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1435 SOUTH 10th AVENUE
P.O. BOX 1889

Jacobs Assay Office

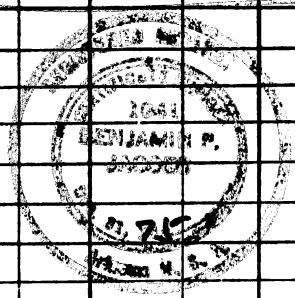
Registered Assayers

PHONE 622-0813

85702 Tucson, Arizona, Dec 22, 19 75

Sample Submitted by Mr. L. J. Sechty personal

Sample Marked	GOLD Ozs. per ton ore	GOLD Value per ton ore * $	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	..... Per Cent Wet Assay	..... Per Cent Wet Assay	..... Per Cent Wet Assay
Spec Conc	Trace	—	0.35					



* Gold Figured $ 100.00 per oz. Troy

Charges $ 40.00

Very respectfully,

Ben D. Jacobs

RECONNAISSANCE GEOLOGIC SURVEY

SALERO MINE AREA

for

W. F. Randall
and
Owen Ooms

by

William Lundby

April 1, 1971

PROPERTY LOCATION AND DESCRIPTION

At the request of Mr. W. F. Randall, of Nogales, Arizona, a reconnaissance geologic examination was made of the area in the vicinity of the Salero Mine, located about 7 miles west-northwest of Patagonia, Arizona. Work was concentrated on the original mineral segregation of the Luis Maria Baca Grant (Float No. 3), which comprises 13.7 square miles in the northeast corner of the land grant.

Areas examined included some of the lead-silver veins of the district, the Mine Tank area, and a portion of the east flank of the San Cayetano Mountains.

GEOLOGY

Harald Drewes, of the United States Geological Survey, recently completed the geologic mapping of the Mount Wrightson quadrangle and the preliminary uncolored map is currently available from the U.S.G.S.; the map is detailed and is an excellent base geologic map. Also available, from Robert Lenon of Patagonia, are engineering maps of some of the old workings, many of which are now inaccessible.

Geologically, the eastern third of the mineral segregation is composed of intrusive diorite and quartz monzonite of Laramide (Paleocene) age, the southwestern quarter is covered by late (Oligocene) acid volcanics, and the central part of the area consists of upper Cretaceous volcanic and sedimentary beds.

Silver-bearing veins usually form prominant outcrops and are continuous over considerable distances. Recent development work on two previously unworked veins about 200 feet north of the Jefferson vein has shown assay values up to 10.0% lead and 2.46 ounces of silver per ton over an average width of 2 to 3 feet.

The area west and south of the Mine Tank, which is located about one mile west of Squaw Peak, has an abundance of nearly vertical quartz veins in Laramide diorite. East of the tank, there are copper and iron sulphides in veinlets and stringers in the stream bottom. Rock geochemical samples collected from quartz veining near the quarter corner (east) of section 25 (R-14-E, T-21-S) showed anomalous silver, about 0.1 ounces per ton, low copper values, 23 to 78 parts per million, and fairly low molybdenum values, 2 to 12 parts per million, with a single good anomalous sample containing 122 parts per million.

Copper shows in old workings are supposed to exist on the east flank of the San Cayetano Mountains, but a brief reconnaissance failed to yield any evidence of such mineralization.

EXPLORATION APPROACHES

Two different exploration approaches can be considered for the area: either additional underground development work can be done to delineate zones of milling grade ore for processing at Salero or the property can be considered as a target area for a major porphyry-type deposit. In the first case, it should be

possible to develop sufficient tonnage to justify a 100 ton per day mill with some profit.

The better potential of the area is that there is a large tonnage deposit which could be sold to, or joint ventured with, one of the major mining companies. Many favorable geologic features suggest this probability. The Patagonia Mountains are on a mineral-rich trend that extends from Casa Grande, Arizona southeastward to at least Nacozari, Sonora, Mexico and includes a fairly new ASARCO discovery at Casa Grande, two ASARCO open pit mines in the Silver Bell Mountains, 4 major mines in the Twin Buttes area southwest of Tucson, a new deep discovery by Kerr-McGee just south of Patagonia and about eight miles southeast of the Salero area, the open pit at Cananea, and the new copper development at Nacozari. Secondly, favorable host rocks, i.e., acidic intrusives of Laramide age such as those which are associated with all the major deposits along this mineral trend and at all the porphyry deposits in the southwest and South America, are mapped in the eastern portion of the area. Also, quartz and lead-silver veining are common peripheral features of most major copper deposits; throughout the area there are abundant mineralized quartz veins with a concentration of them south and west of the Mine Tank. In the canyon extending east from the Mine Tank there are numerous stringers and veinlets containing visible copper and iron sulphides.

To delineate the best target zones for drilling, work would include more detailed geologic mapping, especially the pattern

and mineral content of the quartz veining, geophysical work in the form of aerial magnetics and ground IP (induced polarization) surveys to locate sulphide concentrations at depth, and geochemical sampling of stream beds and rocks to determine zones of better mineral concentrations. Drilling sites would then be chosen based on the results of the several surveys.

ECONOMIC POTENTIAL

If no further expenditures are considered by the current owners, the area has to be considered a raw prospect as related to a major deposit and a sale at this point would not return the best possible monetary gain. However, for the modest expenditure of less than $150,000, the profit potential of the area is increased manyfold. For this amount, one to three drill holes (depending on depth) could be drilled in the most promising area, or areas, and assay results would allow the evaluation of these areas. Further drilling, costing up to $1,000,000 or slightly more, again depending on the total depth of the drill holes, would serve to outline a major deposit and the value of the property would again be increased; for example, after the delineation of large ore blocks at the Lakeshore and Kalamazoo (adjacent to San Manuel) properties, the deposits were both sold for $25,000,000 to $30,000,000 cash plus a retainment of a large percentage of future profits from the mining.

Therefore, it is recommended that additional work be commenced to locate potential target zones for drilling. The initial

exploration phase could be begun at once and drilling could begin in two to three months, depending on availability of contractors to perform the necessary geophysical surveys.

Respectfully submitted,

William Lundby
Geologist

LAWRENCE WAREHOUSE COMPANY

FIELD WAREHOUSE LEASE

This Indenture, made in the City of Los Angeles, County of Los Angeles and State of California, this 4th day of November, 1965, by and between

SALERO INTERNATIONAL MINING AND MILLING CORPORATION

P. O. BOX #341

Patagonia, Arizona, an Arizona corporation

hereinafter called the lessor, and LAWRENCE WAREHOUSE COMPANY, a California corporation, hereinafter called the lessee;

WITNESSETH:

WHEREAS, the lessor is the lessee of the real estate, together with all improvements thereon, situate near the ~~XXXX~~city of Patagonia County of Santa Cruz and state of Arizona described as follows; viz.

Those certain premises as shown outlined in red on plat marked Exhibit "A" attached hereto and made a part hereof, which are a portion of the property leased by lessor, more particularly described as SALERO INTERNATIONAL MINING AND MILLING CORPORATION mine dumps and mined material storage areas, together with access roads, located on what is commonly known and described as Baca Float Mineral Segregation, which is approximately eleven miles North by NorthWest of Patagonia, Arizona.

NOW, THEREFORE, the lessor hereby rents, demises and leases, and the lessee hereby hires and takes of and from the lessor the aforesaid premises described above, with the appurtenances, together with the full right of ingress and [illegible] about said demised premises; and said lessor hereby covenants and agrees to indemnify lessee against any claim, expense, loss or damage suffered by lessee as a result of its occupancy of the premises and against any loss or damage to commodities which may be stored in said premises by the said lessee; and said lessor holds said lessee harmless from any damage or loss that may come to any commodities stored in said premises, irrespective of the nature or cause of said damage or loss.

Should the lessor violate any of the terms or conditions of this lease, or in any manner interfere with, or make difficult the duties of the agents, servants, or employees of the lessee; or become insolvent, or should the premises hereby leased become involved in any manner in litigation, or should the lessor or the lessee be ejected or ousted therefrom, or proceedings be begun for that purpose; or should the lessee at any time deem it necessary for the protection of its interests or of the commodities stored, then the lessee shall have the right to remove all commodities from the premises herein described to such other place or places as the lessee may deem proper or expedient; and in case of any such removal the lessor undertakes and agrees to pay the lessee all expenses of such removal and of storing said commodities elsewhere in addition to any other proper charges against said commodities.

The lessor warrants and guarantees the peaceful possession of the premises by the lessee and agrees to indemnify and hold the lessee harmless of and from any and all claims and expenses incurred or assumed by lessee in defending or maintaining possession of said premises. The lessor agrees to execute or cause to be executed any further agreement or agreements that may be necessary to secure the convenient use and enjoyment of the premises hereby leased by the lessee.

Said lessor further agrees with said lessee to pay for all gas, electricity, light, heat, power, steam, water or other utility supplied to or used upon said demised premises during the term of this tenancy.

The lessee, without the consent of the lessor, shall not for all or any part of the term herein granted, sublet the said premises nor assign this lease.

For additional terms and conditions of this lease, if any, see rider or riders attached hereto and make a part hereof.

IN WITNESS WHEREOF, lessor has caused this lease to be executed by its proper corporate officers and its corporate seal to be hereunto affixed, or caused this instrument to be executed by a partner thereunto duly authorized, or set his hand and seal, whichever is appropriate, and lessee has caused this lease to be executed by its proper corporate officers and its corporate seal to be hereunto affixed the day and year first above written.

SALERO INTERNATIONAL MINING AND MILLING CORPORATION

Lessor

ATTEST:

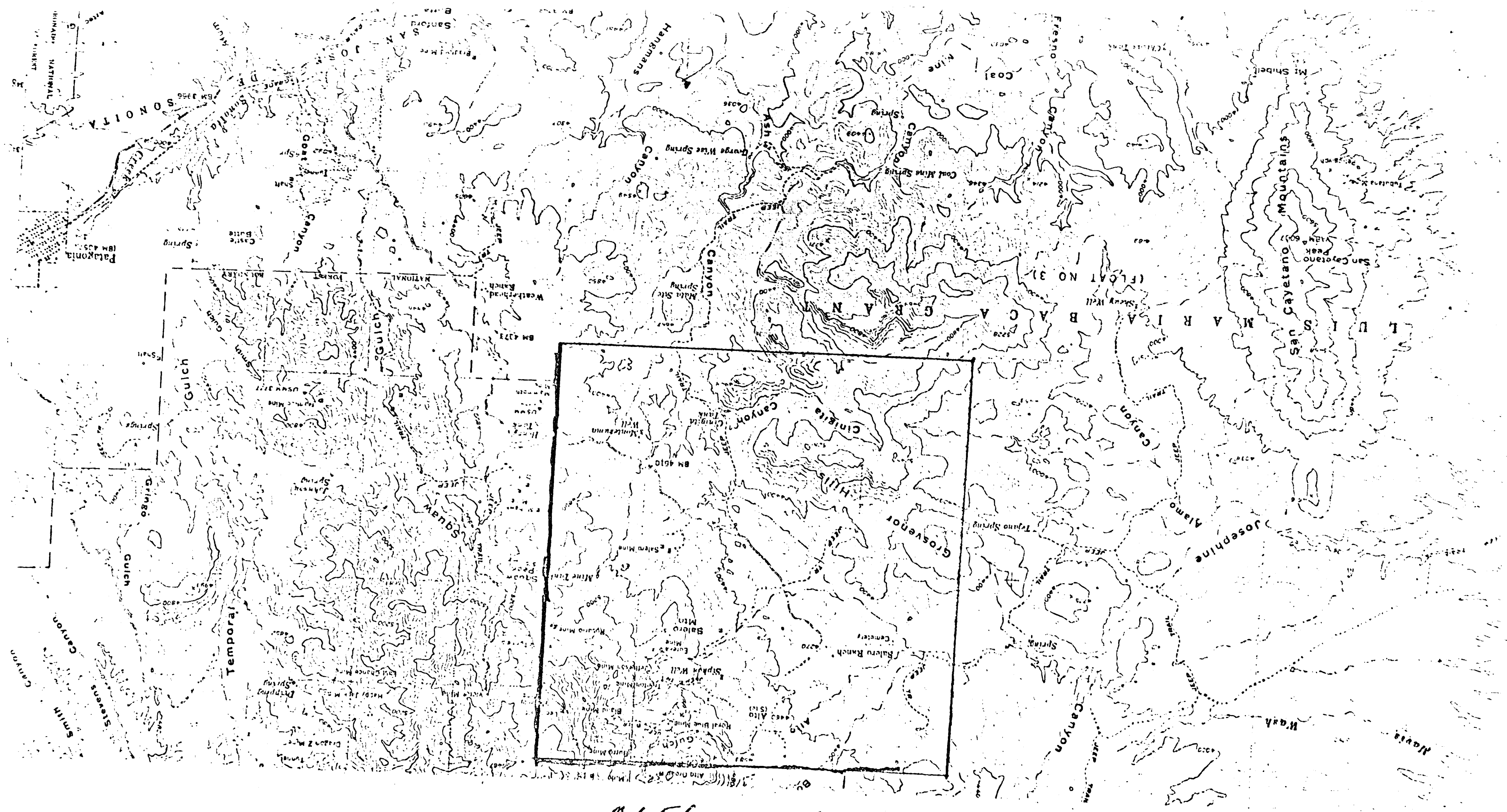
By [signature]

Secretary

LAWRENCE WAREHOUSE COMPANY

Lessee

ATTEST:



8656 Ac. 13.5 Sec.
PAT. MINERAL RIGHTS

DA

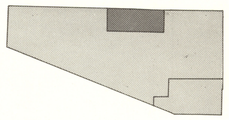
DRESSER ASSOCIATES
8420 E. Sage Drive
Scottsdale, Arizona 85253
602/947-1675

D. G. ("Duke") Dresser

UNIVERSITY OF ARIZONA
ARIZONA BUREAU OF MINES
J. D. FORRESTER, DIRECTOR

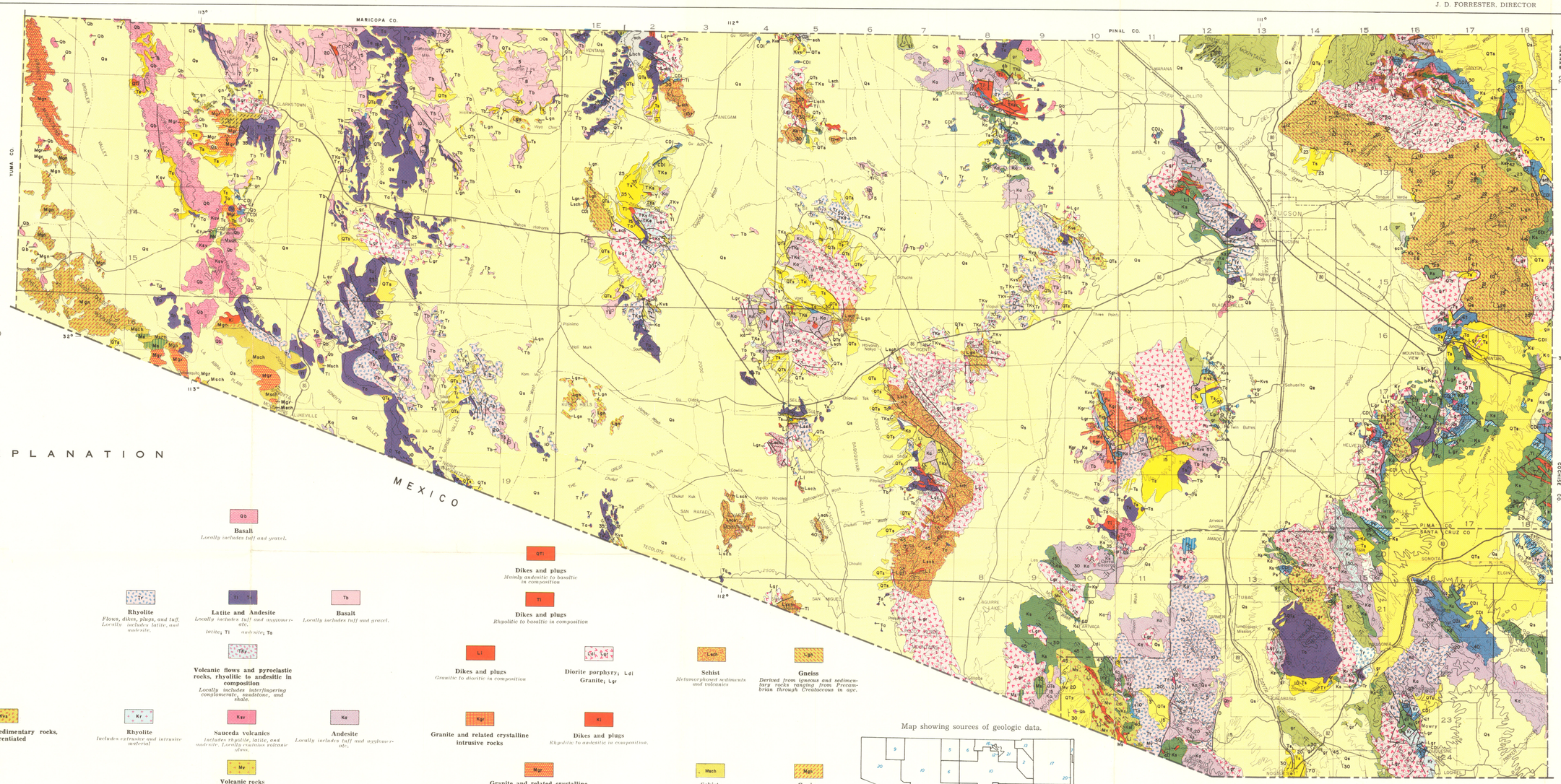
INDEX MAP OF ARIZONA
Showing Location of Pima and Santa Cruz Counties.

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

Qs — Silt, sand, and gravel

QTs — Sand, gravel, and conglomerate

TERTIARY

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

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

Qb — Basalt
Locally includes tuff and gravel.

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

QTl — Latite and Andesite
Locally includes tuff and agglomerate.
latite; Tl andesite; To

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.

QTi — Dikes and plugs
Mainly andesitic to basaltic in composition

Tl — Dikes and plugs
Rhyolitic to basaltic in composition

Li — Dikes and plugs
Granitic to diioritic in composition

Ldi Lgr — Diorite porphyry; Ldi
Granite; Lgr

Lsch — Schist
Metamorphosed sediments and volcanics

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

LARAMIDE

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

Kvs — Volcanic and sedimentary rocks, undifferentiated

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.

Kgr — Granite and related crystalline intrusive rocks

Kl — Dikes and plugs
Rhyolitic to andesitic in composition.

Mesch — Schist
Metamorphosed sediments and volcanics

Mgn — Gneiss

MESOZOIC UNDIVIDED

Ms — Sandstone, shale, and conglomerate locally metamorphosed

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

Mgr — Granite and related crystalline intrusive rocks

PERMIAN

Pc — Permian limestone, sandstone, and shale

CARBONIFEROUS AND DEVONIAN

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

CAMBRIAN

Pz — Limestone, shale, sandstone, and quartzite

PALEOZOIC UNDIVIDED

-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.

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

YOUNGER PRECAMBRIAN TO TERTIARY

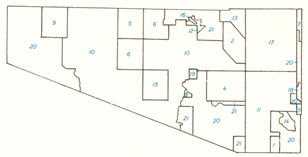
di — Diabase

gr — Granite and related crystalline intrusive rocks

sch — Schist

gn — Granite gneiss

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
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8. Fair, C. and Kurtz, W.I., Univ. of Ariz.
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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

GEOLOGIC MAP OF THE SANTA RITA AND PATAGONIA MOUNTAINS, ARIZONA

Geology by F. C. Schrader and J. M. Hill

Base from U. S. G. S. Nogales and Patagonia sheets
Surveyed in 1903-1904

Scale 1/125,000

1 0 1 2 3 4 5 6 7 Miles

1 0 1 2 3 4 5 6 7 Kilometers

Contour interval 100 feet.
Datum is mean sea level.

1914

LEGEND

SEDIMENTARY ROCKS

Qal — Alluvium
Silts, sands, and gravels deposited along present stream valleys
QUATERNARY — CENOZOIC

Qgs — Gravels and sands
Finer away from mountains and locally indurated
QUATERNARY — CENOZOIC

Ksh — Red shale, sandstone, and conglomerate, with some beds and lenses of limestone
Chiefly Comanche series
CHIEFLY CRETACEOUS — CHIEFLY MESOZOIC
Mainly Mesozoic and Cenozoic and some Paleozoic

UNCONFORMITY

Cdl — Thin-bedded dark-gray fossiliferous limestone
Cml — Thick-bedded light-gray to white limestone, metamorphosed
Pennsylvanian
CARBONIFEROUS

CDu — Undifferentiated Carboniferous and Devonian limestones, in part greatly metamorphosed
PALEOZOIC

UNCONFORMITY

Dl — Thin-bedded gray fossiliferous limestone
DEVONIAN

UNCONFORMITY

Cqc — Pink to red massive quartzite and conglomerate
Rests on granite

Csh — Reddish and greenish shales
Csc — Dark-greenish schist
CAMBRIAN ?

IGNEOUS ROCKS

b — Basalt
Black vesicular olivine-bearing lava flow
QUATERNARY AND TERTIARY

Tta — Tuffs and agglomerates
Bedded pink to white rhyolitic tuffs and agglomerates

Trp — Rhyolite porphyry
White porcelain-like porphyritic rock, very siliceous

Ta — Andesite
Dense to coarse porphyritic dark-green rock; weathers to rounded forms and green to red color

Tqp — Quartz latite porphyry
Greenish and pinkish-gray coarsely porphyritic rock with large quartz blebs

Tr — Rhyolite
Greenish-white siliceous rock; usually contains disseminated iron and copper pyrites. Stands out as brilliant red crags
Miocene ?
TERTIARY

Tur — Undifferentiated Tertiary igneous rocks

bd — Basic dikes
Dark-green to black augite and olivine bearing rocks. Angularly jointed

ap — Alaskite aplite
Pink to white siliceous dikes resembling quartzite veins

agp — Alaskite-granite porphyry
Gray siliceous porphyry containing large phenocrysts of feldspar and some flakes of mica

grp — Granite porphyry
Coarsely porphyritic rock containing quartz, orthoclase, and mica in megascopic crystals

qd — Quartz diorite
Granular rock, dark green, weathering to brownish gray and to round forms

qm — Quartz monzonite

gr — Granite
Coarse massive to porphyritic rock that weathers rapidly into yellow-brown granitic sand and produces rounded topographic forms
PRE-CRETACEOUS OR EARLY CRETACEOUS — MESOZOIC
CHIEFLY MESOZOIC but includes some pre-Cambrian

Placer deposits

Fault

Probable fault

Strike and dip

Mine

Prospect

Shaft

Tunnel

Bench mark

International boundary monument