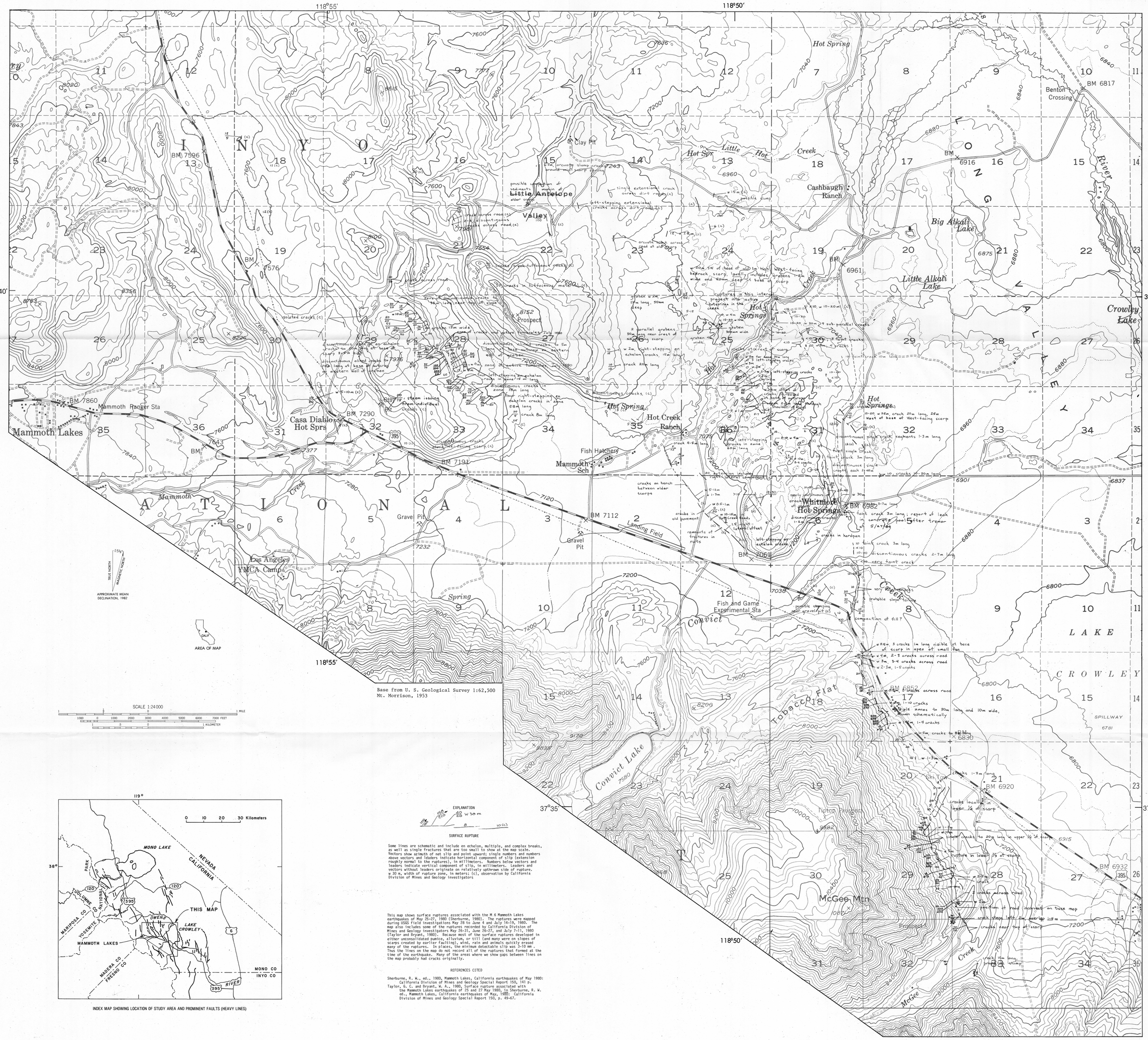

Base from U. S. Geological Survey 1:62,500
Mt. Morrison, 1953

INDEX MAP SHOWING LOCATION OF STUDY AREA AND PROMINENT FAULTS (HEAVY LINES)

EXPLANATION

SURFACE RUPTURE

Some lines are schematic and include en echelon, multiple, and complex breaks, as well as single fractures that are too small to show at the map scale. Vectors show azimuth of net slip and point upward; single numbers and numbers above vectors and leaders indicate horizontal component of slip (extension roughly normal to the ruptures), in millimeters. Numbers below vectors and leaders indicate vertical component of slip, in millimeters. Leaders and vectors without leaders originate on relatively upthrown side of rupture. w 30 m, width of rupture zone, in meters; (c), observation by California Division of Mines and Geology investigators

This map shows surface ruptures associated with the M 6 Mammoth Lakes earthquakes of May 25-27, 1980 (Sherburne, 1980). The ruptures were mapped during USGS field investigations May 28 to June 4 and July 14-19, 1980. The map also includes some of the ruptures recorded by California Division of Mines and Geology investigators May 26-31, June 26-27, and July 7-11, 1980 (Taylor and Bryant, 1980). Because most of the surface ruptures developed in either unconsolidated pumice, alluvium, or till (and many were on slopes of scarps created by earlier faulting), wind, rain and animals quickly erased many of the ruptures. In places, the minimum detectable slip was 3-10 mm. Thus the lines on the map do not record all of the ruptures that formed at the time of the earthquake. Many of the areas where we show gaps between lines on the map probably had cracks originally.

REFERENCES CITED

Sherburne, R. W., ed., 1980, Mammoth Lakes, California earthquakes of May 1980: California Division of Mines and Geology Special Report 150, 141 p.
Taylor, G. C. and Bryant, W. A., 1980, Surface rupture associated with the Mammoth Lakes earthquakes of 25 and 27 May 1980, in Sherburne, R. W. ed., Mammoth Lakes, California earthquakes of May, 1980: California Division of Mines and Geology Special Report 150, p. 49-67.

Ruptures mapped between May 28 and June 4, 1980 by M.M. Clark, P.R. Vaughan, J.C. Yount, D. B. Burke, E. J. King, and J. C. Tinsley; between July 14-19, 1980 by Clark, Vaughan, and Zepeda.

MAP SHOWING SURFACE RUPTURES ASSOCIATED WITH THE MAMMOTH LAKES, CALIFORNIA, EARTHQUAKES OF MAY 1980

By
M. M. Clark, J. C. Yount, P. R. Vaughan, and R. L. Zepeda

1982

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