DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3489

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Exploration Assistance

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Cys to USBM, USGS, & Reg.

Routing Slip

To:	400	Date	9/15/54
To:	Oper Com	Date	9/29/54
To:	Oper Com	Date	12-6-54
To:	400	Date	12-7
To:	Oper Com	Date	12-8-54
To:	400	Date	12-9
To:	Oper Com	Date	12-10-54
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DO NOT DETACH

CONTROLLED DOCUMENT

DEC 22 1954

Withdrawal

Mr. Daniel V. O'Flaherty
White Mountain Mining & Milling Co.
Box 25
Oracle, Arizona

Re: Docket No. DMEA 3489 - Tungsten
Morning Star Mine
Pinal County, Arizona

Dear Mr. O'Flaherty:

Reference is made to your letter of December 2, 1954, regarding the subject project. Our reply has been delayed while we have been obtaining additional information and recommendations from the Field Team.

We note your request that the application be left open so that it may be resumed in the near future. It would be preferable, however, to have your application withdrawn without prejudice and placed in the inactive file. Because of the new work you are doing, another field examination would be required when you decide to submit a new application after you complete the work you are now doing in order to raise funds. Any new application should, of course, refer to the subject docket.

Sincerely yours,

C. O. Mittendorf

Administrator

cc: Docket
FT, Reg. 4
Code 400
Adm. Read. File
R. W. Geehan, USBM
Thor Kiilsgaard, USGS

WSMartin/ls
12/21/54

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 12·20

REFERRED TO:

1. ~~H Posey~~
2. ~~Miss Curtin~~
3.
4. 400

FOR:

---------- Action	---------- Recommendation
---------- Approval	---------- Record of ----------
---------- Comment	---------- Referring to ----------
---------- Conference	---------- Reply for signature of ----------
---------- Consideration	---------- Rewriting
---------- Filing	---------- Signature
---------- Instructions	---------- Suggestions
---------- Investigation	---------- Your information
---------- Initials	
---------- Mailing	
---------- Previous correspondence	

REMARKS: NOTE: I rec'd 3 sets. It has been decided to handle as info. memo and NOT as field exam. report. I sent 1 cy. ea. to USBM & USGS. Am returning attached copy for Division. Hazel

Check (X) before the items needing attention.

ROBERT E. ADAM

Initials of sender.

GPO 16—63815-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

400

224 New Customhouse
Denver 2, Colorado

December 16, 1954

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 3489 (Tungsten), White Mountain Mining and Milling Company, Morning Star Tungsten Mine, Pinal County, Arizona

In compliance with your request by teletype of December 10, 1954, we are enclosing the original and three copies of a memorandum dated December 14, 1954 from T. M. Romslo, Mining Engineer, Tucson, Arizona, and transmittal thereof from the Chief, Mining Methods Branch, Mining Division, Region IV.

W H King
W. H. King

Encls.

Mining Division
Date Rec'd.

DEC 16 1954

BUREAU OF MINES
Denver, Colorado

December 14, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Docket DMEA-3409, White Mountain Mining & Milling Co.'s Morning Star Tungsten Mine, Old Mat Mining District, Pinal County, Ariz.

In answer to your memorandum of December 9, with attached copies of teletype messages between you and the Operating Committee Chairman in Washington, I am enclosing a memorandum from T. M. Romslo who examined the property in November with J. N. Faick of the Geological Survey. Attached to Romslo's memorandum report is a copy of the applicant's letter to the Defense Minerals Exploration Administration in Washington.

Romslo and Faick examined the applicant's property on November 19. At that time, Mr. O'Flaherty, one of the applicant's, wasn't too clear about his cost estimates so told the DMEA examiners that he would visit our Tucson office at a later date to discuss the proposed work and costs. On November 24, Mr. D. V. O'Flaherty of the applicant company visited our office and discussed the project with T. M. Romslo. At that time O'Flaherty told Romslo that they had spent more money on their mill than had been expected, so asked if the application couldn't be placed in the inactive file until the company could "get on its feet". Romslo asked O'Flaherty to write to the DMEA Administrator, but to send his letter through us, so we could send our recommendations to you with his letter. Instead, O'Flaherty wrote directly to Washington with a copy of his letter to us, but evidently none to you.

I would recommend that the application be placed in the inactive file as requested by the applicant. However, another field examination will have to be made by Romslo and Faick if the

CC W. H. King (3)
J. N. Faick
DMEA-3409
MF

WHEtorma:frj

application is reactivated, as the applicant plans to do some development work which the engineers want to see. Falck also wants to vacate some of the area if the application is reactivated.

Walter R. Storms

Walter R. Storms

December 14, 1954

Memorandum

To : W. R. Stamus, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : T. M. Remsle, Mining Engineer, Tucson, Ariz.

Subject : Docket DMEA-3489, Tungsten, White Mountain Mining and Milling Company, Morning Star Mine, Pinal County, Ariz.

This memorandum contains the information requested of W. H. King by W. S. Martin, Acting Chairman, Operating Committee, in a teletype of Dec. 10, 1954. The information, merits of the proposed project, is presented along with a review of actions taken in the field prior to the company's written request that the application be held in abeyance.

As you know, the Morning Star mine was explored during 1952 and 1953 by the Nimas Mining Co. with Governmental aid authorized by contract Idn-8370. Stage I of the authorized explorations, involving surface operations, the sinking of a 110-foot inclined shaft and 283 feet of drifting and crosscutting on the 100 level, was completed before the contract was terminated by mutual consent. Ore was discovered by the project. No work was performed under Stage II, that authorized explorations at a greater depth if justified by the findings of the initial work. Prior to termination of the contract, the Nimas Mining Co. had mined and milled some of the newly discovered ore. The discouraging economic results of the operation, believed to have been very inefficient, probably influenced the company's decision to terminate both the exploration project, and mining and milling operations.

Under the subject docket, (DMEA-3489), the Morning Star mine was visited November 19, 1954 by J. M. Faick, Geologist, U. S. Geological Survey, and the writer. Both men had previously prepared reports on the mine for the DMEA. Mr. Faick had mapped the mine and prepared the final geological report. The writer had examined the property, recommended the work of contract Idn-8370, and had made most of the monthly inspections of exploratory work. On the way to the mine, the DMEA examiners briefly visited the applicant's electrostatic concentrator where test runs were being made on ore from the Morning Star mine. David F. McDonnell, a partner of the

CC W. H. King (Orig. & 8)
J. M. Faick
DMEA-3489
DF

TMRemsle:frj

applicant company and the developer of the concentrator, briefly explained the process. He offered to write a technical description of the process and give us a copy of the paper with a flow sheet. This data has not been received to date, probably because of the company's decision to defer the proposed exploratory work.

At the mine the engineers were met by Daniel V. O'Flaherty, the other partner of the applicant company. O'Flaherty, who apparently handles the business end of the company, has supervised the mining and delivery of ore from the Morning Star mine to the mill. Since taking over the mine, ore has been obtained from muck remaining in the surface stope and from an adit being driven in the block of ore in which the shaft was collared. Preparations also were being made to mine high-grade ore exposed in the large open cut south of the shaft. Details of the proposed work were discussed with the applicant, after the BMEA examiners had mapped the adit and made a cursory examination of the property.

The applicant's proposed project involved dewatering and rehabilitation of the mine workings, the driving of 3 crosscuts, and a raise. The proposed explorations are shown on the attached figure 6 of the final geological report made for the Defense Minerals Exploration Administration on the project carried out by the Ribas Mining Co. The crosscuts are designed to test for lateral extensions of the ore block at the Mogul fault and for a downward extension of the mineralized zone of the open cut. Faick and I agreed that the 2 zones should be explored because the chances of encountering additional ore are favorable. However, we would recommend that explorations be carried out by driving only crosscut "B" and by drifting from favorable zones encountered by the crosscut.

This program should prove less costly than that proposed because: (1) rehabilitation of the 100 level would be confined to a small area at the shaft station; and (2) a smaller amount of crosscutting and drifting probably would be necessary. We would consider raise "B" as development in an indicated block of ore and consequently recommend that driving of the raise be denied.

The discussions with Mr. O'Flaherty were concerned mainly with the estimated costs of a project. It was mutually agreed that the first phase of the project, surface work, dewatering and rehabilitations, would have to be carried out on an actual cost basis because an estimate of a probable equitable unit cost could not be made. He offered to do all drifting and crosscutting for $15.00 per foot. Before the BMEA examiners left the mine, Mr. O'Flaherty was asked to submit certain data, i.e. rental costs of equipment, needed for a set-up of estimated costs. He also was informed as to procedures of Governmental financing.

On November 24, Mr. O'Flaherty visited this office and informed me that he wished to defer action on the proposed explorations until the company was in better financial condition. He said he could raise sufficient capital by selling an interest in the company, however, he believed this would not be necessary because he hoped to obtain the necessary funds by mining and milling ore from the open pit. Testing of this ore has shown that most of the scheelite occurs as grains and can be recovered as a high-grade concentrate. While this ore is being treated the mill will continue to test ore from the adit and stope. Recovery to date on the latter ore, probably similar to much of the ore in the 100 level, has been about 80 percent. However, the ratio of high- to low-grade concentrates has not been satisfactory. Failure to produce a satisfactory amount of high-grade concentrate apparently is due to the difficulty encountered in freeing the scheelite, much of which occurs as extremely fine-grained particles.

I asked Mr. O'Flaherty to address his letter of request to the Defense Minerals Exploration Administration at Washington and to submit it to you for forwarding through the Denver office. However, he mailed it directly to Washington with a copy to you, and evidently sent to Denver. A copy of his letter is attached.

T. M. Romslo

T. M. ROMSLO, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

WHITE MOUNTAIN MINING & MILLING CO.
McDonnell Separator

2 December 1954

Mill location
Casa Benita Rd.
6 mi. SE of Oracle

Mail address
Box 25
Oracle, Arizona

Re: Docket BMMA 3485 Tungsten
Morning Star Mine
Pinal County, Arizona.

U. S. Department of Interior
Defense Minerals Exploration Administration
Washington, D. C.

Attention: Mr. Frank E. Johnson
Acting Administrator

Dear Sir:

On behalf of the above company, I filed an application for a loan to carry on exploration at the Morning Star Mine. Your reply was prompt and we received excellent cooperation from all parties at the Tucson, Arizona, office. I wish to thank all parties for their efficient and prompt help.

We have built our mill; opened up the upper workings of the mine, and are now in production. Fortunately we have sufficient ore available for a long run. However, we hoped to open up the lower workings and explore that area, over to the hanging wall, in order to give us a comprehensive and definite picture of the whole layout.

We find, at present, we will not be in a position, financially, to carry out this exploration work since it would mean immediate expenditure of several thousand dollars on our part before returns could be expected from your department. We are entirely solvent and debt free. Due to heavy expenditures of the past few months, we feel we should not use our available capital at this time for exploration. We request that our application, if possible, be left open so that it may be resumed in the near future. Is this possible?

We wish to thank you and all your departments for your kind and efficient service. I regret that we are unable at present to go ahead on the set-up.

Very truly yours,

/s/ Daniel V. O'Flaherty

DVO'F:h

cc: Walter E. Sugnus, Chief
Mining Methods Branch
Mining Division, Region IV

COPY

400

Interior Department
Defense Minerals Exploration
Administration
14X4401(01) Revolving Fund, Defense
Production Act, Interior
(Allocated Working Fund to the
Office of the Secretary)

T E L E T Y P E

To: W. H. King, Executive Officer
DMEA Field Team, Region IV
Denver, Colorado

Re Docket DMEA 3489 Tungsten, White Mountain Mining and Milling Co., Morning Star Mine, Pinal County, Arizona.

Please wire date of scheduled examination or summary of your recommendations if examination and review are completed.

George C. Selfridge
Chairman, Operating Committee

cc: DOCKET
CODE 400
FIELD TEAM, REG. IV
ADM. READ. FILE
OPER. COMMITTEE
R. W. GERHAM, USBM
THOR MIILSGAARD, USGS

WSMartin/ls
12/6/54

SENT
1954

Interior Department

Defense Minerals Exploration Administration
14X4401(01) Activity Fund, Interior
(Allocated Working Fund
to the Office of the Secretary)

T E L E T Y P E

To: W. H. King, Executive Officer
DMEA Field Team, Region 4
Denver, Colorado

Reurtt December 7, Docket DMEA 3489-Tungsten, White Mountain Mining and Milling Co., Morning Star Mine, Pinal County, Arizona. Please submit summary your recommendations based on field examination as requested by our teletype December 7.

George C. Selfridge
Chairman, Operating Committee

WSMartin/ls
12/7/54

SENT
DEC 9 1954
Central Service Section

cc: Docket
Adm. Read. File
Oper. Committee
Code 400
R. W. Geehan, USBM
Thor Kiilsgaard, USGS
Field Team, Reg. 4 - Confirmation Copy

400

Interior Department
Defense Minerals Exploration
Administration

14X4401(01) Revolving Fund, Interior
Defense Production Act,
Interior (Allocated Working Fund
to the Office of the Secretary)

T E L E T Y P E DEC 1 0 1954

To: W. H. King, Executive Officer
DMEA Field Team, Region 4
Denver, Colorado

Regret our teletype December 7 regarding Docket DMEA 3489, Tungsten, White Mountain Mining and Milling Company, Morning Star Mine, Pinal County, Arizona, did not make clear to you that we have letter from applicant here for reply, and knowing your recommendations whether favorable or unfavorable would assist us. Your teletypes of December 7 and 9 omit the particular information we want on the merits of the project, irrespective of applicant's desire to defer operations.

W. S. Martin
ACTING Chairman, Operating Committee

cc: Docket
Field Team - Confirmation
Code 400
Adm. Reading File
Oper. Committee
R. W. Geehan, USBM
Thor Kiilsgaard, USGS

WSMartin/ls
12/10/54

1-1027
(April 1946)

UNITED STATES
DEPARTMENT OF THE INTERIOR

402

AGENCY DMEA REG IV

Originator:

TELETYPE

Ext.: Room:

Appro.:
Date: 12/9/54
Time:
No.:
To: CHAIRMAN OPERATING COMMITTEE DMEA WASH

Subject:

REURTT DECEMBER 9, DOCKET DMEA 3489, TUNGSTEN, WHITE MOUNTAIN MINING AND MILLING COMPANY. THE EXAMINING TEAM DOES NOT CONTEMPLATE PREPARING A REPORT ON THIS DOCKET UNTIL THE APPLICANT REQUESTS THAT IT BE REMOVED FROM THE INACTIVE FILE BECAUSE AT THAT TIME THE APPLICANT'S REQUEST AND OUR RECOMMENDATIONS MAY BE CHANGED. PLEASE ADVISE US IF YOU WANT US TO REEXAMINE THE PROPERTY IRRESPECTIVE OF APPLICANT'S WISHES AND ~~PREPARE A REP~~ORT.

W. H. King
W. H. KING

Authorized:
CONFIRMATION

Sign original message and transmit to Room ..... in duplicate

U. S. GOVERNMENT PRINTING OFFICE 16—50915-1

White Mountain Mining & Milling Co.

McCONNELL SEPARATOR

Department of the Interior
Defense Minerals Exploration Administration
RECEIVED
DEC 6 1954

2 December 1954

MILL LOCATION
CASA BONITA RD.
6 MI. S. E. OF ORACLE

MAIL ADDRESS
BOX 25
ORACLE, ARIZONA

Re: Docket DMEA 3489 Tungsten
Morning Star Mine
Pinal County, Arizona

U. S. Department of Interior
Defense Minerals Exploration Administration
Washington, D. C.

Attention: Mr. Frank E. Johnson
Acting Administrator

Dear Sirs:

On behalf of the above company, I filed an application for a loan to carry on exploration at the Morning Star Mine. Your reply was prompt and we received excellent cooperation from all parties at the Tucson, Arizona, office. I wish to thank all parties for their efficient and prompt help.

We have built our mill; opened up the upper workings of the mine, and are now in production. Fortunately we have sufficient ore available for a long run. However, we hoped to open up the lower workings and explore that area, over to the hanging wall, in order to give us a comprehensive and definite picture of the whole layout.

We find, at present, we will not be in a position, financially, to carry out this exploration work since it would mean immediate expenditure of several thousand dollars on our part before returns could be expected from your department. We are entirely solvent and debt free. Due to heavy expenditures of the past few months, we feel we should not use our available capital at this time for exploration. We request that our application, if possible, be left open so that it may be resumed in the near future. Is this possible?

We wish to thank you and all your departments for your kind and efficient service. I regret that we are unable at present to go ahead on the set-up.

Very truly yours,

Daniel V. O'Flaherty

DVO'Fah
cc: Walter R. Storms, Chief
Mining Methods Branch
Mining Division, Region IV

400

SEP 29 1954

Mr. Daniel V. O'Flaherty
White Mountain Mining & Milling Co.
Box 25
Oracle, Arizona

Re: Docket No. DMEA 3489 - Tungsten
Morning Star mine
Pinal County, Arizona

Dear Mr. O'Flaherty:

The above-docketed application for exploration assistance has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. W. H. King, Executive Officer, DMEA Field Team, Region IV, 224 New Customhouse Building, Denver 2, Colorado, for a field examination of the property.

Any assistance that you can render the members of the Field Team will be appreciated.

In addition, it will be necessary for you to submit four copies of the lease or agreement by which you control the Morning Star mine. We will also need to receive one set of Owner's Consent to Lien forms executed by the owners and one set by the lessors. According to our records, Elizabeth L. Wook, Oracle, Arizona, and the Young Men's Christian Association, Tucson, Arizona, are co-owners, and the Mikas Mining Company, a partnership composed of Tom D. Callas, A. Mikas, John Cakas, John Paulos, and Monte Seymour, 1323 East 5th Street, Tucson, Arizona, is the lessor. In each instance, we will need six of the enclosed forms executed.

It should also be understood that as a result of the exploration completed under the contract with the Mikas Mining Company, Contract No. Idm-E370, a discovery was certified and consequently the Government has established a lien on all production from the property until the sum of $18,159.26 is repaid or July 18, 1962.

Section 10(e) of the enclosed DMEA Order - 1 Amended sets forth the terms on which repayment will be made to the Government by a percentage royalty on production.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

cc to: FT. REG.IV
R. W. Geehan, USBM
Thor H. Kilsgaard, USGS

BARTLEDGE:foc 9-27-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 3489 - Tungsten
White Mountain Mining & Milling Co.
Morning Star mine
Pinal County, Arizona

Dear Mr. King:

The above-docketed application for exploration assistance is being referred to your office for a field examination of the property.

Normally an application for exploration assistance in the amount requested, $15,000.00, would be referred to Region IV for processing under your delegated authority. However, the requested exploration is for new work at the site of a mutually terminated contract, Contract No. Idm-E370, Kikas Mining Company, under which a discovery was certified March 3, 1954. Therefore the subject application will be processed in the Washington office.

Two copies of a relevant memorandum dated September 22, 1954, by E. L. Newcomb, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FARutledge:foc 9-27-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. IV
R. W. Geehan, USBM
Thor H. Kiilsgaard, USGS

P.S. Also enclosed are two copies of memorandum dated September 16, 1954, by R. W. Geehan, Bureau of Mines.

Enclosure

IN REPLY REFER TO:

402

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

September 22, 1954

Re: DMEA-3409
White Mountain Mining
and Milling Company
(Morning Star Mine)
Pinal Co., Arizona
$15,000 - Tungsten

Memorandum

To: W. S. Martin
Defense Minerals Exploration Administration

From: E. L. Newcomb
U. S. Geological Survey

Subject: Review of application

The applicant proposes to further explore this property with unexpended funds from the Hikes Mining Co. contract (Idm-E370) which was terminated June 30, 1953.

The White Mountain Mining and Milling Co. leased the property in June, 1954, and plans to begin active operations in the near future. The new operator has built a mill which he believes will handle the fine-grained, sulfide contaminated ore from the Morning Star mine.

The Hikes Mining Co. contract provided for a two-stage project with a total cost of $59,200, but only one stage was completed and no work was done under Stage II. Results of Stage I work were favorable and work under Stage II would have been desirable.

According to the Field Team, the contract was terminated for one or more of the following reasons:

1) Disagreement among the five partners of the Company.

2) High cost of operation and unwillingness of partners to continue their financial support.

3) Operators' belief that sufficient ore had been proven to justify a small mill on the property.

Several ore reserve estimates have been made on basis of Stage I exploration. The Field Team considers 7,000 tons of indicated ore averaging 0.726% WO_3 and inferred reserves of 5,000 tons containing 0.605% WO_3 to be an accurate estimate of the present total reserves. About 900 tons of ore have been mined, as a result of the DMEA exploration, which yielded 2060 pounds of 63% WO_3 table concentrates and 17.5 tons of flotation concentrates containing 7.96% WO_3.

The proposed work requested by the White Mountain Mining and Milling Co. will explore favorable areas of mineralization. Also, this work is similar to the exploration suggested by the Field Team in their final report. Crosscuts A and B and raise D have the best chances for success. Crosscut C is less essential and should be deferred until results of A and B are evaluated. It is possible that the headings of B and C crosscuts should be driven on more southward or southeastward bearings.

Although we have considerable data available for our consideration of this application, the Field Team's comments should be obtained. For this reason, I recommend the application be referred to the Field Team. The McCormell separator and its reported success with "problem" ores (including Morning Star ore) should be investigated or commented upon by the Field Team.

E. L. Newcomb

ELNewcomb:hlm
G-9/22/54

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
R. W. Geehan, 3513

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

402
SEP 20 1954

September 16, 1954

Memorandum

To: W. S. Martin, DMEA

From: R. W. Geehan

Subject: DMEA 3489 (2356)
White Mountain Mining and Milling Co.
Morning Star Mine
Pinal County, Arizona

It is recommended that this be submitted to the field team. The exploration proposed does not cut the favorable areas indicated on the sections and on the overlay.

R. W. Geehan

Rec'd by B.M.

White Mountain Mining & Milling Co.

McCONNELL SEPARATOR

Defense Minerals Administration RECEIVED SEP 13 1954

DMEA-3489
Tungsten
$15,000

MILL LOCATION
CASA BONITA RD.
6 MI. S. E. OF ORACLE

MAIL ADDRESS
BOX 25
ORACLE, ARIZONA

9 September 1954

Mr. G. O. Mittendorf
Defense Minerals Exploration Administration
Washington, D. C.

Dear Mr. Mittendorf:

Re: D.M.E.A. - 2356

An exploration loan of D.M.E.A.-2356 was made to the Nikas Mining Company of Tucson, Arizona, to carry on exploratory work at the Morning Star Mine, about six and a half miles southwest of Oracle, Arizona. Of the amount set up, they used approximately $18,000; as I understand it.

The money was used to sink an inclined shaft, on a 45° angle, approximately 100 feet, from which point they drifted, in the footwall, northeast and southwest. A raise was started (35 feet. See "D" on map; sheet #2) in ore and two drifts were started at right angles to the main drift on the 100-foot level. (See "A" and "C"; sheet #2) Both drifts were in ore.

They were inexperienced mining men and apparently knew nothing about $W.O_3$. They could not make the saving on the $W.O_3$ by flotation or water tables and consequently went broke.

The White Mountain Mining and Milling Co., a co-partnership, has taken over the property for operation. We have been on the property since June, 1954, and have cleaned it up, geologized it, and developed (at "E" on the map; sheet #2) a body that we are cross-cutting - 30 feet at present - of ore that will run about one to one and a half per cent. This was done on straight geology.

Our geologist is Byron W. Works, Chief Geologist for the Black Rock Mining Company (Wah Chang) of Bishop, California. He is tops on Scheelite. The attached maps are his. Some of the data on the area below the inclined shaft had to be taken from data furnished on the maps of the local engineers; but were checked, as closely as possible, from the surface workings, and he is satisfied that they are substantially correct in their conclusions and data.

The ore is problem ore for the greater part. The WO_3 is finely disseminated and hard to recover by conventional methods. The operators in the past have tried every method and their top recovery was about three to four tenths on one per cent, and better, ore. On one shipment Nikas made to Bishop, California, to a very good mill, the recovery was about .3 on one per cent ore. We picked up their tailings and recovered one-half per cent.

- continued -

9 September 1954

We have control of the McConnell separator, a dry process developed by David P. McConnell of Bishop, California. Thirteen years of experimentation have gone into the process. It is a success. We, for the past year and one half, have been cleaning up "bastard" concentrates for all the operators around Bishop, in Nevada and Arizona. We can do about anything with tungsten ores in the way of extraction from the original ore or taking the "foul" out of concentrates that are way below grade due to content of copper, lead, zinc, lime, silica, etc. Fine WO_3 in lime ores is a problem ore of first magnitude. We handle it perfectly. The Morning Star ore is a lime ore.

As a result of our testing and experimenting on this ore (we hauled tons to Bishop) and our certainty of recovery, we have built a model mill one mile from the mine, which is capable of handling 40 to 50 tons per day. We did this to show the mining fraternity what we can do with a recognized tough ore and to demonstrate the table that not only will do the job on tungsten ores, but also on mica, spar, manganese, monazite sands, and others that we have demonstrated on.

The White Mountain Mining & Milling Co. is operated by two of the general partners: David P. McConnell and Daniel V. O'Flaherty. Mr. David McConnell is the inventor of the separator. He is an expert mill man of long experience in California, as an operator of mills and properties. D. V. O'Flaherty, the undersigned, has been in the mining business since 1920. He has operated properties in the Mother Lode country near Calder and San Andreas and also on the Green River at Vernal, Utah. Since the war, both McConnell and O'Flaherty have devoted their time and efforts to the tungsten field and inspected, checked and operated properties around the Bishop, California, area. The past year and a half has been devoted to demonstrating the McConnell separator on the toughest ore that could be found.

I give you this as background. We do know tungsten, and perhaps have had the opportunity of hearing about almost every problem connected with tungsten, for the producers who were up against a recovery problem, or an upgrading problem, all concentrated on us to solve the problem. Some were impossible, of course, but a vast majority of the problems were solved by us.

We feel, because of our experience with tungsten and mining, that the Morning Star Mine has great possibilities. That is why, after close checking, we built our mill at a cost, including equipment, of close to $50,000.

The surface workings of the past at this mine is an excellent demonstration of gophering. They grabbed ore where they could find it with no plan of development in mind. The shaft put down by Nikas Mining Co. has caved below

- continued -

9 September 1954

the 65 foot level. We want to clean it out, timber if necessary, and put the lower drift in working order.

Then we want to drift across at A, B, and C, to cross-cut ore shoots that we are certain we will contact in going from the footwall to the so-called hanging wall. Our overlay sheet shows this.

At "D" we wish to continue the raise (in ore) to the large stuped out area, giving us a second exit.

We estimate that we may have to timber from the 65 foot level in the shaft to the area along the drift at the bottom of the shaft. We expect the length to be timbered will be about 140 feet. Once we break into the silicified area we will not, I am sure, have to use timber.

We feel that at "A" we will drift about 160 feet to cut the zones. On "B" we should drift, from the bottom of the shaft, approximately 220 feet. On "C" it would take 180 feet to the limo-quartzite contact. On "D" we can break through to the upper slope with about 60 feet of raise.

For the present, we feel that "A", "B", and "D" should be pushed to explore the area; "C" could be held up for the time being because we are going southwest into the softer footwall and we fear that would mean a timber job all the way!

These conclusions are based upon the geological formation. The strike of most of the showings is northeast to southwest. The dip is to the southwest. At "E" the 30 foot ore body goes down at 2~~50~~45. Crossing this area with "A" and "B" should explore the area in general, and we feel certain will be a productive exploration.

We do not know what the disposition of the loan to the Nikas Mining Co. has been. If it has not been cancelled we would like to take it over or have it transferred to the White Mountain Mining & Milling Co. if that is possible. We estimate the cost of carrying out the proposed plan of exploration would be $15,000. This includes timbering. We understand we contribute twenty-five per cent of this.

The property has been checked and approved by your department and I expect all the preliminaries to the granting of a loan have been completed.

In our lease from the Nikas Mining Co. we have provided that they pay back to your Department the $18,000 borrowed by them. We have set the lease percent up to cover that. At the time of making our lease, we did not contemplate a loan. However, since our mill and development work, to date,

- continued -

9 September 1954

have exceeded, somewhat, the budget set-up, we feel a loan for exploration would ease the situation in the area proposed to be explored.

We do not owe a dime on our layout. We work on our own money. I have talked with your engineers at the University of Arizona and find them very cooperative. They informed me of the procedure in this matter.

Trusting that your Department will give this request early consideration, and that we may hear from you soon, I am

Very truly yours,

Daniel V. O'Flaherty

Daniel V. O'Flaherty
White Mountain Mining & Milling Co.
Box 25
Oracle, Arizona

DVO'F:h

Enc. Maps (4 sets)

Note: Insertions in red crayon are mine.

DOCKET
Surname: Martin

400

DEC 22 1954

Mr. Daniel V. O'Flaherty
White Mountain Mining & Milling Co.
Box 25
Oracle, Arizona

Re: Docket No. DMEA 3489 - Tungsten
Morning Star Mine
Pinal County, Arizona

Dear Mr. O'Flaherty:

Reference is made to your letter of December 2, 1954, regarding the subject project. Our reply has been delayed while we have been obtaining additional information and recommendations from the Field Team.

We note your request that the application be left open so that it may be resumed in the near future. It would be preferable, however, to have your application withdrawn without prejudice and placed in the inactive file. Because of the new work you are doing, another field examination would be required when you decide to submit a new application after you complete the work you are now doing in order to raise funds. Any new application should, of course, refer to the subject docket.

Sincerely yours,

C. O. Mittendorf

Administrator

cc: Docket
FT, Reg. 4
Code 400
Adm. Read. File
R. W. Geehan, USBM
Thor Kiilsgaard, USGS

Note: Mr Martin says this is to be considered a withdrawal
GPB
12-22-54

WSMartin/ls
12/21/54

R.C.L.

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

December 16, 1954

WSM

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 3489 (Tungsten), White Mountain Mining and Milling Company, Morning Star Tungsten Mine, Pinal County, Arizona

In compliance with your request by teletype of December 10, 1954, we are enclosing the original and three copies of a memorandum dated December 14, 1954 from T. M. Romslo, Mining Engineer, Tucson, Arizona, and transmittal thereof from the Chief, Mining Methods Branch, Mining Division, Region IV.

W H King
W. H. King

Encls.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION

Mining Division
Date Rec'd.
DEC 16 1954
BUREAU OF MINES

TUCSON, ARIZONA
Denver, Colorado
December 14, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Docket DMEA-3489, White Mountain Mining & Milling Co.'s Morning Star Tungsten Mine, Old Hat Mining District, Pinal County, Ariz.

In answer to your memorandum of December 9, with attached copies of teletype messages between you and the Operating Committee Chairman in Washington, I am enclosing a memorandum from T. M. Romslo who examined the property in November with J. N. Faick of the Geological Survey. Attached to Romslo's memorandum report is a copy of the applicant's letter to the Defense Minerals Exploration Administration in Washington.

Romslo and Faick examined the applicant's property on November 19. At that time, Mr. O'Flaherty, one of the applicant's, wasn't too clear about his cost estimates so told the DMEA examiners that he would visit our Tucson office at a later date to discuss the proposed work and costs. On November 24, Mr. D. V. O'Flaherty of the applicant company visited our office and discussed the project with T. M. Romslo. At that time O'Flaherty told Romslo that they had spent more money on their mill than had been expected, so asked if the application couldn't be placed in the inactive file until the company could "get on its feet". Romslo asked O'Flaherty to write to the DMEA Administrator, but to send his letter through me, so we could send our recommendations to you with his letter. Instead, O'Flaherty wrote directly to Washington with a copy of his letter to me, but evidently none to you.

I would recommend that the application be placed in the inactive file as requested by the applicant. However, another field examination will have to be made by Romslo and Faick if the

CC W. H. King (8)
J. N. Faick
DMEA-3489
DF

WRStorms:frj

application is reactivated, as the applicant plans to do some development work which the examiners want to see. Faick also wants to remap some of the area if the application is reactivated.

Walter R. Storms

Walter R. Storms

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION

TUCSON, ARIZONA

December 14, 1954

Memorandum

To : W. R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : T. M. Romslo, Mining Engineer, Tucson, Ariz.

Subject : Docket DMEA-3489, Tungsten, White Mountain Mining and Milling Company, Morning Star Mine, Pinal County, Ariz.

This memorandum contains the information requested of W. H. King by W. S. Martin, Acting Chairman, Operating Committee, in a teletype of Dec. 10, 1954. The Information, merits of the proposed project, is presented along with a review of actions taken in the field prior to the company's written request that the application be held in abeyance.

As you know, the Morning Star mine was explored during 1952 and 1953 by the Nikas Mining Co. with Governmental aid authorized by contract Idm-E370. Stage I of the authorized explorations, involving surface operations, the sinking of a 110-foot inclined shaft and 293 feet of drifting and crosscutting on the 100 level, was completed before the contract was terminated by mutual consent. Ore was discovered by the project. No work was performed under Stage II, that authorized explorations at a greater depth if justified by the findings of the initial work. Prior to termination of the contract, the Nikas Mining Co. had mined and milled some of the newly discovered ore. The discouraging economic results of the operation, believed to have been very inefficient, probably influenced the company's decision to terminate both the exploration project, and mining and milling operations.

Under the subject docket, (DMEA-3489), the Morning Star mine was visited November 19, 1954 by J. N. Faick, Geologist, U. S. Geological Survey, and the writer. Both men had previously prepared reports on the mine for the DMEA. Mr. Faick had mapped the mine and prepared the final geological report. The writer had examined the property, recommended the work of contract Idm-E370, and had made most of the monthly inspections of exploratory work. On the way to the mine, the DMEA examiners briefly visited the applicant's electrostatic concentrator where test runs were being made on ore from the Morning Star mine. David P. McConnell, a partner of the

CC W. H. King (Orig. & 8)
J. N. Faick
DMEA-3489
DF

TMROMSLO:frj

applicant company and the developer of the concentrator, briefly explained the process. He offered to write a technical description of the process and give us a copy of the paper with a flow sheet. This data has not been received to date, probably because of the company's decision to defer the proposed exploratory work.

At the mine the engineers were met by Daniel V. O'Flaherty, the other partner of the applicant company. O'Flaherty, who apparently handles the business end of the company, has supervised the mining and delivery of ore from the Morning Star mine to the mill. Since taking over the mine, ore has been obtained from muck remaining in the surface stope and from an adit being driven in the block of ore in which the shaft was collared. Preparations also were being made to mine high-grade ore exposed in the large open cut south of the shaft. Details of the proposed work were discussed with the applicant, after the DMEA examiners had mapped the adit and made a cursory examination of the property.

The applicant's proposed project involved dewatering and rehabilitation of the mine workings, the driving of 3 crosscuts, and a raise. The proposed explorations are shown on the attached figure 6 of the final geological report made for the Defense Minerals Exploration Administration on the project carried out by the Nikas Mining Co. The crosscuts are designed to test for lateral extensions of the ore block at the Mogul fault and for a downward extension of the mineralized zone of the open cut. Faick and I agreed that the 2 zones should be explored because the chances of encountering additional ore are favorable. However, we would recommend that explorations be carried out by driving only crosscut "B" and by drifting from favorable zones encountered by the crosscut.

This program should prove less costly than that proposed because: (1) rehabilitation of the 100 level would be confined to a small area at the shaft station; and (2) a smaller amount of crosscutting and drifting probably would be necessary. We would consider raise "D" as development in an indicated block of ore and consequently recommend that driving of the raise be denied.

The discussions with Mr. O'Flaherty were concerned mainly with the estimated costs of a project. It was mutually agreed that the first phase of the project, surface work, dewatering and rehabilitations, would have to be carried out on an actual cost basis because an estimate of a probable equitable unit cost could not be made. He offered to do all drifting and crosscutting for $35.00 per foot. Before the DMEA examiners left the mine, Mr. O'Flaherty was asked to submit certain data, i.e. rental costs of equipment, needed for a set-up of estimated costs. He also was informed as to procedures of Governmental financing.

On November 24, Mr. O'Flaherty visited this office and informed me that he wished to defer action on the proposed explorations until the company was in better financial condition. He said he could raise sufficient capital by selling an interest in the company, however, he believed this would not be necessary because he hoped to obtain the necessary funds by mining and milling ore from the open pit. Testing of this ore has shown that most of the scheelite occurs as grains and can be recovered as a high-grade concentrate. While this ore is being treated the mill will continue to test ore from the adit and stope. Recovery to date on the latter ore, probably similar to much of the ore in the 100 level, has been about 80 percent. However, the ratio of high-to low-grade concentrates has not been satisfactory. Failure to produce a satisfactory amount of high-grade concentrate apparently is due to the difficulty encountered in freeing the scheelite, much of which occurs as extremely fine-grained particles.

I asked Mr. O'Flaherty to address his letter of request to the Defense MInerals Exploration Administration at Washington and to submit it to you for forwarding through the Denver office. However, he mailed it directly to Washington with a copy to you, and evidently none to Denver. A copy of his letter is attached.

T. M. Romslo

T. M. ROMSLO, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

WHITE MOUNTAIN MINING & MILLING CO.
McConnell Separator

2 December 1954

Mill location
Casa Bonita Rd.
6 mi. SE of Oracle

Mail address
Box 25
Oracle, Arizona

Re: Docket DMEA 3489 Tungsten
Morning Star Mine
Pinal County, Arizona.

U. S. Department of Interior
Defense Minerals Exploration Administration
Washington, D. C.

Attention: Mr. Frank E. Johnson
Acting Administrator

Dear Sir:

On behalf of the above company, I filed an application for a loan to carry on exploration at the Morning Star Mine. Your reply was prompt and we received excellent cooperation from all parties at the Tucson, Arizona, office. I wish to thank all parties for their efficient and prompt help.

We have built our mill; opened up the upper workings of the mine, and are now in production. Fortunately we have sufficient ore available for a long run. However, we hoped to open up the lower workings and explore that area, over to the hanging wall, in order to give us a comprehensive and definite picture of the whole layout.

We find, at present, we will not be in a position, financially, to carry out this exploration work since it would mean immediate expenditure of several thousand dollars on our part before returns could be expected from your department. We are entirely solvent and debt free. Due to heavy expenditures of the past few months, we feel we should not use our available capital at this time for exploration. We request that our application, if possible, be left open so that it may be resumed in the near future. Is this possible?

We wish to thank you and all your departments for your kind and efficient service. I regret that we are unable at present to go ahead on the set-up.

Very truly yours,

/s/ Daniel V. O'Flaherty

DVO'F:h
cc: Walter R. Storms, Chief
Mining Methods Branch
Mining Division, Region IV

C O P Y

DOCKET

Martin
Kuhrt
Newcomb
Johnson
Killsgaard
Johnson
Mitterling

Interior Department
Defense Minerals Exploration
Administration

14X4401(01) Revolving Fund, Interior
Defense Production Act,
Interior (Allocated Working Fund
to the Office of the Secretary)

T E L E T Y P E

DEC 1 0 1954

To: W. H. King, Executive Officer
DMEA Field Team, Region 4
Denver, Colorado

Regret our teletype December 7 regarding Docket DMEA 3489, Tungsten, White Mountain Mining and Milling Company, Morning Star Mine, Pinal County, Arizona, did not make clear to you that we have letter from applicant here for reply, and knowing your recommendations whether favorable or unfavorable would assist us. Your teletypes of December 7 and 9 omit the particular information we want on the merits of the project, irrespective of applicant's desire to defer operations.

W. S. Martin

ACTING Chairman, Operating Committee (245)

cc: Docket
Field Team - Confirmation
Code 400
Adm. Reading File
Oper. Committee
R. W. Geehan, USBM
Thor Kiilsgaard, USGS

WSMartin/ls
12/10/54

DI—17

SPECIAL

GPO 8—41804-1

Mr. George Selfridge
12-9-54
Unattended permission

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 10 1954

DN 435 BUREAU MINES 12-9-54 4-40 PM

CHAIRMAN OPERATING COMMITTEE
DMEA

REURTT DECEMBER 3, DOCKET DMEA 3409, TUNGSTEN, WHITE MOUNTAIN MINING AND MILLING COMPANY. THE EXAMINING TEAM DOES NOT CONTEMPLATE PRP PREPARING A REPORT ON THIS DOCKET UNTIL THE APPLICANT REQUESTS THAT IT BE REMOVED FROM THE INATXXXX INACTIVE FILE BECAUSE AT THAT TIME THE APPLICANT REQUEST AND OUR RECOMMENDATIONS MAY BE CHANGED. PLEASE ADVISE US IF YOU WANT US TO REEXAMINE THE PROPERTY IRRESPECTIVE OF APPLICANT'S WISHES AND PREPARE A REPORT.

W M KING

Denver, Colo.

DEC 10 8 48 AM '54

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

DOCKET
Surname:
Martin
Kilsgaard
Hodges
Selfridge
Kleinman
Mitchell

Interior Department

Defense Minerals Exploration
14X4401(01) Administration
(Allocated Working Fund, Interior
to the Office of the Secretary)

T E L E T Y P E

To: W. H. King, Executive Officer
DMEA Field Team, Region 4
Denver, Colorado

Reurtt December 7, Docket DMEA 3489-Tungsten, White Mountain Mining and Milling Co., Morning Star Mine, Pinal County, Arizona. Please submit summary your recommendations based on field examination as requested by our teletype December 7.

George C. Selfridge
Chairman, Operating Committee (-2/3)

WSMartin/ls
12/7/54

SENT
DEC 9 1954
Clerical Service Section

cc: Docket
Adm. Read. File
Oper. Committee
Code 400
R. W. Geehan, [redacted]
Thor Kilsgaard, [redacted]
Field Team, Reg. 4 - Confirmation Copy

George C. Selfridge
12-7-54
11:23 a.m.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 7 1954

DUR MINES DN 235 12-7-54 9-23 AM

GEORGE C SELFRIDGE, MCHAIRMAN, OPERATING COMM

REURTT DOCKET DMEA 3489, TUNGSTEN, WHITE MOUNTAIN MINING AND MILLING COMPANY, MORNING STAR MINE, PINAL COUNTY, ARIZONA. PROPERTY VISITED ON NOVEMBER 19,1954. ON NOVEMBER 24,1954, D. V. O,FLAHERTY OF THE APPLICANT COMPANY CALLED AT OUR TUCSON OFFICE AND STATED THAT COMPANY WAS SHORT OF MONEY FUNDS AND WOULD SUBMIT A REQUEST THAT ITS APPLICATION BE PLACED IN THE INACTIVE FILE FOR A FEW MONTHS.

J H KING

Denver, Colo.

DEC 7 1 37 PM '54

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D C.

DOCKET
Surname:

Martin
Selfridge
Johnson
Whitehorse

NSiRR

Interior Department
Defense Minerals Exploration
Administration
14X4401(01) Revolving Fund, Defense
Production Act, Interior
(Allocated Working Fund to the
Office of the Secretary)

T E L E T Y P E

To: W. H. King, Executive Officer
DMEA Field Team, Region IV
Denver, Colorado

Re Docket DMEA 3489 Tungsten, White Mountain Mining and Milling Co., Morning Star Mine, Pinal County, Arizona.

Please wire date of scheduled examination or summary of your recommendations if examination and review are completed.

George C. Selfridge
Chairman, Operating Committee

cc: DOCKET
CODE 400
FIELD TEAM, REG. IV
ADM. READ. FILE
OPER. COMMITTEE
R. W. GEEHAN, USBM
THOR KIILSGAARD, USGS

WSMartin/ls
12/6/54

SENT

White Mountain Mining & Milling Co.

McCONNELL SEPARATOR

Docket
Defense Minerals Exploration
RECEIVED
DEC 6 1954

2 December 1954

MILL LOCATION
CASA BONITA RD.
6 MI. S. E. OF ORACLE

MAIL ADDRESS
BOX 25
ORACLE, ARIZONA

Re: Docket DMEA 3489 Tungsten
Morning Star Mine
Pinal County, Arizona

U. S. Department of Interior
Defense Minerals Exploration Administration
Washington, D. C.

Attention: Mr. Frank E. Johnson
Acting Administrator

WSM

exam scheduled for November

Dear Sirs:

On behalf of the above company, I filed an application for a loan to carry on exploration at the Morning Star Mine. Your reply was prompt and we received excellent cooperation from all parties at the Tucson, Arizona, office. I wish to thank all parties for their efficient and prompt help.

We have built our mill; opened up the upper workings of the mine, and are now in production. Fortunately we have sufficient ore available for a long run. However, we hoped to open up the lower workings and explore that area, over to the hanging wall, in order to give us a comprehensive and definite picture of the whole layout.

We find, at present, we will not be in a position, financially, to carry out this exploration work since it would mean immediate expenditure of several thousand dollars on our part before returns could be expected from your department. We are entirely solvent and debt free. Due to heavy expenditures of the past few months, we feel we should not use our available capital at this time for exploration. We request that our application, if possible, be left open so that it may be resumed in the near future. Is this possible?

We wish to thank you and all your departments for your kind and efficient service. I regret that we are unable at present to go ahead on the set-up.

Very truly yours,

Daniel V. O'Flaherty

Daniel V. O'Flaherty

W. S. Martin

DVO'F:h

cc: Walter R. Storms, Chief
Mining Methods Branch
Mining Division, Region IV

DOCKET
SURNAME

400

Rutledge
Martin
Selfridge
Fishman

SEP 2 1954

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 3489 - Tungsten
White Mountain Mining & Milling Co.
Morning Star mine
Pinal County, Arizona

Dear Mr. King:

The above-docketed application for exploration assistance is being referred to your office for a field examination of the property.

Normally an application for exploration assistance in the amount requested, $15,000.00, would be referred to Region IV for processing under your delegated authority. However, the requested exploration is for new work at the site of a mutually terminated contract, Contract No. Idm-E370, Nikas Mining Company, under which a discovery was certified March 3, 1954. Therefore the subject application will be processed in the Washington office.

Two copies of a relevant memorandum dated September 22, 1954, by E. L. Newcomb, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge (by ESS)
Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FARutledge:foc 9-27-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. IV
R. W. Geehan, USBM
Thor H. Kiilsgaard, USGS

P.S. Also enclosed are two copies of memorandum dated September 16, 1954, by R. W. Geehan, Bureau of Mines.

9-29

Enclosure

400

DOCKET
SURNAME

Rutledge
Martin
Kilsgaard
Hedges
Selfridge
Johnson

DMEA

Mr. Daniel V. O'Flaherty
White Mountain Mining & Milling Co.
Box 25
Oracle, Arizona

Re: Docket No. DMEA 3489 - Tungsten
Morning Star mine
Pinal County, Arizona

Dear Mr. O'Flaherty:

The above-docketed application for exploration assistance has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. W. H. King, Executive Officer, DMEA Field Team, Region IV, 224 New Customhouse Building, Denver 2, Colorado, for a field examination of the property.

Any assistance that you can render the members of the Field Team will be appreciated.

In addition, it will be necessary for you to submit four copies of the lease or agreement by which you control the Morning Star mine. We will also need to receive one set of Owner's Consent to Lien forms executed by the owners and one set by the lessors. According to our records, Elizabeth L. Wook, Oracle, Arizona, and the Young Men's Christian Association, Tucson, Arizona, are co-owners, and the Nikas Mining Company, a partnership composed of Tom D. Callas, A. Nikas, John Gekas, John Paulos, and Monte Seymour, 1323 East 5th Street, Tucson, Arizona, is the lessor. In each instance, we will need six of the enclosed forms executed.

It should also be understood that as a result of the exploration completed under the contract with the Nikas Mining Company, Contract No. Idm-E370, a discovery was certified and consequently the Government has established a lien on all production from the property until the sum of $18,159.26 is repaid or July 18, 1962.

Section 10(e) of the enclosed DMEA Order - 1 Amended sets forth the terms on which repayment will be made to the Government by a percentage royalty on production.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

cc to: FT. REG.IV
R. W. Geehan, USBM
Thor H. Kilsgaard, USGS

EARUTIEDGE:foc 9-27-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.

e
9-29

Docket

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

September 22, 1954

Re: DMEA-3489
White Mountain Mining
and Milling Company
(Morning Star Mine)
Pinal Co., Arizona
$15,000 - Tungsten

WSM

Memorandum

To: W. S. Martin
Defense Minerals Exploration Administration

From: E. L. Newcomb
U. S. Geological Survey

Subject: Review of application

The applicant proposes to further explore this property with unexpended funds from the Nikas Mining Co. contract (Idm-E370) which was terminated June 30, 1953.

The White Mountain Mining and Milling Co. leased the property in June, 1954, and plans to begin active operations in the near future. The new operator has built a mill which he believes will handle the fine-grained, sulfide-contaminated ore from the Morning Star mine.

The Nikas Mining Co. contract provided for a two-stage project with a total cost of $59,200, but only one stage was completed and no work was done under Stage II. Results of Stage I work were favorable and work under Stage II would have been desirable.

According to the Field Team, the contract was terminated for one or more of the following reasons:

1) Disagreement among the five partners of the Company.

2) High cost of operation and unwillingness of partners to continue their financial support.

3) Operators' belief that sufficient ore had been proven to justify a small mill on the property.

Several ore reserve estimates have been made on basis of Stage I exploration. The Field Team considers 7,000 tons of indicated ore averaging 0.726% WO_3 and inferred reserves of 5,000 tons containing 0.605% WO_3 to be an accurate estimate of the present total reserves. About 900 tons of ore have been mined, as a result of the DMEA exploration, which yielded 2060 pounds of 63% WO_3 table concentrates and 17.5 tons of flotation concentrates containing 7.96% WO_3..

The proposed work requested by the White Mountain Mining and Milling Co. will explore favorable areas of mineralization. Also, this work is similar to the exploration suggested by the Field Team in their final report. Crosscuts A and B and raise D have the best chances for success. Crosscut C is less essential and should be deferred until results of A and B are evaluated. It is possible that the headings of B and C crosscuts should be driven on more southward or southeastward bearings.

Although we have considerable data available for our consideration of this application, the Field Team's comments should be obtained. For this reason, I recommend the application be referred to the Field Team. The McConnell separator and its reported success with "problem" ores (including Morning Star ore) should be investigated or commented upon by the Field Team.

E. L. Newcomb

E. L. Newcomb

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 20 1954

September 16, 1954

WSM

Isn't this the Reg IV story? after mines?

Memorandum

To: W. S. Martin, DMEA

From: R. W. Geehan

Subject: DMEA 3489 (2356)
White Mountain Mining and Milling Co.
Morning Star Mine
Pinal County, Arizona

It is recommended that this be submitted to the field team.

The exploration proposed does not cut the favorable areas indicated on the sections and on the overlay.

R.W. Geehan
R. W. Geehan

This is the one that takes a special letter referring it to FT. Would normally be Region 4 but because of royalty provisions wanted in contract we will write here.
We will hear from Survey too on this

copy retained 400

September 15, 1954

White Mountain Mining & Milling Co.
Box 25
Oracle, Arizona

Subject: DMEA-3489
Re: Exploration Assistance
Morning Star Mine

Gentlemen:

The receipt of your application dated September 9, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3489 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-3489 in any future correspondence relating to your application.

Sincerely yours,

White Mountain Mining & Milling Co.

McCONNELL SEPARATOR

DMEA-3489
Tungsten
$15,000

Department of the Interior
Defense Minerals Administration
RECEIVED
SEP 13 1954

MILL LOCATION
CASA BONITA RD.
6 MI. S. E. OF ORACLE

MAIL ADDRESS
BOX 25
ORACLE, ARIZONA

9 September 1954

Mr. C. O. Mittendorf
Defense Minerals Exploration Administration
Washington, D. C.

Dear Mr. Mittendorf:

Re: D.M.E.A. - 2356

An exploration loan of D.M.E.A.-2356 was made to the Nikas Mining Company of Tucson, Arizona, to carry on exploratory work at the Morning Star Mine, about six and a half miles southwest of Oracle, Arizona. Of the amount set up, they used approximately $18,000; as I understand it.

The money was used to sink an inclined shaft, on a 45° angle, approximately 100 feet, from which point they drifted, in the footwall, northeast and southwest. A raise was started (35 feet. See "D" on map; sheet #2) in ore and two drifts were started at right angles to the main drift on the 100-foot level. (See "A" and "C"; sheet #2) Both drifts were in ore.

They were inexperienced mining men and apparently knew nothing about $W.O_3$. They could not make the saving on the $W.O_3$ by flotation or water tables and consequently went broke.

The White Mountain Mining and Milling Co., a co-partnership, has taken over the property for operation. We have been on the property since June, 1954, and have cleaned it up, geologized it, and developed (at "E" on the map; sheet #2) a body that we are cross-cutting - 30 feet at present - of ore that will run about one to one and a half per cent. This was done on straight geology.

Our geologist is Byron W. Works, Chief Geologist for the Black Rock Mining Company (Wah Chang) of Bishop, California. He is tops on Scheelite. The attached maps are his. Some of the data on the area below the inclined shaft had to be taken from data furnished on the maps of the local engineers; but were checked, as closely as possible, from the surface workings, and he is satisfied that they are substantially correct in their conclusions and data.

The ore is problem ore for the greater part. The WO_3 is finely disseminated and hard to recover by conventional methods. The operators in the past have tried every method and their top recovery was about three to four tenths on one per cent, and better, ore. On one shipment Nikas made to Bishop, California, to a very good mill, the recovery was about .3 on one per cent ore. We picked up their tailings and recovered one-half per cent.

- continued -

White Mountain Mining & Milling Co.

McCONNELL SEPARATOR

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9 September 1954

Mr. C. O. Mittendorf

We have control of the McConnell separator, a dry process developed by David P. McConnell of Bishop, California. Thirteen years of experimentation have gone into the process. It is a success. We, for the past year and one half, have been cleaning up "bastard" concentrates for all the operators around Bishop, in Nevada and Arizona. We can do about anything with tungsten ores in the way of extraction from the original ore or taking the "foul" out of concentrates that are way below grade due to content of copper, lead, zinc, lime, silica, etc. Fine WO_3 in lime ores is a problem ore of first magnitude. We handle it perfectly. The Morning Star ore is a lime ore.

As a result of our testing and experimenting on this ore (we hauled tons to Bishop) and our certainty of recovery, we have built a model mill one mile from the mine, which is capable of handling 40 to 50 tons per day. We did this to show the mining fraternity what we can do with a recognized tough ore and to demonstrate the table that not only will do the job on tungsten ores, but also on mica, spar, manganese, monazite sands, and others that we have demonstrated on.

The White Mountain Mining & Milling Co. is operated by two of the general partners: David P. McConnell and Daniel V. O'Flaherty. Mr. David McConnell is the inventor of the separator. He is an expert mill man of long experience in California, as an operator of mills and properties. D. V. O'Flaherty, the undersigned, has been in the mining business since 1920. He has operated properties in the Mother Lode country near Caldor and San Andreas and also on the Green River at Vernal, Utah. Since the war, both McConnell and O'Flaherty have devoted their time and efforts to the tungsten field and inspected, checked and operated properties around the Bishop, California, area. The past year and a half has been devoted to demonstrating the McConnell separator on the toughest ore that could be found.

I give you this as background. We do know tungsten, and perhaps have had the opportunity of hearing about almost every problem connected with tungsten, for the producers who were up against a recovery problem, or an upgrading problem, all concentrated on us to solve the problem. Some were impossible, of course, but a vast majority of the problems were solved by us.

We feel, because of our experience with tungsten and mining, that the Morning Star Mine has great possibilities. That is why, after close checking, we built our mill at a cost, including equipment, of close to $50,000.

The surface workings of the past at this mine is an excellent demonstration of gophering. They grabbed ore where they could find it with no plan of development in mind. The shaft put down by Nikas Mining Co. has caved below

- continued -

White Mountain Mining & Milling Co.

McCONNELL SEPARATOR

MILL LOCATION
CASA BONITA RD.
6 MI. S. E. OF ORACLE

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9 September 1954

the 65 foot level. We want to clean it out, timber if necessary, and put the lower drift in working order.

Then we want to drift across at A, B, and C, to cross-cut ore shoots that we are certain we will contact in going from the footwall to the so-called hanging wall. Our overlay sheet shows this.

At "D" we wish to continue the raise (in ore) to the large stoped out area, giving us a second exit.

We estimate that we may have to timber from the 65 foot level in the shaft to the area along the drift at the bottom of the shaft. We expect the length to be timbered area will be about 140 feet. Once we break into the silicified area we will not, I am sure, have to use timber.

We feel that at "A" we will drift about 160 feet to cut the zones. On "B" we should drift, from the bottom of the shaft, approximately 220 feet. On "C" it would take 180 feet to the lime-quartzite contact. On "D" we can break through to the upper slope with about 60 feet of raise.

For the present, we feel that "A", "B", and "D" should be pushed to explore the area; "C" could be held up for the time being because we are going southwest into the softer footwall and we fear that would mean a timber job all the way.

These conclusions are based upon the geological formation. The strike of most of the showings is northeast to southwest. The dip is to the southwest. At "E" the 30 foot ore body goes down at 45°. Crossing this area with "A" and "B" should explore the area in general, and we feel certain will be a productive exploration.

We do not know what the disposition of the loan to the Nikas Mining Co. has been. If it has not been cancelled we would like to take it over or have it transferred to the White Mountain Mining & Milling Co. if that is possible. We estimate the cost of carrying out the proposed plan of exploration would be $15,000. This includes timbering. We understand we contribute twenty-five per cent of this.

The property has been checked and approved by your department and I expect all the preliminaries to the granting of a loan have been completed.

ask to expire of lease

In our lease from the Nikas Mining Co. we have provided that they pay back to your Department the $18,000 borrowed by them. We have set the lease percent up to cover that. At the time of making our lease, we did not contemplate a loan. However, since our mill and development work, to date,

- continued -

White Mountain Mining & Milling Co.

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have exceeded, somewhat, the budget set-up, we feel a loan for exploration would ease the situation in the area proposed to be explored.

We do not owe a dime on our layout. We work on our own money. I have talked with your engineers at the University of Arizona and find them very cooperative. They informed me of the procedure in this matter.

Trusting that your Department will give this request early consideration, and that we may hear from you soon, I am

Very truly yours,

Daniel V. O'Flaherty

Daniel V. O'Flaherty
White Mountain Mining & Milling Co.
Box 25
Oracle, Arizona

DVO'F:h

Enc. Maps (4 sets)

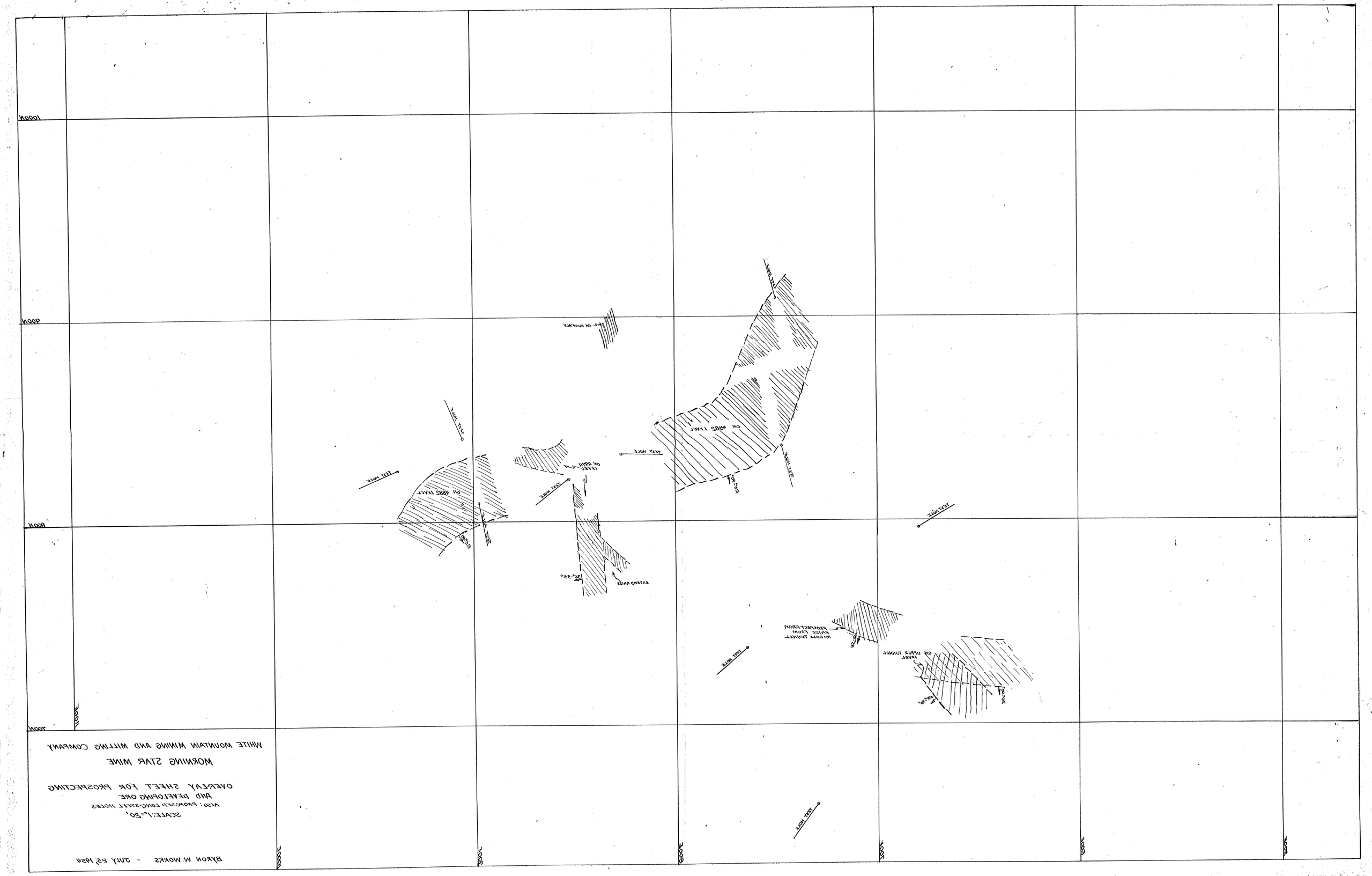
Note: Insertions in red cayon are mine.

BUREAU OF MINES
1201 NORTH DIVISION STREET
SPOKANE 2, WASHINGTON

OFFICIAL BUSINESS

1954

Contract Administration and Audit Division
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.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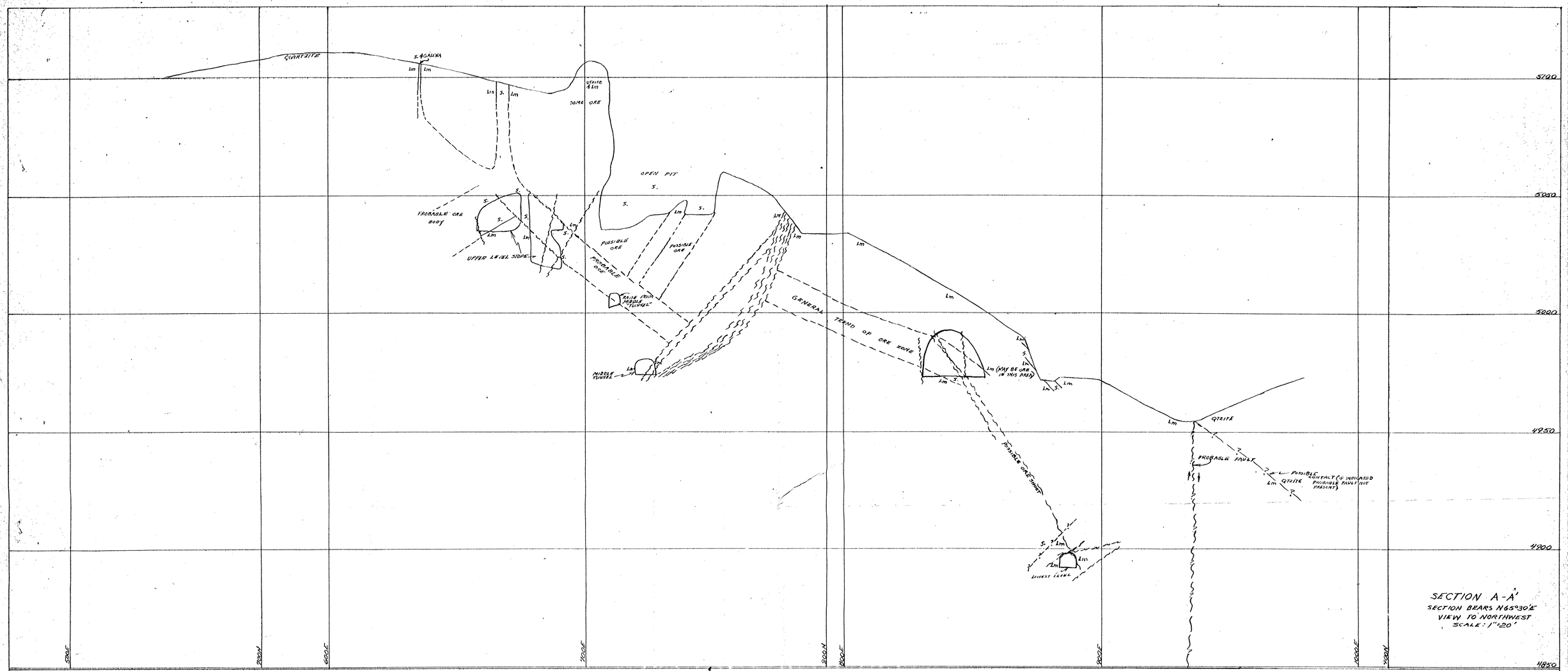
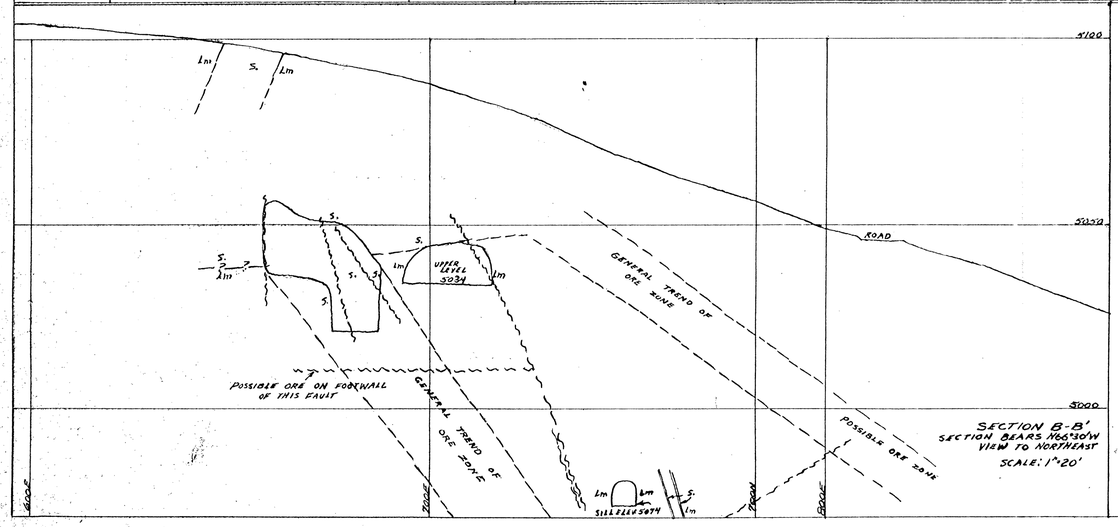


SECTION A-A'
SECTION BEARS N65°30'E
VIEW TO NORTHWEST
SCALE: 1"=20'



SECTION B-B'
SECTION BEARS N66°30'W
VIEW TO NORTHEAST
SCALE: 1"=20'

WHITE MOUNTAIN MINING AND MILLING COMPANY

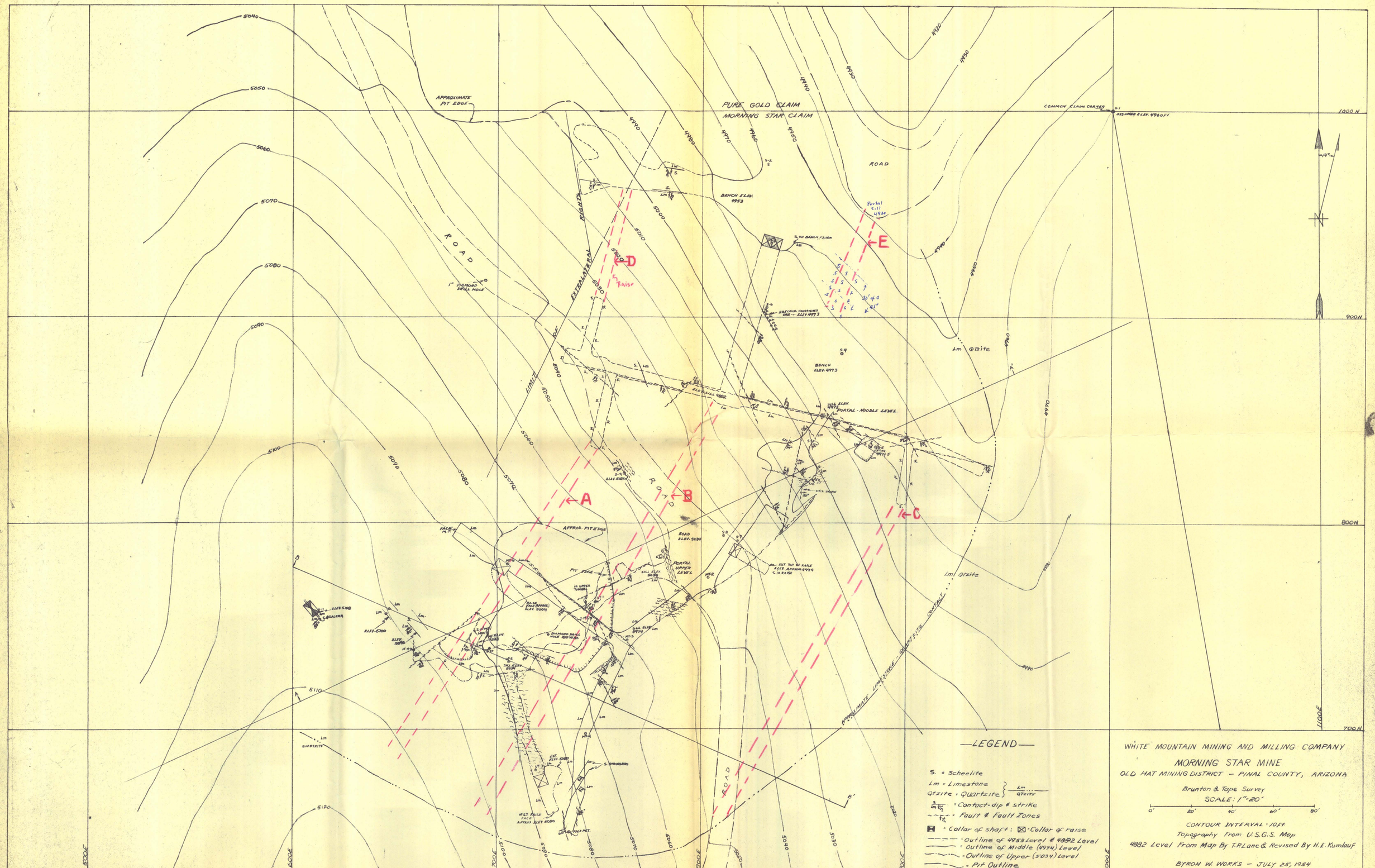
MORNING STAR MINE

OLD HAT MINING DISTRICT - PINAL COUNTY, ARIZONA

SECTIONS A-A' & B-B'

SCALE: 1"=20'

BYRON W. WORKS - JULY 25, 1954


PURE GOLD CLAIM
MORNING STAR CLAIM
APPROXIMATE PIT EDGE
ROAD
BENCH ELEV. 4953
BENCH ELEV. 4973
PORTAL - MIDDLE LEVEL
PORTAL UPPER LEVEL
Portal Sill 4936
Lm Qtzite
Lm QUARTZITE
APPROXIMATE LIMESTONE QUARTZITE CONTACT
LIMIT OF EXTRALATERAL RIGHTS
COMMON CLAIM CORNER
ASSUMED ELEV. 4960.5'
1000 N
900 N
800 N
700 N
5000 E
6000 E
7000 E
8000 E
9000 E
1000 E
A
B
C
D
E
LEGEND
S. = Scheelite
Lm = Limestone
Qtzite = Quartzite
= Contact dip & strike
= Fault & Fault Zones
= Collar of shaft ; = Collar of raise
= Outline of 4953 Level & 4882 Level
= Outline of Middle (4974) Level
= Outline of Upper (5034) Level
= Pit Outline
WHITE MOUNTAIN MINING AND MILLING COMPANY
MORNING STAR MINE
OLD HAT MINING DISTRICT - PINAL COUNTY, ARIZONA
Brunton & Tape Survey
SCALE: 1" = 20'
0' 20' 40' 60' 80'
CONTOUR INTERVAL = 10 ft
Topography from U.S.G.S. Map
4882 Level From Map By T.P. Lane & Revised By H.E. Kumlauf
BYRON W. WORKS - JULY 25, 1954

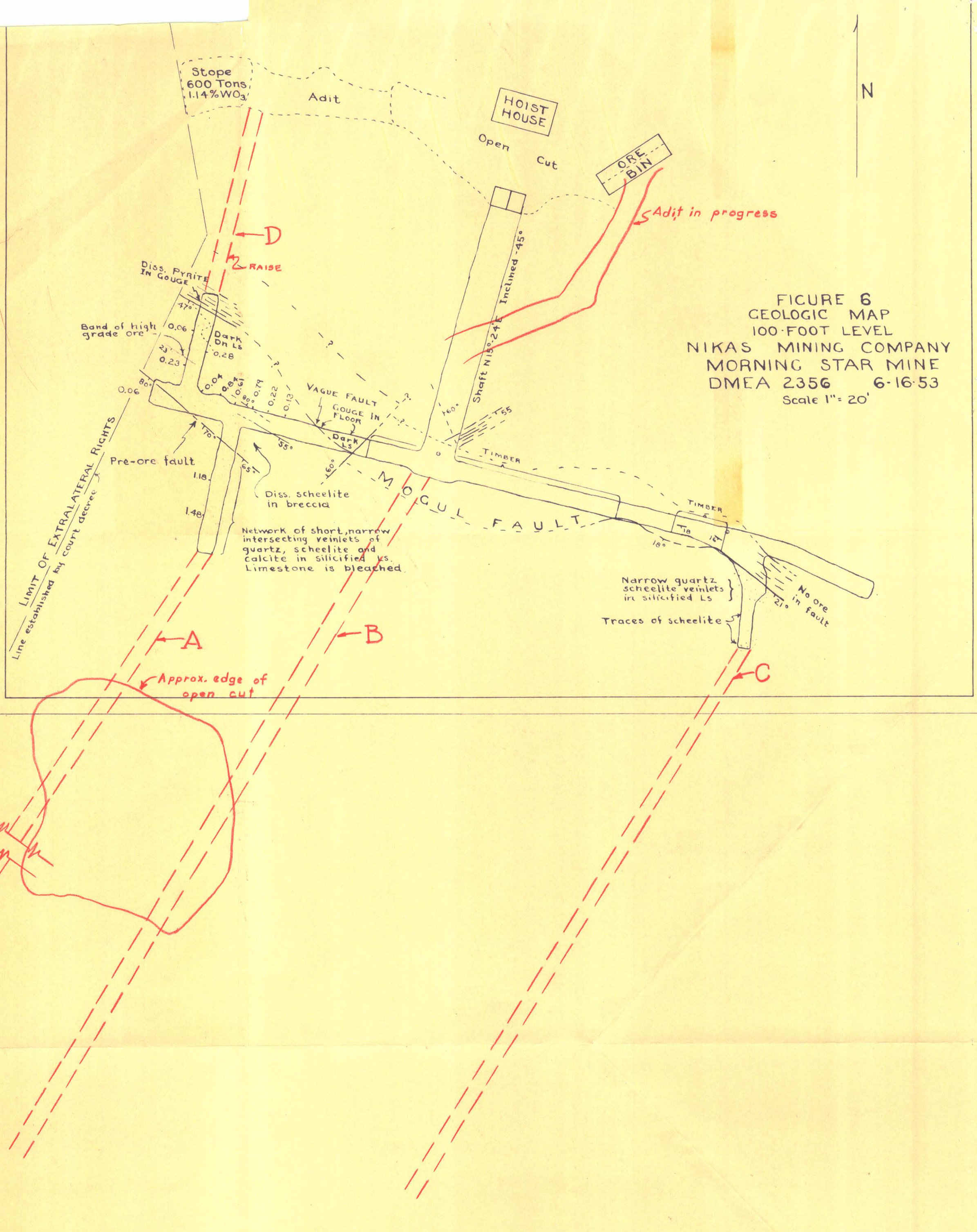
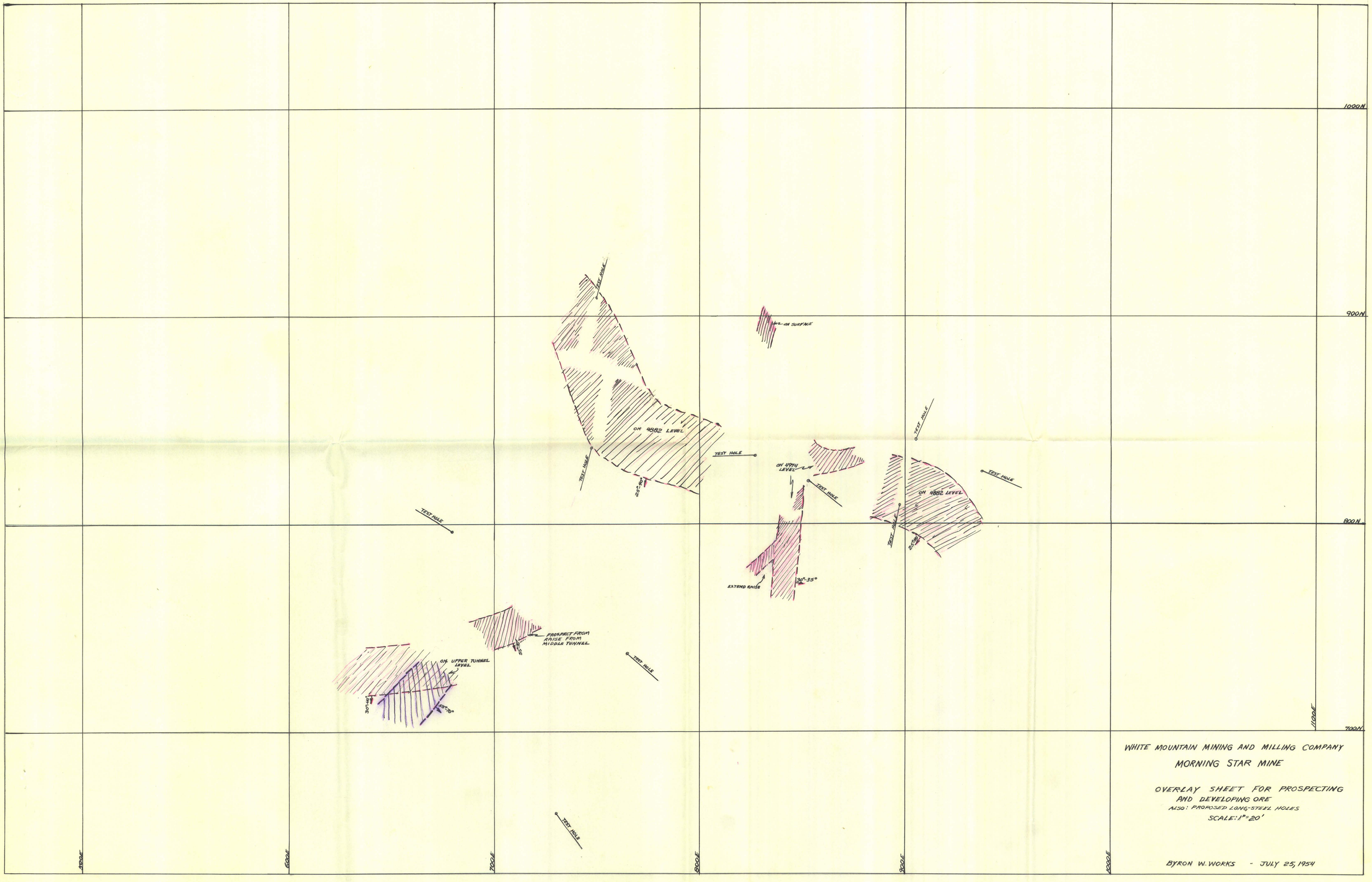
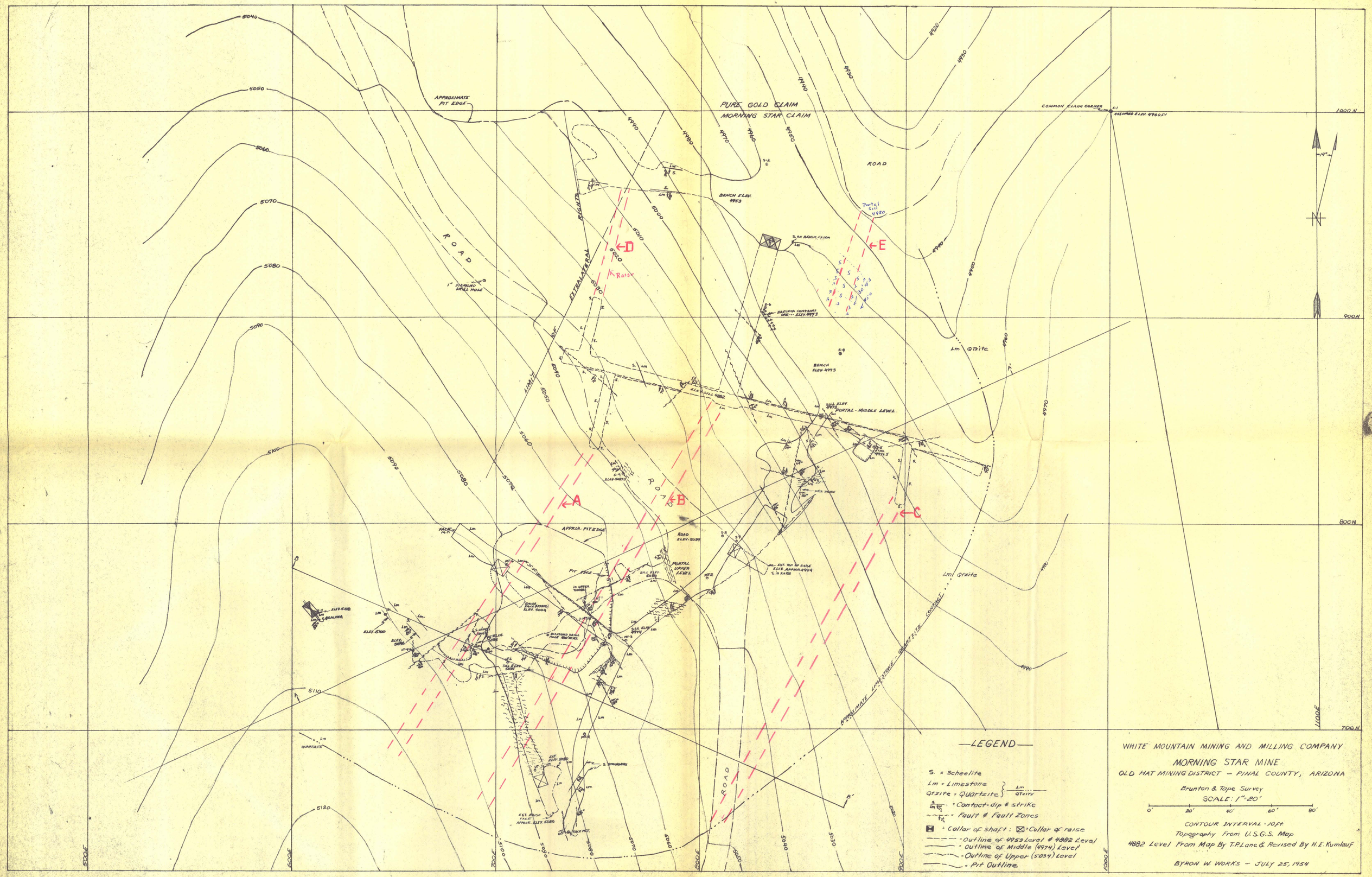


FIGURE 6
GEOLOGIC MAP
100-FOOT LEVEL
NIKAS MINING COMPANY
MORNING STAR MINE
DMEA 2356 6-16-53
Scale 1" = 20'


1000N
900N
800N
700N
600E
700E
800E
900E
1000E
1100E
TEST HOLE
ON 4882 LEVEL
ON SURFACE
ON 4974 LEVEL
EXTEND RAISE
30°-35°
PROSPECT FROM RAISE FROM MIDDLE TUNNEL
ON UPPER TUNNEL LEVEL
WHITE MOUNTAIN MINING AND MILLING COMPANY
MORNING STAR MINE
OVERLAY SHEET FOR PROSPECTING AND DEVELOPING ORE
ALSO: PROPOSED LONG-STEEL HOLES
SCALE: 1" = 20'
BYRON W. WORKS - JULY 25, 1954



—LEGEND—

S. = Scheelite

Lm = Limestone

Qtzite = Quartzite

Lm / Qtzite = Contact

= Contact - dip & strike

= Fault & Fault Zones

= Collar of shaft : = Collar of raise

= Outline of 4953 Level & 4882 Level

= Outline of Middle (4974) Level

= Outline of Upper (5034) Level

= Pit Outline

WHITE MOUNTAIN MINING AND MILLING COMPANY

MORNING STAR MINE

OLD HAT MINING DISTRICT – PINAL COUNTY, ARIZONA

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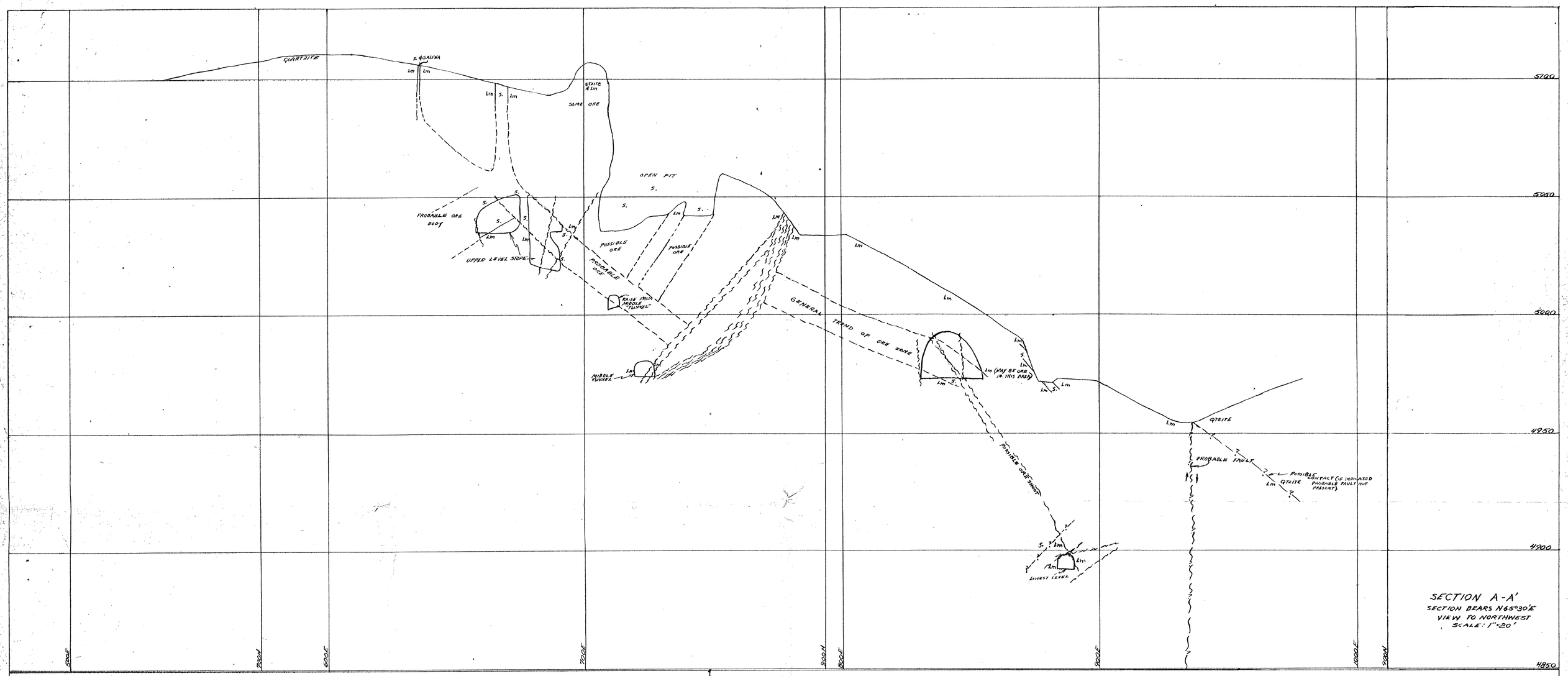

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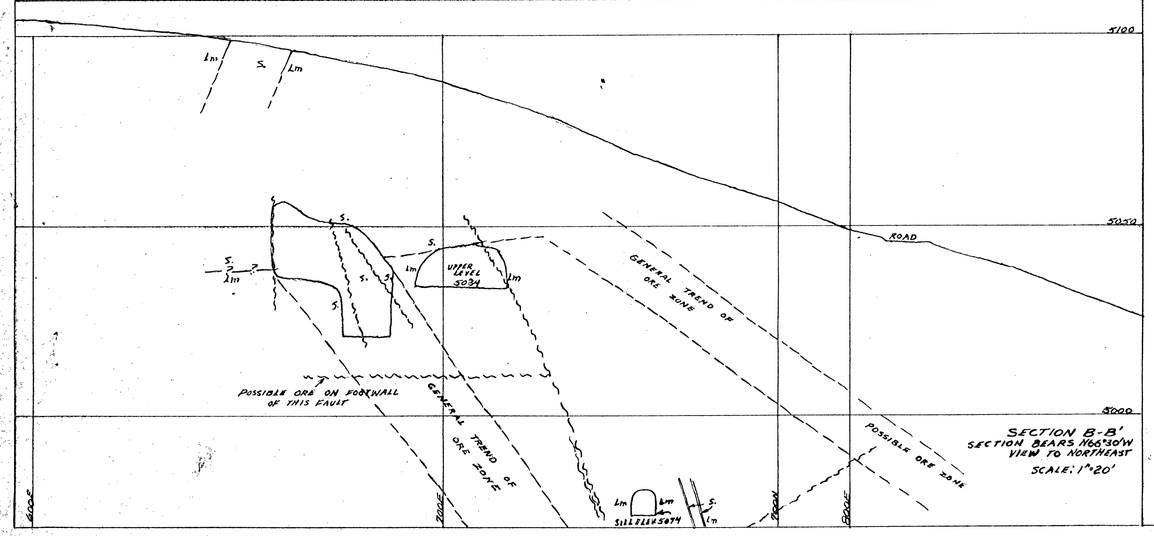


SECTION B-B'
SECTION BEARS N66°30'W
VIEW TO NORTHEAST
SCALE: 1"=20'

WHITE MOUNTAIN MINING AND MILLING COMPANY

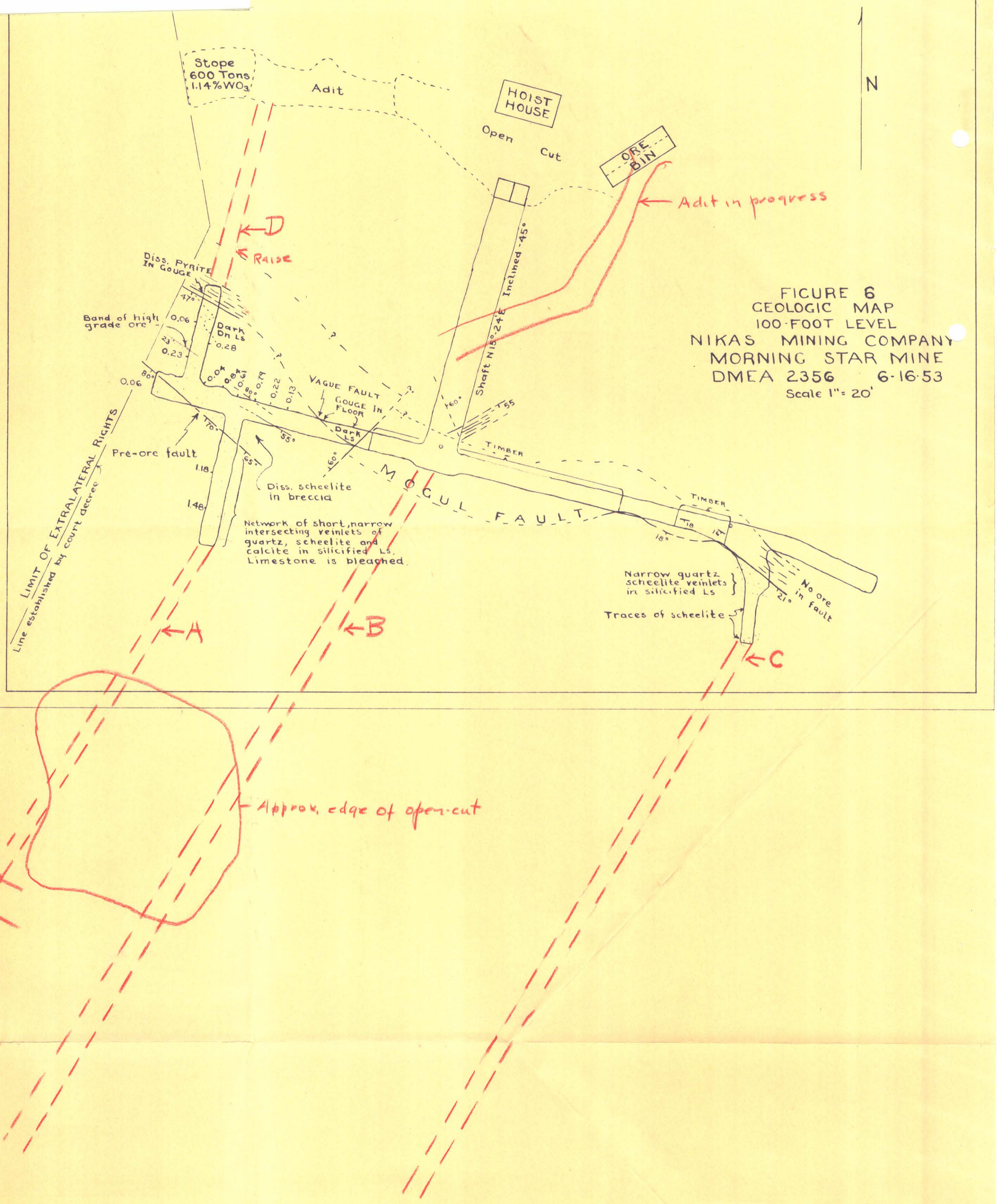
MORNING STAR MINE

OLD HAT MINING DISTRICT - PINAL COUNTY, ARIZONA

SECTIONS A-A' & B-B'

SCALE: 1"=20'

BYRON W. WORKS - JULY 25, 1954



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MORNING STAR MINE
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