

CONTACT INFORMATION
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HINING DEPT.

WESTERN MINING DEPARTMENT

OCT 25 1954

TUCSON

Salt Lake City, Utah

October 23, 1954

T.A.S.

OCT 25 1954

AIR MAIL

INITIALS.

Mr. C. P. Pollock, Exploration Manager American Smelting and Refining Co. Mining Department 120 Broadway New York 5, New York

> EAST PIMA AREA SECOND PROGRESS REPORT

Dear Sir:

I am enclosing copy of Mr. Kenyon Richard's letter to Mr. Snedden of October 21, outlining the results on holes numbers 3 through

It would appear from the results to date that the large area of disseminated mineralization may have been delineated to the north in holes 6 and 8 and possibly to the south in hole 2. However, the zone has not been delineated to the east. Due to the shallower than expected depth. to bedrock, it is not costing us as much per hole as originally expected, and we therefore plan to have sufficient money to drill 12 holes instead of 10. At the conclusion of the 12 holes we plan to release the United Geophysical rig unless results indicate otherwise.

It would appear from the large area of disseminated mineralization that has been indicated, that we could not safely drop this ground until such time as we have drilled a few holes several hundred feet into bedrock so we can determine the copper grade. However, before making any recommendations on this we plan to complete an electromagnetic survey. Mr. Lacy is of the opinion, since bedrock is not as deep as originally expected, that electromagnetic work may possibly be of some help. He plans to have his geophysical crew on the job the first week in November, and in the meantime our engineers will lay out some north-south lines for the measuring grid.

Very truly yours

DRIGINAL SIGNED BY F. V. RICHARD

F. V. RICHARD

FVR: EH Encl. (1) cc:D.J.Pope - w/o encl. T.A. Snedden

WESTERN MINING DEPARTMENT Salt Lake City, Utah

Oct. 21, 1954

AIR MAIL

K. R.

Mr. K. E. Richard, Chief Geologist Southwestern Mining Department American Smelting and Refining Company 813 Valley National Building Tucson, Arizona

OCT 22 1954

EAST PIMA AREA

Dear Sir:

This will confirm our telephone conversation of this morning during which you requested approval to drill two additional holes in the East Pima area. As I told you this morning, I can see no objection to drilling these additional holes so long as we stay within our present authorization. In fact, if additional outcrop hole drilling would add to the picture, then I would be willing to recommend an increase in the authorization. Judging from what you said today, however, it does not seem likely that unless we hit something of interest that additional holes of this type will be required.

I have talked to Mr. Lacy relative to the aspect of further geophysical work as an aid to any additional recommendations we may wish to make. He is of the opinion, since the gravel cover is much thinner than we had expected, that electromagnetic work on the surface could be of help and that he expects to have a crew down to Tucson in approximately two weeks.

In view of the fact that this is quite a difficult situation to size up, I think we should defer any recommendations on further work until such time as Mr. Lacy's crew has completed an electromagnetic survey.

Regardless of the results we might get through an electromagnetic survey, it would seem, in view of the large zone of dissemination that has been indicated, that we would be taking considerable risk if we do not explore this zone by at least one cross-section of diamond drill holes which will penetrate bedrock to a depth of 300° to 400°.

Yours very truly,

FVR:bm cc: T.A.Snedden

R.J.Lacy

AMERICAN SWELTING AND REFINING COMPANY Tucson Arizons

October 21, 1954

Mr. T. A. Snedden, Manager Southwestern Mining Dept. Tucson Office

> EAST PIMA DRILLING Progress Report

Dear Sire

This will report on progress since my last report on October 5. (The two-week interval was caused by the Texas work taking longer than expected.)

HOLE 3 (proposed location C)

Depth to bedrock: 231.5

Coring interval : 20'

Core recovery : approximately 35%

Final depth : 251.5

Completed 10/7 — 10:30 A. M.

Bedrock : Strongly altered and leached arkose. The limonite and cavities indicate that sulphides occurred as disseminated grains and as veinlets. Moderate pyrite, sparse chalcocite, possibly some chalcopyrite indicated by limonites.

HOLE 4 (proposed location J)

Depth to bedrock : 227'

Coring interval : 20°

Core recovery : approximately 50%

Final depth : 247'

Completed : 10/9 — 1:00 P. M.

<u>Bedrock</u>: Strongly altered and partially leached arkose — sparse chrysocolla, trace chalcocite, trace pyrite — from 227' to 236'. Altered arkose to 247' — finely disseminated pyrite with trace chalcocite.

HOLE 5 (proposed location D)

Depth to bedrock : 237.5

Coring interval : 21

Core recovery : approximately 45%

Finel depth : 258.5

Completed : 10/13 - 10:30 A.M.

Bedrock: : Altered arkose -- sparse disseminated pyrite, trace

of chalcocite. No oxidation.

HOLE 6 (proposed location H)

Depth to bedrock : 2091

Coring interval : 14' - (211.5' to 225.5')

Core recovery : approximately 35%

Final depth : 225.5

Completed : 10/15 - 1:00 P.M.

Bedrock : Altered, silicified arkose - unleached, but no

Mr. T. A. Snedden

sulphides showing.

HOLE 7 (proposed location I)

Depth to bedrock : 212.6'
Coring interval : 12'

Core recovery : approximately 75%

Final depth : 224.6

Completed : 10/18 — 1:00 P.M.

Bedrock : strongly altered argillaceous quartzite (probably

Permian) — mostly leached, but rare remnants of disseminated pyrite with traces of chalcocite — sparse chrysocolla — traces limonite-after-chalcocite, sparse limonite-after-pyrite.

HOLE 8 (proposed location G)

Depth to bedrock : 224.6° Coring interval : 20°

Core recovery : approximately 90%

Final depth : 244.6

<u>Completed</u> : 10/20 — 1:00 P.M.

Bedrock : unaltered Cretaceous red beds.

Yours very truly,

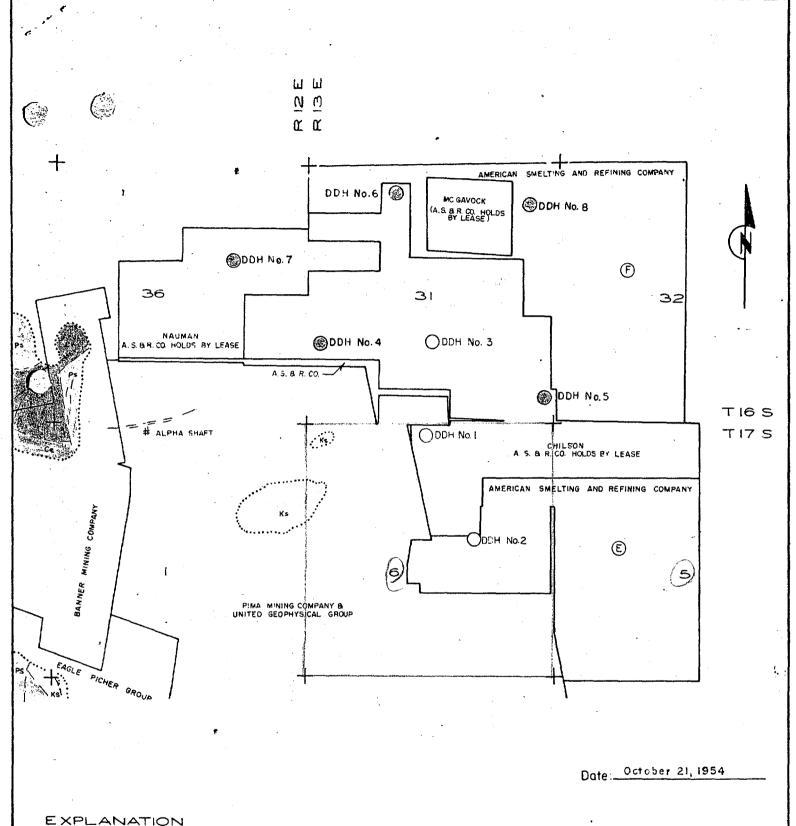
Original Signed By K. Richard

KRiar

KENYON RICHARD

Attachment: Progress Map #1252

cc: FVRichard (2) - A/M - with attachment
WRLandwehr " " "



EXPLANATION

SEDIMENTARY ROCKS

Gravel deposits

Arkose cong. shale & quartzite

Limestone with minor shale & quartzite

Naco limestone & shale

Çe ` Escabrosa - thick bedded

BODH NAI

Drift hole completed or being drilled OCT 6 TO 21

Proposed shallow drill holes

PIMA DRILLING PROGRESS **EAST**

PIMA MINING DISTRICT

Pima County, Arizona

SCALE | "= 2000"

OCTOBER, 1954

MAP NO. 1252

AMERICAN SMELTING AND REFINING COMPANY Tucson Arizona

October 21, 1954

Mr. T. A. Snedden, Manager Southwestern Mining Dept. Tucson Office

T. A. S. OCT 22 1954

EAST PIMA DRILLING Progress Report

Dear Sir:

This will report on progress since my last report on October 5. (The twoweek interval was caused by the Texas work taking longer than expected.)

HOLE 3 (proposed location C)

Depth to bedrock : 231.51 Coring interval : 20^t

Core recovery approximately 35%

Final depth : 251.5^t

Completed 10/7 — 10:30 A. M.

Strongly altered and leached arkose. The limonite Bedrock and cavities indicate that sulphides occurred as disseminated grains and as veinlets. Moderate pyrite, sparse chalcocite, possibly some chalcopyrite indicated by limonites.

HOLE 4 (proposed location J)

Depth to bedrock : 2271 Coring interval 201

approximately 50% Core recovery

Final depth 2471

10/9 -- 1:00 P. M. Completed

Strongly altered and partially leached arkose -Bedrock : sparse chrysocolla, trace chalcocite, trace pyrite - from 227' to 236'. Altered arkose to 2471 - finely disseminated pyrite with trace chalcocite.

HOLE 5 (proposed location D)

Depth to badrock : 237.5 211 Coring interval

approximately 45% Core recovery

258.51 Final depth

Completed 10/13 --- 10:30 A.M.

Altered arkose -- sparse disseminated pyrite, trace Bedrock:

of chalcocite. No oxidation.

HOLE 6 (proposed location H)

Depth to bedrock :

Coring interval 14' - (211.5' to 225.5')

approximately 35% Core recovery

225.51 Final depth \$

10/15 — 1:00 P.M. Completed

Altered, silicified arkose - unleached, but no Bedrock

Mr. T. A. Snedden

sulphides showing.

HOLE 7 (proposed location I)

Depth to bedrock : 212.6'
Coring interval : 12'

Core recovery : approximately 75%

Final depth : 224.6

<u>Completed</u> : 10/18 — 1:00 P.M.

Bedrock strongly altered argillaceous quartzite (probably

Permian) — mostly leached, but rare remnants of disseminated pyrite with traces of chalcocite — sparse chrysocolla — traces limonite-after-chalcocite, sparse limonite-after-pyrite.

HOLE 8 (proposed location G)

Depth to bedrock : 224.61 Coring interval : 20t

Core recovery : approximately 90%

Final depth : 244.61

<u>Completed</u> : 10/20 — 1:00 P.M.

Bedrock : unaltered Cretaceous red beds.

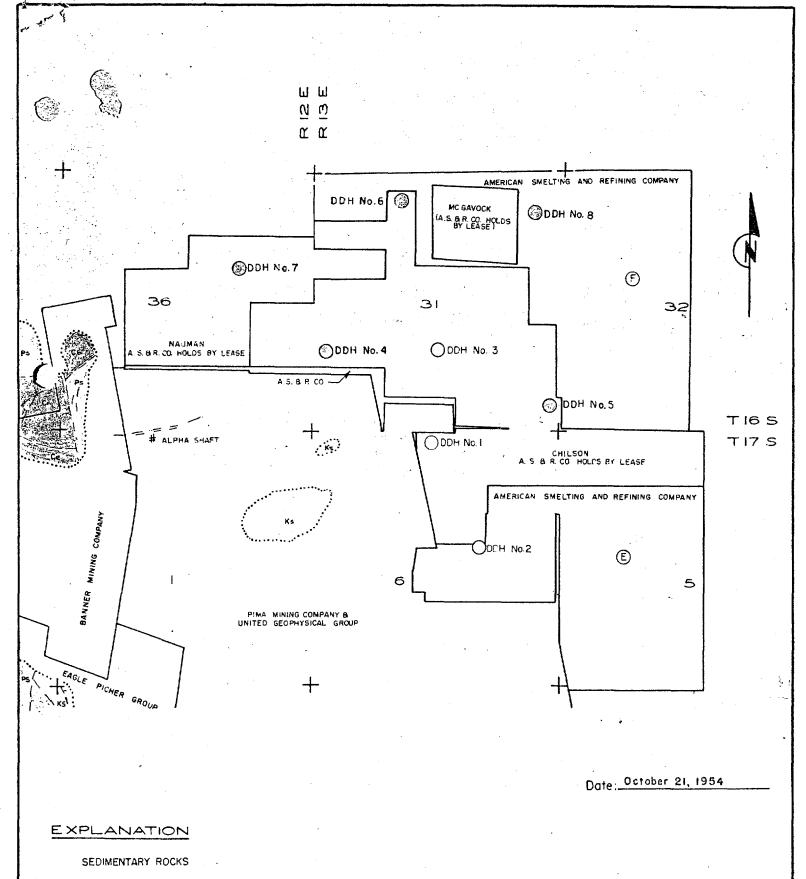
Yours very truly,

KENYON RICHARD

KR:ar

Attachment: Progress Map #1252

cc: FVRichard (2) - A/M - with attachment WRLandwehr " " "



Gravel deposits

Arkose cong. shale & quartzite

and build, bright or decisions

Limestone with minor shale & quartzite

👸 Naco limestone & shale

Escabrosa - thick bedded

Drill hole completed or being drilled OCT 6 TO 21

© Proposed shallow drill holes

EAST PIMA DRILLING PROGRESS MAP

PIMA MINING DISTRICT

Pima County, Arizona

SCALE I" = 2000'

OCTOBER, 1954 MAP NO. 1252

WESTERN MINING DEPARTMENT Salt Lake City, Utah

Oct. 7, 1954

T. A. S.

OCT 9 1954

AIR MAIL

Mr. C. P. Pollock, Exploration Manager American Smelting and Refining Company 120 Broadway New York 5, New York

> EAST PIMA PROGRESS REPORT

Dear Sir:

I am enclosing copy of Mr. Kenyon Richard's progress report of October 5th to Mr. Snedden covering the results on the first two holes drilled on the East Pima ground we hold.

It is extremely interesting to note that the disseminated mineralization zone has extended as far east as our drill hole No. 1. The fact that the dissemination of mineralization has weakened in hole No. 2 may lend encouragement that any extension of this disseminated zone will lie within the ground we control.

It is evident that there is an extremely large disseminated zone in this area since it is now known to extend from the Arkose sediments indicated in the Eagle Picher ground to our hole No. 1, a distance of some 9,500 feet.

Yours very truly,

F. V. RICHARD

FVR:bm
Encl.
cc: D.J.Pope, no encl.
T.A.Snedden, no encl.

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in hale #2 was hit at 151'ar

in hale #2 was hit at 151'ar

251' as the report indicate the

Asle was standard 201', School Ith

Ny ann to read 161' FR

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AMERICAN SMELTING AND REFINING COMPANY Tucson Arizona

T. A.S.

October 5, 1954

OCT 9 1954

Mr. T. A. Snedden, Manager Southwestern Division Tucson Office

> EAST PIMA DRILLING Progress Report

Dear Sir:

On September 28 the program of shallow drilling on claims held by this Company was begun. Gravel was drilled rapidly with United Geophysical's Mayhew rig using a 4-1/4" Tri-cone rock bit and mud circulation. Bedrock was encountered at 2081, and coring was begun at 215.51. No casing was set.

Core recovery was 90% for the first two foot run. Thereafter it was erratic - out of 9 additional runs, no core was recovered in 4. The hole was stopped at a depth of 2381 after a total of nearly 5t of core had been obtained.

Between 215.5t and 222t the core was strongly altered, sheared, and leached arkose. Limonite was abundant -- mostly after pyrite, but a minor amount of chalcocite-limonite was present.

Surprisingly, sulphides were encountered at 2221. From 2221 to 2241, the few inches of core was sheared arkose carrying veinlets and grains of pyrite with minor amounts of chalcocite. From 224t to 238t only hard, silicified fragments of arkosic sandstone were recovered. These showed fine, disseminated grains of pyrite with occasional coatings of chalcocite.

No assays have been made, but I would judge the sulphide material would carry about 0,2% Cu.

The hole was stopped Friday, October 1. One and a half days were spent in setting up and drilling through the gravel; two and a half days, coring.

No work was done on Saturday and Sunday. On Monday the rig was moved. hole No. 2 was drilled to bedrock at 151', and 5' of core was recovered in two runs to a depth of 157t Today two more core runs were made and the hole was stopped at a depth of 261t. When I left the rig at 10:30 A. M., preparations were being made to move the rig to the third location as shown on the attached map.

The core in hole No. 2 was weakly altered and leached arkosic conglomerate. The rock probably contained only a trace of pin-point grains of disseminated pyrite with no copper. Since this hole is outside the zone of interesting mineralization it will probably be unnecessary to drill location E.

After the third hole, it is planned to drill locations J, D, H, G, F and I, in that order.

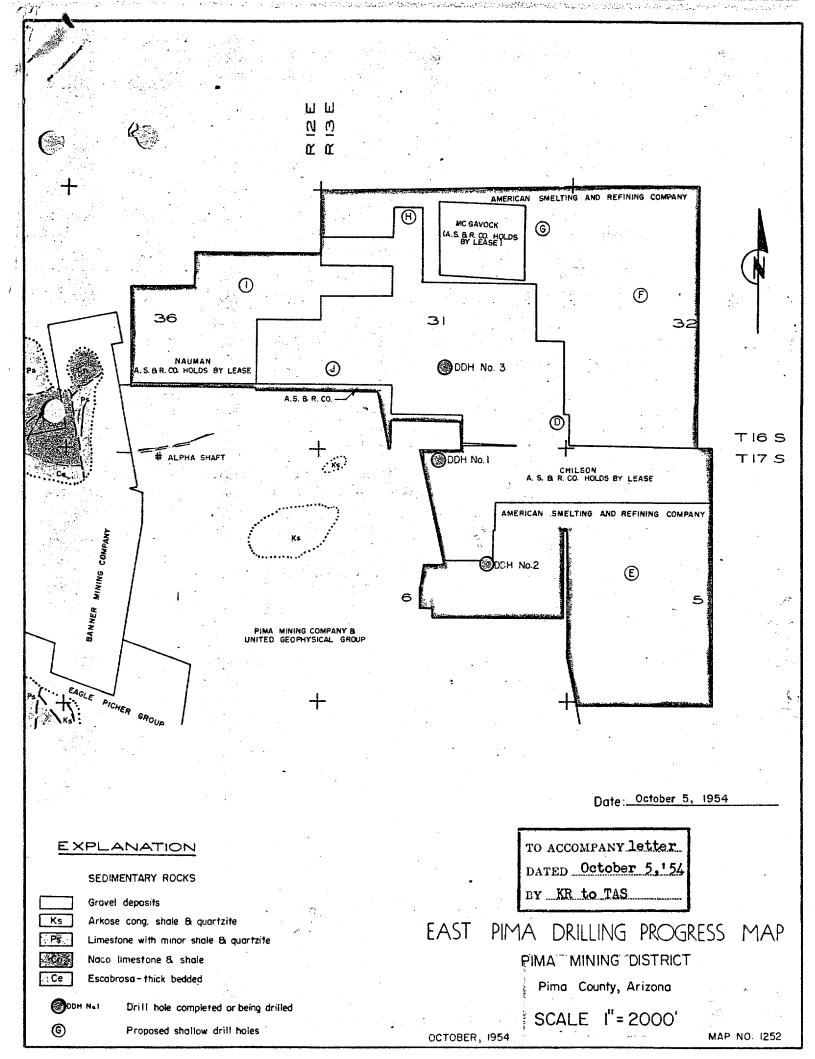
The sections which Mr. Richard requested have not been prepared. It seems to me that sections would not improve the picture now but they will be made up when the drilling is finished.

Attachment: Pima Drlg. Progress Map #1252

KR:ar

cc: FVRichard (2); WRLandwehr

Yours very truly, Keryon Richard
Kenyon Richard



AMERICAN SWELTING AND REFIRING COMPANY Tucson Arisons

October 5, 1954

Mr. T. A. Snedden, Manager Southwestern Division Tucson Office

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core recovery was 90% for the first two foot run. Thereafter it was erratic — out of 9 additional runs, no core was recovered in 4. The hole was stopped at a depth of 236' after a total of nearly 5' of core had been obtained.

Between 215.5' and 222' the core was strongly altered, sheared, and leached arkose. Limonite was abundant —— mostly after pyrite, but a minor amount of chalcocite-limonite was present.

Surprisingly, sulphides were encountered at 222'. From 222' to 224', the few inches of core was sheared arkose carrying veinlets and grains of pyrite with minor amounts of chalcocite. From 224' to 238' only hard, silicified fragments of arkosic sandstone were recovered. These showed fine, disseminated grains of pyrite with occasional coatings of chalcocite.

No assays have been made, but I would judge the sulphide material would carry about 0.25 Cu.

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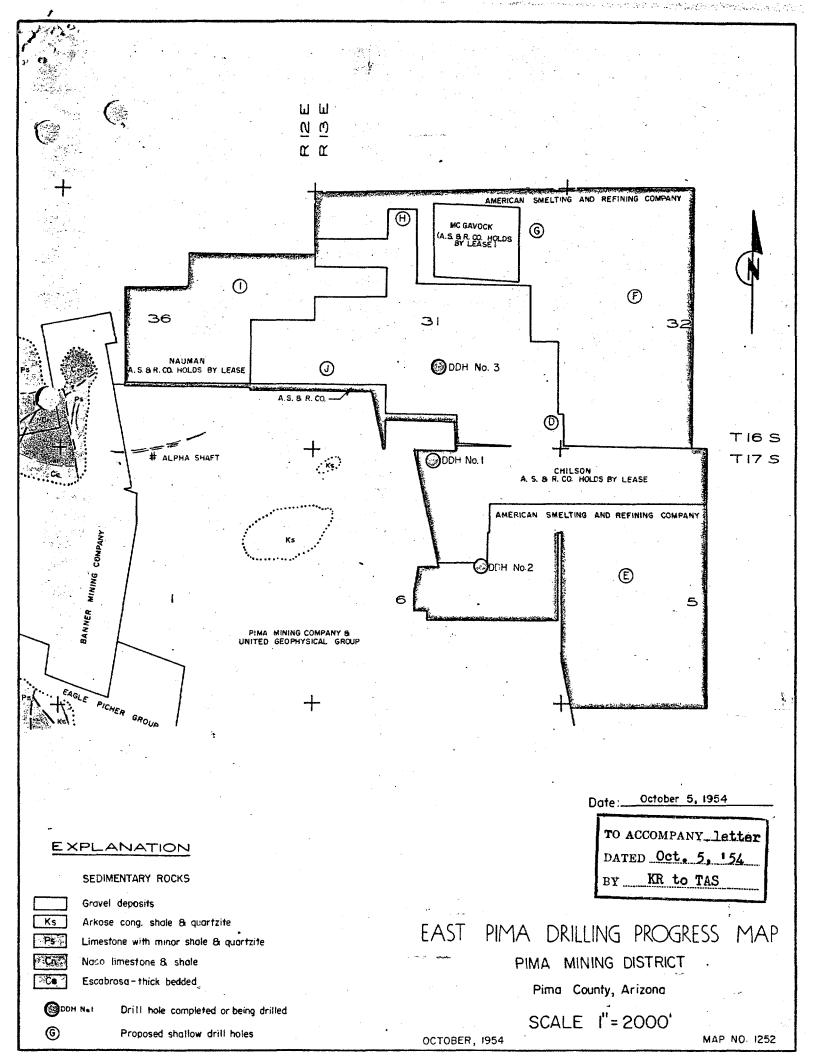
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Pima Drlg. Progress Map #1252 attached KR:ar

co: FVRichard (2); WLandwehr

Yours very truly, Original Signed By Kenych Klichard



Extraco

AMERICAN SMELTING AND REFINING COMPANY Tueson Arisona

October 5, 1954

Mr. T. A. Snedden, Manager Southwestern Division Tucson Office

> EAST PIMA DRILLING Progress Report

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The sections which Mr. Richard requested have not been prepared. It seems to me that sections would not improve the picture now but they will be made up when the drilling is finished.

Attachment: Pima Drlg. Progress Map #1252

FEINT.

ce: FVRichard (2); WRLandwehr

Yours very truly, Original Signed By K. Richard Kenyon Richard K. R. 0CT 5 1954

WESTERN MINING DEPARTMENT Salt Lake City, Utah

Oct. 1, 1954

READ AND RETURN
PREPARE ANSWERS HANDLE

INITIALS.

AIR MAIL

Mr. T. A. Snedden, Manager Southwestern Mining Division American Smelting andRefining Company 813 Valley National Building Tucson, Arizona

> PIMA AREA PROCRESS REPORTS

Dear Sir:

In view of the rapidity with which the drilling will progress on the East Pima area, I think we should prepare a brief weekly report, two copies of which should be sent to this office. The report should include an $8\frac{1}{2}$ " x 11" plan map showing the location of the holes, both those drilled and those proposed, also an individual $8\frac{1}{2}$ " x 11" section of each hole showing the pertinent information as to geology, assays, etc.

Yours very truly,

FVR:bm

T. A. S.

MINING DEPT.

BEN C. HILL

ATTORNEY AT LAW

TUCSON, ARIZONA

AUG 16 1954

'AUG 1 6 1954

1. S H. AUG 18 1954

August 14, 1954.

TUCSON

Mr. T. A. Snedden, Manager Southwestern Mining Division American Smelting and Refining Company 813 Valley National Building, Tucson, Arizona.

READ AND RETURN PREPARE ANSWERS...... HANDLE. FILE INITIAES

Dear Sir:

(::

In re: Proposed Drill Holes in Pima Mining District

After examining your claim map of Pima Mining District showing the location of ten proposed drill holes A to J, and going over with Mr. Hayes his notes on the ownership of the lands involved, the following are my comments:

K. R. AUG 1 8 1954

Drill Holes A and B offer no legal problems as to access because they are both situate in the N2 of Section 6, T. 17 S., R. 13 E., owned, as to the surface, by Pima Mining Company, and are readily accessible from existing roads.

Drill Holes C, D, G, H, and J are all situate in Section 31, T. 16 S, R. 13 E patented to Louis R. Masek as a grazing homestead. All of these locations are accessible from Hole A without encountering any fences or other improvements. It may be that Holes D and G are more readily accessible from the present road running north near the western border of Section 32 but this would require cutting the fence. In the event this method of access is determined upon an effort might be made to obtain Masek's consent to cut the fence and install temporary gates but such consent is not necessary.

There are no restrictions on your right to prospect on this grazing homestead but the law does provide that the owner shall be compensated for damages to crops and permanent improvements. Native grass, in my opinion, is considered a crop.

Hole E in Section 5 which is held under a state grazing lease to Masek, with the mineral rights reserved to the United States, can be reached from the gate between FED No. 5 and FMR No. 5 subject to damage to the land and improvements.

The Range Manager at Phoenix advised me this morning that the fence running north and south along the east

1 - 1

being to ?

line of Sections 31 and 6 is not a Federal project fence. He also stated that Masek's leases would probably be cancelled on account of his application to purchase the remainder of the land involved. It might be well to make some further inquiry from the <u>Bureau of Land Management</u> as to the present status of Sections 5 and 6.

If strip or pit operations are to be carried on in connection with this project, the law of June 21, 1949, \$5,63 Statutes 215, Title 30, \$54, Federal Code Annotated, becomes applicable. This statute provides that one who prospects for, mines, or removes minerals by strip or open pit mining methods, is liable to the owner or entryman, in addition to damages to crops or improvements, "for damages to the value of the land for grazing".

Holes F. and I are within State Mineral leases, the surface held by Masek under State Grazing leases, and may be reached by crossing other State lands as provided in the mineral leases.

It appears that Masek is involved either as owner or lessee in all of these drilling locations except Drill Holes A and B but I feel it is not necessary or advisable to consider any sort of a deal with him until you know definitely what you expect to do.

Very truly yours

Ben C. Hill

4 cc enc.
BCH:mh

Copied at Tucson office August 18, 1954.

CLASS OF SERVICE

This is a full-rate Telegram or Cable-gram unless its de-ferred character is indicated by a suitable symbol above or ceding the ad

VESTER

SYMBOLS

Day Letter

NL=Night Letter T=Int'l Letter Telegran

/LT=Int'l Victory Ltr

date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

🍇 LB149

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PD= WUX SALTLAKECITY UTAH 30 155PMM=

A SNEDDEN, AMERICAN SMELTING AND REFINING CO=

VALLEY NATIONAL BLDG TUCSON ARIZ=

WILL ADVISE MONDAY WHETHER WE WILL REQUIRE UNITED DRI

V RICHARD=

Valled Spauldine

MINING DEPT.

JUL 30 1954

TUCSON

WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

MINING DEPT.

T. A. S.

JUL 20 1954

JUL 20 1954

July 19, 1954.

K.R.

JUL 2 1 1954

Air Mail

Mr. F. V. Richard, Manager, American Smelting and Refining Company, 600 acific National Life Building, Salt Lake City, Utah.

Dear Sir:

Asarco's East Pima Claims

This is in acknowledgment of your letter of July 13th enclosing copy of Mr. Snedden's letter of June 29th with attached copy of Mr. Kenyon Richard's memorandum, relative to the proposed drilling program to test the above area for possible porphyry copper deposits. You know from our previous communications regarding this drilling that we have decided to hold this program in abeyance until such time as we have complete information on the latest Pima work. Quite possibly the results of their drilling to the east of the Pima mine would change our drilling program. It is even conceivable that we may decide not to drill at all if the holes they put down in the east country were not encouraging.

I see that Mr. Richard has altered his original proposal of November 20, 1953, at which time he suggested four holes averaging 600 feet each at a total cost of \$25,000 for the preliminary surface drilling. He now recommends ten holes to penetrate bedrock only a short distance, and five additional deep holes to test any favorable areas, at a total estimated cost of \$15,000. I am not convinced that it will cost all of this money to disprove the area east of the Pima mine. The proposed drilling through the valley fill at an estimated cost of \$2.00 per foot, and into the bedrock at \$6.00 per foot, seems quite adequate to me to obtain the information we require. I see no need until this first drilling to bedrock is completed to ask for the larger sum for deeper drilling. It is quite impractical at this time to speculate on the type and extent of the program we might then wish to embark upon. In any event, decision as to the amount we shall ask for the initial drilling program can wait until our engineers have had a chance to appraise Pima's latest exploration work.

Yours very truly,

ORIGINAL SIGNED BY C. P. POLLOCK

LAW OFFICES

GUYNN & TWITTY

TITLE & TRUST BUILDING PHOENIX, ARIZONA

C. LEO GUYNN HOWARD A. TWITTY

RALPH B. SIEVWRIGHT

July 16, 1954

Pw 300 17 1000

Mr. T. A. Snedden, Manager American Smelting and Refining Company 813 Valley National Building Tucson, Arizona

Dear Al:

Reference is made to your request for information regarding the status of Section 31, Township 16 South, Range 13 East.

As we advised you over the telephone, there is pending an application for a private exchange in which Louis R. Masek will acquire the surface rights. Mr. David B. Morgan is his attorney handling the matter. The period for publication of the notice to make objections to this private exchange has expired. We have checked with the Bureau of Land Management, Grazing Division, and find that the lease held by Masek is still in effect, but because of the private exchange, whereby he will acquire the surface rights, it will not be renewed. The Grazing Office advises me his address is Box 34, Sahuarita.

The other parcels which Masek will secure in private exchange are located in Township 17 South, Range 13 East, and are:

 $W_{\frac{1}{2}}$, $W_{\frac{1}{2}}E_{\frac{1}{2}}$, Section 11; $NW_{\frac{1}{4}}NW_{\frac{1}{4}}$, Section 13; $NW_{\frac{1}{4}}NW_{\frac{1}{4}}$, Section 14; All of Section 15.

Sincerely yours,

GUYNN & TWITTY

HAT:ec

By Hannel A- Fritty.



AMERICAN SMELTING AND REFINING COMPANY Tucson Arizona

July 15, 1954

AIR MAIL

Mr. F.V.Richard, Manager Western Mining Department Salt Lake Office

TUCSON OFFICE Pima Examination

Dear Sir:

Kenyon Richard and I had lunch today with Drex Spaulding.

He said that Anaconda should finish their examination within the next few days, and that he thought the Mudd interests were still planning to make an examination as soon as advised that Anaconda had completed their field work. If it is possible for our men to log core while Anaconda men are underground, or do any work while the Mudd examination is being conducted, Spaulding will advise us.

On Monday, July 19th, we will get prints of their up-to-date plans, sections and drill logs. He said he would also give us a copy of Ira Joralemon's recent report.

cc: D.J.Pope C.P.Pollock

TAS:blc

K. R. JUL 15 1954 Very truly yours,

ORIGINAL SIGNED BY T. A. SNEDDEN

T. A. SNEDDEN

WESTERN MINING DEPARTMENT Salt Lake City, Utah

MINING DEPT.

July 13, 1954

JUL 1 5 1954

TA.S.

TUCSON

[, A. O.

JUL 15 1954

AIR MAIL

Mr. C. P. Pollock, Exploration Manager American Smelting and Refining Company 120 Broadway New York 5, New York

Dear Sir:

PROPOSED DRILLING PROCRAM

I am enclosing copy of Mr. Snedden's letter to me of June 29th to which is attached copy of Mr. Kenyon Richard's memorandum to Mr. Snedden of the same date describing the proposed drilling program and giving the estimated cost to prospect the ground we held east and north of Pima Mining Company. If you approve this program, I would appreciate if you would secure permission to increase the authorization under Mining Proposition 677 in the amount of \$15,000 to cover this drilling. There is presently a sufficient balance in the existing Mining Proposition 677 to cover the minimum royalty payments on the three groups of claims we have tied up until about the end of October 195h. An additional \$1,500 increase in the authorization would permit payment of the minimum royalties through December of this year, and if it is desired to include this amount, then the authorization should be increased by \$16,500.

You will note that the proposed drilling program we are recommending is rather unusual in that we plan to drill the first 10 holes through the valley fill and into bedrock only a short distance so that we can evaluate quickly the existence and character of any disseminated mineralization that might exist, since our primary object is a porphyry copper deposit. If, upon completion of these first 10 holes, all of which I would recommend be drilled regardless of results, we find interesting mineralization, then we will drill the additional 5 deeper holes to test the more favorable areas. This drilling program is not aimed toward discovery of replacement type copper ore bodies as we do not have any indications, geophysical or otherwise, to demonstrate objectives of this type. It is possible, however, that the 5 deeper holes may give us clues either to disseminated or small replacement ore bodies which would justify additional test work.

We have talked to the United Geophysical people relative to drilling the first 10 holes, and they have given us a firm bid on this, although as yet we have not worked out the terms of an agreement. I am not altogether satisfied that the United Geophysical Company are fully authorized to do this type of contract work in the State of Arizona, however, I think the risk that we might take in having them do this work is small. Their drilling rig is presently finishing up a job in California, and it is anticipated that they can move on to our work in the very near future.

Mr. C. P. Pollock

st Pima - Proposed Drilling Program

I think the type drilling that Mr. Kenyon Richard has proposed for the first 10 holes is well worth trying out on this project as it may lead to a much cheaper method of exploring extensions of porphyry copper outcrops in other covered areas, and should certainly give us the information we are interested in on this particular project.

Yours very truly,

F. V. RICHARD

FVR:hm
Encl.
cc: D.J.Pope
T.A.Snedden no encl.

AMERICAN SMELTING AND REFINING COMPANY Tucson Arizona

June 29, 1954

AIR MAIL

Mr. F.V.Richard, Manager Western Mining Department Salt Lake Office

Proposed Drilling Program

Dear Sir:

Attached are two copies of Kenyon Richard's memorandum of June 29, 1954, discussing drilling procedure and submitting a cost estimate of \$44,770. to cover the proposed exploration.

You will note that this diamond drill program includes funds for 15 holes, 10 to be drilled by Pima Mining Company at a cost of \$2.00 per foot through overburden, plus \$6.00 per foot for drilling each BX hole some 20 feet into bedrock. The other five holes will probably be drilled by Joy Manufacturing Company on a bid of \$5.00 per foot, plus one dollar for coring quartzite, with all overburden drilling to be 6-1/4" and bedrock drilling to be NX.

The first three holes will be drilled as shown on the claim map attached to Mr. Richard's memorandum. Other holes will then be spotted, using the data obtained in drilling.

Additional expenditures will be required beyond the above program if mineralization of commercial grade is encountered.

encls: Mr. Richard's memo

with map (2)

Ex copy this letter

TAS:blc

Very truly yours.

T. A. SNEDDEN

AMERICAN SMELTING AND REFINING COMPANY Tucson Arizona

June 29, 1954

MEMORANDUM FOR: Mr. T.A.Snedden

EAST PIMA
Pima County, Arizona
Proposed Drilling Program

This will conform with Mr. F.V.Richard's request for an estimate of the cost of drilling, and a map showing the location of proposed holes in the area which lies north and east of the Pima Mining Company claims, and which we hold by claim locations and leases.

The area is entirely gravel-covered, and it is anticipated that gravel depths will range within 200 feet and 400 feet, averaging about 300 feet. The objective in drilling is to find a buried center of stronger alteration-mineralization carrying better disseminated copper sulphide values than are now known in Pima's ground. Also, there is the additional chance of encountering limestone replacement ore like Pima's main ore body. As our information now stands, there are no recognized structures or trends of disseminated mineralization in Pima's ground which can be projected into our ground with any assurance of accuracy. Under this circumstance it would be possible to spend considerable money exploring the sulphide zone in our ground and still miss an ore body.

Pima Mining Company has demonstrated that, by combining mud circulation and oil-well-type rotary rock bits with a conventional diamond drill rig, the gravel beds can be drilled very rapidly and cheaply. Using this system we could obtain information on the character of alteration-mineralization in bedrock over a large area at relatively low cost. The plan would be to obtain only 15 feet or 20 feet of bedrock core in each hole and then abandon it. With this bedrock information from the 10 shallow holes, located as shown on the attached map, 5 additional holes could then be strategically spotted for the main objectives of exploring deep into the sulphide zone. The cheap information gained from the shallow holes would greatly increase the likelihood that the deep, more expensive holes would be positioned so as to provide It is intended that the first three locations the best information. (A, B and C) should be drilled regardless of whether the bedrock

core shows mineralization or not. But these first results may indicate that remaining hole positions should be adjusted.

Following is the estimated cost of these two programs of shallow and deep drilling:

PRELIMINARY SHALLOW DRILLING (10 HOLES):

3000' @ \$2/ft.(gravel)	\$ 6,000.*
Roads	500.**
Sampling and Supervision	500.**
Total	\$ <u>8,200.</u>

DEEP DRILLING (5 HOLES):

5000' @ \$5/ft	\$ 25,000.* 2,000.** 500.**
Sampling and Supervision	5.000.**
Total both programs	\$ 40,700.
Contingency Total	4,070. \$ <u>44,770.</u>

* Contract
** A.S.& R.Co.Acct.

If the results of these two programs indicate mineralization of commercial grade, additional expenditures will be needed.

Attaching map.

2 CC F. V. 17 - W Mag

KW:blc

KENYON RICHARD

