DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4490

Application (Denied ✓
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
✓Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers

Right Side

Operator's Semi-Annual Report for Certified Project, Field Team Interim Reports, Operator's Monthly Report with transmittal, narrative, maps, and Field Team review.

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

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

RECEIVED
OCT - 4 1956

224 New Customhouse
Denver 2, Colorado

October 2, 1956

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid (molybdenum) Nye Mathews Mining, Inc. (Wilma-Nettie-Hazel et al claims) Gilpin County, Colorado

Enclosed are three copies of the subject application in the amount of $44,034.26. One copy of the application is being retained in our files.

This application appears to be based on a Geochemical survey entirely. Unless the Applicant can present more information than is included in this application, consideration might be given to a denial of the application without a field examination.

W. M. Traver

W. M. Traver

RECEIVED
OCT - 4 1956

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

MF-103
Application for aid in an exploration project, pursuant to DMEA Order 1, under the Defense Production Act of 1950, as amended.

NYE-MATHEWS MINING INC.

1. (a) Nye-Mathews Mining Inc.
Black Hawk, Colorado

(b) Corporation
State of Indiana

(c) Robert E. Nye, President
514 E. 20th Street, Apt. 1
Indianapolis, Indiana

Guy I. Burton, V. Pres.
453 S. Highschool Rd.
Indianapolis, Indiana

Donald A. O'Mara, Secty.
1523 28th Street
Columbus, Indiana

Arthur J. Pasmas, Sr., Treas.
2449 N. New Jersey Street
Indianapolis, Indiana

3. (a) Mining Lode Claims (Nos. 1-22) situated in Sections 15,16, 21, and 22, T 2 S, R 73 W of the 6th P.M.

(c) Owner

(e) None

(f)

Lode	Book	Page
Wilma No. 1	226	43
Wilma No. 2	226	42
Wilma No. 3	226	44
Wilma No. 4	226	46
Wilma No. 500	226	45
Nettie Hazel No. 6	226	47
Nettie Hazel No. 7	226	48
Nettie Hazel No. 8	226	49
Nine Lode	226	97
Ten Lode	226	96
Eleven Lode	226	95
Twelve Lode	226	94
Thirteen Lode	226	93
Fourteen Lode	226	92
Fifteen Lode	226	91
Sixteen Lode	226	90
Seventeen Lode	226	107
Eighteen Lode	226	108
Nineteen Lode	226	111
Twenty Lode	226	112
Twenty-One Lode	226	113
Twenty-Two Lode	226	114

4. (a) One 120-foot drift
One 30-foot shaft
Ten bulldozer cuts

Accessibility of mine workings good.

(b) None

4. Continued

(c) Vein and bedded Molybdenum

Map attached

We wish to explore to prove value of deposit

(d) Access roads--Highway 119 six miles north of Black Hawk.
Shipping point Rollinsville--five miles from mine.
Residence point: Apex

(e) Good

5. (a) Molybdenum

(b) Map attached

(c) Work will start immediately and will be completed approximately fifteen months from the date of an exploration project contract.

(d) Three years background.

6. (a) Labor contracted $12.00 per foot.
Drifts (1500 feet) $30.00 per foot.
Bulldozer work for road and portal $1,000.00.

(b)	Labor contract $12.00 per foot.	$18,000.00	$18,000.00
(c)	5 tons powder	$2,190.00	
	Fuses	480.00	
	Caps	220.50	
	Timber and Lumber	300.00	
	1400 feet 2" pipe	798.00	
	1400 feet 3/4" pipe	280.00	
	4 Tons 12 lb. rail	916.00	
	Fuel	2,000.00	
	Supervisor ($400.00 per mo.)	6,000.00	
	Ten 5-foot drill steels	199.00	
	Bulldozing Work	1,000.00	
	1450 Feet of Vent Pipe	252.00	$14,635.50
(d)	Compressor	$5,000.00	
	2 Mine cars at $195.00 ea	390.00	
	Complete Swede Machine	805.00	
	Complete Slusher	2,713.76	
	Fan and air motor (approximately)	300.00	
	Steel grinder	190.00	$ 9,398.76
(e)	None		
(f)	None		
(g)	Engineer to survey drifts etc.	$2,000.00	$ 2,000.00
(h)	None		

7. (a) Yes

(b)

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

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 10 1957

DATE	INITIALS	CODE
10/10	C	220
11	~~[illegible]~~	~~700~~
		225

October 9, 1957

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of supplemental memorandum from field examiners, DMEA 4490 (molybdenum), Nye-Mathews Mining, Inc., Wilma claims, Gilpin County, Colorado

In a supplement to their examination report the field examiners point out that the applicant wishes to drive a long, expensive crosscut as exploration work rather than do the more economical drilling from surface that the examining team recommend.

The examiners claim that the drilling would be much cheaper than the underground work and would do a good job of exploring the property. Drilling conditions on the property are described as good.

The applicant told the examining team that it was the stockholders' wish to drive the crosscut with or without Government assistance. I agree with the examiners that the drilling project would be preferable. Under the conditions it would, therefore, be best to deny the application without prejudice.

W. P. Williams

W. P. Williams

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/2	Murphy	700
"	Ellis	700
	Williams	130
	Yoo	
10/2	Selfridge	
"	Johnson	110
"	Mittendorf	100
10/3	B	220
		225

OCT 2 1957

Mr. Robert E. Nye, President
Nye-Mathews Mining, Inc.
Black Hawk, Colorado

Re: Docket No. DMEA-4490 (Molybdenum)
Wilma, et al., Claims
Gilpin County, Colorado

Dear Mr. Nye:

Your application for aid in an exploration project and other information available to us in Washington concerning your above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that the probability of disclosing significant ore reserves by your proposed exploration program is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied. Such denial, however, is made without prejudice to the property. If in the future you should again wish to request exploration aid, please do so by filing a new application and referring to the above-referenced docket.

We wish to thank you for your interest in the Defense Minerals Exploration Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

fMMurphy/gla
10-2-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, Rm. 5224
Mr. Murphy, Code 700
DMEA Field Team, Region III (2)

8623

DOCKET COPY

Murphy
Ellis

October 1, 1957

Summary of Proposed Project

Object:	Denial without prejudice of application for exploration aid.
Docket No.:	DMEA-4490
Commodity:	Molybdenum
Amount of application:	$44,034.26
Applicant:	Nye-Mathews Mining, Inc. Black Hawk, Colorado
Property:	Owner by location of Wilma, et al. claims comprising 22 lode claims in unsurveyed and approximate secs. 15, 16, 21, and 22, T. 2 S., R. 73 W., 6th P.M., in the Apex mining district of Gilpin County, Colorado.
Date of application:	September 17, 1956.
Referred to Region III:	November 5, 1956, after receiving additional data requested.
Field examination made:	July 1, 1957. Property was inaccessible prior to late June because of snow conditions.
Field Team Report recd.:	September 9, 1957, recommending drilling contract.
Applicant's letter:	September 5, 1957, advising that the drilling program did not meet with the company's approval and that it was going ahead at this time with the 1500-foot crosscut tunnel proposed in the application; also, that it would still like to apply for assistance on the adit.
Supplementary Field Team Report recd.:	September 23, 1957, recommending the application be denied without prejudice.

Excerpts from Field Team reports:

The claims are on Dakota Hill about 3/4 air mile east of the town of Apex. Altitudes in the vicinity range from 9,858 feet atApex to 10,944 feet atop Dakota Hill.

The claims are underlain by Precambrian rocks of the Idaho Springs formation, Precambrian quartz monzonite gneiss, and Tertiary (Eocene ?) quartz monzonite. Molybdenite is associated with pyrite and quartz in a series of northeast-trending fractures and shear zones that cut the Precambrian and Tertiary rocks.

The claims have been explored by several shallow pits and trenches, a 130-foot adit, and a shallow shaft. Samples of the silicified molybdenum-bearing portion of the shear zones exposed contain as much as 6% MoS_2 and minor amounts (generally less than 0.1%) of oxide molybdenum. A character sample taken from the dump of a small shaft on theWilma No. 1 claim contained 3.9% MoS_2.

The area with the best potential appears to be on Wilma 500 claim where at least three molybdenite-bearing shear zones about 20 feet apart are exposed in two parallel trenches. It is possible that this area contains veins of sufficient width to be considered significant or that narrow veins will be close enough together to constitute a modest size low-grade deposit. The deposit does not appear to be another "Climax," as postulated by the Applicant, because of the almost complete lack of alteration between the shear zones in contrast to the highly altered and silicified molybdenum-bearing rock characteristic of the Climax deposit.

The Field Team recommended a two-stage drilling project; the first stage to consist of 4 BX core holes, each 500 feet in depth on -45° inclination. The holes would be at 200-foot intervals with alternate holes drilled from staggered locations, parallel and toward each other, so that the bottoms of the holes would cut through the MoS_2-bearing zones exposed in the trenches on Wilma No. 500 claim.

Stage II would consist of 6,000 feet of additional drilling. The cost of Stage I was estimated at $13,376.00 and Stage II at $39,708.00, for a total of $53,084.00.

The basic difference between the Applicant and examining team is the method of exploration. The drilling in Stage I (above) was designed to adequately explore a target 600 feet square to a depth of 350 feet. In contrast, the Applicant's proposed 1500-foot adit (actually 1800 feet to reach the target area) could not be staged.

The Applicant's engineer stated that since the rock in the area was broken core recovery would be poor, and because of fissures drilling water would be lost, resulting in no sludge recovery. The examining team does not agree with the engineer and states that good core and sludge recovery has been obtained from similar rocks in the Front Range Mineral Belt.

In a recent discussion with the examining team, Mr. Nye, president, said that he concurred with many of the team's opinions but that it was the wish of the stockholders to proceed immediately with the adit--with or without Government assistance. The examining team, therefore, recommended that the application be denied without prejudice and that the Applicant be informed that upon completion of the crosscut adit an application to explore the target area on Wilma No. 500 claim from that adit would received consideration.

NOTE: The map submitted with the Field Team's September 23 report shows the face of the adit at completion will be 900-1500 feet north of the favorable target area the DMEA examining team proposed to explore.

Commodity Members' Comments (excerpts):

U. S. Bureau of Mines, Wilmer McInnis, September 17, 1957.

Agrees with the examiners that drilling in stages would be preferable to crosscutting; and again on September 26, 1957, Mr. McInnis forwarded a memorandum to Mr. Ellis in which he concurred in the recommendation submitted by the examiners that the application be denied.

U. S. Geological Survey.

In a telephone conversation on October 1, 1957, with F. M. Murphy, Mr. W. P. Williams stated that he concurred in the Field Team's recommendation to deny the subject application and that he would confirm this later in writing.

Division of Rare and Miscellaneous Metals,
F. M. Murphy, October 2, 1957

The field examiners proposed drilling in Stage I to explore the most favorable target area exposed to date on the claims appears to be more practical than the Applicant's proposed 1500-foot crosscut tunnel. If successful, then Stage II drilling could extend the favorable area or the contract could be amended to allow some adit work if it appeared to be warranted.

Conclusion and Recommendations:

Since the Applicant does not wish to explore the subject claims by drilling and proposes to go ahead with the 1500-foot adit without Government aid, this Division concurs with the field examiners and the Field Team that application DMEA-4490 should be denied without prejudice.

Ernest Wm. Ellis

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

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

September 26, 1957

Memorandum

To: E. W. Ellis, Chief, Rare and Miscellaneous Metals Division-DMEA

Through: Acting Chief, Branch of Ferrous Metals and Ferroalloys Jcott

From: Wilmer McInnis, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Field Team Memorandum of September 17
Docket No. DMEA-4490 (Molybdenum)
Nye-Mathews Mining, Inc. (Wilma et al. claims)
Gilpin County, Colorado

In view of subject firms determination to drive a long crosscut without Government assistance, I concur with the Field Team's recommendation that the application be denied without prejudice.

Wilmer McInnis
Wilmer McInnis

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RECEIVED SEP 27 1957

DATE	INITIALS	CODE
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"	FMM	700

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

September 18, 1957

OFFICIAL FILE COPY DMEA RECEIVED SEP 23 1957		
DATE		CODE
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	ey	130
9/30	CJ	220
"	FMM	700

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4490 (Molybdenum) Nye-Mathews Mining, Inc., (Wilma et al claims) Gilpin County, Colorado

Enclosed are the original and two copies of a joint supplemental memorandum from the field examiners, recommending that the subject application be denied without prejudice. We concur in this recommendation.

Also enclosed is the only copy submitted by the applicant of the report on the Nye-Mathews Mining property, by W. F. Moenke.

J. W. Townsend

J. W. Townsend

Enclosures

Dupl. Report

Reviewed by
DMEA OPERATING COMMITTEE
9/27/57
(date)

IN REPLY REFER TO:

OFFICIAL FILE COPY DMEA RECEIVED SEP 23 1957		
DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

September 17, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: C. M. Harrer
E. N. Harshman

Subject: DMEA Docket 4490 (Molybdenum) Nye-Mathews Mining, Inc. (Wilma et al. claims), Gilpin County, Colorado

By a letter of September 5, 1957, Robert E. Nye, President of Nye-Mathews Mining, Inc., notified the Field Team, Region III, that the program of exploration by diamond drilling tentatively agreed upon on July 8, 1957, was not satisfactory to the company and that the company was proceeding with the 1,500-foot crosscut proposed in their application, without Government assistance. Accompanying the September 5th letter was a single copy of a report on their property by W. F. Moenke, engineer, of Denver, Colorado.

The basic disagreement between the Applicant, supported by the Moenke report, and the examining team, is the method of exploration of the property; the examining team proposes a staged program of drilling and the applicant proposes a long crosscut. The target is an area on the 500 claim believed by the applicant to be underlain by a large low-grade deposit of molybdenum ore and thought by the examining team possibly to contain sufficient molybdenum concentrated along closely spaced silicified shear zones to constitute low-grade ore.

For reasons given in the examination report the examining team believes that exploration methods employed should be such that a preliminary appraisal of the target area can be made at a low cost. Stage I of the examining team's drilling proposal will adequately explore the "heart" of the target area (an area 600 feet square) to a depth of 350 feet. The cost of Stage I is approximately $13,500. In contrast, the work proposed by the applicant and recommended in the Moenke report cannot be staged and will involve

Reviewed by
DMEA OPERATING COMMITTEE
9/27/57
(date)

approximately 1,800[1/] feet of crosscutting to reach the target area. The cost of the crosscut is estimated, at $40 per foot, to be about $72,000 and neither the applicant nor engineer Moenke have provided for exploration once the target area is reached.

Below the zone of surface weathering there is very little hydrothermal alteration of the wall rocks and the examining team believes that good core and sludge recovery may be expected from holes drilled on the property. Good recovery has been obtained from drilling projects in similar rocks in the Front Range Mineral Belt.

The Moenke report emphasizes the importance of secondary targets, both known and unknown, and rather glowing prospects of large ore bodies are pictured. It should be pointed out that the future of the property, in the opinion of the applicant and the examining team, depends on developments in the Wilma 500 claim area not on the ore potential of minor fractures which may or may not be exposed in the crosscut. Furthermore, the Tunnel vein, the only known vein that might be cut in the company proposed crosscut, can adequately be explored by extending the present drift northward beneath the crest of Dakota Hill.

In recent, very amiable discussions with Mr. Nye, President of Nye-Mathews Mining, Inc., he concurred with many of the examining team's opinions but stated that it was the wish of the stockholders to proceed immediately with the long crosscut--with or without Government assistance. This being the case the examining team recommends that the application be denied without prejudice and that the applicant be notified that upon completion of the crosscut an application to explore the target area from that crosscut would receive consideration.

1/ Although a 1,500-foot crosscut is proposed by the applicant and recommended in the Moenke report, the longitudinal section accompanying the Moenke report shows the crosscut to be 1,700 feet long. Also note that the target area is incorrectly shown on the Moenke map to be on Wilma No. 3 claim instead of the Wilma 500 claim. The actual distance from the proposed portal site to the target area on the Wilma 500 claim is therefore about 1,800 feet.

H. M. Evans
for C. M. Harrer
Mining Engineer

E. N. Harshman
E. N. Harshman
Member, Field Team

Nye - Mathews Mining, Incorporated

(An Indiana Corporation)

Black Hawk, Colorado

Robert E. Nye
President

Roy C. Mathews
Secretary

September 5, 1957

DMEA
PARTMENT OF THE INTERIOR
SEP 6 - 1957
REGION III
DENVER, COLORADO

U.S. Department of the Interior,
Defense Minerals Exploration Administration,
224 New Customhouse,
Denver 2, Colorado.

Attn: E. M. Harshman
Acting Exec. Officer
DMEA Field Team, Region III

Dear Mr. Harshman:

The core drilling program tentatively discussed with you does not meet with the company's approval.

We are therefore going ahead at this time with the 1500' cross cut tunnel.

We are submitting the engineer's report and still would like to apply for assistance on the 1500' adit.

Very truly yours,
NYE-MATHEWS MINING, INC.

Robert E. Nye

Robert E. Nye
President

REN/bgn

REPORT ON THE
NYE-MATHEWS MOLYBDENITE MINING PROPERTY
APEX MINING DISTRICT---GILPIN COUNTY, COLORADO

DMEA
DEPARTMENT OF THE INTERIOR
SEP 6 - 1957
REGION III
DENVER, COLORADO

1. Location:

The property is located in Sections 15, 16, 21 and 22, T2S-R73W, approximately one mile due east of Apex, Colorado. Apex is an old abandoned mining town but sufficient houses are available for a fair sized crew of miners. Apex is about 45 miles from Denver and 8 miles from Blackhawk. The property is located on Dakota Mountain, the highest point being about 10,930 feet above sea level. The elevation of Apex is 9,858 feet.

2. Property:

The property consists of 22-600X1500 feet, unpatented mining claims, amounting to approximately 431 acres. All are properly recorded in Gilpin County records at Central City.

3. Improvements:

A tunnel, 125 feet in length, has been driven on claim No. 3 on one of the numerous veins on the property. Considerable bull dozing has been done to expose veins and a graded road has been built to the above mentioned tunnel. The detail of the tunnel is shown on the attached map.

4. Markets:

All mining equipment and supplies are obtainable in Denver.

5. Timber, Water and Power:

Mine timbers are available on the property and dimension lumber can be obtained locally from the nearby towns. Water sufficient for all mining purposes can probably be obtained from the mine workings. Water for concentrating mill can be furnished from Pine Creek at Apex. Diesel or gasoline power will be the most convenient and economical at the beginning of mining operations.

6. Geology:

This area has been thoroughly geologized by the U. S. Government and more detail than will be given in this report can be obtained by consulting the following reports available in the Denver public library:

Professional Paper #94 by E. S. Bastin, 1914, and Professional Paper #223 by T. S. Lovering, 1950.

Briefly, the rocks covered by this Nye-Mathews area consists of the following:

see map in packet

Granite gneiss covers the eastern half and monzonite porphyry the western half. Both rocks are the best for making veins as they are very brittle. The entire Central City mining area is granite gneiss and monzonite porphyry is one of the best host rocks in the Rocky Mountain mining districts.

Idaho Springs schist is found in small islands adjoining the granite gneiss and monzonite prophry and, while it is a very poor host rock for veins, it is very important to dam up the mineral solutions in the veins in gneiss and porphyry and thus concentrate the ores in the veins such as are found in this area. Host rocks found in the area in question have proven to be the best in Colorado to make long and strong veins and there is no geological reason why they should prove otherwise in this ground.

7. Veins and Ores:

shear zones veins - no by no means proven

The veins in this area where noted near the surface are about 4 feet in width and from a few hundred feet to several thousand feet in length. At depth they will probably narrow up but explorations to date does not reveal just what can be expected. However, the veins will probably follow the pattern of other veins in this area where they narrow up and widen out, depending upon the direction and dips of the veins. The dips are vertical to 75 degrees in the tunnel vein on claim #3 and usually the dips flatten out with depth to pattern after the veins the world over. The direction of the main veins is northeasterly but others run north and south while still others run northwesterly making the intersections where usually the best and most ores are found. To date, no such intersections of veins have been explored but the fact that such intersections will be found is quite evident from surface inspection of the property. Bulldozing the surface has shown the typical veins to be as presented on the map. The bulldozing on the 300 claim shows a large lowgrade body of ore about 100 feet in width, a composite sample of which gave 1.98% MoS2. This body of ore is opened in two cuts about 100 feet apart. The bearing of this deposit is northeasterly and just how far down this 100 feet width will extend will have to be proven by deeper workings in the future. Here it should be mentioned that the large Blackhawk breccia reef which extends from Clear Creek and U. S. Highway #6 and running northeasterly for 10 miles just east of Blackhawk, ends abruptly in the Nye-Mathews ground by feathering out like a broom thus causing much crushed ground. The Blackhawk reef, like ten similar reefs east of this area, were the channels along which the mineralizing solutions migrated and deposited the ores in veins such as found on the ground in question. This is a very favorable geological condition for this area.

of the higher grade portions

last trace of reef 1½ to 2 miles SE of property

The veins so far found on the ground are as shown on the map. They are well and reliably indicated by the geo-chemical soil sample work as outlined on the map. The bulldozing proved the soil survey work in many places and much reliability can be placed on the soil survey work where not opened by bulldozer. No doubt there are many veins that are not visible on surface but will be discovered by underground mining. Surface evidence such as sink holes and springs, which can be noted in this area show intersections of veins and these intersections will make larger bodies of ore than shown and opened up in the tunnel on #3 claim.

records

why?

GHH

Values of the ores are best ascertained from the longitudinal section as shown on the map. With a concentrating mill values as low as .4% MoS2 can be mined in large quantities. The Climax mine has mined 0.7% for many years and information is they are now mining and milling ore of lower grade at the present time.

CONCLUSIONS AND RECOMMENDATIONS:

The tunnel on #3 claim and bulldozing at the points indicated by the geo-chemical soil survey has given this property a very definite value. Here, I must mention that the exploratory work and the order in which it was done was a very smart and intelligent piece of work. In my experience of 40 years of mining engineering and geological work, the owners generally do their mining without technical help. The results in most cases are disastrous and technical advice is sought after the work is done and money is spent. This has not been the case with this property and I want to commend the parties concerned for a job well done to date. OK

The next move is to proceed in a business-like manner to the point where ore can be mined and a mill considered once enough ore has been proven to make the operation profitable. OK

To date, the only ore actually proven is that found in the tunnel on claim #3. My estimate is shown on the longitudinal section on the map. While the 2,000 tons estimated is not proven until undercut by the tunnel up to the point below the upper cut, in this case it is fairly safe to estimate it as proven. NO Using a 4% MoS2 amounting to 80 pounds per ton and 2,000 ton, $1.18 per pound of contained Molybdenum, the total value for the 2,000 tons amounts to approximately $114,000.00. However, since it will be necessary to concentrate this ore, it is recommended that the property be prepared for a large reserve of ore for milling. Here, I want to mention that diamond drilling is not recommended because the veins seem to be badly decomposed causing the vein matter to become broken up which cannot be recovered in the drill cores. The drill water becomes lost, hence not even sludge from the drillings could be obtained. In my opinion diamond drilling this ground would be a waste of time and money for the reasons above given. not all true

It appears, the evidence so far has demonstrated that good high grade ores exist in fairly large quantities, and this is just a sample to show how fast ore can be developed. The tunnel vein will be more than 2,000 feet in length. A crosscut tunnel should be driven from a lower elevation as shown on the map. This crosscut will intersect the tunnel vein at about 600 feet and the shaft vein at about 300 feet. To reach the large low grade deposit as exposed by the bulldozer on 500 claim it will take 1,500 feet of crosscutting. However, in my opinion you will have plenty of ore for considering a mill when you reach the tunnel vein. To extend the 1,500 feet crosscut can be left for a later date. The depth over the crosscut at the tunnel vein will be 175 feet, amounting to 23,000 tons and using 4 foot vein, 500 feet in length and 175 feet average height. Further, the shaft vein can be considered as a possible source of ore, as well as veins not visible on surface. NO

In this [illegible] the tunnel vein becomes the principal target. Why not continue the present shaft since backs of over 100 feet can be extended [illegible] the [illegible] above the [illegible]

The amount of ore that should be proven will depend upon the size of mill to be considered which is something for the future. The proper procedure is to develop enough ore for a hundred ton per 24 hour mill and then add to the mill at a later date as conditions dictate. This way you will get returns sooner and not invest more original money than is necessary.

While driving the crosscut and a vein of ore is encountered which looks promising, the veins should be explored immediately. This will shorten the time to develop ore reserves as well as the time for consideration of a mill.

A hundred ton mill to concentrate MoS2 is estimated to cost not more than $175,000.00, using the highest class of new equipment. It can be installed near Apex.

The tunnel at lower level should be started at once as it can be worked during the coming winter. However, consideration should also be given to mine the ore in the tunnel on claim #3. It seems that if 4% ore with a value of about $56.00 per ton can be mined or even ore at a lower value, investigations should be made if this ore cannot be sold to Climax Molybdenum Co. at Climax. The mining costs would probably be about $10.00 per ton under the conditions, hauling to Climax $10.00 and cost of milling not to exceed $5.00 per ton, making a total of $25.00 for all costs. This would leave a handsome profit on the 4% ore.

The Wah Chang Co. has a tungsten mill 6 miles west of Boulder and 30 miles from this property. Investigations should be made if Wah Chang is willing to mill this ore. They have the proper equipment to mill MoS2 ore.

By mining the ore in this tunnel at the same time the main proposed tunnel at lower level is driven more information will be gained on just how the ore holds up for a longer distance than opened at present. I feel certain that the characteristics of this vein will give information for all other veins in this area. A small portable compressor and jack leg drill is all that is needed because the other equipment is on the job. I do not suggest to mine here during the winter. It would be a good experiment for several months to demonstrate the feasibility of selling this high grade ore without concentrating. It could be a valuable experiment whereby ore could be sold directly in a short time, help defray expenses driving the main 1,500 foot crosscut and, if successful economically, it could possibly help paying for a mill. This will require more study and is mentioned at this time so that there will be no delay in getting the information.

In conclusion, the Nye-Mathews property has all the earmarks of making a successful venture. The past exploration work has been well done and, if the same close attention in a business manner is applied to the future work, there is no reason why the property cannot be economically successful.

Respectfully submitted,

W. F. Moenke

W. F. Moenke, E. M.

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

September 17, 1957

Memorandum

To: E. W. Ellis, Chief, Rare and Miscellaneous Metals Division-DMEA

Through: Chief, Branch of Ferrous Metals and Ferroalloys

From: Wilmer McInnis, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Field Team Report
Docket No. DMEA-4490 (Molybdenum)
Nye-Mathews Mining, Inc. (Wilma et al. claims)
Gilpin County, Colorado

The Field Team report of September 4 states that the molybdenite-bearing veins are separated by barren country rock and that at best the deposit will consist of closely spaced, well defined veins. Therefore, I concur with the Field Team in that a modest drilling program appears to be preferable to crosscutting because it would probably be equally as effective in proving or disproving the commercial value of the deposit and at much lower cost.

It is estimated that known domestic commercial reserves (including byproduct) of molybdenum are on the order of 3 billion pounds of which over half are in the Climax deposit. Although these reserves are substantial, it should be borne in mind that known reserves outside of the United States are exceedingly small, and if demand for domestically produced molybdenum continues to increase as it has over the past few years domestic reserves of this highly strategic commodity may be depleted in about 25 to 30 years. Therefore, the need for additional molybdenum reserves should receive serious consideration.

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"	FMM	700

Wilmer McInnis

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

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9-17	C	220
"	Murphy	700

September 9, 1957

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4490 (Molybdenum), Nye-Mathews Mining, Inc. (Wilma et al. claims), Gilpin County, Colorado

Enclosed are the original and two copies of a joint report of examination on the subject property by C. M. Harrer, U. S. Bureau of Mines, and E. N. Harshman, U. S. Geological Survey.

The field examiners conclude that some exploration is warranted and propose a modest program of diamond drilling in lieu of the extensive program of crosscutting proposed by the applicant.

We have today received a letter from the applicant stating that the program of diamond drilling tentatively agreed upon is not considered satisfactory to the company and that if the Government will not participate in the crosscut, the company will proceed without Government assistance.

A supplemental memorandum discussing the two methods of exploration will be forwarded at an early date. It now appears that denial of the application for crosscutting will be recommended.

ON-SITE EXAM.

E. N. Harshman

E. N. Harshman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-16-57
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
DEPARTMENT OF THE INTERIOR
SEP 6 - 1957
REGION III
DENVER, COLORADO

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

September 6, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

TRANSMITTED
SEP 9 1957

From: E. N. Harshman
C. M. Harrer

Subject: DMEA Docket 4490 (Molybdenum), Nye-Mathews Mining, Inc. (Wilma et al. claims) Gilpin County, Colorado

Enclosed are the original and seven copies of a joint geologic and engineering report on the subject property, in which it is recommended that exploration by diamond drilling be approved.

Several attempts, both by the Executive Officer and the examining team, have been made to contact Mr. Nye in regard to the submission of bids for the drilling program tentatively agreed to by the applicant. These attempts have been unsuccessful and the accompanying report has been prepared using a estimated cost of $6.00 per foot for diamond core drilling.

Preparation of a contract for the proposed work should await receipt of bids from the applicant.

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E. N. Harshman
E. N. Harshman
Member, Field Team

C. M. Harrer
C. M. Harrer
Mining Engineer

Reviewed by
DMEA OPERATING COMMITTEE
9-16-57
(date)

Enclosures (8)
ENHarshman:mp

FOR UNITED STATES GOVERNMENT USE ONLY

TRANSMITTED

SEP 9 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

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DMEA 4490

Nye-Mathews Mining, Inc.

Wilma et al. claims

Gilpin County, Colorado

Molybdenum

Joint Engineering and Geologic Report

by

E. N. Harshman, Geologist
Geological Survey

C. M. Harrer, Mining Engineer
Bureau of Mines

September 4, 1957

Reviewed by
DMEA OPERATING COMMITTEE
9-16-57
(date)

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DMEA 4490

NYE-MATHEWS MINING, INC.
WILMA et al. CLAIMS
GILPIN COUNTY, COLORADO

INTRODUCTION AND SUMMARY

Nye-Mathews Mining, Inc., of 514 East 20th Street, Indianapolis, Indiana, and Black Hawk, Colorado, applied for Defense Minerals Exploration Administration assistance to explore their property for molybdenum by driving a 1,500-foot adit. Purportedly the adit would cut veins on the Wilma 1, 2, 3, 4, and 500 claims at depths of as much as 1,000 feet, and would aid in establishing the presence or absence of a large, low-grade molybdenum deposit similar to that at Climax, Colorado. Cost of the project is estimated at $44,034.26.

The applicant company owns a contiguous group of 22 standard lode claims by right of location, in unsurveyed and approximate secs. 15, 16, 21, and 22, T. 2 S., R. 73 W., 6th P.M., on Dakota Hill (Tip Top Mountain in the application) in the Apex mining district of Gilpin County, Colorado.

Examination of the claims was delayed by heavy winter snows and the property was not accessible until late June 1957.

The property was examined on July 1, 1957, in the company of Robert E. Nye, president of Nye-Mathews Mining, Inc.

The claims are underlain by Precambrian rocks of the Idaho Springs formation, Precambrian quartz monzonite gneiss, and Tertiary (Eocene ?) quartz monzonite. Molybdenite is associated with pyrite and quartz in a series of northeast-trending fractures and shear zones that cut the Precambrian and Tertiary rocks.

Although the ore potential of the area by no means can be compared to Climax, as the applicant contends, it is concluded that sufficient molybdenite is present in the area to justify a modest program of exploration by diamond drilling. The program is divided into two stages and is estimated to cost $53,084.00.

ACKNOWLEDGMENTS

Robert E. Nye, president of Nye-Mathews Mining, Inc., accompanied the examining team over the property and cooperated fully with the examining team.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The applicant's property is in unsurveyed and approximate secs. 15, 16, 21, and 22, T. 2 S., R. 73 W., 6th P.M., in the Apex mining district of Gilpin County, Colorado (figs. 1 and 2). The claims are on Dakota Hill about 3/4 air mile east of the town of Apex. Altitudes in the vicinity range from 9,858 feet at Apex to

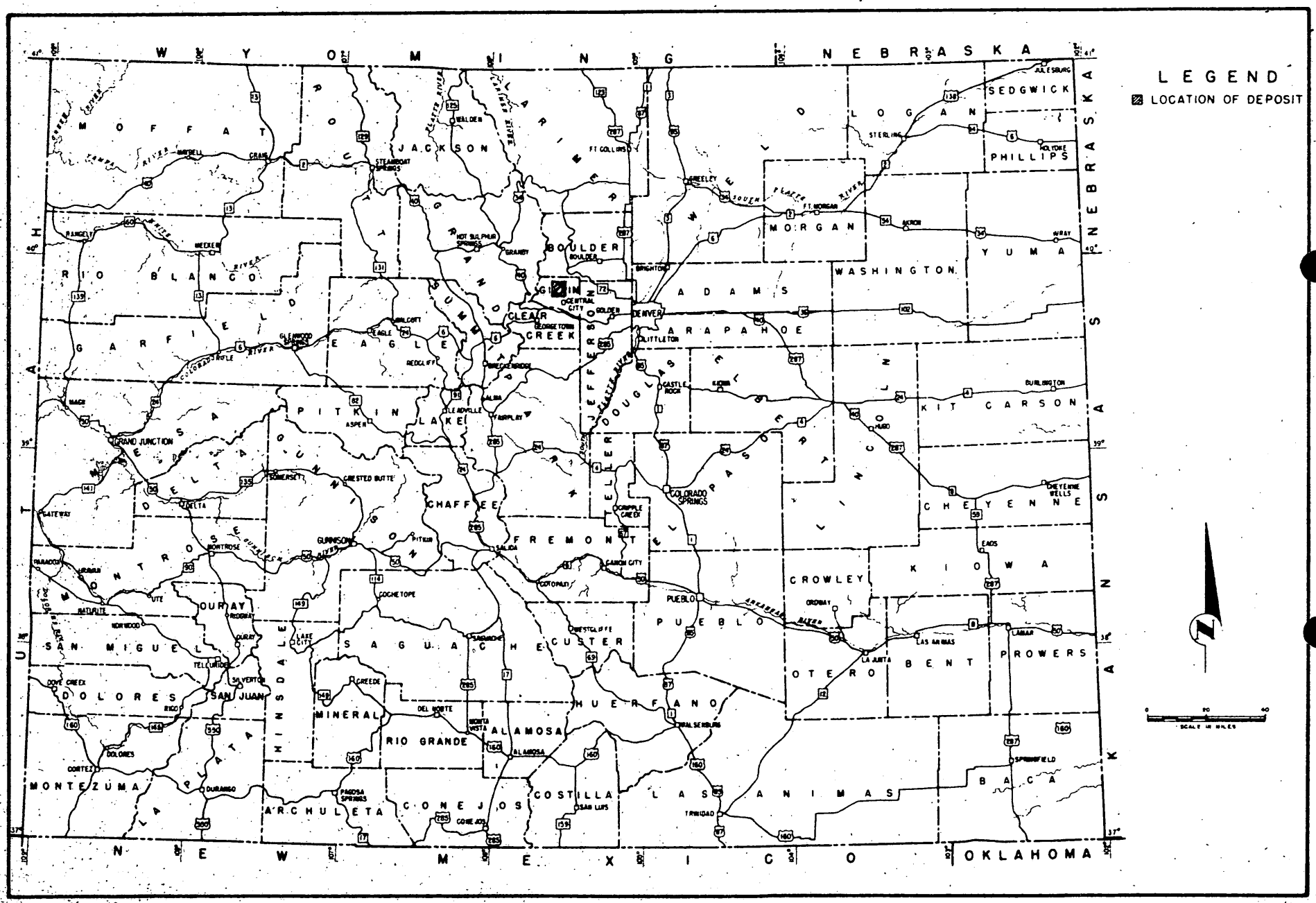

FIGURE 1 - LOCATION MAP, WILMA ET AL CLAIMS, NYE-MATHEWS MINING, INC., GILPIN COUNTY, COLO. DMEA 4490

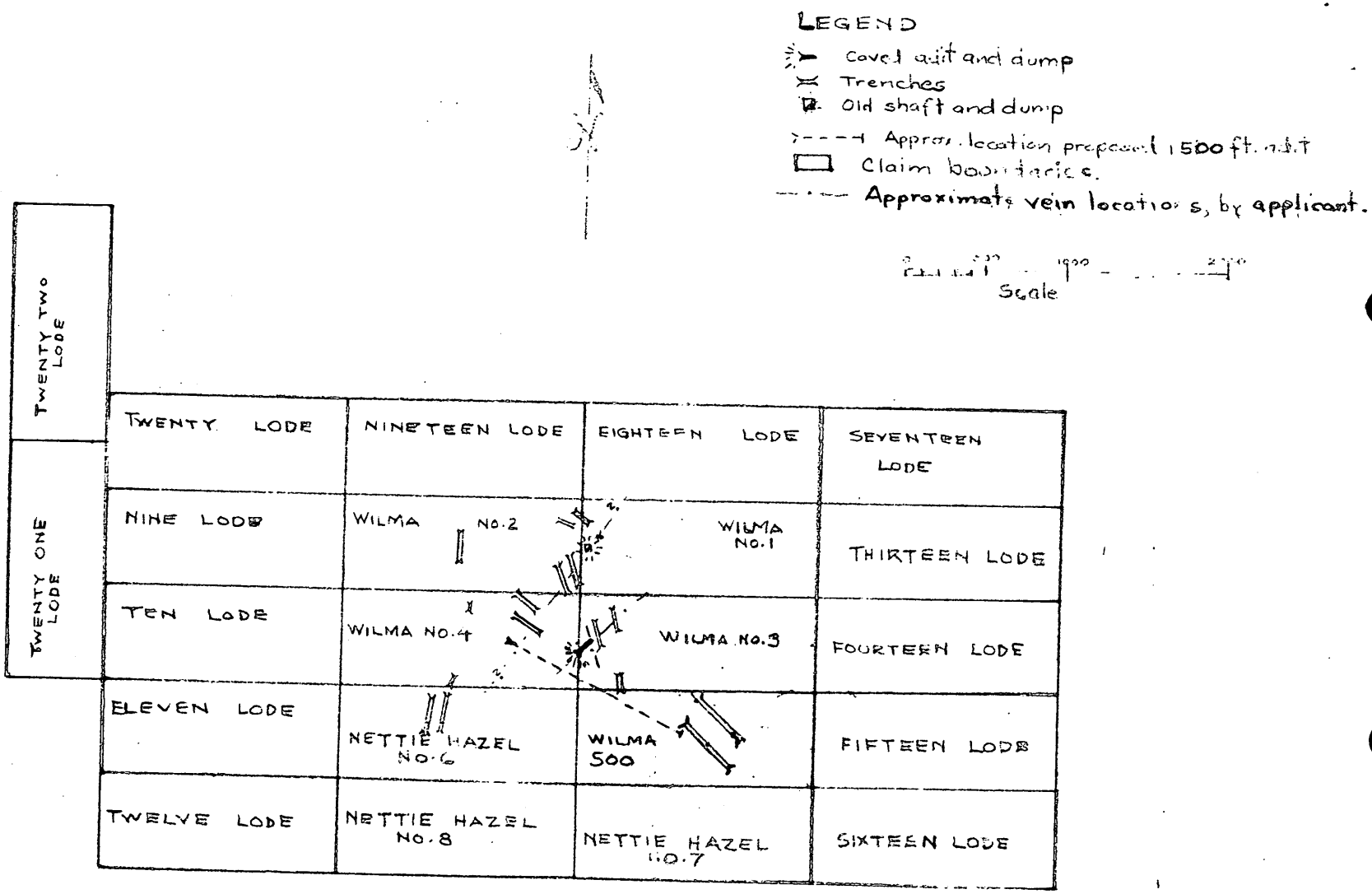

Figure 2- Claim and exploration map, Wilma et al claims, Nye-Mathews Mining, Inc., Gilpin County, Colo. DMEA 4490.

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DATE	INITIALS	CODE

10,944 feet atop Dakota Hill. The property is reached by driving 2 miles northwesterly from Black Hawk on paved Colorado Highway 119 to a junction with the Apex road; thence 5-1/2 miles northwesterly on a dirt road to the old mining town of Apex; thence about 1-3/4 miles north and easterly from Apex over very rough and steep access road. The nearest shipping point is at Rollinsville on the Denver, Rio Grande and Western Railroad, about 18 road miles distant. Timber and water are available on the property. Supplies and labor can be obtained from the Central City-Denver-Idaho Springs area.

HISTORY AND PRODUCTION

Molybdenum was noted on the property by P. G. Worcester[1/] prior to the year 1918. During June, July, and August 1954, the group of 22 lode locations, which comprise the applicant's property, were located and recorded. Since this time, the property has been prospected by bulldozer trenches (now partly filled with debris) and a short adit (now caved). There has been no production from the property.

OWNERSHIP

Nye-Mathews Mining, Inc., an Indiana corporation with addresses of 514 East 20th Street, Indianapolis, Indiana, and Black Hawk,

---

1/ Worcester, P. G., Colorado Geol. Surv. Bull. 14, p. 58, 1918.

Colorado, own a contiguous group of 22 standard lode locations comprising about 454.5 acres in the Apex mining district of Gilpin County, Colorado (fig. 2). The claims are in unsurveyed T. 2 S., R. 73 W., 6th P.M., in approximate secs. 15, 16, 21, and 22. Information gathered at the Gilpin County courthouse lists the following claims as property of the company.

Name	Book	Page	Date located
Wilma No. 1	226	43	7/2/54
Wilma No. 2	226	42	7/2/54
Wilma No. 3	226	44	7/6/54
Wilma No. 4	226	46	7/4/54
Wilma No. 500	226	45	6/27/54
Nettie Hazel No. 6	226	47	7/4/54
Nettie Hazel No. 7	226	48	7/4/54
Nettie Hazel No. 8	226	49	7/4/54
Nine lode	226	97	8/18/54
Ten lode	226	96	8/18/54
Eleven lode	226	95	8/18/54
Twelve lode	226	94	8/18/54
Thirteen lode	226	93	8/18/54
Fourteen lode	226	92	8/18/54
Fifteen lode	226	91	8/18/54
Sixteen lode	226	90	8/18/54
Seventeen lode	226	107	8/16/54
Eighteen lode	226	108	8/16/54
Nineteen lode	226	111	8/16/54
Twenty lode	226	112	8/16/54
Twenty-one lode	226	113	8/16/54
Twenty-two lode	226	114	8/16/54

GEOLOGY AND ORE DEPOSITS

The Nye-Mathews Mining Company property is located in the Apex mining district on the west slope of Dakota Hill about 3/4 mile east of Apex, Colorado. The area is underlain by metamorphic rocks of the Idaho Springs formation, Precambrian in age, by quartz biotite gneiss, Precambrian in age and intrusive into the Idaho springs formation, and by quartz monzonite porphyry, Eocene (?) in age and intrusive into the older rocks.

The Idaho Springs formation crops out on the western part of the claim group. It consists of metamorphosed sedimentary rocks, the most common lithologic types being quartz-biotite schist, quartz gneiss and injection gneiss. Pegmatitic bodies, generally small, occur throughout the Idaho Springs formation. They appear to be related to igneous activity associated with the emplacement of the larger Precambrian granitic intrusives.

The eastern part of the claim group is underlain by Precambrian quartz monzonite gneiss and by Tertiary (Eocene ?) intrusive quartz monzonite porphyry. The quartz monzonite gneiss is a gray, medium-grained rock composed of quartz, feldspar, biotite and various accessory minerals, It has a distinct gneissic texture due to a parallel arrangement of the biotite and an elongation of the feldspars. On weathered surfaces the rock is somewhat yellowish due to oxidation of the iron-bearing minerals.

The quartz monzonite porphyry outcrops in the extreme eastern part of the claim group and is clearly intrusive into the earlier rocks. It is a gray, porphyritic rock with a fine-grained ground mass and phenocrysts of feldspar and quartz.

The principal structures in the area are a series of northeasterly trending shear zones ranging in width from a few inches to as much as 5 feet, and a less pronounced series of northwesterly trending shears. Jointing, on a modest scale, has broken all rocks in the area.

The ore deposits observed on the claim group are related to the northeasterly trending shear zones. Molybdenite, pyrite, biotite, and to a minor extent the secondary mineral molybdite, are associated with silicified zones in the shear zones. Although the shear zones are as much as 5 feet wide, the observed maximum width of the silicified molybdenite bearing zones in them was about 8 inches.

The shear zones, and included molybdenite bearing veins, strike approximately N. 50° E. and dip steeply both to the northwest and southeast. Alteration in the shear zones is intense but the wall rock adjacent to them is fresh and unaltered.

Molybdenite occurs as thin flakes dispersed through the quartz veinlets, as small aggregates of flakes filling open spaces in the quartz, and as thin coatings on fractures. Minor amounts of

molybdenite were noted in sheared country rock in the sheared zones but the preponderance of molybdenite occurs associated with quartz in the silicified portions of the shear zones. The yellow oxide, molybdite, was noted in near surface exposures and apparently was formed by oxidation of the molybdenite in place. Pyrite is found in all the molybdenum bearing veins and is unoxidized at a depth of 10 to 20 feet below the surface.

Samples of the silicified molybdenum bearing portion of the shear zones contain as much as 6 percent MoS_2 and minor amounts (generally less than 0.1 percent) of oxide molybdenum. A character sample (H-7) taken from the dump of a small shaft on the Wilma No. 1 claim contained 3.97 percent MoS_2.

Although the vein exposures on the property are poor (at the time of the examination the adit and shaft were caved and the trenches were partly filled with sloughed material), the area with the best ore potential appears to be on the Wilma No. 500 claim where at least three molybdenite bearing silicified shear zones about 20 feet apart are exposed in two parallel trenches (fig. 2). It is possible that this area contains veins of sufficient width to be considered significant or that narrow veins will be close enough together to constitute a modest size low-grade deposit. The deposit does not appear to be another Climax, as postulated by the applicant, because of the almost complete lack of alteration between the shear zones. At best a

low-grade deposit on the claims will consist of closely spaced, well defined veins separated by barren country rock in contrast to the large mass of highly altered and silicified molybdenum bearing rock characteristic of the Climax deposit.

ORE RESERVES

There are no known ore reserves on the property.

PRESENT STATUS

Exploration and development

The claims have been explored by several shallow pits and trenches, a 130-foot adit, and a shallow shaft (fig. 2). The adit on the Wilma 3 and shaft on Wilma 1 claims were inaccessible; however, their dumps and small exposures of vein in bulldozer trenches were accessible to examination. In addition, the property was prospected by a geochemical (soil sample) traverse.

Mining, milling, and other facilities

There are no mining and milling facilities on the property. Timber and water for limited mining purposes is available on the property. Labor and supplies are available in the Central City-Idaho Springs-Denver area. There are no power facilities nearby

and mining and exploration equipment would be motiviated by diesel power.

PROJECT PROPOSALS BY THE APPLICANT

In the application for DMEA assistance to explore the property for molybdenum, Nye-Mathews Mining, Inc., submitted the following proposal and costs:

(1) Independent Contracts

Labor contract to drive 1,500 feet of 7 x 5 feet cross section adit at $12.00 a foot of advance	$18,000.00	
Bulldozing access road and portal site	1,000.00	
Total Independent Contracts		$19,000.00

(2) Labor and Supervision and Technical Services

Labor	none	
Supervision--one supervisor at $400.00 a month for 15 months	$ 6,000.00	
Technical services--Surveying	2,000.00	
Total Labor and Supervision and Technical Services		$ 8,000.00

(3) Operating Materials and Supplies

5-tons of dynamite	$ 2,190.00
Blasting fuse	480.00
Blasting caps	220.50
Timber and lumber for portal	300.00
Compressor fuel	2,000.00
Ten 5-foot drill steels	199.00

Pipe--1,400 feet of 3/4 inch drilling water pipe	$ 280.00	
1,400 feet of 2-inch compressed air pipe	798.00	
1,450 feet of 12-inch metal ventilation pipe	252.00	
Rail--4 tons of 12-pound mine track rail	916.00	
Total Operating Materials and Supplies		$ 7,635.50
(4) Operating Equipment		
Purchase--one 365-460 c.f.m. air compressor	$ 5,000.00	
2 - mine cars at $195.00 ea.	390.00	
Complete Copco Pacific drifter unit	805.00	
One complete slusher and slide drift mucking unit	2,713.76	
One ventilation fan and air motor	300.00	
One Copco Pacific drill bit grinder	190.00	
Total Operating Equipment		$ 9,398.76
(5) Initial Rehabilitation and Repairs	none	
(6) New Buildings and Improvements	none	
(7) Miscellaneous	none	
(8) Contingencies	none	
Total cost estimated by the applicant		$44,034.26
Average cost per foot of advance		$ 29.36

The applicant's costs are too low for the work proposed.

PROJECT PROPOSAL BY THE EXAMINING TEAM

While the possibility of finding a large-low-grade deposit of molybdenum is not considered good, the fact that significant amounts of molybdenite occur on the property as veinlets and blebs in quartz veins justifies further investigation. The proposed exploration will test the area by core drilling to determine the distribution of the molybdenite veins and the possible presence of a deposit of economic significance. To this end the following two-stage program is tentatively recommended for approval:

Stage I:

Core drill four size BX holes at 200-foot intervals and at approximate right angles to the northeast-trending veins or shear zones on the Wilma-500 claim. All holes will be drilled minus 45° to a depth of 500 feet. Alternate holes will be drilled from staggered locations, parallel to and towards each other, so that the bottoms of all the holes will be approximately in line and at the same depth (350 $\pm$ ft.) below the surface, as shown on figure 3. Total drilling will aggregate 2,000 feet.

Stage II:

Should Stage I drilling prove favorable and indicate the presence of a molybdenum deposit of economic significance, 6,000 feet of additional, size BX core drilling is recommended. Drilling under this

stage is entirely dependent upon evaluation of the results obtained from Stage I and would require prior approval of the DMEA Field Team.

In a conference on July 8, 1957, the applicant agreed to furnish immediately three bids for the proposed drilling. On August 16, 1957, the applicant was requested by letter to furnish drilling bids. The bids have not been received (as of September 3, 1957) and the cost estimates have been prepared using an arbitrary drilling cost estimate of $6.00 per foot. Preparation of a contract for work proposed in this report should await receipt of drilling bids from the applicant.

Cost estimates of the proposed work follow:

Stage I:

(1) Independent Contracts

Core drill four size BX holes at minus 45° and to 500 ft. depths for an aggregate of 2,000 feet at $6.00 a foot	$12,000.00	
Prepare drill sites for four drill locations by bulldozer. 8 hours at $12.00 an hour	96.00	
Total Independent Contracts		$12,096.00

(2) Labor and Supervision

Labor	none	
Supervision and Technical Services 1 - Geologist or engineer for 1-1/2 months at $600 a month (half time)	$ 900.00	
Total Labor and Supervision		$ 900.00

(3) Operating Materials and Supplies		
80 paper core boxes at $1.75 each		$ 140.00
(4) Operating Equipment	none	
(5) Initial Rehabilitation and Repairs	none	
(6) New Buildings and Improvements	none	
(7) Miscellaneous		
Sampling and analyses		
80 Molybdenum analyses at $3.00 each (Colorado Assaying Co. Denver)		$ 240.00
Total cost of Stage I		$13,376.00
Cost of Stage I without molybdenum assays		$13,136.00
Cost per foot without molybdenum assays	$ 6.57	
Stage II:		
(1) Independent Contracts		
Core drill aggregate of 6,000 feet of size BX hole at $6.00 a foot	$36,000.00	
Prepare drill sites (24 hrs. at $12.00 an hr.)	288.00	
Total Independent Contracts		$36,288.00
(2) Labor and Supervision		
Labor	none	
Supervision and Technical Services 1 - Geologist or engineer for 4 months at $600 a month (1/2 time)	$ 2,400.00	
Total Labor and Supervision		$ 2,400.00

(3) Operating Materials and Supplies

240 paper core boxes at $1.75 ea.		$ 420.00
(4) Operating Equipment	none	
(5) Initial Rehabilitation and Repairs	none	
(6) New Buildings and Improvements	none	
(7) Miscellaneous		
Sampling and analyses		
200 Molybdenum analyses at $3.00 each (Colorado Assaying Co. Denver)		$ 600.00
Total cost of Stage II		$39,708.00
Cost of Stage II without molybdenum assays		$39,108.00
Cost per foot without molybdenum assays	$ 6.52	

Recapitulation

Cost of Stage I	$13,376.00
Cost of Stage II	$39,708.00
Total cost	$53,084.00

All core shall be BX or larger in size. It shall be saved, stored in core boxes and labelled as to the depths from which it was taken. Core showing significant amounts of molybdenite shall be split, one-half assayed for MoS_2 and one-half retained for use of the Government. Lithologic logs of all holes shall be prepared and copies included with the monthly reports.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that prospecting on the Nye-Mathews property has exposed sufficient molybdenite in quartz veins to justify a modest program of exploration. The two-stage program recommended in this report should be adequate to determine the width, distribution, and content of the molybdenite bearing quartz veins in the vicinity of the Wilma No. 500 claim.

The recommended program is considered to be "high risk" exploration, for all available data suggests that at best a deposit consisting of closely spaced, narrow molybdenite bearing veins will be found by the proposed drilling. Discovery of a deposit similar to that at Climax is most unlikely.

A short form contract providing for a two-stage program of exploration comprising 8,000 feet of core drilling at an estimated total cost of $53,084.00 is recommended.

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224 New Customhouse
Denver 2, Colorado

September 10, 1957

Memorandum

To: E. N. Harshman - w/copy Applicant's letter and Engineer's report

DMEA/DFC (Harrer) - w/copy of Applicant's letter

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-4490 (Molybdenum)
Nye-Mathews Mining, Incorporated (Wilma et al claims)
Gilpin County, Colorado

Attached is a copy of a letter from the Applicant indicating his company's disapproval of a core drilling program to explore the property. Only one copy of the engineer's report accompanied the Applicant's letter.

Will you please give us your comments.

Original signed by
E. N. HARSHMAN

E. N. Harshman

EMC:bh

cc-Sec. Op. Comm. (2) - w/copy of Applicant's letter of 9/5/57

Docket
Chron.

September 5, 1957

U.S. Department of the Interior,
Defense Minerals Exploration Administration,
224 New Customhouse,
Denver 2, Colorado.

Attn: E. M. Harshman
Acting Exec. Officer
DMEA Field Team, Region III

Dear Mr. Harshman:

The core drilling program tentatively discussed with you does not meet with the company's approval.

We are therefore going ahead at this time with the 1500' cross cut tunnel.

We are submitting the engineer's report and still would like to apply for assistance on the 1500' adit.

Very truly yours,
NYE-MATHEWS MINING, INC.

Robert E. Nye
President

REN/bgn

224 New Customhouse
Denver 2, Colorado

8/19 Q 220

August 16, 1957

Mr. Robert E. Nye, President
Nye-Mathews Mining Inc.
Black Hawk, Colorado

Re: DMEA Docket-4490 (Molybdenum)
Nye-Mathews Mining, Inc.
(Wilma et al claims)
Gilpin County, Colorado

Dear Mr. Nye:

On June 27, 1957, you notified this office that your property was accessible and an examination was made by our fieldman on July 1, 1957. On July 8, 1957, the examiners discussed with you a tentative program of diamond drilling on your property and you agreed to submit three bids for diamond core-drilling to cover a minimum of 2000 feet of drilling in angle holes, approximately 500 feet deep. To date these bids have not been received.

Processing of your application cannot be continued until we receive the requested bids, and as the working season in the high country is short, we request that they be submitted as soon as possible.

If for any reason you do not wish to proceed with your application for exploration assistance, or if the tentative drilling program discussed with you does not now meet with your approval, please notify us by return mail.

Yours very truly,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

ENH:hmh
cc: Sec.Op. Comm. (2)
Harshman
DMEA, DFC
Docket
Chron.

11-15-56

Region III

Building 20
Denver Federal Center
Denver 2, Colorado

November 9, 1956

DMEA
MENT OF THE INTERIOR
NOV 13 1956
REGION III
DENVER, COLORADO

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4490 (Molybdenum) Rye-Mathews Mining, Inc., (Wilma et al claims), Gilpin County, Colorado

The application for Rye-Mathews Mining Company, Inc., Docket DMEA 4490, in the amount of $44,034.26 was received in this office on November 8, 1956.

A field examination will be made and suitable report prepared by an engineer from the Denver office.

W. H. KING

W. H. King

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
Sec. Op. Com. (2)

11/13/56

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

RECEIVED NOV 13 1956 D.M.E.A.

224 New Customhouse
Denver 2, Colorado

November 8, 1956

Memorandum

To: W. H. King (2) (w/brochure)
E. N. Harshman

From: DMEA Field Team, Region III

Subject: Docket DMEA No. 4490 (Molybdenum) Rye-Mathews Mining Inc. (Wilma et al claims) Gilpin County, Colorado

Enclosed is the subject application in the amount of $44,034.26. A field examination and suitable report are requested.

Enclosed for your further information is a copy of a letter from the Chairman of the Operating Committee, dated November 5, 1956, together with memoranda of review of the application by W. McInnis and W. P. Williams.

Will you please return the brochure with the report of examination.

DMEA Field Team, Region III

Original signed by
W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

HMC:ytl
cc: Sec. Op. Comm. (2)
Docket 4490
Chron.

700

FILE COPY

Surname
Murphy
Nelson
Lamb
Selvedge

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

NOV - 5 1956

Nye-Mathews Mining, Inc.
Black Hawk, Colorado

Re: Docket No. DMEA-4490 (Molybdenum)
Wilma, et al., Claims
Gilpin County, Colorado

Gentlemen:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

FMMurphy/izm 11-5-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
DMEAField Team, Reg. III (2)

700

FILE COPY

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

NOV - 5 1956

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4490 (Molybdenum)
Nye-Mathews Mining, Inc.
Wilma, et al., Claims
Gilpin County, Colorado

Dear Mr. Traver:

The above-referenced application is referred to Region III Field Team for investigation, a field examination if deemed advisable, and recommendation.

Enclosed are copies of memoranda, dated October 26 and 30, 1956, by W. McInnis, USBM, and W. P. Williams, USGS, respectively, relating to the subject application. Also enclosed is an extra copy of the application with copies of a letter and assay returns submitted by the Applicant in response to Mr. Ellis' letter of October 15.

Judging from the amount of preliminary work on the claims, the Applicant could have submitted more geologic and assay data relating to the claim area. However, as the claims are in an area that may not be accessible because of snow conditions within a short time, we are referring the application to the Field Team so as not to delay a field examination if it is deemed advisable.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GHB)

Enclosures

APPROVED:

Frank D. Lamb (GHB)
Member, Bureau of Mines

N. E. Nelson (GHB)
Member, Geological Survey

FMMurphy/zim 11-5-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. THKiilsgaard, Rm. 5224
WMCInnis, Rm. 3515

11/2/56 gla

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

October 26, 1956

Memorandum

To: E. W. Ellis, Chief, Rare and Miscellaneous Metals Division-DMEA

Through: Chief, Branch of Ferrous Metals and Ferroalloys

From: W. McInnis, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Docket No. DMEA-4490 (molybdenum)
Wilma et al Claims
Gilpin County, Colorado
Supplemental letter of October 22

Subject letter failed to give all the data requested in your letter of October 15 particularly the method of sampling which leads me to believe they were probably carefully hand picked. Nevertheless the analyses furnished indicate possible highly mineralized areas that warrant further investigation. Therefore, I recommend the application be referred to the Field Team for investigation and appraisal.

R W Holliday
for W. McInnis

11-1-56

IN REPLY REFER TO:

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

October 30, 1956

RECEIVED NOV 1 1956 D.M.E.A.

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of supplemental information, DMEA 4490, Nye-Matthews Mining, Inc., Wilma, et al claims, Apex mining district, Gilpin County, Colorado, (molybdenum).

The applicant was asked, by letter dated Oct. 15, 1956, to submit additional information concerning the subject application. The applicant responded with a letter in which he attempts to explain his reasons for wishing to explore. Attached to the applicant's letter are assays of five samples that presumably were taken from the property. The highest assay ran 6.48 percent MoS_2.

Whether or not the applicant's proposed 1,500 feet adit-drift is justified is difficult to say. It appears that geologic conditions on the property should be evaluated in the field. I recommend that the application be referred to the Field Team for further analysis. If geologic conditions on the property are favorable enough perhaps consideration could be given to a modified staged exploration project.

W. P. Williams

W. P. Williams

10-24-56

Nye - Mathews Mining, Incorporated

(An Indiana Corporation)

RECEIVED
OCT 24 1956

Black Hawk, Colorado

Robert E. Nye
President

Roy C. Mathews
Secretary

October 22, 1956.

Ernest Wm. Ellis, Chief,
Rare and Miscellaneous
Metals Division,
Washington 25, D.C.

Dear Sir:-

In Re: Docket No. DMEA-4490 (Molybdenum)
Wilma et al Claims
Gilpin County, Colorado.

In compliance with the request in your letter of October 15, 1956, permit me to say: These properties, consisting of approximately 460 acres, are situated just east of the old town of Apex, in Gilpin County, Colorado, in Sec 21 of T 2 S, R 73 W, some 5 miles north of the Central City Mining District. The property also is in Sections 15, 16 and 22. The elevation at Apex is approximately 9,500 feet and at the properties from 11,000 to 11,500 feet above sea level. The properties lie in the northeastern part of the Colorado Mineral Belt in the heart of the Front Range.

The molybdenite mineralization in the area consists of two types, vein and fracture filling. On the map sent in the bulldozer cuts have already been completed and also a 130 foot drift, all of which were done as exploratory work before the decision was made to undertake the present 1500 foot drift which will cross-cut all veins to a depth of 1,000 feet.

The enclosed photostatic assay report is from samples obtained from vein outcrops, these bulldozer cuts and the 130 foot drift.

The purpose of this 1500 foot drift for which application for government assistance is requested is to drop down a sufficient depth on the side of Tiptop Mountain to permit the intrusion of a 1500 foot drift which at its conclusion will be 1,000 feet from the top of the mountain thereby cross-cutting all known veins running northeasterly as well as those running northwesterly which may have junctioned. Also inasmuch as two of the 500 foot bulldozer cuts in the "500" area (See Map) have exposed fracture filling type Molybdenumite, this 1500 drift will determine whether or not such fracture filling type Molybdenumite extends to a depth as to prove our belief this mountain contains large low grade deposit Molybdenite similar to that of Climax. If there is any further information you desire, do not hesitate to ask.

Sincerely,
Robert E. Nye

ren/ecb

CLIMAX MOLYBDENUM COMPANY

INTER-OFFICE MEMORANDUM

RECEIVED
OCT 24 1956

Date October 21, 1955

Subject Outside Samples - MoS_2

To Mr. John J. Curzon - Denver Office

From Golden Laboratory

This will confirm telephone information regarding a group of samples brought to Golden by Mr. Nye with your blessing. Apparently he knows how to take samples with a good MoS_2 content.

Sample No.	% MoS_2	% CuMo
Nye No. 1	6.48	.052
Nye No. 2	3.97	.030
Nye No. 3	2.90	.053
Nye No. 4	3.68	.072
Nye No. 5	1.98	.166

Golden Laboratory

R. E. Cuthbertson

cc: Mr. Frank Coolbaugh
Mr. Stewart Wallace

700

FILE COPY
Surname:
Murphy
Mathews

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

OCT 15 1956

Nye-Mathews Mining, Inc.
Black Hawk, Colorado

Re: Docket No. DMEA-4490 (Molybdenum)
Wilma, et al., Claims
Gilpin County, Colorado

Gentlemen:

Your above-docketed application, for aid in an exploration project, has been reviewed by the Rare and Miscellaneous Metals Division.

On the "Soil Sample Traverse Map" submitted with the application, you have shown the proposed 12 trenches and 1500-foot tunnel. However, the application lacks a narrative which justifies the work and the reason for the location of the proposed exploratory openings.

To assist us in judging the merits of your proposal, it is suggested that you submit a map or sketch showing the surface elevations or contours in the proposed project area, indicating the location of the tunnel and trenches. Also, a narrative report giving the geological reasons you believe the subject claims have possibilities for the occurrence of molybdenum ore deposits should be submitted.

We note that a drift, shaft, and ten bulldozer cuts, have been completed on the claims. It is suggested that the assay results of any samples taken from these openings, or surface outcrops of the veins, should be submitted. A description of the samples giving their width, depth, length, and location, should be noted on the map or be given in the narrative.

Any additional information such as production or exploration work on properties adjacent to your claims would also assist us in processing your application.

We will hold your application in abeyance pending receipt of the above-suggested additional information. If you anticipate that it will require more than a month from the date of this letter to compile and submit the information, kindly advise this office the approximate date we may expect to receive it.

Sincerely yours,

Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

R.C.S.

DMEAField Team, Reg. III (2)
Mr. McInnis, Rm. 3515
Mr. Kiilsgaard, Rm. 5224

rMMurphy/izm 10-15-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File

OCT 11 1956 glc

IN REPLY REFER TO:

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

RECEIVED
OCT 11 1956

October 9, 1956

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4490, Nye-Mathews Mining, Inc., Wilma, et al. claims, Apex mining district, Gilpin County, Colorado, (molybdenum)

The applicant proposes to explore for molybdenum ore deposits on 22 mining claims located in the Apex district of Colorado.

The application is very brief, thus leaving much to conjecture on the part of any reviewer. The proposed work seems to consist of driving a single adit (?) drift (or 'tunnel') 1,500 feet long. Why the 'tunnel' is located and oriented as shown on the applicant's map is not clear except that the drift seems to pass beneath a geochemical anomaly.

According to the applicant past exploration work consisted of a 120-foot drift, a 30-foot shaft, and ten bulldozer cuts. The applicant does not say what that work disclosed. No assay certificates accompany the application.

The applicant's trenching, drifting, shaft sinking, and what appears to be a fairly extensive geochemical survey, represents probably more effort on the applicant's own behalf than is the case with many, if not the majority, of DMEA applicants. The property should most certainly be examined in the field unless the Field Team has definite information concerning the property. It would be reasonable to ask the applicant for more information concerning the application, the property, and the proposed work.

W. P. Williams

W. P. Williams

10/8/56 gla

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

RECEIVED
OCT - 8 1956

Date October 5, 1956

DMEA Docket No. 4490
DMEA Contract No.
Commodity Molybdenum
Name of applicant Nye Mathews Mining Co.
Name of property Not given
Location of property Gilpin County, Colorado
Estimated cost of project $44,034.26

Memorandum

To: M. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals & Ferralloys

From: W. McInnis, Commodity Specialist, Branch of Ferrous Metals & Ferroalloys

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: -- . 2. Date received by reviewer: 10/5/56
3. Prior reports on this property known to reviewer: Yes [ ], No [xx].
4. Prior reports on nearby properties known to reviewer: Yes [ ], No [xx].
5. Information available on past production: Yes [ ], No [xx].
6. Other pertinent factors known to reviewer: Yes [ ], No [xx].
7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [xx]
   d. Geology [ ]
   e. Proposed exploration method [xx]
   f. Alternate exploration method [ ]
   g. Costs [ ]
   h. _____ [ ]

9. Action advised:
   a. Obtain information from applicant [xx]
   b. Refer to Field Team [ ]
   c. Denial [ ]
   d. Agree with Field Team [ ]
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [ ]
   i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)
Additional information is also required, under 7 (b), of application.

W. McInnis

W. McInnis

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

October 5, 1956

Nye-Mathews Mining Inc.
Black Hawk,
Colorado

Subject: DMEA-4490
Re: Exploration Assistance
Wilma et al.

Gentlemen

Your application for exploration assistance, dated September 17, 1956 submitted to our office at Denver, has been assigned Docket Number DMEA-4490 and referred to the Rare and Miscellaneous Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Chief
Operations Control and
Statistics Division

Copy to:

Region III. Denver 2, Colorado

Code 700

3571

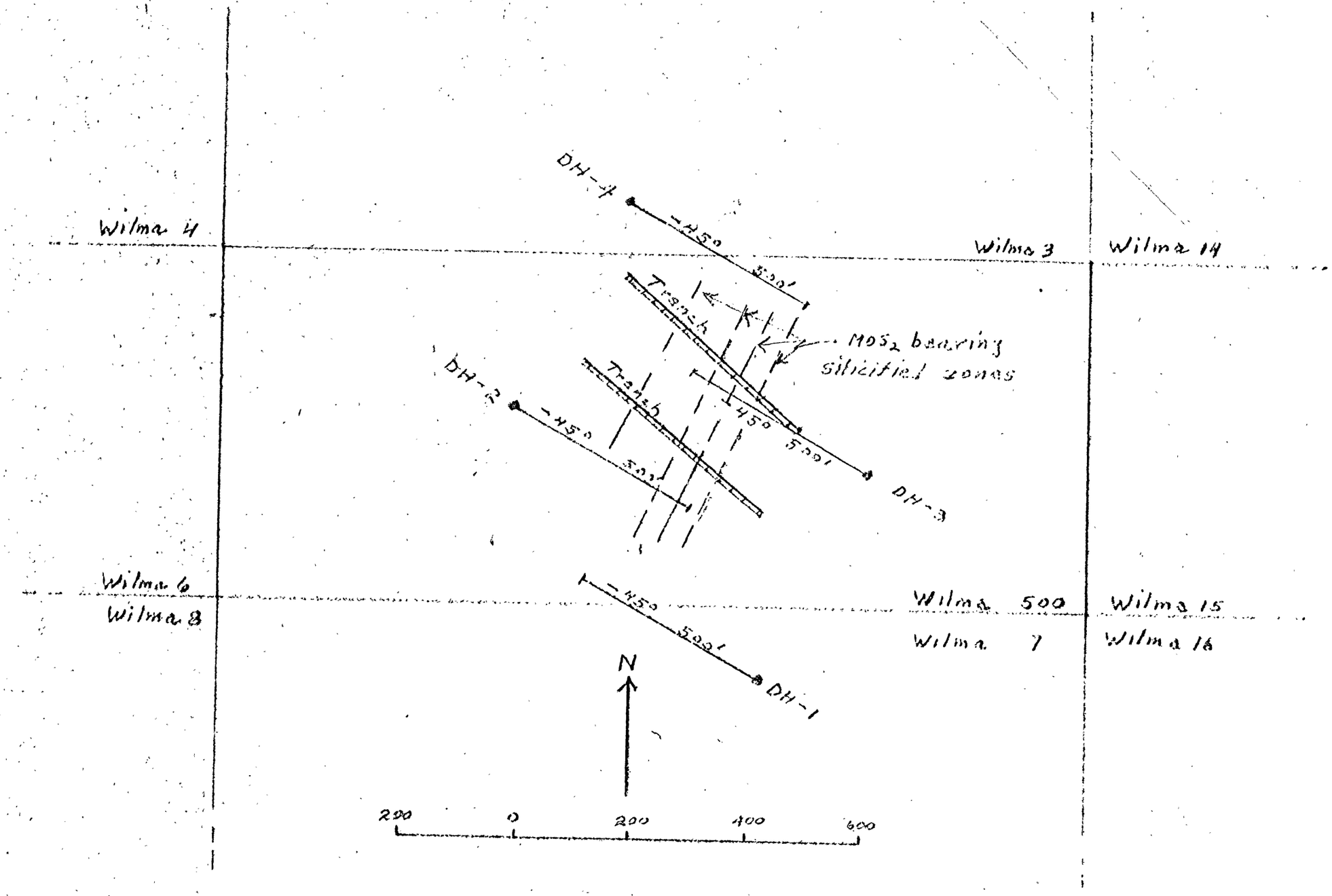
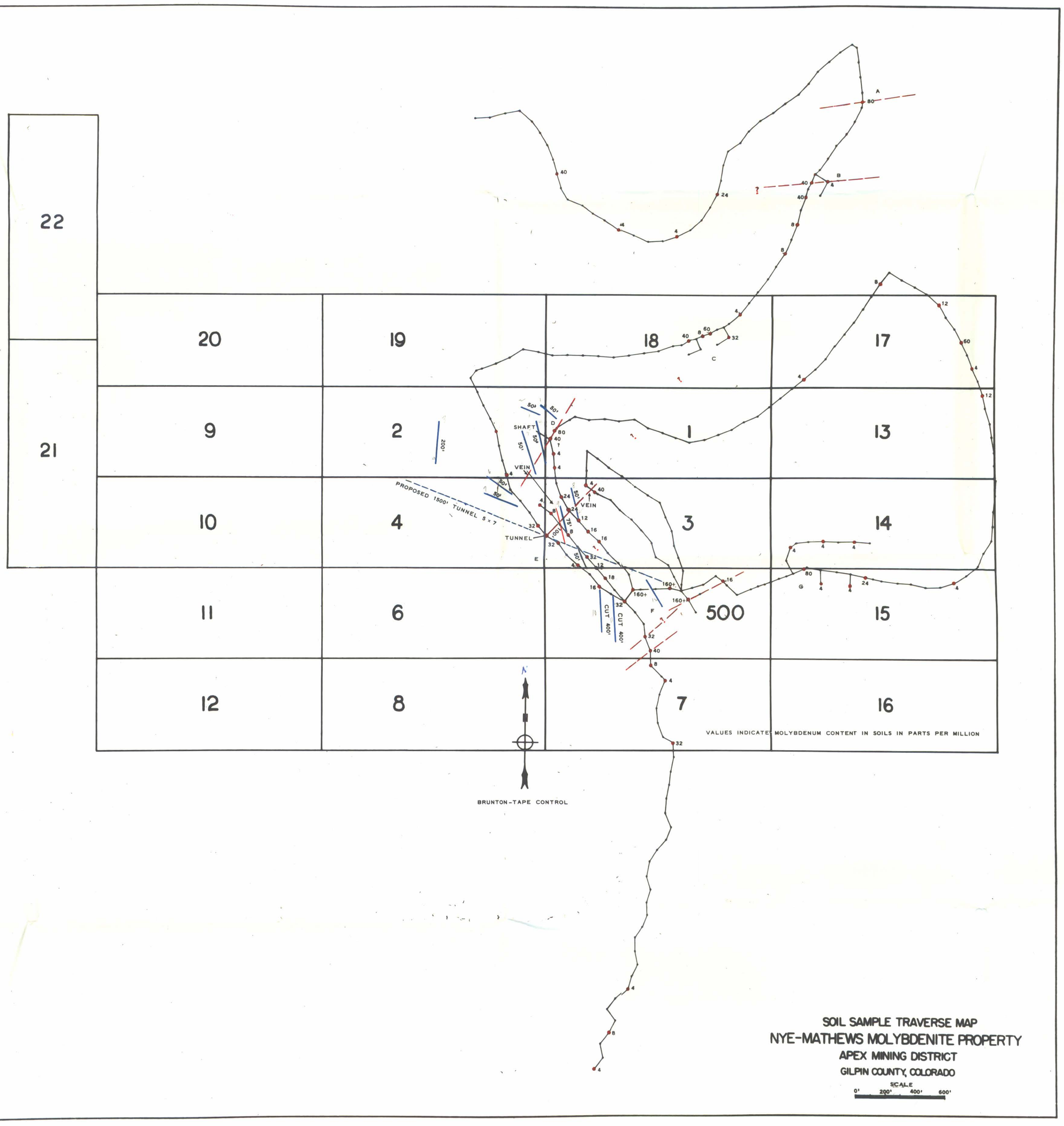
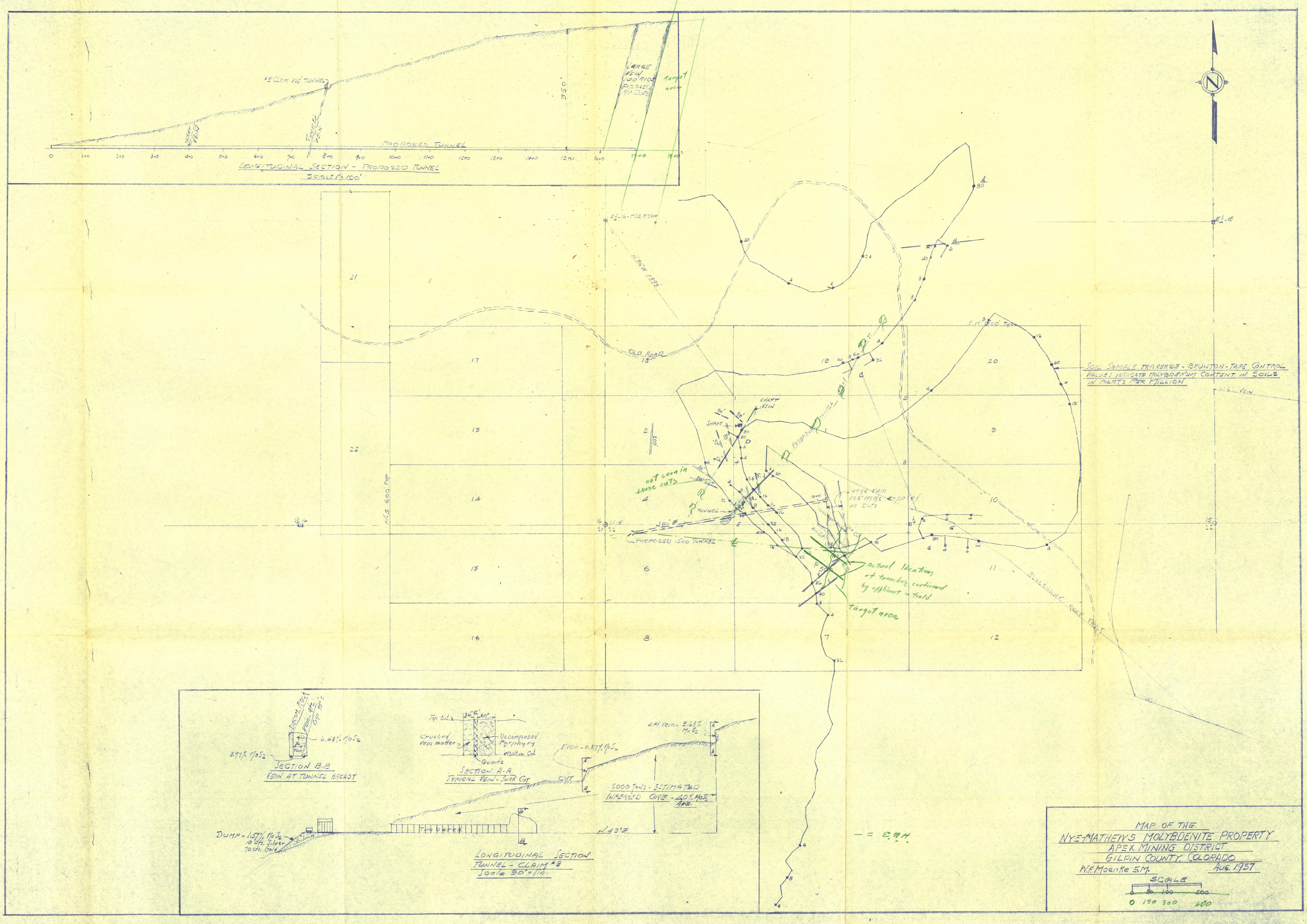


FIGURE 3 - Proposed Stage I Exploration - Nye-Mathews Mining, Inc., Gilpin County, Colorado



SOIL SAMPLE TRAVERSE MAP
NYE-MATHEWS MOLYBDENITE PROPERTY
APEX MINING DISTRICT
GILPIN COUNTY, COLORADO


#3 CLAIM 1½' TUNNEL
LARGE VEIN 100' WIDE EXPOSED BY CUTS
target area
350'
PROPOSED TUNNEL
0 1+0 2+0 3+0 4+0 5+0 6+0 7+0 8+0 9+0 10+0 11+0 12+0 13+0 14+0 15+0 16+0 17+0 18+0
LONGITUDINAL SECTION - PROPOSED TUNNEL
SCALE 1" = 100'
OLD ROAD
CHART VEIN
SHAFT
TUNNEL
PROPOSED 1500' TUNNEL
large vein 100' wide exposed in cuts
not seen in these cuts
actual locations of trenches continued by applicant in field
Target area
SOIL SAMPLE TRAVERSE - BRUNTON-TAPE CONTROL
VALUES INDICATE MOLYBDENUM CONTENT IN SOILS IN PARTS PER MILLION
N.S. 600' TYP.
SECTION B-B
VEIN AT TUNNEL BREAST
6.48% MoS2
3.97% MoS2
SECTION A-A
TYPICAL VEIN - SURF. CUT
Crushed Vein matter
Decomposed Porphyry
Quartz
5' vein - 0.87% MoS2
4 ft. Vein - 5.68% MoS2
CUT
5000 TONS - ESTIMATED INFERRED ORE - 40% MoS2 APEX
DUMP - 1.57% MoS2 10 ozs. Silver 70 ozs. Gold
LONGITUDINAL SECTION
TUNNEL - CLAIM #3
Scale 30' = 1in.
MAP OF THE
NYE-MATHEWS MOLYBDENITE PROPERTY
APEX MINING DISTRICT
GILPIN COUNTY, COLORADO
W.F. Moenke E.M.
AUG. 1957
SCALE
0 150 300 600