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STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

PRELIMINARY REPORT 12

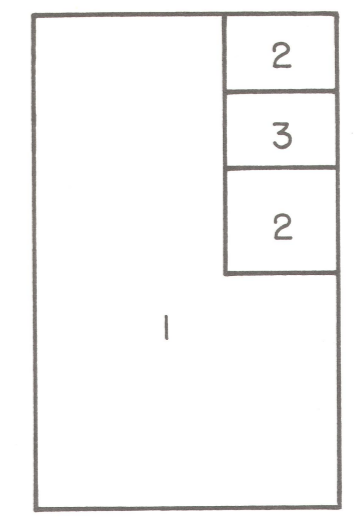
GEOLOGIC MAP OF THE SHADOW MOUNTAINS AND
NORTH PART OF THE SHADOW MOUNTAINS SE 7 1/2 QUADRANGLES,
WESTERN SAN BERNARDINO COUNTY, CALIFORNIA

by
BENNIE W. TROXEL & JAMES N. GUNDERSEN

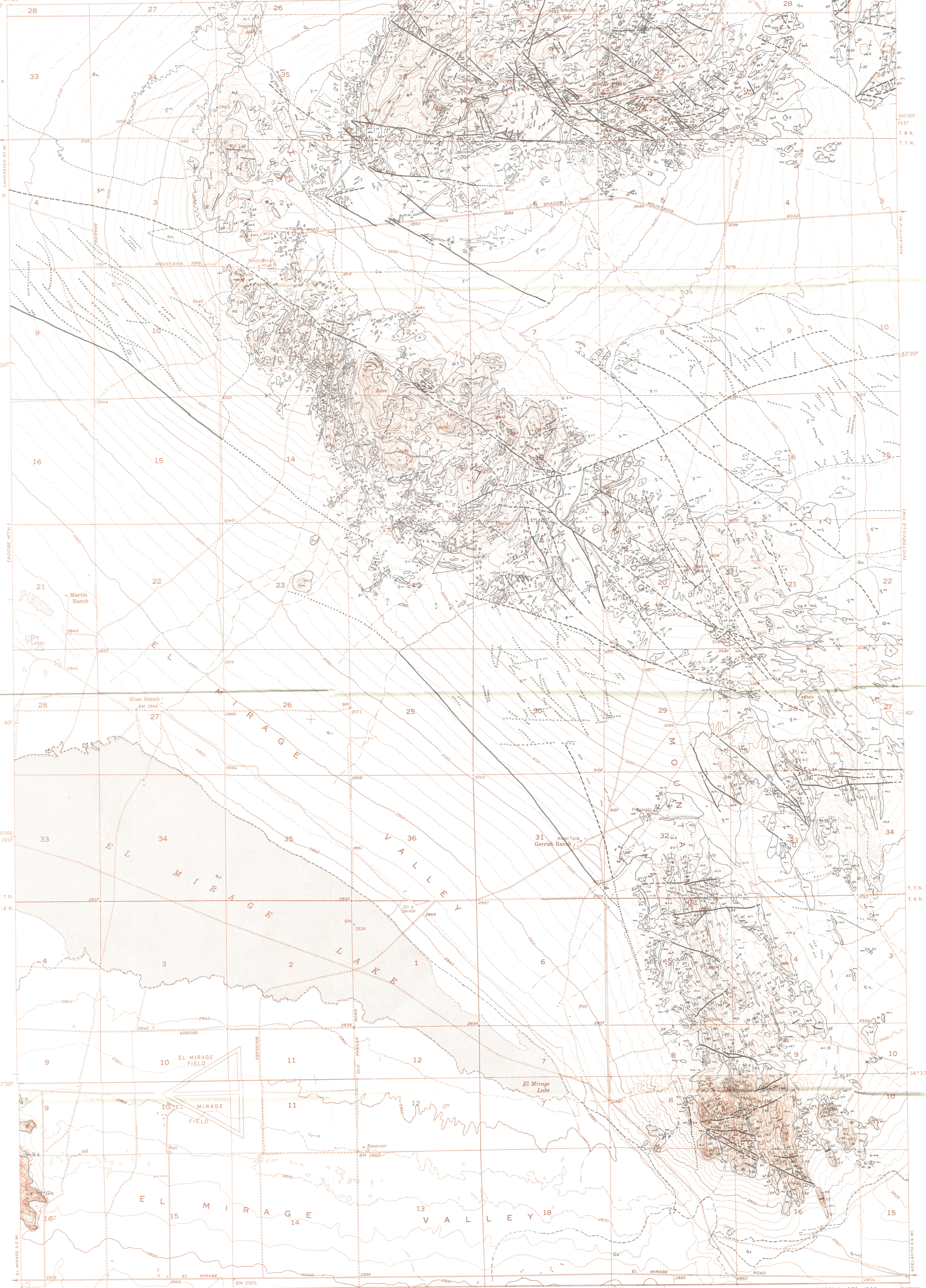
EXPLANATION

- QUATERNARY**
- SEDIMENTARY ROCKS**
 - Qs: Wind-blown sand
 - Qa: Alluvium
 - Qop: Playa sediments
 - Qosg: Alluvium from San Gabriel Mountains
 - Qod: Debris flow deposits from Wrightwood area of San Gabriel Mountains
 - Qoa: Older Alluvium
- TERTIARY**
- INTRUSIVE ROCKS**
 - Intermediate dike rock
 - g: Granite
 - qm: Quartz monzonite
 - h: Hornblende diorite-hornblende gabbro
- MESOZOIC**
- METAMORPHIC ROCKS**
 - mc: Carbonate rocks
 - ms: Schistose rocks
 - mh: Hornfels
 - mq: Quartzite
- UPPER PALEOZOIC**
- Medium-to coarse-grained, poor- to well-bedded, thinly layered to massive, subrounded to angular, arkosic to relatively pure quartzite.

- SYMBOLS**
- Contact: Dashed where approximately located
 - Fault: Dashed where indefinite or approximately located; dotted where concealed
 - Anticline: Trace of axial plane and direction of plunge of axes of folds
 - Syncline: Dashed where approximately located
 - Overtaken antiform: Dashed where approximately located
 - Strike and dip of beds: 35°
 - Horizontal beds: ⊕
 - Strike of vertical beds: ⊥
 - Lines of vegetation above traces of fractures, joints, or faults beneath a shallow overburden of alluvium or decomposed bedrock.



SOURCE OF DATA
1 TROXEL
2 GUNDERSEN
3 TROXEL & GUNDERSEN



TOPOGRAPHIC BASE MAP BY THE U.S. GEOLOGICAL SURVEY

SCALE 1:24000

GEOLOGIC MAPPING 1950-1966
DRAFTED BY B.W. TROXEL & R.D. GRIMM

ROAD CLASSIFICATION
Heavy-duty ——— Light-duty ———
Medium-duty ——— Unimproved dirt ———
U.S. Route ——— State Route ———

SHADOW MOUNTAINS, CALIF.
NE4 SHADOW MOUNTAINS 12 QUADRANGLE
N3437.5-W11730/7.5

1955
SHADOW MOUNTAINS SE,CALIF.
SE4 SHADOW MOUNTAINS 12 QUADRANGLE
N3430-W11730/7.5

1955

This map is the result of recently completed field work and work in progress. It is issued as a "Preliminary Report" in order that the information be made available to those who need it as rapidly as possible. Please note, however, that, when the final report is released, it may differ significantly from this map, as new data may be added and modifications made.

In particular, geologic names have not been verified for conformity to the Code of Stratigraphic Nomenclature, nor are all rock designations precise. This map should NOT be used to cite formation names or age designations.