



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the John E. Kinnison mining collection

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

News clipping - 1917 ABM mine file

South of Solome.

7 m. N of K of A 5 mi N of North Star

Acostillo Mine
Yuma Co

Gold
Kofa Mts Alamo Springs

Felix Magher was original locator. Reported by newspaper to have taken out very hi grade ore to a 50' depth in the inclined shaft, at which depth it was bulkhead (examined in 1917 and cleaned out to this depth) Newsclipping very promotional and represents 16 mill to have produced ^{from} above 50' level.

208 P

7500 - Vol. 10 - 1972 - 10000
Treatment deposits of cobalt and hematite



Vol. 10

SECOND INTERNATIONAL SYMPOSIUM ON HYDROMETALLURGY

February 25-March 1
Sheraton-Blackstone Hotel
Chicago, Ill.

Complete proceeding of the Symposium will be available at the Meeting. Prepublication price to February 25, 1973 is \$24.00, AIME members and nonmembers; \$12.00, AIME student members. After publication the price is \$28.00, AIME members and nonmembers; \$12.00, AIME student members.



KAISER
EXPLORATION & MINING
COMPANY

3-14-0
RECEIVED
APR 20 1972

TUCSON
KAISER EXPLORATION & MINING CO.

April 18, 1972

Mr. J. David Lowell
STILL, LOWELL & STILL ASSOCIATES
5212 N. Oracle
Tucson, Arizona
85704

Dear Dave:

Your letter of April 4 has forced me to give a lot of thought to your proposal for the Quartzite and Vicksburg Quadrangles. While your proposal that we authorize you to make a 3-4 day reconnaissance into the Quartzite and Vicksburg quads is a most economical program, it does generate a potential conflict which makes me hesitate to give you approval.

As a result of submittals made to Oakland prior to the organization of Kaiser Exploration & Mining Company we have looked at several copper prospects in the area you propose, and negotiations on one of the properties have still not been concluded successfully. Both Kinnison and Durek, among other Kaiser geologists, have worked in the area, and Kinnison only recently completed assembly of a map of the mineralization in the Plomosa Mountains. As a result I am concerned that if I authorize you to do a reconnaissance in this particular area I may be inviting a potential misunderstanding between us.

I would feel much more at ease if you could instead propose to us your restudy or reinterpretation of the geology of a specific copper property in the Vicksburg or Quartzite quadrangles, since the possibility of a conflict in this case can be quickly answered by a yes or a no. Even a proposal to restudy a small, carefully limited portion of the district probably could be given a definite answer, but authorizing you to work over increasingly larger areas almost certainly would bring you into competition with my own people. Consequently, it seems inadvisable for me to authorize you to undertake this particular reconnaissance-type study.

We are still struggling to resolve the property situation on the Edwards property, Pima County, which you recommended last year. DeVilliers has persistently refused to cooperate, although he claims to control the

Mr. J. David Lowell

-2-

April 18, 1972

property, and we suspect his contract may have expired. We have been unable to contact Edwards, but Kinnison, in desperation, enlisted the help of a man who claimed to know Edwards, but this "gentleman" seems to have promptly dealt himself a hand in the game according to John. Kinnison is hopeful that he may be able to resolve at least the property problem in the next few weeks, after which we can take a new look at all the technical data.

Joe has completed several days field work at Mina, virtually without seeing anyone in the field, and he should shortly complete his review of your analysis. It probably will then be desirable for he and I to sit down with you in Tucson to review our exploration opportunities there and to estimate the degree of risk involved.

Sincerely,



T. F. O'Neill
Manager of Mineral Exploration

TFO:ec

bcc: J. E. Kinnison (Tucson)
J. J. Durek

INTER-OFFICE MEMORANDUM

TO T. F. O'Neill
AT Oakland, 2023 KB

DATE April 10, 1972

FROM Joseph J. Durek
AT Oakland, 2026 KB

COPIES TO ✓ John Kinnison
Tucson

RECEIVED
APR 13 1972
TUCSON
KAISER EXPLORATION & MINING CO.

SUBJECT COPPER-ARIZONA
Comments on Proposal for
Reconnaissance Study Near
Quartzite, Arizona

INTRODUCTION

In a letter received April 5th, Dave Lowell proposed a reconnaissance trip into the area between Quartzite and Vicksburg, in western Arizona. This area was probably selected because the Quartzite Quadrangle geologic map is the only published large-scale geologic map for Yuma County. (It appears to be the first map of the GQ-series done in Arizona. I missed the publication announcement in October 1970, but it is listed in the current issue of "Field Notes" published by the Arizona Bureau of Mines. This may have led to Dave's present interest.)

DISCUSSION

1. The proposed area is within northern Yuma County, which is presently under reconnaissance investigation. It includes, for example, the Hovatter property, which was not actually turned down but left with an invitation to contact KEM if the \$20,000,000 price was modified. It is south of the Bouse and Granite Wash prospect areas, and only 30 miles south of the Parker-Swansea zone.

2. The worth of lineament projections into this area is problematical and unorthodox, and Dave implies this by interrupting his mineral belts with question marks. However, the intervening zone has come to be known as a barren belt, not only because of the absence of mines but because it differs physically and chemically for reasons not understood. For example, the rocks are lower in the ratio of potassium to total alkalis, and higher gravity suggests that the crust is thin or high density. It is proposed that this is a transition zone relating to the eastern boundary of the Paleozoic geosyncline, and it was a Mesozoic ridge or hinge zone that limited the eastward extent of Mesozoic plutonism, regional metamorphism, and thrusting. These events are attributed to stress deflection resulting from the Colorado Plateau buttress, but even the Middle Tertiary dilation resulted in northwest-elongated ranges in this zone, in contrast to the northern elongation of ranges both to the east and west.

3. The "major structural trends" are Tertiary Basin and Range faults which are therefore post-Laramide. There is no mapped evidence for an even younger age, but it is difficult to not relate this area to the convergence of the Garlock-Owens Valley fault zones and the adjacent "chaotic zone" of California. These northwest-striking faults transect the more northerly oriented ranges in the west and northwest, conforming with the curvature of the edge of the Colorado Plateau, and they appear to have been imposed upon earlier, north-trending folding or block faulting. However, the dominant range alignment through the "barren belt" is northwest, and this again points to a transition zone in western Arizona.

4. Thrust faulting is present in the mapped area, as is characteristic of northern Yuma County. As mapped, it preceded the Tertiary vulcanism, and this conforms with these faults often being mineralized elsewhere in the region. However, thrusting appears to have been toward the west (or underthrust eastward), but it is probably conformable with bedding and may be gravity faulting of the eastward flank of an anticline that is locally overturned eastward.

5. Intrusives are grouped as Mesozoic-Cenozoic, but larger intrusives in this region are of probable Jurassic or Nevadan age as in California and Nevada (and the Bisbee region). This has traditionally been a negative feature in the Southwest requiring a changed objective to contact-type mineral deposits. In the mapped area, the known prospects contain tungsten associated with a quartz porphyry intrusive (or series of intrusives, possibly sills) emplaced along the axis of the southern Plomosa Mountains, and gold-silver with base metals associated with Tertiary andesitic flows. A fault-bounded and very coarse-textured quartz monzonite porphyry stock may have a gold-silver prospect near its northern edge, but it appears generally devoid of prospects and only chloritic alteration of mafic minerals is reported. Perhaps all of the reported mineralization is related to Tertiary vulcanism, with even the tungsten present as an association of siliceous dikes of volcanic origin.

CONCLUSION

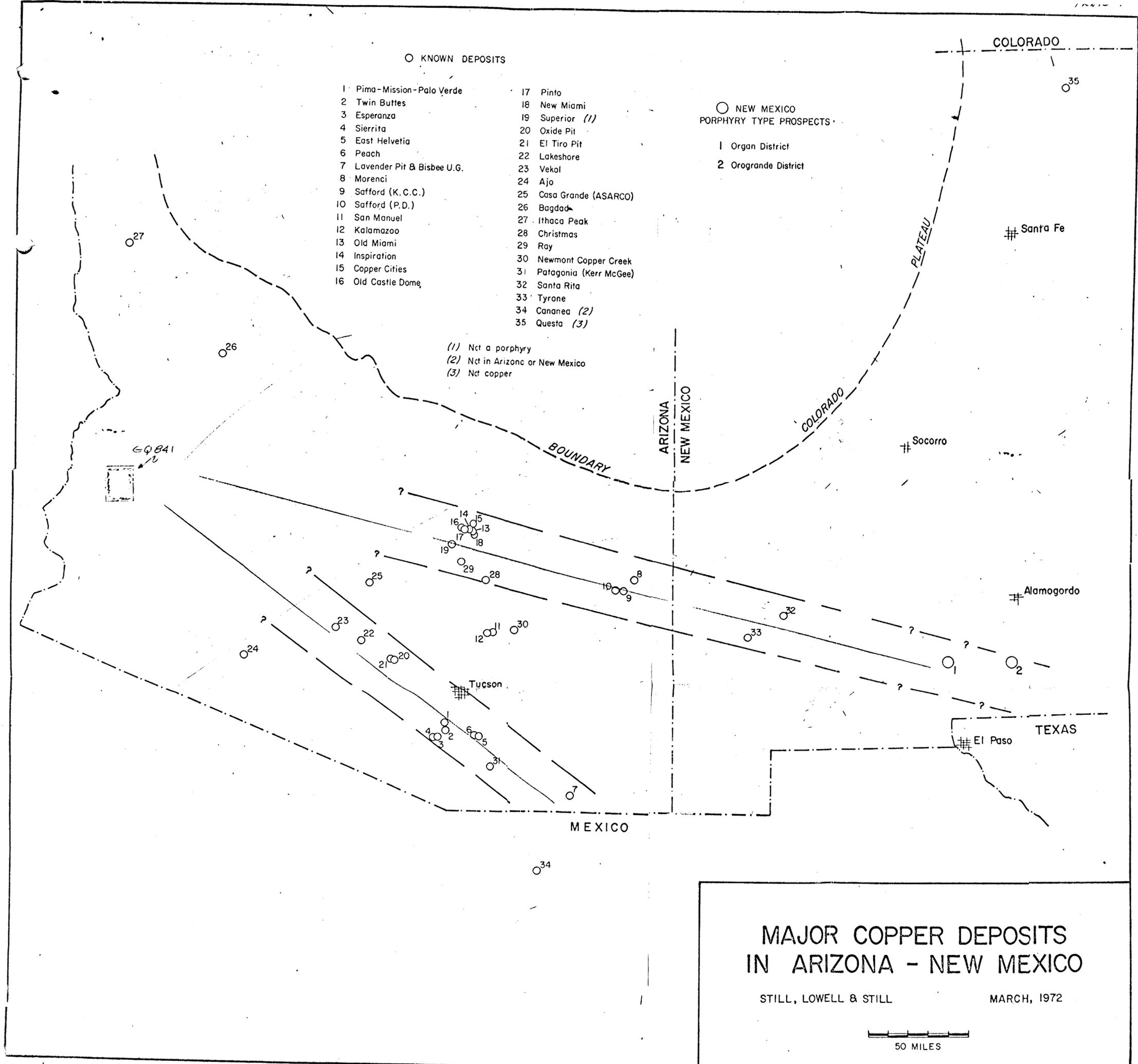
The proposed area has been one of disappointment or exasperation in porphyry copper exploration, and it appears to differ from the Southwest porphyry copper region. However, it must be considered a potential copper province, and it is part of a larger area of continuing interpretative reconnaissance exploration by KEM. This type of regional appraisal is best undertaken as a staff project, however.

The Quartzite area lacks evidence that would rank it above other parts of this region, and the present ranking may derive chiefly from the availability of a more detailed geological map.

However, if a specific property should be recommended based on evidence not possessed by us, priority should be gained by Lowell and a response would be desirable.

In effect, this position would restrict Lowell in search activities and encourage him to name properties rather than districts. However, this need be only a little more difficult and could be just as speculative. It could be cited as reason for a field examination, but with loss of the efficiency of multiple examinations within a district. In general, it appears difficult to restrain Lowell, as a matter of policy, from making fieldexaminations to develop property proposals, but the district should be reasonably small and selected for a special reason relating to information or insight and should not conflict with planned activities by KEM.

JJD:la
Attachments



○ KNOWN DEPOSITS

- | | |
|------------------------------|---------------------------|
| 1 Pima-Mission-Palo Verde | 17 Pinto |
| 2 Twin Buttes | 18 New Miami |
| 3 Esperanza | 19 Superior (1) |
| 4 Sierrita | 20 Oxide Pit |
| 5 East Helvetia | 21 El Tiro Pit |
| 6 Peach | 22 Lakeshore |
| 7 Lavender Pit & Bisbee U.G. | 23 Vekol |
| 8 Morenci | 24 Ajo |
| 9 Safford (K.C.C.) | 25 Casa Grande (ASARCO) |
| 10 Safford (P.D.) | 26 Bagdad |
| 11 San Manuel | 27 Ithaca Peak |
| 12 Kalamazoo | 28 Christmas |
| 13 Old Miami | 29 Ray |
| 14 Inspiration | 30 Newmont Copper Creek |
| 15 Copper Cities | 31 Patagonia (Kerr McGee) |
| 16 Old Castle Dome | 32 Santa Rita |
| | 33 Tyrone |
| | 34 Cananea (2) |
| | 35 Questa (3) |

○ NEW MEXICO PORPHYRY TYPE PROSPECTS

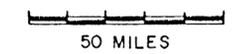
- 1 Organ District
- 2 Orogrande District

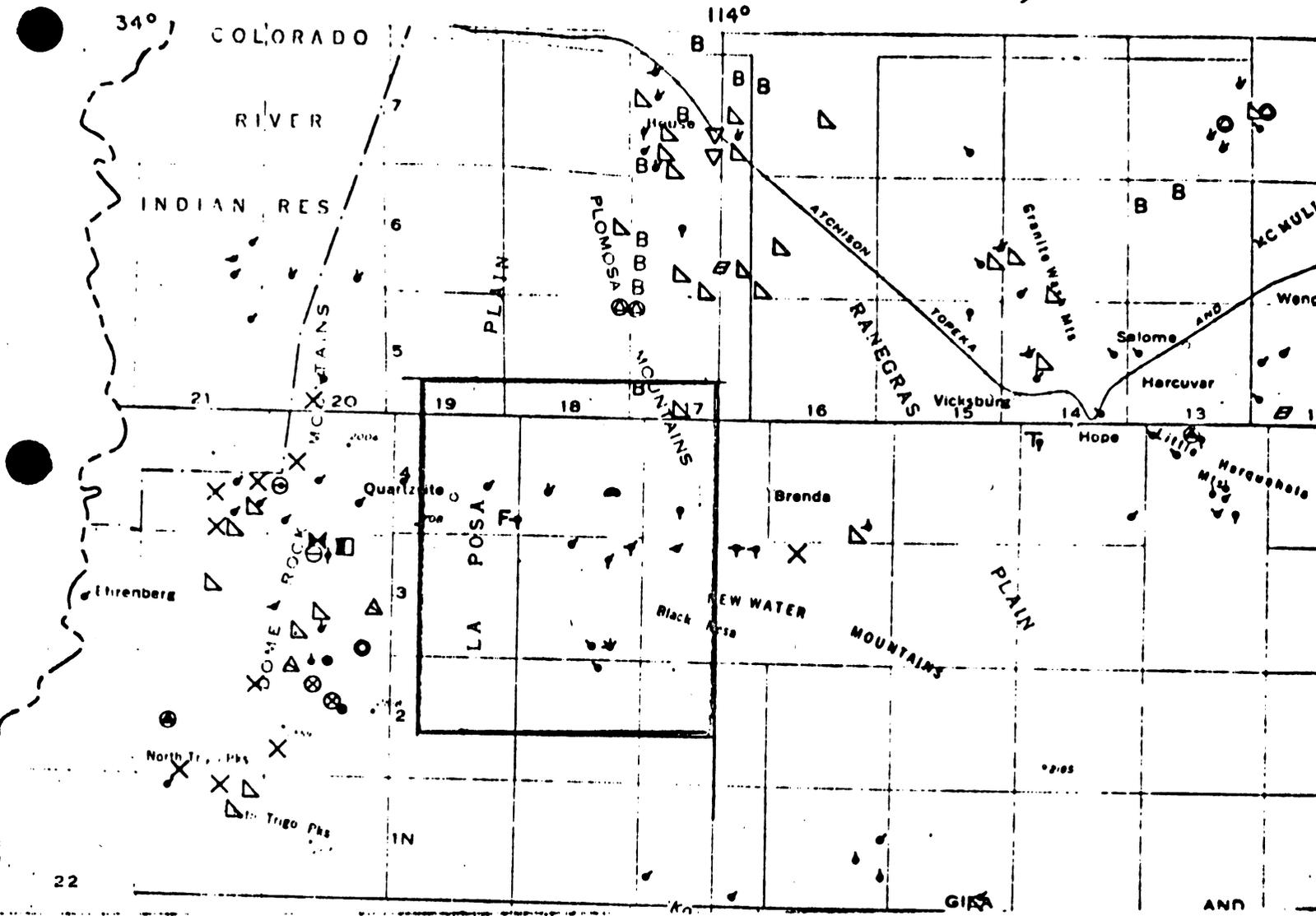
(1) Not a porphyry
 (2) Not in Arizona or New Mexico
 (3) Not copper

MAJOR COPPER DEPOSITS IN ARIZONA - NEW MEXICO

STILL, LOWELL & STILL

MARCH, 1972





REPORTED MINERAL OCCURRENCES IN QUARTZITE QUADRANGLE

SL&S

1:500,000

April 1972



Quartzite Quadrangle

- | | | | |
|---|-------------|---|--------------------------------|
| ● | Gold | ▲ | Lead-gold-silver |
| ◀ | Lead-silver | ● | Tungsten |
| ◀ | Copper-gold | ▲ | Silver, tungsten, copper, gold |
| ● | Lead | F | Fluorite |
| ◀ | Lead-gold | ◼ | Gem Stones |

Note: After USGS Map MR-46

STILL, LOWELL & STILL
ASSOCIATES
CONSULTING MINING ENGINEERS & GEOLOGISTS
TUCSON, ARIZONA 85704

J. W. STILL
J. DAVID LOWELL
ARTHUR R. STILL

April 4, 1972

5211 N. ORACLE
602 - 887-5341

Dr. T. F. O'Neill
Kaiser Exploration & Mining Co.
Kaiser Center - 300 Lakeside Dr.
Oakland, California 95604

Re: Quartzite Area, Arizona

Dear Dr. O'Neill:

Attached is a plan map showing the location of 34 major porphyry copper deposits (plus Questa) in southern Arizona, southern New Mexico and northern Mexico. We have noted that 26 of these deposits "appear" to fall into two general belts, as shown on Plate 1, enclosed. Conceding that you can draw a multitude of such "belts" in almost any direction (such as from Morenci through Silver Bell), it nonetheless is interesting to note that the two axes shown in red converge near Quartzite, Arizona, where recently published (1970) geologic mapping (Map GQ841, also enclosed) shows major structural trends which would correlate, as well as areas of Laramide(?) quartz monzonite and (propylitic) quartz porphyry. Mine symbols do not show up well through the color of map GQ-841, but a relatively large number of old prospects are known in the area, as shown by Plate 2 attached.

We would like to propose that we make a reconnaissance trip into the area of the Quartzite, and adjacent Vicksburg, quadrangles to examine the mapped intrusives on the ground and to collect a series of rock geochem samples. Such a reconnaissance would probably require three or four days, including travel.

Very truly yours,



J. David Lowell

RECEIVED

APR - 5 1972

KAISER EXPLORATION
AND MINING COMPANY