt flows from Twin Mountain cover flat area ahead for next mile. At right are Purvine Hills basalt flows. Flows from Twin Mountain and the Purvine Hills are

indistinguishable in hand specimen, and therefore flow remnants in the Dry Cimarron Valley may be from either vent (Baldwin and Muehlberger, 1959). **0.9** 

- 6.2 Highway crosses Pinabete Creek. Basalt along creekbed is from Baby Capulin, about 2.5 mi to the southwest. 0.2
- 6.4 Roadcuts are composed of red and green claystones and brown sandstones of the upper Morrison Formation (Late Jurassic). 0.1
- 6.5 At 11:00 the Mesa Rica Sandstone of Early Cretaceous age caps the hill. **0.4**
- 6.9 To the right and left are roadcuts in the Morrison Formation, which is mainly sandstone at this point. **0.4**
- 7.3 Enter Folsom (elevation 6,400 ft). The black-brown sandstone at 7:00 is the Mesa Rica. 0.2
- 7.5 Folsom Museum on right.End of Supplemental Road Log 6.