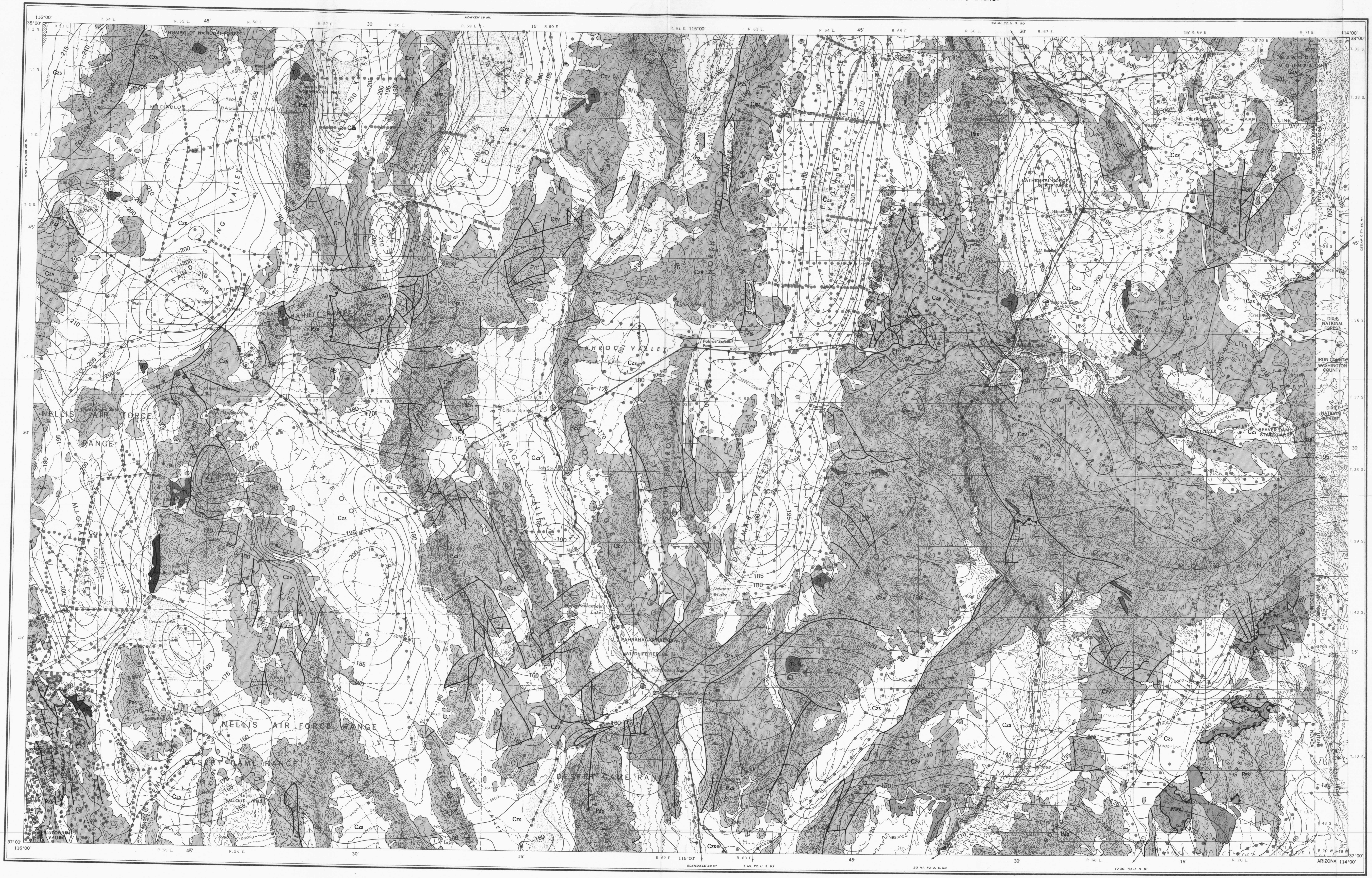
NEVADA BUREAU OF MINES AND GEOLOGY

PREPARED IN COOPERATION WITH THE U.S. GEOLOGICAL SURVEY AND THE U.S. DEPARTMENT OF ENERGY

MAP 70 BOUGUER GRAVITY MAP OF NEVADA – CALIENTE SHEET



CENOZOIC

Czs — Cenozoic sedimentary rocks

Alluvial deposits, playa deposits, tuffaceous sedimentary rocks, sandstone, conglomerate, minor limestone and dolomites.

Czv — Cenozoic volcanic rocks

Olivine basalts, welded to unwelded silicic ash-flow tuffs, andesite lava and breccia, intrusive andesites.

Ti — Tertiary intrusive rocks

Granitic and rhyolitic rocks. Lesser amounts of mafic and intermediate composition rocks.

MESOZOIC

Mzs — Mesozoic sedimentary rocks

Sandstone and conglomerate rocks. Includes the Chinle and Moenkopi Formations.

PALEOZOIC

Pzs — Paleozoic sedimentary rocks

Extensive thick-bedded marine limestones and dolomites. Less extensive quartzite, shale and sandstones.

PRECAMBRIAN

pЄ — Precambrian rocks

Quartzite, phyllitic siltstone, conglomerate, limestone and dolomite.

Contact

Fault

Thrust fault

Barbs on upper plate.

Gravity contours (170, 180)

Contour interval 5 milligals. Hachured contours indicate areas of low gravity closure. Dashed where data is incomplete.

Gravity station

Accurate to ±0.6 mGals. Includes 45 altimeter stations accurate to ±2.0 mGals.

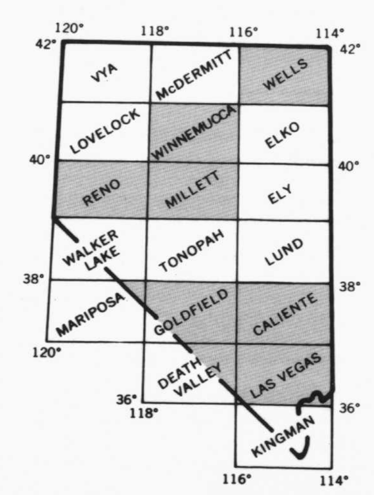
Gravity base station

The data have been reduced to the 1971 IGSN (International Gravity Standardization Network) (Morelli, 1974). The prime base station is the DOD gravity station "Tonopah" at the Tonopah airport, g = 979,462.50 mGals (Healey and others, 1979, p. 68). The reference spheroid is GRS 1967 (International Association of Geodesy, 1971). Reduction density is 2.67 g/cm^3. Terrain corrections were made for all stations from the station outward to a distance of 166.7 km using the U.S. Geological Survey modification of the Defense Mapping Agency digital terrain data and a procedure by Plouff (1977). Where topographic maps were available, terrain corrections to a distance of 2.6 km were made using cylindrical ring templates (Hammer, 1939). See U.S. Geol. Survey Open-file report 474–305, 1979, by the authors of this report for further discussion.

INDEX MAP

Area of coverage shown by heavy black border.

Published sheets shaded.



SOURCES OF GRAVITY DATA

	Number of stations
Defense Mapping Agency Hydrographic/Topographic Center (DMAHTC)/Geodetic Survey Squadron (Snyder and others, 1980)	483
Fugro National Consulting Engineers and Geologists; Defense Mapping Agency Hydrographic/Topographic Center/Geodetic Survey Squadron (Snyder and others, 1980)	102
Healey and others (1979)	2418
Snyder and others (1980)	294
Total	3297

SCALE 1:250,000

0 5 10 15 20 25 30 35 40 Kilometers

0 5 10 15 20 25 Miles

CONTOUR INTERVAL 200 FEET WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

COMPLETE BOUGUER GRAVITY MAP OF NEVADA
CALIENTE SHEET

D. L. Healey, D. B. Snyder, R. R. Wahl, and F. E. Currey

1981

SOURCE OF GENERALIZED GEOLOGY

Stewart, J. H. and Carlson, J. E. (1974) Preliminary geologic map of Nevada: U.S. Geol. Survey Misc. Field Studies, MF–609.

D-01

Base map: U.S. 1:250,000 series, Caliente sheet, 1970

First edition, first printing, 1981: 1550 copies
Printed by Williams and Heintz Map Corp., Washington, D.C.
Cartography by Susan L. Nichols
Edited by Mati A. Stephens
Geology generalized by John W. Erwin
Composed by Patricia A. Chambers

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Price: $4.00