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May 31, 1963

Mr. Melvin W. Redhead, Chief Engineer
Mineral Materials Company
1145 Westminster Avenue
Alhambra, California

Re: Eastern Pima Mining District
Pima County, Arizona
Mr. Harry Fieldman

Dear Mel:

Harry asked me to drop you a memo of my impressions of this area.

1. Mostly alluvial covered--small outcrops neither especially good or bad looking.
2. Along the trend of Cooper's proposed thrust fault.
3. Obviously somewhat "fringe area" ground--otherwise would not be available.
4. From regional gravity data, most of the area appears to be up on pediment and not out in deep Santa Cruz valley fill.
5. Genesis of Pima District deposition still obscure and true source undiscovered (?). Some structure and lineaments related to this area could be potential (?).
6. Full limits of Pima District not yet defined.
7. Area does adjoin ground held by district producers.
8. Area warrants further nominal exploration, evaluation and testing, especially I. P. electrical geophysics, and possibly additional magnetics, geology and some gravity, geochem, and of course, drilling if any good targets can be spotted.

Mr. Melvin W. Redhead

- 2 -

May 31, 1963

9. The work we did was incomplete minimum preliminary magnetic reconnaissance. It does show some of the broader structural implications, a few of which might or might not be either directly or indirectly related to favorable mineralization.

10. General possibilities are about as good as any, and better than many if not most.

How's Bessemer doing?

Regards to yourself and Clair Dunton.

Sincerely,

Walter E. Heinrichs, Jr.

WEH:jh

cc: C. W. Dunton
bcc: Harry Fieldman

June 26, 1963

Mr. J. Harry Fieldman
2706 Silverbell Road
Tucson, Arizona

Re: Thunderbird Claims
Pima County, Arizona

Dear Harry:

We, here at GEOEX propose that an Induced Polarization (I. P.) survey over the Thunderbird claim group would be the best thing to do for the money to properly evaluate their mineral potential. It may be possible to run a few short magnetic traverses and still stay within the allotted \$500.00 budget. This of course would be contingent on how well the I. P. went, such things as accessibility to electrode stations and sender set-up station would all affect the amount of coverage possible in one day.

It is initially proposed that one I. P. line on either 250 or 500 foot dipole spacing be used to traverse the claim group in a northwesterly, southwesterly orientation to try to tie in all the exposed mineralization as shown on a map which you furnished to us; however, this line orientation may be changed at the discretion of the geophysicist in charge upon personal inspection of the property.

Our charges for a three man crew are as follows:
Field crew observation & layout-----\$300.00/day
Office compilation & computation
per staff day----- 100.00
PLUS vehicle expenses and miscellaneous expenses such as reproductions, flagging, etc.

As you know Harry, one day jobs have to be sandwiched in between other projects which have indefinite termination schedules. Therefore it is difficult to give you an exact date of when we can start your job. As it now stands, sometime next week seems to be the earliest we could get to it. So if you can make your necessary arrangements and then notify us in writing to proceed, we will act accordingly.

Mr. J. Harry Fieldman

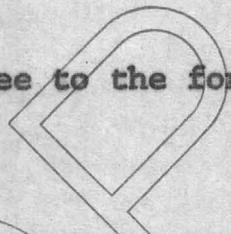
- 2 -

June 26, 1963

Because of the "touchy" land situation in the Tucson Mountain area, we have been advised to insert the following contained clause:

It is expressly understood and agreed that J. Harry Fieldman will save harmless Heinrichs Geoexploration Company and employees of Heinrichs Geoexploration Company from prosecution of trespass during the time that Heinrichs Geoexploration Company is conducting geophysical surveys at the request of J. Harry fieldman on the below described claims owner, leasor or in whole or in part to J. Harry Fieldman:
Thunderbird Mining Claims 1 through 9 located in Section 21, T 13 S, R 12 E, Pima County Arizona and three state of Arizona claims contiguous to the Thunderbird group and in Section 16, T 13 S, R 12 E, Pima County, Arizona

I understand and agree to the foregoing.



J. Harry Fieldman

Please sign and return enclosed carbon copy (signed) to our office in the self addressed envelope.

Very truly yours,

HEINRICHS GEOEXPLORATION CO.

E. Grover Heinrichs
Vice President

EGH: jh
Enclosures

May 13, 1963

*Please
622-1842*

Mr. J. Harry Fieldman
2706 N SilverBell Road
Tucson, Arizona

Re: Geophysical Services

Dear Harry:

Per your visit to our office on May 9, 1963, this will confirm our estimate of next I. P. crew availability being sometime in June.

We will advise when a more exact date can be established. Meanwhile, we will need a map and/or legal description showing the exact location of the claims. This will also let us be of earliest and maximum assistance to you.

Very truly yours,

HEINRICHS GEOEXPLORATION CO.

Walter E. Heinrichs, Jr.
President & General Manager

WEH:jh

MEMO
L. Harry Fieldman F 5/9/63
2706 Silver Bell Rd.

Re: Thunderbird Quar. 9 CU-A9 plus state
land.

Prima County (Del Camis de Cerro)
approx West end.

Call Lucy or Clyde Davis before going out. Kerrison thesis
Whitney " "
↓
did geology

Carbonate zone with some sulfide
Wants a proposal and a date.

WILLARD C. LACY
4034 E. BURNS ST.
TUCSON, ARIZONA

September 26, 1962

Mr. J. Harry Fieldman
2706 Silverbell Road
Tucson, Arizona

Thunderbird Mining Claims
Tucson Mountain Area
Tucson, Arizona

Dear Mr. Fieldman,

On September 20th I accompanied H. Clyde Davis to examine the Thunderbird group of mining claims located in the northeast portion of the Tucson Mountains, 10 miles west-northwest from the downtown section of Tucson Arizona. Claims on federal land, Thunderbird #1 through #9, are located in W $\frac{1}{2}$, section 21, T.13 S.; R.12 E., (G.& S.R.B.). A prospecting permit covers state land in section 16 immediately to the north. (Figure 1)

The claim area is underlain by a fragmental formation, in the central and southern portions, composed of large fragments of pre-Tertiary rocks ranging in size up to a thousand feet in length. This formation has been designated as the Tucson Mountain Chaos by Kinnison (1958). The origin of this formation is still in debate, but it appears to have resulted from violent activity from faulting and volcanism. Important showing of copper mineralization are related to Paleozoic limestone fragments within the Chaos. The Chaos has been intruded by rhyolitic dikes, and has been cut by numerous small faults. Some of these faults show weak mineralization.

The northern portion of the claim area is underlain by Tertiary volcanic rocks that may be genetically related to the Chaos.

Two areas have interesting showings of copper mineralization: the Thunderbird Mine located in the northern part of the federal claims, and the Gila Monster Mine in the southern portion of the state claims. Limited underground workings explore both of these showings, and a small tonnage of copper ore has been removed.

The Thunderbird Mine (see Figure 2) enters along the base of one of the Paleozoic limestone blocks which is approximately 200 feet long, striking approximately N 70°W and dipping flatly to the south. The block is approximately 20 feet thick. Along the base of the limestone in the Chaos material there has been alteration of the rocks to lime silicates. Specular hematite and copper-iron sulphide minerals were deposited. There appears to be a concentration of the copper mineralization along flat fault structures dipping 10 to 25 degrees to the south-southwest. Southwest. The thickness of this mineralized zone beneath the limestone block and its lateral extent have not been determined. Thus, it is recommended that four vertical wagon-drill holes be drilled at the locations indicated on Figure 2. The depth of the holes will depend upon the extent of the mineralization encountered. However, it is not anticipated that they

WILLARD C. LACY
4034 E. BURNS ST.
TUCSON, ARIZONA

September 26, 1962

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2706 Silverbell Road
Tucson, Arizona

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need exceed fifty feet. Three of the holes are designed to test the down-dip continuity of the mineralized zone south of the mine workings, and one to test lateral extent to the west. No further work should be done on the lower adit until the general configuration of the mineralized zone is determined, then it is recommended that all exploratory workings keep within the mineralized zone.

The Gila Monster Mine explores the footwall portions of two large limestone blocks that are separated by a breccia of finer fragments of the Chaos. The two blocks are aligned in a north trending direction, but the mineralization is apparently related to cross-cutting fractures and the base of the limestone fragments. Most of the mining has been done along the north side of the southern block along a fracture trending easterly and dipping 65° to the south. The Chaos separating the two limestone blocks should be explored by one or two vertical drill holes, and the mine workings should be rehabilitated so that underground drilling or drifting could be done to supplement geological mapping.

CONCLUSIONS:

Mineralization in the area of the Thunderbird claim group is spotty, occurring in small pockets related to limestone blocks in the Tucson Mountain Chaos. Best values appear to be concentrated along the footwall of these blocks, and were probably precipitated by the chemical activity of the limestone from diffuse metal-bearing solutions passing upward through the Chaos.

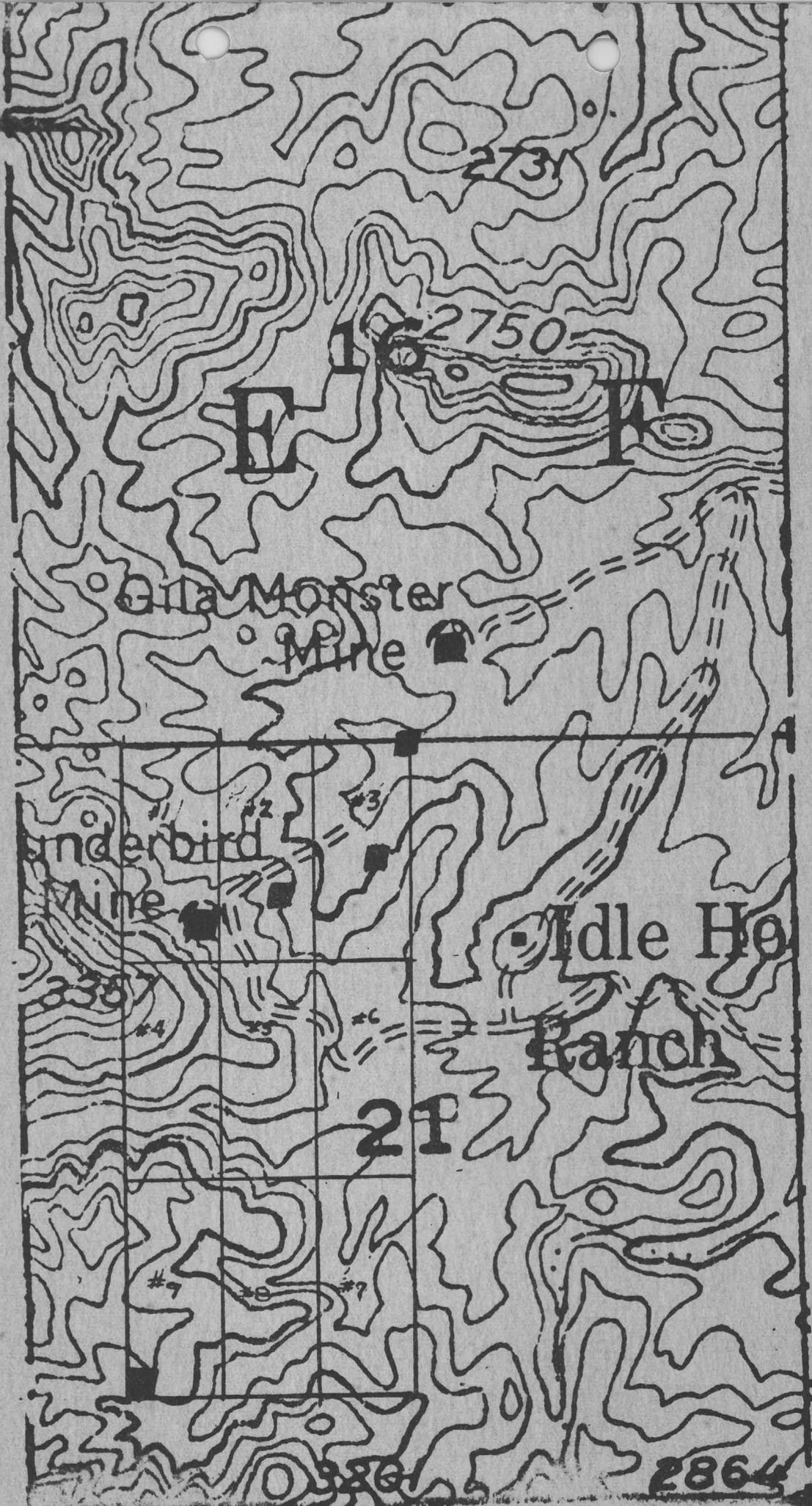
Pockets of commercial grade ore measured in tens to hundreds of tons appear to have been removed, and it is very reasonable that similar pockets still exist.

The drilling of a minimum of four short holes in the Thunderbird Mine area, and one or two holes and rehabilitation of mine workings in the Gila Monster Mine area appear to be justified by the mineralization showings.



Respectfully submitted,

W. C. Lacy
Willard C. Lacy
Geological Consultant



273

2750

E 16 T 10

Gila Monster Mine

Underbird Mine

Idle Ho Ranch

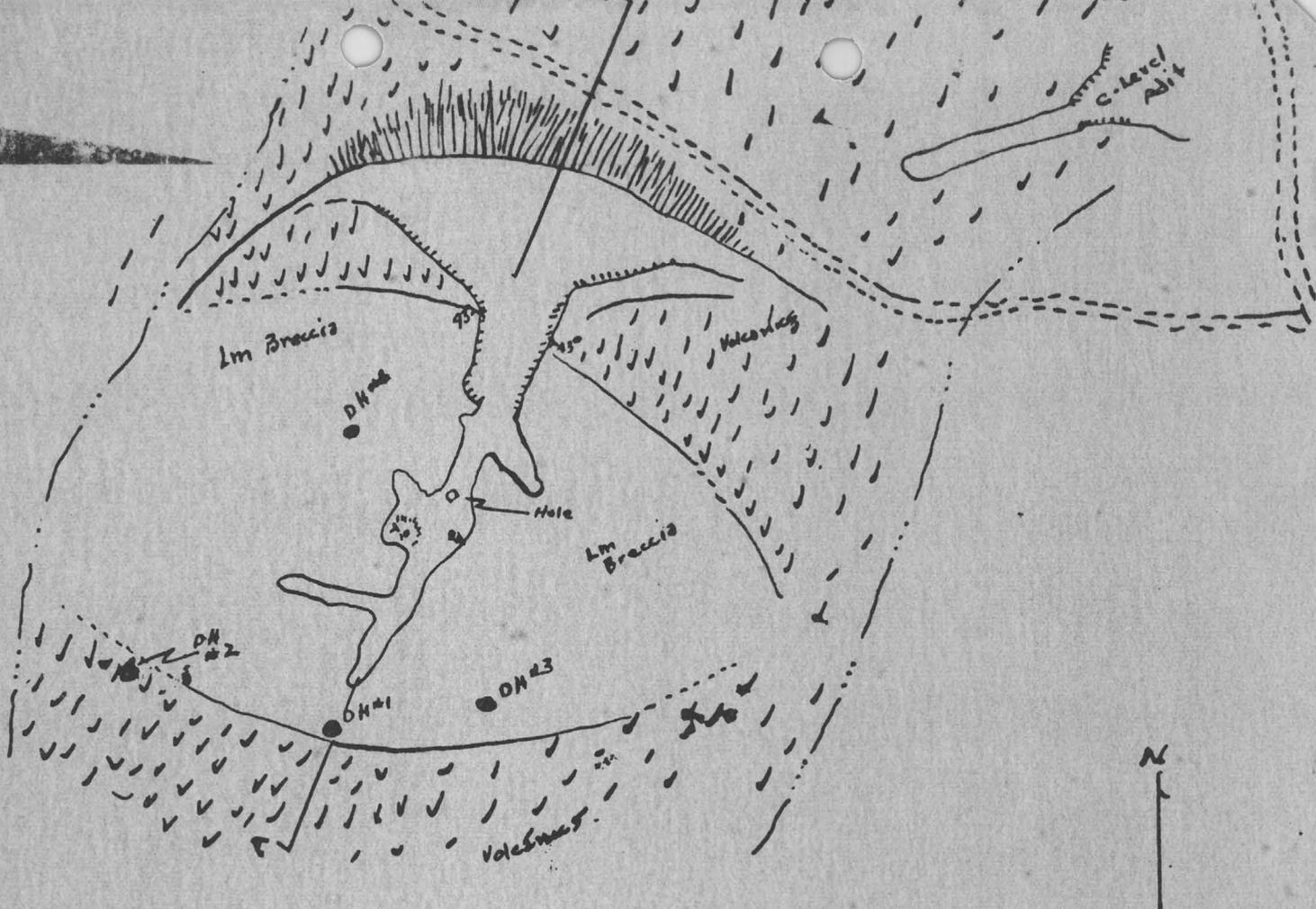
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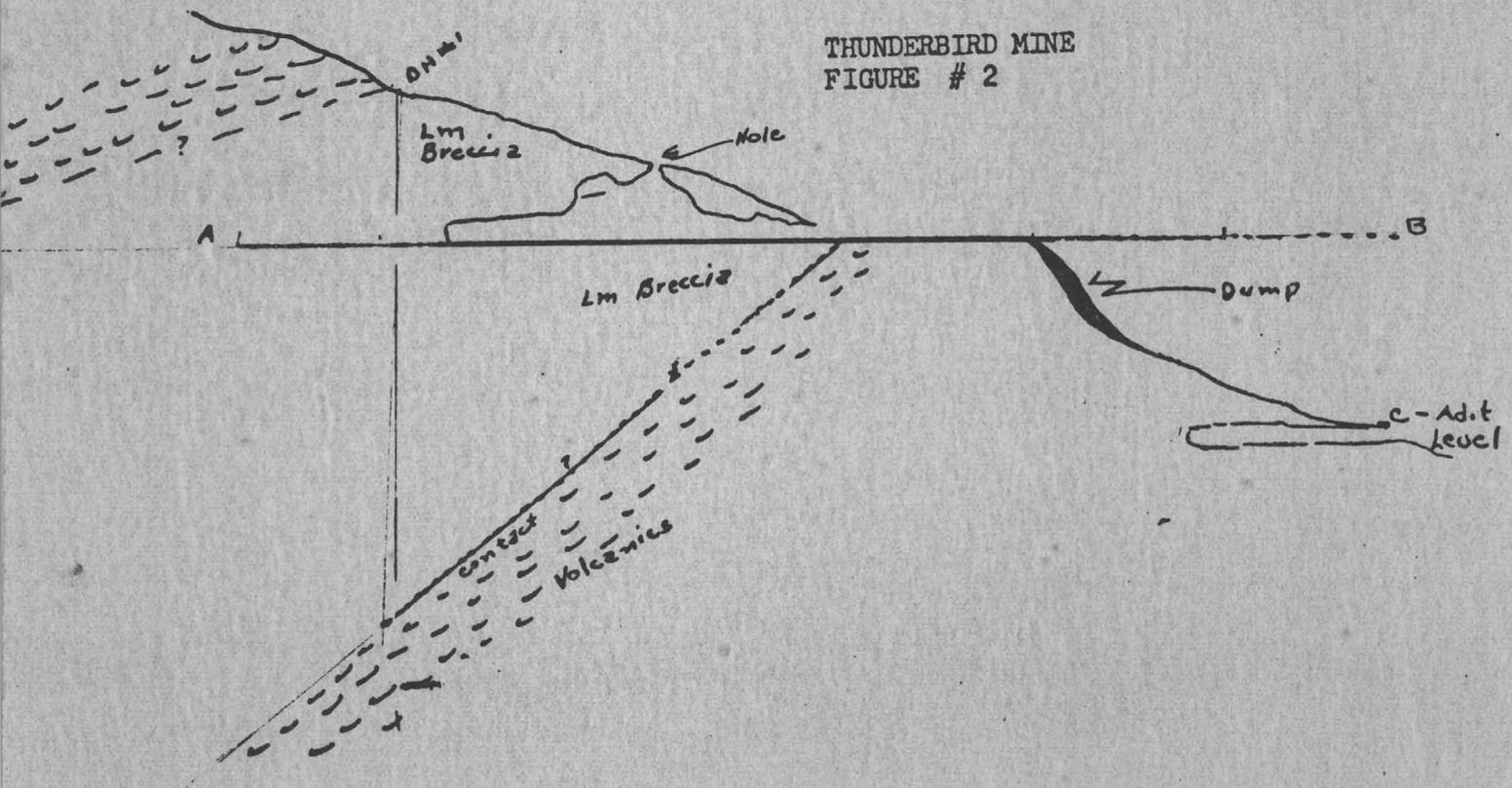
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■ SURFACE MINERALIZATION



0 20 40 60 80
 SCALE 1" = 40'
 By H. Clyde Davis
 September 24, 1962

THUNDERBIRD MINE
 FIGURE # 2



EXPLANATION

SEDIMENTARY AND EFFUSIVE ROCKS

- Alluvium
- Tertiary to Quaternary (Ninth to 10th stages)
- Tertiary Granitic Gneiss - Tertiary
- Sixth stage - Tertiary (T)
- Pleistocene and Deposits - Tertiary (T)

METAMORPHIC LIGHT COLOR ROCKS

- Granite and Diorite (Ninth to 10th stages)
- Chromite-bearing mica schists

Central, granite and schists

Point, on crest of mountain

Peak of Mt.

Road

Trail

Shed

BOUNDARY OF CITY
Scale: 1:50,000
1:100,000

T
13
S

Thunderbird claim group

GOLDEN GATE MTM

CAT MTM

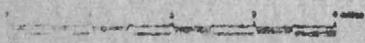


Figure 1. Geological map of the Tucson Mountains, showing location of the Thunderbird claim group. (After Kinnison, 1959.)

Southwest Mining Industries

XXXXXXXXXXXXXXXXX • PHONE MA 4-2996 • TUCSON, ARIZONA
1000 N. Mountain MEXICAN OFFICE
EMPRESAS MINERAS MEXICANAS, S. A.
CALLE ELIAS NO. 13 • PHONE 162 • NOGALES, SONORA, MEXICO

BUY, SELL, LEASE MINERAL PROPERTIES • NEW AND USED MACHINERY • GEOLOGICAL AND ENGINEERING SERVICES

September 25, 1962

Mr. J. Harry Fieldman
2706 Silver Bell Road
Tucson, Arizona

Dear Mr. Fieldman:

At your request I have made a cursory geologic report of your nine (9) federal mining claims located in Section 21 of Township 13 S, Range 12 E. These claims are around the old Thunderbird mine, which was worked near the turn of the century. I found mineralization on claim No. 1 where the old mine (Thunderbird) was located; claim No. 2, 3, and 9, which are located on the claim map. The geology of the area is very complex. However, the mineralization is associated with limestone blocks of the Paleozoic Age. These limestone remains are outliers in Tertiary volcanic. No close association could be determined of the mineralization on claims 2, 3, and 9 with the Thunderbird mine. However, this mineralization is associated with the limestone blocks and intrusive dykes. A closer examination would probably reveal other claims having mineralization, because the dykes seem to be on all claims.

The Gila Monster Mine is located on state land in the S $\frac{1}{2}$ of the S $\frac{1}{2}$ of Section 16 Township 13 S, Range 12 E and directly North-east of the Thunderbird mine. The geology of this mine is similar to the Thunderbird workings. The Gila Monster mine has underground workings which are rather extensive and go to a depth of approximately 100 feet on a 60° incline.

Conclusion:

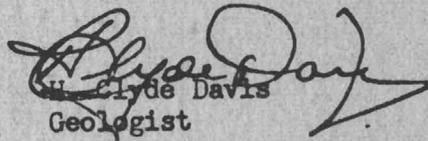
Because of the mining history of these two mines having a large stoped area in the mineralized breccia limestone, I can recommend the following:

1. At least four drilling holes should be completed

on the Thunderbird mine to determine its extent to the North-west. The deepest of these holes should be 150 feet. The other three holes would only need to be 100 feet as indicated on the map.

2. At least two holes should be drilled 150 feet deep on the Gila Monster to determine its mineralization, as has been indicated on the map.
3. Evaluation should be made from this drilling to determine the favorable areas for the underground mining. It would also be wise to do long hole drilling from the old workings, this would help determine favorable mineralization.

Sincerely,


H. Clyde Davis
Geologist

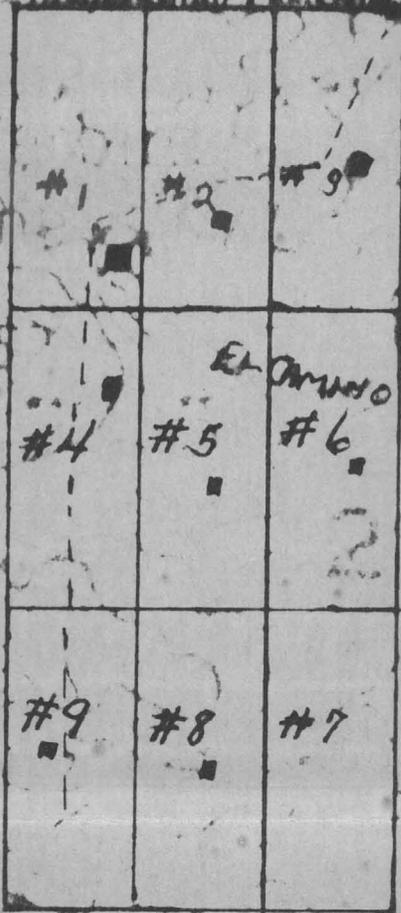
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STATE LAND

16

SEC. #16
T. #13 S.
R. #12 E.
640 ACRES
PIMA COUNTY

TANQUEMIAO FED. CLAIMS



EL DIVINO DE CERRO

El Divino Ho
Ranch

RUFFAUF ROAD

SILVER BELL RD.

■ SURFACE MINERALIZATION

MAGNETOMETER
OR
PROJECTED
PROTECTED I.P.
DOTTED LINE
FED CLAIMS
SEC #21

#500

2830

2864



ms

MINERAL MATERIALS CO.

Core and Material Producers

1145 WESTMINSTER AVE ALHAMBRA, CALIFORNIA
CUMBERLAND 37241

622-1842

11-3-9121

June 7, 1963

Mr. Walter E. Heinrichs, Jr.
Heinrichs Geoexploration Company
P. O. Box 5671
Tucson, Arizona



Dear Walt:

I was pleased to receive your opinion of the Pima area as suggested by Harry Fieldman.

We are considering taking a "flier" in this area, but will want to research it in detail before any physical activity on the property and in this respect the information you sent me is greatly appreciated and well presented facts.

I hope to be in Tucson soon to review the whole prospect and at which time I will want to discuss the matter with you in more detail.

I will call you and let you know my plans.

Yours very truly,

Melvin W. Redhead

MWR:mm