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DEFENSE MINERALS ADMINISTRATION
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DMEA ~~DMA~~ Docket No. 2680

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2680

MAR 1 9 1953

Mr. Robert L. Montrose
P. O. Box 98
Mountain City, Nevada

Re: Docket No. DMEA 2680 - Tungsten
Montrose Mining Company
Apex Claims
Alder Mining District
Elko County, Nevada

Dear Mr. Montrose:

Your request for exploration assistance and other reports concerning your property available to us in Washington have been carefully 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.

Thorough study of all our information, although noting the occurrence of a small amount of scheelite mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program of exploration is not sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

CC: DOCKET
FIELD TEAM, REG. 3
CODE 400
OPER. COMMITTEE
ADMN. READING FILE
D. M. LEMMON, USGS
R. W. GEEHAN, USBM

FARutledge/ls 3/13/53

Administrator, DMEA March 13, 1953

Iron and Ferro-Alloys Division, DMEA

Denial of application for exploration assistance in the amount of $48,000.00
Docket No. DMEA 2680 - Tungsten
Montrose Mining Company
(Robert L. Montrose and Price D. Montrose)
Apex Claims
Alder Mining District
Elko County, Nevada

The denial of the subject application by this Division is based on the following information:

(1) An examination by the Field Team indicated the property has little merit.

(2) Though the first examining Field Team recommended an exploration project of $10,000.00, neither Mr. Miller, Executive Officer, Region III, nor Mr. Bailey, U. S. Geological Survey member of the Field Team, concurred.

(3) The re-examining Geological Survey members of the Field Team recommended denial, although the Bureau of Mines member recommended a limited amount of exploration.

(4) There is no geologic probability of finding any significant deposit of tungsten ore. Tungsten mineralization occurs as irregular concentrations of scheelite in parallel tactite layers which range in width from a fraction of an inch to 19 feet, and are separated by layers of barren tactite and hornfels. Of the eight preliminary samples taken by the first examining field Team, one contained 0.25 percent WO_3, one 0.19 percent WO_3, one 0.12 percent WO_3, one 0.09 percent WO_3, and three less than 0.01 percent WO_3. The examining Field Team inferred a reserve of 1,000 tons averaging 0.25 percent WO_3 or equal in grade to the highest of the analyses received.

The Montrose adit was driven under the best surface showings and cut three tactite layers which contained no scheelite. It would, therefore, seem unwise to project the ore layers from the surface more than a few feet.

(5) The Executive Officer and Bureau of Mines member and the Geological Survey member of the Field Team, after careful review of the report, again recommended denial of the application.

(6) The Commodity Division of the U. S. Geological Survey recommends denial.

(7) The Commodity Division of the Bureau of Mines concurs in the denial.

SIGNED

W. D. Martin, Acting Chief
Iron and Ferro-Alloys Division

CC: DOCKET
CODE 400
ADMN. READING FILE
OPER. COMMITTEE

IN REPLY REFER TO:

G-MD-CF

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

400

March 6, 1953

Memorandum

To: W. S. Martin, DMEA

From: D. M. Lemmon, USGS

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 9 1953

Subject: Field report of February 16, and
Field Team letter of February 26
DMEA-2680, Tungsten
Montrose Mining Company
Elko County, Nevada

I concur with the opinion expressed by Mr. H. C. Miller that the exploration proposal of the company and the alternative recommended by Mr. Glenn G. Gentry should both be denied. The geologic mapping and sampling done by the Field Team show that no commercial tungsten ore is present in the surface outcrops or in the 300 feet of tunnel driven by the applicant. The work done was in the area considered most favorable by the operator and by the Field Team. Although it is possible that tungsten ore might be found elsewhere on the property by careful prospecting and geologic mapping, the work done to date is not encouraging and no program of underground exploration can be justified unless better surface showings are found.

D. M. Lemmon

Copy retained 400

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 2 1953

400 copy

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

February 24, 1953

WSM

Memorandum

To: Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2600 (Tungsten), Montrose Mining Company, (Robert L. Montrose & Price D. Montrose), Apex Claims, Alder Mining District, Elko County, Nevada

Reference is made to the letter, dated September 25, 1952, from Ernest Wm. Ellis, Acting Chairman, Operating Committee, requesting additional information on the subject application.

Attached are four copies of a report titled "DMEA-2600, Montrose Mining Company, Elko County, Nevada, (Tungsten)," by Glenn E. Conley, Mining Engineer, U. S. Bureau of Mines, and R. M. Smith and R. M. Lamb, Geologists, U. S. Geological Survey, dated February 16, 1953, which was made in connection with the subject application.

It is noted from the report that the examining engineer and geologists are not in accord that the property warrants an exploration loan. The examining geologists are of the opinion that the probability of a significant discovery is too small to justify a loan, while on the other hand, the examining engineer of the Bureau of Mines considers that the property offers possibilities of producing a moderate tonnage of low grade tungsten. He also makes the reservation that the property is speculative, but a small amount of exploration work would develop considerable information on the possibilities of the property.

Mr. A. C. Johnson writes that the property is located in an area in which very little work has been done of an exploratory nature. However, there are bold outcrops of tactite that do show scheelite mineralization. The assumption has been made by the geologist that the tactite zones do not go to depth. However, this can not be proven as they do not know the attitude of the tactite beds from the amount of work that has been done on them to date.

Reviewed by
DMEA OPERATING COMMITTEE
3-6-53
(date)

The tactite zones have been traced over a large area and there are possibilities that exploration work will give information as to their habit and there is also a likelihood that a fair amount of tungsten ore will be indicated by the work.

Mr. Bailey and I have carefully reviewed the report and have come to the conclusion that the loan should be denied. The erratic nature of the ore and the very low tungsten content makes it highly improbable that commercial ore will be found in the area. We are unable to understand why the engineer recommends exploring the upper part of the tactite for a possible reserve of 800 tons of ore when the applicant's adit driven under the best surface showing and 3 tactite layers none of which contained scheelite and surface samples showed no commercial ore. We conclude, therefore, that the application, though for only a small amount, should be denied.

//

H. C. MILLER
H. C. Miller
Executive Officer
RFC Field Team, Region III

Attachment

Copy to: R. N. Bailey, WSSS

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 2 1953

DMEA-2680, Montrose Mining Co.

Elko County, Nev.

(Tungsten)

Glenn G. Gentry, Mining Engineer
U. S. Bureau of Mines

R. M. Smith and D. C. Laub, Geologists
U. S. Geological Survey

February 16, 1953

Reviewed by
DMEA OPERATIONS COMMITTEE
3-6-53
(date)

DMEA-2680, MONTROSE MINING CO., ELKO COUNTY, NEV.

(Tungsten)

CONTENTS

	Page
Summary, conclusions and recommendations	1
Introduction	2
Location	4
History and development	4
Water	4
Power	5
Climate	5
Applicant's experience	5
Geology	5
Ore deposits	6
Sampling	7
Ore reserves	8
Proposed exploration	9
Cost details	9

EXHIBITS

Fig. 1 - Index map of Nevada.

Fig. 2 - Geologic sketch map of the Montrose claims.

Fig. 3 - Geologic map of Montrose (tungsten) property.

Fig. 4 - Geologic map of Montrose adit.

Docket No.: DMEA-2680

Name and address of applicant: Montrose Mining Co.,
Price D. Montrose,
P. O. Box 96,
Mountain City, Nev.

Name and location of property: Montrose Mining Co.
Alder Mining District,
Elko County, Nev.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Montrose Mining Company, Mountain City, Nevada, applied May 19, 1952 to the Defense Minerals Exploration Administration for government assistance in a $38,000 program to explore the downward continuation of scheelite shewings exposed on the surface of their claims in the Alder Mining District, Elko County, Nev.

The property was examined on June 28, 1952 by an engineer from the Bureau of Mines and geologists from the U. S. Geological Survey, and a report recommending a program of mapping and drilling was prepared. At the request of E. H. Bailey, dated September 30, 1952, the property was re-examined on October 28-29, 1952. A detailed map of the area was prepared and additional samples were taken after examining the area at night with a mineralight.

The weighted average of all samples taken is 0.13 percent WO_3, which is well below the cut off point of 0.30 percent WO_3 required for shipping ore at both the Getchell mill in Nevada, and the U. S. Vanadium Co. mill at Bishop, Calif. (If, in the future, a mill is installed in the vicinity of the Knowles property, the ore may then be of commercial value).

Ore reserves total 500 tons averaging 0.27 percent WO_3 which is inferred in the block below sample BM-419 (fig. 3).

The examining geologists conclude that the likelihood of a significant discovery is small and that the ore reserves do not justify exploratory work at the property by the DMEA.

The examining engineer of the U. S. Bureau of Mines, however, considers that the property offers the possibility of producing a moderate tonnage of low grade ore over a larger area than shown by the present exposures. While the exploration must be considered as speculative, he believes the property to have sufficient merit to justify 150 feet of adit at an estimated cost of $35.00 per foot and 100 feet of diamond drilling at an estimated cost of $7.50 per foot (see fig. 3).

This exploration would serve to determine the geological formations at greater depth than now possible to ascertain from surface exposures and also the degree of scheelite mineralization and distribution of the mineral.

The total estimated cost of the above exploration project amounts to $6,000.00. Government participation @ 75% would therefore amount to $4,500.00.

INTRODUCTION

This mining property was examined and sampled during the day and night of June 28, 1952 by a Field Team composed of geologists[1] of the U. S. Geological Survey and an engineer[2] of the U. S. Bureau of

1/ R. M. Smith and M. M. Bell, Geologists, U. S. Geological Survey.
2/ Glenn G. Gentry, Mining Engineer, U. S. Bureau of Mines.

Mines. During this examination and inspection by mineralight the Field Team was accompanied by Messrs. Price and Robert Montrose, owners of the mining claims.

Eight samples were secured from the most promising exposures of tactite and in locations where the owners had made numerous inspections by mineralight, and in areas where they proposed to explore. Additional examination, by mineralight, by the examining engineers, indicated that the locations sampled were representative of the exposures.

Pursuant to instructions contained in a letter dated September 23, 1952, addressed to Mr. H. C. Miller, Executive Officer, Region III and signed by Mr. Ernest Wm. Ellis, Acting Chairman, Operating Committee, the Montrose mining property was again examined and sampled on Oct. 28-29, Nov. 1, 1952 by geologists[3/] of the U. S. Geological Survey and an engineer[4/] of the U. S. Bureau of Mines. On the afternoon and night of October 28, the engineers were accompanied by Mr. Price Montrose.

Ten samples were secured from areas adjacent to the previous sampling and over areas where inspection by mineralight indicated that representative mineralization could be expected.

The areas sampled contained the exposures where some small amount of surface exploration had been done and on outcrops where scheelite mineralization had been observed by means of the mineralight. No additional development had been done by the applicant and therefore no further exposures had been cleared for sampling.

3/ R. M. Smith, H. C. Laub, Ralph J. Roberts, Geologists, U.S.G.S.
4/ Glenn G. Gentry, Mining Engineer, U. S. Bureau of Mines.

LOCATION

The property consists of 18 unsurveyed mining claims, held by location, in the Alder Mining District, Elko County, Nev., approximately 19.5 miles east of Nevada State Highway 43 at Wild Horse, Nev. They are located principally in sec. 8, T. 45 N., R. 56 E., M.D.B.&M.

HISTORY AND DEVELOPMENT

The Montrose brothers filed on these mining claims about two years ago and since then they have been actively engaged in driving an adit 510 feet in length on the Apex No. 1 claim and in exposing the surface mineralization in areas adjacent to the adit.

No production of tungsten ores has been made from the property. Two buildings have been constructed as follows:

1 building housing the air compressor, located at the portal of the adit.
1 building for living accommodations, located approximately one mile west of the adit; can accommodate 4 men.

Both buildings are in reasonably good condition and could be utilized. Mining equipment on hand and reported as in good condition are as follows:

1 Air compressor, Gardner-Denver, portable, 210 c.f.m., operated by gasoline engine.
2 Jackhammers, Ingersoll-Rand, Model S-49, mounted on shell with columns and cross arms, safety clamp.
500 feet of 2-inch iron pipe.
Miscellaneous hand tools
800 feet of 14-pound rail
1 Mine car, iron body, 18-inch track gauge
2 Trucks, 4-wheel drive

WATER

Sufficient water is available at the living quarters for domestic consumption. Water for mining purposes will have to be hauled from

this source to the mine.

POWER

No transmitted electric power is available at the property and all machinery would be operated by means of Diesel or gasoline engines.

CLIMATE

The mine area is located near the crest of the divide leading to Tennessee creek and at an elevation of about 8,000 feet. The country is mountainous and rough and severe winter storms should be expected from December through March.

APPLICANT'S EXPERIENCE

The Montrose brothers have apparently had considerable and varied experience in and around the mines at Mountain City, Nev., as well as in other locations. Price Montrose states that he is one of the owners of the adjoining Knowles tungsten claims and that he assisted in the diamond drilling project on these claims.

From the amount of road construction work done, the appearance of the 310-foot adit, and the efforts to prospect the surface of the exposures, it is considered that they would be entirely competent to carry out any proposed exploratory work. Additional experienced miners can probably be secured in Mountain City, Nev.

GEOLOGY

The sedimentary rocks in the area are limestone and shale of Paleozoic age. They are cut by a large granodiorite stock and by alaskite dikes and sills. Near the dikes and sills the sedimentary rocks have been metamorphosed to tactite which contains scheelite in some places.

The limestone is thin-bedded and is interbedded with shale and calcareous shale all of which strike north and dip 25° to 30° W. Adjacent to the granodiorite the sedimentary rocks are cut by sills and dikes as much as 200 feet wide, which range in composition from alaskite to granodiorite. Both the granitic and sedimentary rocks are cut by quartz veins as much as 8 inches wide that fill fractures having random strikes and dips.

The limestone beds adjacent to the granitic rocks are metamorphosed to tactite; the shale beds are metamorphosed to hornfels.

ORE DEPOSITS

The ore bodies are irregular concentrations of scheelite in parallel layers of tactite that range in width from a fraction of an inch to 19 feet, and are separated by barren tactite, hornfels and alaskite sills. The ore bodies extend along the strike of the tactite layers for as much as 40 feet; they have not been explored below the outcrops and their depths are not known. The scheelite deposits are commonly adjacent to the dikes and sills or to zones of quartz stringers.

The scheelite showings are scattered over an area 900 by 1,400 feet. Although the area is partly covered by a thin mantle of soil, exposures are for the most part fair. The scheelite showings were sampled wherever possible in trenched as well as in surface exposures. The weighted average of all the samples taken is 0.13 percent WO_3; the best sample of disseminated scheelite is BM-419 which gave an analysis of 0.27 percent WO_3; it was cut across the slope for a distance of 28 feet which represents an actual thickness of 10 feet.

Samples BM-415 and BM-286 assayed 0.09 and 0.02 percent WO_3 respectively, indicating that BM-419 is not representative of the grade of the deposit as a whole. Sample BM-417 represents a tactite layer containing a few non-persistent high grade seams.

The Montrose adit (fig. 3) was driven under the best surface showings and cut three tactite layers which contained no scheelite. It would therefore seem unwise to project the ore layers from the surface more than a few feet.

SAMPLING

Sample No.	%, WO_3	Width Feet	Description
BM-282	0.01	2.8	South wall of adit 190 feet from portal, altered limestone and opalite. No mineralization observed by mineralight.
BM-283	0.09	1.8	Shallow pit about 60 feet north of breast of adit and 65 feet above the adit.
BM-284	0.25	3.2	Shallow pit about 4 feet deep, 50 feet northeast of BM-283 and near crest of hill.
BM-285	0.06	3.5	150 feet below crest of hill and on north slope approximately 1/2 mile south of Tennessee Creek, face of tactite exposure.
BM-286	0.12	29.0	84 feet north and 15 feet above BM-283; chip sample across tactite exposure.
BM-287	0.01	5.0	Upper part of tactite bed 16 feet south of BM-283 and at same elevation. Tactite bed here exposed has a thickness of 19 feet.
BM-288	0.01	6.0	43 feet south of BM-287. Trench 12 feet long by 2½ feet wide by 2½ feet deep.
BM-289	0.19	2.0	From center of Apex claim No. 1, S. 50° E. 79 feet to sample location.
BM-411	*0.01	4.4	Surface exposure of tactite S. 60° W. 8 feet from BM-287.
BM-412	*0.01	3.9	Surface exposure of tactite N. 80° W. 8 feet from BM-411.
BM-413	*0.01	4.0	Surface exposure of tactite, 4.4 feet south of BM-412.
BM-414	*0.01	4.6	Surface exposure of limestone and tactite S. 2° E. 41 feet from BM-288.
BM-415	0.09	4.0	Exposure of tactite in shallow surface trench. S. 55° E. 65 feet from BM-284.

Sample No.	%,WO_3	Width Feet	Description
BM-416	0.08	3.6	Surface exposure of tactite S. 12° E. 68 feet from BM-289.
BM-417	0.40	2.6	Narrow band of tactite occurring in a large outcrop on the east side of the ridge south of BM-285.
BM-418	0.02	3.8	Tactite exposure N. 50° W. 13 feet from BM-285.
BM-419	0.27	28.0	Chip sample from surface exposure N. 38° E. 40 feet from BM-284.
BM-420	*0.01	2.4	Cliff exposure about 4 feet lower than BM-418.

*Less than.

ORE RESERVES

There are no measured ore reserves at the Montrose property. Indicated reserves of a few tons averaging not more than 0.27 percent WO_3 are present at the side of BM-419.

If it is assumed the scheelite bearing tactite extends about one-fourth the distance from the surface to the Montrose adit (fig. 3) then 500 tons of ore containing 0.27 percent WO_3 may be inferred in the block 10 feet thick, 20 feet long, and 30 feet down the dip of the beds. Other areas are either too small or too low grade to infer a tonnage.

It is possible, however, that the tactite beds exposed in the adit might contain scheelite at other places along the strike, or along the dip. It is also possible that the tactite beds at samples BM-289 and 418 (fig. 3, section AA') might contain scheelite in commercial quantities below the surface exposures. As there are no showings of commercial grade these possibilities are a hope rather than an inference, and any exploration would be speculative.

PROPOSED EXPLORATION

The applicant has proposed a program including the driving of 1,000 feet of adit, 3,000 feet of trenching, one mile of road and construction of buildings to house men and equipment. The total cost was estimated to amount to $48,000.00 of which the Government's share would be 75% or $36,000.00.

The Examining Engineer recommends 150 feet of adit and 100 feet of diamond drilling at a total cost of $6,000.00. Government participation at 75% or $4,500.00. The portal of the adit to be located at an approximate elevation of 7,780 feet, at or near sample BM-412. The adit to be extended in a north 80° easterly direction for a distance of 150 feet. This bearing will parallel the A-A' section noted in figure 3.

COST DETAILS

Personnel:

	Per day	Ins.	Total
1 Foreman-miner (the applicant)	$16.00	$2.43	$18.43
1 Miner	$15.00	$2.28	$17.28
			$35.71 =

$11.90/ft.

Adit length - 150 feet
Advance 3 feet per day, 5-day week = 50 days = 1.92 months.
Size of adit: . . . . 4 feet wide by 6 feet high (wheelbarrow size).

Resume of costs:

Labor and insurance	$11.90/ft.	
Powder, caps and fuse	3.00	"
Timber and wedges	.25	"
Compressor supplies	2.50	"
Repairs	1.00	"
Steel and bits	2.00	"
Lubricating oils and greases	.50	"
Installing air and water lines	1.00	"
Assaying	1.00	"
Hauling water to mine	1.50	"
Transportation (supplies to camp and mine).	1.50	"
Blacksmith coal	.10	"
Carbide	.12	"
Preparatory work	3.01	"
Rental of equipment	1.26	"
	$30.64	"
Add 12.5% for contingencies	4.37	"
	$35.01	"

150 foot adit @ $35.00 per foot = $5,250.00
Government participation @ 75% = $3,937.50

It is further recommended that the contract be approved upon a footage or unit basis.

The operator will furnish all equipment:

	Estimated value
Air compressor	$2,500.00
Drifter drill, column, arm, etc.	750.00
Air and water hoses	100.00
Water pressure tank	50.00
Air lines . . . . . 1 .	75.00
Water lines	40.00
Wheelbarrow (rubber tire)	25.00
Misc. mine tools	100.00
First aid kit	25.00
Truck, 4-wheel drive (second hand) . . .	2,000.00
	$5,665.00

$\frac{\$5,665.00}{60}$ = $94.42 per month = 2 months = $188.84 = $1.26 per foot

Preparatory work:

	Cost	Cost per foot
Transporting air compressor to mine and placing in proper location . . .	$100.00	$0.67
Installing approximately 800 feet of 2-inch air pipe and 300 feet of 1-inch water lines from compressor setup to portal of proposed adit	100.00	.67
Excavating at portal of adit preparing to start adit	250.00	1.67
	$450.00	$3.01

In order to further explore an additional bold exposure of taetite, it is proposed to put down one diamond drill hole in the area represented by samples BM-418, BM-285, and BM-420 (see fig. 3). The drill hole to be collared at approximately 7,710 feet elevation and to extend to a depth of 100 feet on an angle of minus 72 degrees.

The cost of this work is estimated to be $7.50 per foot, or $750.00 which is to include the labor, rental of all necessary equipment, construction of core boxes, assaying, etc.

Government participation @ 75% = $562.50

During both the adit and diamond drilling projects, the applicant who is expected to act as the foreman-miner, is to also do the sampling and prepare the monthly reports on Form MF-104.

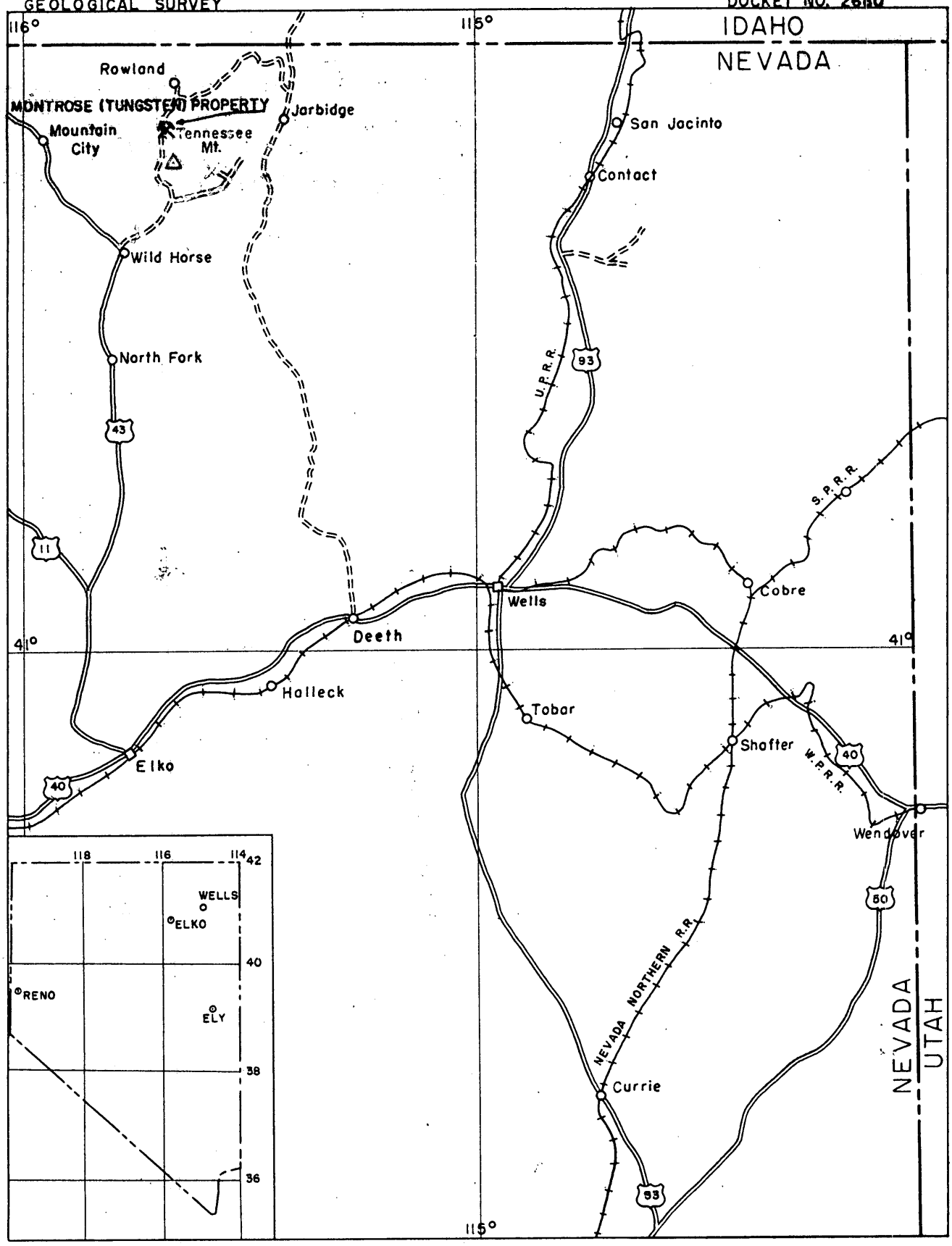


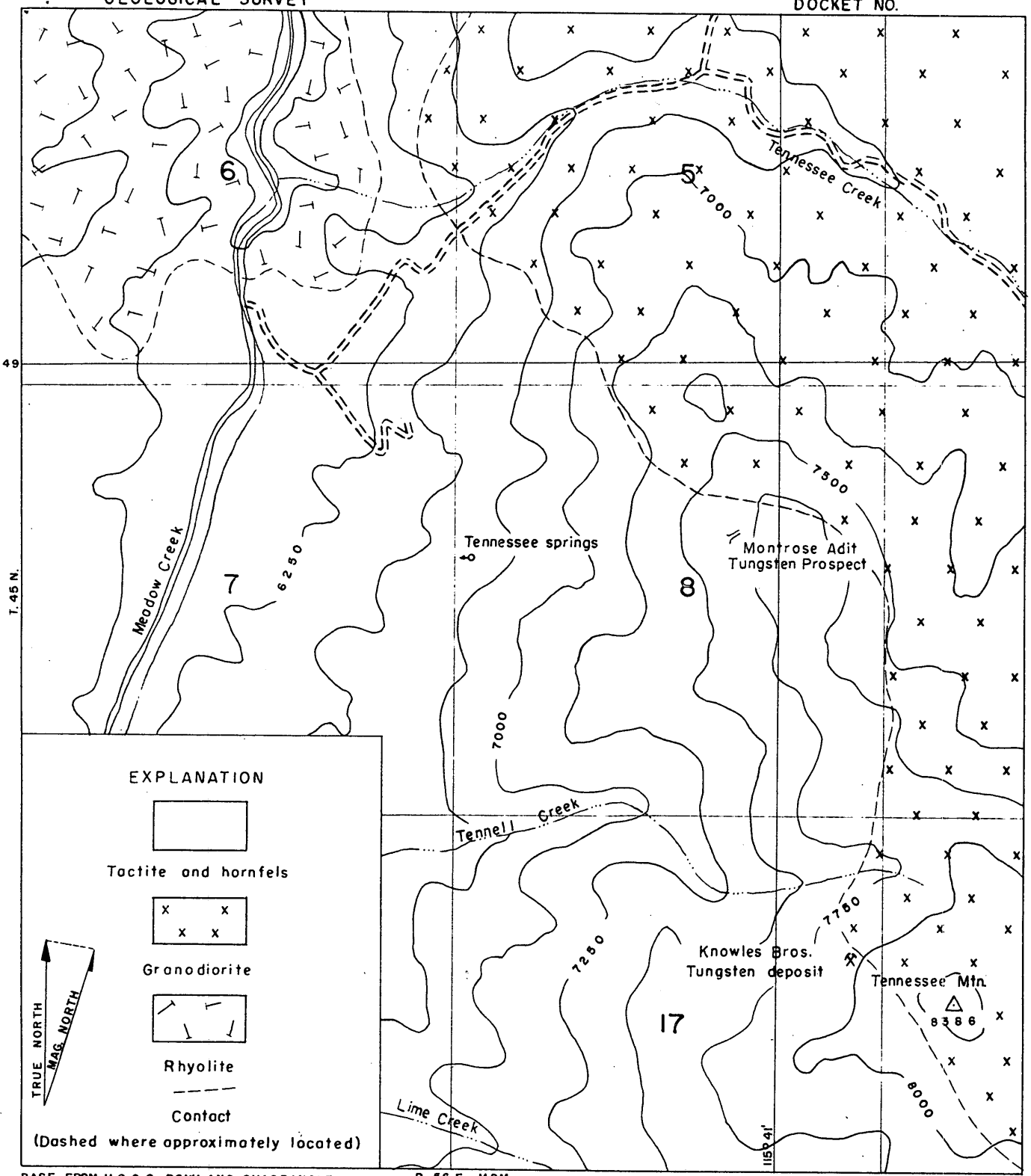
FIG. 1 INDEX MAP OF NEVADA

0 10 20 30 40 Miles

Scale 1:1,000,000

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO.



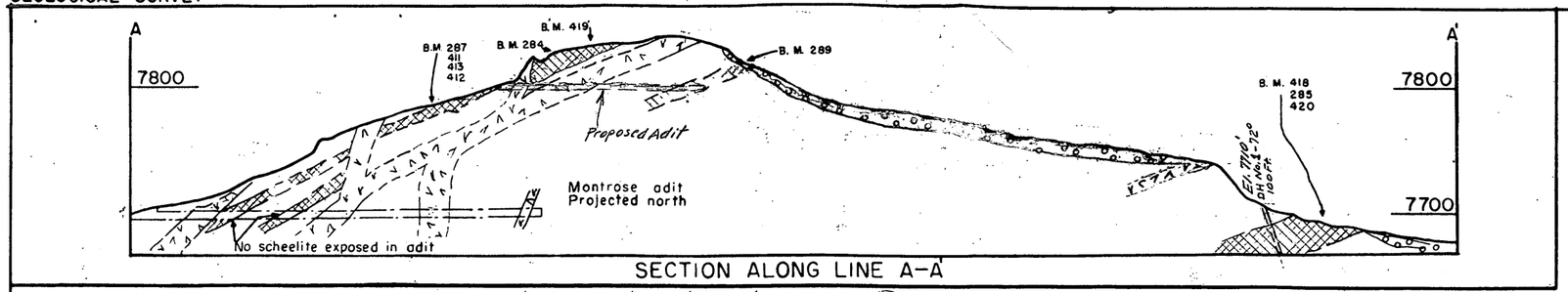
BASE FROM U.S.G.S. ROWLAND QUADRANGLE R. 56 E., M.D.M. GEOLOGY BY M.M. BELL & R.M. SMITH

FIG. 2

GEOLOGIC SKETCH MAP OF THE MONTROSE CLAIMS

ELKO COUNTY, NEVADA

0 .5 1 MILE
Scale



SECTION ALONG LINE A–A'

sample no.	width feet	WO_3 percent	check assay
B.M. 283	1.8	0.09	
B.M. 284	3.2	0.25	0.58
B.M. 285	3.5	0.06	
B.M. 286	29.0	0.12	
B.M. 287	5.0	0.01	
B.M. 288	6.0	0.01	
B.M. 289	2.0	0.19	
B.M. 411	4.4	0.01	0.10
B.M. 412	3.9	0.01	
B.M. 413	4.0	0.01	
B.M. 414	4.6	0.01	
B.M. 415	4.0	0.09	
B.M. 416	3.6	0.08	
B.M. 417	2.6	0.40	
B.M. 418	3.8	0.02	
B.M. 419	28.0	0.27	
B.M. 420	2.4	0.01	

EXPLANATION

Alluvium

Undifferentiated hornfels limestone, shale, tactite

Alaskite sills and dikes

Scheelite-bearing tactite

Contact, showing dip (Dashed where approximately located)

Strike and dip of beds

Trench

FIG. 3

GEOLOGIC MAP OF MONTROSE (TUNGSTEN) PROPERTY, ELKO COUNTY, NEVADA

Contour Interval 20 feet

0 100 200 300 ft.
Scale

Geology by R. M. Smith & D. C. Lgub

U. S DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 2680

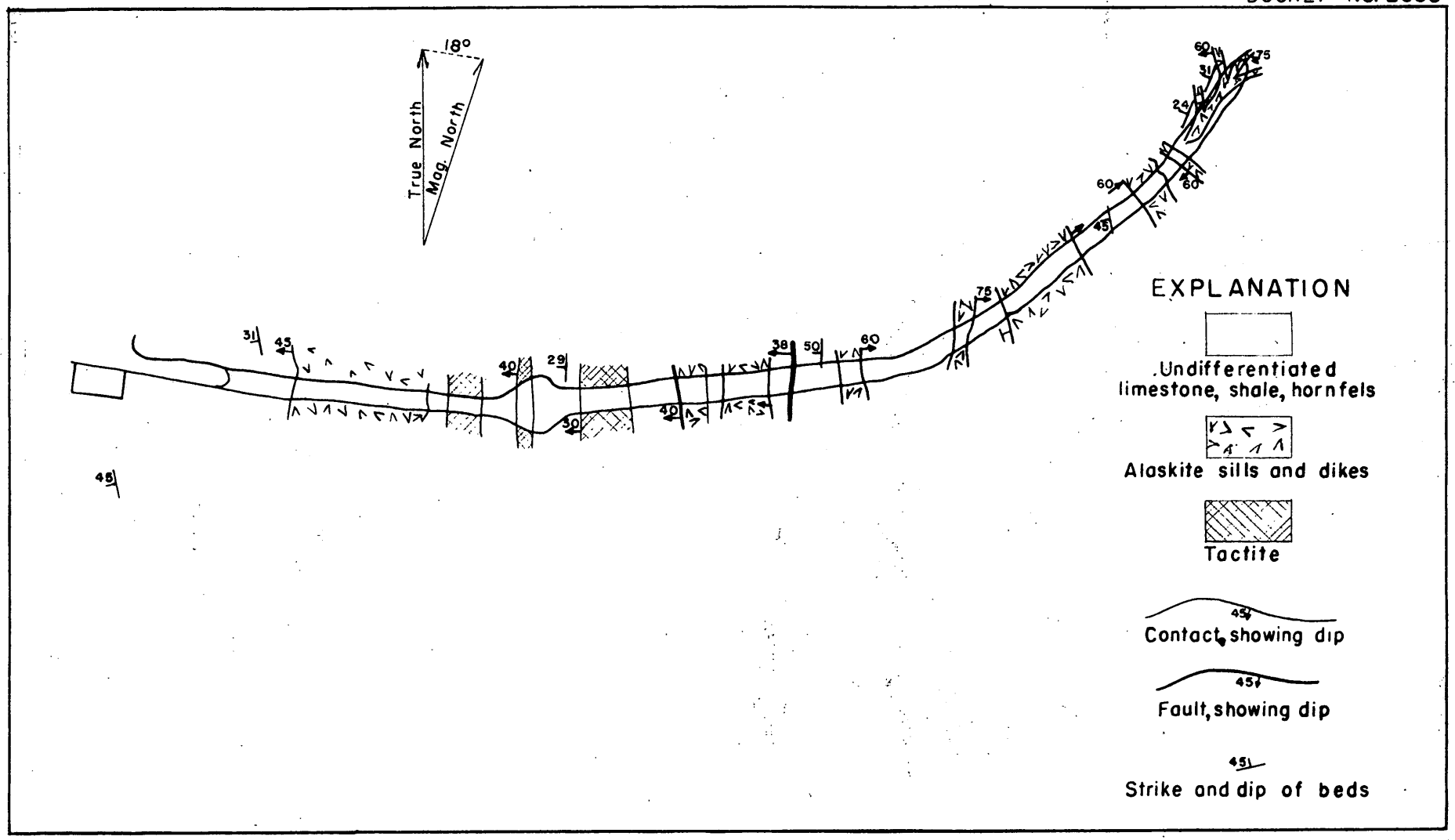


FIG. 4

GEOLOGIC MAP OF MONTROSE ADIT
ELKO COUNTY, NEVADA

0 40 80 120 FT.
Scale

400

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

September 23, 1952

Memorandum

To: George C. Selfridge, DPA

From: Robert W. Geehan, Bureau of Mines

Subject: Montrose Mining Company
P. O. Box 98
Mountain City, Nevada

DPA 2680
Tungsten

Proposal: Drive 1,000 feet of tunnel.
Surface trenches 3,000 feet.
Construct 1 mile of road.
Housing and surface plant.
Estimated cost - $48,000

General: The applicant furnished no maps and no data regarding samples. I am unable to identify this property as one having been examined in the past by the U. S. Bureau of Mines.

Recommendation: Obtain more information from the applicant.

Robert W. Geehan

Attachment

cc: Admn. Reading File
Docket
R. W. Geehen, USBM
G. M. Lemmon, USGS
Field Team Reg. III
Operating Committee
G. C. Selfridge
F. A. Rutledge

Mr. W. G. Miller
Executive Officer, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

SEP 23 1952

Re: Docket No. DMEA 2680 - Tungsten
Montrose Mining Company
(Robert L. Montrose & Price M. Montrose)
Apex Claims
Alder Mining District
Elko County, Nevada

Dear Mr. Miller:

Reference is made to the subject docket. The results of the field team examination indicate the property has little merit. However, only a few samples were taken and these before limping the tactite to delineate the scheelite-bearing zones. We concur with your memorandum of August 25, 1952, that the field team report does not substantiate its recommendations for an exploration contract. However, it is felt that more data are needed before we can make a decision.

The field team has several other examinations scheduled for the same area. It is, therefore, requested that a new field team examination be made of the Montrose Mining Company property. Since the applicants apparently are not qualified to carry out the mapping program outlined in the report by Gantry, Keith and Bell, it is suggested that the field team make a sufficiently thorough examination and report to lay out an exploration program if the results of the new examination are favorable.

A copy of a memorandum by G. M. Lemmon, U. S. Geological Survey, is enclosed for your information.

Sincerely yours,

Ernest Wm. Ems

FARutledge:lm
6/19/52

ACTING Chairman, Operating Committee

Enclosures

Approved:

C. H. Johnson
Member, Bureau of Mines

E. P. Thayer
Member, Geological Survey

IN REPLY REFER TO:

C-MD-CF

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

402

September 17, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. L. Lemmon, USGS

Subject: Exploration application and Field Report DMEA 2680 - Tungsten
Montrose Mining Co.
P. O. Box 98
Mountain City, Nevada

Property: Apex claims, Sec. 8, T. 45 N., R. 56 E.
Tennessee Mountain
Elko County, Nevada

These claims were examined June 28, 1952 by Glenn C. Gentry, Bureau of Mines, and R. E. Smith and Mendell M. Bell, Geological Survey. Their undated report was received in Washington August 29 along with the application. A memorandum from H. C. Miller transmitting the field report points out that the Field Team disagrees with the conclusions reached and is not satisfied with the adequacy of the examination.

I suspect that the exploration proposal should be denied, but believe a stronger basis for denial is needed. According to the field report, one day and one night were spent on the examination. Eight samples, results of which were disappointingly low, were taken during daylight before inspection in ultraviolet light. Careful study in ultraviolet light to determine distribution of scheelite is an important preliminary to intelligent sampling of such deposits - otherwise, a much larger number of samples is needed to evaluate a prospect.

Inasmuch as a field examination of the nearby Cribble group of claims is also needed (DMEA 2695), and possibly of the new Mink group (DMEA 2630), I suggest that the Field Team be requested to make a more thorough examination of the Montrose claims at the same time. The field report by Gentry, Smith and Bell recommends a 2-stage program costing $10,000. The first stage involves geologic mapping and sampling, the second stage 1,000 feet of diamond drilling. The applicants are apparently not qualified to do the mapping or to plan the drilling. Therefore, I suggest that the Field Team do a sufficiently thorough job to determine if drilling is warranted and to establish drill sites. Drilling in 1951 on the Knowles Brothers property to the south, in which

Montrose is interested, was not properly executed. Holes were placed haphazardly, cores were not logged, sampled or properly stored, and no maps were prepared.

A careful examination should also be made of the Knowles Brothers claims, which presumably have the best possibilities for tungsten ore in the district. DMEA has no application at present, but will doubtless receive one eventually.

DM Lemmon

DMLemmon:gt

402

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

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 29 1952

August 25, 1952

Memorandum

To: DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for Exploration Loan - Tungsten - Montrose Mining Company, Robert L. Montrose and Price D. Montrose, P. O. Box 98, Mountain City, Nevada

Attached are four copies of an application by the Montrose Mining Company, dated May 19, 1952, for an exploration loan, costing $48,000. These application forms were sent directly to our Reno Office and held by that office (contrary to instructions) until an examination was made of the property by engineers and geologists, working in the area at the time.

The property was examined on June 28 by Glenn G. Gentry of the Bureau of Mines and Roscoe M. Smith and Mendell M. Bell of the Geological Survey, and their report was received in this office on August 21, 1952, along with the four copies of MF-103 forms. Four copies of their undated report, entitled Montrose Mining Company, Elko County, Nevada - Tungsten, based upon the examination of the property on June 28, 1952, are attached. Mr. Bailey and I are not satisfied with the examining engineer and geologists' conclusions that the property warrants an exploration loan. The grade of ore as indicated by the assays given in the report, for example, do not seem to warrant a loan.

The examiners present no breakdown of costs of their recommended $10,000 loan, or do they include a map in their report, showing the location of proposed drill holes. We do not think that enough samples were taken. Neither is the proposed program laid out definitely, therefore, rather than hold up submission of the report to the Washington Office while attempts are made to get the missing data, it was decided to send the reports to you as prepared. If, after reviewing the report, your office feels that a $10,000 loan is justified and will let us know, we will have an engineer revisit the property and secure the missing information.

H. C. MILLER

Copy to E. H. Bailey, USGS
A. C. Johnson, Reno, Nev.

Attachments

H. C. Miller
Executive Officer
DMEA Field Team, Region III

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

Montrose Mining Company

Elko County, Nev.

- Tungsten -

Application dated May 19, 1952
No docket number has been assigned

Glenn G. Gentry, Mining Engineer
U. S. Bureau of Mines

Roscoe M. Smith, geologist
U. S. Geological Survey

Mendell M. Bell, geologist
U. S. Geological Survey

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Montrose Mining Company, P. O. Box 98, Mountain City, Nevada, represented by Robert L. and Price D. Montrose, applied May 19, 1952 to the Defense Minerals Exploration Administration for government assistance in a $48,000 program to explore for the downward continuation of scheelite ore exposed on the surface of their claims in the Alder mining district, Elko County, Nevada.

The property was examined on June 28, 1952 in conjunction with an examination of an adjoining property.

Scheelite occurs in tactite in numerous surface exposures in concentrations up to 0.5 percent WO_3. About 1,000 tons of ore averaging 0.25 percent WO_3 is inferred to lie below the three best exposures.

As scheelite is found in several tactite layers over a considerable area, there is a reasonable chance that exploratory work will reveal reserves greater than it is now possible to infer. Exploratory work may also reveal ore of higher grade than 0.25 percent WO_3.

The applicant proposed an indefinite program of drifting, trenching, road construction, and building construction in unspecified locations. He estimated that the program would require about eight months to complete.

Although some exploratory work is justified, the applicant's program is not well planned, and a program to consist of two phases is suggested:

1. Map the scheelite exposures in detail, determine the most advantageous locations for diamond drill holes, and outline a drilling program.
2. From surface locations, diamond drill to explore for the downward continuation of ore exposed on the surface. About 1,000 feet of drilling should be allowed for this work.

The program is estimated to cost about $10,000 and would require about three months to complete.

It is recommended that the government enter into a contract with the applicant to provide 75 percent of the cost of the proposed mapping and diamond drilling.

INTRODUCTION

An examination of this property was made on June 28, 1952 by an engineer [1] of the Bureau of Mines, Region III and geologists [2] of the U. S. Geological Survey.

The purpose of the examination was to secure samples and data, together with geological maps in order to evaluate the property prior to forwarding the application through the regular procedure. Time and money were saved by making the examination at this time as the engineers were conducting another examination in the immediate vicinity.

During their inspection of the property, the engineers were accompanied by the Montrose brothers, whose knowledge of the exposures was very helpful.

LOCATION

This mining property consists of 18 unsurveyed mining claims, held by location in the Alder Mining District and approximately 19.3 miles east of Nevada State Highway 43 at Wild Horse, Nevada.

The claims are situated between the Knowles Brothers Tungsten property on the south and the J. W. Mink Tungsten claims on the north.

---

[1] Glenn G. Gentry.

[2] Roscoe M. Smith and Mendell M. Bell.

HISTORY AND DEVELOPMENT

The Montrose brothers filed on these mining claims about two years ago and since then they have been actively engaged in driving an adit 310 feet in length on the Apex No. 1 claim and in exposing the surface mineralization in areas adjacent to the adit.

No production of tungsten ores has been made from the property. Two buildings have been constructed as follows:

1 building housing the air compressor, located at the portal of the adit.
1 building for living accommodations, located approximately one mile west of the adit; can accommodate 4 men.

Both buildings are in reasonably good condition and could be utilized for the recommended exploration program.

Mining equipment on hand and reported as in good condition are as follows:

1 Air compressor, Gardner-Denver, portable, 210 c.f.m., operated by gasoline engine
2 Jackhammers, Ingersoll-Rand, Model S-49, mounted on shell with columns and cross arms, safety clamp
300 feet of 2-inch iron pipe
Miscellaneous hand tools
800 feet of 14-pound rail
1 Mine car, iron body, 18-inch track gauge
2 Trucks, 4-wheel drive

WATER

Sufficient water is available at the living quarters for domestic consumption. Water for mining purposes will have to be hauled from this source to the mine.

POWER

No transmitted electric power is available at the property and all machinery would be operated by means of Diesel or gasoline engines.

CLIMATE AND TOPOGRAPHY

The mine area is located near the crest of the Divide leading to Tennessee Creek and at an elevation of about 8,000 feet. The country is mountainous and rough and severe winter storms should be expected from December through March.

APPLICANTS EXPERIENCE

The Montrose brothers have apparently had considerable and varied experience in and around the mines at Mountain City, Nev., as well as in other locations. Price Montrose states that he is one of the owners of the adjoining Knowles Tungsten claims and that he assisted in the diamond drilling project on these claims.

From the amount of road construction work done, the appearance of the 310-foot adit, and the efforts to prospect the surface of the exposures, it is considered that they would be entirely competent to carry out the drilling project proposed.

Additional and experienced miners can probably be secured in Mountain City, Nev.

SAMPLING

Sample No.	%, WO_3	Oz. Au/T	Description
282	*0.01	Trace	South wall of adit at 190 feet from portal. Sample width 2.8 feet. Material altered limestone and opalite. No mineralization observed by mineralight.
283	0.09	Trace	Shallow pit about 60 feet north of breast of adit and 65 feet above the adit. Sample width 1.8 feet. Observation by mineralight shows large scheelite crystals about 2 feet above sample location. Montrose reports sampling done here in 1950 assayed 0.38% WO_3.

Sample No.	%, WO_3	Oz. Au/T	Description
284	0.25	Trace	Shallow pit about 4 feet deep, 50 feet northeast of No. 283 sample and near crest of hill. Sample width 3.2 feet. Observation by mineralight, estimated 0.5% WO_3. Montrose reports this ore will assay 0.4% WO_3.
285	0.06	Trace	150 feet below crest of hill and on north slope approximately 1/2 mile south of Tennessee Creek; face of tactite exposure; sample width 3.5 feet; observation by mineralight, estimated from 0.4% to 0.8% WO_3.
286	0.12	Trace	87 feet north and 15 feet above No. 285 sample; chip sample across tactite exposure; sample width 29 feet; good mineralization scattered over a considerable area; observation by mineralight, estimated 0.3% to 0.4% WO_3.
287	<0.01	Trace	Upper part of tactite bed 16 feet south of No. 282 sample and at same elevation. Tactite bed here is exposed for a thickness of 19 feet; sample width 5 feet; observation by mineralight, estimated 0.2% WO_3.
288	0.01	Trace	43 feet south of No. 287 sample. Trench 12 feet long by 2½ feet wide by 2½ feet deep. Three vertical cuts each 2 feet in length from northwest wall of trench, and all cuts combined as one sample. Observation by mineralight, estimated 0.2% to 0.4% WO_3.
289	0.19	Trace	From center of Apex No. 1 claim, S 50° E, 79 feet to sample location; narrow cut about 8 feet in length; width of sample 2 feet. Observation by mineralight, estimated 0.4% WO_3.

All sampling was done during daylight hours and prior to use of mineralight at the night inspection.

GEOLOGY

The rocks in the area are limestone and shale of Paleozoic age which are intruded by a granodiorite stock and by granitic alaskite and sills and dikes. Near the sills the sedimentary rocks are partly metamorphosed to tactite; scheelite is associated with the tactite.

The limestone is thin-bedded and commonly shaly: it is interbedded with shales and calcareous shales and strikes north and dips 30°-45° west.

The granodiorite is medium-grained and forms a large stock (fig. 2). Adjacent to the granodiorite the sedimentary rocks are intruded by sills and dikes as much as 200 feet wide which range in composition from alaskite to granodiorite. Both the granitic and sedimentary rocks are cut by quartz stringers as much as 8 inches wide which fill fractures with random strikes and dips. The limestone beds adjacent to the granitic rocks are metamorphosed to tactite layers; the shale beds are metamorphosed to hornfels.

ORE DEPOSITS

The ore bodies are irregular concentrations of scheelite in parallel tactite layers which range in width from a fraction of an inch to 19 feet, and are separated by layers of barren tactite and hornfels. The ore bodies extend along the strike of the tactite layers for as much as 40 feet; as they have not been explored below the outcrops, their depths are not known. They are commonly adjacent to the dikes or to zones of quartz stringers.

The best exposure of the ore bodies is at the site of sample BM 284 (fig. 3). Here a tactite layer 3 feet thick contains scheelite in fractures and disseminated throughout the rock in concentrations estimated to be as high as

0.5 percent WO_3. The Montrose adit (fig. 4) was driven under the outcrop of the best exposure but revealed no scheelite. Other exposures contain spotty and irregular concentrations of scheelite, mostly along fractures, over an area about 600 feet square. Much of the mineralized area is covered by a thin mantle of top soil which locally contains small scheelite crystals; the grade of this material is estimated to be as high as 0.1 percent WO_3.

ORE RESERVES

There are no measured ore reserves on the Montrose property. Indicated reserves of a few tons, contained in the tactite layers under the mineralized outcrops at the sites of samples BM 283, 284, and 286, are estimated to average about 0.25 percent WO_3.

If it is assumed that the scheelite-bearing tactite extends about half the distance from the surface to the Montrose adit (fig. 4), then 1,050 tons of ore containing about 0.25 percent WO_3 may be inferred to be in the three lenses below samples BM 283, 284, and 286, each 20 feet long, 3 feet wide, and extending 70 feet down the dip of the beds.

PROPOSED EXPLORATION

In his application the applicant proposed a $48,000 program to consist of driving 1,000 feet of adit, 3,000 feet of trenching, one mile of road, and construction of buildings to house men and equipment.

The examining engineer and geologists do not consider the proposed work to be well planned, but do believe that a limited amount of diamond drilling to test the downward continuation of the mineralized tactite beds exposed at the surface is warranted. Accordingly, an exploration program consisting of two phases is suggested:

1. Map the scheelite exposures in adequate detail to select diamond drill hole locations best suited for testing the deposit at depth, and outline a drilling program.
2. From surface locations, diamond drill to explore for the downward continuations of ore exposed on the surface. About 1,000 feet of drilling should be allowed for this work.

The total cost of the program is estimated to be $10,000 and would require about three months to complete. The government's share of the cost would be $7,500.00.

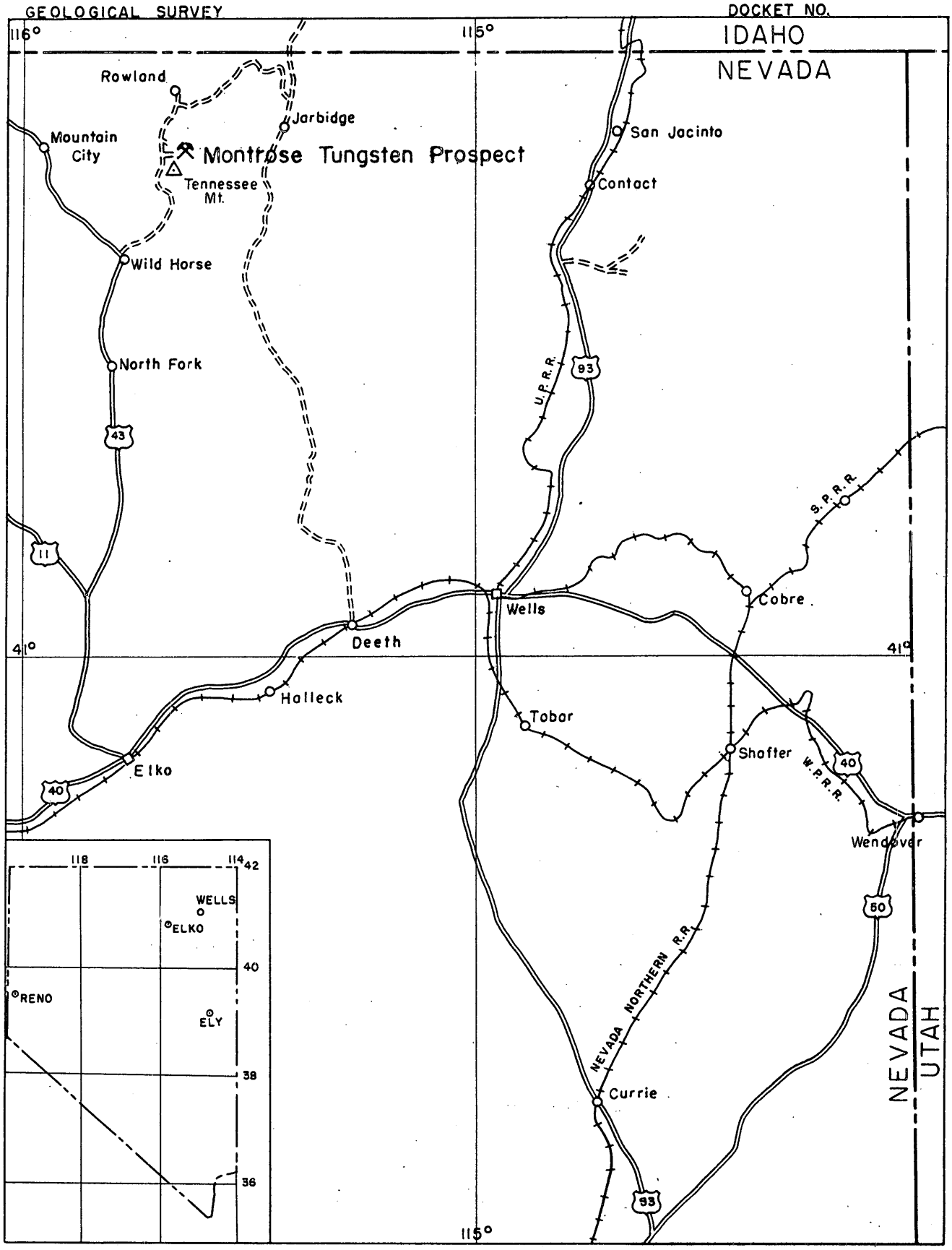


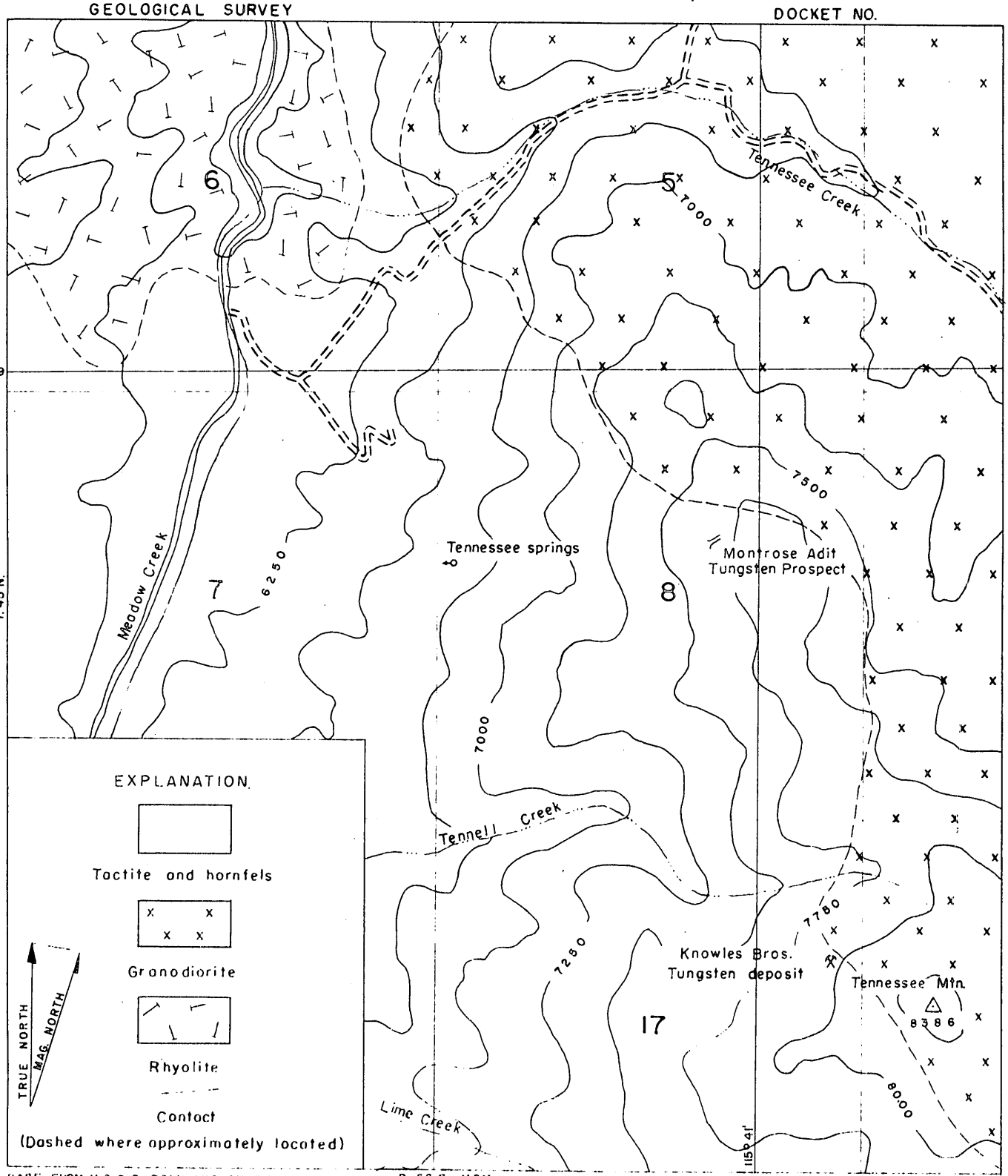
FIG. I INDEX MAP OF NEVADA

0 10 20 30 40 Miles

Scale 1:1,000,000

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO.



BASE FROM U.S.G.S. ROWLAND QUADRANGLE R. 56 E., MDM GEOLOGY BY M.M BELL & R.M SMITH

FIG. 2

GEOLOGIC SKETCH MAP OF THE MONTROSE CLAIMS

ELKO COUNTY, NEVADA

0 .5 1 MILE
Scale

Sample No.	Width feet	WO_3 percent	Oz. gold per ton
BM 283	1.8	0.09	Trace
BM 284	3.2	0.25	Trace
BM 285	3.5	0.06	Trace
BM 286	29	0.12	Trace
BM 287	5	< 0.01	Trace
BM 288	6	0.01	Trace
BM 289	2	0.19	Trace
<—Less than			

FIG. 3 GEOLOGIC SKETCH MAP OF THE MONTROSE TUNGSTEN PROSPECT

ELKO COUNTY, NEVADA

0 100 200 FEET
Scale

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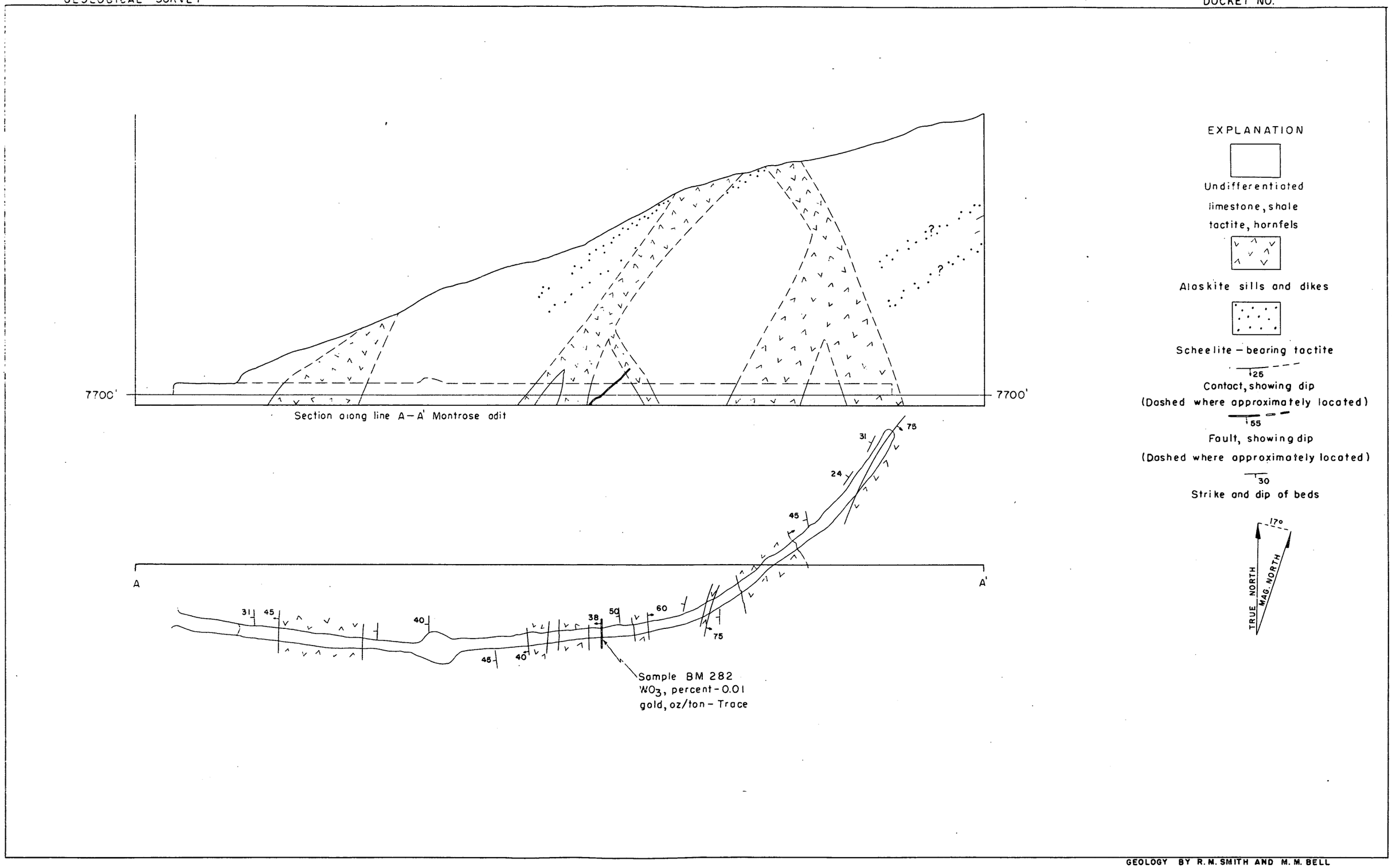

GEOLOGY BY R. M. SMITH AND M. M. BELL

FIG. 4

GEOLOGIC MAP OF MONTROSE ADIT

ELKO COUNTY, NEVADA

0 40 80 FEET
Scale

Form MF-103
(April 1951)

AUG 29 1952

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2680

Date received 8-29-52

Participation

Robert L. Montrose
& Felice D. Montrose (Montrose Mining Company)
P.O. Box 90
Mountain City, Nevada

Name and address of applicant

Date 5/10/52

FILL IN THIS BLOCK

Date of application May 10, 1952

Estimated cost $40,000.00

Mineral or metal Manganese

Percentage of Government participation 75%

Location of mine Elko County, Nevada

Alder Mining District

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Corporation

*2. If a partnership, state names and addresses of partners.

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Attached

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. Attached

*5. Are you the owner or the lessee of the property?

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. None

7. If lessee, attach a copy of the lease and state if it is in good standing. None

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. None

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

[illegible] (Name of company)

By Robert L. Montrose (Signature of authorized official)

[illegible] (Date)

[illegible] (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

(a)(Officers and directors)

8. Robert L. Montrose, President, Mountain City, Nevada

Felice D. Montrose, Secretary-Treasurer, Mountain City, Nevada

Ralph Williams, Vice-President, Elko, Nevada

(b) Stockholders

Robert L. Montrose, Mountain City, Nev.

Felice D. Montrose, Mountain City, Nev.

Howard Dowdle, Mountain City, Nevada

Robert H. Rice, Butte Montana

Hugo Montrose, Mountain City, Nev.

9. Have had 17 years experience in the mining business as an employee on production, accountant on operating and union official on labor. Have good ~~[illegible]~~ practicable understanding of all phases of mining business.

9. $12,000.00 (Twelve thousand dollars)

10. (a) 10 claims covering 1800 granite contact zone with approximately 300 ft. of overcast tunnel.

(b) Upon claims--Montrose Mining Co., Inc.

11. Elko Mining District. Approximately 30 miles east of Mountain City, Nevada, 12 miles from the line to Mountain City called highway via Gold Creek route. 30 miles to Elko, Nevada nearest rail head.

12. Tomahawk Creek at located mill site runs an estimated 100 gallons per minute year round. Power line available 1,000 ft. from claims. Power optional--could probably use 100 H.P. for compressor which is gasoline powered and would cost approximately $900. per month.

14. 16x16 ft. compressor, building and tool shed. 12 x 30' bunk house. One Gardner-Denver 220 cu. ft. gasoline driven air compressor. Two 149 Ingersoll jack hammers complete with shell, wyrl bit and cross and bar. 300 ft. of 2" iron pipe. 500 ft. of 14 lb. rail. One mine car. picks, shovels, hammers and other hand tools required in mining work.

15. Could be trucked to rail head at Elko, Nevada if steel piling facilities were provided. Power and water are available for milling on the property.

20. Scheelite tungsten

21. Would drive 1,000 ft. of tunnel. Surface trench with dozer about 3,000 ft. Build additional housing and buildings for equipment. Approximately 1 mile of road on claim. Would require 8 months to one year to complete.

22. Have approximately 14 miles along contact metamorphic area with very large out cropping of tactite with scheelite of a commercial grade scattered along dikes and granite contacts. Have no maps or other pertinent data available.

23. (a) Miners and muckers, average $14.00 per day.
(b) $400.00 per month
(c) None
(d) $5,000.00
(e) Truck for transportation approximately $3,000.
(f) Caterpillar bulldozer--estimate $2,500.
(g) Two light trucks, 2 mine cars, 2 jack hammers, hoses, pipe and various hand tools required in mining. $500. per month.
(h) Powder, ~~XXX~~ fuel, gasoline and oil--$600. per month.
(i) None

24. Project should be completed in one year.

FILE COPY
SURNAME:
400

Rutledge
Kuhlen
Martin
Hedges
Lemmel
Selfridge
Johnson

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

BL

MAR 18 1953

Mr. Robert L. Montrose
P. O. Box 98
Mountain City, Nevada

Re: Docket No. DMEA 2680 - Tungsten
Montrose Mining Company
Apex Claims
Alder Mining District
Elko County, Nevada

J.C. 3/19/53

Dear Mr. Montrose:

Your request for exploration assistance and other reports concerning your property available to us in Washington have been carefully 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.

Thorough study of all our information, although noting the occurrence of a small amount of scheelite mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program of exploration is not sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

CC: DOCKET
FIELD TEAM, REG. 3
CODE 400
OPER. COMMITTEE
ADMN. READING FILE
D. M. LEMMON, USGS
R. W. GEEHAN, USBM

FARutledge/ls 3/13/53

FILE COPY
SURNAME:

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

Ruthledge
Hubbard
Martin

Administrator, DMEA

March 13, 1953

Iron and Ferro-Alloys Division, DMEA

Denial of application for exploration assistance in the amount of $48,000.00
Docket No. DMEA 2680 - Tungsten
Montrose Mining Company
(Robert L. Montrose and Price D. Montrose)
Apex Claims
Alder Mining District
Elko County, Nevada

The denial of the subject application by this Division is based on the following information:

(1) An examination by the Field Team indicated the property has little merit.

(2) Though the first examining Field Team recommended an exploration project of $10,000.00, neither Mr. Miller, Executive Officer, Region III, nor Mr. Bailey, U. S. Geological Survey member of the Field Team, concurred.

(3) The re-examining Geological Survey members of the Field Team recommended denial, although the Bureau of Mines member recommended a limited amount of exploration.

(4) There is no geologic probability of finding any significant deposit of tungsten ore. Tungsten mineralization occurs as irregular concentrations of scheelite in parallel tactite layers which range in width from a fraction of an inch to 19 feet, and are separated by layers of barren tactite and hornfels. Of the eight preliminary samples taken by the first examining Field Team, one contained 0.25 percent WO_3, one 0.19 percent WO_3, one 0.12 percent WO_3, one 0.09 percent WO_3, and three less than 0.01 percent WO_3. The examining Field Team inferred a reserve of 1,000 tons averaging 0.25 percent WO_3 or equal in grade to the highest of the analyses received.

The Montrose adit was driven under the best surface showings and cut three tactite layers which contained no scheelite. It would, therefore, seem unwise to project the ore layers from the surface more than a few feet.

(5) The Executive Officer and Bureau of Mines member and the Geological Survey member of the Field Team, after careful review of the report, again recommended denial of the application.

(6) The Commodity Division of the U. S. Geological Survey recommends denial.

(7) The Commodity Division of the Bureau of Mines concurs in the denial.

SIGNED

W. S. Martin, Acting Chief
Iron and Ferro-Alloys Division

CC: DOCKET
CODE 400
ADMN. READING FILE
OPER. COMMITTEE

J.C.

FARutledge/ls
3/13/53

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Administrator, DMEA

DATE: March 13, 1953

FROM : Iron and Ferro-Alloys Division, DMEA

SUBJECT: Denial of application for exploration assistance in the amount of $48,000.00
Docket No. DMEA 2680 - Tungsten
Montrose Mining Company
(Robert L. Montrose and Price D. Montrose)
Apex Claims
Alder Mining District
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SIGNED

W. S. Martin, Acting Chief
Iron and Ferro-Alloys Division

IN REPLY REFER TO:
G-MD-CF

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

March 6, 1953

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 9 1953

WSM

To: W. S. Martin, DMEA

From: D. M. Lemmon, USGS

Subject: Field report of February 16, and
Field Team letter of February 26
DMEA-2680, Tungsten
Montrose Mining Company
Elko County, Nevada

I concur with the opinion expressed by Mr. H. C. Miller that the exploration proposal of the company and the alternative recommended by Mr. Glenn G. Gentry should both be denied. The geologic mapping and sampling done by the Field Team show that no commercial tungsten ore is present in the surface outcrops or in the 300 feet of tunnel driven by the applicant. The work done was in the area considered most favorable by the operator and by the Field Team. Although it is possible that tungsten ore might be found elsewhere on the property by careful prospecting and geologic mapping, the work done to date is not encouraging and no program of underground exploration can be justified unless better surface showings are found.

D. M. Lemmon

D. M. Lemmon

Copy retained 400

IN REPLY REFER TO:

G-MD-CF

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

March 6, 1953

Memorandum

To: W. S. Martin, DMEA

From: D. M. Lemmon, USGS

Subject: Field report of February 16, and
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DMEA-2680, Tungsten
Montrose Mining Company
Elko County, Nevada

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAR 9 1953

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D. M. Lemmon

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 2 1953

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

February 26, 1953

Turn down
WSM

Memorandum

To: Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2680 (Tungsten), Montrose Mining Company, (Robert L. Montrose & Price D. Montrose), Apex Claims, Alder Mining District, Elko County, Nevada

Reference is made to the letter, dated September 23, 1952, from Ernest Wm. Ellis, Acting Chairman, Operating Committee, requesting additional information on the subject application.

Attached are four copies of a report titled "DMEA-2680, Montrose Mining Company, Elko County, Nevada, (Tungsten)," by Glenn G. Gentry, Mining Engineer, U. S. Bureau of Mines, and R. M. Smith and D. C. Laub, Geologists, U. S. Geological Survey, dated February 16, 1953, which was made in connection with the subject application.

It is noted from the report that the examining engineer and geologists are not in accord that the property warrants an exploration loan. The examining geologists are of the opinion that the probability of a significant discovery is too small to justify a loan, while on the other hand, the examining engineer of the Bureau of Mines considers that the property offers possibilities of producing a moderate tonnage of low grade tungsten. He also makes the reservation that the property is speculative, but a small amount of exploration work would develop considerable information on the possibilities of the property.

Mr. A. C. Johnson writes that the property is located in an area in which very little work has been done of an exploratory nature. However, there are bold outcrops of tactite that do show scheelite mineralization. The assumption has been made by the geologist that the tactite zones do not go to depth. However, this can not be proven as they do not know the attitude of the tactite beds from the amount of work that has been done on them to date.

Reviewed by
DMEA OPERATING COMMITTEE
3-6-53
(date)

The tactite zones have been traced over a large area and there are possibilities that exploration work will give information as to their habit and there is also a likelihood that a fair amount of tungsten ore will be indicated by the work.

Mr. Bailey and I have carefully reviewed the report and have come to the conclusion that the loan should be denied. The erratic nature of the ore and the very low tungsten content makes it highly improbable that commercial ore will be found in the area. We are unable to understand why the engineer recommends exploring the upper part of the tactite for a possible reserve of 500 tons of ore when the applicant's adit driven under the best surface showing cut 3 tactite layers, none of which contained scheelite and surface samples showed no commercial ore. We conclude, therefore, that the application, though for only a small amount, should be denied.

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: E. H. Bailey, USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 2 1953

gcl
3/16/53

DMEA-2680, Montrose Mining Co.

Elko County, Nev.

(Tungsten)

Glenn G. Gentry, Mining Engineer
U. S. Bureau of Mines

R. M. Smith and D. C. Laub, Geologists
U. S. Geological Survey

February 16, 1953

Reviewed by
DMEA OPERATING COMMITTEE
3-6-53
(date)

DMEA-2680, MONTROSE MINING CO., ELKO COUNTY, NEV.

(Tungsten)

CONTENTS

	Page
Summary, conclusions and recommendations	1
Introduction	2
Location	4
History and development	4
Water	4
Power	5
Climate	5
Applicant's experience	5
Geology	5
Ore deposits	6
Sampling	7
Ore reserves	8
Proposed exploration	9
Cost details	9

EXHIBITS

Fig. 1 - Index map of Nevada.

Fig. 2 - Geologic sketch map of the Montrose claims.

Fig. 3 - Geologic map of Montrose (tungsten) property.

Fig. 4 - Geologic map of Montrose adit.

Docket No.: DMEA-2680

Name and address of applicant: Montrose Mining Co.,
Price D. Montrose,
P. O. Box 96,
Mountain City, Nev.

Name and location of property: Montrose Mining Co.
Alder Mining District,
Elko County, Nev.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Montrose Mining Company, Mountain City, Nevada, applied May 19, 1952 to the Defense Minerals Exploration Administration for government assistance in a $38,000 program to explore the downward continuation of scheelite showings exposed on the surface of their claims in the Alder Mining District, Elko County, Nev.

The property was examined on June 28, 1952 by an engineer from the Bureau of Mines and geologists from the U. S. Geological Survey, and a report recommending a program of mapping and drilling was prepared. At the request of E. H. Bailey, dated September 30, 1952, the property was re-examined on October 28-29, 1952. A detailed map of the area was prepared and additional samples were taken after examining the area at night with a mineralight.

The weighted average of all samples taken is 0.13 percent WO_3, which is well below the cut off point of 0.30 percent WO_3 required for shipping ore at both the Getchell mill in Nevada, and the U. S. Vanadium Co. mill at Bishop, Calif. (If, in the future, a mill is installed in the vicinity of the Knowles property, the ore may then be of commercial value).

Ore reserves total 500 tons averaging 0.27 percent WO_3 which is inferred in the block below sample BM-419 (fig. 3).

The examining geologists conclude that the likelihood of a significant discovery is small and that the ore reserves do not justify exploratory work at the property by the DMEA.

The examining engineer of the U. S. Bureau of Mines, however, considers that the property offers the possibility of producing a moderate tonnage of low grade ore over a larger area than shown by the present exposures. While the exploration must be considered as speculative, he believes the property to have sufficient merit to justify 150 feet of adit at an estimated cost of $35.00 per foot and 100 feet of diamond drilling at an estimated cost of $7.50 per foot (see fig. 3).

This exploration would serve to determine the geological formations at greater depth than now possible to ascertain from surface exposures and also the degree of scheelite mineralization and distribution of the mineral.

The total estimated cost of the above exploration project amounts to $6,000.00. Government participation @ 75% would therefore amount to $4,500.00.

INTRODUCTION

This mining property was examined and sampled during the day and night of June 28, 1952 by a Field Team composed of geologists[1] of the U. S. Geological Survey and an engineer[2] of the U. S. Bureau of

1/ R. M. Smith and M. M. Bell, Geologists, U. S. Geological Survey.
2/ Glenn G. Gentry, Mining Engineer, U. S. Bureau of Mines.

Mines. During this examination and inspection by mineralight the Field Team was accompanied by Messrs. Price and Robert Montrose, owners of the mining claims.

Eight samples were secured from the most promising exposures of tactite and in locations where the owners had made numerous inspections by mineralight, and in areas where they proposed to explore. Additional examination, by mineralight, by the examining engineers, indicated that the locations sampled were representative of the exposures.

Pursuant to instructions contained in a letter dated September 23, 1952, addressed to Mr. H. C. Miller, Executive Officer, Region III and signed by Mr. Ernest Wm. Ellis, Acting Chairman, Operating Committee, the Montrose mining property was again examined and sampled on Oct. 28-29, Nov. 1, 1952 by geologists[3/] of the U. S. Geological Survey and an engineer[4/] of the U. S. Bureau of Mines. On the afternoon and night of October 28, the engineers were accompanied by Mr. Price Montrose.

Ten samples were secured from areas adjacent to the previous sampling and over areas where inspection by mineralight indicated that representative mineralization could be expected.

The areas sampled contained the exposures where some small amount of surface exploration had been done and on outcrops where scheelite mineralization had been observed by means of the mineralight. No additional development had been done by the applicant and therefore no further exposures had been cleared for sampling.

3/ R. M. Smith, D. C. Laub, Ralph J. Roberts, Geologists, U.S.G.S.
4/ Glenn G. Gentry, Mining Engineer, U. S. Bureau of Mines.

LOCATION

The property consists of 18 unsurveyed mining claims, held by location, in the Alder Mining District, Elko County, Nev., approximately 19.3 miles east of Nevada State Highway 43 at Wild Horse, Nev. They are located principally in sec. 8, T. 45 N., R. 56 E., M.D.B.&M.

HISTORY AND DEVELOPMENT

The Montrose brothers filed on these mining claims about two years ago and since then they have been actively engaged in driving an adit 310 feet in length on the Apex No. 1 claim and in exposing the surface mineralization in areas adjacent to the adit.

No production of tungsten ores has been made from the property. Two buildings have been constructed as follows:

1 building housing the air compressor, located at the portal of the adit.
1 building for living accommodations, located approximately one mile west of the adit; can accommodate 4 men.

Both buildings are in reasonably good condition and could be utilized. Mining equipment on hand and reported as in good condition are as follows:

1 Air compressor, Gardner-Denver, portable, 210 c.f.m., operated by gasoline engine.
2 Jackhammers, Ingersoll-Rand, Model S-49, mounted on shell with columns and cross arms, safety clamp.
300 feet of 2-inch iron pipe.
Miscellaneous hand tools
800 feet of 14-pound rail
1 Mine car, iron body, 18-inch track gauge
2 Trucks, 4-wheel drive

WATER

Sufficient water is available at the living quarters for domestic consumption. Water for mining purposes will have to be hauled from

this source to the mine.

POWER

No transmitted electric power is available at the property and all machinery would be operated by means of Diesel or gasoline engines.

CLIMATE

The mine area is located near the crest of the divide leading to Tennessee creek and at an elevation of about 8,000 feet. The country is mountainous and rough and severe winter storms should be expected from December through March.

APPLICANT'S EXPERIENCE

The Montrose brothers have apparently had considerable and varied experience in and around the mines at Mountain City, Nev., as well as in other locations. Price Montrose states that he is one of the owners of the adjoining Knowles tungsten claims and that he assisted in the diamond drilling project on these claims.

From the amount of road construction work done, the appearance of the 310-foot adit, and the efforts to prospect the surface of the exposures, it is considered that they would be entirely competent to carry out any proposed exploratory work. Additional experienced miners can probably be secured in Mountain City, Nev.

GEOLOGY

The sedimentary rocks in the area are limestone and shale of Paleozoic age. They are cut by a large granodiorite stock and by alaskite dikes and sills. Near the dikes and sills the sedimentary rocks have been metamorphosed to tactite which contains scheelite in some places.

The limestone is thin-bedded and is interbedded with shale and calcareous shale all of which strike north and dip 25° to 30° W. Adjacent to the granodiorite the sedimentary rocks are cut by sills and dikes as much as 200 feet wide, which range in composition from alaskite to granodiorite. Both the granitic and sedimentary rocks are cut by quartz veins as much as 8 inches wide that fill fractures having random strikes and dips.

The limestone beds adjacent to the granitic rocks are metamorphosed to tactite; the shale beds are metamorphosed to hornfels.

ORE DEPOSITS

The ore bodies are irregular concentrations of scheelite in parallel layers of tactite that range in width from a fraction of an inch to 19 feet, and are separated by barren tactite, hornfels and alaskite sills. The ore bodies extend along the strike of the tactite layers for as much as 40 feet; they have not been explored below the outcrops and their depths are not known. The scheelite deposits are commonly adjacent to the dikes and sills or to zones of quartz stringers.

The scheelite showings are scattered over an area 900 by 1,400 feet. Although the area is partly covered by a thin mantle of soil, exposures are for the most part fair. The scheelite showings were sampled wherever possible in trenched as well as in surface exposures. The weighted average of all the samples taken is 0.13 percent WO_3; the best sample of disseminated scheelite is BM-419 which gave an analysis of 0.27 percent WO_3; it was cut across the slope for a distance of 28 feet which represents an actual thickness of 10 feet.

Samples BM-415 and BM-286 assayed 0.09 and 0.02 percent WO_3 respectively, indicating that BM-419 is not representative of the grade of the deposit as a whole. Sample BM-417 represents a tactite layer containing a few non-persistent high grade seams.

The Montrose adit (fig. 3) was driven under the best surface showings and cut three tactite layers which contained no scheelite. It would therefore seem unwise to project the ore layers from the surface more than a few feet.

SAMPLING

Sample No.	%, WO_3	Width Feet	Description
BM-282	0.01	2.8	South wall of adit 190 feet from portal, altered limestone and opalite. No mineralization observed by mineralight.
BM-283	0.09	1.8	Shallow pit about 60 feet north of breast of adit and 65 feet above the adit.
BM-284	0.25	3.2	Shallow pit about 4 feet deep, 50 feet northeast of BM-283 and near crest of hill.
BM-285	0.06	3.5	150 feet below crest of hill and on north slope approximately 1/2 mile south of Tennessee Creek, face of tactite exposure.
BM-286	0.12	29.0	84 feet north and 15 feet above BM-283; chip sample across tactite exposure.
BM-287	0.01	5.0	Upper part of tactite bed 16 feet south of BM-283 and at same elevation. Tactite bed here exposed has a thickness of 19 feet.
BM-288	0.01	6.0	43 feet south of BM-287. Trench 12 feet long by 2½ feet wide by 2½ feet deep.
BM-289	0.19	2.0	From center of Apex claim No. 1, S. 50° E. 79 feet to sample location.
BM-411	*0.01	4.4	Surface exposure of tactite S. 60° W. 8 feet from BM-287.
BM-412	*0.01	3.9	Surface exposure of tactite N. 80° W. 8 feet from BM-411.
BM-413	*0.01	4.0	Surface exposure of tactite, 4.4 feet south of BM-412.
BM-414	*0.01	4.6	Surface exposure of limestone and tactite S. 2° E. 41 feet from BM-288.
BM-415	0.09	4.0	Exposure of tactite in shallow surface trench. S. 35° E. 65 feet from BM-284.

Sample No.	%,WO_3	Width Feet	Description
BM-416	0.08	3.6	Surface exposure of tactite S. 12° E. 68 feet from BM-289.
BM-417	0.40	2.6	Narrow band of tactite occurring in a large outcrop on the east side of the ridge south of BM-285.
BM-418	0.02	3.8	Tactite exposure N. 30° W. 13 feet from BM-285.
BM-419	0.27	28.0	Chip sample from surface exposure N. 36° E. 40 feet from BM-284.
BM-420	*0.01	2.4	Cliff exposure about 4 feet lower than BM-418.

*Less than.

ORE RESERVES

There are no measured ore reserves at the Montrose property. Indicated reserves of a few tons averaging not more than 0.27 percent WO_3 are present at the side of BM-419.

If it is assumed the scheelite bearing tactite extends about one-fourth the distance from the surface to the Montrose adit (fig. 3) then 500 tons of ore containing 0.27 percent WO_3 may be inferred in the block 10 feet thick, 20 feet long, and 30 feet down the dip of the beds. Other areas are either too small or too low grade to infer a tonnage.

It is possible, however, that the tactite beds exposed in the adit might contain scheelite at other places along the strike, or along the dip. It is also possible that the tactite beds at samples BM-289 and 418 (fig. 3, section AA') might contain scheelite in commercial quantities below the surface exposures. As there are no showings of commercial grade these possibilities are a hope rather than an inference, and any exploration would be speculative.

PROPOSED EXPLORATION

The applicant has proposed a program including the driving of 1,000 feet of adit, 3,000 feet of trenching, one mile of road and construction of buildings to house men and equipment. The total cost was estimated to amount to $48,000.00 of which the Government's share would be 75% or $36,000.00.

The Examining Engineer recommends 150 feet of adit and 100 feet of diamond drilling at a total cost of $6,000.00. Government participation at 75% or $4,500.00. The portal of the adit to be located at an approximate elevation of 7,780 feet, at or near sample BM-412. The adit to be extended in a north 80° easterly direction for a distance of 150 feet. This bearing will parallel the A-A' section noted in figure 3.

COST DETAILS

Personnel:

	Per day	Ins.	Total
1 Foreman-miner (the applicant)	$16.00	$2.43	$18.43
1 Miner	$15.00	$2.28	$17.28
			$35.71 =

$11.90/ft.

Adit length - 150 feet
Advance 3 feet per day, 5-day week = 50 days = 1.92 months.
Size of adit: 4 feet wide by 6 feet high (wheelbarrow size).

Resume of costs:

Labor and insurance	$11.90/ft.
Powder, caps and fuse	3.00 "
Timber and wedges	.25 "
Compressor supplies	2.50 "
Repairs	1.00 "
Steel and bits	2.00 "
Lubricating oils and greases	.50 "
Installing air and water lines	1.00 "
Assaying	1.00 "
Hauling water to mine	1.50 "
Transportation (supplies to camp and mine).	1.50 "
Blacksmith coal	.10 "
Carbide	.12 "
Preparatory work	3.01 "
Rental of equipment	1.26 "
	$30.64 "
Add 12.5% for contingencies	4.37 "
	$35.01 "

150 foot adit @ $35.00 per foot = $5,250.00
Government participation @ 75% = $3,937.50

It is further recommended that the contract be approved upon a footage or unit basis.

The operator will furnish all equipment:

	Estimated value
Air compressor	$2,500.00
Drifter drill, column, arm, etc.	750.00
Air and water hoses	100.00
Water pressure tank	50.00
Air lines	75.00
Water lines	40.00
Wheelbarrow (rubber tire)	25.00
Misc. mine tools	100.00
First aid kit	25.00
Truck, 4-wheel drive (second hand) . . .	2,000.00
	$5,665.00

$\frac{\$5,665.00}{60}$ = $94.42 per month = 2 months = $188.84 = $1.26 per foot

Preparatory work:

	Cost	Cost per foot
Transporting air compressor to mine and placing in proper location . . .	$100.00	$0.67
Installing approximately 300 feet of 2-inch air pipe and 300 feet of 1-inch water lines from compressor setup to portal of proposed adit	100.00	.67
Excavating at portal of adit preparing to start adit	250.00	1.67
	$450.00	$3.01

In order to further explore an additional bold exposure of tactite, it is proposed to put down one diamond drill hole in the area represented by samples BM-418, BM-285, and BM-420 (see fig. 3). The drill hole to be collared at approximately 7,710 foot elevation and to extend to a depth of 100 feet on an angle of minus 72 degrees.

The cost of this work is estimated to be $7.50 per foot, or $750.00 which is to include the labor, rental of all necessary equipment, construction of core boxes, assaying, etc.

Government participation @ 75% = $562.50

During both the adit and diamond drilling projects, the applicant who is expected to act as the foreman-miner, is to also do the sampling and prepare the monthly reports on Form MF-104.

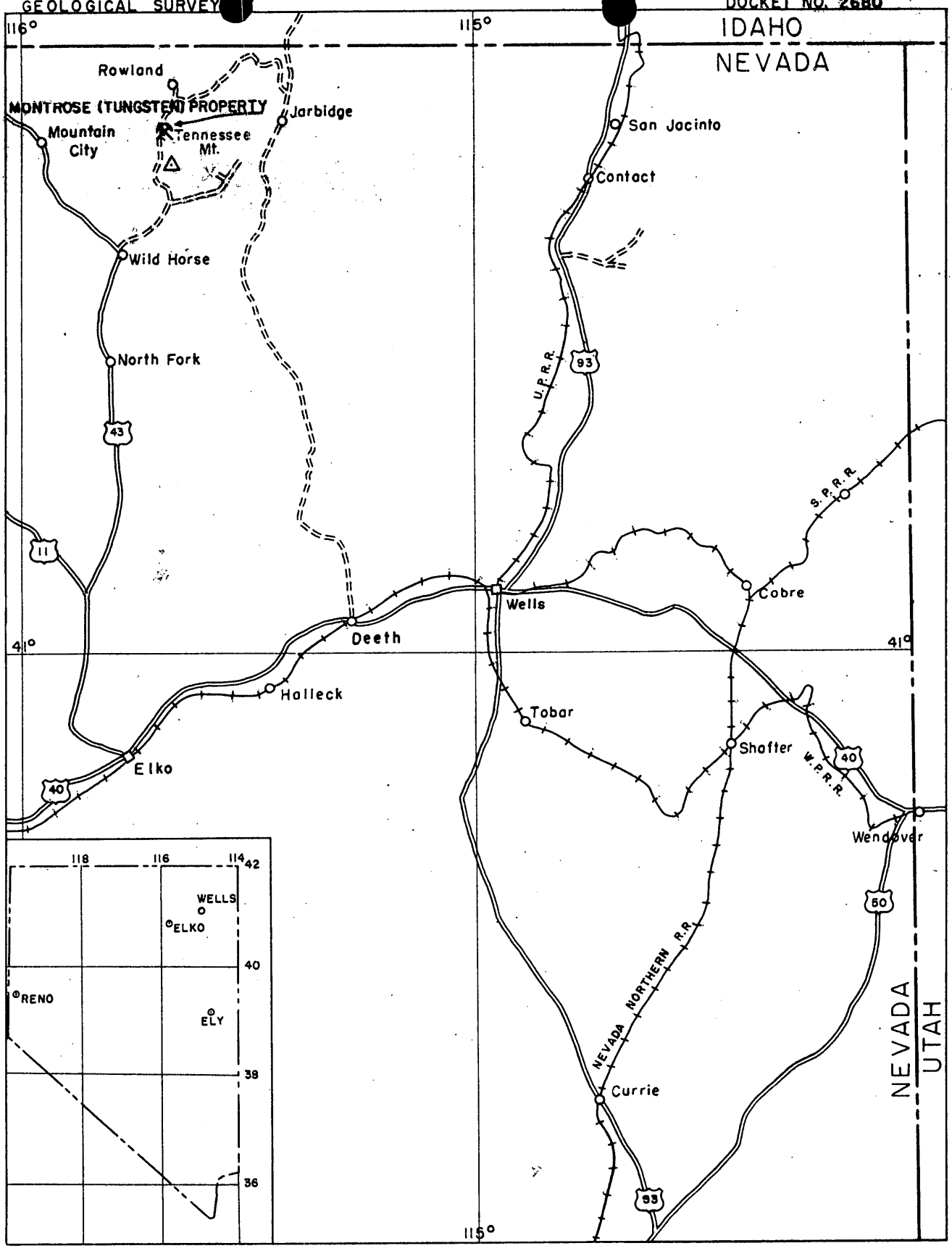


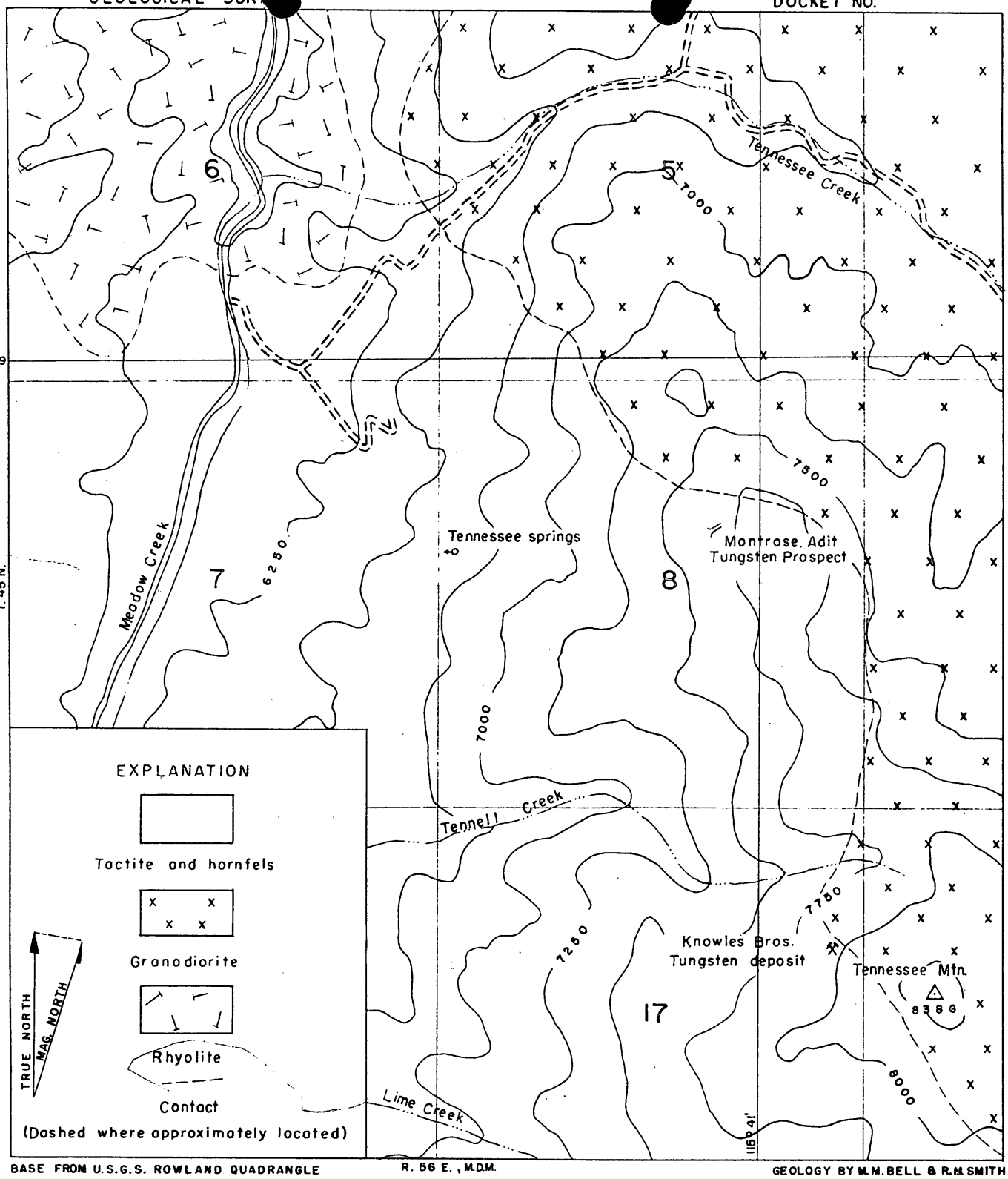
FIG. I INDEX MAP OF NEVADA

0 10 20 30 40 Miles

Scale 1:1,000,000

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO.



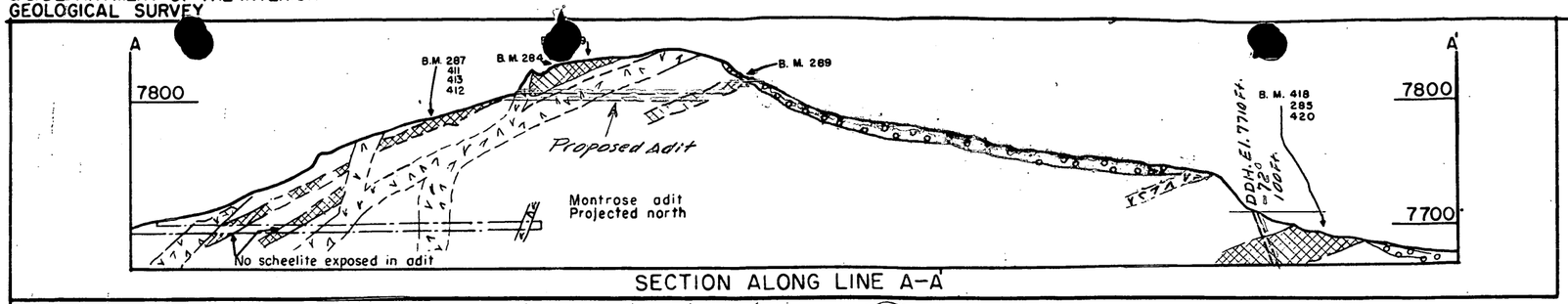
BASE FROM U.S.G.S. ROWLAND QUADRANGLE
R. 56 E., M.D.M.
GEOLOGY BY M.M. BELL & R.M. SMITH

FIG. 2

GEOLOGIC SKETCH MAP OF THE MONTROSE CLAIMS

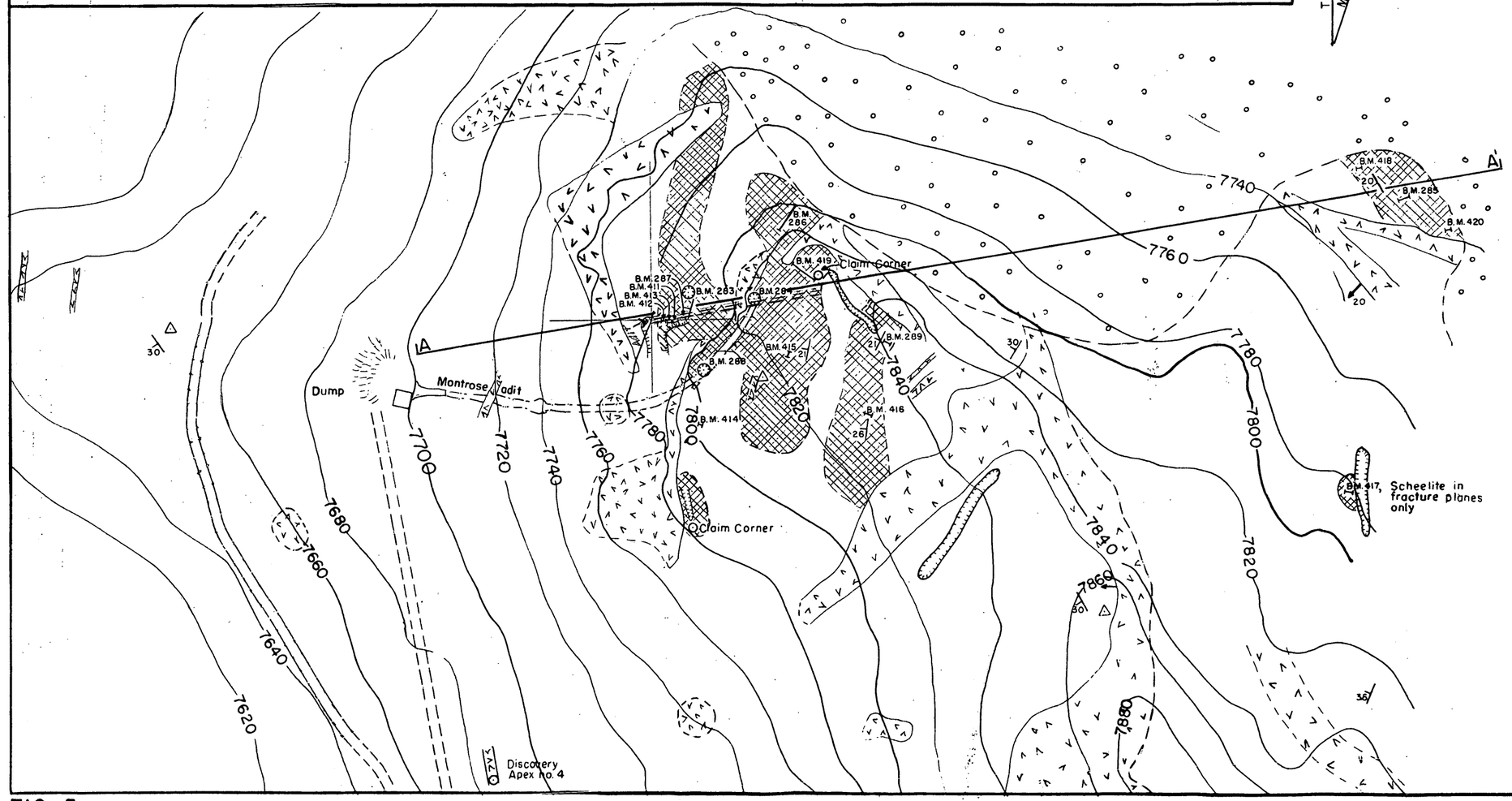
ELKO COUNTY, NEVADA

0 .5 1 MILE
Scale



SECTION ALONG LINE A–A'

sample no.	width feet	percent	check assay
B.M. 283	1.8	0.09	
B.M. 284	3.2	0.25	0.58
B.M. 285	3.5	0.06	
B.M. 286	29.0	0.12	
B.M. 287	5.0	0.01	
B.M. 288	6.0	0.01	
B.M. 289	2.0	0.19	
B.M. 411	4.4	0.01	0.10
B.M. 412	3.9	0.01	
B.M. 413	4.0	0.01	
B.M. 414	4.6	0.01	
B.M. 415	4.0	0.09	
B.M. 416	3.6	0.08	
B.M. 417	2.6	0.40	
B.M. 418	3.8	0.02	
B.M. 419	28.0	0.27	
B.M. 420	2.4	0.01	



EXPLANATION

Alluvium

Undifferentiated hornfels limestone, shale, tactite

Alaskite sills and dikes

Scheelite-bearing tactite

Contact, showing dip (Dashed where approximately located)

Strike and dip of beds

Trench

FIG. 3

GEOLOGIC MAP OF MONTROSE (TUNGSTEN) PROPERTY, ELKO COUNTY, NEVADA

Contour Interval 20 feet

0 100 200 300 ft.
Scale

Geology by R. M. Smith & D. C. Lgub

U. S DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 2680

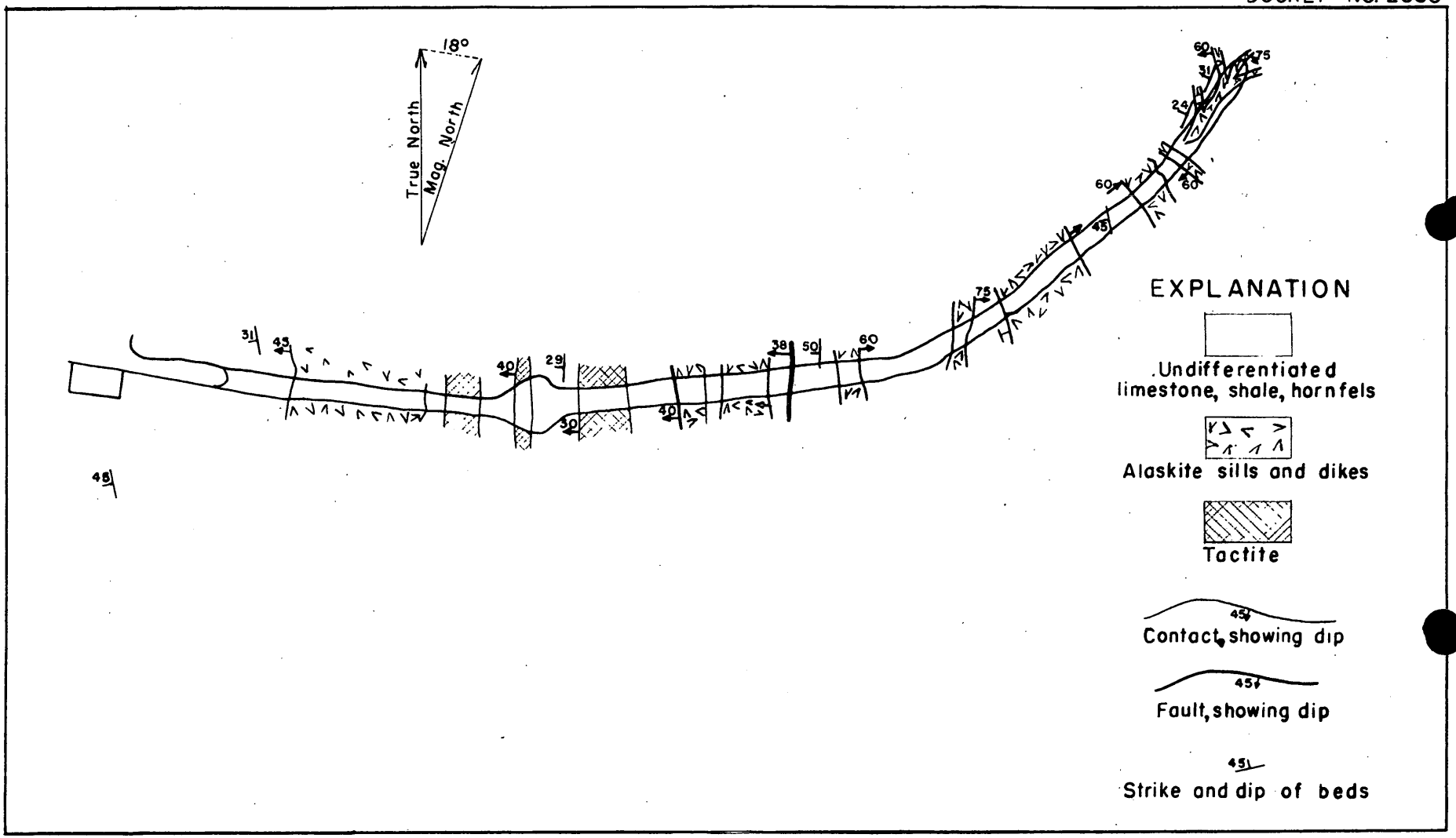


FIG. 4

GEOLOGIC MAP OF MONTROSE ADIT
ELKO COUNTY, NEVADA

0 40 80 120 FT.
Scale

Excerpt from the report of the DMEA Field Team, November 1, 1952.

DMEA 2680 - Montrose Mining Company (Tungsten)

Re-Examination of property has been scheduled.

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

Gas

Gas 9/26/52

September 23, 1952

Memorandum

To: George C. Selfridge, DMEA

From: Robert W. Geehan, Bureau of Mines

Subject: Montrose Mining Company
P. O. Box 98
Mountain City, Nevada

DMEA 2680
Tungsten

Proposal: Drive 1,000 feet of tunnel.
Surface trenches 3,000 feet.
Construct 1 mile of road.
Housing and surface plant.
Estimated cost - $48,000

General: The applicant furnished no maps and no data regarding samples. I am unable to identify this property as one having been examined in the past by the U. S. Bureau of Mines.

Recommendation: Obtain more information from the applicant.

Robert W. Geehan
Robert W. Geehan

Copy retained 400

Attachment

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1952

Field Team report submitted with revised application.

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

September 23, 1952

Memorandum

To: George C. Selfridge, DMEA

From: Robert W. Geehan, Bureau of Mines

Subject: Montrose Mining Company
P. O. Box 98
Mountain City, Nevada

DMEA 2680
Tungsten

Proposal: Drive 1,000 feet of tunnel.
Surface trenches 3,000 feet.
Construct 1 mile of road.
Housing and surface plant.
Estimated cost - $48,000

General: The applicant furnished no maps and no data regarding samples. I am unable to identify this property as one having been examined in the past by the U. S. Bureau of Mines.

Recommendation: Obtain more information from the applicant.

Robert W. Geehan

Attachment

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

September 23, 1952

Memorandum

To: George C. Selfridge, RFC

From: Robert W. Geehan, Bureau of Mines

Subject: Montrose Mining Company
P. O. Box 98
Mountain City, Nevada

RFC 2620
Tungsten

Proposal: Drive 1,000 feet of tunnel.
Surface trenches 3,000 feet.
Construct 1 mile of road.
Housing and surface plant.
Estimated cost - $46,000

General: The applicant furnished no maps and no data regarding samples. I am unable to identify this property as one having been examined in the past by the U. S. Bureau of Mines.

Recommendation: Obtain more information from the applicant.

Robert W. Geehan

Attachment

FILE COPY 400
SURNAME:

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

cc: Admn. Reading File
Docket
R. W. Gechen, USBM
D. M. Lemmon, USGS
Field Team Reg. III
Operating Committee
G. C. Selfridge
F. A. Rutledge

Rutledge
Selfridge
Martin
Johnson for Gechen
F Johnson

Mr. H. C. Miller
Executive Officer, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

SEP 23 1952

Re: Docket No. DMEA 2680 - Tungsten
Montrose Mining Company
(Robert I. Montrose & Price D. Montrose)
Apex Claims
Alder Mining District
Elko County, Nevada

Dear Mr. Miller:

Reference is made to the subject docket. The results of the field team examination indicate the property has little merit. However, only a few samples were taken and these before lamping the tactite to delineate the scheelite-bearing zones. We concur with your memorandum of August 25, 1952, that the field team report does not substantiate its recommendations for an exploration contract. However, it is felt that more data are needed before we can make a decision.

The field team has several other examinations scheduled for the same area. It is, therefore, requested that a new field team examination be made of the Montrose Mining Company property. Since the applicants apparently are not qualified to carry out the mapping program outlined in the report by Gentry, Smith and Bell, it is suggested that the field team make a sufficiently thorough examination and report to lay out an exploration program if the results of the new examination are favorable.

A copy of a memorandum by D. M. Lemmon, U. S. Geological Survey, is enclosed for your information.

Sincerely yours,

Ernest Wm. Ellis

FARutledge'lm
9/19/52

ACTING Chairman, Operating Committee

Enclosures

Approved:

C. H. Johnson
Member, Bureau of Mines

[redacted] E. P. Thayer [redacted]
Member, Geological Survey

IN REPLY REFER TO:

G-MD-CF

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

September 17, 1952

Memorandum

Copy retained 400

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration application and Field Report DMEA 2680 - Tungsten
Montrose Mining Co.
P. O. Box 98
Mountain City, Nevada

Property: Apex claims, Sec. 8, T. 45 N., R. 56 E.
Tennessee Mountain
Elko County, Nevada

These claims were examined June 28, 1952 by Glenn G. Gentry, Bureau of Mines, and R. M. Smith and Mendell M. Bell, Geological Survey. Their undated report was received in Washington August 29 along with the application. A memorandum from H. C. Miller transmitting the field report points out that the Field Team disagrees with the conclusions reached and is not satisfied with the adequacy of the examination.

I suspect that the exploration proposal should be denied, but believe a stronger basis for denial is needed. According to the field report, one day and one night were spent on the examination. Eight samples, results of which were disappointingly low, were taken during daylight before inspection in ultraviolet light. Careful study in ultraviolet light to determine distribution of scheelite is an important preliminary to intelligent sampling of such deposits - otherwise, a much larger number of samples is needed to evaluate a prospect.

Inasmuch as a field examination of the nearby Gribble group of claims is also needed (DMEA 2695), and possibly of the new Mink group (DMEA 2630), I suggest that the Field Team be requested to make a more thorough examination of the Montrose claims at the same time. The field report by Gentry, Smith and Bell recommends a 2-stage program costing $10,000. The first stage involves geologic mapping and sampling, the second stage 1,000 feet of diamond drilling. The applicants are apparently not qualified to do the mapping or to plan the drilling. Therefore, I suggest that the Field Team do a sufficiently thorough job to determine if drilling is warranted and to establish drill sites. Drilling in 1951 on the Knowles Brothers property to the south, in which

Montrose is interested, was not properly executed. Holes were placed haphazardly, cores were not logged, sampled or properly stored, and no maps were prepared.

A careful examination should also be made of the Knowles Brothers claims, which presumably have the best possibilities for tungsten ore in the district. DMEA has no application at present, but will doubtless receive one eventually.

D. M. Lemmon

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

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 29 1952

August 25, 1952

Memorandum

To: DMEA, Interior Building, Washington 25, D. C.

DMEB-2680

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for Exploration Loan - Tungsten - Montrose Mining Company, Robert L. Montrose and Price D. Montrose, P. O. Box 98, Mountain City, Nevada

Attached are four copies of an application by the Montrose Mining Company, dated May 19, 1952, for an exploration loan, costing $48,000. These application forms were sent directly to our Reno Office and held by that office (contrary to instructions) until an examination was made of the property by engineers and geologists, working in the area at the time.

The property was examined on June 28 by Glenn G. Gentry of the Bureau of Mines and Roscoe M. Smith and Mendell M. Bell of the Geological Survey, and their report was received in this office on August 21, 1952, along with the four copies of MF-103 forms. Four copies of their undated report, entitled Montrose Mining Company, Elko County, Nevada - Tungsten, based upon the examination of the property on June 28, 1952, are attached. Mr. Bailey and I are not satisfied with the examining engineer and geologists' conclusions that the property warrants an exploration loan. The grade of ore as indicated by the assays given in the report, for example, do not seem to warrant a loan.

The examiners present no breakdown of costs of their recommended $10,000 loan, or do they include a map in their report, showing the location of proposed drill holes. We do not think that enough samples were taken. Neither is the proposed program laid out definitely, therefore, rather than hold up submission of the report to the Washington Office while attempts are made to get the missing data, it was decided to send the reports to you as prepared. If, after reviewing the report, your office feels that a $10,000 loan is justified and will let us know, we will have an engineer revisit the property and secure the missing information.

Copy to E. H. Bailey, USGS
A. C. Johnson, Reno, Nev.

Attachments

H. C. Miller
Executive Officer
DMEA Field Team, Region III

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 29 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

Montrose Mining Company

Elko County, Nev.

- Tungsten -

DMEA-2680

Application dated May 19, 1952
No docket number has been assigned

Glenn G. Gentry, Mining Engineer
U. S. Bureau of Mines

Roscoe M. Smith, geologist
U. S. Geological Survey

Mendell M. Bell, geologist
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE

9-5-52
(date)

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1982 AUG 23 AM 11:00

SAN FRANCISCO, CALIFORNIA

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Montrose Mining Company, P. O. Box 98, Mountain City, Nevada, represented by Robert L. and Price D. Montrose, applied May 19, 1952 to the Defense Minerals Exploration Administration for government assistance in a $48,000 program to explore for the downward continuation of scheelite ore exposed on the surface of their claims in the Alder mining district, Elko County, Nevada.

The property was examined on June 28, 1952 in conjunction with an examination of an adjoining property.

Scheelite occurs in tactite in numerous surface exposures in concentrations up to 0.5 percent WO_3. About 1,000 tons of ore averaging 0.25 percent WO_3 is inferred to lie below the three best exposures.

As scheelite is found in several tactite layers over a considerable area, there is a reasonable chance that exploratory work will reveal reserves greater than it is now possible to infer. Exploratory work may also reveal ore of higher grade than 0.25 percent WO_3.

The applicant proposed an indefinite program of drifting, trenching, road construction, and building construction in unspecified locations. He estimated that the program would require about eight months to complete.

Although some exploratory work is justified, the applicant's program is not well planned, and a program to consist of two phases is suggested:

1. Map the scheelite exposures in detail, determine the most advantageous locations for diamond drill holes, and outline a drilling program.
2. From surface locations, diamond drill to explore for the downward continuation of ore exposed on the surface. About 1,000 feet of drilling should be allowed for this work.

The program is estimated to cost about $10,000 and would require about three months to complete.

It is recommended that the government enter into a contract with the applicant to provide 75 percent of the cost of the proposed mapping and diamond drilling.

INTRODUCTION

An examination of this property was made on June 28, 1952 by an engineer[1] of the Bureau of Mines, Region III and geologists[2] of the U. S. Geological Survey.

The purpose of the examination was to secure samples and data, together with geological maps in order to evaluate the property prior to forwarding the application through the regular procedure. Time and money were saved by making the examination at this time as the engineers were conducting another examination in the immediate vicinity.

During their inspection of the property, the engineers were accompanied by the Montrose brothers, whose knowledge of the exposures was very helpful.

LOCATION

This mining property consists of 18 unsurveyed mining claims, held by location in the Alder Mining District and approximately 19.3 miles east of Nevada State Highway 43 at Wild Horse, Nevada.

The claims are situated between the Knowles Brothers Tungsten property on the south and the J. W. Mink Tungsten claims on the north.

1/ Glenn G. Gentry.

2/ Roscoe M. Smith and Mendell M. Bell.

HISTORY AND DEVELOPMENT

The Montrose brothers filed on these mining claims about two years ago and since then they have been actively engaged in driving an adit 310 feet in length on the Apex No. 1 claim and in exposing the surface mineralization in areas adjacent to the adit.

No production of tungsten ores has been made from the property. Two buildings have been constructed as follows:

1 building housing the air compressor, located at the portal of the adit.
1 building for living accommodations, located approximately one mile west of the adit; can accommodate 4 men.

Both buildings are in reasonably good condition and could be utilized for the recommended exploration program.

Mining equipment on hand and reported as in good condition are as follows:

1 Air compressor, Gardner-Denver, portable, 210 c.f.m., operated by gasoline engine
2 Jackhammers, Ingersoll-Rand, Model S-49, mounted on shell with columns and cross arms, safety clamp
300 feet of 2-inch iron pipe
Miscellaneous hand tools
800 feet of 14-pound rail
1 Mine car, iron body, 18-inch track gauge
2 Trucks, 4-wheel drive

WATER

Sufficient water is available at the living quarters for domestic consumption. Water for mining purposes will have to be hauled from this source to the mine.

POWER

No transmitted electric power is available at the property and all machinery would be operated by means of Diesel or gasoline engines.

CLIMATE AND TOPOGRAPHY

The mine area is located near the crest of the Divide leading to Tennessee Creek and at an elevation of about 8,000 feet. The country is mountainous and rough and severe winter storms should be expected from December through March.

APPLICANTS EXPERIENCE

The Montrose brothers have apparently had considerable and varied experience in and around the mines at Mountain City, Nev., as well as in other locations. Price Montrose states that he is one of the owners of the adjoining Knowles Tungsten claims and that he assisted in the diamond drilling project on those claims.

From the amount of road construction work done, the appearance of the 310-foot adit, and the efforts to prospect the surface of the exposures, it is considered that they would be entirely competent to carry out the drilling project proposed.

Additional and experienced miners can probably be secured in Mountain City, Nev.

SAMPLING

Sample No.	%, WO_3	Oz. Au/T	Description
282	*0.01	Trace	South wall of adit at 190 feet from portal. Sample width 2.8 feet. Material altered limestone and opalite. No mineralization observed by mineralight.
283	0.09	Trace	Shallow pit about 60 feet north of breast of adit and 65 feet above the adit. Sample width 1.8 feet. Observation by mineralight shows large scheelite crystals about 2 feet above sample location. Montrose reports sampling done here in 1950 assayed 0.38% WO_3.

Sample No.	%, WO_3	Oz. Au/T	Description
284	0.25	Trace	Shallow pit about 4 feet deep, 50 feet northeast of No. 283 sample and near crest of hill. Sample width 3.2 feet. Observation by mineralight, estimated 0.5% WO_3. Montrose reports this area will assay 0.4% WO_3.
285	0.06	Trace	150 feet below crest of hill and on north slope approximately 1/2 mile south of Tennesse Creek; face of tactite exposure; sample width 3.5 feet; observation by mineralight, estimated from 0.4% to 0.6% WO_3.
286	0.12	Trace	87 feet north and 15 feet above No. 283 sample; chip sample across tactite exposure; sample width 29 feet; good mineralization scattered over a considerable area; observation by mineralight, estimated 0.3% to 0.4% WO_3.
287	*0.01	Trace	Upper part of tactite bed 16 feet south of No. 283 sample and at same elevation. Tactite bed here is exposed for a thickness of 19 feet; sample width 5 feet; observation by mineralight, estimated 0.2% WO_3.
288	0.01	Trace	43 feet south of No. 287 sample. Trench 12 feet long by $2\frac{1}{2}$ feet wide by $2\frac{1}{2}$ feet deep. Three vertical cuts each 2 feet in length from northwest wall of trench, and all cuts combined as one sample. Observation by mineralight, estimated 0.2% to 0.4% WO_3.
289	0.19	Trace	From center of Apex No. 1 claim, S 50° E, 79 feet to sample location; narrow cut about 8 feet in length; width of sample 2 feet. Observation by mineralight, estimated 0.4% WO_3.

All sampling was done during daylight hours and prior to use of mineralight at the night inspection.

GEOLOGY

The rocks in the area are limestone and shale of Paleozoic age which are intruded by a granodiorite stock and by granitic alaskite and sills and dikes. Near the sills the sedimentary rocks are partly metamorphosed to tactite; scheelite is associated with the tactite.

The limestone is thin-bedded and commonly shaly: it is interbedded with shales and calcareous shales and strikes north and dips 30°-45° west.

The granodiorite is medium-grained and forms a large stock (fig. 2). Adjacent to the granodiorite the sedimentary rocks are intruded by sills and dikes as much as 200 feet wide which range in composition from alaskite to granodiorite. Both the granitic and sedimentary rocks are cut by quartz stringers as much as 8 inches wide which fill fractures with random strikes and dips. The limestone beds adjacent to the granitic rocks are metamorphosed to tactite layers; the shale beds are metamorphosed to hornfels.

ORE DEPOSITS

The ore bodies are irregular concentrations of scheelite in parallel tactite layers which range in width from a fraction of an inch to 19 feet, and are separated by layers of barren tactite and hornfels. The ore bodies extend along the strike of the tactite layers for as much as 40 feet; as they have not been explored below the outcrops, their depths are not known. They are commonly adjacent to the dikes or to zones of quartz stringers.

The best exposure of the ore bodies is at the site of sample BM 284 (fig. 3). Here a tactite layer 3 feet thick contains scheelite in fractures and disseminated throughout the rock in concentrations estimated to be as high as

0.5 percent WO_3. The Montrose adit (fig. 4) was driven under the outcrop of the best exposure but revealed no scheelite. Other exposures contain spotty and irregular concentrations of scheelite, mostly along fractures, over an area about 600 feet square. Much of the mineralized area is covered by a thin mantle of top soil which locally contains small scheelite crystals; the grade of this material is estimated to be as high as 0.1 percent WO_3.

ORE RESERVES

There are no measured ore reserves on the Montrose property. Indicated reserves of a few tons, contained in the tactite layers under the mineralized outcrops at the sites of samples BM 283, 284, and 286, are estimated to average about 0.25 percent WO_3.

If it is assumed that the scheelite-bearing tactite extends about half the distance from the surface to the Montrose adit (fig. 4), then 1,050 tons of ore containing about 0.25 percent WO_3 may be inferred to be in the three lenses below samples BM 283, 284, and 286, each 20 feet long, 3 feet wide, and extending 70 feet down the dip of the beds.

PROPOSED EXPLORATION

In his application the applicant proposed a $48,000 program to consist of driving 1,000 feet of adit, 3,000 feet of trenching, one mile of road, and construction of buildings to house men and equipment.

The examining engineer and geologists do not consider the proposed work to be well planned, but do believe that a limited amount of diamond drilling to test the downward continuation of the mineralized tactite beds exposed at the surface is warranted. Accordingly, an exploration program consisting of two phases is suggested:

1. Map the scheelite exposures in adequate detail to select diamond drill hole locations best suited for testing the deposit at depth, and outline a drilling program.
2. From surface locations, diamond drill to explore for the downward continuations of ore exposed on the surface. About 1,000 feet of drilling should be allowed for this work.

The total cost of the program is estimated to be $10,000 and would require about three months to complete. The government's share of the cost would be $7,500.00.

Mr. Robert L. Montrose
P. O. Box 98
Mountain City, Nevada

Subject: DMEA-2680
Re: Exploration Assistance
Apex Claims
September 2, 1952

My dear Mr. Montrose:

The receipt of your application dated May, 19, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2680 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-2680 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operation's Control
and Statistics Division

25451

103
951)

AUG 29 1952

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMEA-2680

Date received 8-29-52

Participation

Robert L. Montrose
& Price D. Montrose (Montrose Mining Company)
P.O. Box 98
Mountain City, Nevada

Name and address of applicant

Date 5/19/52

FILL IN THIS BLOCK

Date of application May 19, 1952

Estimated cost $48,000.00

Mineral or metal Tungsten

Percentage of Government participation 75%

Location of mine Elko County, Nevada
Alder Mining District

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Corporation

*2. If a partnership, state names and addresses of partners.

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Attached

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. Attached

*5. Are you the owner or the lessee of the property?

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. None

7. If lessee, attach a copy of the lease and state if it is in good standing. None

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. None

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any e[illegible] mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History: None
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Montrose Mining Co.
(Name of company)

By Robert L. Montrose
(Signature of authorized official)

5/19/52
(Date)

Secretary-Treasurer
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

(a)(Officers and directors)

3. Robert L. Montrose, President, Mountain City, Nevada

Price D. Montrose, Secretary-Treasurer, Mountain City, Nevada

Keith Williams, Vice-President, Elko, Nevada

(b) Stockholders:

Robert L. Montrose, Mountain City, Nev.

Price D. Montrose, Mountain City, Nev.

Manual Bastida, Mountain City, Nevada

Robert R. Rife, Butte Montana

Rose Montrose, Mountain City, Nev.

4. Have had 17 years experience in the mining business as an employee on production, accountant on operating and Union official on labor. Have good ~~practical~~ practicable understanding of all phases of mining business.

9. $12,000.00 (Twelve thousand dollars)

10. (a) 18 claims embracing lime granite contact area with approximately 300 ft. of crosscut tunnel.

(b) Apex claims--Montrose Mining Co., Inc.

12. Alder Mining District. Approximately 20 miles east of Mountain City, Nevada, 12 miles from the Elko to Mountain City oiled highway via Gold Creek route. 80 miles to Elko, Nevada nearest rail head.

13. Tennessee Creek at located mill site runs an estimated 500 gallons per minute year round. Power line available 1,000 ft. from claims. Power optional--would probably use 100 H.P. for compressor which is gasoline powered and would cost approximately $500. per month.

14. 16x16 ft. compressor, building and tool shed. 12 x 30' bunk house. One Gardner-Denver 220 cu. ft. gasoline driven air compressor. Two S49 Ingersoll jack hammers complete with shell, upright and cross arm bar. 300 ft. of 2" iron pipe. 800 ft. of 14 lb. rail. One mine car. Picks, shovels, hammers and other hand tools required in mining work.

15. Could be trucked to rail head at Elko, Nevada if stock piling facilities were provided. Power and water are available for milling on the property.

20. Scheelite tungsten

21. Would drive 1,000 ft. of tunnel. Surface trench with dozer about 3,000 ft. Build additional housing and buildings for equipment. Approximately 1 mile of road on claims. Would require 8 months to one year to complete.

22. Have approximately 1½ miles along contact metamorphic area with very large out cropping of tactite with scheelite of a commercial grade scattered along dikes and granite contacts. Have no maps or other pertinent data available.

23. (a) Miners and muckers, average $14.00 per day.
(b) $400.00 per month
(c) None
(d) $5,000.00
(e) Truck for transportation approximately $3,000.
(f) Caterpillar bulldozer--estimate $2,500.
(g) Two light trucks, 2 mine cars, 2 jack hammers, hoses, pipe and various hand tools required in mining. $500. per month.
(h) Powder, ~~[illegible]~~ fuel, gasoline and oil--$600. per month.
(i) None

24. Project should be completed in one year.

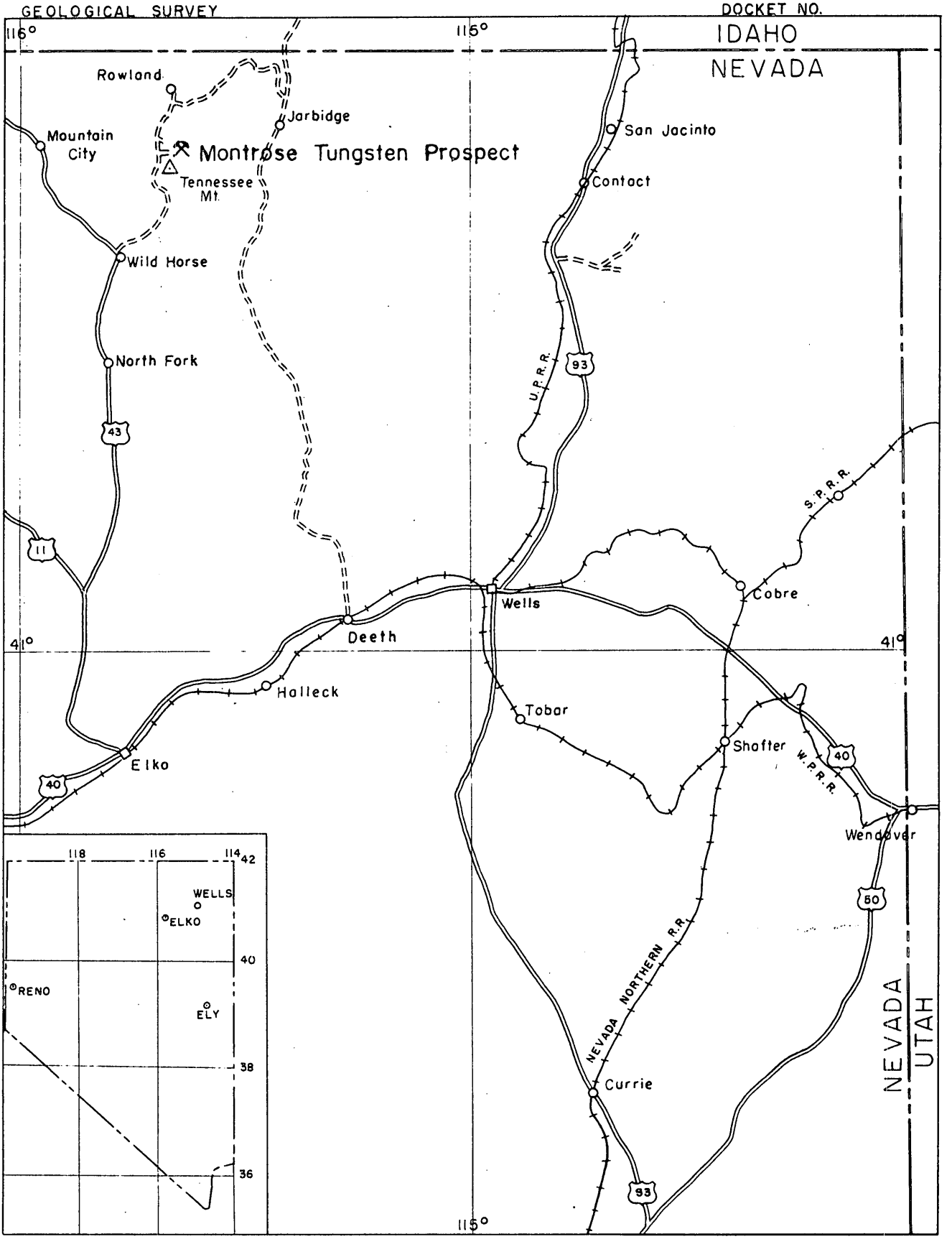


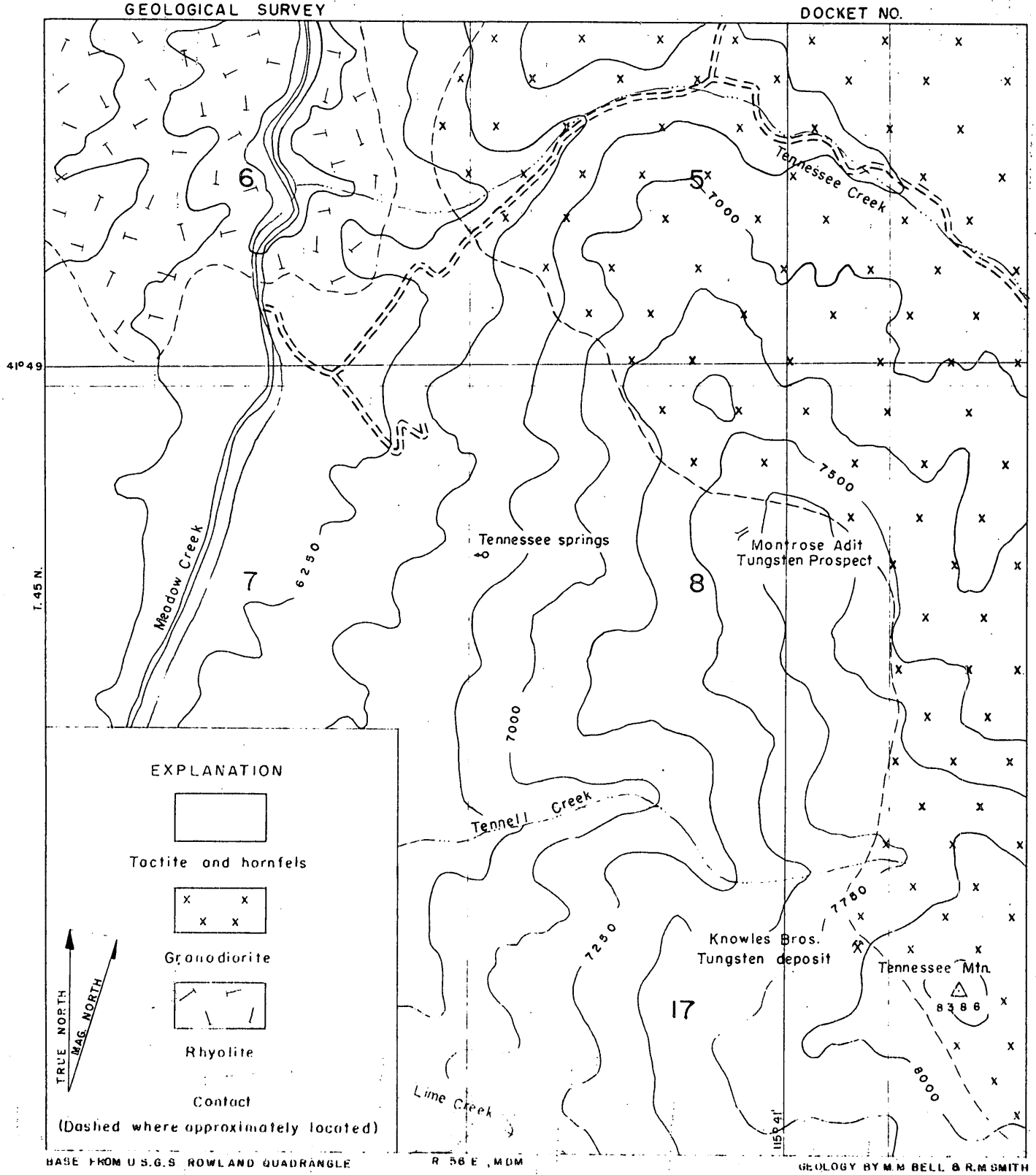
FIG. I INDEX MAP OF NEVADA

0 10 20 30 40 Miles

Scale 1:1,000,000

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO.



BASE FROM U.S.G.S. ROWLAND QUADRANGLE R 56 E, MDM GEOLOGY BY M.M. BELL & R.M. SMITH

FIG. 2

GEOLOGIC SKETCH MAP OF THE MONTROSE CLAIMS

ELKO COUNTY, NEVADA

0 .5 1 MILE
Scale

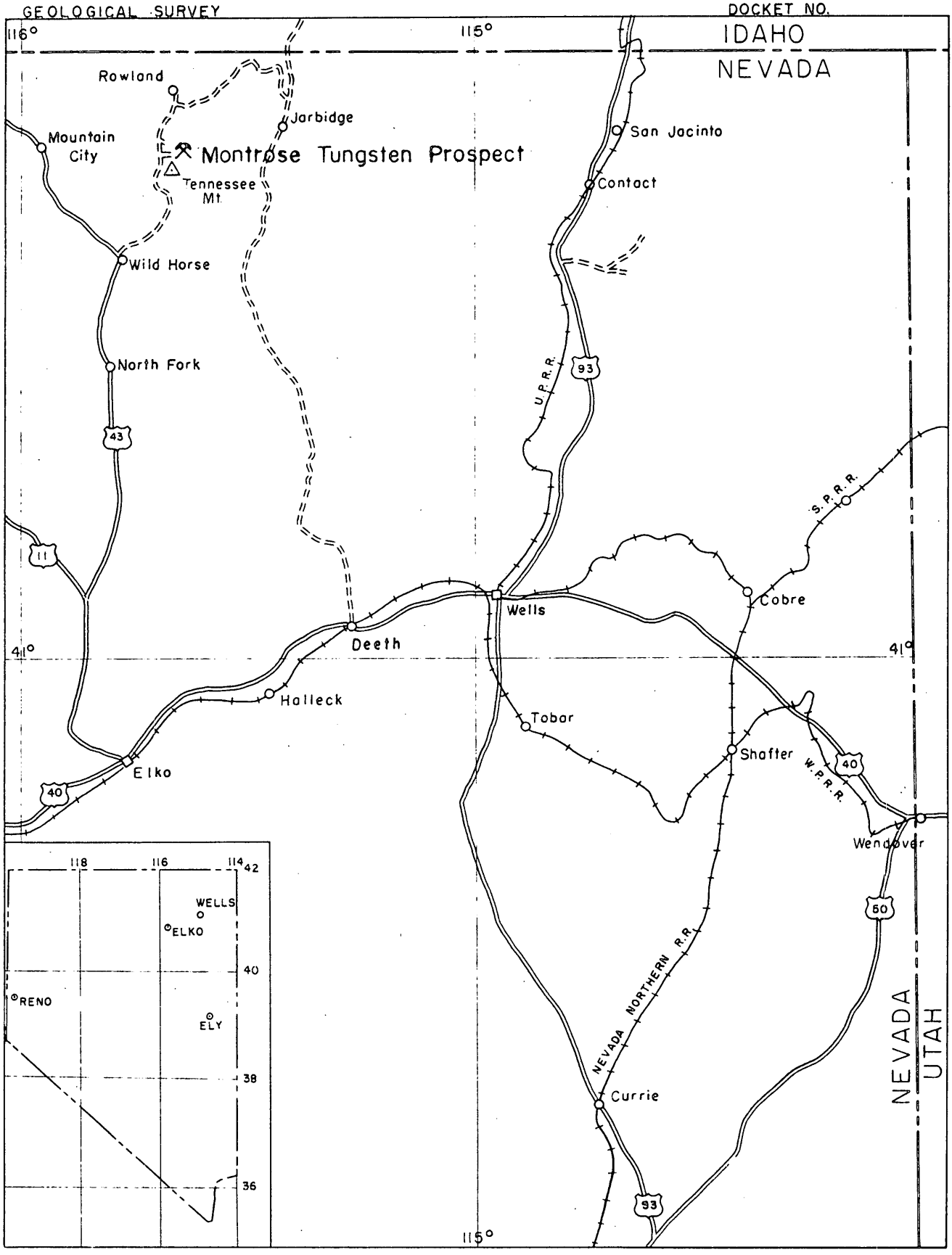


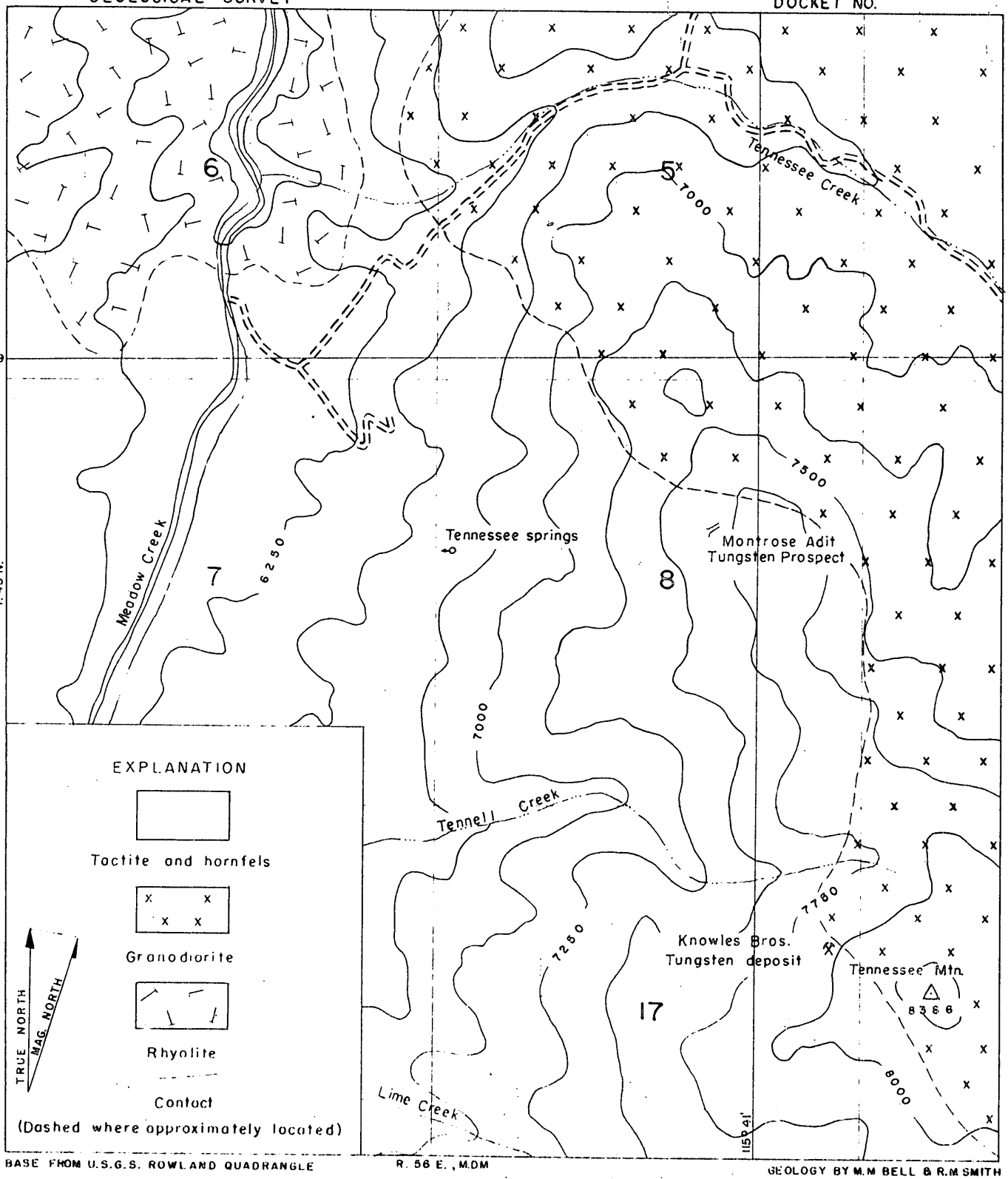
FIG. 1 INDEX MAP OF NEVADA

0 10 20 30 40 Miles

Scale 1:1,000,000

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO.



BASE FROM U.S.G.S. ROWLAND QUADRANGLE

R. 56 E., M.DM

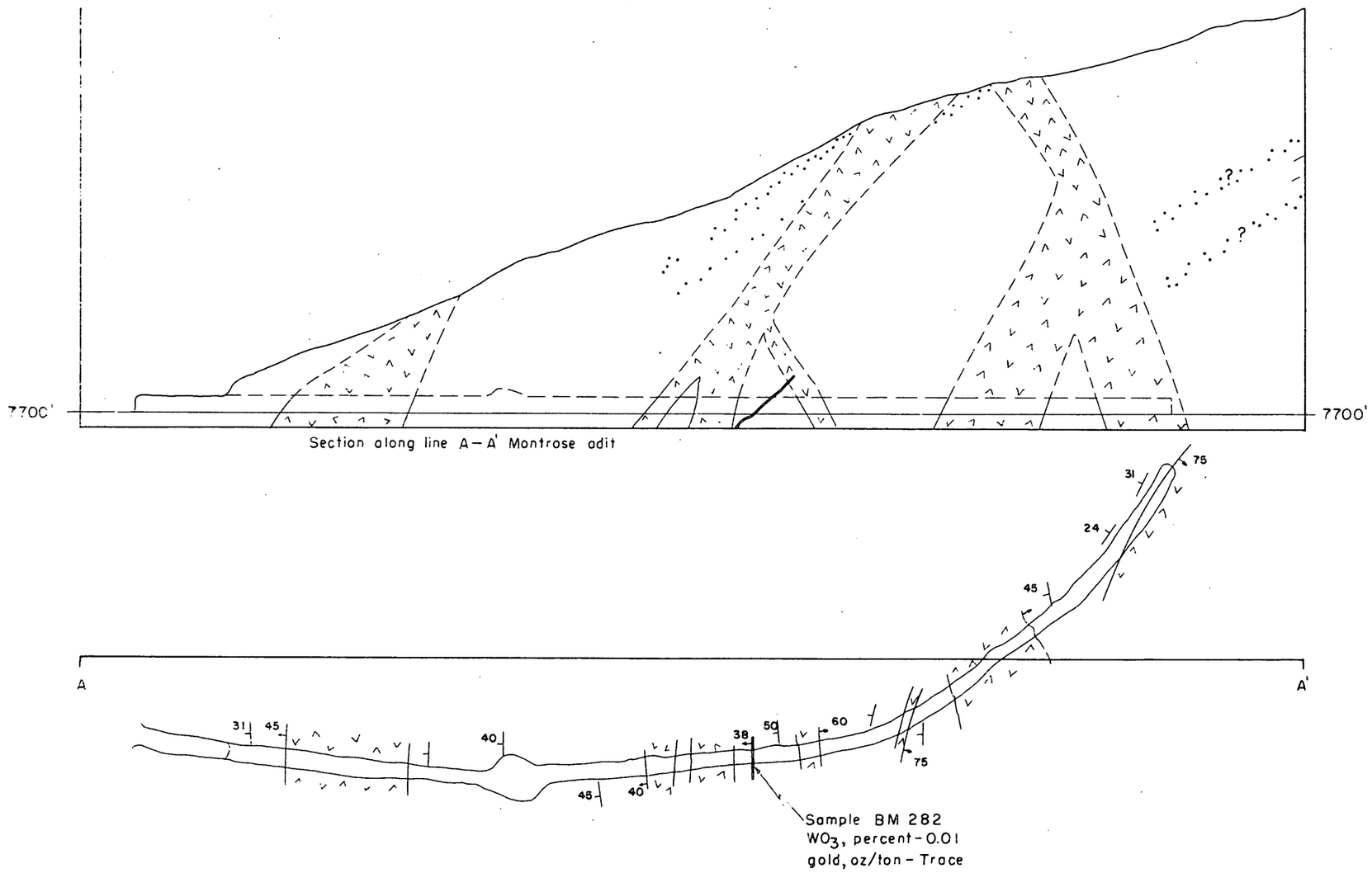
GEOLOGY BY M.M BELL & R.M SMITH

FIG. 2

GEOLOGIC SKETCH MAP OF THE MONTROSE CLAIMS

ELKO COUNTY, NEVADA

0 .5 1 MILE
Scale



EXPLANATION

Undifferentiated limestone, shale tactite, hornfels

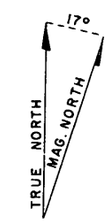
Aloskite sills and dikes

Scheelite – bearing tactite

25
Contact, showing dip
(Dashed where approximately located)

55
Fault, showing dip
(Dashed where approximately located)

30
Strike and dip of beds



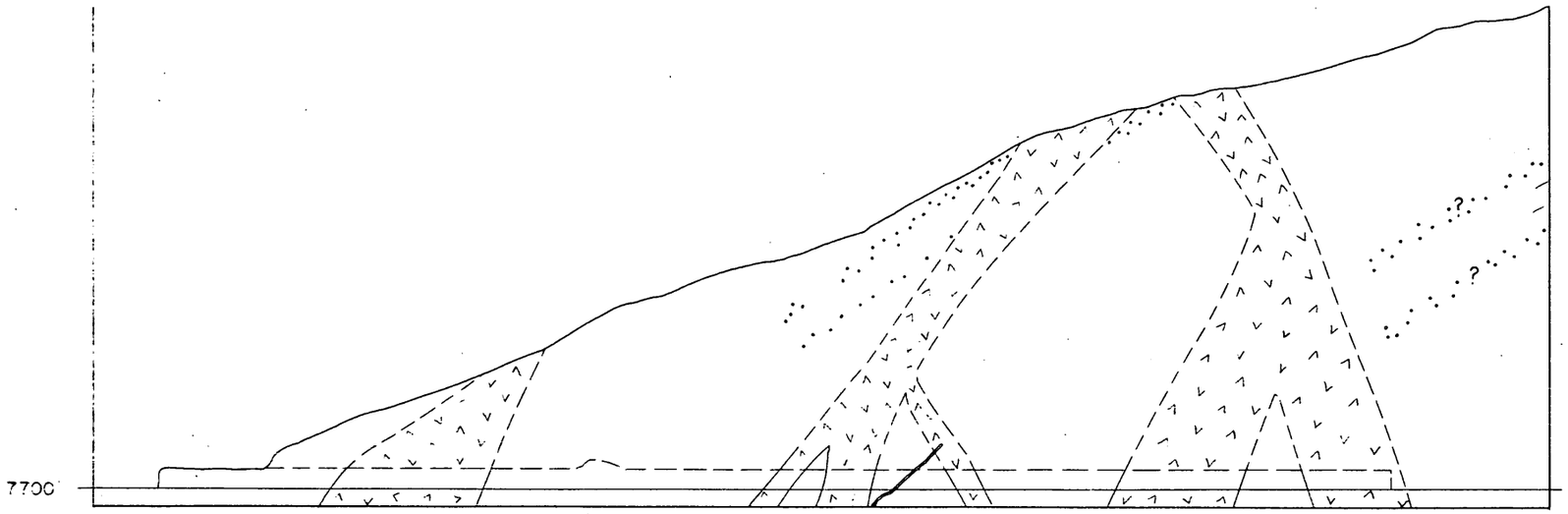
GEOLOGY BY R. M. SMITH AND M. M. BELL

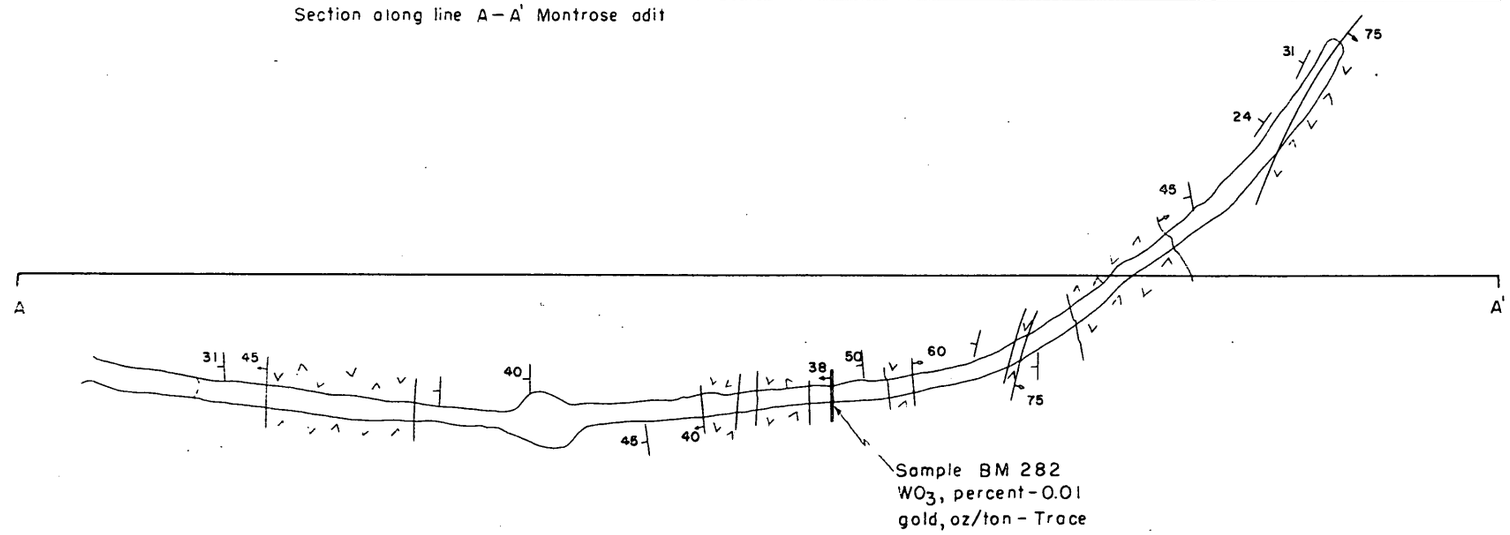
FIG. 4

GEOLOGIC MAP OF MONTROSE ADIT

ELKO COUNTY, NEVADA

0 40 80 FEET
Scale





EXPLANATION

Undifferentiated
limestone, shale
tactite, hornfels

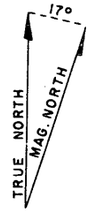
Aloskite sills and dikes

Scheelite – bearing tactite

26
Contact, showing dip
(Dashed where approximately located)

55
Fault, showing dip
(Dashed where approximately located)

30
Strike and dip of beds



GEOLOGY BY R. M. SMITH AND M. M. BELL

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GEOLOGIC MAP OF MONTROSE ADIT

ELKO COUNTY, NEVADA

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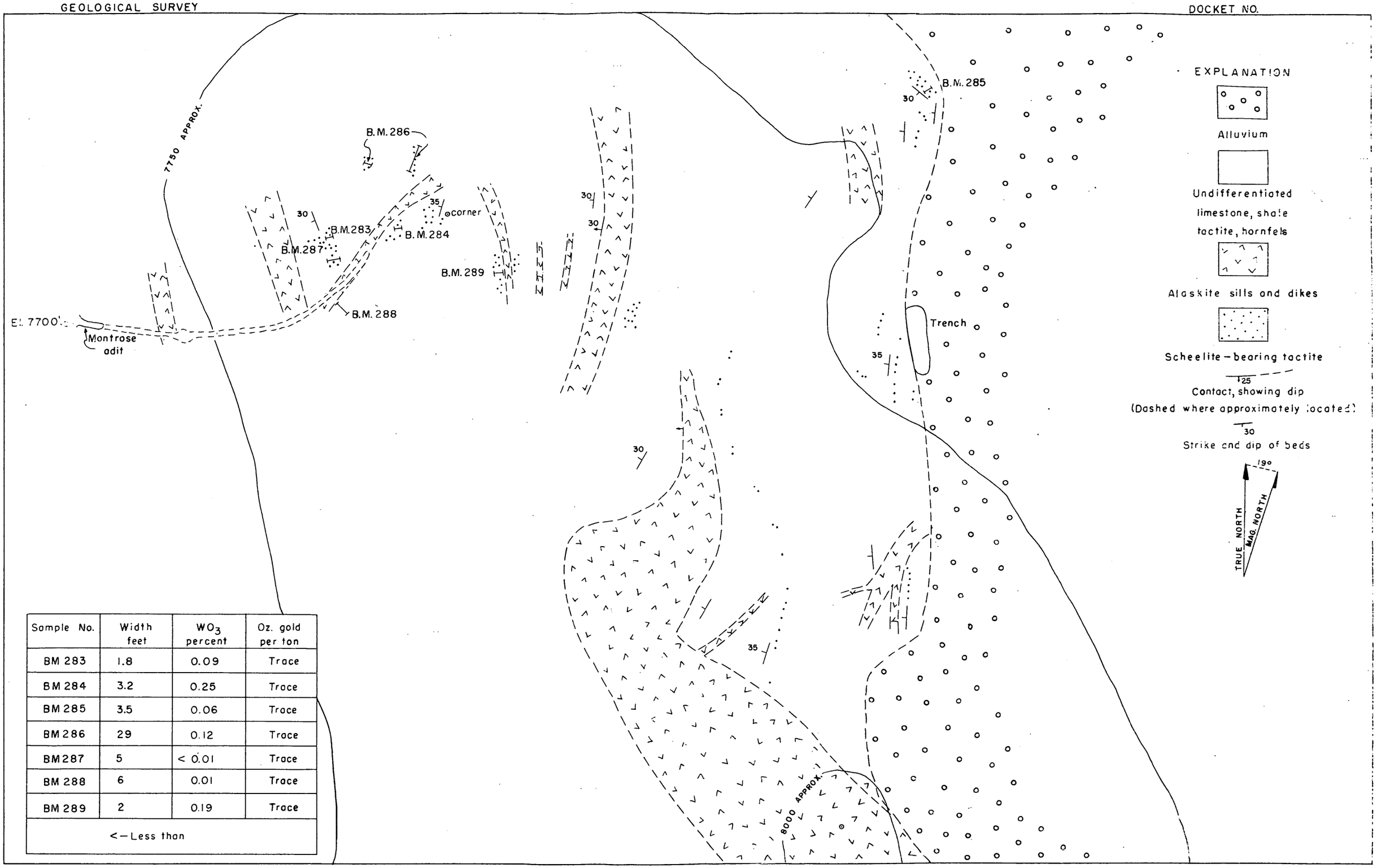
Scale



Sample No.	Width feet	WO_3 percent	Oz. gold per ton
BM 283	1.8	0.09	Trace
BM 284	3.2	0.25	Trace
BM 285	3.5	0.06	Trace
BM 286	29	0.12	Trace
BM 287	5	< 0.01	Trace
BM 288	6	0.01	Trace
BM 289	2	0.19	Trace
<—Less than			

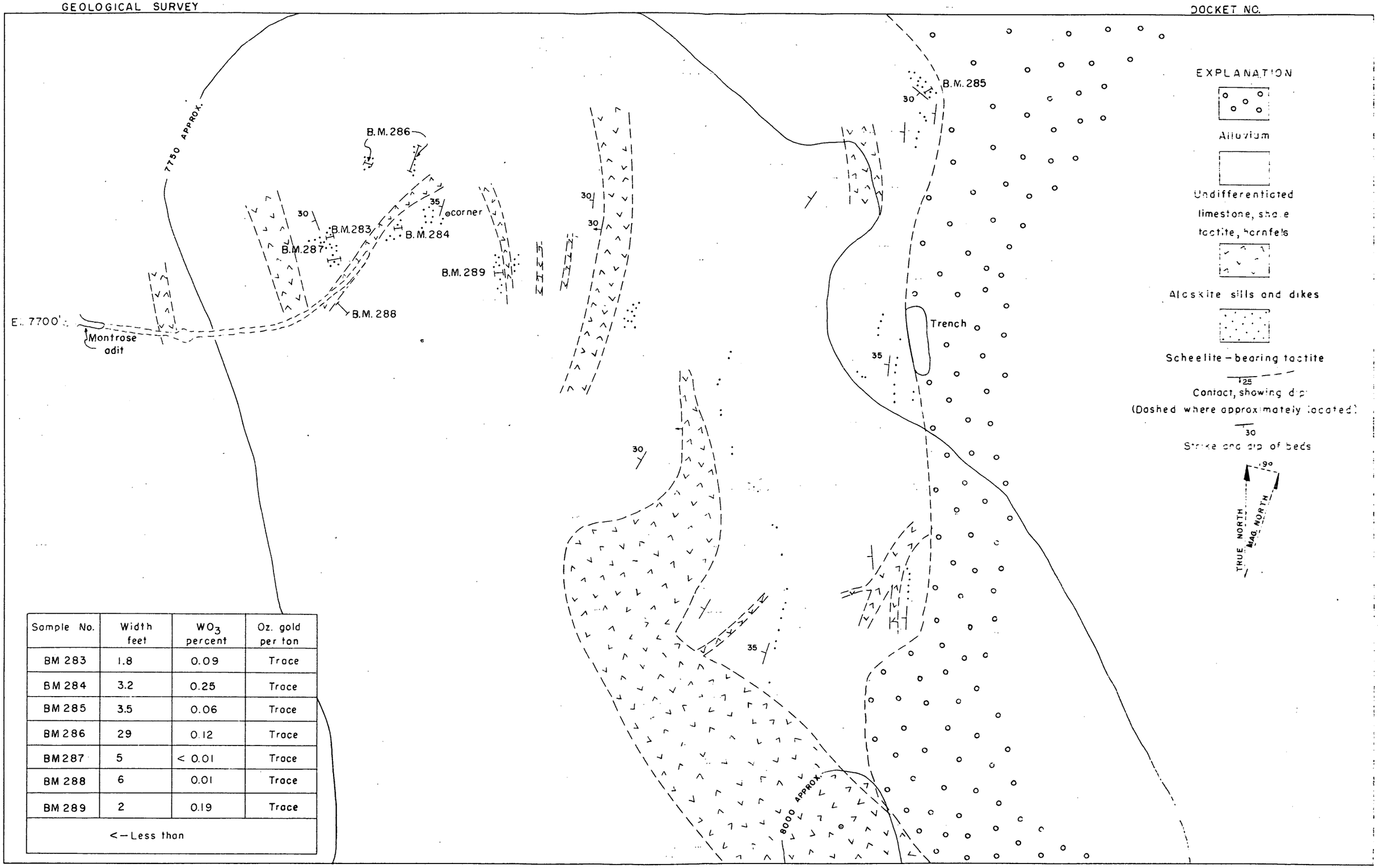
GEOLOGY BY R. M. SMITH & M. M. BELL

FIG. 3

GEOLOGIC SKETCH MAP OF THE MONTROSE TUNGSTEN PROSPECT

ELKO COUNTY, NEVADA

0 100 200 FEET
Scale



Sample No.	Width feet	WO_3 percent	Oz. gold per ton
BM 283	1.8	0.09	Trace
BM 284	3.2	0.25	Trace
BM 285	3.5	0.06	Trace
BM 286	29	0.12	Trace
BM 287	5	< 0.01	Trace
BM 288	6	0.01	Trace
BM 289	2	0.19	Trace
<—Less than			

GEOLOGY BY R. M. SMITH & M. M. BELL

FIG. 3

GEOLOGIC SKETCH MAP OF THE MONTROSE TUNGSTEN PROSPECT

ELKO COUNTY, NEVADA

0 100 200 FEET
Scale

Wild Horse,Nevada:Starting point to the
Montrose and Mink Tungsten Mines

Compressor Bldg. Montrose Mining Co. At Portal of Adit
Left to Right: Price D.Montrose, Robert Montrose

Montrose Mining Company. Owners Cabin located
at the South end of the property.

Wild Horse,Nevada:Starting point to the
Montrose and Mink Tungsten Mines

Compressor Bldg. Montrose Mining Co. At Portal of Adit
Left to Right: Price D.Montrose, Robert Montrose

Montrose Mining Company. Owners Cabin located
at the South end of the property.

UNITED STATES
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BUREAU OF MINES
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