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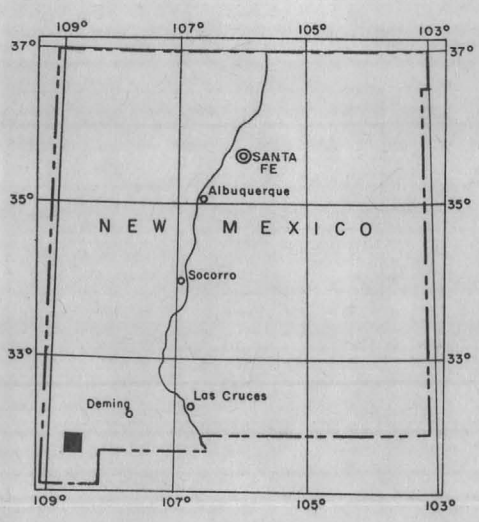
GEOLOGIC MAP 7

RECONNAISSANCE GEOLOGIC MAP OF PLAYAS FIFTEEN-MINUTE QUADRANGLE

By Robert A. Zeller, Jr.



STATE BUREAU OF MINES AND MINERAL RESOURCES
NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY
CAMPUS STATION SOCORRO, NEW MEXICO

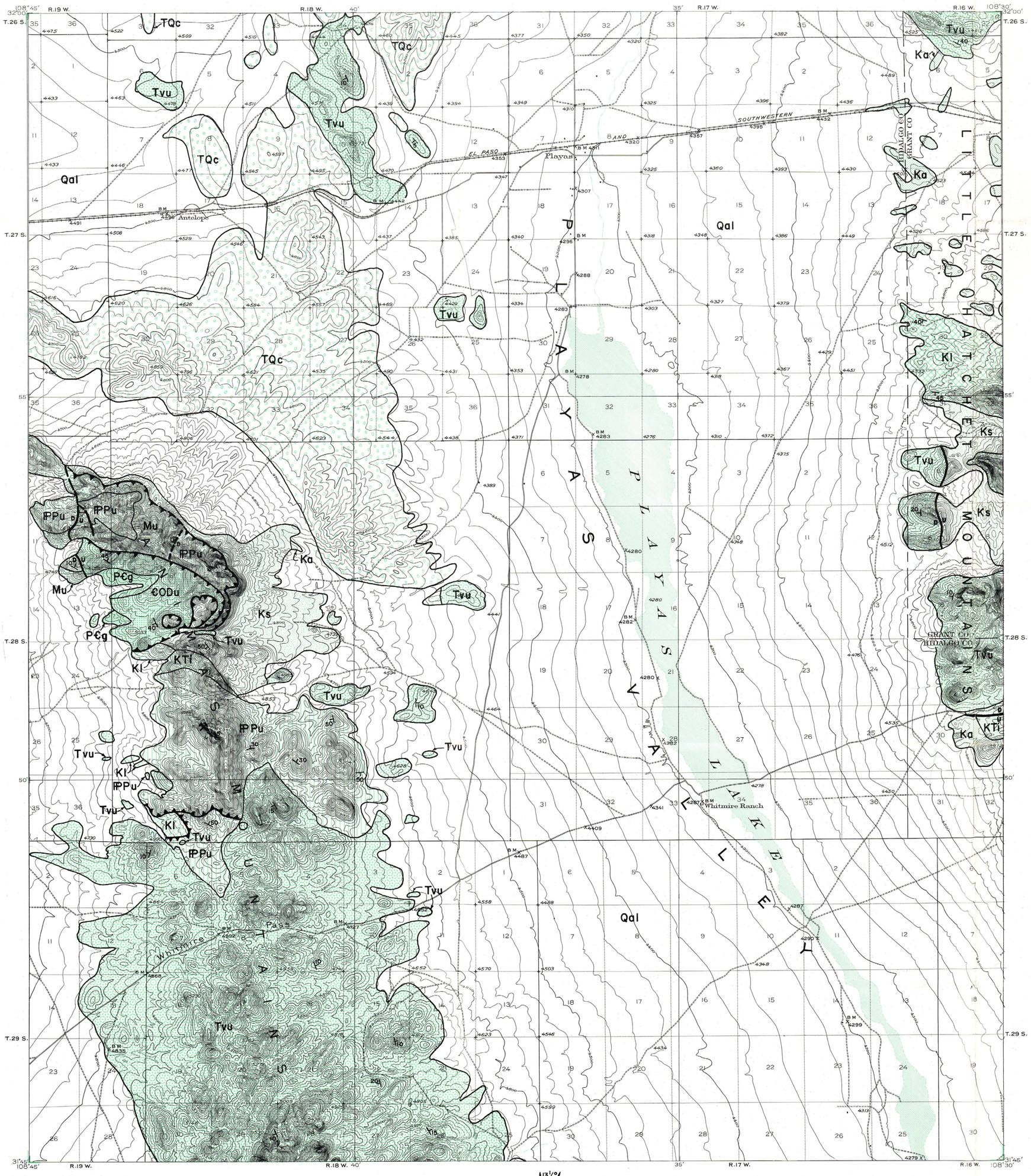
1959

STATE BUREAU OF MINES
AND MINERAL RESOURCES
A. J. THOMPSON, DIRECTOR

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY
E. J. WORKMAN, PRESIDENT

GEOLOGY
PLAYAS QUADRANGLE
NEW MEXICO

GEOLOGIC MAP 7



Base from Playas Quadrangle; surveyed by the U. S. Geological Survey in cooperation with the War Department.

Approximate mean declination, 1918

Geology mapped in 1956.
Geologic cartography by
E. S. Holman.

EXPLANATION

QUATERNARY

Qal

Alluvium

UNCONFORMITY

TERTIARY

TQc

Conglomerate

Boulder and cobble conglomerate and sandstone, composed entirely of Tertiary volcanic detritus.

UNCONFORMITY

Tvu

Undifferentiated volcanic rocks

All rocks of volcanic origin which underlie coarse-grained quartz latite of areas to the south. Lenticular beds of different rock types, including white rhyolite tuff, agglomerate, welded crystalline rhyolitic and quartz latititic tuff, latite, and andesite.

KTi

Intrusive rocks

Monzonite porphyry and quartz monzonite porphyry.

UNCONFORMITY

LOWER CRETACEOUS

Ks

Sandstone

Lenticular beds of brown-weathered terrestrial sandstone interbedded in places with thin-bedded limestone and marl, and with limestone conglomerate. Includes Corbett sandstone and higher formations in Little Hatchet Mountains.

Kl

Limestone

Massive and medium-bedded limestone in places interbedded with shale and limestone conglomerate. Includes Howells Ridge formation in Little Hatchet Mountains.

Ka

Andesite

Altered andesite flows. Includes Hidalgo volcanics in Little Hatchet Mountains.

UNCONFORMITY

PENNSYLVANIAN PERMIAN

PPu

Undifferentiated Pennsylvanian and Permian limestone

Massive limestone of Naco group exposed only in overthrust plates.

MISSISSIPPIAN

Mu

Undifferentiated Mississippian formations

Includes massive Escabrosa limestone, rich in crinoidal detritus, and overlying Paradise formation of thin-bedded orange-weathered fossiliferous oolitic limestone.

CAMBRIAN–ORDOVICIAN–DEVONIAN

€ODu

Undifferentiated Lower Paleozoic formations

Includes the following formations:

Percha shale – gray clay shale. Devonian (?).
Montoya dolomite – medium- to light-gray dolomite. Ordovician.
El Paso limestone – upper part blue limestone; lower part gray dolomite with chert nodules. Ordovician.
Bliss formation – quartz sandstone and arkose. Cambrian-Ordovician.

UNCONFORMITY

PRECAMBRIAN

P€g

Granite

Pink very coarse-grained prophyritic granite, with 1-inch orthoclase phenocrysts.

Contact

Approximately located.

Fault

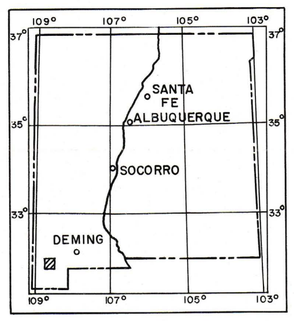
Dashed where fault doubtful or probable, and where approximately located. D, downthrown side; U, upthrown side.

Thrust fault

Dashed where approximately located. Saw-teeth on side of upper plate.

Mine

30 Strike and dip of beds.



INDEX MAP OF NEW MEXICO

RECONNAISSANCE GEOLOGIC MAP OF PLAYAS FIFTEEN-MINUTE QUADRANGLE

By Robert A. Zeller, Jr.

Scale: 1:62,500

1 0 1 2 3 4
Statute Miles

1958