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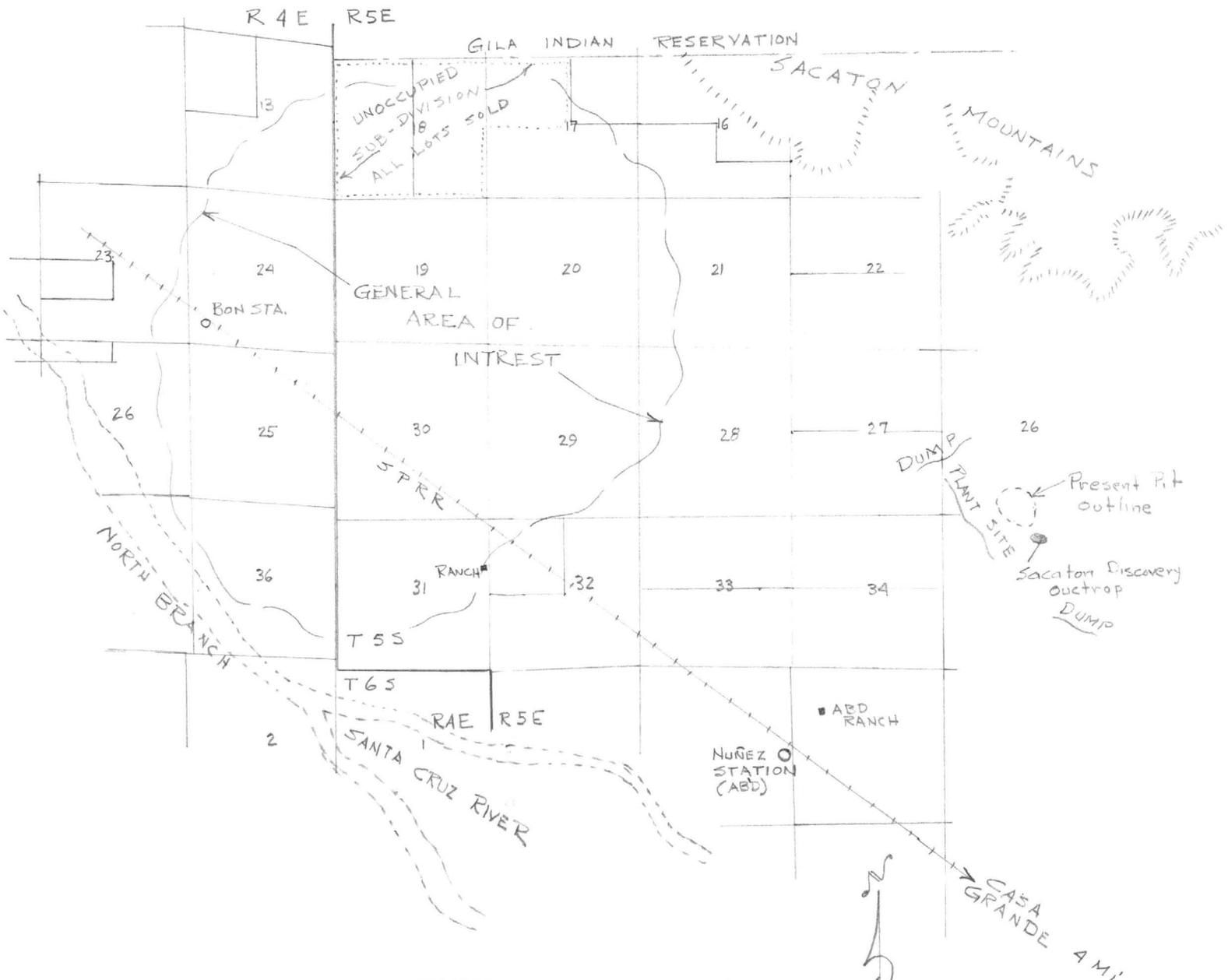
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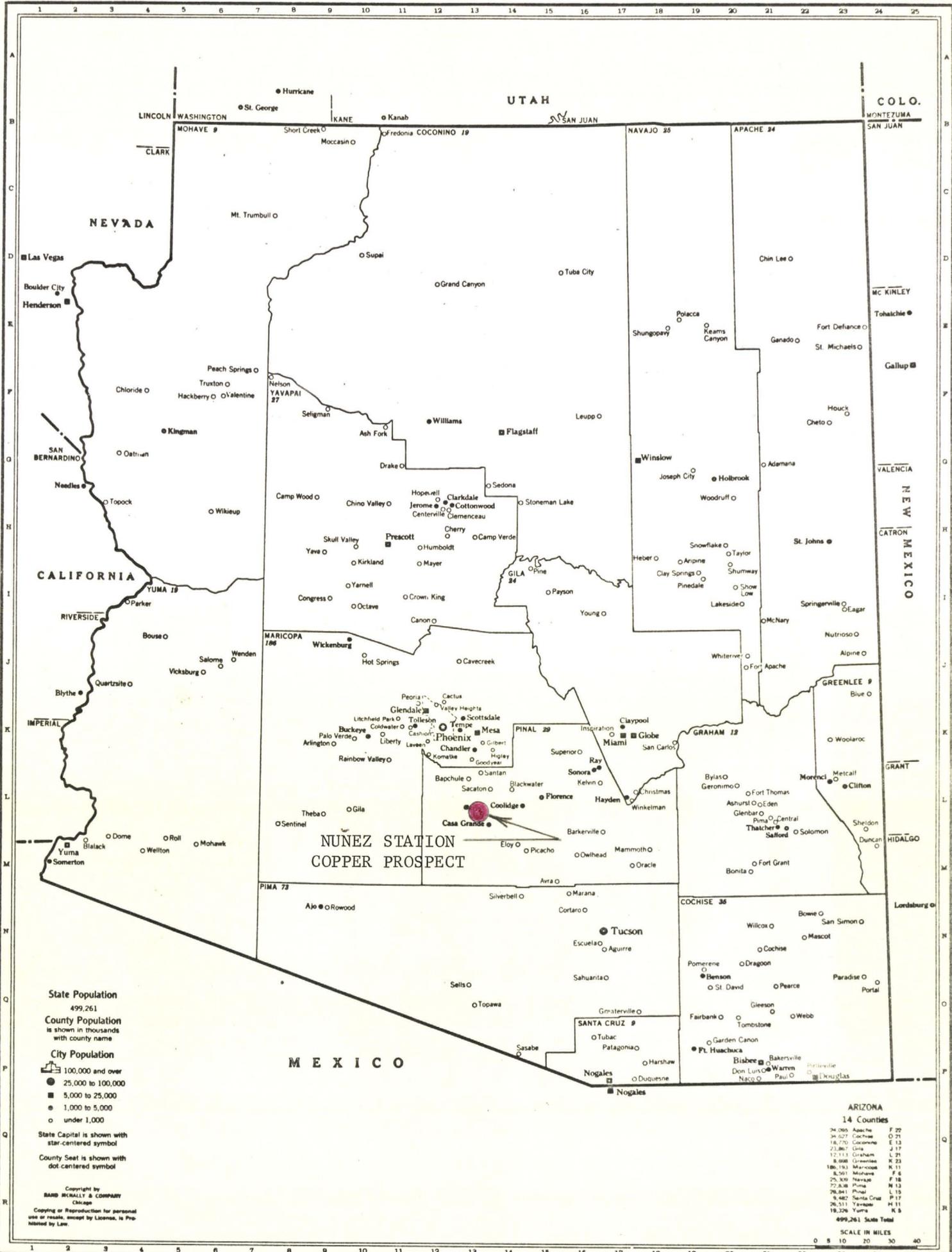


- SULLIVAN FED CLAIMS
- ASARCO FED CLAIMS
- ASARCO PRIVATE LAND
- STATE SURFACE & MINERAL
- FED SURFACE & MINERAL
- PRIVATE SURFACE ; FED MINERAL
- PRIVATE SURFACE & MINERAL

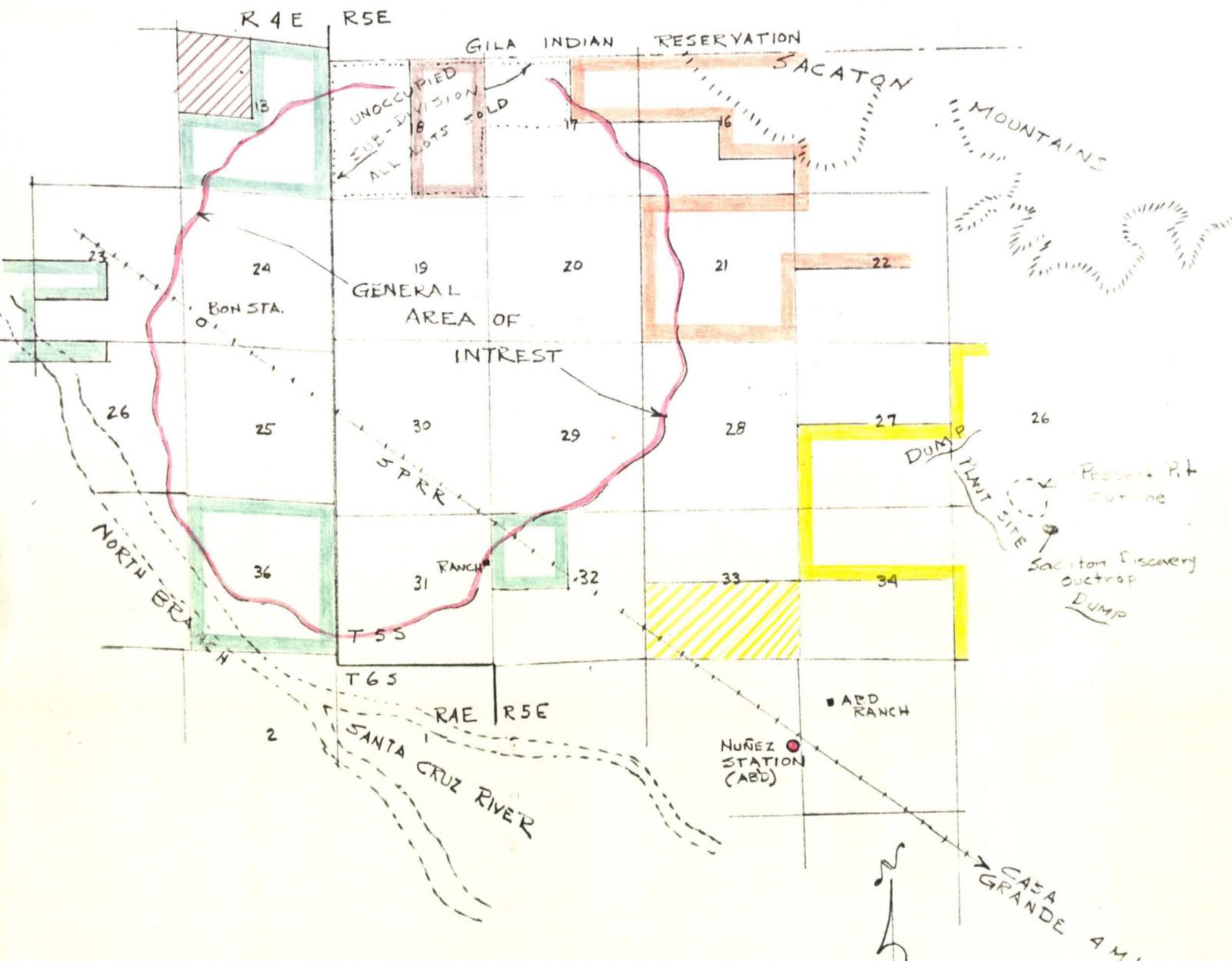
1" = 1 Mile
 KEM
 NUÑEZ STATION
 COPPER PROSPECT

LAND STATUS
 Preliminary record investigation
 subject to revision

4/6/73



ATTACHMENT _____
 TO ACCOMPANY _____
 TO _____
 BY _____
 DATE _____



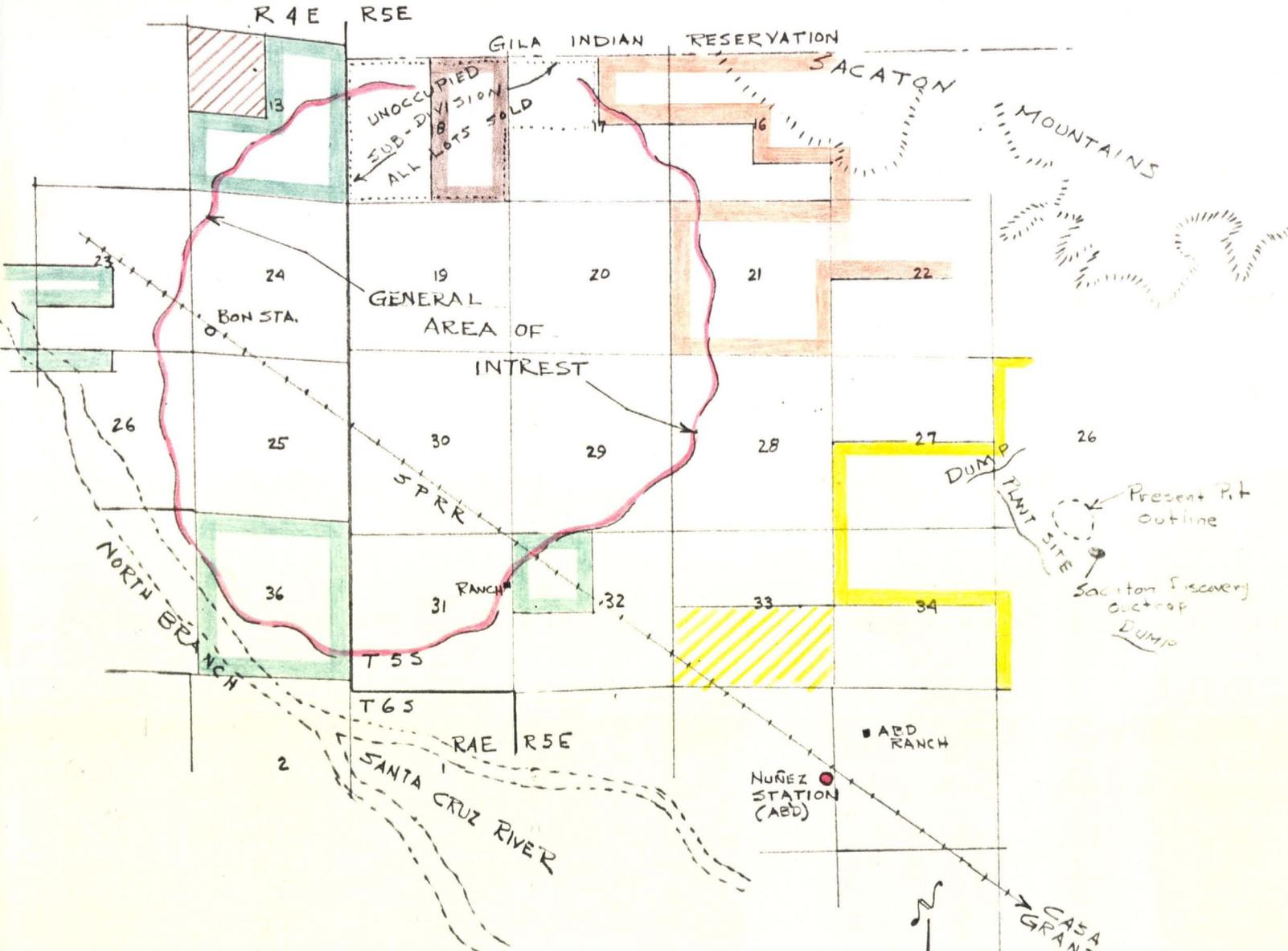
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-  PRIVATE SURFACE & MINERAL

1" = 1 Mile
 CASA GRANDE 4 MI
 KEM

NUÑEZ STATION
 COPPER PROSPECT

LAND STATUS

Preliminary record investigation
 Subject to revision

4/6/73

jek

INTER-OFFICE MEMORANDUM

Nunez general file

To
 ▶ T. F. O'Neill
 614 OB

DATE
 ▶ June 8, 1973

FROM
 ▶ Joseph J. Durek
 618 OB

J

COPIES TO
 ▶ J. E. Kinnison
 Tucson, Arizona

SUBJECT
 ▶ COPPER-ARIZONA
 Disposal of Nunez
 Station Prospect-Comments

J. E. K.

JUN 11 1973

1. The prospect is based only on the uniqueness of a small area rather than a concept of widespread application. Adjacent areas are not benefitted by its disclosure, and no restriction is necessary on the actions of other parties that might be contacted except for the prospect area itself. Therefore, a non-disclosure agreement need only specify "an area of about 3,000 acres in Pinal County, hereafter to be described".

2. A joint venture to be funded equally after matching the \$50,000 value of KEM's concept and work will almost immediately obligate a decision about speculative funding of an additional shared expenditure of perhaps \$60,000. Estimated land option costs are \$40,000, and little reduction of risk would occur before expenditures exceeded \$70,000 or more. Gradual dilution of KEM's interest to about 1/2% during the exploration stage is realistic, and a carried interest might be acceptable at this level thereafter. This method of expression, i.e. joint venture with an earned interest of \$50,000, gives significant early equity, permits later flexibility in the level of investment, and offers a partner the comfort of a possible shared endeavor. However, it also puts an explicit value on prior efforts. I believe this is a realistic and conservative value, but the efforts will be viewed by many as simply the selection of a questionable area overlooked by Asarco.

3. Most companies will be compelled by policy or practice to reject an offer such as this, or they will cite such policy to avoid involvement in what must initially be a vague proposal.

RECEIVED
 JUN 11 1973

TUCSON
 KAISER EXPLORATION & MINING CO.

4. The offer should be simply stated without conditions that are chiefly a nuisance without gaining significant benefit or which may appear to seek a greater advantage than warranted. The worth of the evidence and reasoning will be evaluated by the receiver before acceding to the level of participation, but this can be clearly stated without revealing a specific location:

The prospect is on a pediment in a known porphyry copper district where overburden might be less than 500 feet deep and nearest outcrops of a Laramide intrusive are at least a mile away. Geological mapping, a geochemical survey, and a magnetometer survey have been completed but are inconclusive. The intrusive appears to extend into a concealed area not known to have been explored previously, and determination of the presence of sulfide mineralization by induced polarization should be feasible.

To specify proximity to an openpit will identify the probable district because a pediment is absent in the Ray district. In any case, many may surmise the general area where we have been working if only because of identification by the adjacent claim owner, Jim Sullivan, by chance encounter in restaurants or motels, or by shrewd guess.

JJD:la

jek 3-11-43

INTER-OFFICE MEMORANDUM

To
T. F. O'Neill
614-OB

DATE
May 18, 1973

FROM
Joseph J. Durek
618-OB

COPIES TO
John E. Kinnison
Tucson, Arizona

J. E. K.
MAY 31 1973

SUBJECT
COPPER-ARIZONA
Status of the Nuñez Station
Prospect-Pinal County, Arizona

INTRODUCTION

Geological work has been completed for the Nuñez Station prospect, located on the southwestern pediment of the Sacaton Mountains, and a proposal for a geophysical survey has been obtained. Because of the scheduled termination of exploration activities on June 30, the status and possible disposition of this prospect are reviewed.

RECOMMENDATION

Because the prospect is largely conceptual with no acquired property and an absence of outcrops, it is believed that only slight transfer value now exists through a joint venture, royalty, or sales option agreement. An attempt to enhance the prospect by optioning the complexly-divided fee lands and by a geophysical survey could require several months and an expenditure of \$45,000.

No further work by KEM is recommended because of the scheduled termination of exploration activities, but some effort to beneficently dispose of the prospect is warranted prior to abandonment. This could take the form of full disclosure following execution of a letter of agreement stating that the information to be revealed is to be held confidential and proprietary, and a participative agreement could be negotiated if interest exists. Most parties would be expected to decline such an offer as a matter of general policy, but it is not without precedent and is supported by sufficient geological merit to invite consideration in this competitively explored region.

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MAY 30 1973

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STATUS OF THE PROSPECT

The prospect area is on a gravel-covered pediment devoid of outcrop. Interest is based on: 1) Proximity to Asarco's Sacaton open pit, i.e. it is in a porphyry copper district; 2) Personal knowledge and field evidence suggest that there has been no prior electrical survey; 3) An intrusive stock of Laramide age crops out in the nearby Sacaton Mountains; 4) Public logs of water wells indicate that basement might be less than 500 feet deep, and drill cuttings found at one well were altered and weakly mineralized.

A magnetometer survey on the pediment and geochemical sampling near the base of the mountains gave only negative or ambiguous information. Reconnaissance mapping suggests, by projection, that the prospect area might be bound by two fault zones, one containing a dike swarm and the other a mineralized contact of a dioritic intrusive.

The proposed area is almost totally fee land with mineral title. More than 100 parcels, including 2½-acre or 5-acre subdivisions, are involved, with railroad-highway and pipeline easements. Only five scattered parcels are open State or Federal land, and mining claims located by Jim Sullivan encroach on the eastern side. Sullivan has shown some information to KEM personnel, and at least some of his claims would be desired prior to any advanced exploration.

POSSIBLE DISPOSITION

Because of the complex land ownership, which could require several months work by a landsman plus rental or deposit expenditures which are not easily estimated, it had been planned to recommend that a geophysical survey costing \$5,000 precede consideration of options for land acquisition. The purchase price of the land could be relatively low by mining standards, even for subdivisions or holdouts, and \$300 to \$500 per acre is expected with a total price that could be as low as \$400,000 to \$900,000 depending on the amount of land for which purchase options would be exercised.

With planned termination of the copper exploration program, the proposal for geophysical work has been withheld to permit consideration of the eventual disposition of this prospect which is only in a conceptual stage.

PRESENT VALUE

Some value would clearly exist if property was held, and the area has sufficient promise to almost certainly entice

some exploration group to commit to a geophysical survey and several drill holes to match the value acquired by KEM through selection of the target area. This should be sufficient to indicate discovery or failure, and in the event of the former a decision by KEM to participate in further financing or accept dilution to a carried interest could be made with a reasonable knowledge of the expected risk.

However, in the absence of a property holding there will be considerable difficulty even in discussing the situation, and few will wish to be a party to a discussion let alone execute a non-disclosure affidavit for an area sufficiently large to conceal the exact location of the property prior to a discussion. Therefore, it would probably be necessary to describe the prospect explicitly and rely on a prior letter of agreement or the good faith of the other party to not act independently on the information. Few may wish to accept even this ethical constraint, preferring to not hamper or restrict their independent activities on the basis of only our idea.

POSSIBLE ENHANCEMENT

To enhance the prospect by acquiring property options is not warranted because the prospect is now wholly speculative. Chiefly fee land is involved, and possible option cost could exceed \$40,000 the first year and require several months to obtain. Terms are so dependent on the land market and speculative pressures that they cannot be foreseen. The lands would be acquired through the realty market, however, and the mining purpose would not be revealed.

Landsman -	\$125/day	\$ 12,000	
Deposit -	2% with		
	1-yr option	30,000	(3,000 acres)
Purchase -	Av. \$450/acre	900,000	(2,000 acres)
			(\$200,000/yr)

At least some of the adjacent claims held by Jim Sullivan could become desirable, and he might well charge bad faith because of his prior contact with KEM personnel.

Enhancement could also occur through performance of an induced polarization survey, for which the prospect is ideally suited. This contracted service would cost \$5,000, but it could serve to condemn the prospect. It would entail trespass, which is not uncommon on this type of unoccupied, unposted, and unimproved ground, but some challenge could arise which would cause the survey to be aborted or lead to a trespass action. Permission for "geological work" probably could be obtained, but it would later jeopardize a favorable sales agreement.

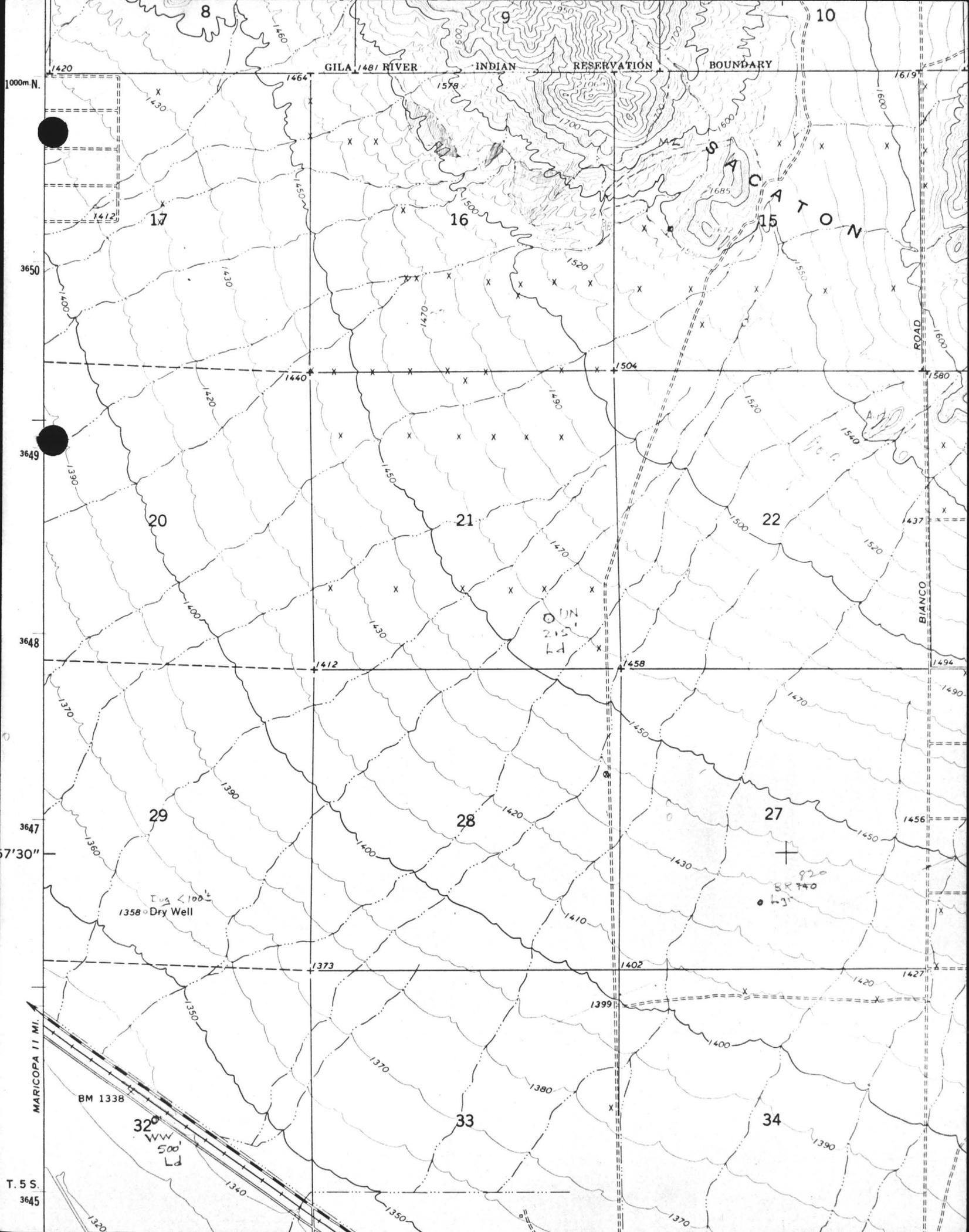
DISCUSSION

The direct expenditure by KEM on this prospect has been solely in the salaries and support of geological personnel, and it has not exceeded \$2,000. Any value that might exist is in the conceptual aspects, and it is therefore only the idea which has potential value. Although this is the most important part of the exploration, it is the most speculative stage and consists of conclusions that could be reached independently by another geologist.

However, no discovery has been made and it is statistically probable that no worthwhile deposit exists below the gravel overburden. Therefore, any expenditures or preparations at this stage must be limited to a level reflecting a low degree of expectation. Geophysical testing would conform to this restriction, but drilling would not yet be suitable or legally permissible.

The principal obstacle to what would generally be a simple and inexpensive acquisition of land by location of mining claims and application for State prospecting permits is the private ownership of most of the area through Agricultural Homestead patents which also conveyed mineral title. This makes the acquisition of any land rights considerably more complicated and uncertain.

To undertake a geophysical survey prior to any major expenditure or land commitment would be greatly desired, but this can neither be a condition in any presentation to another company nor is the probable time and expense of land options recommended at this terminal period of exploration activity. Therefore, it is concluded that only slight transfer value now exists, but attempted enhancement through land option and a geophysical survey could be unsuccessful and result in a loss of \$45,000. The prospect is more speculative than was the nearby Sacaton deposit where a small but favorable outcrop was present, and Asarco's program entailing early land acquisition is not a wholly suitable precedent in terms of initial risk.



GILA RIVER INDIAN RESERVATION BOUNDARY

ACATON

1000m N
3650
3649
3648
3647
3645
T. 5 S.

1679
1670
1600
1580
1496
1490
1456
1427

17

16

15

20

21

22

29

28

27

33

34

1358 Dry Well

IN 215 Ld

BR 740

BM 1338
320
Ww
500'
Ld

MARICOPA 11 MI.

" This is a Relocation of an Original location of the S1-A
Lode Mining Claim, covering all or part of the same ground included in the
S1 Lode Mining Claim located on the 27th day of April 1961
by the A S & R Co etc Rec Jul 19 1961 Docket 298 pg 316

1450 feet So, 50' North etc.

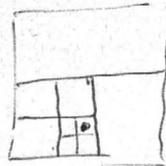
26 Feb 1973

G. Bloomfield Agent.

T 55 R 5E

CDA

NE, SE, SW / 30



TE Barber Owner
Cameron Driller (Rotary)
El 1325 Feb 1957
1000' TD 18" Csg

See SLD File

Wells No 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

log by Turner & Assoc all sand & gravel 200-1000'

SE / 30

Near old No 1 (?)

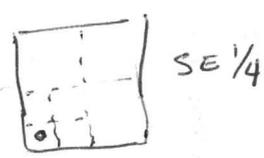
Tom Barber #2 (Owner)
TD 1000 Repts Prob - (SW, SW, SE / 30) 1957

Well No 466

Cameron Driller log by Turner & Assoc - all sand & gravel 200-1000'

SW, SW, SE / 30

T. E. Barber
M. C. Cash
W. D. Oldham } Owners
Robert Allen Driller



Repts. TD 570; Drilled 5/1/51

Drillers log - cgl to TD (?)

SE, NE, NE / 31 595 TD - Aband near ??

SE, NE, NE / 31 -

Barber, Cash & Oldham Owners
M. Bentley Driller

wh 168
1090 Gpm Meas.

505 TD

Sal 0-100
100-505 cgl) Drillers log (also).

has been replaced or deepened

NW / 32 So of R.R. E dirt road. (SW SE NW - ?)
500 TD Drillers log 0-135 Sal
- 520 Granite

5S 5E

Sec 17 SE, NW 1415 EL

drilled 241' water L 223' 1942

Unused. Homestead - Stone Ruins to the West

1951, 52 Could not locate

Tom Barkeet Sec 30 SW, SW SE

Log (Driller's)

- 0 - 236 Soil, Sand and lime, sand & Rock
- 260 Rock
- 320 Cement Sand & Rock
- 368 granite
- 390 White Qtz
- 400 Coarse Sand
- 500 Rock
- 570 Clay & gravel.

wh 150'

Gamma Ray log avail.

SW SW NE / 31 1305 EL

Old No 1 ?

Drilled 1000' (Rep'd).

SHD file

Lab No 457

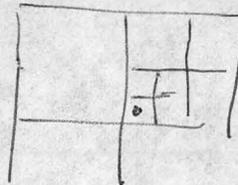
Turner log all sand clay gravel.

Drillers log

Cameron log (Driller) almost identical

words as in CDA Sec 30

Footage D. Howard.



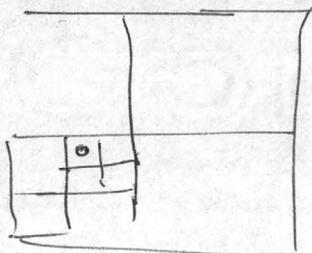
No
SW, SE, NW } 32
NW NE SW

E1 1335

Drillers log

0-135 Surface and decomposed granite
- 245 gray granite
- 500 Black granite

water: @170' 3' coarse sand
220-242 Coarse sand



55 - 4E

NW NW SE Sec 25

owner Frank Mogle

Clay Drilling log

- 0 - 102 Soil Sand Clay
- 102 - 272 Sand & Boulders
- 347 Cemented sand & cgl
- 388 Sand & Block lava
- 481 Sand w/ boulders
- 495 Rock
- 501 hard sandstone
- 550 Cse sand w/ boulders
- 555 hard rock

Field checks show
basalt pebbles.
abs found

NE NE SE
S13

450 Rpt drilled. wh 205

Driller log suggests Sand & Boulders to TD
Ralph Hawk driller, Calif 1951

NE NE NW S24

?
484 Rpt depth

E1 1325

Ralph Hawk driller Calif 1951
wh 184

Driller log to 504'

- to 400 gravel clay boulders
- to 504 hard sand
Tight granite
Cemented boulders.