DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 2750

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION ASSISTANCE

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip
COPIES TO USGS & USBM, 1 retained in Reg. III

To:	CODE 400, Rm. 3538	Date	10-28-52
To:	Open Com	Date	11-7-52
To:	Open Com	Date	3-16-53
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

400

2750

Hon. Pat McCarran
United States Senate
Washington 25, D. C.

MAR 17 1953

My dear Senator McCarran:

Further reference is made to your inquiry of November 3, 1952, to the Secretary of the Interior regarding the status of Exploration Docket NMA 2750, Tungsten-Lead Company, Pershing County, Nevada.

On November 14, 1952, Mr. Wolfsohn, then Assistant Secretary of the Interior, replied that we had requested the Field Team at San Francisco, California, to expedite a field examination of the property and submit a recommendation.

Considering the information presently available to us, all of which indicates that geologically there is little possibility of making a significant mineral discovery or development through the applicant's program of exploration, we have now denied the application, and we enclose a copy of our letter advising the Tungsten-Lead Company accordingly.

If we can be of any further assistance in this matter, please so inform us.

Sincerely yours,

Administrator

FARutledge/ls 3/13/53
CC: DOCKET
FIELD TEAM, REG. 3
CODE 400
ADMN. READ. FILE
OPER. COMMITTEE
D. M. LEMMON, USGS
R. W. GERHAN, USBM

Enclosure

Mr. William Berger, President
Tungsten-Lead Company
Room 7, Professional Building
Winnemucca, Nevada

MAR 17 1953

Re: Docket No. DMMA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk)
Pershing County, Nevada

Dear Mr. Berger:

Your application for aid for an exploration project and other data available to us in Washington concerning the subject claims have been reviewed.

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

Careful study of all our information, although noting a small amount of tungsten mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

Administrator

CC: DOCKET
RT, Reg. 3
CODE 400
OPER. COMMITTEE
ADMN. READ. FILE
D. M. LEMMON, USGS
R. W. GEEHAN, USBM

Administrator, DMEA

March 12, 1953

Iron and Ferro-Alloys Division, DMEA

Denial of application for exploration assistance in the amount of $62,941.01
Docket No. DMEA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk Claims)
Pershing County, Nevada

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

(1) The applicant proposed to explore the tungsten-bearing tactites on the Tungsten-Lead claims by surface stripping, sinking, drifting, crosscutting, and raising.

Though samples were said to have varied from 0.30 to 4.79 percent WO_3, no other sample data were given in the application.

(2) Tungsten occurs as scheelite disseminated in small lenticular-shaped tactite bodies that occur in a series of interbedded slate, hornfels, barren tactite, and tungsten-bearing tactite. The lenticular bodies of tactite containing the tungsten pinch and swell along the strike and down dip. The mineralized tactite bodies contain insufficient tungsten mineralization to constitute ore.

(3) A field examination by Benjamin H. Sheahan, U. S. Bureau of Mines, and Ralph J. Roberts and David C. Arnold, U. S. Geological Survey, indicates the property has little merit.

(4) The Field Team recommends denial.

(5) The Commodity Division of the Geological Survey recommends denial.

(6) The Commodity Division of the Bureau of Mines concurs with the denial of the subject application.

W. S. Martin

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

FARutledge/ls
3/12/53

CC: DOCKET
ADMN. READ. FILE
CODE 400
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

Subject: Field Report
DMEA-2750, Tungsten
Tungsten-Lead Company
Red Hawk Prospect
Pershing County, Nevada

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAR 6 1953

The Red Hawk prospect was examined December 2 and 3, 1952, by B. H. Sheahan of the Bureau of Mines and R. J. Roberts and D. C. Arnold of the Geological Survey. Their reports, dated January 29, 1953, recommend denial of the exploration application, a recommendation in which Mr. H. C. Miller concurs.

I agree with the recommendation of the field report that the application should be denied.

D. M. Lemmon

400

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 3 1953

Office of
Executive Officer
DMEA Field Team
Region III

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

February 26, 1953 WSM

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2750 (Tungsten), Tungsten-Lead Company, Tungsten-Lead Claims (Red Hawk Property), Pershing County, Nevada

Reference is made to letter, dated November 10, 1952, from Frank E. Johnson, Chairman, Operating Committee, requesting a field examination of the subject property.

Attached are four copies each of reports, dated January 29, 1953, entitled "DMEA-2750, Tungsten Lead Company, Pershing County, Nevada," by Benjamin H. Sheahan, Mining Engineer, U. S. Bureau of Mines, and Ralph J. Roberts and David C. Arnold, Geologists, U. S. Geological Survey, covering an examination of the property.

The conclusions of the engineer and the examining geologists are more or less in accord that there is not sufficient tungsten mineralization to warrant an exploration loan. Mr. Bailey and I concur in their recommendations.

H. C. MILLER

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

Attachment

Copy to: E. H. Bailey, USGS

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

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM

DMEA-2750, Tungsten Lead Company
Pershing County, Nev.

Benjamin H. Sheahan, Mining Engineer
U. S. Bureau of Mines

January 29, 1953

DMEA OPERATING COMMITTEE
3-6-53
(date)

DMEA-2750 (Tungsten)

Name and address of applicant: William Berger
Tungsten Lead Company
Room 7, Professional Bldg.
Winnemucca, Nev.

Name and location of property: Tungsten Lead Company, Pershing Co., Nev.

SUMMARY

The Tungsten-Lead Company, Inc. property consists of 16 unpatented claims located high on the east slope of the Eugene Mountains, Pershing County, Nev. The property is reached by following the Pole Canyon road 8.4 miles northerly from Tungsten, Nev.

The Middle Hill area which was formerly known as the Red Hawk mine was developed by a shallow 30-foot incline shaft. An adit now caved and filled was examined by a geologist[1] of the U. S. Geological Survey in 1943. The access road was constructed at Government expense in 1944 and a production of 266 tons of tungsten ore containing 286 units of WO_3 was produced. Narrow, lenticular, scheelite bearing tactite lenses occur in metamorphosed sedimentary rock with regional strikes of N. 10° E. to N. 50° E. and dips of 40 to 60 degrees to the northwest.

The North Hill and South Hill areas are developed by short adits, however near occurrences of small lenticular shaped tactite lenses contain insufficient tungsten mineralization to constitute ore.

The property was incorporated in 1950 and was promoted by J. G. Tomlinson of Winnemucca. An application for access road improvement

1/ M. R. Klepper.

was denied following an examination by engineers[2] of the U. S. Bureau of Mines in June 1951.

Mr. J. G. Tomlinson conveyed control in the property to Mr. William Berger, an investment broker of Santa Rosa, Calif., who now maintains an office at Winnemucca.

Mr. Berger claims that the corporation has spent over $85,000. Since only 140 feet of underground work was done, some road repair work, and the production of 142.5 tons of non-commercial mixed ore, at least a fairly large portion of the money was not spent on the property.

A request for a Government exploration loan was made by Mr. Berger in October 1952 and the property was examined on December 2 and 3, 1952 by an engineer[3] of the U. S. Bureau of Mines jointly with geologists[4] of the U. S. Geological Survey.

CONCLUSIONS

The tungsten mineralization is too low grade, and the scheelite bearing lenses are too small to warrant an exploration loan.

The applicant for the exploration loan lacks necessary qualifications to conduct an exploration project competently.

RECOMMENDATIONS

The exploration loan should be denied.

TIME SPENT ON PROPERTY

The engineer and geologists examined the property from 10:00 A.M.,

---

2/ E. J. Matson and D. H. Sheahan.
3/ D. H. Sheahan.
4/ R. J. Roberts and D. C. Arnold.

Dec. 2 to 5:00 P.M., Dec. 3, 1952. The Eugene Mountains in this region were partly covered with snow. Mr. William Berger and Marion E. Price, his supervisor, accompanied the examination team.

NAME AND LOCATION OF PROPERTY

The Tungsten Lead Company, Inc., Red Hawk mine, is located on the east slope of the Eugene Mountains in the Central Mining District, Pershing County, Nev., and is about three miles northwest of the Nevada-Massachusetts Tungsten mine.

The property is reached from Winnemucca, the nearest town, by following U. S. Highway 40 southwesterly 27 miles to Mill City, turn right and follow paved road toward tungsten 8 miles to road fork opposite the mill building, turn right and follow an unimproved road northerly 3 miles to a road fork leading westerly into Pole Canyon, follow the Pole Canyon road 5.4 miles to the property. The total distance by road from Winnemucca, Nevada is 43.4 miles to the Middle Hill (Red Hawk shaft).

The sixteen unpatented Tungsten Lead mining claims No. 1 to No.16 are located in sections 16, 17, 20 and 21, T. 34 N., R. 34 E., at elevations from 6200 feet to 7000 feet.

CONDITION AND SEASONAL ACCESSIBILITY OF ROAD TO PROPERTY

The paved roads from Winnemucca to Tungsten are all weather and are seldom closed. The partly improved road from Tungsten to the property in Pole Canyon is open most of the year except during periods of heavy snow or rain. The property was reached by four wheel drive vehicles in December 1952.

COMPETENCY OF APPLICANT AND OPERATING PERSONNEL

The applicant, Mr. William Berger, is an investment broker. He has practically no mining experience. Mr. Berger stated that the corporation had expended over $85,000. Judging from the small amount of work done by the corporation, which includes only 140 feet of underground exploration work, and a few weeks work on surface trenching and road improvement with a bulldozer, the applicant would be a very poor risk to handle Government funds for exploration work.

The applicant, Mr. William Berger, was in charge of the cooperation work when over 140 tons of mixed ore and waste was hauled to a custom mill at Yuelon, Nev. The material apparently contains insufficient scheelite to pay for milling. It is quite possible that this material was hauled for promotional reasons.

Mr. Berger stated that the company was incorporated in Nevada with a capitalization of 218,000 shares at $1.00 par value. Some of this stock was said to have been sold to business men at Santa Rosa, Calif., which was Mr. Berger's former residence.

The applicant does not appear to be competent to conduct an exploration project.

The personnel at the property included Mr. Marion E. Price, an engineer employee, and one workman. Because of stormy weather, no work was being done.

APPLICANT'S PROPERTY RIGHTS

The applicant stated that he and his associates held the majority of the stock in the corporation. The sixteen unpatented Tungsten Lead

mining claims are said to be owned by the corporation. The location certificates are said to be filed at the Pershing County recorders office at Lovelock, Nev. Claims No. 1 to No. 8 are recorded in Book 13, pages 7 to 12 and claims No. 9 to No. 16 are recorded in Book 13, pages 489 to page 492.

Mr. Berger claims that the corporation may owe some money to Mr. J. G. Tomlinson, a former stockholder.

DESCRIPTION OF PROPERTY

Surface and surface facilities:

Surface facilities at the camp consist of one bunkhouse with a kitchen and one small cabin. Accommodations for six men are available.

Equipment:

		Condition
1	15-horsepower double drum hoist with cable and 1 8-cubic foot hoisting buckets	Fair
1	Air compressor, 160 c.f.m., portable with gasoline engine drive and 60 cubic foot air receiver	"
1	Jackhammer, Gardner-Denver, Model S55 complete with column, shell hoses and water pressure tank, and drill steel	"
1	Atlas rock drill with pneumatic leg, drill steel, hoses and bits	"
1	Blacksmith shop with assorted hand tools	
1	Acetylene welding outfit, complete	Good
300	ft. 18-inch gage track, 12-pound rail	Fair
2	Mine cars, 16-cubic foot	
1	Mine car, 14-cubic foot	
1	Truck, pickup, 1-ton	"
1	Truck, pickup, 1/2-ton, 4-wheel drive	"
2	Electric light plant, 1500-watt	"
400	ft. pipe, 3/4-inch to 2-inch air and water lines	"
1	Headframe and shack, at Middle Hill shaft	Poor
1	Ore bin at shaft, 30-ton capacity	"
1	Ore bin at South Hill adit, 30-ton capacity	Fair

Mine workings are shown on maps included with report. (Figures 1, 2, and 3).

SAMPLING

Sample No.	Width/feet	%, MoO_3	%, Mo	Location and remarks
S-150	1.0	0.23		North Hill outcrop - East
S-151	2.0	0.15		" " " "
S-152	5.0	0.16		" " " "
S-153	2.0	0.20		Middle Hill shaft 25-foot level
S-154	4.0	*0.01		" " " 25-foot "
S-155	2.0	*0.01		" " east side shaft 25-foot level
S-156	3.0	0.56	0.07	Middle Hill west side shaft 25-foot level
S-157	3.0	0.74		Middle Hill shaft 7 feet below collar
S-158	1.8	*0.01		North Hill open cut above adit
S-159	3.0	0.26		" " " " " "
S-160	1.3	0.24		South Hill adit
S-161	1.0	*0.01		" " "
S-162	2.3	*0.01		" " "
S-163	1.5	*0.01		" " "
S-164	1.5	*0.01		" " "
S-165	1.3	0.04		" " "
S-166	3.5	*0.01		" " " portal
S-167	2.0	*0.01		" " open cut above adit

See sketch map figures 1, 2, and 3 for sample locations.

*Less than.

PAST OPERATION

The property was examined by engineers from the U. S. Bureau of Mines in June 1951 in regard to an access road application which was denied.

Work at the property since the previous examination consisted of driving the South Hill adit; retimbering the Middle Hill shaft; and sinking it 15 feet. The North Hill adit was extended less than 15 feet. Some road repair work and trenching with a bulldozer was completed and the access road was extended 0.5 of a mile from the shaft to the North Hill area.

PRODUCTION

The operator, Mr. William Berger, produced 142.5 tons of mixed ore and waste. The material was estimated to contain less than 0.15 percent WO_3 and was stockpiled at the Toulon mill located 74 miles by road south of the property. Trucking the material from the property to the mill cost $5.75 a ton, according to Mr. Berger, and mill charges would be $10.00 per ton.

Production figures from the Middle Hill section, (Red Hawk mine), are previously quoted.

AVAILABILITY OF MANPOWER, SUPPLIES, WATER, POWER, ETC.

Mine labor was scarce in this region as more stable operations in the vicinity employ the available supply. Wage scale for miners is $14.00 per day.

Supplies can be obtained at Winnemucca, Nev.

Water for domestic use can be obtained from a spring a few hundred yards from the camp in Pole Canyon.

Gasoline has to be hauled in to the property for power generation.

Because of the steep road grades, haulage costs are high.

STATEMENT OF THE APPLICANT'S PROPOSAL

The applicant requests Government aid to explore the property. A DMEA loan totaling $62,941 has been requested. The exploration work covers surfacing trenching, drifting, crosscutting, and sinking.

The applicant claimed the ore on the North Hill would run 3.0 percent WO_3, which is obviously wrong. The best showings were sampled with the assistance of the operators engineer and the analyses of these samples indicated that the material was too low grade to constitute ore.

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM

DMEA-2750, Tungsten Lead Company

Pershing County, Nev.

Ralph J. Roberts and David C. Arnold, Geologists
U. S. Geological Survey

January 29, 1953

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The area is underlain largely by slate and interbedded limestone lenses that have been partly metamorphosed to hornfels and tactite. These rocks strike N. 10° - 50° E. and dip 40° - 60° NW. The tactite layers locally contain scheelite erratically distributed along the strike and down dip.

The scheelite-bearing tactite bodies that have been mined are as much as 45 feet long and two to four feet wide. Shipments made from the stope on the Middle Hill include a carload reported to assay 2.5 percent WO_3 and 266 tons that yielded 286 units WO_3 (about 1.08 percent WO_3). Samples cut from exposed tactite layers in the inclined shaft in the Middle Hill workings averaged 0.38 percent WO_3. Samples cut from the North Hill workings and South Hill workings were below shipping grade.

The ore reserves on the Middle Hill total about 2,750 tons of ore averaging 0.40 percent WO_3. Although this ore is of shipping grade, it is worth only about $15.00 a ton. It is unlikely therefore that ore of this grade can be mined at a profit. There are no ore reserves on the North and South Hills.

GEOLOGY

The area is underlain by interbedded slate, calcareous slate, and limestone of Triassic age that are cut by diorite and aplite dikes[1]. Locally the sedimentary rocks have been metamorphosed to hornfels, and to tactite which in places contains disseminated scheelite.

The sedimentary rocks strike N. 10° E. to N. 50° E. and dip 40° - 60° NW., forming part of a homoclinal sequence that underlies the Eugene Range. Gray to black slate is the principal rock type; it has been metamorphosed to low grade hornfels over most of the mine area. Beds of calcareous slate and limestone are interlayered with the slate; these beds form only a small proportion of the sedimentary sequence, and are generally thin and lenticular. In places they have been metamorphosed to tactite which consists of pyroxene, epidote, actinolite, garnet, quartz, calcite, and pyrite.

ORE DEPOSITS

The scheelite-bearing tactite layers are interbedded with slate, hornfels, and barren tactite. The tactite layers do not crop out well on the smooth slopes in the mine areas and most of the discoveries of scheelite-bearing tactite that have been made are on ridges.

The scheelite-bearing tactite layers that have been explored range from a few inches to four feet thick. They are lenticular, and pinch and swell along the strike and down dip. The scheelite is in

1/ Klepper, W. R., January 10, 1943, Memorandum on the Red Hawk Tungsten property.

part coarsely crystalline where it occurs in veinlets, but most of it is finely crystalline and is erratically disseminated throughout the tactite. The scheelite has a blue-white fluorescent color, except for one place in the Middle Hill shaft where it has a distinct yellowish fluorescent color; a sample (S-156) cut at this place contained 0.07 percent Mo.

Only the ore body on Middle Hill has been mined. This body was two to three feet wide, and was developed for a length of 45 feet when Klepper visited the property[2]. It is probable that the ore layer exposed in the inclined shaft is the northeastward extension of this layer, giving a total known length of 110 feet.

According to Klepper[1], the property yielded a one-ton shipment in 1917 that was reported to contain 2.5 percent WO_3. The source of this ore is not known. In 1943-44 shipments totaling 286 tons that contained 286 units of WO_3 (about 1.08 percent WO_3) were purchased by the Metals Reserve Corporation in Salt Lake City. These shipments were mined from the stope on the Middle Hill which is now caved and is inaccessible (fig. 3).

The scheelite showings on North Hill are in shallow pits. An adit 150 feet long has been driven to intersect the projected scheelite-bearing tactite layers about 75 feet below the pits, but the face of the adit is still about 50 feet short of the objective. (Fig. 5). Two samples were cut from the showings in the pits reported

2/ Klepper, M. R., April 1, 1943, Supplemental Memorandum--Access Road, Red Hawk Tungsten property, Eugene Mountains, Pershing County, Nevada.

to be most promising with the following results:

	Width of Cut	Percent WO_3
S-158	1.8 feet	0.01
S-159	3.0 feet	0.26

Three samples were cut east of the pits on scheelite-bearing tactite layers. (See fig. 2.) The assays of these samples were as follows:

	Width of Cut	Percent WO_3
S-150	1.0 feet	0.23
S-151	2.0 feet	0.15
S-152	5.0 feet	0.16

The Middle Hill workings have yielded most of the recorded production of the property. The principal stope is now caved, but the scheelite-bearing layer is exposed in an inclined shaft and workings on the 25-foot level. (See fig. 3.) Near the top of the incline, the layer is about three feet thick; it narrows downward and is two feet thick where last seen on the level. Samples cut in the layer gave the following assays:

	Width of Cut	Percent WO_3
S-153	2.0 feet	0.20
S-155	2.0 feet	0.01
S-156	3.0 feet	0.56
S-157	3.0 feet	0.74
	Average grade	0.38

The 25-foot level has other scheelite-bearing tactite showings in higher beds, but the scheelite is erratically distributed throughout the best. One sample was cut at the southwest side of the level

at one of the best showings; it was analyzed with the following results:

	Width of Cut	Percent WO_3
S-154	4.0 feet	0.01

The South Hill workings comprise an adit 110 feet long and shallow surface cuts. (Fig. 4) An ore layer as much as 3.5 feet wide is exposed at the portal of the adit; this layer was followed northeastward for 45 feet where it was cut off by a fault. Presumably the fault is a normal fault, and the layer is probably displaced northwest. Scheelite showings in a surface cut directly above the adit may represent the layer in the adit. If so, the displacement on the fault is about 19 feet. Two samples were cut on the bed in the adit and one was cut in the surface pit. These were analyzed with the following results:

	Width of Cut	Percent WO_3
S-160	1.3 feet	0.24
S-166	3.5 feet	0.01
S-167	2.0 feet	0.01

Another narrower tactite layer is exposed in the adit northeast of the fault; this layer appears to be lower in grade than the main layer, but there are two small high grade pockets in the drift. This layer thinned and pinched out about 56 feet from the fault. Five samples were cut in this layer and assayed with the following results:

	Width of Cut	Percent WO_3
S-161	1.0 feet	0.01
S-162	2.3 feet	0.01
S-163	1.5 feet	0.01
S-164	1.5 feet	0.01
S-165	1.3 feet	0.04

CTS RESERVES

When Klepper visited the property[2/] he calculated the following reserves:

Table 1. Ore reserves

	Tons	Grade %
Assured (measured)	250	2.0
Probable (indicated)	300	2.0
Possible (inferred)	750	0.75

It is probable that in subsequent mining operations, the measured ore was largely stoped and shipped. Klepper estimated the grade to be 2 percent WO_3, but the shipments averaged only about 1.08 percent WO_3. This discrepancy is probably due to dilution or a lowering in grade in the ore shoot above or below the level that Klepper sampled.

There is no way to accurately evaluate the ore reserves remaining in the Middle Hill area. Klepper's estimated 250 tons of probable ore and 750 tons of possible (inferred) ore averaging 0.75 percent WO_3 may be found in the stope area. The tactite layer in the inclined shaft is probably the same bed as the one mined in the

stope, and it is possible that the tactite layer may be found between the shaft and the stope. On the assumption that there was no stoping below the stope level and that the tactite layer averages two feet in thickness, the block between the south end of the stope and the north side of the shaft (220 feet long) may contain about 5,500 tons of tactite to a point 100 feet down dip below the surface. As the scheelite is erratically distributed throughout the tactite, it seems prudent to consider that about half of this tonnage may be waste rock. As the samples cut during this examination (S-153, S-155, S-156, S-157) averaged 0.38 percent WO_3, it seems reasonable to assume that the material in the block may average about 0.40 percent WO_3. The inferred reserves in the Middle Hill area are therefore estimated to be 2,750 tons of material containing 0.40 percent WO_3.

As the analyses of tactite layers on the North Hill and South Hill show that the tactite is too low grade to be shipped, no ore reserves were calculated for these areas.

PROPOSED EXPLORATION

The applicant has proposed to explore tungsten showings in three places, North Hill, Middle Hill, and South Hill. Discussion of these projects follows:

North Hill

The showings on North Hill were largely covered by snow at the time of visit and could not be adequately examined. High grade assays have been reported from the shallow pits, but the samples cut

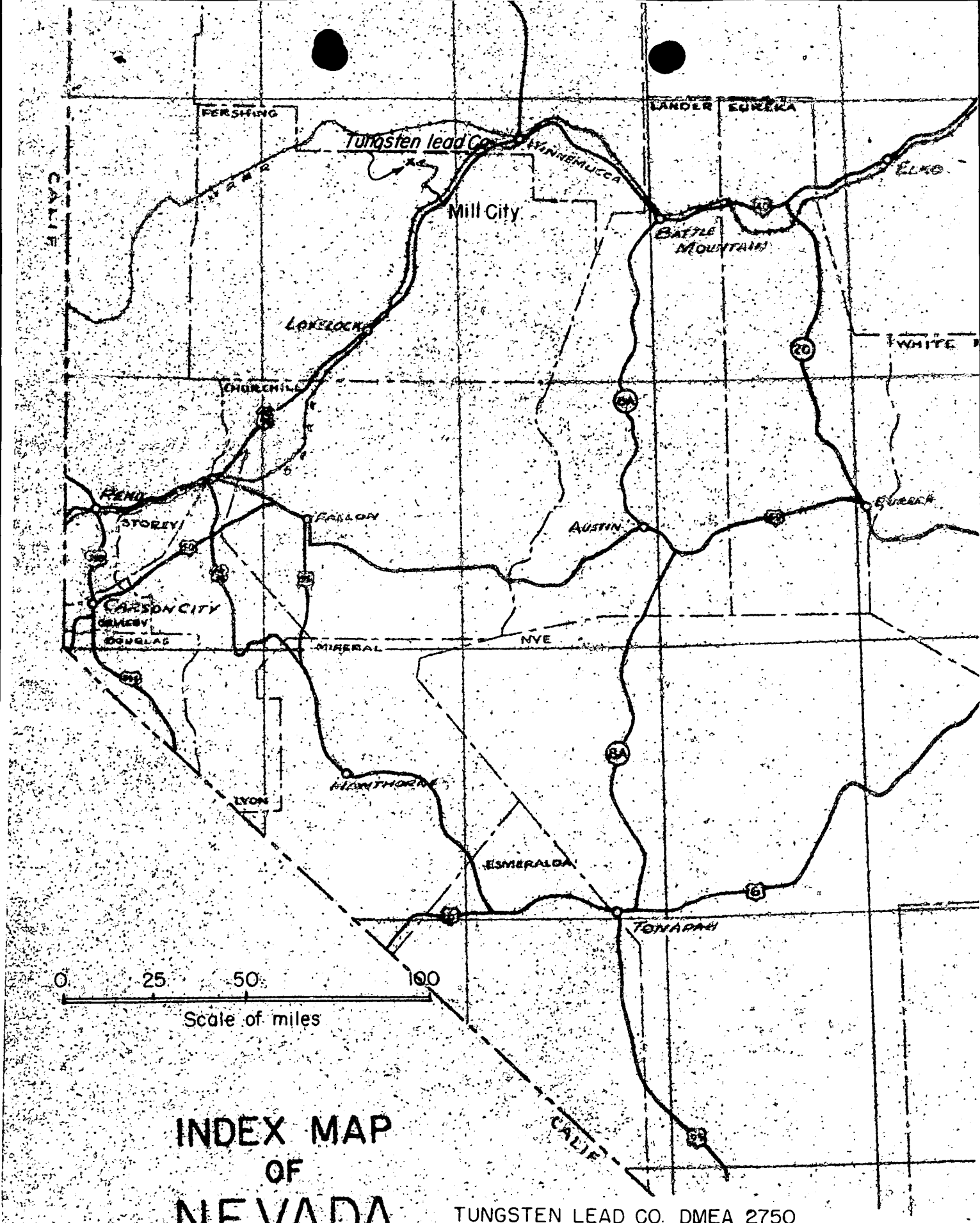
during the examination were all below shipping grade. No further exploratory work is recommended there.

Middle Hill

The applicant has proposed sinking the existing shaft an additional 80 feet to a depth of 125 feet, and to raise 50 feet into the hanging wall at the 110-foot level. As the ore reserves inferred in the Middle Hill area amount to only 2,750 tons averaging 0.40 percent WO_3, no additional work is recommended there.

South Hill

The exploratory work proposed in the South Hill workings consists of drifting and crosscutting northeast of the present face. Although a few high-grade scheelite showings were noted in the workings, the overall grade of the tactite layers is very low. As the material is well below shipping grade ore, no further work appears to be justified here, and accordingly none is recommended.



INDEX MAP OF NEVADA

TUNGSTEN LEAD CO. DMEA 2750

LOCATION MAP FIGURE 1

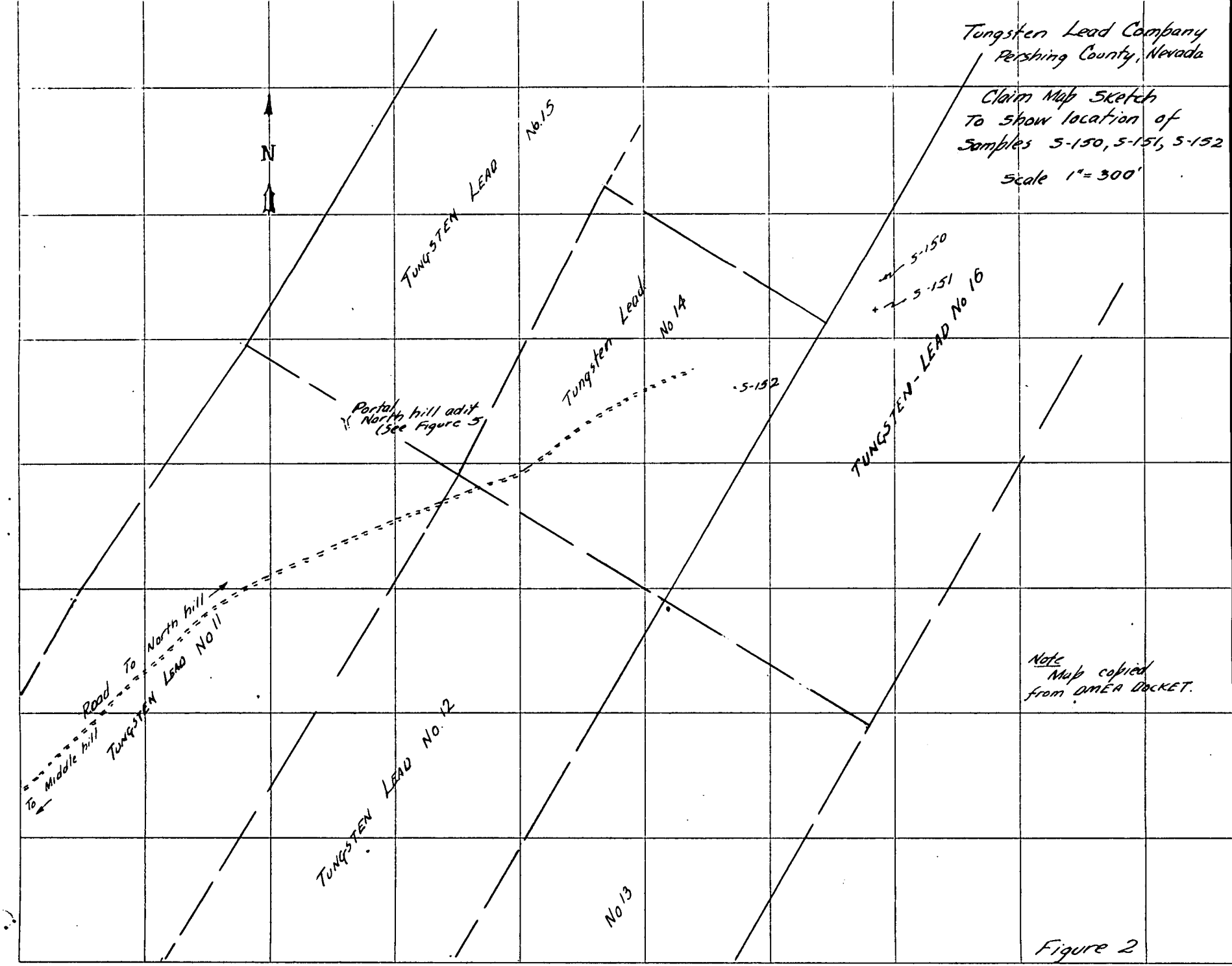

Tungsten Lead Company
Pershing County, Nevada
Claim Map Sketch
To show location of
Samples S-150, S-151, S-152
Scale 1" = 300'
N
TUNGSTEN LEAD No. 15
Tungsten Lead No 14
TUNGSTEN - LEAD No 16
S-150
S-151
S-152
Portal North hill adit (See Figure 5)
Road To North hill
To Middle hill
TUNGSTEN LEAD No 11
TUNGSTEN LEAD No. 12
No 13
Note
Map copied from OMEA DOCKET.

Figure 2

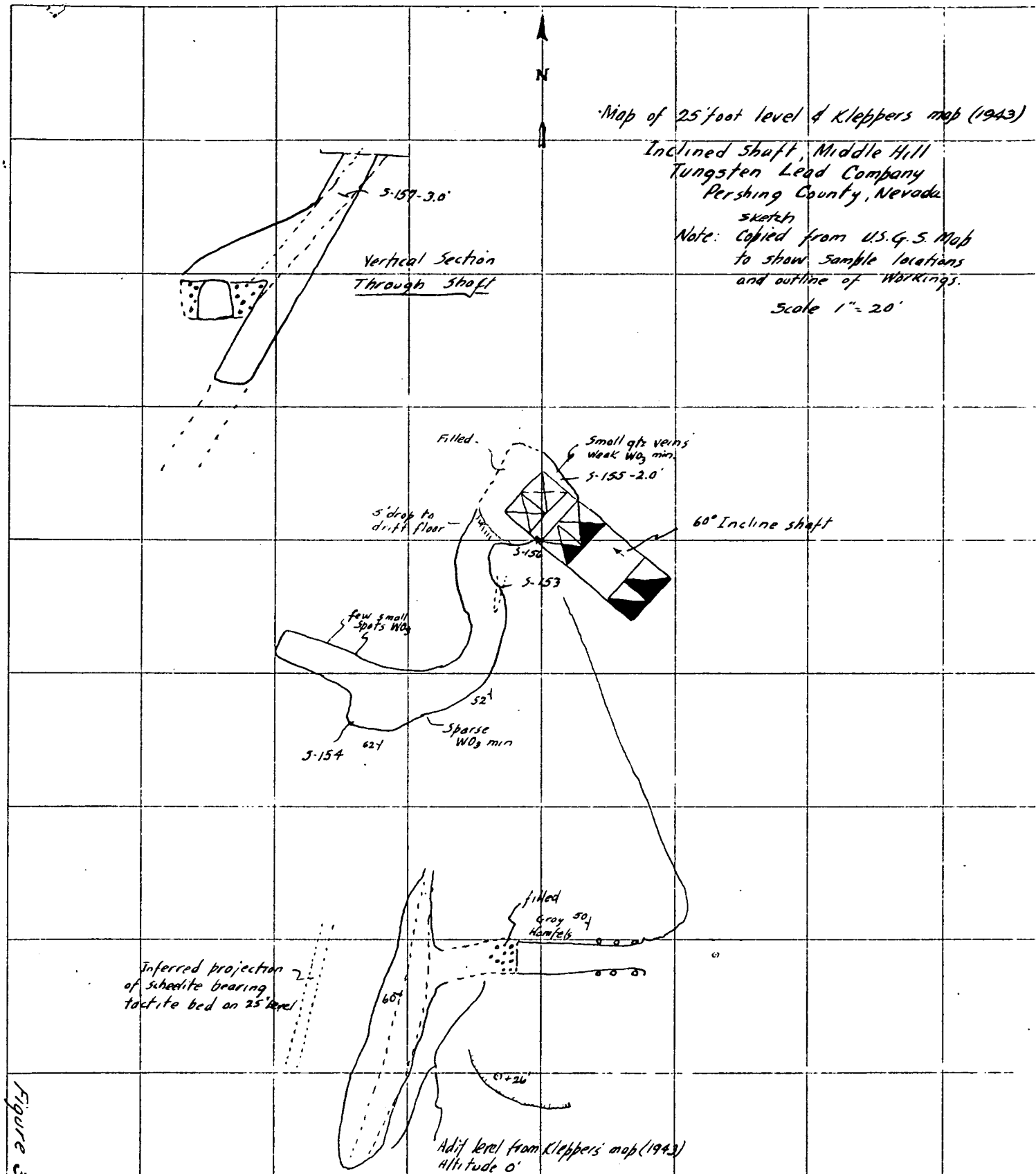

N
Map of 25 foot level & Klepper's map (1943)
Inclined Shaft, Middle Hill
Tungsten Lead Company
Pershing County, Nevada
sketch
Note: Copied from U.S.G.S. Map
to show sample locations
and outline of workings.
Scale 1" = 20'
S-159-3.0'
Vertical Section
Through Shaft
Filled
Small qtz veins
weak WO3 min.
S-155-2.0'
5' drop to
drift floor
60° Incline shaft
S-156
S-153
few small
spots WO3
52'
Sparse
WO3 min
S-154
62'
filled
Gray 50'
Hornfels
Inferred projection
of scheelite bearing
tactite bed on 25' level
60'
0'+26'
Adit level from Klepper's map (1943)
Altitude 0'

Figure 3

Map of South Hill Adit & Surface Cut
Tungsten Lead Company
(Red Hawk Property)
Pershing County, Nevada
sketch
Note: Copied from U.S.G.S. map to show sample locations and outline of workings.
Scale 1" = 20 ft.

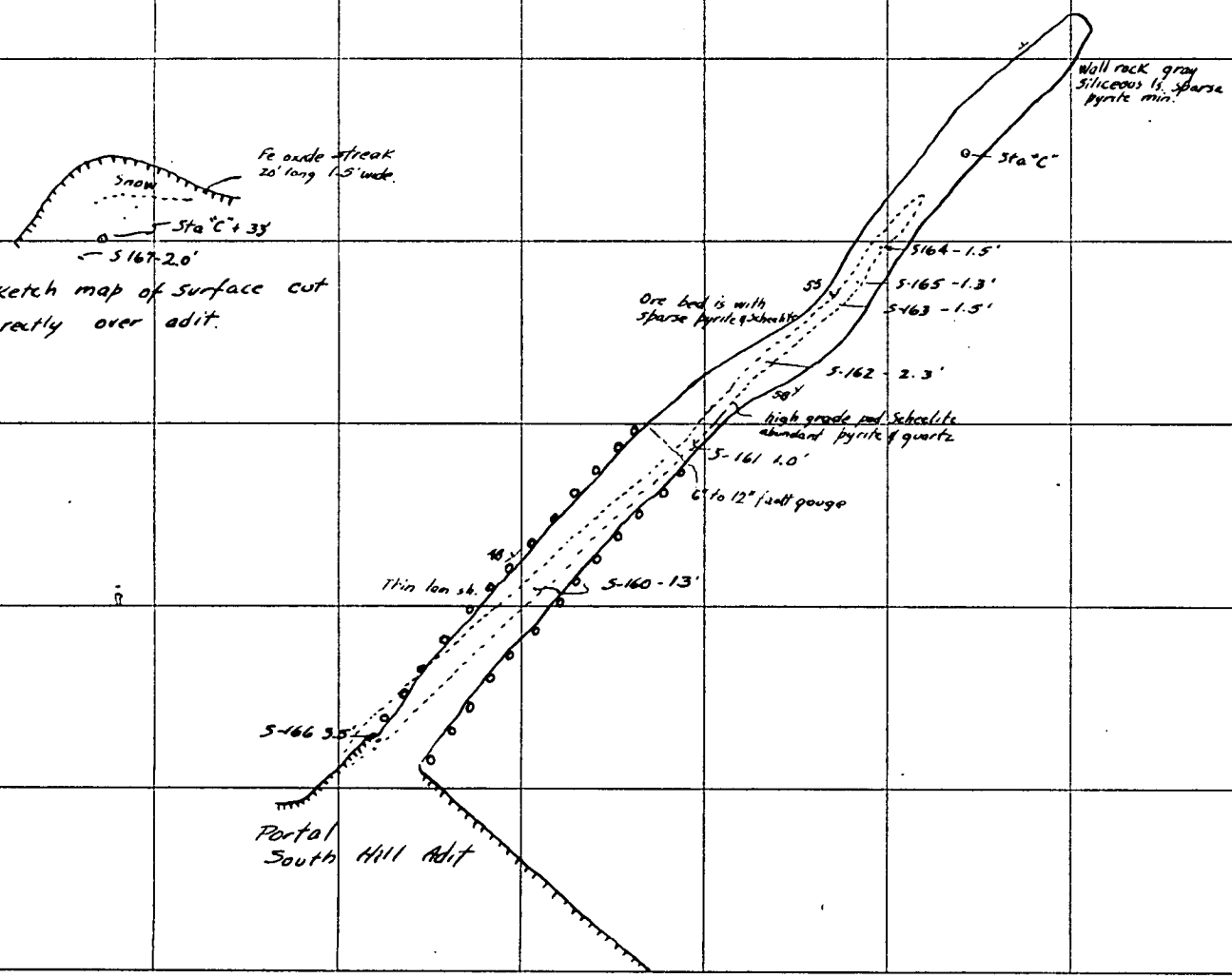
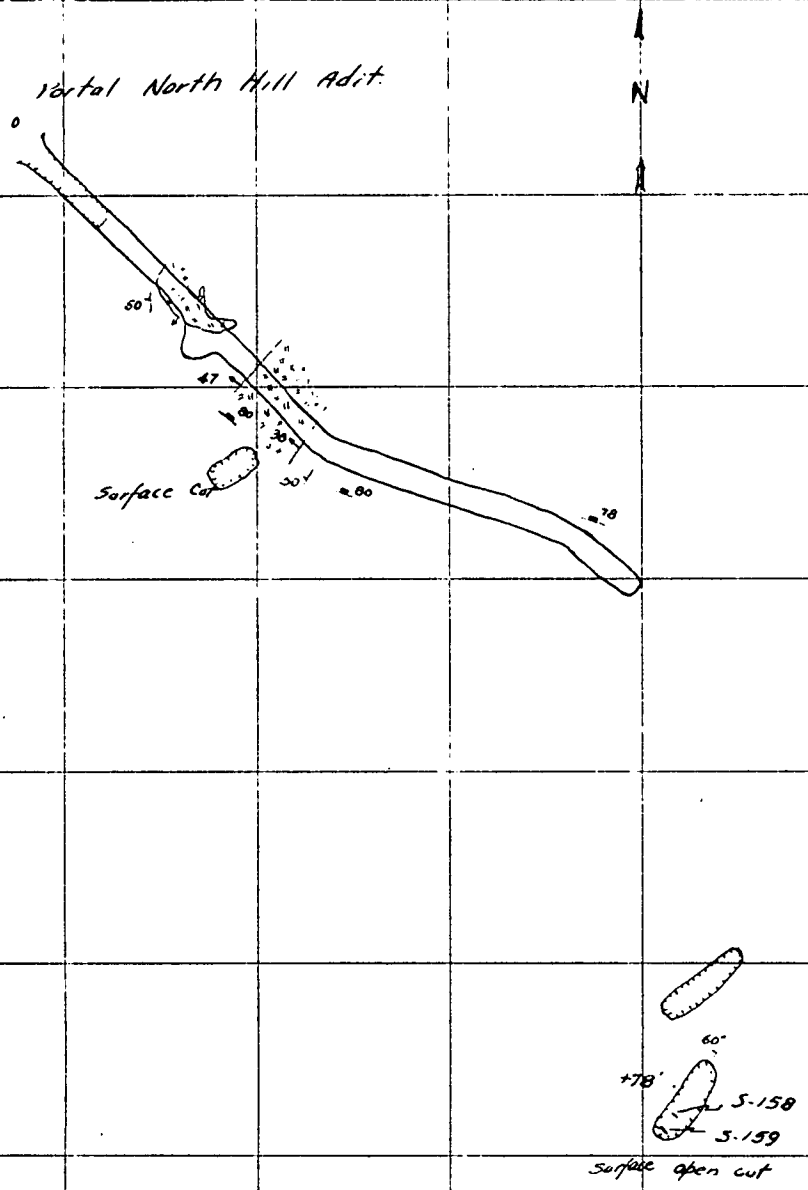


Figure 4



Map of North Hill Workings
Tungsten Lead Company
(Red Hawk Property)

Pershing County, Nevada

Sketch

Note: Copied from U.S.G.S. map to show sample locations and outline of workings.

Scale 1" = 40'

Figure 5

DMEA

DMEA 2750

NOV 14 1952

[illegible] 3208

My dear Senator Malone:

This is in response to your letter of November 3 relating to the application for exploration aid submitted by the Nugeton and Company of Winnemucca, Nevada.

After review of the application by Defense Minerals Exploration Administration and other interested agencies, it was deemed necessary to refer the application to the San Francisco office of DMEA requesting that a field examination be made of the property.

We have asked the field team to expedite the examination. As soon as the examination report is received, you will be advised concerning the decision made in regard to the application.

If in the future I can be of further aid in this matter, please do inform me.

Sincerely yours,

(sgd) Joel D. Wolfsohn

Assistant Secretary of the Interior

Hon. Pat McCarran
United States Senate
Washington, D. C.

DWolfridge:lm
11/10/52

cc: Secretary's Reading File
Asst. Secretary for Mineral Resources
Admin. Reading File, DMEA
Docket, DMEA #2750
W. W. Graham, DMEA, Room 3511
J. H. Lemmon, DMEA, Room 5216, GSA Bldg.
Field Team Reg. III, DMEA
D. C. Dalfridge, DMEA

NOV 1 0 1952

Mr. William Berger, President
Tungsten-Lead Company
Room 7, Professional Building
Minnemoca, Nevada

Re: Docket No. DMEA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk)
Pershing County, Nevada

Dear Mr. Berger:

Your application for assistance in exploring the referenced group of claims, Pershing County, Nevada, has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. R. C. Miller, Executive Officer, DMEA Field Team, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

The Regional Office will contact you at an early date in regard to the examination of your property. Any assistance that you can render the field team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf
Administrator

Rutledge'lm
11/7/52

cc: Adm. Reading File
Docket
R. W. Geehan, USBM
D. R. Lemmon, USGS
Field Team Reg. III
G. C. Selfridge
E. A. Rutledge

FARutledge:lm
11/7/52

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

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

NOV 10 1952

Re: Docket No. DMEA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Rock Property)
Pershing County, Nevada

Dear Mr. Miller:

Reference is made to the subject docket which is being referred to your office for a field examination.

The Operators apparently have had very little mining experience and this includes their superintendent in charge of operations, Marion M. Price, who graduated from Colorado School of Mines in 1948.

The proposed project appears to be a little large for an unknown area and for projects that were unsupported by assay and geologic data. Perhaps during the examination a more modest and realistic program should be discussed with the applicants if a project is warranted.

The costs for the project work scheduled appear high and we believe they may be reduced. The Operators should be advised that they will not be allowed depreciation on such items as track, air and water lines, office equipment, and camp equipment.

The examining field team should obtain all of the data necessary for the preparation of Exhibit "A" of a contract, prepare a geologic map, and take representative samples during the examination.

A memorandum from Mr. T. P. Thayer, U. S. Geological Survey, is enclosed for your information.

P.S. Please expedite the examination and report on this property.

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee

Enclosure

Approved:

J. H. Hedges
Member, Bureau of Mines

G. R. Fonkel, Jr.
Member, Geological Survey

400

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

November 6, 1952

Memorandum

To: George C. Selfridge, DMEA

From: T. P. Thayer

Subject: DMEA-2750, Tungsten-Lead Company, Winnemucca, Nevada
Formerly Red Hawk Claims.

The applicants propose to spend $62,941 on tunnelling, drilling, and surface stripping on the Tungsten-Lead claims, formerly known as the Red Hawk claims. These are in Pole Canyon, about 3 miles airline northwest of the Nevada-Massachusetts mine.

The proposed work appears reasonable and logical, but no assays are given to support the application. The Geological Survey examined these deposits in 1943, before most of the underground work was done. A carload of 2½ per cent (WO_3) ore is said to have been shipped from these claims in 1917, and 266 tons of ore containing 286 units of WO_3 was shipped to Metal Reserve in 1943-1944. The basic geology appears to be well stated by the applicant.

Recommendation

The application should be referred to the field for review, and examination, if necessary. Mr. Paul Bateman of the Geological Survey may know the situation well enough to evaluate the application without a visit to the field.

T. P. Thayer
Geologist

400

COPY

UNITED STATES SENATE
Committee on the Judiciary

November 3, 1952

DONE H 7/15

Honorable Oscar L. Chapman
Secretary of Interior
Department of the Interior
Washington, D. C.

My dear Mr. Secretary:

On October 17, 1952, the Tungsten-Lead Company, a Nevada corporation with offices in the Professional Building, Winnemucca, Nevada, filed with the San Francisco office of the Defense Minerals Exploration Administration an application for a defense metals loan in the amount of approximately $63,000.

The property involved is located approximately 12 miles northwest of Mill City, Nevada, and 2½ miles north and west of the Nevada Massachusetts Mining Company, and embraces 16 unpatented claims in Sec. 16, Twp. 34 N., R. 34 E., Old Sadler mining district, Pole Canyon, Pershing County, Nevada.

This application was, I am advised forwarded to Washington by the San Francisco office of the Defense Minerals Exploration Administration on October 20, 1952.

This mine is in a developed region out of which tungsten has been produced for two decades or so. I should not be surprised to find that the nearby Nevada Massachusetts Mine is the only tungsten property which has never closed down in the past 20 years.

Undoubtedly, the application to which I refer is now somewhere in channels in the organization of your Defense Minerals Exploration Administrator, C. O. Mittendorf.

I respectfully recommend and urge that the processing of this application be expedited as much as possible, so that a firm decision may be reached in the near future. I shall appreciate being advised when such a decision has been made.

Kindest personal regards and all best wishes.

Sincerely,

/s/ Pat McCarran

Dmea -2750

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

400

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 Bldg.
870 Market St.
San Francisco 2, Calif.

October 21, 1952

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for exploration loan (Tungsten)
Tungsten-Lead Company, Winnemucca, Nevada
Claims in Pershing County, Nevada

Attached are the original and two copies of an application for an exploration loan, dated October 17, received in this office on October 20.

We have retained one copy of the application, should we be requested to make a field examination.

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

Attachment

Copy to E. H. Bailey, USGS

FILE COPY
SURNAME:

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

Rutledge
Martin
Gahan
Kimbel
Hodges
Lethridge
Kilgore

BR

MAR 17 1953

Mr. William Berger, President
Tungsten-Lead Company
Room 7, Professional Building
Winnemucca, Nevada

J.C. 3/17/53

Re: Docket No. DMEA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk)
Pershing County, Nevada

Dear Mr. Berger:

Your application for aid for an exploration project and other data available to us in Washington concerning the subject claims have been reviewed.

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

Careful study of all our information, although noting a small amount of tungsten mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,
SIGNED
Administrator

CC: DOCKET
FT, Reg. 3
CODE 400
OPER. COMMITTEE
ADMN. READ. FILE
D. M. LEMMON, USGS
R. W. GEEHAN, USBM

FILE COPY
SURNAME:

400

Rutledge
Martin
Graham
Kimbrel
Hedges
Jeffrey
Kelly

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

MAR 17 1953

Hon. Pat McCarran
United States Senate
Washington 25, D. C.

J.C. 3/17/53

My dear Senator McCarran:

Further reference is made to your inquiry of November 3, 1952, to the Secretary of the Interior regarding the status of Exploration Docket DMEA 2750, Tungsten-Lead Company, Pershing County, Nevada.

On November 14, 1952, Mr. Wolfsohn, then Assistant Secretary of the Interior, replied that we had requested the Field Team at San Francisco, California, to expedite a field examination of the property and submit a recommendation.

Considering the information presently available to us, all of which indicates that geologically there is little possibility of making a significant mineral discovery or development through the applicant's program of exploration, we have now denied the application, and we enclose a copy of our letter advising the Tungsten-Lead Company accordingly.

If we can be of any further assistance in this matter, please so inform us.

Sincerely yours,

SIGNED
Administrator

FARutledge/ls 3/13/53

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

Enclosure

FILE COPY
SURNAME:

Rutledge
Martin
Sheahan

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

Administrator, DMEA

March 12, 1953

Iron and Ferro-Alloys Division, DMEA

Denial of application for exploration assistance in the amount of $62,941.01
Docket No. DMEA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk Claims)
Pershing County, Nevada

J.C. 3/17/53

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

(1) The applicant proposed to explore the tungsten-bearing tactites on the Tungsten-Lead claims by surface stripping, sinking, drifting, crosscutting, and raising.

Though samples were said to have varied from 0.30 to 4.79 percent WO_3, no other sample data were given in the application.

(2) Tungsten occurs as scheelite disseminated in small lenticular-shaped tactite bodies that occur in a series of interbedded slate, hornfels, barren tactite, and tungsten-bearing tactite. The lenticular bodies of tactite containing the tungsten pinch and swell along the strike and down dip. The mineralized tactite bodies contain insufficient tungsten mineralization to constitute ore.

(3) A field examination by Benjamin H. Sheahan, U. S. Bureau of Mines, and Ralph J. Roberts and David C. Arnold, U. S. Geological Survey, indicates the property has little merit.

(4) The Field Team recommends denial.

(5) The Commodity Division of the Geological Survey recommends denial.

(6) The Commodity Division of the Bureau of Mines concurs with the denial of the subject application.

W. S. Martin

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

FARutledge/ls
3/12/53

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

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Administrator, DMEA DATE: March 12, 1953

FROM : Iron and Ferro-Alloys Division, DMEA

SUBJECT: Denial of application for exploration assistance in the amount of $62,941.01
Docket No. DMEA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk Claims)
Pershing County, Nevada

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

(1) The applicant proposed to explore the tungsten-bearing tactites on the Tungsten-Lead claims by surface stripping, sinking, drifting, crosscutting, and raising.

Though samples were said to have varied from 0.30 to 4.79 percent WO_3, no other sample data were given in the application.

(2) Tungsten occurs as scheelite disseminated in small lenticular-shaped tactite bodies that occur in a series of interbedded slate, hornfels, barren tactite, and tungsten-bearing tactite. The lenticular bodies of tactite containing the tungsten pinch and swell along the strike and down dip. The mineralized tactite bodies contain insufficient tungsten mineralization to constitute ore.

(3) A field examination by Benjamin H. Sheahan, U. S. Bureau of Mines, and Ralph J. Roberts and David C. Arnold, U. S. Geological Survey, indicates the property has little merit.

(4) The Field Team recommends denial.

(5) The Commodity Division of the Geological Survey recommends denial.

(6) The Commodity Division of the Bureau of Mines concurs with the denial of the subject application.

W S Martin
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

WSM

To: W. S. Martin, DMEA

From: D. M. Lemmon, USGS

Subject: Field Report
DMEA-2750, Tungsten
Tungsten-Lead Company
Red Hawk Prospect
Pershing County, Nevada

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAR 9 1953

The Red Hawk prospect was examined December 2 and 3, 1952, by B. H. Sheahan of the Bureau of Mines and R. J. Roberts and D. C. Arnold of the Geological Survey. Their reports, dated January 29, 1953, recommend denial of the exploration application, a recommendation in which Mr. H. C. Miller concurs.

I agree with the recommendation of the field report that the application should be denied.

D. M. Lemmon

D. M. Lemmon

Copy retained

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 3 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: Operating Committee, DMEA, Interior Bldg., Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2750 (Tungsten), Tungsten-Lead Company, Tungsten-Lead Claims (Red Hawk Property), Pershing County, Nevada

Reference is made to letter, dated November 10, 1952, from Frank E. Johnson, Chairman, Operating Committee, requesting a field examination of the subject property.

Attached are four copies each of reports, dated January 29, 1953, entitled "DMEA-2750, Tungsten Lead Company, Pershing County, Nevada," by Benjamin H. Sheahan, Mining Engineer, U. S. Bureau of Mines, and Ralph J. Roberts and David C. Arnold, Geologists, U. S. Geological Survey, covering an examination of the property.

The conclusions of the engineer and the examining geologists are more or less in accord that there is not sufficient tungsten mineralization to warrant an exploration loan. Mr. Bailey and I concur in their recommendations.

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

Attachment

Copy to: E. H. Bailey, USGS

Reviewed by
OPERATING COMMITTEE

3-6-53
(date)

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

gcl
3/10/53

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM

DMEA-2750, Tungsten Lead Company
Pershing County, Nev.

Benjamin H. Sheahan, Mining Engineer
U. S. Bureau of Mines

January 29, 1953

Reviewed by
DMEA OPERATING COMMITTEE

5-6-53
(date)

DMEA-2750 (Tungsten)

Name and address of applicant: William Berger
Tungsten Lead Company
Room 7, Professional Bldg.
Winnemucca, Nev.

Name and location of property: Tungsten Lead Company, Pershing Co., Nev.

SUMMARY

The Tungsten-Lead Company, Inc. property consists of 16 unpatented claims located high on the east slope of the Eugene Mountains, Pershing County, Nev. The property is reached by following the Pole Canyon road 8.4 miles northerly from Tungsten, Nev.

The Middle Hill area which was formerly known as the Red Hawk mine was developed by a shallow 30-foot incline shaft. An adit now caved and filled was examined by a geologist[1] of the U. S. Geological Survey in 1943. The access road was constructed at Government expense in 1944 and a production of 266 tons of tungsten ore containing 286 units of WO_3 was produced. Narrow, lenticular, scheelite bearing tactite lenses occur in metamorphosed sedimentary rock with regional strikes of N. 10° E. to N. 50° E. and dips of 40 to 60 degrees to the northwest.

The North Hill and South Hill areas are developed by short adits, however mear occurrences of small lenticular shaped tactite lenses contain insufficient tungsten mineralization to constitute ore.

The property was incorporated in 1950 and was promoted by J. G. Tomlinson of Winnemucca. An application for access road improvement

1/ M. R. Klepper.

was denied following an examination by engineers[2] of the U. S. Bureau of Mines in June 1951.

Mr. J. G. Tomlinson conveyed control in the property to Mr. William Berger, an investment broker of Santa Rosa, Calif., who now maintains an office at Winnemucca.

Mr. Berger claims that the corporation has spent over $85,000. Since only 140 feet of underground work was done, some road repair work, and the production of 142.5 tons of non-commercial mixed ore, at least a fairly large portion of the money was not spent on the property.

A request for a Government exploration loan was made by Mr. Berger in October 1952 and the property was examined on December 2 and 3, 1952 by an engineer[3] of the U. S. Bureau of Mines jointly with geologists[4] of the U. S. Geological Survey.

CONCLUSIONS

The tungsten mineralization is too low grade, and the scheelite bearing lenses are too small to warrant an exploration loan.

The applicant for the exploration loan lacks necessary qualifications to conduct an exploration project competently.

RECOMMENDATIONS

The exploration loan should be denied.

TIME SPENT ON PROPERTY

The engineer and geologists examined the property from 10:00 A.M.,

---

2/ E. J. Matson and B. H. Sheahan.
3/ B. H. Sheahan.
4/ R. J. Roberts and D. C. Arnold.

Dec. 2 to 5:00 P.M., Dec. 3, 1952. The Eugene Mountains in this region were partly covered with snow. Mr. William Berger and Marion E. Price, his supervisor, accompanied the examination team.

NAME AND LOCATION OF PROPERTY

The Tungsten Lead Company, Inc., Red Hawk mine, is located on the east slope of the Eugene Mountains in the Central Mining District, Pershing County, Nev., and is about three miles northwest of the Nevada-Massachusetts Tungsten mine.

The property is reached from Winnemucca, the nearest town, by following U. S. Highway 40 southwesterly 27 miles to Mill City, turn right and follow paved road toward tungsten 8 miles to road fork opposite the mill building, turn right and follow an unimproved road northerly 3 miles to a road fork leading westerly into Pole Canyon, follow the Pole Canyon road 5.4 miles to the property. The total distance by road from Winnemucca, Nevada is 43.4 miles to the Middle Hill (Red Hawk shaft).

The sixteen unpatented Tungsten Lead mining claims No. 1 to No. 16 are located in sections 16, 17, 20 and 21, T. 34 N., R. 34 E., at elevations from 6200 feet to 7000 feet.

CONDITION AND SEASONAL ACCESSIBILITY OF ROAD TO PROPERTY

The paved roads from Winnemucca to Tungsten are all weather and are seldom closed. The partly improved road from Tungsten to the property in Pole Canyon is open most of the year except during periods of heavy snow or rain. The property was reached by four wheel drive vehicles in December 1952.

COMPETENCY OF APPLICANT AND OPERATING PERSONNEL

The applicant, Mr. William Berger, is an investment broker. He has practically no mining experience. Mr. Berger stated that the corporation had expended over $85,000. Judging from the small amount of work done by the corporation, which includes only 140 feet of underground exploration work, and a few weeks work on surface trenching and road improvement with a bulldozer, the applicant would be a very poor risk to handle Government funds for exploration work.

The applicant, Mr. William Berger, was in charge of the cooperation work when over 140 tons of mixed ore and waste was hauled to a custom mill at Tuolon, Nev. The material apparently contains insufficient scheelite to pay for milling. It is quite possible that this material was hauled for promotional reasons.

Mr. Berger stated that the company was incorporated in Nevada with a capitalization of 218,000 shares at $1.00 par value. Some of this stock was said to have been sold to business men at Santa Rosa, Calif., which was Mr. Berger's former residence.

The applicant does not appear to be competent to conduct an exploration project.

The personnel at the property included Mr. Marion E. Price, an engineer employee, and one workman. Because of stormy weather, no work was being done.

APPLICANT'S PROPERTY RIGHTS

The applicant stated that he and his associates held the majority of the stock in the corporation. The sixteen unpatented Tungsten Lead

mining claims are said to be owned by the corporation. The location certificates are said to be filed at the Pershing County recorders office at Lovelock, Nev. Claims No. 1 to No. 8 are recorded in Book 13, pages 7 to 12 and claims No. 9 to No. 16 are recorded in Book 13, pages 489 to page 492.

Mr. Berger claims that the corporation may owe some money to Mr. J. G. Tomlinson, a former stockholder.

DESCRIPTION OF PROPERTY

Surface and surface facilities:

Surface facilities at the camp consist of one bunkhouse with a kitchen and one small cabin. Accommodations for six men are available.

Equipment:

		Condition
1	15-horsepower double drum hoist with cable and 1 8-cubic foot hoisting buckets	Fair
1	Air compressor, 160 c.f.m., portable with gasoline engine drive and 60 cubic foot air receiver	"
1	Jackhammer, Gardner-Denver, Model S55 complete with column, shell hoses and water pressure tank, and drill steel	"
1	Atlas rock drill with pneumatic leg, drill steel, hoses and bits	"
1	Blacksmith shop with assorted hand tools	
1	Acetylene welding outfit, complete	Good
300	ft. 18-inch gage track, 12-pound rail	Fair
2	Mine cars, 16-cubic foot	
1	Mine car, 14-cubic foot	
1	Truck, pickup, 1-ton	"
1	Truck, pickup, 1/2-ton, 4-wheel drive	"
2	Electric light plant, 1500-watt	"
400	ft. pipe, 3/4-inch to 2-inch air and water lines	"
1	Headframe and shack, at Middle Hill shaft	Poor
1	Ore bin at shaft, 30-ton capacity	"
1	Ore bin at South Hill adit, 30-ton capacity	Fair

Mine workings are shown on maps included with report. (Figures 1, 2, and 3).

SAMPLING

Sample No.	Width/feet	%,WO_3	%,Mo	Location and remarks
S-150	1.0	0.23		North Hill outcrop - East
S-151	2.0	0.15		" " " "
S-152	5.0	0.16		" " " "
S-153	2.0	0.20		Middle Hill shaft 25-foot level
S-154	4.0	*0.01		" " " 25-foot "
S-155	2.0	*0.01		" " east side shaft 25-foot level
S-156	3.0	0.56	0.07	Middle Hill west side shaft 25-foot level
S-157	3.0	0.74		Middle Hill shaft 7 feet below collar
S-158	1.8	*0.01		North Hill open cut above adit
S-159	3.0	0.26		" " " " " "
S-160	1.3	0.24		South Hill adit
S-161	1.0	*0.01		" " "
S-162	2.3	*0.01		" " "
S-163	1.5	*0.01		" " "
S-164	1.5	*0.01		" " "
S-165	1.3	0.04		" " "
S-166	3.5	*0.01		" " " portal
S-167	2.0	*0.01		" " open cut above adit

See sketch map figures 1, 2, and 3 for sample locations.

*Less than.

PAST OPERATION

The property was examined by engineers from the U. S. Bureau of Mines in June 1951 in regard to an access road application which was denied.

Work at the property since the previous examination consisted of driving the South Hill adit; retimbering the Middle Hill shaft; and sinking it 15 feet. The North Hill adit was extended less than 15 feet. Some road repair work and trenching with a bulldozer was completed and the access road was extended 0.5 of a mile from the shaft to the North Hill area.

PRODUCTION

The operator, Mr. William Berger, produced 142.5 tons of mixed ore and waste. The material was estimated to contain less than 0.15 percent WO_3 and was stockpiled at the Toulon mill located 74 miles by road south of the property. Trucking the material from the property to the mill cost $5.75 a ton, according to Mr. Berger, and mill charges would be $10.00 per ton.

Production figures from the Middle Hill section, (Red Hawk mine), are previously quoted.

AVAILABILITY OF MANPOWER, SUPPLIES, WATER, POWER, ETC.

Mine labor was scarce in this region as more stable operations in the vicinity employ the available supply. Wage scale for miners is $14.00 per day.

Supplies can be obtained at Winnemucca, Nev.

Water for domestic use can be obtained from a spring a few hundred yards from the camp in Pole Canyon.

Gasoline has to be hauled in to the property for power generation. Because of the steep road grades, haulage costs are high.

STATEMENT OF THE APPLICANT'S PROPOSAL

The applicant requests Government aid to explore the property. A DMEA loan totaling $62,941 has been requested. The exploration work covers surfacing trenching, drifting, crosscutting, and sinking.

The applicant claimed the ore on the North Hill would run 3.0 percent WO_3, which is obviously wrong. The best showings were sampled with the assistance of the operators engineer and the analyses of these samples indicated that the material was too low grade to constitute ore.

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

gcl
3/16/53

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM

DMEA-2750, Tungsten Lead Company

Pershing County, Nev.

Ralph J. Roberts and David C. Arnold, Geologists
U. S. Geological Survey

January 29, 1953

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The area is underlain largely by slate and interbedded limestone lenses that have been partly metamorphosed to hornfels and tactite. These rocks strike N. 10° - 50° E. and dip 40° - 60° NW. The tactite layers locally contain scheelite erratically distributed along the strike and down dip.

The scheelite-bearing tactite bodies that have been mined are as much as 45 feet long and two to four feet wide. Shipments made from the stope on the Middle Hill include a carload reported to assay 2.5 percent WO_3 and 266 tons that yielded 286 units WO_3 (about 1.08 percent WO_3). Samples cut from exposed tactite layers in the inclined shaft in the Middle Hill workings averaged 0.38 percent WO_3. Samples cut from the North Hill workings and South Hill workings were below shipping grade.

The ore reserves on the Middle Hill total about 2,750 tons of ore averaging 0.40 percent WO_3. Although this ore is of shipping grade, it is worth only about $15.00 a ton. It is unlikely therefore that ore of this grade can be mined at a profit. There are no ore reserves on the North and South Hills.

GEOLOGY

The area is underlain by interbedded slate, calcareous slate, and limestone of Triassic age that are cut by diorite and aplite dikes[1]. Locally the sedimentary rocks have been metamorphosed to hornfels, and to tactite which in places contains disseminated scheelite.

The sedimentary rocks strike N. 10° E. to N. 50° E. and dip 40° - 60° NW., forming part of a homoclinal sequence that underlies the Eugene Range. Gray to black slate is the principal rock type; it has been metamorphosed to low grade hornfels over most of the mine area. Beds of calcareous slate and limestone are interlayered with the slate; these beds form only a small proportion of the sedimentary sequence, and are generally thin and lenticular. In places they have been metamorphosed to tactite which consists of pyroxene, epidote, actinolite, garnet, quartz, calcite, and pyrite.

ORE DEPOSITS

The scheelite-bearing tactite layers are interbedded with slate, hornfels, and barren tactite. The tactite layers do not crop out well on the smooth slopes in the mine areas and most of the discoveries of scheelite-bearing tactite that have been made are on ridges.

The scheelite-bearing tactite layers that have been explored range from a few inches to four feet thick. They are lenticular, and pinch and swell along the strike and down dip. The scheelite is in

1/ Klepper, M. R., January 10, 1943, Memorandum on the Red Hawk Tungsten property.

part coarsely crystalline where it occurs in veinlets, but most of it is finely crystalline and is erratically disseminated throughout the tactite. The scheelite has a blue-white fluorescent color, except for one place in the Middle Hill shaft where it has a distinct yellowish fluorescent color; a sample (S-156) cut at this place contained 0.07 percent Mo.

Only the ore body on Middle Hill has been mined. This body was two to three feet wide, and was developed for a length of 45 feet when Klepper visited the property[2/]. It is probable that the ore layer exposed in the inclined shaft is the northeastward extension of this layer, giving a total known length of 110 feet.

According to Klepper[1/], the property yielded a one-ton shipment in 1917 that was reported to contain 2.5 percent WO_3. The source of this ore is not known. In 1943-44 shipments totaling 266 tons that contained 286 units of WO_3 (about 1.08 percent WO_3) were purchased by the Metals Reserve Corporation in Salt Lake City. These shipments were mined from the stope on the Middle Hill which is now caved and is inaccessible (fig. 3).

The scheelite showings on North Hill are in shallow pits. An adit 150 feet long has been driven to intersect the projected scheelite-bearing tactite layers about 75 feet below the pits, but the face of the adit is still about 50 feet short of the objective. (Fig. 5). Two samples were cut from the showings in the pits reported

2/ Klepper, M. R., April 1, 1943, Supplemental Memorandum--Access Road, Red Hawk Tungsten property; Eugene Mountains, Pershing County, Nevada.

to be most promising with the following results:

	Width of Cut	Percent WO_3
S-158	1.8 feet	0.01
S-159	3.0 feet	0.26

Three samples were cut east of the pits on scheelite-bearing tactite layers. (See fig. 2.) The assays of these samples were as follows:

	Width of Cut	Percent WO_3
S-150	1.0 feet	0.23
S-151	2.0 feet	0.15
S-152	5.0 feet	0.16

The Middle Hill workings have yielded most of the recorded production of the property. The principal stope is now caved, but the scheelite-bearing layer is exposed in an inclined shaft and workings on the 25-foot level. (See fig. 3.) Near the top of the incline, the layer is about three feet thick; it narrows downward and is two feet thick where last seen on the level. Samples cut in the layer gave the following assays:

	Width of Cut	Percent WO_3
S-153	2.0 feet	0.20
S-155	2.0 feet	0.01
S-156	3.0 feet	0.56
S-157	3.0 feet	0.74
	Average grade	0.38

The 25-foot level has other scheelite-bearing tactite showings in higher beds, but the scheelite is erratically distributed throughout the best. One sample was cut at the southwest side of the level

at one of the best showings; it was analyzed with the following results:

	Width of Cut	Percent WO_3
S-154	4.0 feet	0.01

The South Hill workings comprise an adit 110 feet long and shallow surface cuts. (Fig. 4) An ore layer as much as 3.5 feet wide is exposed at the portal of the adit; this layer was followed northeastward for 45 feet where it was cut off by a fault. Presumably the fault is a normal fault, and the layer is probably displaced northwest. Scheelite showings in a surface cut directly above the adit may represent the layer in the adit. If so, the displacement on the fault is about 19 feet. Two samples were cut on the bed in the adit and one was cut in the surface pit. These were analyzed with the following results:

	Width of Cut	Percent WO_3
S-160	1.3 feet	0.24
S-166	3.5 feet	0.01
S-167	2.0 feet	0.01

Another narrower tactite layer is exposed in the adit northeast of the fault; this layer appears to be lower in grade than the main layer, but there are two small high grade pockets in the drift. This layer thinned and pinched out about 36 feet from the fault. Five samples were cut in this layer and assayed with the following results:

	Width of Cut	Percent WO_3
S-161	1.0 feet	0.01
S-162	2.3 feet	0.01
S-163	1.5 feet	0.01
S-164	1.5 feet	0.01
S-165	1.3 feet	0.04

ORE RESERVES

When Klepper visited the property[2/] he calculated the following reserves:

Table 1. Ore Reserves

	Tons	Grade %
Assured (measured)	250	2.0
Probable (indicated)	300	2.0
Possible (inferred)	750	0.75

It is probable that in subsequent mining operations, the measured ore was largely stoped and shipped. Klepper estimated the grade to be 2 percent WO_3, but the shipments averaged only about 1.08 percent WO_3. This discrepancy is probably due to dilution or a lowering in grade in the ore shoot above or below the level that Klepper sampled.

There is no way to accurately evaluate the ore reserves remaining in the Middle Hill area. Klepper's estimated 250 tons of probable ore and 750 tons of possible (inferred) ore averaging 0.75 percent WO_3 may be found in the stope area. The tactite layer in the inclined shaft is probably the same bed as the one mined in the

stope, and it is possible that the tactite layer may be found between the shaft and the stope. On the assumption that there was no stoping below the stope level and that the tactite layer averages two feet in thickness, the block between the south end of the stope and the north side of the shaft (220 feet long) may contain about 5,500 tons of tactite to a point 100 feet down dip below the surface. As the scheelite is erratically distributed throughout the tactite, it seems prudent to consider that about half of this tonnage may be waste rock. As the samples cut during this examination (S-153, S-155, S-156, S-157) averaged 0.38 percent WO_3, it seems reasonable to assume that the material in the block may average about 0.40 percent WO_3. The inferred reserves in the Middle Hill area are therefore estimated to be 2,750 tons of material containing 0.40 percent WO_3.

As the analyses of tactite layers on the North Hill and South Hill show that the tactite is too low grade to be shipped, no ore reserves were calculated for these areas.

PROPOSED EXPLORATION

The applicant has proposed to explore tungsten showings in three places, North Hill, Middle Hill, and South Hill. Discussion of these projects follows:

North Hill

The showings on North Hill were largely covered by snow at the time of visit and could not be adequately examined. High grade assays have been reported from the shallow pits, but the samples cut

during the examination were all below shipping grade. No further exploratory work is recommended there.

Middle Hill

The applicant has proposed sinking the existing shaft an additional 80 feet to a depth of 125 feet, and to raise 50 feet into the hanging wall at the 110-foot level. As the ore reserves inferred in the Middle Hill area amount to only 2,750 tons averaging 0.40 percent WO_3, no additional work is recommended there.

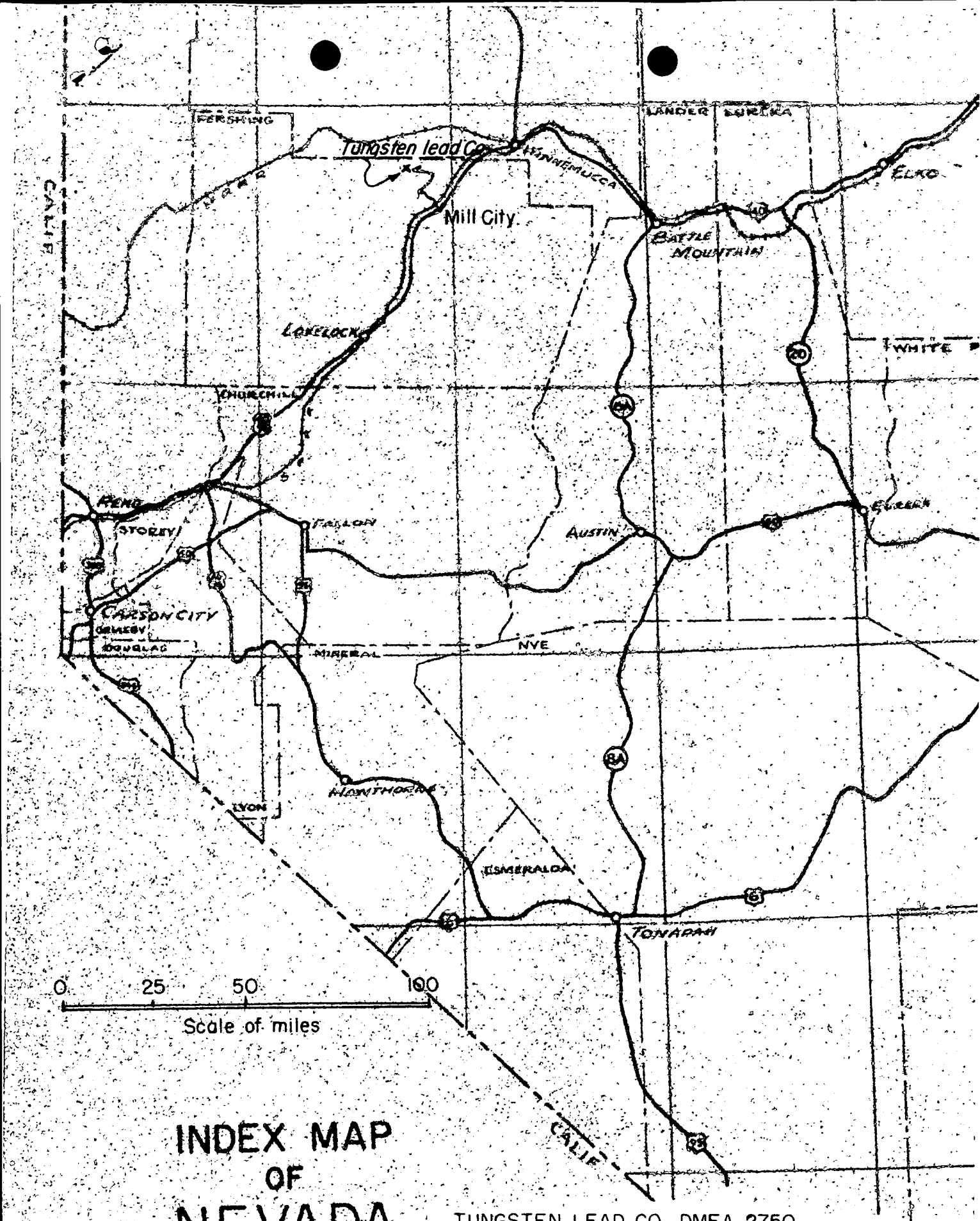
South Hill

The exploratory work proposed in the South Hill workings consists of drifting and crosscutting northeast of the present face. Although a few high-grade scheelite showings were noted in the workings, the overall grade of the tactite layers is very low. As the material is well below shipping grade ore, no further work appears to be justified here, and accordingly none is recommended.

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

19[illegible] FEB 19 AM 11 : 4[illegible]

SAN FRANCISCO, CALIFORNIA



INDEX MAP OF NEVADA

TUNGSTEN LEAD CO. DMEA 2750

LOCATION MAP FIGURE 1

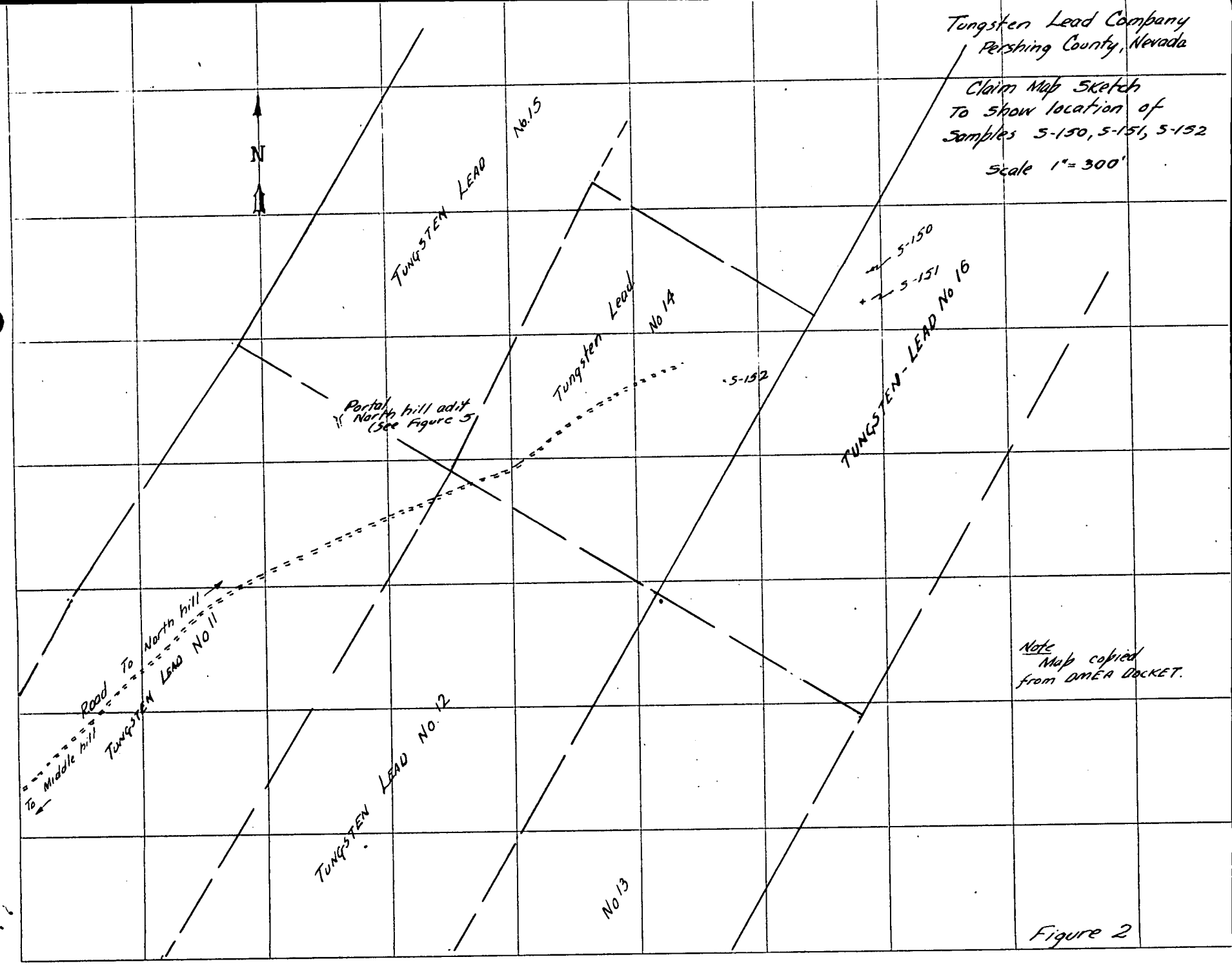

Tungsten Lead Company
Pershing County, Nevada
Claim Map Sketch
To show location of
Samples 5-150, 5-151, 5-152
Scale 1" = 300'
N
TUNGSTEN LEAD No. 15
Tungsten Lead No 14
TUNGSTEN-LEAD No 16
5-150
5-151
5-152
Portal North hill adit (See Figure 5)
Road To North hill
To Middle hill
TUNGSTEN LEAD No 11
TUNGSTEN LEAD No. 12
No 13
Note
Map copied from DMEA DOCKET.

Figure 2

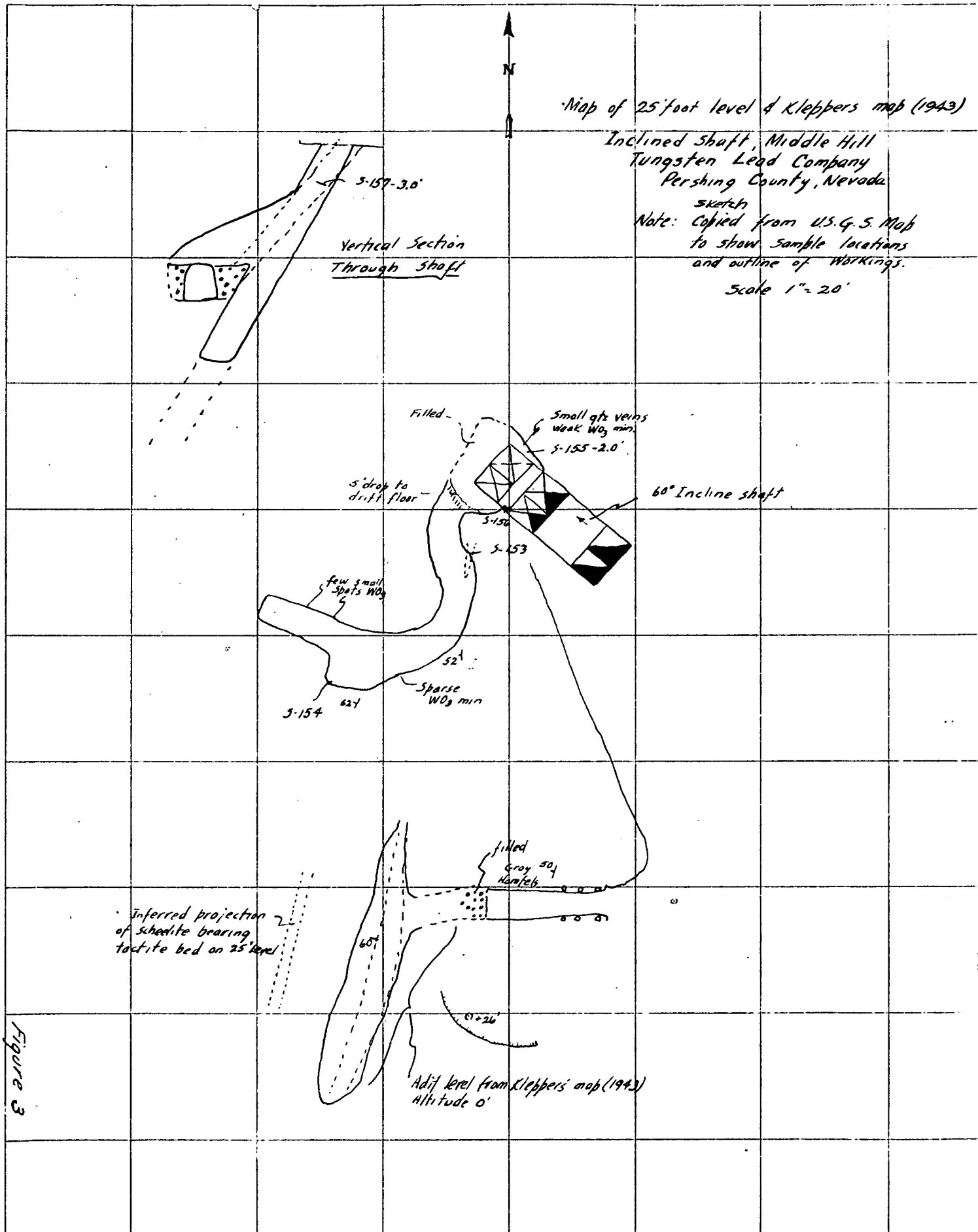

N
Map of 25 foot level & Klepper's map (1943)
Inclined Shaft, Middle Hill
Tungsten Lead Company
Pershing County, Nevada
sketch
Note: Copied from U.S.G.S. Map
to show sample locations
and outline of workings.
Scale 1" = 20'
S-157-3.0'
Vertical Section
Through Shaft
Filled
Small qtz veins
weak WO3 min.
S-155-2.0'
5' drop to
drift floor
60° Incline shaft
S-156
S-153
few small
spots WO3
52'
Sparse
WO3 min
S-154
62'
filled
Gray 50'
Hornfels
Inferred projection
of scheelite bearing
tactite bed on 25' level
60'
61+26'
Adit level from Klepper's map (1943)
Altitude 0'

Figure 3

Map of South Hill Adit & Surface Cut
Tungsten Lead Company
(Red Hawk Property)
Pershing County, Nevada
sketch

Note: Copied from U.S.G.S. map to show sample locations and outline of workings.

Scale 1" = 20 ft.

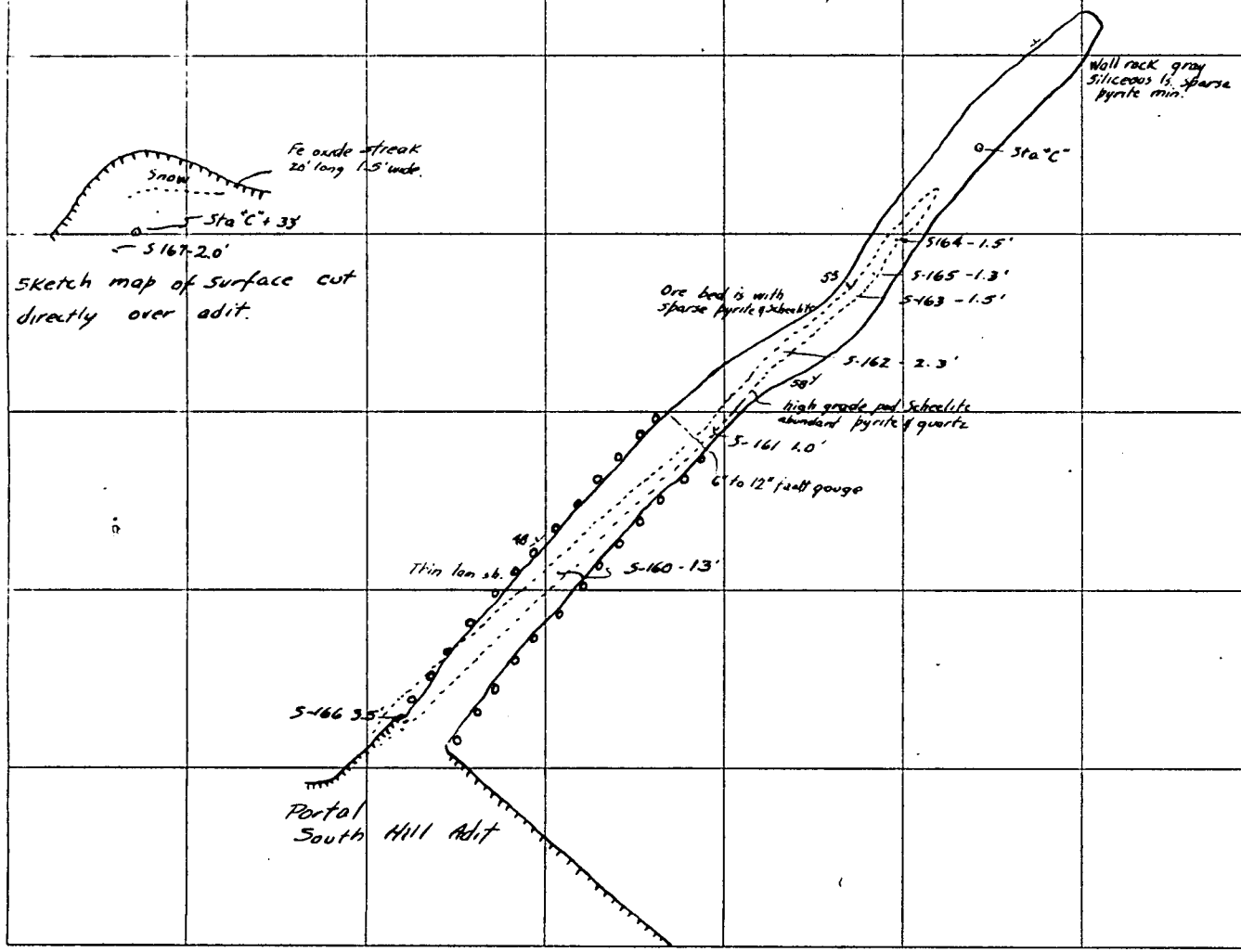
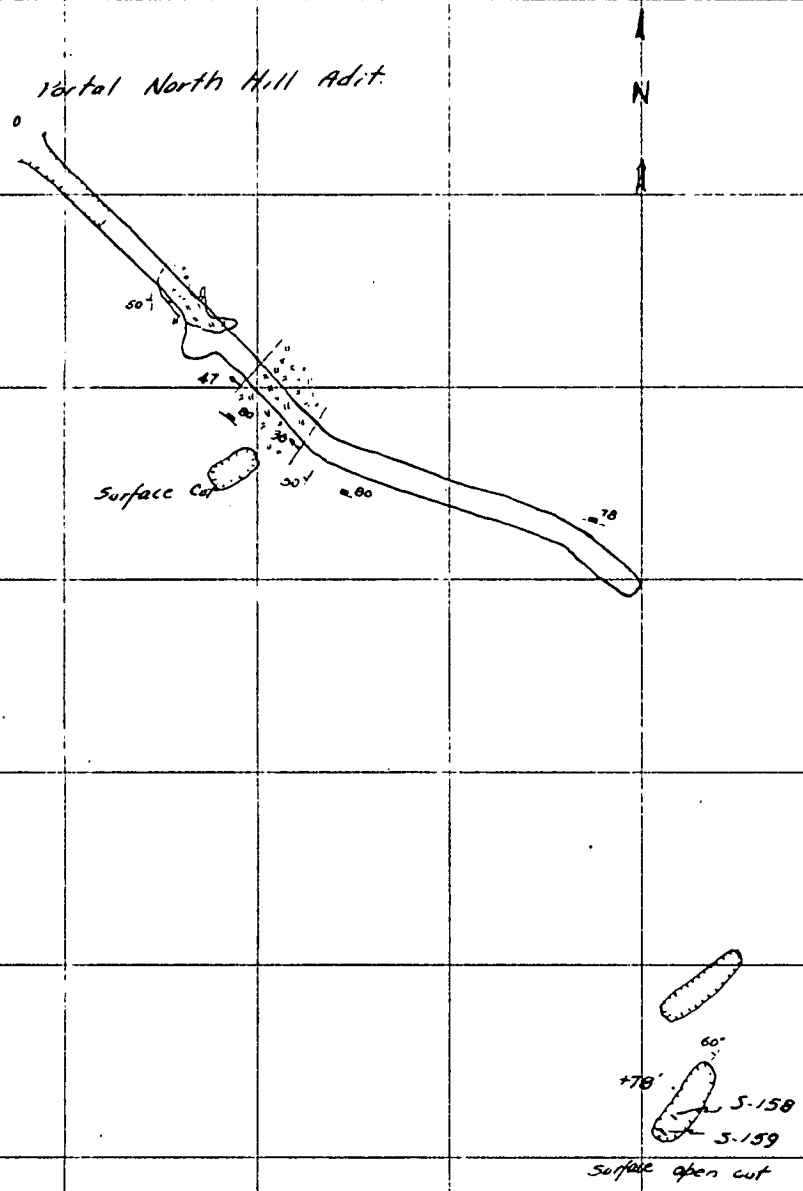


Figure 4



Map of North Hill Workings
Tungsten Lead Company
(Red Hawk Property)

Pershing County, Nevada

Note: Sketch Copied from U.S.G.S. map to show sample locations and outline of workings.

Scale 1" = 40'

Figure 5

Report in prog
Miss Martin 1-1-53
Scudders
Calif

190' x-639
N. 6 9 S R 03

Tungsten Lead Co

2750

Told her was
awaiting field exam
GCL 1/12/53

FILE COPY
Surname:
DMEA

Selfridge
Northcutt
Brewer

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON 25, D. C.

NOV 14 1952

FRS 3208

My dear Senator McCarran:

This is in response to your letter of November 3 relating to the application for exploration aid submitted by the Tungsten-Lead Company of Winnemucca, Nevada.

After review of the application by Defense Minerals Exploration Administration and other interested agencies, it was deemed necessary to refer the application to the San Francisco office of DMEA requesting that a field examination be made of the property.

We have asked the field team to expedite the examination. As soon as the examination report is received, you will be advised concerning the decision made in regard to the application.

If in the future I can be of further aid in this matter, please so inform me.

Sincerely yours,

(sgd) Joel D. Wolfsohn

Assistant Secretary of the Interior

n.s. in R.v.R.

Hon. Pat McCarran
United States Senate
Washington, D. C.

GGSelfridge'lm
11/10/52

cc: Secretary's Reading File
Asst. Secretary for Mineral Resources
Adm. Reading File, DMEA
~~Docket, DMEA 68750~~
R. V. Gochan, DMEA, Room 3511
D. M. Lemmon, USGS, Room 5216, GSA Bldg.
Field Team Reg. III, DMEA
G. G. Selfridge, DMEA

C
O
P
Y

UNITED STATES SENATE
Committee on the Judiciary

November 3, 1952

Honorable Oscar L. Chapman
Secretary of Interior
Department of the Interior
Washington, D. C.

My dear Mr. Secretary:

On October 17, 1952, the Tungsten-Lead Company, a Nevada corporation with offices in the Professional Building, Winnemucca, Nevada, filed with the San Francisco office of the Defense Minerals Exploration Administration an application for a defense metals loan in the amount of approximately $63,000.

The property involved is located approximately 12 miles northwest of Mill City, Nevada, and 2½ miles north and west of the Nevada Massachusetts Mining Company, and embraces 16 unpatented claims in Sec. 16, Twp. 34 N., R. 34 E., Old Sadler mining district, Pole Canyon, Pershing County, Nevada.

This application was, I am advised forwarded to Washington by the San Francisco office of the Defense Minerals Exploration Administration on October 20, 1952.

This mine is in a developed region out of which tungsten has been produced for two decades or so. I should not be surprised to find that the nearby Nevada Massachusetts Mine is the only tungsten property which has never closed down in the past 20 years.

Undoubtedly, the application to which I refer is now somewhere in channels in the organization of your Defense Minerals Exploration Administrator, C. O. Mittendorf.

I respectfully recommend and urge that the processing of this application be expedited as much as possible, so that a firm decision may be reached in the near future. I shall appreciate being advised when such a decision has been made.

Kindest personal regards and all best wishes.

Sincerely,

/s/ Pat McCarran

3208

PAT MC CARRAN, NEV., CHAIRMAN
ILGORE, W. VA. ALEXANDER WILEY, WIS.
EASTLAND, MISS. WILLIAM LANGER, N. DAK.
N G. MAGNUSON, WASH. HOMER FERGUSON, MICH.
HERBERT R. O'CONOR, MD. WILLIAM E. JENNER, IND.
ESTES KEFAUVER, TENN. ARTHUR V. WATKINS, UTAH
WILLIS SMITH, N. C. ROBERT C. HENDRICKSON, N. J.
J. G. SOURWINE, COUNSEL

United States Senate

COMMITTEE ON THE JUDICIARY

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 6 1952

INTERIOR DEPT
SECRETARY'S
MAIL CENTER
NOV - 5 1952
RECEIVED

November 3, 1952

INTERIOR DEPT.
☆ RECEIVED ☆
NOV 5 1952
☆ OFFICE OF ☆
THE SECRETARY

Dmen 275

Honorable Oscar L. Chapman
Secretary of Interior
Department of the Interior
Washington, D. C.

SECRETARY'S
MAIL CENTER
NOV - 6 1952
INTERIOR DEPT.
Def. Min

My dear Mr. Secretary:

On October 17, 1952, the Tungsten-Lead Company, a Nevada corporation with offices in the Professional Building, Winnemucca, Nevada, filed with the San Francisco office of the Defense Minerals Exploration Administration an application for a defense metals loan in the amount of approximately $63,000.

The property involved is located approximately 12 miles northwest of Mill City, Nevada, and 2½ miles north and west of the Nevada Massachusetts Mining Company, and embraces 16 unpatented claims in Sec. 16, Twp. 34 N., R. 34 E., Old Sadler mining district, Pole Canyon, Pershing County, Nevada.

This application was, I am advised forwarded to Washington by the San Francisco office of the Defense Minerals Exploration Administration on October 20, 1952.

This mine is in a developed region out of which tungsten has been produced for two decades or so. I should not be surprised to find that the nearby Nevada Massachusetts Mine is the only tungsten property which has never closed down in the past 20 years.

Undoubtedly, the application to which I refer is now somewhere in channels in the organization of your Defense Minerals Exploration Administrator, C. O. Mittendorf.

I respectfully recommend and urge that the processing of this application be expedited as much as possible, so that a firm decision may be reached in the near future. I shall appreciate being advised when such a decision has been made.

Kindest personal regards and all best wishes.

Sincerely,

Pat McCarran

FILE COPY 400
SURNAME:

Rutledge
Geehan
Selfridge
Rutledge
F.G. Lemmon

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

NOV 10 1952

Mr. William Berger, President
Tungsten-Lead Company
Room 7, Professional Building
Winnemucca, Nevada

Re: Docket No. DMEA 2750 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk)
Pershing County, Nevada

Dear Mr. Berger:

Your application for assistance in exploring the referenced group of claims, Pershing County, Nevada, has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. H. C. Miller, Executive Officer, DMEA Field Team, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

The Regional Office will contact you at an early date in regard to the examination of your property. Any assistance that you can render the field team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf (for) 11-10-52

Administrator

FARutledge:lm
11/7/52

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

FILE COPY 400
SURNAME:

FARutledge'lm
11/7/52

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

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

Rutledge
Budder
Selfridge

NOV 10 1952

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

Re: Docket No. DMEA 2756 - Tungsten
Tungsten-Lead Company
Tungsten-Lead Claims (Red Hawk Property)
Pershing County, Nevada

Dear Mr. Miller:

Reference is made to the subject docket which is being referred to your office for a field examination.

The Operators apparently have had very little mining experience and this includes their superintendent in charge of operations, Marion E. Price, who graduated from Colorado School of Mines in 1948.

The proposed project appears to be a little large for an unknown area and for projects that were unsupported by assay and geologic data. Perhaps during the examination a more modest and realistic program should be discussed with the applicants if a project is warranted.

The costs for the project work scheduled appear high and we believe they may be reduced. The Operators should be advised that they will not be allowed depreciation on such items as track, air and water lines, office equipment, and camp equipment.

The examining field team should obtain all of the data necessary for the preparation of Exhibit "A" of a contract, prepare a geologic map, and take representative samples during the examination.

A memorandum from Mr. T. P. Thayer, U. S. Geological Survey, is enclosed for your information.

P.S. Please expedite the examination and report on this property.

Sincerely yours,

(signed) FRANK E. JOHNSON GHB

Chairman, Operating Committee

S.H. 11-10-52

Enclosure.

Approved:

J. H. Hedges (JHB)
Member, Bureau of Mines

A. R. Kinkel, Jr. (JHB)
Member, Geological Survey

IN REPLY REFER TO:

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

November 6, 1952

Memorandum

To: George C. Selfridge, DMEA

From: T. P. Thayer

Subject: DMEA-2750, Tungsten-Lead Company, Winnemucca, Nevada
Formerly Red Hawk Claims.

The applicants propose to spend $62,941 on tunnelling, drilling, and surface stripping on the Tungsten-Lead claims, formerly known as the Red Hawk claims. These are in Pole Canyon, about 3 miles airline northwest of the Nevada-Massachusetts mine.

The proposed work appears reasonable and logical, but no assays are given to support the application. The Geological Survey examined these deposits in 1943, before most of the underground work was done. A carload of $2\frac{1}{2}$ per cent (WO_3) ore is said to have been shipped from these claims in 1917, and 266 tons of ore containing 286 units of WO_3 was shipped to Metal Reserve in 1943-1944. The basic geology appears to be well stated by the applicant.

Recommendation

The application should be referred to the field for review, and examination, if necessary. Mr. Paul Bateman of the Geological Survey may know the situation well enough to evaluate the application without a visit to the field.

T. P. Thayer

T. P. Thayer
Geologist

Copy retained 400

October 28, 1952

Mr. William Berger, President
Tungsten-Lead Company
Room 7, Professional Building
Winnemucca, Nevada

Subject: DMEA-2750
Re: Exploration Assistance
Claims #1 to 16 inclusive

My dear Mr. Berger:

The receipt of your application dated October 17, 1952 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2750 and referred to the Iron & Ferro-Alloys Division.

Kindly refer to DMEA-2750 in any future correspondence relating to your application.

Sincerely yours,

R. E. Adams

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

25451

October 28, 1952

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned Docket Number to an application recently received from Region III.

DMEA-2750 - Tungsten-Lead Company

R. E. ADAMS

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

Dmea-2750

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Bldg.
870 Market St.
San Francisco 2, Calif.

October 21, 1952

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for exploration loan (Tungsten)
Tungsten-Lead Company, Winnemucca, Nevada
Claims in Pershing County, Nevada

Attached are the original and two copies of an application for an exploration loan, dated October 17, received in this office on October 20.

We have retained one copy of the application, should we be requested to make a field examination.

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

Attachment

Copy to E. H. Bailey, USGS

Dmea-2750

TUNGSTEN-LEAD COMPANY
PHONE 141
PROFESSIONAL BUILDING
WINNEMUCCA, NEVADA

October 17, 1952

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Gentlemen:

We are herewith submitting for your consideration and approval our Application For Aid In An Exploration Project, Pursuant To DMEA Order 1, Under The Defense Production Act of 1950, As Amended and As Revised April 1952.

Four copies are enclosed, each with maps and charts. We have endeavored to make this application as complete as possible, both as to general Company information, and work estimates and costs. However, any additional information will be readily available.

A government access road was built in 1942-43 for a distance of 5.3 miles through Pole Canyon to the property, which at that time, and until 1950 was known as the Red Hawk. During the past summer various extensions and additions to this road have been built by the current management at their own expense.

Following is a summary of costs as brought out in detail in the application as compiled in Part 6:

a.	Independent Contracts	$16,379.25
b.	Labor, supervision and consultants	20,731.25
c.	Operating materials and supplies	6,783.00
d.	Operating equipment	2,738.12
e.	Rehabilitation and repairs	1,650.15
f.	New buildings, improvements	- - - - -
g.	Miscellaneous	8,185.00
h.	Contingencies	6,474.24
	Estimated total cost of Project	$62,941.01

We are very anxious that there shall not be any delays in the processing of the loan which we can avoid, and we therefore stand ready at all times to assist you in any way.

Respectfully,

TUNGSTEN-LEAD COMPANY

By William Berger

William Berger, President

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. Dmea-2750
Metal or Mineral
Date Received 10-27-52
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Tungsten-Lead Company
Room 7 Professional Building
Winnemucca, Nevada
Incorporated in Nevada

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See note attached

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Not applicable

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Tungsten-Lead Company claims numbered 1 to 16 inclusive, Section 16, T 34N, R 34E, Old Central Mining District, Pole Canyon, Pershing County, Nevada.

(*b*) State any mine name by which the property is known. Tungsten-Lead: Formerly known as the Red Hawk

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Claimant of unpatented claims; Tungsten-Lead 1 to 16 inclusive

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Not applicable

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See note attached

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

16—66551-1

Please refer to attached notes for all answers beginning with No. 4

5. *The exploration project.*—State the mineral or minerals for which you wish to explore Scheelite (Calcium Tungstate - $CaWO_4$)

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 7 days and be completed within 11 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[x] Money [x] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper. See notes attached

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated October 17, 1952

TUNGSTEN-LEAD COMPANY
(Applicant)

By William Berger
President

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.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

TUNGSTEN-LEAD COMPANY
PHONE 144
PROFESSIONAL BUILDING
WINNEMUCCA, NEVADA

Part 1 Section c

(c) Titles, names and addresses of officers:

William Berger
Sonoma Inn, Winnemucca, Nevada - - - - - - - - - - President

Henry Reynaud
100 Santa Rosa Avenue, Santa Rosa, California - - - Vice-President

Pierre Dick
American Trust Co. Bldg., Santa Rosa, California - Secretary-Treasurer

Part 3 Section f

(f) The land consists of unpatented claims:

Mining claims designated Tungsten-Lead No's. 1 to 8 inclusive are officially recorded at Lovelock, Pershing County, Nevada, as follows:

Book 13, pages 7 to 12 inclusive.

Mining claims designated Tungsten-Lead No's. 9 to 16 inclusive are recorded in the same Book No. 13 on pages 489 to 492 inclusive.

TUNGSTEN-LEAD COMPANY
PHONE 144
PROFESSIONAL BUILDING
WINNEMUCCA, NEVADA

Part 4 Section a

(a) There have been three phases of past mining and exploration activity on the Tungsten-Lead properties, and these phases are being pursued during current operations. These phases have been conducted on topographic prominences known as the North Hill, Middle Hill, and South Hill, and will be discussed in that order. These three locations are all on Tungsten-Lead mining claims as enumerated in Paragraph 3 (a), and are currently the complete and exclusive operations of the Tungsten-Lead Company.

North Hill:

Former operations on the North Hill consisted of driving 104 feet of drift, and sinking eight prospect cuts to a depth of five feet. Current operations by the applicant on the North Hill have consisted of making 1.1 miles of road from the Middle Hill to the North Hill; removing 750 cubic yards of earth and rock with a bulldozer as surface prospecting; opening the portal of the aforementioned drift and cleaning it for accessibility and inspection; and sinking one old prospect cut to a depth of ten feet. There are no production facilities on the North Hill.

Middle Hill:

Former operations on the Middle Hill have consisted of sinking 25 feet of shaft and drifting an unknown distance west and south from this shaft at the 25-foot level. These drifts are now caved and are therefore inaccessible. Current operations have consisted of the installation of an adequate surface plant; re-aligning and timbering the shaft; and sinking the shaft to a depth of 45 feet. In addition, 200 cubic yards of earth and rock have been removed from the Middle Hill with a bulldozer for surface prospecting. Production facilities on the Middle Hill consist of the following:

1. 15 hp LeRoi double drum, gas engine driven hoist complete with cables and two eight cubic foot buckets.

2. 60 cubic foot air receiver.

3. 160 cubic foot Gardner-Denver gas engine driven portable air compressor.

4. Shaft house, shown in detail on plate (a).

5. 50 ton ore bin.

6. Timbered underground tool storage room, accessible from surface.

7. Timbered underground powder magazine, accessible from surface.

8. Blacksmith shop and hand tools including complete acetylene welding outfit.

9. Gardner-Denver model S55 jackhammer complete with column, shell, air hose, water hose, and 15 gallon pressure tank.

10. 16 cubic feet Matteson mine car with dump track.

11. Complete set of hand mining tools.

These facilities have all been installed or rehabilitated by the applicant during current operations.

All workings except the drifts at the 25-foot level from the shaft are open and accessible for examination.

South Hill:

Former operations on the South Hill have consisted of sinking four surface prospect cuts. Current operations by the applicant on the South Hill have consisted of removing 600 cubic yards of earth and rock with a bulldozer for surface prospecting, and driving and timbering 102 feet of drift. Track (12-pound rail), 2-inch air line, and half-inch water line have been installed in this drift. Twenty-four feet of drift have been timbered. Production facilities at the South Hill include a 16 cubic foot Matteson mine car and a 20-ton ore bin, all installed during current operations. Additional production facilities are as follows:

Atlas-Diesel jackhammer complete with pneumatic pusher leg, drill steel, air hose, water hose, and 25 gallon pressure tank.

Complete set of hand mining tools.

Part 4 Section b

(b) There is no available record of past production from the Tungsten-Lead properties. There are no measurable reserves of ore in the Tungsten-Lead workings, but all workings show commercial grade mineral in bodies of varying widths. Additional exploration work is required to block this ore out. The ore bodies showing range from six inches to five feet in width, and samples taken from these bodies vary in grade from 0.30% WO3 to 4.79% WO3.

(c) General Geology: The area encompassed bythe Tungsten-Lead properties is a west-dipping monocline of highly metamorphosed early Mesozoic sedimentary rocks. The original beds have been altered to a slate, slaty-shale, quartzite, and marble. These beds, generally baren, are collectively referred to as a hornfels. The strike of these beds ranges from N 10 degrees E to N 30 degrees E, and the dip averages about 55 degrees W. These beds have been instruded by granitic and granodiorite dikes and sills which are believed to be the source of the mineralizing solutions.

Mineral deposits have been formed where the intrusions came in contact with the calcareous beds in the section, and the resultant contact metamorphism has produced scheelite-bearing tactite lenses with a suite of gangue minerals consisting of pyrite, powellite, quartz, garnet, epidote, and chlorite mica. The scheelite is massive in places, but generally consists of disseminated crystals throughout the rocks. Individual crystals vary in size up to 1/8 inch in diameter.

The mineralized area extends from the northern boundry of Section 16 along strike to the southwest corner. All prospects and workings show evidence of commercial grade mineralization at or near the surface, and it is desired to prospect the structure at depth.

(d) Accessibility to the Tungsten-Lead properties is as follows:

Beginning at Mill City, Nevada, thence 7.6 miles over improved all-weather road to the Nevada-Massachusetts Tungsten Mine; thence northeast over 2.8 miles of unimproved county road to the mouth of Pole Canyon; thence northwest over 4.7 miles of unimproved road in Pole Canyon to the Tungsten-Lead camp.

These roads are shown in Figures 1 and 2. The road to the camp is readily passable during favorable weather, but will require some maintenance and snow removal during the winter. This road has an excellent base and frequent turnouts, but will require occasional grading.

From the camp the roads radiate to the workings as shown on Figure 3. These roads are also readily passable but currently require grading. They will also require maintenance and snow removal during the winter. All grades are moderate, and the road has recently accommodated 10-wheel (12 1/2 ton) diesel ore hauling rigs.

Part 4 Section d (continued)

The following table gives mileage and road data to shipping, supply, and residence points:

Mileage Table

From	To	Distance	Road Data
North Hill	Middle Hill	0.7 Mi.	Unimproved; needs widening and grading; will require maintenance and snow removal during winter.
Middle Hill	Tungsten - Lead Camp	0.5 Mi.	Unimproved; needs grading; will require maintenance and snow removal during winter.
South Hill	Tungsten- Lead Camp	0.5 Mi.	do
Tungsten-Lead Camp	Mouth of Pole Canyon	4.7 Mi.	do
Mouth of Pole Canyon	Nev-Mass. Tungsten Mine	2.8 Mi.	do. Will require less maintenance and snow removal than will roads previously described.
Nev.-Mass. Tungsten Mine.	Mill City Nevada	7.6 Mi.	Improved all-weather road. New grade currently completed. Will be oiled.
Mill City Nevada	Toulon Mill	58.5 Mi.	Nevada - U. S. 40.
Mill City Nevada	Golconda Jct. (U.S. 40, Nev. 18)	47.3 Mi.	Nevada - U. S. 40.
Golcon da Junction	Getchell Mill	24.0 Mi.	Nevada 18. 17.0 miles oiled; 7.0 miles improved gravel.

Composite mileages to marketing points:

From:	To:	Distance:
Tungsten-Lead Camp	Toulon Mill	74.2 miles
Tungsten-Lead Camp	Getchell Mill	86.0 miles

Part 4 (continued)

(e) Manpower, Materials, Supplies, Equipment, Water and Power:

1. Manpower: Adequate manpower is available. Hiring in the past has been done through the Winnemucca office of the Nevada State Employment Service with satisfactory results.

2. Materials and Supplies: Necessary materials and supplies have, for the most part, been readily available in Winnemucca or Lovelock. Special Greyhound bus one-day delivery service is available from Reno or Salt Lake City, Utah.

3. Equipment: All of the equipment necessary for the completion of the work proposed by this application, other than independent contracts, is owned by the applicant and will be made available for the project.

4. Water: Adequate water is available from springs in Pole Canyon and the North Fork of Pole Canyon. Flow is estimated at 33 gallons per minute at the time of writing this report. All waters are potable.

5. Power: Existing facilities for power at the Tungsten-Lead camp consist of two 1500 watt, 110 volt gasoline-driven plants for lighting. The nearest source of electric power is from the Sierra-Pacific Electric Company, and this could be obtained by constructing a suitable line to the Nevada-Massachusetts Tungsten Mine, a straight line distance of three miles.

Part 5 Sections a and b

(a) The mineral for which it is desired to conduct exploration work is Scheelite (calcium tungstate $CaWO_4$).

(b) The proposed exploration work is to augment past and current work in exploring the North Hill, Middle Hill and South Hill. A description of this work is as follows:

North Hill:

1. Lay track and air line in existing drift, and extend this drift 5' x 7' approximately 60 feet to a point where it will intersect the downward projection of the high grade ore bodies showing at the surface. At the point of intersection, cross cut 100 feet north and 100 feet south, following the ore. From the south crosscut drive a 5' x 7' ventilation raise 85 feet to the surface following the dip of the beds. This work is shown on Figure 3. All drifts, raises and crosscuts are 5' x 7'.

2. From the points marked on Figure 3 and shown on the North Hill cross section, drill a three-hole spread to probe the downward extension of the virgin outcrops shown at the eastern point of the North Hill. The north hole will be approximately 275 feet in length; the middle hole 300 feet; and the south hole 250 feet in length. All will be 1 1/8" core.

3. From the points marked on Figure 3, drill a two-hole spread to probe the downward extension of the wide virgin outcrop occurring at the foot of the North Hill along the North Fork of Pole Creek. The north hole will be approximately 225 feet in length and the south hole 190 feet in length. Both will be 1 1/8" core.

4. Fifty hours additional stripping to bedrock on the south side of the North Hill with a heavy bulldozer (Caterpillar D-8 or equivalent) to establish the projection of the high grade ore bodies showing atop the North Hill to the southward, along strike.

Middle Hill:

1. Sink existing 6' x 9' shaft an additional 80 feet, following the ore, to a depth of 125 feet.

2. Cut station and skip pocket at 110 foot level and raise an inclined raise 50 feet into the hanging wall, perpendicular to the dip of the beds, so as to explore the mineralized hanging wall beds.

3. Fifty hours additional stripping with a heavy bulldozer (Caterpillar D-8 or equivalent) on the north side of the Middle Hill. This stripping will show the northward extension of the mineralized beds now showing in the shaft, and also the southward extension of the several mineralized beds showing in the North Hill. This proposed stripping is plotted on Figure 3.

Part 5 Sections a and b (continued)

South Hill:

1. Extend present 5' x 7' south tunnel 300 feet following the mineralized bed now showing in the face.

2. At the 350 foot station, crosscut 50 feet into the hanging wall to check for mineralization in the footwall beds.

3. At 400 foot station crosscut 30 feet into the footwall to check for mineralization in the hanging wall beds. Both crosscuts to be 5' x 7'.

(c) The work will begin within 7 days and be completed within 11 months from the date of an exploration project contract.

(d) The background of the applicant is as follows:

The present administration of the applicant Company, including all officers and directors, became operative May 20, 1952, through the acquisition of a clear majority of the outstanding stock. None of the old management remains.

Since the change in management the six new directors, including the three new officers, have put into the company sufficient of their own money to supply working capital for the purpose of exploring and developing the property in accordance with the aforementioned program. The property now shows increased promise and consequently it is believed Government assistance under DMEA is entirely warranted.

William Berger, president, general manager and director of the Company, was, until moving to Winnemucca, Nevada, last May, to coordinate and supervise the Company's operations, for twenty-three years in the investment banking business and an investment counselor in Santa Rosa, California.

Henry Reynaud, vice president and director of the Company, is a veteran automobile dealer of Santa Rosa, California, and is a substantial property holder and adviser with the Bank of America. His address is 100 Santa Rosa Avenue, Santa Rosa, California.

Pierre Dick, secretary-treasurer and director of the Company, who directly controls the finances of the company, is a prominent restaurateur and ranch owner of Santa Rosa, California. He is also a director of the Wire Specialties Corporation of San Jose, California. His address is American Trust Company Building, Santa Rosa, California.

Leon Reynaud, director, is a substantial real estate owner, semi-retired and city councilman of Santa Rosa, California. His address is 925 Macdonald Avenue, Santa Rosa, California.

Part 5 Sections a and b (continued)

Ralph Vesper, director, is a used car dealer and owner of Frozen Foods Service in Santa Rosa, California.

Hudson Auberlin, director, is owner and operator of the Lakeside Dairy, Vallejo, California.

Marion E. Price, whose background follows, was engaged as superintendent incharge of operations on the property:

Educational background:

One year Colorado A & M.
Graduate, U. S. Naval Academy, Anapolis, Maryland.
Graduate, Colorado School of Mines, Golden, Colorado.
Geological Engineer (Mining).
Graduate work, Colorado School of Mines. 1948

Practical experience:

Experience in mining has been practical as well as technical, and has consisted of consulting, contracting, leasing, and owning and operating.

TUNGSTEN-LEAD COMPANY
PHONE 144
PROFESSIONAL BUILDING
WINNEMUCCA, NEVADA

Part 6

1. INDEPENDENT CONTRACTS:

Bulldozer stripping and trenching, including preparation for drilling operations:

(a) Caterpillar D-8, or equivalent, complete with operator and all supplies - 120 hours @ $20 per hour	$2400.00
(b) Surveying, supervision, and sampling	$ 500.00
(c) Assaying, estimated 100 samples @ $4 each, with postage and sample sacks	$ 475.00
Subtotal for bulldozing	$3,375.00

Core Drilling, cored diamond drill hole 1 1/8".

(a) 1240 feet @ $8 per foot	$9,920.00
(b) Supervisor (sampling, splitting, logging, and panning), 124 days (estimated), 5 days per week, @ $2.75 per hour	$2,728.00
(c) Assaying, estimated 75 samples @ $4 each, with postage and sample sacks	$ 356.25
Subtotal for drilling	$13,004.25

TOTAL FOR INDEPENDENT CONTRACTS	$16,379.25

Part 6 (continued)

2. Drifting, crosscutting, ventilation and prospect raises: Total 775 feet, 6-day week, 3 1/2 foot per day advance. Total 222 days or 37 weeks or 9 months.

(a) Wages - One miner @ $1.75 per hour, and two muckers @ $1.50 per hour, average 3 1/2 feet per shift, including 18 1/2 days @ 1 1/2 time pay. Cook, 9 months @ $250 per month	$ 14.64/ft
(b) Insurance, social security, FICA, etc., including (h) and (i) below	2.30/ft
(c) Blasting supplies	2.23/ft
(d) Timber	2.07/ft
(e) Compressor fuel and supplies	1.85/ft
(f) Steel and bits	1.41/ft
(g) Miscellaneous repairs to equipment	1.20/ft
(h) Engineering, accounting, office, telephone, assaying	5.34/ft
(i) Supervisor, 9 months @ $500 per month	5.81/ft
(j) Repairs to housing	0.73/ft
(k) Equipment rental	2.89/ft
Total Cost per Foot	$40.47

3. Sinking 80 feet 6x9 shaft, 6-day week, 1 1/3 feet per day advance. Total 60 days or 10 weeks.

(a) Wages - One miner @ $1.75 per hour, two muckers @ $1.50 per hour, and one hoist engineer @ $1.75 per hour, including 5 days at 1 1/2 time pay. Cook, 2 months @ $250 per month	$48.50/ft
(b) Insurance, social security, FICA, etc., including (h) and (i) below	5.68/ft
(c) Blasting supplies	3.34/ft

Part 6 (continued)

(d)	Timber	3.35/ft.
(e)	Compressor and hoist fuel and supplies	2.75/ft.
(f)	Steel and bits	2.11/ft.
(g)	Miscellaneous repairs to equipment	1.93/ft.
(h)	Engineering, accounting, office, telephone, assaying	22.62/ft.
(i)	Supervisor, 2 months @ $500 per month	12.50/ft.
(j)	Repairs to housing (charged to drifting)	0.00/ft.
(k)	Equipment rental	6.22/ft.
	TOTAL COST PER FOOT	$109.00

The following equipment is to be furnished by the operator:

		Cost
1.	Gardner-Denver 160 cu. ft. portable gasoline engine driven air compressor with 60 cu. ft. air receiver	$4,550.00
2.	Model S55 Gardner-Denver jackhammer complete with drill steel, column, air and water hose, and 15 gallon pressure tank	702.50
3.	Atlas-Diesel jackhammer complete with pneumatic pusher leg, drill steel, spare parts, air and water hose, 25 gallon pressure tank, and air-driven carbide bit grinder	849.00
4.	15 h.p. LeRoi gasoline engine driven double drum hoist	1,250.00
5.	Willys Jeep truck, 1/2 ton, model 1949	995.00
6.	Chevrolet pickup truck, 3/4 ton, model 1952	1,915.00
7.	1500 watt Powerlite gasoline engine driven electric plant	375.00
8.	1500 watt Onan gasoline engine driven electric plant	330.00
9.	2-16 cu. ft. Matteson mine cars	310.00
10.	1-10 cu. ft. mine car	105.00

Part 6 (continued)

11.	3-ultra-violet lamps for mineral examination	118.00
12.	35 lb. jackhammer, dry type, complete with moil and chisel points, for cutting samples	185.00
13.	Victor-American industrial type acetylene gas welding outfit, complete	125.00
14.	Track, complete with ties, rail splice plates, bolts, and spikes	750.00
15.	2" air line, complete with fittings	220.00
16.	1/2" water line, complete with fittings	85.00
17.	Hand tools, including blacksmith outfit	596.00
18.	8 cu. ft. skip	175.00
19.	Office equipment	275.00
20.	Camp and kitchen equipment	1,025.00
	Total cost of Equipment furnished by Operator	$14,935.50

Computation of monthly rental on equipment furnished by operator:

Monthly rental $= \frac{\$14,935.50}{60} =$ $248.93 per month

$248.93 x 9 months ÷ 775 feet = $2.89 per foot of drifting, cross-cutting and raising

$248.93 x 2 months ÷ 80 feet = $6.22 per foot of sinking

Total rental for 11 months $2,738.12

New Buildings, improvements, or installations:

The existing buildings and installations with the necessary repairs and rehabilitation itemized in Part (c) are considered adequate, and no new buildings, improvements, or installations will be required in order to pursue the work prescribed by this application. 0.00

Part 6 (continued) and
Part 7

Contingencies

1. Widening 0.7 miles of road from Middle Hill to North Hill to a width of 12 feet, constructing one 18-foot turnout, and sloping bank.
   (a) Bulldozer (Caterpillar D-6 or equivalent) 11 hours @ $12.50 per hour — $137.50

2. Initial grading and ditching 5.9 miles of road from North Hill to Mouth of Pole Canyon.
   (a) 16 hours patrol (caterpillar 12 or equivalent) @ $8 per hour — 128.00

3. Initial grading 2.8 miles of road from Mouth of Pole Canyon to Neveda Massachusetts Tungsten Mine
   (a) 6 hours patrol (Caterpillar 12 or equivalent) @ $8 per hour — 48.00

4. Snow removed on 5.9 miles of road from North Hill to Mouth of Pole Canyon
   (a) Bulldozer (Caterpillar D-4 or equivalent) estimated 15 hours per month for months of December, January, February and March. Total 60 hours @ $10 per hour — 600.00

5. For unforeseen accidents and breakdowns, unseasonably severe weather; anticipated upward revision of wage scale; inflationary and other cost increasing influences, 10% of total of above — 5,560.74

Total Contingencies	$6,474.24
GRAND TOTAL	$62,941.01

The estimated rental credit on operating equipment owned by the applicant as shown in Part 6 is $2,738.12. The balance is assured from the existing management as listed in Part 5, Section (d) and/ or other present stockholders.

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
~~1018 Flood Building~~
~~870 Market Street~~
~~San Francisco 2, Calif.~~
OFFICIAL BUSINESS

PAYMENT OF POSTAGE, $300
(PMGC)

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

OCT 10 1952 CALIF

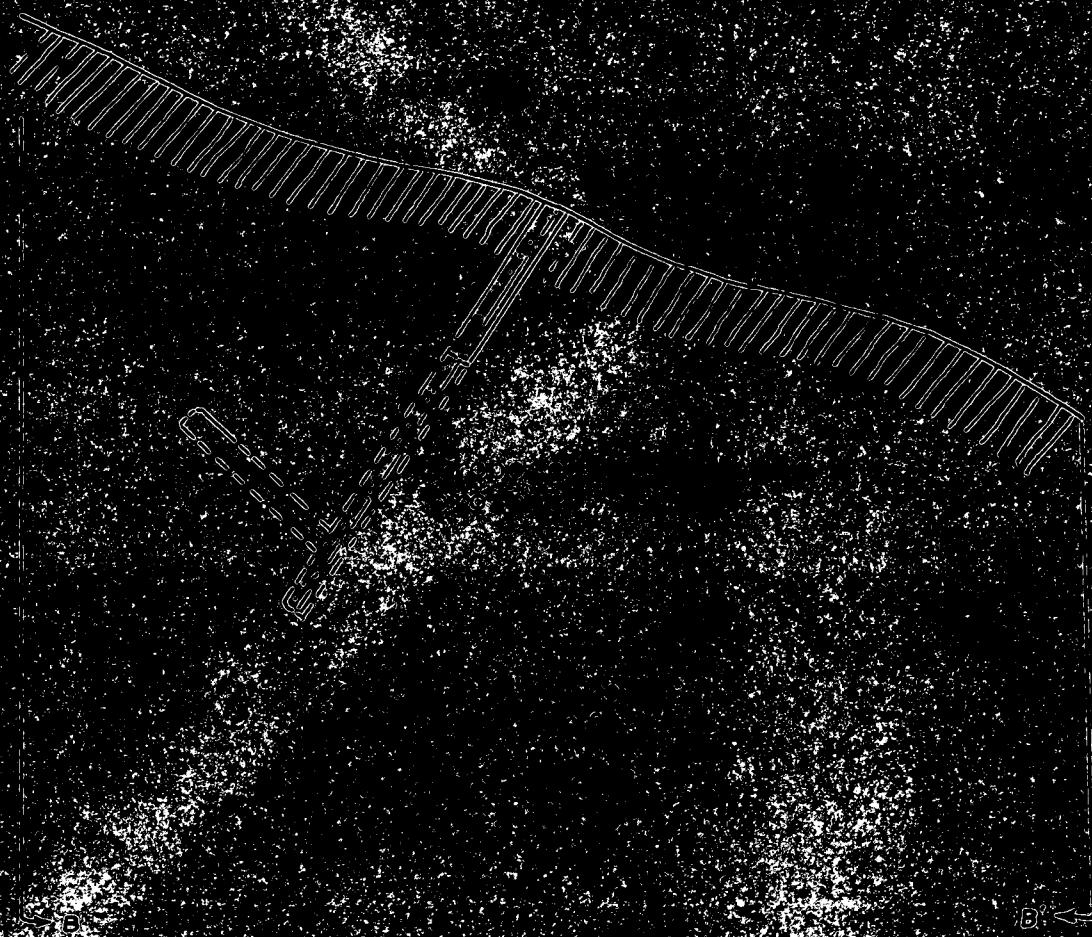
FIRST CLASS

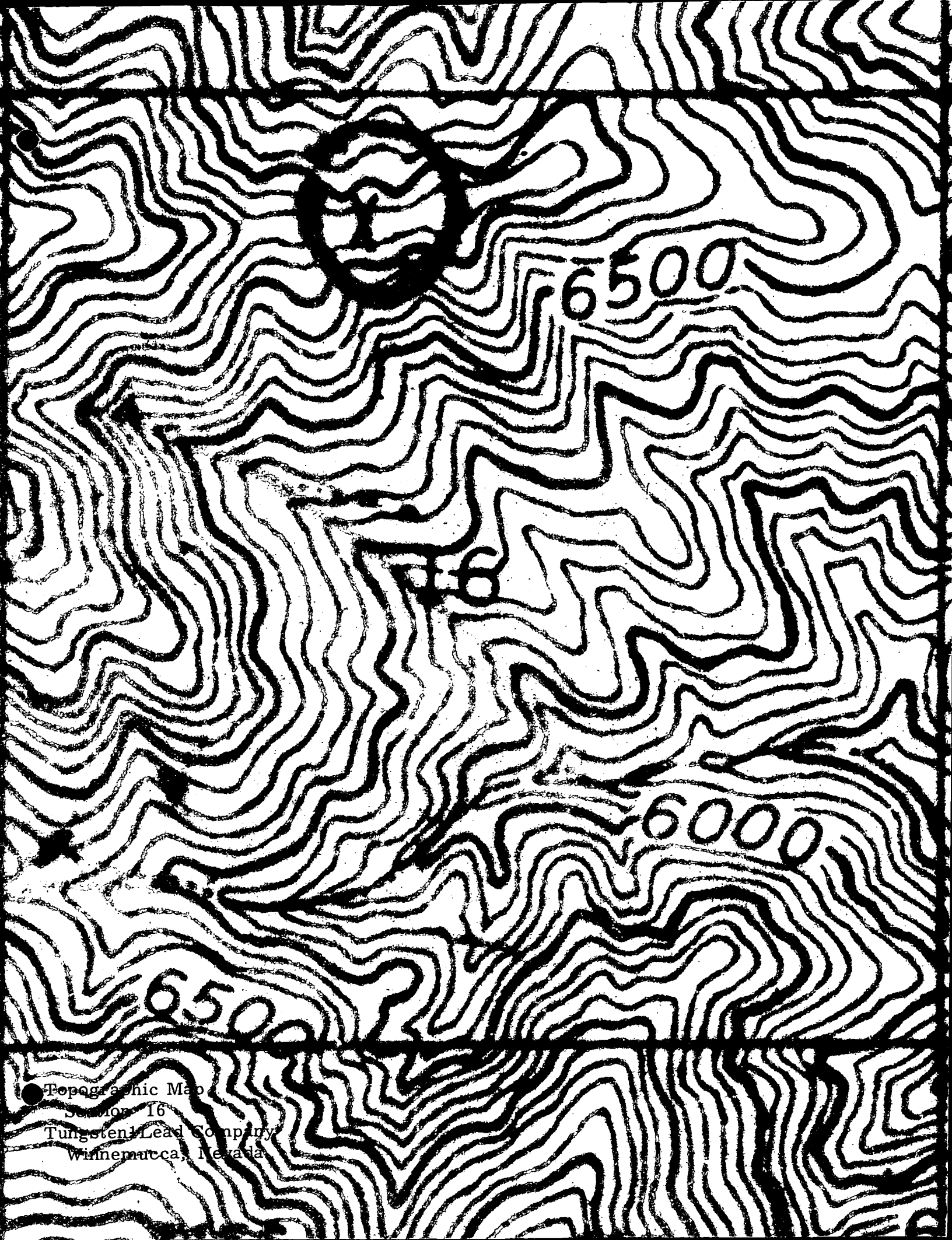
Seven

Maps & sketches
enclosed.

Dmea - 2750

A
A'


B
B'



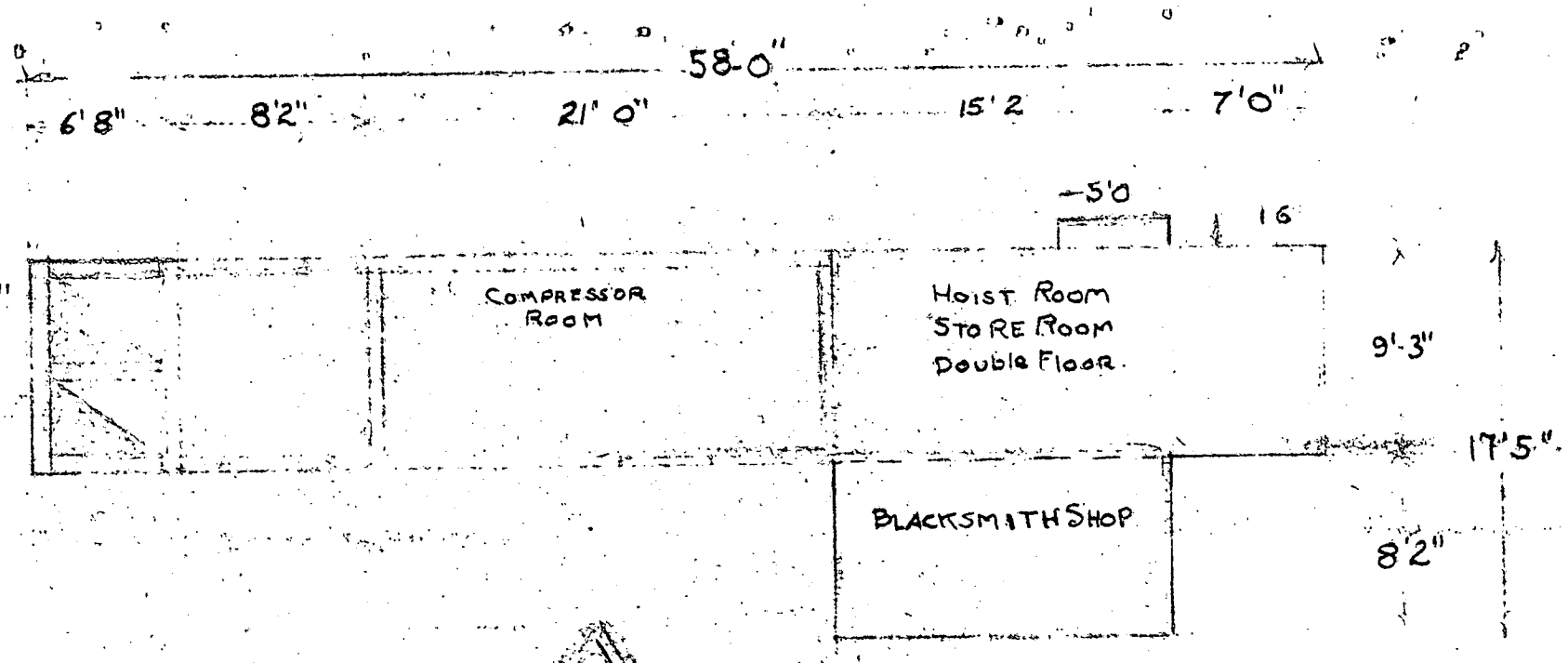
Topographic Map
Section 16
Tungsten Lead Company
Winnemucca, Nevada

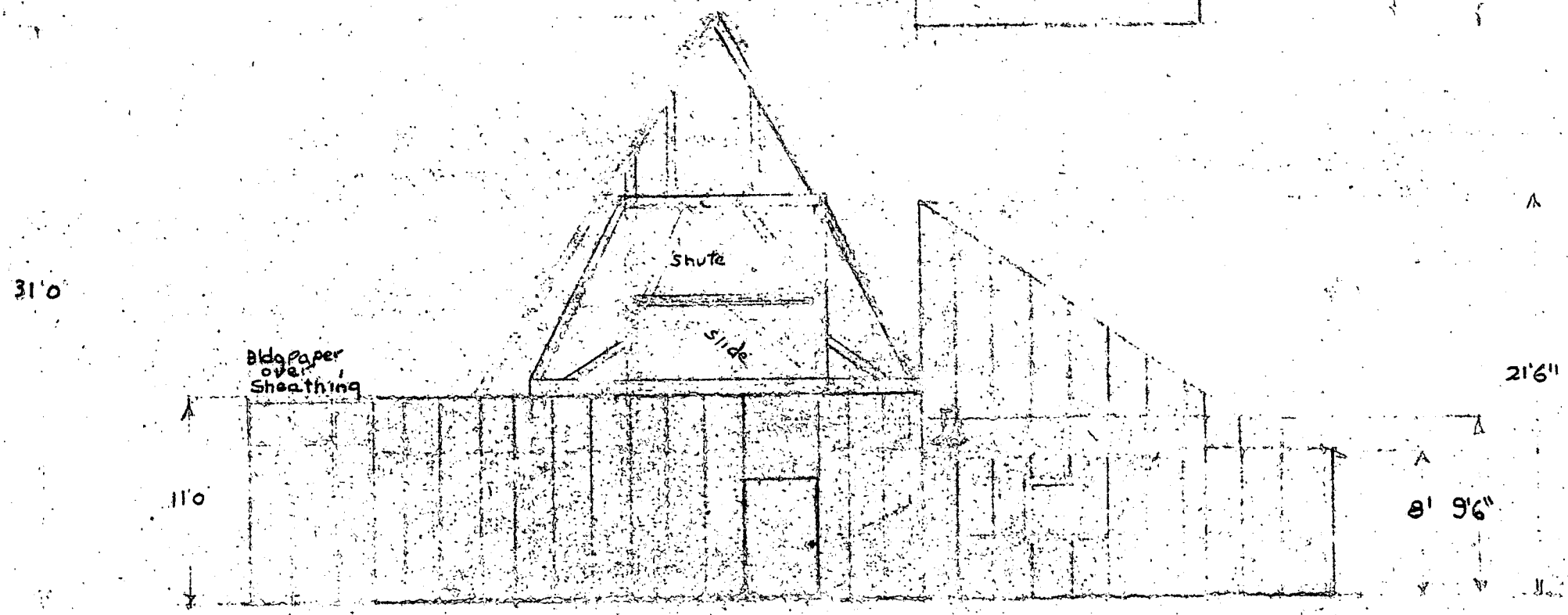
Dnea - 2750

Plate (a)

Scale 1" = 1/8"

Dmea - 2750





SIDE ELEVATION

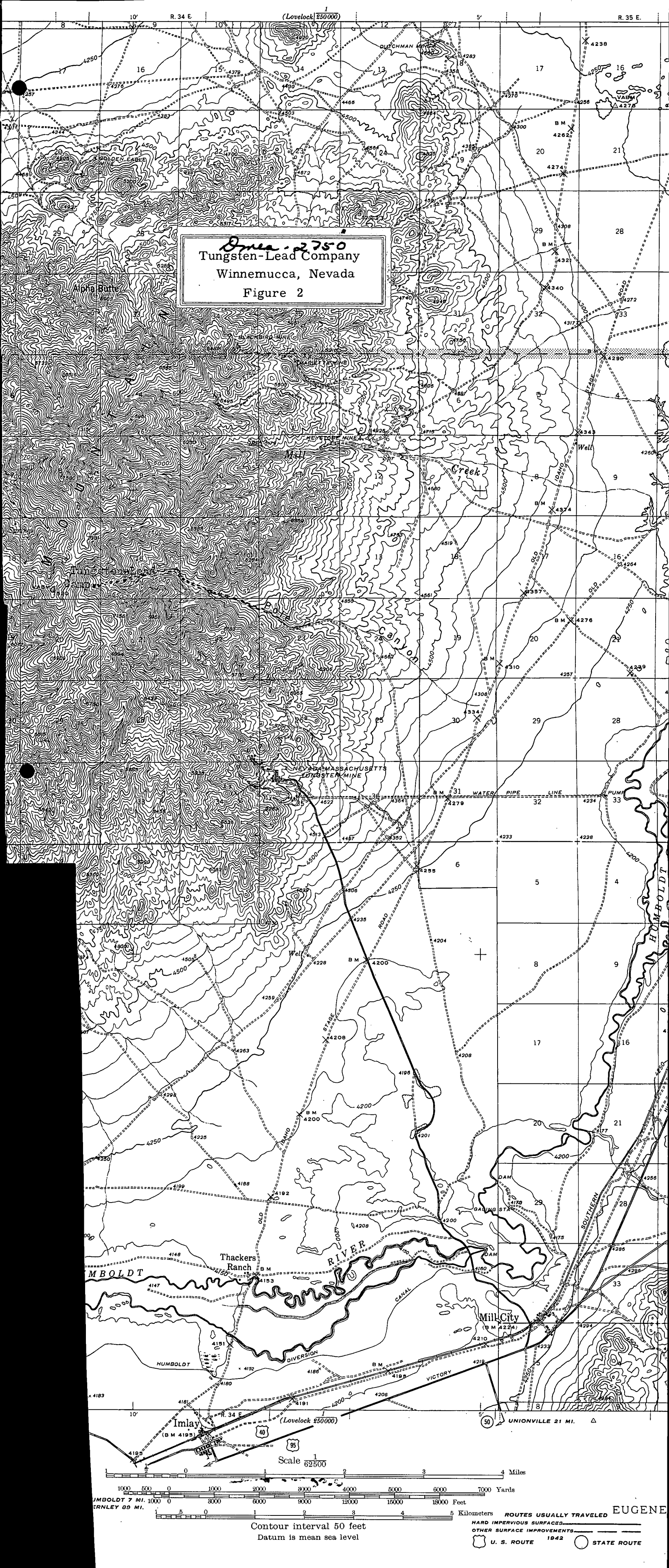
SCALE 1" = 3"

PLATE (a)

Tungsten-Lead Company
Winnemucca, Nevada
Figure 1

Omen-2750

Great Salt Lake
Salt Lake City
Ogden
Provo
Utah Lake
GREAT SALT LAKE DESERT
NEVADA
PACIFIC STANDARD TIME
MOUNTAIN STANDARD TIME
WORLD RECORD SPEEDWAY
BONNEVILLE SALT FLATS RACE TRACK
DUGWAY PROVING GROUNDS
(CLOSED TO THE PUBLIC)
Wendover
Knolls
Delle
Timpie
Dolomite
Grantsville
Tooele
Stockton
Bingham Canyon
Magna
Garfield
Murray
Midvale
Sandy
Draper
Bountiful
Centerville
Farmington
Kaysville
Layton
Syracuse
Brigham
Perry
Willard
Huntsville
Morgan
Coalville
Park City
Heber
Springville
Spanish Fork
Payson
Santaquin
Nephi
Mona
Levan
Eureka
Mammoth
Delta
Hinckley
Deseret
Oasis
Fillmore
Holden
Meadow
Kanosh
Richfield
Salina
Gunnison
Manti
Ephraim
Moroni
Monroe
Elsinore
Sevier
Cove Fort
Black Rock
Clear Lake
Bloom
Callao
Ibapah
Gold Hill
Gandy
Garrison
Baker
Burbank
Osceola
Shoshone
Montello
Cobre
Shafter
Lucin
Uvada
Nielson Ranch
Robisons Ranch
Sevier Lake (Dry)
Sevier Bridge Reservoir
Fish Lake
PROMONTORY MTS
STANSBURY MTS
LAKESIDE MTS
CEDAR MTS
ONAQUI MTS
FISH SPRINGS MTS
DEEP CREEK RANGE
HOUSE RANGE
CONFUSION RANGE
CONGER MTS
CRICKETT MTS
WAH WAH
PAVANT RANGE
SANPITCH MTS
WASATCH
TOANO RANGE
LEHMAN CAVES NATL MONUMENT
TIMPANOGOS CAVE NATL MON
BRIGHAM YOUNG UNIVERSITY
OLD STATE HOUSE (FIRST CAPITOL) STATE PARK
EXTINCT VOLCANO
DESERT RANGE EXPERIMENTAL FARM HEADQUARTERS
FISHLAKE NATL FOREST
WASATCH NATL FOREST
WHITE HORSE PASS 6038
SACRAMENTO PASS 7154
MARGUM PASS EL 6400
COWBOY PASS


Area - 2750
Tungsten-Lead Company
Winnemucca, Nevada
Figure 2
R. 34 E.
R. 35 E.
(Lovelock 250000)
DUTCHMAN MINE
GOLDEN EAGLE MINE
Alpha Butte
BLACKBIRD MINE
HARRIETT MINE
KEYSTONE MINE
Mill Creek
Dole Canyon
NEVADA MASSACHUSETTS TUNGSTEN MINE
WATER PIPE LINE
PUMP
Well
STAGE ROAD
OLD IDAHO ROAD
HUMBOLDT RIVER
Thackers Ranch
Mill City
(B M 4224)
Imlay
(B M 4195)
HUMBOLDT
DIVERSION CANAL
VICTORY
SOUTHERN
DAM
GAGING STA
UNIONVILLE 21 MI.
Scale 1/62500
Miles
Yards
Feet
Kilometers
Contour interval 50 feet
Datum is mean sea level
ROUTES USUALLY TRAVELED
HARD IMPERVIOUS SURFACES
OTHER SURFACE IMPROVEMENTS
U. S. ROUTE
STATE ROUTE
1942
EUGENE

THE TOPOGRAPHIC MAPS OF THE UNITED STATES

l Survey is making a series of
cover the United States. This
1882, and the published maps
he country, exclusive of outlying

heets that measure about 16½ by
l plan adopted the country is
ded by parallels of latitude and
se quadrangles are mapped on
d for each map being that which
the development of the country,
tandard maps are of nearly uni-
represent are of different sizes.
map are printed graphic scales
ters, miles, and kilometers. In
s shown by a fraction expressing
asurements on the map and cor-
round. For example, the scale
nap (such as 1 inch, 1 foot, or 1
same units on the earth's surface.
veyed and some maps are com-
scales for special purposes, the
nd the resulting maps have for
, differentiated as follows:
h there are problems of great
r example, to mineral develop-
of swamp areas—are made with
the publication of maps on a
nile) or $\frac{1}{24,000}$ (1 inch = 2,000 feet),
100 feet, according to the relief

h there are problems of average
t of the basin of the Mississippi
th sufficient detail to be used in
scale of $\frac{1}{62,500}$ (1 inch = nearly 1
f 10 to 100 feet.
ch the problems are of minor
uch of the mountain or desert
co, and the high mountain area
n sufficient detail to be used in
scale of $\frac{1}{125,000}$ (1 inch = nearly 2
l miles), with a contour interval

ng used in mapping. From the
photographs, planimetric maps,
ulture, have been made for some
the use of stereoscopic plotting
e utilized also in the making of
which show relief as well as

ska has been in progress since
its area has now been mapped.
ory has been covered by maps
ly 8 miles). For most of the
the maps published are on a
miles). For some areas of par-
vering about 4,300 square miles,
e of $\frac{1}{62,500}$ (1 inch = nearly 1 mile)
ea covered by topographic maps,
southeastern Alaska has been
scales of $\frac{1}{125,000}$ and $\frac{1}{250,000}$.
een surveyed, and the resulting
f $\frac{1}{62,500}$.

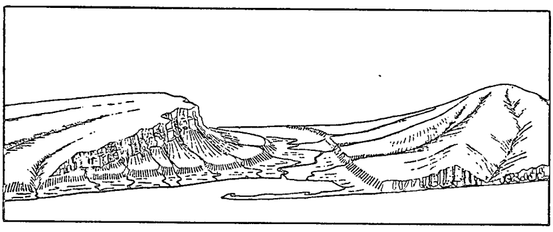
A survey of Puerto Rico is now in progress. The scale of the published maps is $\frac{1}{30,000}$.

The features shown on topographic maps may be arranged in three groups—(1) water, including seas, lakes, rivers, canals, swamps, and other bodies of water; (2) relief, including mountains, hills, valleys, and other features of the land surface; (3) culture (works of man), such as towns, cities, roads, railroads, and boundaries. The symbols used to represent these features are shown and explained below. Variations appear on some earlier maps, and additional features are represented on some special maps.

All the water features are represented in blue, the smaller streams and canals by single blue lines and the larger streams by double lines. The larger streams, lakes, and the sea are accentuated by blue water lining or blue tint. Intermittent streams—those whose beds are dry for a large part of the year—are shown by lines of blue dots and dashes.

Relief is shown by contour lines in brown, which on a few maps are supplemented by shading showing the effect of light thrown from the northwest across the area represented, for the purpose of giving the appearance of relief and thus aiding in the interpretation of the contour lines. A contour line represents an imaginary line on the ground (a contour) every part of which is at the same altitude above sea level. Such a line could be drawn at any altitude, but in practice only the contours at certain regular intervals of altitude are shown. The datum or zero of altitude of the Geological Survey maps is mean sea level. The 20-foot contour would be the shore line if the sea should rise 20 feet above mean sea level. Contour lines show the shape of the hills, mountains, and valleys, as well as their altitude. Successive contour lines that are far apart on the map indicate a gentle slope, lines that are close together indicate a steep slope, and lines that run together indicate a cliff.

The manner in which contour lines express altitude, form, and grade is shown in the figure below.



The sketch represents a river valley that lies between two hills. In the foreground is the sea, with a bay that is partly enclosed by a hooked sand bar. On each side of the valley is a terrace into which small streams have cut narrow gullies. The hill on the right has a rounded summit and gently slop-

ing spurs separated
their lower ends by
abruptly at the rail
gradually away and
ersed by a few shal
features is represent
sketch, by contour li

The contour interv
one contour and the
This interval differs
mapped: in a flat co
mountainous region
that the contours ma
every fourth or fifth,
accompanied by figur
points—such as road
and benchmarks—ar
show altitudes to th
for the altitudes of be
vey's bulletins on sp
triangulation and tra
bulletins.

Lettering and the
aries, such as those
ship, or reservation, a
different kinds and
travel the greater pa
lines; poor public r
lines; trails by dash
classification if availa

Each quadrangle
or prominent natural
the map are printe
which maps have b
rangles in the Unite
them similar to the
been published.

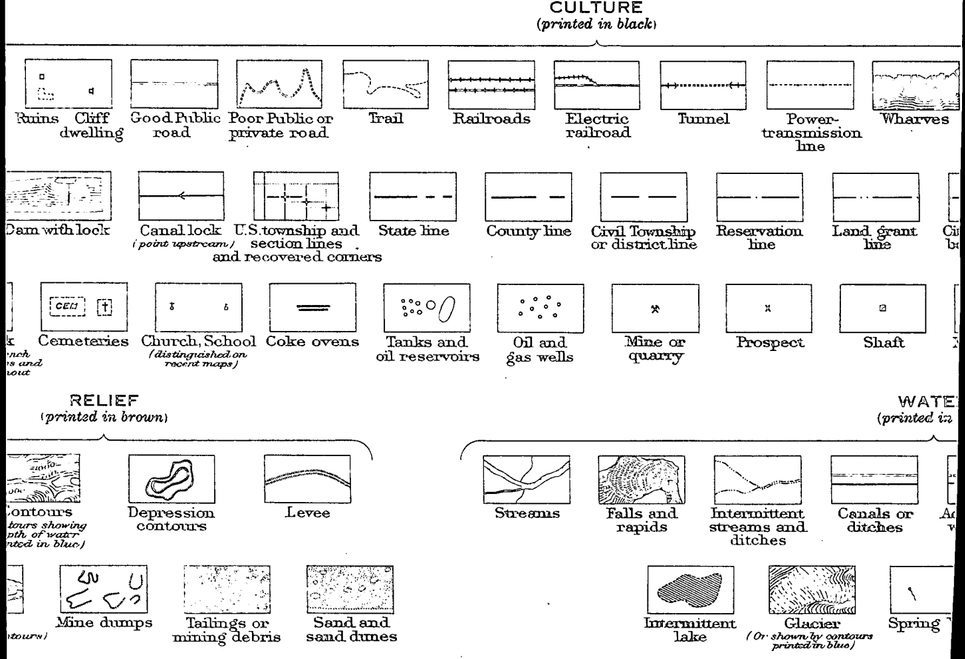
Geologic maps of
maps have been pu
includes maps show
structure, and miner
pages of descriptive
describes the topogr
and its mineral prod
been published.

Index maps of eac
the areas covered by
lished by the United
free. Copies of the s
for 10 cents each; so
A discount of 40 pe
$5 or more at the re
order f
or for
are sold
size of
on requ

App
cash, d
address

Nov

STANDARD SYMBOLS



NOTE: Use a separate form for each request.

DESCRIPTION OF RECORD(S) OR INFORMATION REQUESTED

DMEA 2751

REMARKS Box 39

Do Not want the (T) Box only the plane 39

NATURE OF SERVICE

☐ FURNISH COPY OF RECORD(S) ONLY ☐ PERMANENT WITHDRAWAL ☐ LOAN OF RECORD(S) ☐ OTHER (Specify)

RECORD GROUP NO.	ACCESSION NO.	FRC BOX NO. OR RECORDS CENTER LOCATION NO. (If known)
320	64-A 709	14/52-15-3

TO General Services Administration
Federal Records Center NARS

(City) (State) (Zip Code)

NOTE: In Washington, D.C. area send to STOP 386

FOR RECORDS CENTER USE ONLY

☐ RECORDS NOT IN CENTER CUSTODY ☐ RECORDS DESTROYED

☐ WRONG BOX NUMBER — PLEASE RECHECK

☐ ADDITIONAL INFORMATION REQUIRED TO IDENTIFY RECORDS REQUESTED

☐ MISSING (Neither record(s), information nor charge card found in container(s) specified)

☐ RECORDS PREVIOUSLY CHARGED

OUT TO (Name, agency and date):

REMARKS

Pick up

8-16-77 or 8-17-77

8:00 Am

DATE	SERVICE	TIME REQUIRED	SEARCHER'S INITIALS
8-12-77			JKB

FOR USE OF REQUESTER

NAME OF REQUESTER	TELEPHONE NO.	DATE
Miss G. Wiegand	703-8606681	8-11-77

NAME AND ADDRESS OF AGENCY (Include building, room no. and Zip Code)

U. S. Geological Survey
953 National Ctr.
Reston Va. 22092

(In Washington, D.C. area also include STOP number)

RECEIPT OF RECORDS

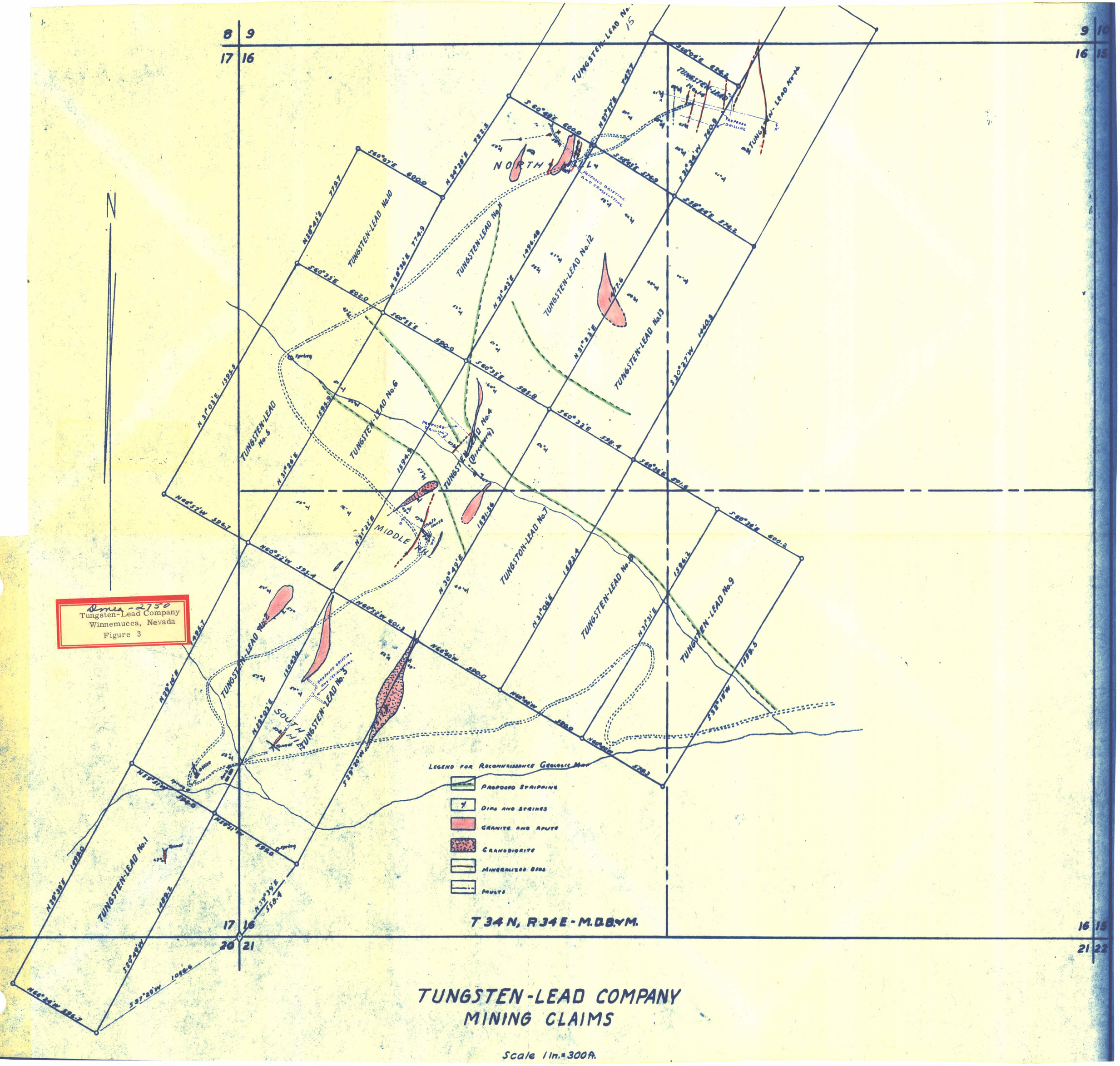
Requester please sign, date and return this form, for file item(s) listed above, *ONLY* if the block to right has been checked by the Records Center. ☐

SIGNATURE	DATE

OPTIONAL FORM 11
REVISED FEBRUARY 1971
GENERAL SERVICES ADMINISTRATION
FPMR (41CFR) 101 - 11.4
5011 - 104

REFERENCE REQUEST — FEDERAL RECORDS CENTERS

RECORDS CHARGE OUT COPY



Dmer-2750
Tungsten-Lead Company
Winnemucca, Nevada
Figure 3

TUNGSTEN-LEAD COMPANY
MINING CLAIMS

Scale 1 in. = 300 ft.