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07/28/88

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: ABRIL MINE

ALTERNATE NAMES:
DOS HERMANOS

COCHISE COUNTY MILS NUMBER: 95

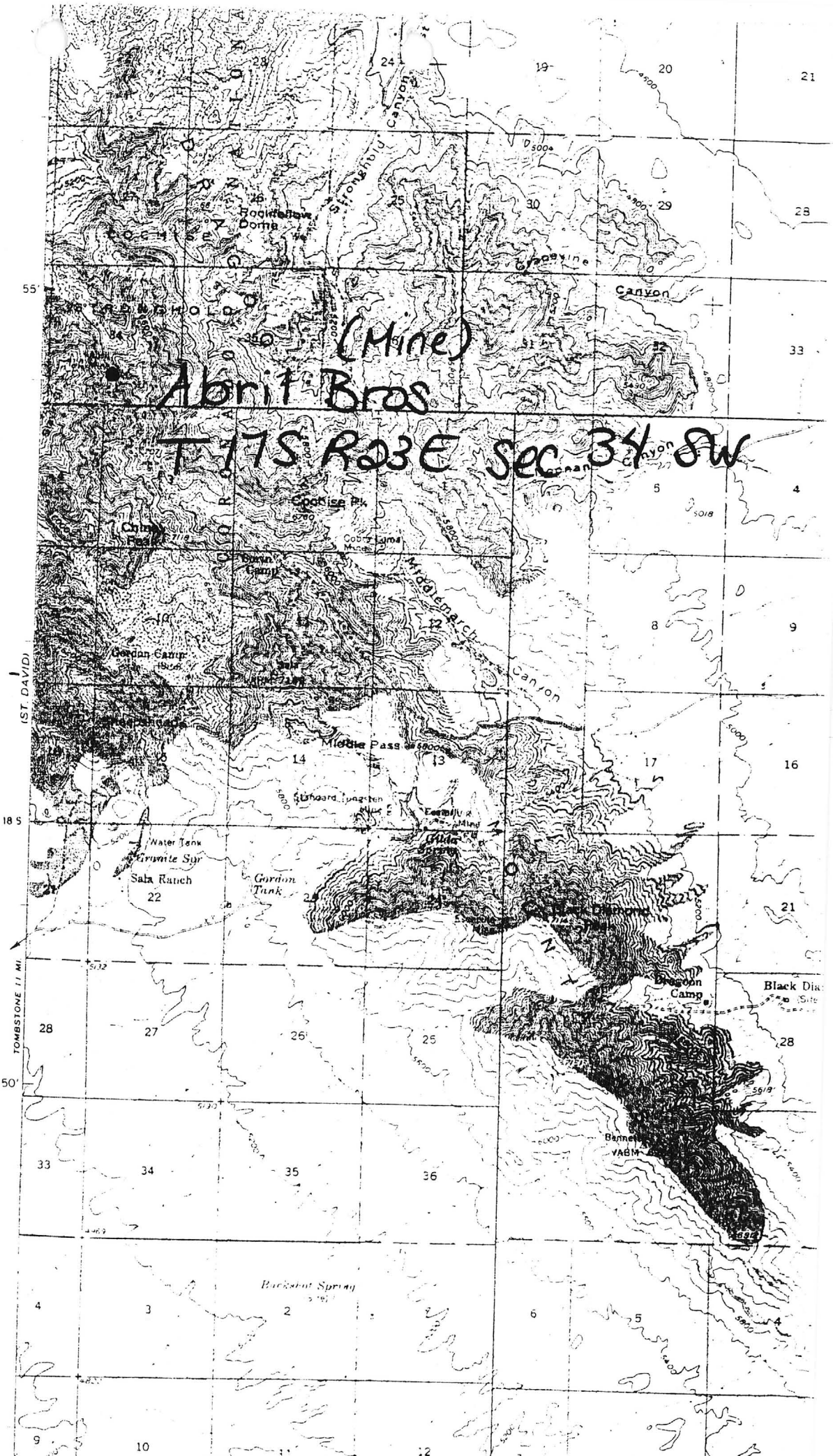
LOCATION: TOWNSHIP 17 S RANGE 23 E SECTION 34 QUARTER SW
LATITUDE: N 31DEG 54MIN 29SEC LONGITUDE: W 109DEG 59MIN 29SEC
TOPO MAP NAME: PEARCE - 15 MIN

CURRENT STATUS: PAST PROCUCER

COMMODITY:
ZINC SULFIDE
COPPER SULFIDE
LEAD SULFIDE
MOLYBDENUM
SILVER
GOLD LODE
BISMUTH DELETERIOUS?
LITHIUM
CADMIUM
GALLIUM

BIBLIOGRAPHY:

KEITH, S.B.., 1973, AZBM BULL. 187, P. 68
DEPOSIT CONTAIN MINOR COBALT & TUNGSTEN
USAEC COCHISE CTY, P. 36
AZBM BULL. 158, P. 23
USGS PP 318, P. 97
AZBM BULL. 180, P. 105-111
USBM RI 6828, P. 56
ADMMR ABRIL MINE FILE
KREIDLER, T.J., "MIN RES POTEN OF DRAGOON
MTNS RARE II PLANNING AREA, COCHISE CO AZ"
USBM MLS 35-82, 1981, (PHOENIX GEOLOGY FILE)



Pearce 15'

[redacted]

Rocky Canyon
Mining & Milling Inc.

P.O. Box 62
Willcox, Arizona
85644
Phone: 602-384-3243

MD KA
ABRIL Mine file
Cochise County
[redacted]

Dear Ken:

Here is the lastest on the Abril and I will keep you informed of our progress.

Mary deBille

J.R. Woodcock Consultants Ltd.

806 - 602 WEST HASTINGS STREET VANCOUVER, B.C. V6B 1P2 PHONE (604) 685-6720

December 28, 199

Ms. Mary deBille
P.O. Box 62
Wilcox, Arizona
85644

Dear Mary,

I am sending you a copy of my preliminary report on the Abril Mine. All maps and figures are missing as I have not had them drafted. I have plotted the data that I took during my two visits to the property; however, I wish to would check a few surface measurements to more accurately tie in the various adits. Also I would like to check a few items pertaining to the geology.

I hope to do these on my next trip to the Tucson area. In the meantime I could supply some preliminary maps to anyone who is sincerely interested in the property.

Yours very truly,

J. R. Woodcock

ABRIL MINES

Dragoon Mountains
Cochise County, Arizona

by
J. R. Woodcock

J. R. Woodcock Consultants Ltd.
806 - 602 West Hastings St.
Vancouver, B.C.

December, 1990

JRW

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JRW

THE ABRIL MINE

INTRODUCTION

In early 1990, Eugene Bond and Mary deBille of Wilcox, Arizona staked the old Abril Mine in the Dragoon Mountains of Cochise County, Arizona. In July, 1990 I inspected the property with Gene Bond and spent one day mapping parts of the lower and upper adits. I returned to the property in October, 1990 and spent an additional three days with Gene Bond mapping the three adits and the surface exposures along part of the access road.

Except for the eastern portions of the middle and upper adits, no survey maps were available; also no geological maps of any of the mine workings were available. Therefore a tape and compass survey was used for our control and the resulting maps were adjusted somewhat to try to fit the portions of the mine appearing on the old sketches. Although the skarn contains no magnetite, the dark igneous rocks are magnetic and this may have affected the accuracy of parts of our survey. However, the mapping was solely for the purpose of determining ore controls and therefore the maps were considered sufficiently accurate.

In regard to mapping the geology, the underground surfaces are covered with some dirt cemented by remobilized carbonate. Therefore it is necessary to chip off pieces of rock wherever examinations are made, thus slowing the mapping program, especially in hard skarn areas.

This quick survey concentrated mainly on rock types and changes in rock types along the drifts and crosscuts. Details of the changes in the coarse skarn were omitted and very little work was done in the old stoped areas. Most of the identification was by hand specimens only; however this was supported by petrographic examination of nine thin sections.

Because of limited time many aspects of geology were neglected including mapping of the numerous faults along the adits and crosscuts. Hopefully additional work can be done in the future, especially on the surface mapping.

LOCATION AND ACCESS

The Abril Mine is in the Dragoon Mountains on (7.5 quadrangle topographical map) the "Cochise Stronghold". It is at latitude 131° 54.5' N. longitude 109° 59.5' W on Section 34, Twp. 17 S, Range 23 E. The old upper adit is at an elevation of about 6600 feet.

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Access is from Pearce westerly for 3.8 miles and thence southwesterly, westerly and northwesterly for 10 miles into the rugged mountains south of Cochise Stronghold. Pearce is 29 miles south of Wilcox. Production from the lower adit was via a metal chute down which the ore was transported to a road at the head of Slavin Gulch and thence westerly for 18 miles to Tombstone.

HISTORY

Data on the discovery and early history of the property were not available for this report. However, there is some data available for the years subsequent to 1936. In 1937 the property was called Herrera-Abril or Dear & Daniel and was owned by Jose Herrera, Manuel R. Abril and Mrs. John Igo of Tombstone. In 1939 the owners included M.R. Abril, H.S. Smith, and Marshall and of Tombstone who were also operating the mine. Abril and Smith remained the owners until at least 1946 and during the latter part of this interval a number of operators leased the property. These included Adrian Skinner and Dan Lewis of Wilcox, Bargain Mines Inc. of Tombstone and Shattuck Mining Company.

In 1951, D.M.E.A. (Defense Minerals Exploration Administration) approved a contract for expenditures of $63,926 (half of which would be paid by D.M.E.A.) to Sherwood Owens, the operator.

In the early 50's Howard Birchfield of Middlemarch Pass Camp worked the claims for five years, during which time he shipped several cars of ore to the New Jersey Zinc Corp. at Silver City, New Mexico. At the end of this period, drilling was underway and he leased the property to Basic Minerals of Salt Lake City and Minbanco Corp. of New York. These lessors had three bulldozers working on the property.

By 1952 the property was owned by Shadduck Denn Mining Corp. and was under lease to Sherwood B. Owens of Tucson. This lessor had nine men working producing 100 tons per week and shipping it to the A.S.& R. mill at Deming, New Mexico. The leasors encountered several ore pockets in the order of 40 feet by 100 feet by 20 feet thick and with grades of about 12% zinc and 1% copper. Apparently some of this work was also done under the D.M.E.A. loan.

In the middle 50's Shadduck Denn Mining Company owned the mine and leased it to Sherwood Owens and then subsequently sold it to him. He turned over the responsibility for maintaining the claims to a leasing agency which failed to apply assessment work and so the claims lapsed in 1989.

In April 1990, Mr. Gene Bond and Ms. Mary deBille staked ten claims over the property.

JRW

CLAIMS AND OWNERSHIP

I have not investigated the claims and ownership and so merely state that Gene Bond and Mary deBille report that they staked the ten claims in 1990.

GEOLOGY

Rock Units

The property lies in the northwest part of the Dragoon Mountains where a small Tertiary batholith, the Stronghold Batholith, intrudes faulted and folded strata which range in age from Proterozoic to Mesozoic. The Abril Mine occurs at the point of a septa of strata which projects northwesterly into the batholith on its southeastern side.

Harold Drewes, et al (1983) studied the batholith terrain for a proposed roadless area. They divided the formations into three units. In the vicinity of the Abril Mine, a metamorphosed sequence has been assigned to the Pinal Schist (Proterozoic). It is composed of a thick sequence of phyllite, metagreywacke, metaarcosic conglomerate, and metaquartzite and also includes amphibolite which is probably intrusive into the Pinal schist. The amphibolite is a dark greenish grey, fine to medium grained, gneissic rock containing amphibole, plagioclase and magnetite. Another major unit consists of Lower Palaeozoic sedimentary rocks including some Escabrosa limestone (Mississippean), Martin limestone, dolomite and sandstone (Upper Devonian), and Abrigo Formation of shale, quartzite and limestone (Cambrian), and Bolsa quartzite (Middle Cambrian). To the northeast of the Abril Mine, the septa includes some Bisbee Group (Cretaceous) which is mainly shale, siltstone with some interbedded sandstone and limestone.

In my mapping I differentiated a number of rock units; however the limited mapping precluded good correlation with the strata of Drewes and Meyers. This picture is very complicated by pre and post intrusive faults. The rock units that I have mapped include:

1. The Stronghold Granite including relatively fresh blocky weathering exposures, sheared and sericitized equivalents along faults adjacent to the strata, and thin dikes.

2. Dark grey to almost black rocks which are highly metamorphosed and are now a hornfels. I made petrographic examinations of three thin sections, one from the lower adit near the granite contact (metadiabase), a second from dikes which cut the marble on the middle level (diabase or microgabbro), and a third from the upper adit where the rock appears similar in hand specimen but has somewhat of a mottled appearance and a granoblastic texture and contains abundant andalusite. These rocks are characterized by the presence of magnetite, the most magnetic of which is the dike rock. These same rocks or similar ones, also magnetic, assume a foliated to almost schistose structure towards the

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contact of the batholith.

Thus there appears to be two distinct types of rock including the diabasic ones, some of which are dikes and the mottled ones which are quite widespread on surface, are highly metamorphosed and are of unknown origin but probably part of a basic or intermediate clastic rock unit.

These dark, uniform to schistose rocks have been mapped as part of the Pinal Schist by Drewes and Meyer. This could be correct for the mottled and the schistose meta clastic rocks. However, it is necessary to determine the extent of the diabase which intrudes Palacozoic strata, and is almost indistinguishable in hand specimens.

3. To the south of the Abril Mine and along the road near Pear Tank is a unit of black rock that is also highly metamorphosed. Thin section examination shows abundant fine-grained secondary hornblende in a matrix of plagioclase, quartz and orthoclase. Foliation is not evident; however the thin section does show some alignment of the secondary hornblende crystals. The few hand specimens collected from this rock proved to be non magnetic. This could be a metamorphosed greywacke or siltstone or basic pyroclastic.

Other specimens, somewhat similar in appearance but bleached through alteration, appear, on examination by thin section to be a clastic rock, probably a siltstone which has been highly sericitized.

4. White marble is widespread in most of the workings, especially in the middle level where the drift lies mainly within marble. Marble also occurs in the upper level, both near the portal and in the northern extremities of the workings. It is less common in the lower adit where it was encountered in only one short section.

5. Coarse, dark coloured greenish skarn consisting of various amounts of epidote, diopside, and garnet, etc. occurs in a number of places in the central and upper levels. In places, the rock is brownish garnetite. Observations in the central level indicate that skarn is quite widespread above the drift; northerly dipping stopes in skarn overlie much of the drift. It also occurs to a lesser extent in the upper level.

Insufficient mapping precluded identification of all controls; however the skarn appears stratiform and may be related to some faults that dip gently northeasterly parallel to the strata. Northeasterly trending cross-cutting faults are also important; however, in places, these could offset the skarn rather than control it. In both the upper level and the middle level, the scarn displays some spatial relationship to the areas of basic igneous rock. In contrast skarn formation does not increase to the west towards the Tertiary granite.

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6. Some of the most erratic and variable rock types in the property are the various coloured hornfelses. These include a brown variety which is composed of plagioclase, epidote, diopside, tremolite/actinolite and biotite with white lensy variations of coarser grain size and negligible biotite. It also includes a greenish grey variety composed mainly of diopside with minor interstitial plagioclase and no carbonate. One of the prevalent types is a white variety which varies from watery white to china white and is also composed of diopside with more abundant interstitial plagioclase. None of the hornfels specimens tested are magnetic. This fact and the lack of iron-bearing minerals except for the biotite, indicates a different rock unit than that of the metabasites or diabases. I suggest metamorphosed or shale.

The white hornfels seems to be transitional in places into the white marble; however because of the difficulty of making observations on these dirty walls, we may have missed relatively sharp formational contacts.

The limestone and probably the fine-grained hornfelses belong to the Lower Sedimentary Sequence (re map of Drewes and Meyer); however which formation corresponds is not known.

7. In addition to the rocks found underground and adjacent to the portals, some additional rock formations were seen along the road to the south. These included a thinly bedded carbonate-chert formation which is exposed along the road just north of Pear Tank. It dips about 5° NW. This rock is somewhat similar to the more metamorphosed formation that occurs in the gully, about 300 feet north of the central portal.

Brown biotite hornfels overlies the thinly banded carbonate-chert and is exposed along the hillside about 400 feet north of the central portal.

8. Pure quite quartzite is exposed in a number of places along the road south of the mine. It is in fault contact with other formations and with the granite. It might correlate with the Middle Cambrian Bolsa Quartzite.

Structure

Generally the bedding of the sedimentary rocks dips of 30° to 40°NE and strikes WNW approximately parallel to the central level drift.

Faults are widespread and occur in many directions and, as stated previously, insufficient time precluded mapping many of these structures. Some of the faults appear to be pre mineralization as course acicular crystals of wolastinite occur along them. Northeasterly striking steep faults also provide control, although undoubtedly much movement was post mineralization.

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The general contact area between the batholith and the eastern part of the sedimentary re-entrant appears to be the locus of considerable faulting. Quartzite exposures mapped along the road south of the mine show no continuity because of the numerous offsetting faults. The massive blocky granite of the batholith is sharply separated from the sedimentary sequence by a zone of highly sericitized granite which in itself is probably separated from the more massive unaltered granite by faults. The basic rock exposed at the upper portal is separated from the overlying northerly dipping sedimentary strata by a fault and is also somewhat sheared and schistose near the granite contact a short distance to the west.

Alteration and Mineralization

The skarn mineralization includes the skarn minerals, especially epidote, diopside and garnet. In places garnet is prevalent and completely replaces parts of the skarn zone. The ore itself, is composed of sphalerite, specularite and chalcopyrite, occurring in very high grade lenses or pods which have been largely mined out. In one place on the upper level a four-foot chip sample down a pillar assayed 23.3% Zn and 0.066% Cu. A second three-foot chip sample down dip along the side of a stope assayed 13.9% Zn and 0.56% Cu. The gold and silver values in these two samples are negligible.

The marble, the skarn, and the hornfels rocks which in themselves indicate metamorphism and alteration are described under "Geology". Control for the metamorphism is both bedding and fault. In a number of places, especially along the mid level the stoped skarn areas are underlain by marble and overlain by hornfelsed horizons. However this alteration may be further controlled by stratiform faults.

About 700 feet southwest of upper portal, is a short adit and internal shaft that expose additional skarn and related mineralization. At this showing, the scarn is underlain by marble and overlain by a bed of silicified (or chert) breccia.

Thus the strata and faulting contributed controls. Whether the diabasic rocks or the Stronghold granite were the driving force is not certain.

CONCLUSIONS AND RECOMMENDATIONS

1. Although on first impression, underground workings and some stoping, especially on the middle level, appear quite extensive, the total amount of ore extracted from the mine was probably a few tens of thousands of tons. However the grade probably was good, one report indicated in excess of 12% zinc. Precious metal value on the few samples taken are negligible.

2. A general section from south to north (from bottom to top) appears to be basic rock overlain by marble with skarn occurring

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above the marble or adjacent to the basic rock. This is overlain by variegated hornfels which includes considerable diopside and then another bed of marble. This sequence is complicated by displacement along faults and by the usual erratic nature of skarn deposits.

The general sequence appears on the upper and middle levels; however the amount of skarn on the lower level is limited and is generally mixed with hornfels. A similar sequence accurs at the small workings 700 feet to the southeast.

3. There may be more of a spatial relationship of the skarn areas to the basic rock than toward the granite contact. In places thin dikes of similar basic igneous rock cut the marble without any skarnification at the contacts. These dikes are younger than the Palaeozoic sedimentary strata.

4. Eugene Bond has found additional scarn along the summit 2500 feet southeast of upper portal. This has abundant garnet, magnetite and some copper stain. The area needs prospecting, especially with the aid of Zinc Zap to identify zinc oxides.

5. Additional mapping and prospecting are needed to strengthen the geological base and interpretations and to find additional targets for un-explored zinc-copper deposits in skarn.

J. R. Woodcock

J. R. Woodcock, P. Eng.

JRW

REFERENCES

Drewes H. and Meyer G.A., 1983; Geologic Map of the Dragoon Mountains Roadless Area, Cochise County, Arizona, USGS. Map MF-1521-A.

Drewes H, Watt's K.C., Kleine D.P., and Kreidler T.J., 1983; Mineral Resource potential map of the Dragoon Mountains Roadless Area, Cochise County, Arizona, USGS. Map MF-1521-B.

Kleine D.P., 1983; Geophysical maps of the Dragoon Mountains Roadless Area, Cochise County, Arizona , USGS. Map MF-1521-C.

Drewes D., 1984; Reconnaisance Geochemical maps of mineralized rocks in the Dragoon Mountains Roadless Area, Cochise County, Arizona, USGS. Map MF-1521-D.

Watt's K.C., Hassemer J.R., Erickson M.S., and Drewes H., 1984; Geochemical and mineralogical maps of the Dragoon Mountains Roadless Area, Cochise County, Arizona, USGS. Map MF-1521-E.

JRW

Rocky Canyon
Mining & Milling Inc.

P.O. Box 62
Willcox, Arizona
85644
Phone: 602-384-3243

Abril file
(Cochise County)

[redacted]

Ken,

Here is an update on the "Abril" mines. We will be doing extensive mapping and sampling and I will send you the reports as they are completed.

Please add this to the "Abril" file

Sincerely

Mary A. deBalli

J.R. Woodcock Consultants Ltd.

806 - 602 WEST HASTINGS STREET VANCOUVER, B.C V6B 1P2 PHONE (604) 685-6720

August 7, 1990

Mary deBille
P.O. Box 62
Wilcox, Arizona
85644

Dear Mary:

Re: The Abril Mine

General

I spent two days visiting the Abril Mine, the first one getting oriented and the second one doing some underground and surface mapping and surveying with Gene. We used a chain and compass to survey in the workings of the lower adit and much of the upper adit. Water lies in the crosscut beyond the stoped area of the upper adit and we did not enter this part of the workings. Because of time limitations, we did not get into the workings of the central adit. We surveyed the adits with respect to one another and the shaft and I did some mapping on the surface. I have not been able to correlate a plot of my survey with the underground plans that you sent me.

Based on the plot of this geological data, the results of a few analyses, and a review of the rock types, I believe that I should spend several more days in completing the survey and mapping the geology in more detail. In the meantime, if Gene has time, it would be worthwhile prospecting the area and noting the distribution of the epidote-garnet skarn. The notes that you gave me from Mr. F.H. Lerchen (December 8, 1937) seem to indicate that skarn mineralization occurs in a number of places.

Geology

I have divided the rock types into a number of units with three main groups. The accompanying sketch will show you the distribution as I have mapped on surface.

Palaeozoic strata include white quartzites and grey limestones. I have insufficient geological maps on hand to determine what formations these strata belong to. These are bounded on the southwest by granite and gneiss.

The gneiss, which was probably originally sedimentary rocks such as shales, [illegible] highly metamorphosed and this can be attributed to intrusion of the granite. Separating this gneiss and granite from the limestone and quartzite is a fault (herein called the Abril Fault) which strikes northwesterly and dips 55° to the northeast. The Palaeozoic formations appear to have been thrust upward along this fault.

I suspect that there may be more than one age of granite in the area and that the mineralization may be connected with a smaller and younger granite than that which lies southwest of the Abril Fault. The small ridge of granite which extends northeasterly just to the north of the shaft could be such a body.

In the vicinity of the workings, the limestone occurs as marble and skarn. Hornfels or dense metamorphic rocks are also found on surface and in much of the lower adit. These include a chocolate brown biotite hornfels found up slope to the north of the shaft and several colours of hornfels in the lower adit. These have been divided into dark green hornfels, tan to grey hornfels, and variegated light grey and dark green hornfels. Dense silicious material in the upper adit looks like quartzite; however it was not examined in the daylight and it may also turn out to be hornfels.

The mineralogy of the skarn appears to be quite simple with epidote and garnet dominating. Petrography will probably show other lime silicates present as well. In the mineralized areas the metallic minerals include hematite, sphalerite and minor chalcopyrite. Pyrite appears to be absent.

The fault which separates the granite plus gneiss from the Palaeozoic formations is a predominant structure. It strikes northwesterly and dips about 55° NE. This fault, along with some northeasterly striking and steeply dipping cross faults, may be part of the structural control for the skarn and the mineralization. One should note that the workings within the skarn and mineralization only occur where a wedge of the gneiss lies between the fault and the granite.

Attitudes taken on the bedding in the marble within the upper adit and just east of the shaft in the interlayered marble and skarn show a strike of 110° to 120° azimuth and a dip of about 35° NE. The major stope exploited by the upper adit has a dip of about 40° to the northeast whereas the Abril Fault dips about 50° to 65° NE and the gneissosity in the underlying gneiss dips 55° to 60° E to NE. Thus, in addition to the possible fault control, there is probably bedding control for the skarn and mineralization.

The stoped area of the upper workings is up to 100 feet long, extends down dip an unknown distance (further information will be obtained from surveying the central adit) and extends to surface at the most southerly adit symbol on the topographical map. The stope generally varies from five to ten feet in thickness or

height and probably represents a layer of mineralization that is of variable thickness with one or more intervening layers of relatively barren skarn or marble.

I took two chip samples from the stope area of the upper adit. Sample W90-21R is a three-foot sample near the underground grizzly and W90-23R is a four-foot chip sample down a pillar. The geochemical results are shown on the accompanying ICP report and also the accompanying assay report. The main values are in zinc and copper. Gold and silver values are negligible. Sample W90-21R assayed 0.56% Cu and 13.9% Zn and W90-23R assayed 0.066% Cu and 23.3% Zn.

Although the precious metal values found to date are low, some of the accompanying geochemical results (e.g. bismuth) are quite anomalous and the very high zinc values are encouraging. I hope to be able to return to complete the mapping and I hope that Gene will in the meantime be able to find other potential skarn areas in the general area.

Yours very truly

J. R. WOODCOCK CONSULTANTS LTD.

J. R. Woodcock

JRW:me
Encl.

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Assay Certificate

OV-0980-RA1

Company: J.R.WOODCOCK CONSULTANTS
Project: ARIZ
Attn: J.R.WOODCOCK

Date: JUL-25-90
Copy 1. J.R.WOODCOCK CONS., VANCOUVER, B.C.

We hereby certify the following Assay of 2 ROCK samples submitted JUL-23-90 by J.R.WOODCOCK.

Sample Number	AU g/tonne	AU oz/ton	CU %	ZN %
W90-21R	.04	.001	.560	13.90
W90-23R	.05	.001	.066	23.30

Certified by

MIN-EN LABORATORIES

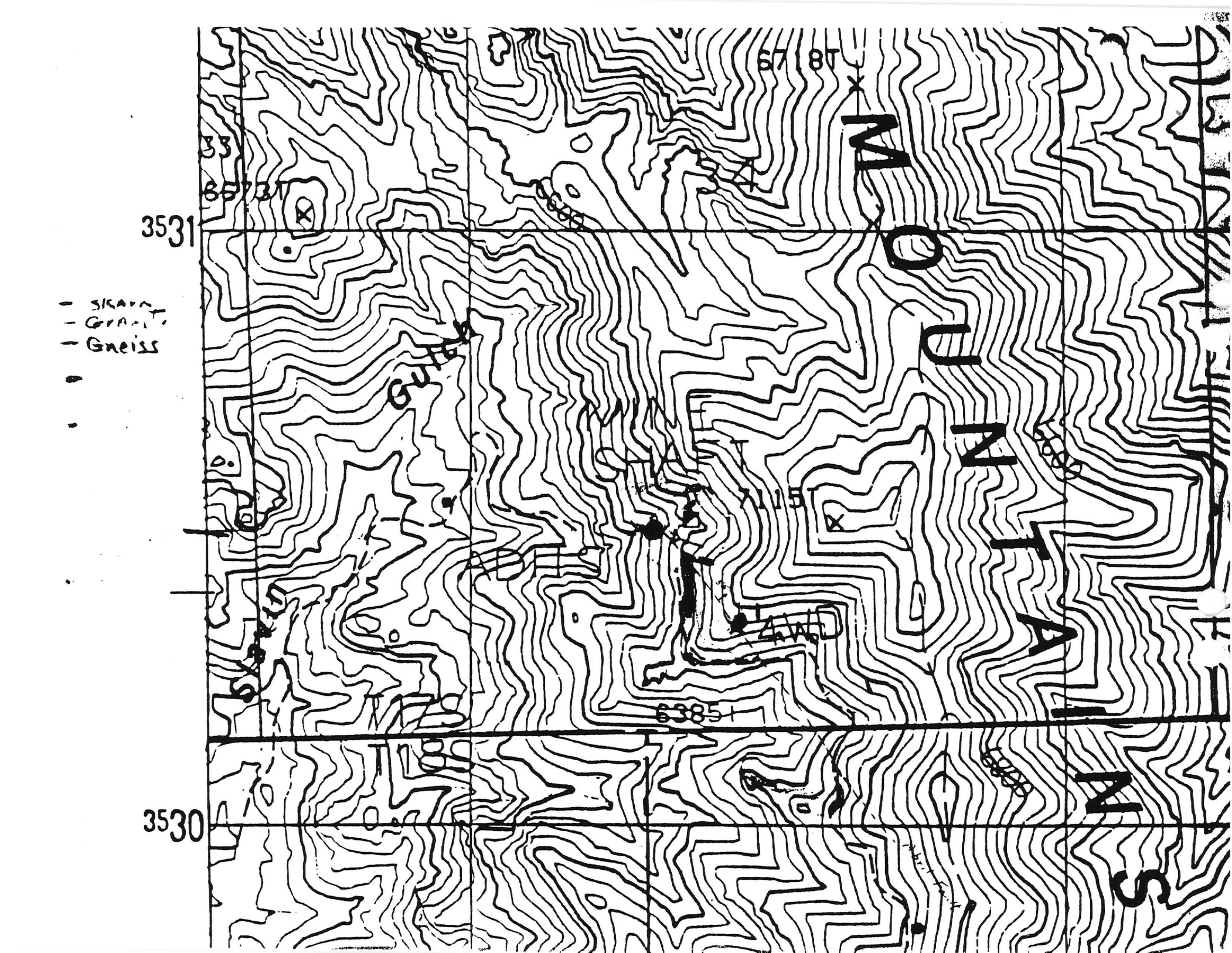
COMP: J.R.WOODCOCK CONSULTANTS
PROJ: ARIZ
ATTN: J.R.WOODCOCK

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-0980-RJ
DATE: 90/07/2
* ROCK * (ACT:F31

SAMPLE NUMBER	AG PPM	AS PPM	BE PPM	BI PPM	CU PPM	MN PPM	MO PPM	NI PPM	PB PPM	SB PPM	TH PPM	ZN PPM
W90-21R	8.5	13	36.2	100	5428	13023	33	28	271	41	1	123060
W90-23R	8.6	39	30.0	302	712	10250	35	62	383	38	1	217450
W90-31R	1.0	7	.8	5	45	252	1	2	30	1	2	2427
W90-32R	1.0	13	.6	2	17	140	2	1	28	1	2	927
W90-33R	.7	4	.7	1	11	107	1	1	23	1	1	179
W90-34R	.1	1	.7	1	9	106	1	2	21	1	1	113
W90-35R	.3	1	.5	1	12	89	1	1	18	1	1	74
W90-36R	.7	10	.6	1	9	73	2	1	19	1	2	62
W90-37R	.3	8	4.1	1	10	66	1	1	24	1	2	85
W90-38R	.8	5	.6	1	9	449	2	1	24	1	2	63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HOTEL WILLCOX
P. O. BOX 493
WILLCOX, ARIZONA

Mr. Sam Coupal
Phoenix -

Dear Sam:- Just to inform you that the road to Abril property has been approved, and to express our thanks to you for the interest you have taken in the matter in our behalf and for the interests of others concerned, as it is very possible that a mine of value will be developed on the Abril. We have not received as yet, definite assurance of a loan, but we are very hopeful of getting such assurance in the near future. We are doing such preliminary work as we can at present, with the idea of being in a position to hit the ball, when and if the loan is granted. Kindest wishes to you & Gorge,

Dan Lewis. Box 106 Willcox

March 21, 1944

Mr. Frank C. W. Pooler
Regional Forester
Albuquerque, New Mexico

Dear Mr. Pooler:

Subject: Mine Access Road to the
Abril Mine, Cochise County

I understand that early in March an application for an access mine road was made to your office submitted by Lewis, Skinner and Anderson, Dan Lewis, correspondent, Box 106, Willcox, on the Abril mine in Cochise County.

I have just contacted the Bureau of Mines at Tucson and find that this application for access road has not been received by their department and that they cannot make a report until such an application is received by them. If this is in your hands and is being held up for any special reason, I would appreciate being informed so as to try and straighten out any of the difficulties encountered.

The Abril property needs a road as they have two carloads of high grade zinc ore now mined and can break about 6 or 8 tons a day but are unable to continue as they have no space to store their ore.

I am aware that the access road funds are limited but under special conditions of this sort as soon as applications are received and approved we are in position to place all the facts from our viewpoint before the War Production Board and in extreme instances have been able to get relief.

I would appreciate knowing the status of this application and, if possible, to have it forwarded to the Bureau of Mines for an examination at an early date.

Very truly yours,

J. S. Coupal, Director

JSC:LP

CC: Dan Lewis

304 xxx

March 21, 1944

Mr. J. H. Hedges, District Engineer
U. S. Bureau of Mines
Box 4097, University Station
Tucson, Arizona

Dear Mr. Hedges:

Thank you for your letter of March 17 regarding the Abril Mine.

I have taken up the question of delay in having this application forwarded by the Forest Service to your Bureau for attention.

Dan Lewis, the operator, has been in to see me and as I have known and worked with him off and on for 25 odd years or so I feel as though he has every justification for urging an access road and as soon as reports are in I will ask early action even though the access road funds are rather limited.

Very truly yours,

J. S. Goupal, Director

JSC:LP

CC: Dan Lewis

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Western Region
SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION

TUCSON, ARIZONA

March 17, 1944

Mr. J. S. Coupal, Director
Department of Mineral Resources
State of Arizona,
304 Home Builders Bldg.,
Phoenix, Arizona.

Dear Mr. Coupal:

Your letter of March 16 regarding the access road application for the Abril mine has been received.

The application has not reached us as yet but should be along soon. Lewis, Skinner and Anderson came in to see me about three weeks ago and I advised them how to proceed with their application.

We examined the Abril property about 18 months ago and took a few samples. The results were very disappointing as the ore was not nearly as good as our engineers had judged it to be by visual inspection. I hope the lessees are not due for a similar disillusionment with respect to the 120 tons of high-grade zinc ore they now have piled up ready for shipment and which they told me would run about 4 percent copper and 40 percent zinc.

Another extremely unfavorable factor that we will have to consider is that the Shattuck Denn mill is now fully supplied with ore from Bisbee and cannot buy any more custom ore, so these boys are figuring on shipping to the United States Smelting Refining and Mining Company mill at Murray, Utah. The freight from Dragoon to Murray is $13.55 per ton on ore up to $30 value. They probably could get a lower rate established if they were in position to make regular carload shipments, but the best they could expect would be about $10.50 per ton. So the prospects do not look too bright for them. However, as soon as the application is received, we shall make another investigation and prepare our recommendation as promptly as possible in accordance with what we find to be the present situation.

Yours very truly,

J. H. Hedges

J. H. Hedges,
District Engineer.

March 7, 1944

Mr. Dan H. Lewis
Box 106
Willcox, Arizona

Dear Dan:

Many thanks for your letter of March 2. I have discussed this situation with Mr. W. B. Gohring of the R.F.C. Mine Loan Division and can state definitely that under the lease you have from Mrs. Miller the lien against any and all ores mined from the Abril property is subject to the lien of $5,000 held by the R.F.C. against Mrs. Miller's lease and this applies to anyone to whom she does lease the property. The equipment on the property is owned by the R.F.C. Mine Loan Division and Mrs. Miller cannot sell this equipment to you without the approval of the R.F.C.

Any payments received for ore shipped from the property must be made to the credit of the R.F.C. and it would seem to me as though you and Mrs. Miller should come to Phoenix and work out a definite agreement with the R.F.C. regarding the sublease on this property. If you will recall, I told you while I was in Tombstone that the loan was a lien against the ore.

If Mrs. Miller surrendered her lease to the owners of the property and closed up her accounting on the monies paid and the equipment on the property belonging to the R.F.C., I believe you could then obtain a lease from the owners and not be under the obligation of repaying the R.F.C. mine loan.

If it is true as you explained to me that the ore is coming out from workings on the property other than those improved by the R.F.C. mine loan, it seems only fair that you should not be saddled by the R.F.C. mine loan.

I still believe it is advisable for you and Mrs. Miller to come up and make an equitable agreement with the R.F.C.

With best wishes, I am

Yours very truly,

J. S. Coupal, Director

JSC:LP

Willcox 2-2-44

Dear Sam: Pardon the delay in answering your enquiry concerning Abril lease which we obtained from Mrs Miller. It was our understanding that we would not assume the government loan, but in our written agreement with Mrs Miller, we were given the privilege of buying such Govt material as was left there by Sam & Mrs Miller We have a list of such material. Concerning the agreement we have with Mrs Miller, - The price to be paid for the property according to the lease from the owners, is forty thousand dollars, same to be paid in five years time, or a renewal of the lease, at the end of five years, should the lessee desire same renewed

Should the property be sold by us for more than $40,000 under the lease she held, we agreed to pay her (1/5) one fifth of all over forty thousand dollars for which we may sell the lease obtained from Wm Miller. We agreed also to pay up the back payments on compressor rent, and keep up future payments as long as we used compressor and to return same to Western machinery when we are done using it.

The above comprises the main contents of the lease and agreement with Wm Miller

We have a considerable quantity of ore out but will have to discontinue mining in the near future, because of insufficient storage room. Might dig off more hillside.

Kindest regards to you & George

Don A Lewis,
Box 106 Silver

July 26, 1943

MEMORANDUM

ABRIL MINE

TO: George A. Ballam

FROM: J. S. Coupal

I talked with Walter Sim and Vincent Riccardi in Pearce yesterday and later with Hal Smith at Tombstone.

Even though Hal Smith does not like Sim I believe there is nothing in the lease given to Mrs. Miller whereby she cannot do what she wants with the property. Mr. Gohring has advised Hal Smith to the same effect and has forwarded the correspondence to Washington.

No matter what Sim has done in the past I do not believe under the conditions that Mr. Smith is technically justified in declaring the lease fraudulent. I definitely asked Hal Smith if he had verbally had an understanding with Mrs. Miller that Sim should in no way be connected with the operation of the Abril Mine. The new lease was drawn up on June 21, 1943 and Hal Smith stated that he did not mention to Mrs. Miller his objections to Sim being associated with the mine until a few days ago when he found out a loan had been granted to Mrs. Miller and Walter Sim as partners in the applicationn.

Even though you recommended Mrs. Miller to Hal Smith for the lease I do not see how Hal Smith should hold you in any way accountable for the fact that she had taken Sim in as a partner, even though you and Hal Smith may not feel as though you cared to have Sim associated with the operation.

I believe Mrs. Miller has the right both technically and morally to associate herself with whomever she wants in the operation as long as they keep to the terms of the lease and as long as the R.F.C. loan money is spent entirely on the Abril property.

July 26, 1943

Mr. C. Vincent Riccardi
Pearce, Arizona

Dear Mr. Riccardi:

Subject: The Miller-Sim Lease on Smith-Abril Property

As I mentioned to you, I called in to see Mr. Hal Smith regarding the conflict on the Miller lease on the Abril property and the action on the R.F.C. loan recently granted to Mrs. Miller and Walter Sim. I also talked with Mr. Gohring of the R.F.C. office.

Mr. Hal Smith told me that he had wired to cancel the lease to Mr. Gohring and he showed me Mr. Gohring's reply which stand was well taken, namely, that until Mrs. Miller failed to live up to the terms of the lease Smith could take no action to cancel it.

It appears that Mr. Smith did not mention to Mrs. Miller the fact that he did not want Walter Sim in any way connected with the operations of the Abril property under the lease until a few days ago. The revised lease was executed on June 21, 1943.

Mr. Smith's reason for wishing to cancel the lease is due to the fact that he has no confidence in Walter Sim and his operations. I also believe he was under the impression that part of this money would be used to promote the erection of the mill proposed by Sim at Pearce. I assured Mr. Smith that the R.F.C. office would see to it that all of the loan money was expended on the Abril property and advised Gohring that I had so told Hal Smith.

From all I was able to find out I would say that Hal Smith could do nothing until such time as he could definitely prove the lease to be in default or prove that the money loand for operations on the Abril property was being spent for other purpotes.

Mr. Gohring has forwarded Mr. Smith's letter to Washington with his comments and I do believe that Smith is wrong in taking any action until he can prove the lease in default or the money wrongfully spent.

Yours very truly,

J. S. Coupal, Director

JSC:LP
cc: George A. Ballam

July 21, 1943

MEMORANDUM

Abril mine
(Dragoon Mts.)

To: Director, Dept. Mineral Resources
From: George A. Ballam

Hal Smith and the Abril Bros. of Tombstone are highly incensed because they have had something slipped over on them by Walter Sim and Henrietta Miller. Some time ago Sim wanted to lease the Abril but he was refused, as Smith claims, on his record of failures and other considerations. Upon my recommendation, a lease was given to Mrs. Miller on June 21, 1943. Smith alleges that she turned it over to Sim for a royalty on ore extracted, meanwhile applying for, and being granted an RFC loan of $15,000 in her own name and Sim's jointly. It is reported that Sim has drawn $3500 and that he proposes to build a mill in Pearce. Smith feels that little work will be done on the Abril, hence he has notified Mrs. Miller that the loan was obtained by fraud, citing facts accordingly. He has also written Gohring and the OPA to which the lease had been sent for review.

There was nothing I could do in the matter, although I felt an obligation on account of recommending Mrs. Miller as an operator. At that time, and since, and as recently as last week, she asked me to assure Smith that she was getting ready to work the property, and denied any interest on the part of Sim. Smith had heard things and wanted to know.

Smith and his partners are going the limit to declare lease and loan fraudulent. He said Sim is bragging about having obtained three loans and now no longer needs the help of Mineral Resources since he can get anything from Gohring. I have heard this repeatedly. Sim is working for Riccardi temporarily. Riccardi wanted to buy some equipment off the Commonwealth, copper cable, etc., and had to give Sim a job to get it. Riccardi says Sim is desperate- plasters on cars, bank after him, etc. Everyone else says he is crazy. No wonder Smith is going to bat to keep him out of the picture.

George A. Ballam

May 19, 1943

MEMORANDUM

Gabril Mine
(Dragoons)

To: Director, Dept. Mineral Resources
From: George A. Ballam

Hal Smith, marshal of Tombstone, and co-owner with Gabril Bros. of this mine, informed me that he is leasing it to the ubiquitous Mrs. Henrietta Miller. She has been on the property which seems to have a lot of shipping ore in sight. However, there is no road and Mrs. Miller intends to put a band of burros to work. The lease is being signed today.

I have never been on the property. It is just behind the shoulder of the mountain adjacent to the Middlemarch, west of Pearce. The ore is high-grade, much the same complex as Danny Lewis'

She will undoubtedly be asking for an operating capital loan. Hal tells me that thereis no development work to do and she can start shipping at once. What will be the status in view of her failure to make good on the Prosperity near Patagonia?

Geo A Ballam

July 21, 1942

MEMORANDUM

BRILL MINE

To: Director, Dept. Mineral Resources
From: George A. Ballam

Walter Sim of Pearce is leasing these five claims from Brill Bros. and Al Smith, marshal of Tombstone, on a straight 10% royalty basis. The lease has not been signed yet, but Sim has made arrangements on a trip to Mexico over the week end to import a band of 25 burros, (possibly 50) to get out about 10 tons of ore a day. The values are in lead, zinc and copper. The mine is about 10 miles west of Pearce in the Dragoons. He would also be a potential producer for a custom mill in the district (Republic)

There are about 3 miles of road to be built of which he proposes to complete half. The remainder, he believes, will be too costly a job, hence the pack train. He is considering applying for a $5000 or $10,000 loan to open up the ore to permit production of 10 tons or more daily. He doesn't seem to be very definitely decided on his program.

George A. Ballam

BRILL BROTHS.
&
H.W. SMITH GROUP

Box 106
Willcox, Arizona
April 6, 1944

Public Roads Administration
1826 West McDowell Road
Phoenix, Arizona

Gentlemen:

Subject: Abril Access Road Application
Applicants - Skinner, Lewis and Anderson,
Cochise County

In compliance with the regulations for access roads we wish to state that we have the following equipment now on hand at the Abril Mine:

1 Ingersoll Rand gasoline driven compressor, 2 stage, 85 cu.ft.
1 Chicago pneumatic air drill.
1 Cochise air drill.
3 Sets of drill steel with Timkin bits.
Ample track, rails, pipe, small tools.
1 Ingersoll Rand tugger hoist.
1 Pick-up truck.

2 Buildings (shop and living quarters.

On the development work we plan to use six men. There are three now available - Dan Lewis, 66, Adrian Skinner, 53, and Alec Anderson, 43, all experienced miners. There are several other miners who have worked with us on other properties, all over 40 years of age, who are well equipped physically to do this work but who could not pass the physical examinations to enter the large copper mines.

We know that we can supply all of the labor needed of men who would not qualify in other work but who from their experience can well carry on the development and production from this property.

Yours very truly,

SKINNER, LEWIS, ANDERSON, a Copartnership

_____

_____

_____

Willcox, Arizona

March 26th 44

J. S. Coupal
Phoenix

Dear Sam:- I received yours of recent date today and we appreciate your efforts in our behalf in trying to get a road to the Abril property, and we now feel as tho we have at least an even break of getting same

A Mr. Compton of the U.S. Bureau of Mines, from Mr. Hedges office, was at the Abril recently, and I think he was very favorably impressed. He is a very fine fellow, and we appreciated his visit. Kindest regards

Ever yours - Dave Lewis

B-4-106.

April 5, 1944

Mr. Dan Lewis
Box 106
Willcox, Arizona

Dear Dan:

Many thanks for your letter of March 26 and I am glad the Bureau of Mines man was favorably impressed.

Even though the road gets the approval of the Bureau of Mines and the Public Roads, I feel as though there may be a delay as the additional funds for access roads have not as yet been appropriated. There may be a delay and it may be necessary for you to consider this and perhaps take other steps to remove your ore.

Yours very truly,

J. S. Coupal, Director

JSC:LP

March 25, 1944

Mr. Dan Lewis
Box 106
Willcox, Arizona

Dear Dan:

I have just heard from the Regional Forester, F.C.W. Pooler, at Albuquerque, New Mexico, stating that your application for an access road was forwarded to the Bureau of Mines on March 16 and that as soon as approval by the Bureau of Mines is given, they will try for approval by the Public Roads Administration and we can then place it in Broadgate's hands to urge action by the War Production Board.

Yours very truly,

J. S. Coupal, Director

JSC:LP

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
SOUTHWESTERN REGION

ADDRESS REPLY TO
REGIONAL FORESTER
AND REFER TO
E(V)
ROADS & TRAILS-Coronado
Mineral Access Roads
Abril Mine Road
(Proposed)

POST OFFICE BUILDING
ALBUQUERQUE, NEW MEXICO

March 23, 1944

DEPT. MINERAL RESOURCES
RECEIVED
MAR 25 1944
PHOENIX, ARIZ.

J. S. Coupal, Director
Department of Mineral Resources
State of Arizona
Phoenix, Arizona

Dear Sir:

Reference is made to your inquiry of March 21.

The necessary forms covering the application for an access road to the Abril Mine were forwarded to Mr. J. H. Hedges, District Engineer of the Bureau of Mines at Tucson, Arizona, March 16 for their endorsement.

Your interest in this case is appreciated and you may be sure that if this project is endorsed by the Bureau of Mines we will process the papers through the Public Roads Administration without delay.

Very truly yours,

FRANK C. W. POOLER, Regional Forester

By George W. Kimball Acting

March 16, 1944

Mr. J. H. Hedges
U. S. Bureau of Mines
Tucson, Arizona

Dear Mr. Hedges:

Mr. Dan Lewis has just called regarding an access road application for the Abril Mine at Dragoon, Cochise County, submitted by Lewis, Skinner and Anderson by Dan Lewis. My understanding is that this application was sent to the Bureau of Public Roads and two copies of the application were sent to the Forest Service, Frank C. W. Pooler, Albuquerque, New Mexico, Regional Forester. I also understand a Mr. Brannen of the Forest Service looked over the road.

If you have received this application, I would be pleased to advise and have a few comments to make regarding the property. The Abril property was opened up under a $5,000 R.F.C. mine loan which did not turn out any too well. A sub-lease was given to Lewis, Skinner and Anderson and they started to work. They now have out about 120 tons of high grade zinc ore and can break between 8 and 10 tons a day. They are definitely stymied due to the fact that they have no road and cannot pack the ore out. They are held up on their operations of breaking additional ore due to the fact that they have no place to store it and if dumped on the hillside, it would be very expensive to then put into trucks.

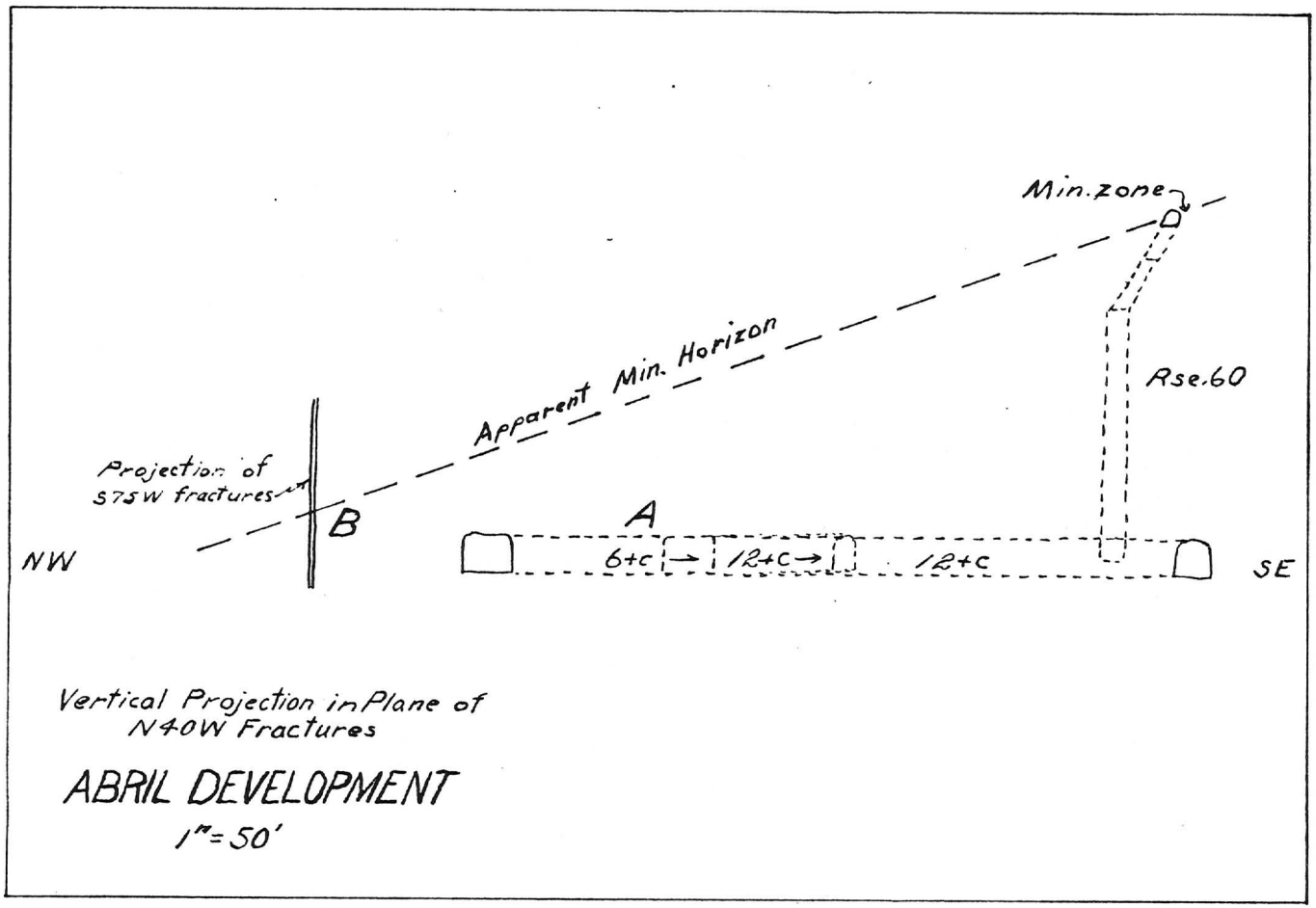
I am aware of the difficulty of getting access road approvals due to the lack of funds, but in special cases such as this one if the road was examined by your department and approval given and then approval was obtained from the Public Roads Administration, we could start work on the W.P.B. in Washington through our Assistant Director, W. C. Broadgate, and feel as though special consideration might be given under considerations such as are faced by this operation.

I would appreciate hearing from you on this subject.

Yours very truly,

J. S. Coupal, Director

JSC:LP



Vertical Projection in Plane of N40W Fractures

ABRIL DEVELOPMENT

1" = 50'

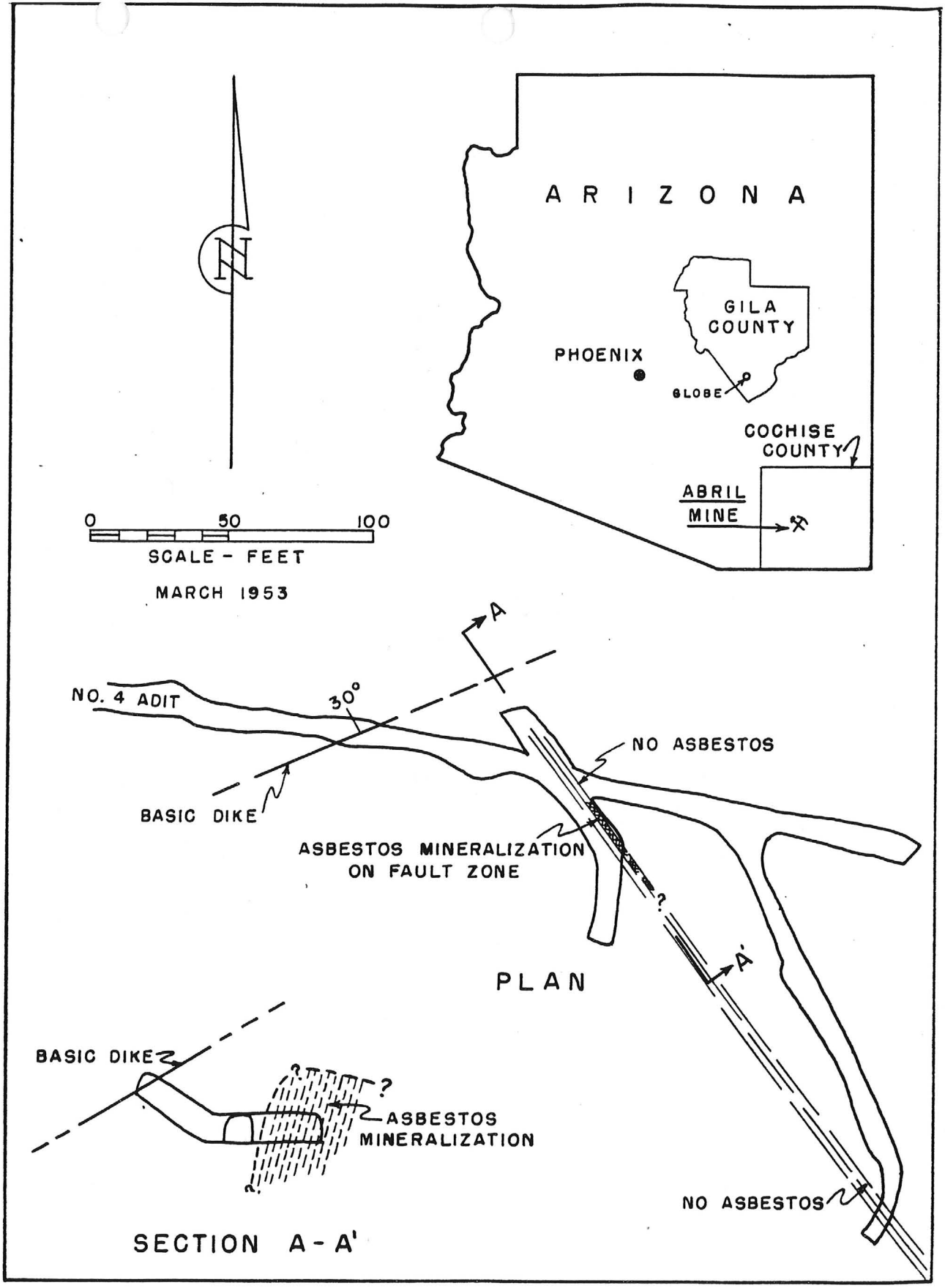
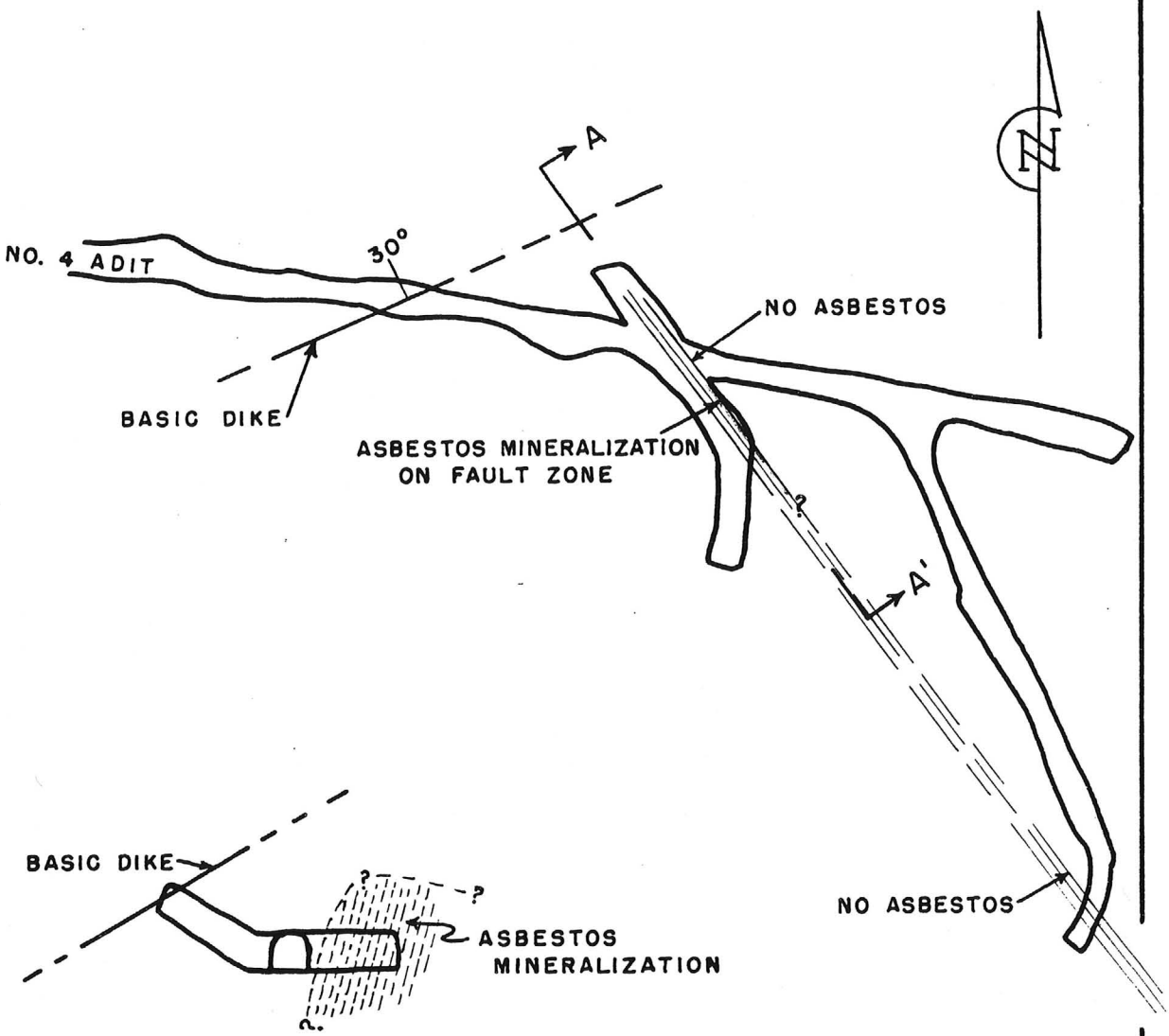


FIGURE 38. — PORTION OF ABRIL LEAD-ZINC MINE SHOWING LOCATION OF ASBESTOS OCCURRENCE



SECTION A - A'

SCALE - 1" = 50'

FIGURE 2.- MAP OF PORTION OF ABRIL ZINC MINE SHOWING LOCATION OF ASBESTOS OCCURRENCE

ONA DEPARTMENT OF MINI RESOURCES
Mineral Building, Fairgrounds
Phoenix, Arizona

1. Information from: Personal visit

   Address:

2. Mine: Abril 3. No. of Claims - Patented

   Unpatented ? (Many)

4. Location: Near Cochise Stronghold, Dragoon Mts.

5. Sec 34 Tp 17S Range 23E 6. Mining District Dragoon (Golden Rule)

7. Owner: Howard Birchfield

8. Address: ???

9. Operating Co.: Supposed to be optioned to Minibanco

10. Address: 595 Madison Avenue, New York City.

11. President: 12. Gen. Mgr.:

13. Principal Metals: 14. No. Employed:

15. Mill, Type & Capacity:

16. Present Operations: (a) Down ☒ (b) Assessment work ☐ (c) Exploration ☐
    (d) Production ☐ (e) Rate tpd.

17. New Work Planned:

18. Miscl. Notes: No signs of work in the immediate vicinity.

Date: 5-6-70

(Signature)

(Field Engineer)

LEAD-ZINC QUESTIONNAIRE

October 5 1957.

Do you approve of the Emergency Lead-Zinc Committee's seeking relief for the lead-zinc industry and has it your authorization to speak for you? Yes

What Arizona Mines and Mills in the lead-zinc class do you control?

(1) Abril Mine - Cochise County, Arizona

(2) _____

Which ones are operating? (1) None (2) _____

If not operating, when shut down? (1) 1954 (2) _____

Number employed, prior to shut-down, in mine, mill or sections thereof producing lead or zinc ores? (1) 17 men (2) _____

Number so employed on January 1, 1957? (1) None (2) _____

Number so employed on October 1, 1957? (1) None (2) _____

Remarks This mine has considerable reserves, much of which were developed thru DMEA participation which was complted in 1954. Is high cost producer with breaking point of .145 per pound zinc, thus forced into inactivity because of price situation.

SHERWOOD B. OWENS
Company

By: Sherwood B. Owens
Signature

Please fill in NOW, tear off, and mail to:

Arizona Department of Mineral Resources
Mineral Building, Fairgrounds
Phoenix, Arizona

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Mine file: ABRIL
2. Mine name if different from above:
3. County: Cochise
4. Information from: Dick Mieritz

   Company:

   Address: 2940 N. Casa Tomas

   Phoenix, AZ 85016

   Phone: 277-6053

5. Summary of information received, comments, etc.:

Mr. Mieritz reports Sherwood B. Owens (c) still owns the Abril Mine in Cochise County. Mr. Mieritz is reviewing the data on the property to make a recommendation to Mr. Owens on whether to try and sell or submit it at this time.

Date: February 1, 1989

Nyal J. Niemuth, Mining Engineer

ABRIL MINE COCHISE COUNTY

MH WR 7/29/88: Information on the Abril Mine, Cochise County was provided to Charles Hamilton, local engineer and weekend prospector. Mr. Hamilton stated that the workings are more extensive than our files indicate. During the data search it was noted that this property is largely overlooked in the 1981 report "Mineral Resource Potential of the Dragoon Mountains Rare II Further Planning Area" USBM MLA 35-82. The mienral resource potintial at this site went undescribed.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Abril Mine Date Jan. 1, 1955

District Dragoon Mining Dist., Cochise County. Engineer Axel L. Johnson

Subject: Present Status.

Location 20 miles north-east of Tombstone in the Dragoon Mts.

Number of Claims 10 unpatented claims.

Owners Shattuck Dnn Mining Corp.

Lessee Sherwood B. Ownes, 4052 Calle de Jardin, Tucson, Ariz.

Metals Present Zinc, with a small amount of Copper.

Men Employed None. Mine is idle.

Production None.

Milling Facilities No milling facilities on the property.

Geology and Ore Values See my report of May 16, 1952.

Present Status Closed down, awaiting better prices for lead and zinc.

Mine Visit to the Abril Mine - no activity, however a jeep had recently been in.

GWI WR 4/8/67 recently been in.

Visited Abril mine, no sign of recent activity. GWI WR 5/9/70

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

~~FIELD ENGINEERS REPORT~~

NEWS ITEM

Mine Abril Mine Date May 16, 1952

District Dragoon Mining Dist., Cochise Co. Engineer Axel L. Johnson

Subject: News Item--- Source of information --Personal Visit

Location 20 miles north-east of Tombstone in the Dragoon Mts.

Number of Claims 10 unpatented claims

Owner Shattuck Denn Mining Corp.

Leaser and Operator Sherwood B. Owens, 4052 Calle de Jardin, Tucson, Ariz.

Metals Mined Zinc with a small amount of Copper

Men Employed 9 men ----- 6 men on day shift, and 3 men on night shift.

Production Rate About 100 tons per week or 16 tons per day.

Milling Facilities No milling facilities on the property.

Marketing Facilities Ore shipped to the A. S. & R. Mill at Deming, N. Mex.

Geology Ore occurs as replacements in limestone. Ore occurs as pockets in the limestone. Several ore pockets are 40 ft. ~~long~~ x 100 ft. in area and 20 ft. in height.

Ore Values Ore averages about 12 % Zinc and about 1 % in Copper.

Present Operations Stoping and shipping ore from one section of the mine. Government DMEA Exploration Loan from another section of mine.

Government Loan Government Exploration Loan in amount of $ 63, 926.00 was granted, the Government participation being in amount of # $ 31,963.00. The loan called for drifting, raising and diamond drilling. Some of the drifting and raising has been already done, and the diamond drilling is still to be done.

Proposed Plans Continue with stoping, and, at the same time complete the ~~Government~~ Government Exploration Loan from another section of the mine.

Special Difficulties Encountered The foreman complained about the difficulties of keeping men at work, as the men are always quitting. One of the things the men do not like is the long ways to get out there from Tombstone over a rough and steep road. There are a couple of shacks out on the property, which are, at present unoccupied.

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 7/6/45

Name of Mine Apache

Owner or Operator Adrian Hummel

Address Box 186 Jerome

Mine Location Dragoon Mining Dist

Filing Information

File System

File No.

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production ✓; Development ; Financing ; Sale of mine ;

Experimental (sampling) ; Owner's occasional trip ;

Other (specify)

PRODUCTION: Past and Future.

	Tons
Approx. tons last 3 months	
Approx. present rate per 3 months	1500 per yr
Anticipated rate next 3 months	1500 " "
If in distant future check (X) here	

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars			
Light or Service Trucks	3/4 Dodge Pk.		125 Gal per yr
Ore Hauling Trucks			
Compressors			
Other Mine or Mill Eqpt.			

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Gold

REMARKS: The Hummels is leasing ore to work in addition to a Pick Handling & will need this additional gasoline

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By George Hamilton

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 7/10/45

Name of Mine Alvic

Owner or Operator Empire Mines Inc

Address Tombstone

Mine Location Dragoon Mts

Filing Information

File System.....

File No.....

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production.....; Development.....; Financing.....; Sale of mine.....;

Experimental (sampling).....; Owner's occasional trip.....;

Other (specify).....

PRODUCTION: Past and Future.

	Tons
Approx. tons last 3 months	
Approx. present rate per 3 months	1200 per qtr.
Anticipated rate next 3 months	
If in distant future check (X) here	

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars			
Light or Service Trucks			
Ore Hauling Trucks			
Compressors			
Other Mine or Mill Eqpt.			

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Zinc.

REMARKS:

This operation has put on more men & will require additional gasoline. Recommend same.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By George A. Hall

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 4/12/45

Name of Mine Virgin Mines

Owner or Operator Geo Barnes

Address Tombstone Ariz

Mine Location Oregon Mts

Filing Information

File System

File No.

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production ✓; Development ; Financing ; Sale of mine ;

Experimental (sampling) ; Owner's occasional trip ;

Other (specify)

PRODUCTION: Past and Future.

	Tons
Approx. tons last 3 months	
Approx. present rate per 3 months	
Anticipated rate next 3 months	600 tons
If in distant future check (X) here	

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars			
Light or Service Trucks			
Ore Hauling Trucks	GMC 1940		
Compressors	302 CC		
Other Mine or Mill Eqpt.			

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Zinc Copper

REMARKS:

The operation is in desperate need of a tire to replace one blown today. Please rush them in as hauling necessary replacement

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By George O Ballen

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 4/12/45

Name of Mine Ideal

Owner or Operator Glenn Dickson

Address Bowie Ariz

Mine Location Dragoon Mts

Filing Information

File System .....

File No. .....

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production .....; Development ✓; Financing .....; Sale of mine .....;

Experimental (sampling) .....; Owner's occasional trip .....;

Other (specify) .....

PRODUCTION: **Past and Future.**

	Tons
Approx. tons last 3 months	
Approx. present rate per 3 months	
Anticipated rate next 3 months	
If in distant future check (X) here	

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars	1934 Ford	√ 200	
Light or Service Trucks			
Ore Hauling Trucks			
Compressors			
Other Mine or Mill Eqpt.			

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Lead Zinc Copper

REMARKS:

Mr Dickson is an employee of the Ideal mine and this quantity is recommended for him

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By George Wheeler

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 1-11-45

Name of Mine Abril

Owner or Operator Bargin Mines Inc

Address Tombstone

Mine Location Dragoon Mts - 12 mi east Tombstone

Filing Information

File System

File No.

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production ✓; Development ; Financing ; Sale of mine ;

Experimental (sampling) ; Owner's occasional trip ;

Other (specify)

PRODUCTION: Past and Future.

	Tons
Approx. tons last 3 months	
Approx. present rate per 3 months	
Anticipated rate next 3 months	750 tons
If in distant future check (X) here	

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars	Olds 35	2000	135
Light or Service Trucks			
Ore Hauling Trucks	R		
Compressors	RR		640
Other Mine or Mill Eqpt.	Misc		130
			905

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Copper Zinc

REMARKS

There is a new operation for recovery copper - critical for war - 4 yrs.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By Eugene Callaway

DEPARTMENT OF MINERAL RESOURCES

REPORT TO ~~OPA~~ ODT ON ACTIVE MINING PROJECT

Date 1-11-45

Name of Mine Alice

Owner or Operator Bargon Mines Inc

Address Tombstone Ariz

Mine Location 22 mi east by Tombstone on Bisbee Rte

Filing Information

File System

File No.

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production ✓; Development ; Financing ; Sale of mine ;

Experimental (sampling) ; Owner's occasional trip ;

Other (specify)

PRODUCTION: Past and Future.

	Tons
Approx. tons last 3 months	
Approx. present rate per 3 months	
Anticipated rate next 3 months	750
If in distant future check (X) here	

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars			
Light or Service Trucks	V8-1½ Ton	2000	
Ore Hauling Trucks	Model A-1½ Ton	800	
Compressors	Chev ½ Ton PU	2400	
Other Mine or Mill Eqpt.			

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Copper Zinc

REMARKS:

This is a new operation and in view of the critical nature of Copper at present this Allocation is granted as requested

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By George A Ballam

April 3, 1945

Mr. George Barron
Bargin Mines, Inc.
Tombstone, Arizona

Dear George:

I expect to be in Tombstone Thursday, April 12. Will you kindly let me have one of the pictures of your new road which we would like to publish in the annual report of the Department.

Select the clearest of these pictures and bring it to the A.S.M.O.A. meeting, will you?

Yours very truly,

George A. Ballam
Assistant to the Director

GAB:LP

DEPARTMENT OF MINERAL RESOURCES

News Items

Date 9/7/39

Mine Abril-Herrera Group

Location Dragoon Dist. Top of Big Dragoon

Owner M.R.Abril, H.S.Smith Marshall (c/o Tombstone)

Address Box 253 Tombstone

Operating Co. same

Address

Pres. No corp.

Genl. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Zinc, copper, gold-silver

Men Employed 4, for 6 weeks assess. work

Production Rate Completed 55 ft work

Mill, Type & Capacity Struck orebody & xcut same 23' without

Power, Amt. & Type

NAME OF MINE: ABRIL
OWNER: M.R. Abril & Hal Smith, Tombstone

COUNTY: COCHISE
DISTRICT: Grayson
METALS: PB, ZN

OPERATOR AND ADDRESS: DATE:		MINE STATUS DATE:	
5/1/44	Adrian Skinner, Box 106 Willcox also Dan Lewis	5/1/44	Developing
1/45	Bargin Mines, Inc., Tombstone		
1/46	Shattuck Denn Mng. Co., J.A. Wilcox, Bisbee	1/46	Shipping

1944

1. Abril Mine
2. Cochise County, Arizona
3. Messrs. Lewis and Skinner
4. Visited November 25, 1944, by Messrs. Hernon and Stone; in February, 1945, by Mr. G. J. Duff; on August 21, 1945, by Messrs. Crabtree and Duff; and on December 3, 1945, by Messrs. Stone and Jones.
5.
6. Chiefly zinc with a variable content of copper.
7. The following summary was made in 1944: "The ore occurrences as observed were very spotty. Largest ore shoot mapped was in tunnel No. 3, which measured 5 feet in width and about 15 feet in length. If this shoot continues down at the present dimensions it will make approximately 7 tons of ore per foot of depth. The other ore shoots were too irregular to estimate any tonnage below the present elevations."

   After his visit in 1945, Mr. Crabtree stated, "The present working face looks like it will continue, but as pointed out in Hernon and Stone's report on Nov. 27, 1944, these occurrences may be very spotty."

   The examination in Dec. 1945, indicated that the property was too small to interest this company.
8. In February, 1948, Mr. Hernon reported, "Private information, confidential and reliable, is that extensive drilling is interpreted by Shattuck-Denn to indicate over 100,000 tons of stoping ground before sorting at the Abril Mine. Cost of building adequate road to keep tonnage moving to mill would eat up the probable profit."

Addendum by Mr. Duff - May 22, 1951: In April, 1945, the Abril was taken over by Shattuck-Denn Mining Co. and ore was shipped to their mill in Bisbee. They closed when premiums discontinued in 1947. On Sept. 29, 1947, Joe Wilcox, manager of Shattuck-Denn, told me they had about 15,000 tons blocked out from diamond drilling and other openings and while the mine was not then producing they would carry on a little drilling from time to time as conditions permitted, i. e., no extensive drilling was contemplated. In February, 1951, Shattuck-Denn leased to Sherwood Owens and American Smelting and Refining, and ore is currently going to the latter's mill at Deming, New Mexico.

* * * * *

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3. Messrs. Lewis and Skinner
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* * * * *

THE EAGLE-PICHER MINING & SMELTING COMPANY
MIAMI, OKLAHOMA

INTRA-COMPANY CORRESPONDENCE

TO Grover Duff - Tucson Office DATE April 6, 1951

FROM John W. Chandler - Miami Office

SUBJECT: Exploration Work

Dear Grover:

We are presently compiling a record of all the mines and prospects which we have examined for the Company during the past 10 years.

Starting with 1940, and listing the work done by years, such as 1940, 1941, 1942, etc., we would like to have the following information tabulated:

1. Name of property
2. Location - (State and County)
3. Who it was submitted by
4. Who made the examination
5. Time spent on the examination
6. Metals involved
7. General conclusions drawn from examination
8. Remarks - Under this heading could be shown whether we have done drilling or any other work in addition to the examination. Give brief outline. If the property subsequently became a mine unit and was operated so state.

We do not have a complete file in this office on all properties examined by the Company and we will combine your report with the one being made up from our files to make the final report complete. I would appreciate it if you could put someone on this work until it is completed, sending me three copies of your tabulation.

Best regards,

Jack.

John W. Chandler.

JWC/jm

4-25-51 - Mr. Chandler will send us a list of the properties on which they have reports in their files, and we will then send him the information on the others.

GJD

MA-1

D... MENT OF MINERAL RESOU...
STATE OF ARIZONA

OWNERS MINE REPORT

Date July 4, 1939

Mine Abril Bros. & H. W. Smith Group

District ~~Grayson~~ Dragoon Mining District

Location Dragoon Mts.

Former name Herrera Group

Owner M. R. and J. S. Abril, Hal W. Smith

Address Tombstone, Ariz.

Operator None

Address -

President

Gen. Mgr. -

Mine Supt.

Mill Supt. -

Principal Metals Copper, Zinc, gold & silver

Men Employed -

Production Rate -

Mill: Type & Cap. -

Power: Amt. & Type -

Operations: Present Annual assessments

Operations Planned Drifting 100 ft. and sinking 100 ft. on a large body of ore we have already developed - average values about $18.00) per ton.

Number Claims, Title, etc. A group of 5 five claims. Herrera - Dos Hermanos - El Rico - San Pablo and La Hermosa.

Description: Topog. & Geog. These claims are situated in Dragoon Mts. about 20 miles north of Tombstone, Ariz. and about 3 miles west from middle March mine. Formation is limestone, granite - contact on south, ores are mostly sulph~~ate~~ide.

Mine Workings: Amt. & Condition About 800 ft of work - mostly all drifts - good ore in place showing on four of said claims.

(over)

Geology & Mineralization

Ore: Positive & Probable, Ore Dumps, Tailings Ore positive - ore on dumps about 500 tons.

Mine, Mill Equipment & Flow Sheet -

Road Conditions, Route Fair - 3 miles good trail to property from end of road - 18 miles north of Tombstone, Ariz.

Water Supply Ample supply for camp use right on claims, for operations, plenty of water can be developed within 1-1/2 miles of property.

Brief History These claims were located about 35 years ago - in fact, 3 of the original owners are now dead.

Special Problems, Reports Filed Financing

Remarks Will make terms attractive to anyone interested

If property for sale: Price, terms and address to negotiate. M. R. Abril, Tombstone, Ariz. Box 253
Price ~~$10,000~~ 100.000 bond and lease - 3 to 5 years time.

Signed M. R. Abril, Box 253, Tombstone, Ariz.
Hal W. Smith

Use additional sheets if necessary.

Tombstone, Arizona, Dec. 9, 1937.

To
Eagle-Picher Mining & Smelting Co.,
Tucson, Arizona.

Memo.
Herrera-Abril Mine
(Also referred to as Deal & Daniel)
Dragoon Mountains
Cochise County, Arizona.

The Herrera-Abril property consists of 10 claims, contiguous, 5 of which are owned by Jose Herrera and Manuel R. Abril, and 5 by Jose Herrera and Mrs. John Igo, and is located northeast of Tombstone, Arizona, approximately 19.5 miles by road and trail, about 1 mile northeast from the famous "Cochise Stronghold".

To reach the mines the main Tucson-Bisbee highway, No. 80, is left at the Schieffelin Monument, Tombstone, and a fair desert road followed to within about 2 miles of the property, from which point a trail leads up ridges and steep canyon-side slopes. The difference in elevation between the end of the wagon road and the mine workings is about 400 feet, with a pass on a divide on the property through which the trail passes approximately 550 higher in elevation than the end of of the road. The elevation of Tombstone is 4540 feet and that of the mines approximately 6740 feet above sea level; products from the mine must be packed, by animals, to the end of the wagon road for transportation by trucks to the railroad at Tombstone.

Water for camp purposes is obtained from springs on the property, and Mr. Jose Herrera states that in one of the deep shafts a flow of water was encountered which should be sufficient for ordinary mill purposes. If, however, water is not further developed on the property the nearest source, for mill purposes, will be at Tombstone, from the deep mines. Water supply is a serious factor.

The base-ore deposits of the Herrera-Abril property occur in limestone. The limstone strata have a dip of approximately 20° to the northeast, striking more or less N45°W-S45°E. Exposures of quartzite were noted in disturbed sections of the limestone, and the latter has been intruded by diorite and andesite and what appears to be felsite. Also, narrow dikes of a greenstone resembling diabase intrude the limestone.

The block of limestone in which the ore deposits occur, a few miles in length along strike of stratification and possibly a mile in width, is entirely surrounded by granite, the latter rising to high peaks. The ore deposits occur along the stratification, or bedding planes, of the limestone, near the granite, the principal ore exposures made in the Herrera-Abril working being near the north contact of the limestone with the granite. Occasionally the ores "make" in the granite, and in the porphyries that have intruded the limestone.

The limestone is highly mineralized with epidote, garnet and usually, hematite over the entire area of the Herrera-Abril claims covered in inspection, and in nearly every place where the iron-stained epidote-garnet outcrops have been prospected,- by trenches, shallow shafts and adit-cuts,-zinc, copper and lead minerals have been exposed. The deepest workings visited, an incline shaft of about 400 feet in depth, following dip of the limestone strata, shows mineralization to be consistent from the surface. While occasional small high-grade pockets of zinc-lead-copper sulphides are found, the ore, for the most part, is of very low grade, consisting principally of garnet sparsely mineralized with sphalerite, chalcopyrite and galena, and usually quite heavily mineralized with the specular iron-ore mineral hematite. "Vein" quartz is rarely a constituent of the ore.

Herrera-Abril Mines, #2, 12/9/37.

No great amount of development work has been done in the ore shoots, and there is no ore that can be considered "blocked out". The most extensive work on the northwest end of the property consists of a crosscut adit of about 60 feet in length which cuts the vein less than 50 feet below the outcrop, short northwest drifts on the adit level, a winze of about 50-ft depth from which at about 15 feet below the adit level a northwest drift has been run for about 40 feet in ore, and a winze of about 20 feet in depth from the northwest end of the drift. In the last-mentioned winze a cross cut has been made about 10 feet, to the north across the vein. The workings from the adit cross cut are all in the heavily mineralized garnet rock which should prove, on sampling, to be a fair grade of milling ore. Two samples were taken of ore in place in these workings (known as the Dos Hermanos tunnel workings) and described below. On the dump at the Dos Hermanos adit is a pile of ore of less than 100 tons of character represented by the two samples (Herrera-Abril Nos. 1 and 7) mentioned above.

All material taken out of the Dos Hermanos workings showing heavy mineralization, and classed as "mill ore", consisting of a few thousand tons, has been segrated, and sample, or samples, of this dump will give a fair idea of what can be expected in mining the ore for milling purposes. Time did not admit taking a representative sample of this material.

On the southeast portion of the property shafts of several hundred feet depths have been sunk, most of which are filled with caved material and inaccessible. The surface trench and open-cut work prove the mineralization to be quite extensive in both length and width -- and the deepest, and accessible, incline shaft -- the 400-ft shaft mentioned above (on the Igo #3 claim) shows continuity of mineralization to that depth. The 400-ft incline is about 1000 feet westerly from Dos Hermanos adit.

The ridge of the pass on the divide, through which the trail passes, shows extensive mineralization indications on the surface, and shallow workings on each side (to the northwest, and the southeast) disclose ore in place -- heavy garnet rock impregnated with zinc-copper-lead sulphides, probably very low grade. Along the divide, northerly and southerly, the width of the epidote-garnet area is about 400 feet.

Samples taken are marked and described as follows:

Herrera-Abril	#1.	In place, west drift, adit lev, Dos Hermanos workings.
"	#2. *	Few tons on dump, selected, Igo No. 3 shaft and adit, oxidized ore.
"	#3.	Heavy hematite, plus sulphides, Igo No. 3 shaft.
"	#4.	Entrance adit from Igo Shaft #1.
"	#5.	In place workings, at surface, from Igo shaft No.2.
"	#6.	In place, near bottom of Igo No.3, 400-ft incline shaft.
"	#7.	From both sides, face and roof 10-ft cross cut bottom second (deepest) winze Dos Hermanos workings.

* Sample No.2 represents the oxidized ores found at, and for a few feet below, surface.

The surface ores show very little oxidation, and no tonnage of such ores can be expected.

Samples Nos. 1, 3,4,5,6, and 7 are representative, in character, of the tonnage to be mined for milling, and a flotation test of the combined rejects from these samples will indicate separation, and savings, of metals to be expected.

The topography, and low-dip veins, or deposits, of the ores are favorable for diamond- or churn-drill prospect work. Should the samples submitted for assay prove of sufficient value to be "interesting" the heavily-mineralized area of limestone should be given further, careful, attention -- provided, isolation of the property does not prohibit further consideration.

Yours truly,

F.H.Lerchen.

Property visited Dec. 8, 1937.

Willcox, Arizona, December 12, 1937.

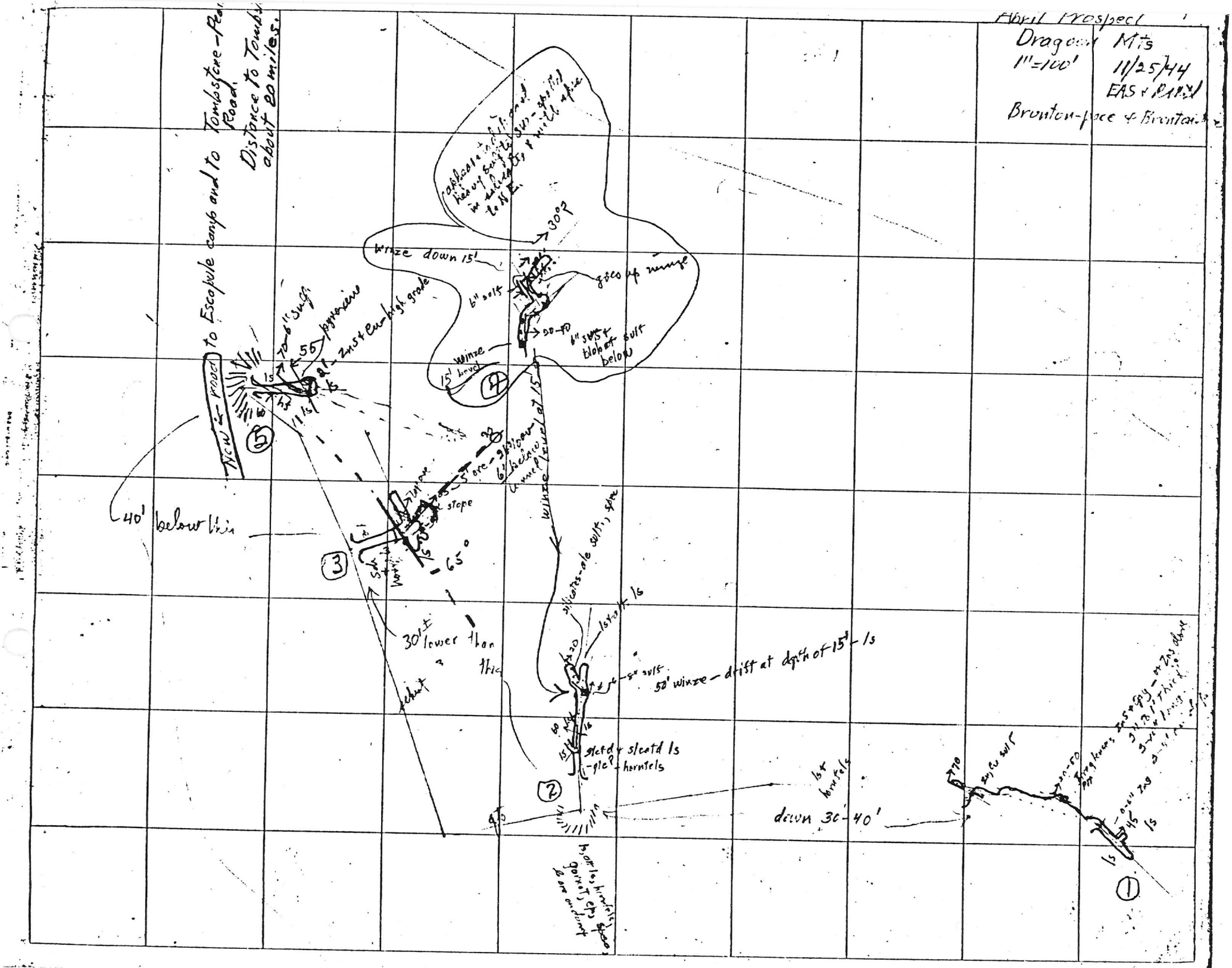
To Eagle-Picher Mining & Smelting Co.,
Tucson, Arizona.

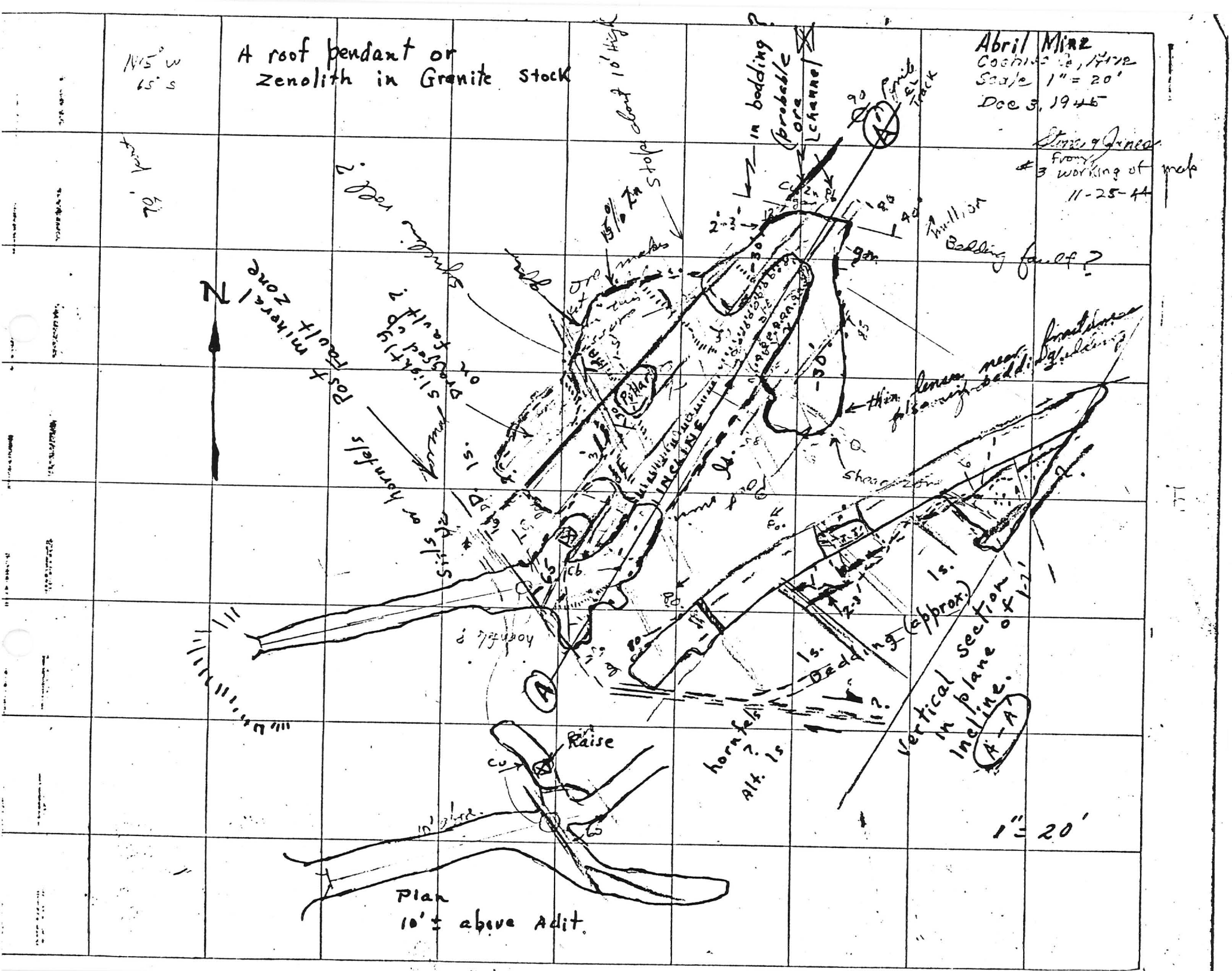
Supplemental to
Memo.
Herrera-Abril Mine
(Also referred to as Deal & Daniel)
Dragoon Mountains
Cochise County, Arizona.

Checking barometer readings with altitudes given on road maps of railway and highway stations and towns I find the barometer readings to vary from 100 feet to 300 feet from those given on the maps -- which latter should be accurate Outside of the map-elevation of 4540 feet given for Tomstone all other above-sea-level altitudes should be checked by accurately-adjusted barometer or transit survey.

Looking down on Cochise Stronghold from the divide through which the trail passes on the Herrera-Abril property the altitude appears to be greater thanthe barometer reading of 7100 feet above sea level.

F. H. Lerchen.


April Prospect
Dragoon Mts
1"=100'
11/25/44
EAS & RMM
Brunton-face & Brunton-back
Distance to Tombstone-Pearce Road about 20 miles.
to Escapule camp and to
Tombstone-Pearce Road
cabbaged limestone with heavy surface sulfide stain in limestone to N.E.
300
winze down 15'
6" sulfs
goes up winze
20-25
6" sulfs & blobs of sulf below
winze 15' level
6" sulfs
55
Zinc sulfs in high grade
Zinc in proved
40' below this
stope
65°
winze level at 15'
30' lower than this
about
silicates-ole sulfs, spar
Is strk
5" sulfs
50' winze - drift at depth of 15' - Is
sl calc & sl calc Is
glass + hornfels
1st hornfels
down 30-40'
Is
hornfels, garnets, epidote, & ore minerals


A roof pendant or
zenolith in Granite Stock
Abril Mine
Cochise Co., Ariz.
Scale 1" = 20'
Dec 3, 1946
Plan
10' ± above Adit.
Vertical section
in plane of
incline.
A-A'
1" = 20'
Raise
Pillar
INCLINE
Adit Is
Bedding (approx.)
Is.
Shear zone
thin fissure near bedding
Bedding fault?
Fault
Strike & Dip
Stope
Track
Ore
Pillar
Sill
Crosscut
Drift
Winze
Manway
Chute
Timber
Waste
Ore
Face
Floor
Roof
Wall
Hanging wall
Footwall
Fissure
Contact
Bedding
Fault
Shear zone
Vertical section
in plane of
incline.
A-A'
1" = 20'

November 27, 1944.

ABRIL MINE
Cochise County, Arizona.
Lewis and Skinner, Owners.

The Abril Mine was visited on November 25, 1944.

The accompanying sketch shows the principal workings with relation to each other.

Mineralization occurs in fissures in limestone and locally beds out a short distance from the fissures. The chief ore minerals are sphalerite, and chalcopyrite. Locally much specularite occurs with the ore minerals. The limestones have been squeezed and are highly metamorphosed. The ore is generally bounded by garnet, silicates, epidote and pyroxene.

The ore occurances as observed were very spotty. The largest ore shoot mapped was in tunnel No 3, which measured 5 feet in width and about 15 feet in length. If this shoot continues down at the present dimentions it will make approximately 7 tons or ore per foot of depth. The other ore shoots were too irregular to estimate any tonnage below the present elevations.

There is about 200 tons of ore on the various dumps which is represented in the sample supplied by Lewis and Skinner. The ore is chiefly zinc with a variable content of copper. No lead was visible to the naked eye. The sample while representative, may not give an accurate metal content for the material on the dumps or as mined.

The condition of the workings are not such that ore can be readily extracted from the various workings.

A road has been recently constructed to the property by the Forest Service. The distance from the mine to Tombstone, the closest rail point, is approximately 20 miles.

Note: property owned by Lewis & Skinner, leased to the Co. on basis of: 1. Lump cash payment for ore, 2. Royalty basis of 5% of their gross value. 2. Continuing right to lease from Lewis & Skinner at time of termination to be negotiated with Hattie Dean & E.S. Titles not clear.

Robt. M. Hernon
Robert M. Hernon

Edwin A. Stone
Edwin A. Stone