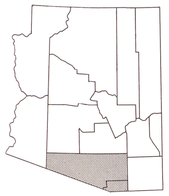
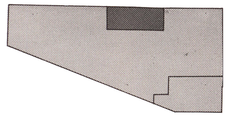
INDEX MAP OF ARIZONA
Showing Location of Pima and Santa Cruz Counties.

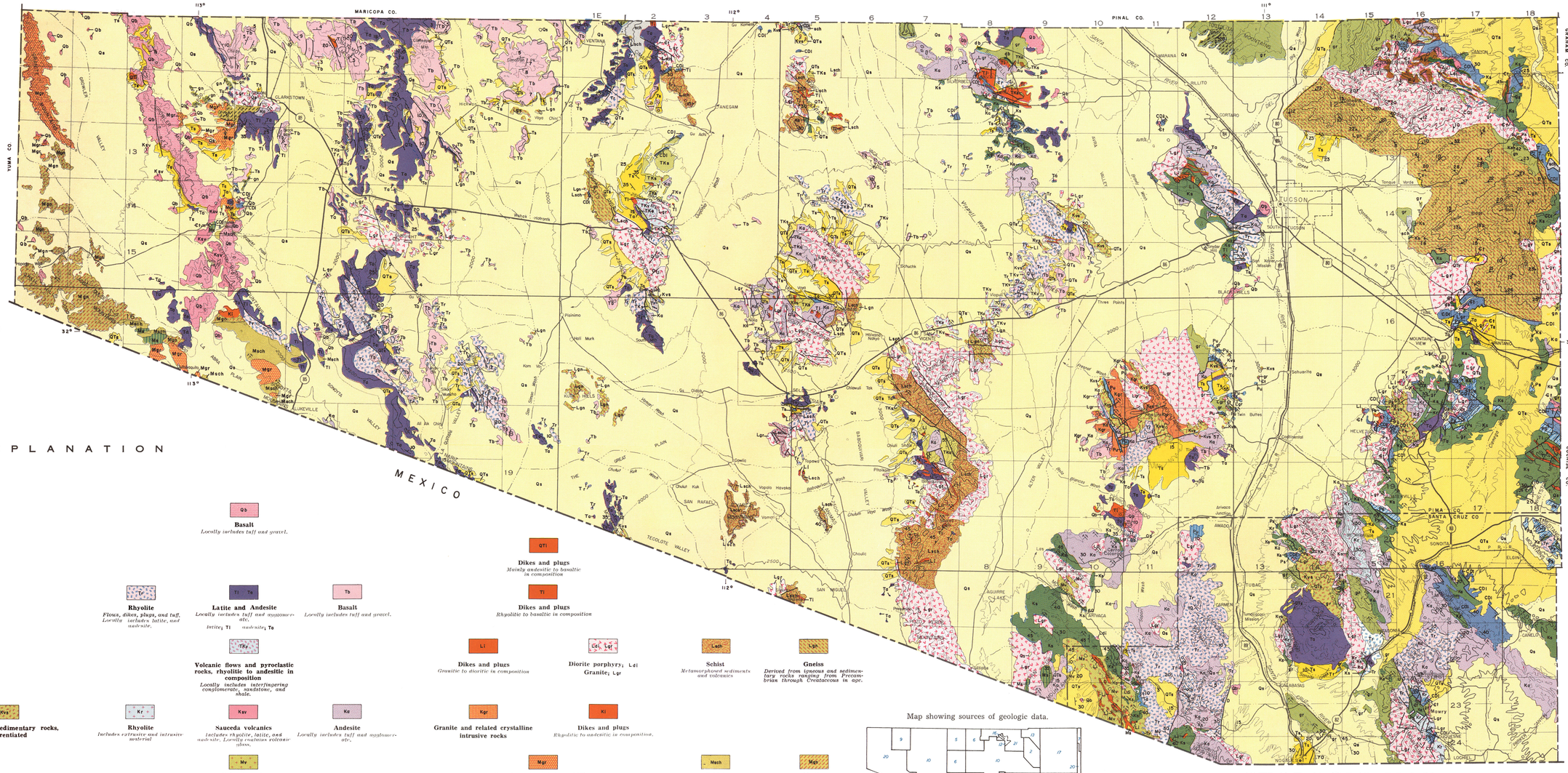


Map showing sources of topographic data.



U.S. Geol. Survey Topographic Map of Arizona (1956)

Army Map Service, Tucson, Arizona 2° sheet (1959)



EXPLANATION

QUATERNARY

Gs — Silt, sand, and gravel

QTs — Sand, gravel, and conglomerate

LARAMIDE — TERTIARY

Ts — Sandstone, shale, and conglomerate
Includes some volcanic rocks.

TKs — Sandstone, shale, and conglomerate
Includes some volcanic rocks.

CRETACEOUS

Ks — Shale, sandstone, conglomerate, and limestone, locally metamorphosed

MESOZOIC UNDIVIDED

Ms — Sandstone, shale, and conglomerate locally metamorphosed

PERMIAN

Pe — Permian limestone, sandstone, and shale

CARBONIFEROUS AND DEVONIAN

CDl — Carboniferous and Devonian limestone, shale, sandstone, and quartzite

CAMBRIAN

-Ct — Bolsa and Troy quartzites and Abrigo and related limestones

YOUNGER PRECAMBRIAN

Au — Apache group
Mescal limestone, Dripping Spring quartzite, Barnes conglomerate, Pioneer shale, and Scanlan conglomerate. Locally includes some Cambrian Troy quartzite.

OLDER PRECAMBRIAN

Kvs — Volcanic and sedimentary rocks, undifferentiated

Pc — Limestone, shale, sandstone, and quartzite

PALEOZOIC UNDIVIDED

Tr — Rhyolite
Flows, dikes, plugs, and tuff. Locally includes latite, and andesite.

Tl Ta — Latite and Andesite
Locally includes tuff and agglomerate.
latite, Tl andesite, Ta

Tb — Basalt
Locally includes tuff and gravel.

TKv — Volcanic flows and pyroclastic rocks, rhyolitic to andesitic in composition
Locally includes interfingering conglomerate, sandstone, and shale.

Kr — Rhyolite
Includes extrusive and intrusive material

Ksv — Sauceda volcanics
Includes rhyolite, latite, and andesite. Locally contains volcanic glass.

Ka — Andesite
Locally includes tuff and agglomerate.

Mv — Volcanic rocks
Flows, dikes, and plugs of andesitic to rhyolitic composition. Locally includes interfingering conglomerate, sandstone, and shale.

Qb — Basalt
Locally includes tuff and gravel.

QTl — Dikes and plugs
Mainly andesitic to basaltic in composition

Tl — Dikes and plugs
Rhyolitic to basaltic in composition

Ll — Dikes and plugs
Granite to diorite in composition

Lgr — Diorite porphyry, Ldl
Granite, Lgr

Lsch — Schist
Metamorphosed sediments and volcanics

Lgn — Gneiss
Derived from igneous and sedimentary rocks ranging from Precambrian through Cretaceous in age.

Kgr — Granite and related crystalline intrusive rocks

Kl — Dikes and plugs
Rhyolitic to andesitic in composition.

Mgr — Granite and related crystalline intrusive rocks

Msch — Schist
Metamorphosed sediments and volcanics

Mgn — Gneiss

YOUNGER PRECAMBRIAN TO TERTIARY

db — Diabase

gr — Granite and related crystalline intrusive rocks

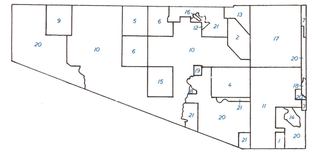
sch — Schist

gn — Granite gneiss

SYMBOLS

- Contact, showing dip
- Fault, showing dip
  Dashed where approximately located
  U, upthrown side; D, downthrown side
- Thrust fault
  (T, upper plate)
- Axis of anticline
- Axis of syncline
- Strike and dip of beds
- Strike and dip of foliation
- Mine
- Quarry

Map showing sources of geologic data.



1. Baker, R.C., Univ. of Mich.
2. Brown, W.H., Univ. of Ariz.
3. Bryant, D.L., Univ. of Ariz.
4. Cooper, J.R., U.S. Geol. Survey
5. Cosner, O.J., Armstrong, C.A., and Page, H.G., U.S. Geol. Survey
6. Cosner, O.J., and Page, H.G., U.S. Geol. Survey
7. Creasey, S.C., U.S. Geol. Survey
8. Fair, C. and Kurtz, W.I., Univ. of Ariz.
9. Gilluly, J., U.S. Geol. Survey
10. Heindl, L.A., U.S. Geol. Survey
11. Jones, W. R., Bowles, G., and Hedlund, D., U.S. Geol. Survey
12. McClymonds, N.E., and Ruff, A., Univ. of Ariz.
13. Moore, R.T., Ariz. Bur. of Mines
14. Moran, W.R., Union Oil Co. of Calif.
15. Page, H.G., Ellis, J.M., and Heindl, L.A., U.S. Geol. Survey
16. Richard, K. and Courtright, J.H., Am. Smelting and Ref. Co.
17. Tolman, C.F., Moore, B.N., Butler, B.S., and Hernon, R.M., U.S. Geol. Survey
18. Tyrell, W.W., Yale Univ.
19. Wargo, J.G. and Kurtz, W.I., Univ. of Ariz.
20. Wilson, E.D., Ariz. Bur. of Mines
21. Wilson, E.D. and Moore, R.T., Ariz. Bur. of Mines

GEOLOGIC MAP
OF
PIMA AND SANTA CRUZ COUNTIES, ARIZONA

PREPARED BY THE

ARIZONA BUREAU OF MINES
UNIVERSITY OF ARIZONA
TUCSON, ARIZONA

BY

Eldred D. Wilson, Richard T. Moore, and Robert T. O'Haire.

Scale 1/375,000

10 0 10 20 30 Miles

10 0 10 20 30 Kilometers

Contour interval 500 feet
datum is mean sea level

1960