DMA Form 1

DEFENSE MINERALS ADMINISTRATION
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DMA Docket No. 3363

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Exploration Assistance

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Routing Slip

To:	400	Date	5/25/54
To:	Oper Com	Date	6-16-54
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INT.-DUP. SEC., WASH., D.C. 98868

AUG 26 1954

Mr. Earve P. Nelson
523 W. 11th Street
Reno, Nevada

Re: Docket No. DMEA 3363 - Tungsten
Divide, Divide #1, Short Shot and
Medium Shot Claims
Douglas County, Nevada

Dear Mr. Nelson:

Your application for aid for an exploration project and other data available to us in Washington relating to the above named property have been reviewed.

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

Careful study of all our information, although noting small amounts 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, under the circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

O. O. Mittendorf

Administrator

JHopkins:fcc
8-19-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. Reg. 3
R. W. Geehan, USBM
E. L. Newcomb, USGS

IN REPLY REFER TO:

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

August 18, 1954

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3363 (tungsten)

To: W. S. Martin, Defense Minerals Exploration Administration
From: R. D. Trace, U. S. Geological Survey
Applicant: Nelson, Lovestadt, and Lemaire
Name of property: Divide and Shot Claims
Location of property: Douglas County, Nevada
Date of Field Team Report: August 6, 1954
Authorship of Field Team Report: F. J. Wiebelt, USBM, and H. K. Stager, USGS
Field Team's recommendation: Deny application.
Comments: The proposed exploration program is not warranted at this time because of the seemingly erratic and spotty nature of the eventual targets. According to Figure 2 of the Field Team report, the ore bearing wollastonite bed crops out along the west side of the hill. A trenching program on this bed would appear much more feasible. In other words, the surface should be checked for mineralization before we start looking for the favorable wollastonite bed under the hill.
ACTION RECOMMENDED: Follow Field Team recommendation.

R. D. Trace

RDTrace:hlm
G-8/18/54

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

402

August 19, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of an application for exploration assistance in the amount of $24,456.00
Docket No. DMEA 3363 - Tungsten
Harve P. Nelsen, Claude B. Lovestedt, and Darrell B. Lemaire, Partners
Divide, Divide #1, Short Shot, and Medium Shot Claims
Douglas County, Nevada

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

The area of the Divide and Short Shot claims is underlain by an intrusive rock at a shallow depth.

Limestone that has been cut by thin, light-gray felsitic dikes is the predominant rock of the area. In a few places it is metamorphosed to tactite.

A bed of calcite and pyroxene-rich wollastonite 8 to 10 feet thick has been formed near the base of the limestone near the south end of the Divide claim and it is within this bed that most of the tungsten-bearing ore pods have been found. A few small deposits occur in pods of tactite and as thin veinlets or small masses along faults.

The mine workings consist of some bulldozer stripping; a 20-foot adit; a 10-foot pit and two 5-foot pits.

A production of about 850 tons of ore containing about 500 units of WO_3 came from an area approximately 100 feet in diameter. Several other small pods of wollastonite and/or tactite have yielded about 50 tons of ore containing about 300 units of WO_3.

Five samples were taken by the Field Team and gave the following results:

Sample No.	% Mo	% WO_3	Description
550	0.01	1.66	A selected chip sample from 6 pods in open pit
551	*0.01	0.31	Bottom of 10-ft. pit; 6" Wide
552	0.01	1.45	Grab sample from 2-ton stock-pile.
553	*0.01	4.96	Grab sample from 1½-ton stock-pile.
554	0.01	0.87	16" pod in 5-foot pit

(*) = less than

There are no measured reserves and only a few tons of indicated reserves on the Divide claim. The remaining parts of unmined pods are too thin or too low in grade to be mined economically.

There are no measured, indicated or inferred reserves on the Divide No. 1, Short Shot and Medium Shot claims.

The examining engineer and geologist conclude that the cost of the proposed program by the applicant will greatly exceed the value of ore that will be inferred. They, therefore, recommend that Government assistance be denied. The Field Team concurs with their recommendations.

The Commodity Divisions of the Geological Survey and Bureau of Mines concur in the denial.

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

JHOPKINS:foc
8-19-54

cc to: Docket
Code 400
Adm. Reading File
Operating Comm.

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

400

420 Custom House
555 Battery Street
San Francisco 11, Calif.

August 10, 1954

WSM

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3363 - Tungsten
Harve P. Nelson, Claude B. Lovestedt, and
Darrell B. Lemaire, Partners
Divide, Divide #1, Short Shot, and Medium Shot Claims
Douglas County, Nevada

Reference is to your letter dated June 16, 1954, requesting a field examination of the subject property.

The property was examined on June 29-30 by a geologist of Geological Survey and a Bureau of Mines Mining Engineer. Attached are four copies of the report on the property entitled "DMEA-3363 - L. & N. Mines (Divide, Divide #1, Short Shot and Medium Shot Claims), Douglas County, Nevada," by F. J. Wiebelt, Mining Engineer, U. S. Bureau of Mines, and H. F. Stager, Geologist, U. S. Geological Survey, dated August 6, 1954.

The engineer and geologist are in agreement that it is doubtful that sufficient scheelite mineralization would be found by the exploration work to pay back the loan. Most of the scheelite mineralization that has been found to date has occurred in small pods or lenses erratically spaced in a bed of wollastonite. All of the known pods of ore have been partly mined. The remaining pods are too small or too low grade to be mined economically.

The Field Team concurs with the recommendation made by the examiners of the property that an exploration loan is not warranted.

H. C. MILLER

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

Reviewed by
DMEA OPERATING COMMITTEE
8-18-54
(date)

Attachment

Copy to: Roscoe Smith, USGS
. . Johnson, Reno

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-3363 - L. & N. MINES
(Divide, Divide #1, Short Shot and Medium Shot Claims)

Douglas County, Nevada

F. J. Wiebelt, Mining Engineer
U. S. Bureau of Mines

H. K. Stager, Geologist
U. S. Geological Survey

August 6, 1954.

Reviewed by
DMEA OPERATING COMMITTEE
8-18-54
(date)

Docket No.: DMEA-3363 - Tungsten

Name and address of applicant: Harve P. Nelson,
523 W. 11th Street
Reno, Nevada
Claude B. Lovestedt
Gardnerville, Nevada
Darrell B. Lemaire
Gardnerville, Nevada

Name and location of property: Divide, Divide No. 1, Short Shot and Medium Shot claims,
Douglas County, Nevada

SUMMARY

The property consisting of the Divide, Divide No. 1, Short Shot, and Medium Shot claims is situated about ten miles, by road, southwesterly of Gardnerville, Nevada.

Most of the tungsten deposits occur in a bed of wollastonite 8 to 10 feet thick that has been formed near the base of a thinly bedded metamorphosed limestone of northeast strike and a dip of about 20° southeast. A few small deposits occur in pods of tactite and as thin veinlets or small masses along faults.

All the known pods of ore have been partly mined, the remaining parts are too thin or too low in grade to be mined economically. The southern 300 feet of the Divide claim from which most of the production has come, and containing all of the indicated reserves has been sold to outside interests and is no longer the property of the applicants.

There are no measured, indicated or inferred reserves on the Divide No. 1, Short Shot or Medium Shot claims. In the area adjacent

to the open pit and extending into the Divide claim for 100 feet a reserve of 500 tons of ore containing about 1 percent WO_3 is inferred.

The applicants have proposed a two-phase exploration of diamond drilling and crosscutting.

Phase I consists of eleven drill holes, from 50 to 200 feet deep at an estimated cost of $24,456.

If Phase I is successful, Phase II will be proposed to consist of an additional 2,060 feet of diamond drilling and 100 feet of crosscutting at a cost of about $21,375.

The present application is for Phase I only.

CONCLUSIONS

Scheelite-bearing wollastonite and tactite pods have been mined from the Divide claim. The ore pods are small and erratically distributed.

The goal of Phase I is not to find minable ore bodies but only to determine the presence or absence of the wollastonite host rock in the "Divide" and "Shot" claims. If the wollastonite is found to be present the Phase II drilling and crosscutting would be proposed to search for the ore bodies.

Although the plan to determine the presence of the favorable host rock with Phase I of exploration and then limit the search for ore bodies by Phase II to the favorable areas is sound geologic practice that has been employed in other districts, the size of the Phase II targets in this case makes the entire program infeasible. The cost of

the program will greatly exceed the value of the ore that can be inferred to be present in the area to be explored.

RECOMMENDATIONS

It is recommended that Government assistance under the DMEA program be denied.

INTRODUCTION

The examiners, consisting of Harold K. Stager of the U. S. Geological Survey and Frank J. Wiebelt of the U. S. Bureau of Mines, spent June 29 and 30, 1954, on the property. They were accompanied by Harvey P. Nelson and Claude B. Levestedt of the Company.

NAME AND LOCATION OF PROPERTY

The property is known as the L & N Mines and consists of the "Divide" claims and the "Shot" claims.

The "Divide" claims are accessible by automobile from Gardnerville, Nevada, by following U. S. Highway 395 southerly 2.5 miles, at which point turn to the left and go 7.8 miles (keeping to the right at all intersections) to the claims.

To reach the "Shot" claims from the "Divide" claims follow the road toward Gardnerville 1.1 miles, then turn to the left and go 0.5 miles at which point turn right and continue to the right 0.3 miles and then turn left and go 0.2 miles to the discovery pit on the Short Shot claim.

CONDITION AND SEASONAL ACCESSIBILITY OF ROAD TO PROPERTY

The road to the property is accessible throughout most of the

year except at times of heavy snow. The last 7.8 miles of the road is a narrow unsurfaced road.

COMPETENCY OF APPLICANT AND OPERATING PERSONNEL

The applicant, Mr. Harve P. Nelson, is an experienced mining engineer and is now teaching mining engineering courses at the University of Nevada. His estimate of the cost of the proposed exploration work is excessive and out of line. His partner, Claude B. Lovestedt, has been operating on a small scale several tungsten properties of his own.

APPLICANT'S PROPERTY RIGHTS

The property involved in the application for exploration aid consists of the following unpatented claims:

North 1150 feet of the Divide Claim	recorded	in	Vol.	O, Page 275
North 1450 feet of the Divide Claim #1	"	"	"	P, Page 410
Short Shot Claim	"	"	"	P, Page 468
Medium Shot Claim	"	"	"	P, Page 469

The record of location notices of the above claims are recorded at Minden, Douglas County, Nevada.

Harve P. Nelson and Claude B. Lovestedt are in partnership on the "Divide" claims and Harve P. Nelson and Darrell B. Lemaire are in partnership on the "Shot" claims.

DESCRIPTION OF PROPERTY

There are no buildings or equipment on the property.

The mine workings consist of some bulldozer stripping; a 20-foot adit; a 10-foot pit and two 5-foot pits.

Five samples were taken by the field team. The data on these samples follow:

Sample No.	% Mo	% WO_3	Description
550	0.01	1.66	A selected chip sample from 6 pods exposed along the north side of the open pit in southern section of the Divide claim said by the applicant and not included in application.
551	*0.01	0.31	From bottom of 10-foot pit; 6 inches wide.
552	0.01	1.45	Grab sample from 2-ton stockpile
553	*0.01	4.96	Grab sample from 1 1/2 ton stockpile.
554	0.01	0.87	16" pod in 5-foot pit.

*less than

The mine workings and location of the above samples are shown in Figure 2.

GEOLOGY

The area of the Divide and Short Shot claims is underlain by a large mass of metasedimentary rocks that are probably underlain by an intrusive rock at a shallow depth.

The geology and tungsten deposit of an adjoining claim were studied and described by Holmes and Irwin in 1952.[1/]

Limestone is the predominant rock of the area and has been altered by varying degrees of metamorphism from a sugary-textured, light-colored rock to a dense, dark gray or spotted rock. It is sparsely fossiliferous and was noted to contain crinoid stems and frag-

1/ Holmes, George H., Jr., and Irwin, W. P., 1952, Final Report, Contract Idm-E3, Last Laugh Tungsten, Douglas County, Nevada, Defense Minerals Administration.

ments of brachiopods (Rhynchonella?). It is moderately thin bedded. The beds strike northeast and dip about 20° southeast.

Thin, light-gray felsitic dikes cut the limestone. They dip steeply and most of them trend northeasterly. Cubes of pyrite that average about 1/16 inch in diameter are fairly abundant and, in places, small feldspar phenocrysts are visible.

In most places the limestone has been little affected by the intrusion of the dike rock, but in a few places the limestone has been metamorphosed to tactite. A bed of calcite and pyroxene-rich wollastonite 8 to 10 feet thick has been formed near the base of the limestone near the south end of the Divide claim (see fig. 2) and it is within this bed that most of the tungsten-bearing ore pods have been found.

Small outcrops of quartz monzonite are found in the vicinity of the Divide claims and although none is exposed on the claims it seems reasonable to expect that the metamorphism of the sedimentary rocks has resulted from the intrusion of this rock and that an igneous mass underlies the property at a shallow depth.

Faulting, that has offset the limestone beds a few feet in places, has provided passageways for tungsten-bearing solutions. Small, high-grade pods of ore have been mined along these faults near the south end of the Divide claim.

ORE DEPOSITS

Most of the tungsten deposits occur in wollastonite, formed by the metamorphism of impure limestone. A few small deposits occur in pods of tactite and as thin veinlets or small masses along faults.

Scheelite is the only ore mineral present in the deposits.

Pods of scheelite-bearing material averaging about five feet across and two feet thick are erratically distributed throughout a bed of calcite and pyroxene-rich wollastonite 8 to 10 feet thick that is enclosed between two beds of dense, dark gray limestone. About 850 tons of ore containing about 500 units of WO_3 was produced from an area about 100 feet in diameter near the south end of the Divide claim. A selected chip sample taken by the field team across the pods exposed along the north side of the open pit assayed 1.66 percent WO_3.

Several other small pods of wollastonite and/or tactite near the south end and west side of the Divide claim have yielded from 1 to 25 tons each of scheelite-bearing material that contained from 1 to 15 percent WO_3. Total production from these isolated pods has been about 50 tons of ore containing about 300 units of WO_3

ORE RESERVES

There are no measured reserves and only a few tons of indicated reserves on the Divide claim. All the known pods of ore have been partly mined; the remaining parts are too thin or too low in grade to be mined economically. The southern 300 feet of the Divide claim, containing the open pit, shaft, and adit from which most of the production has come, and containing almost all of the indicated reserves, has been sold to outside interests and is no longer the property of the applicants.

Although the wollastonite bed in which most of the ore pods have been found probably extends under much of the remaining part of the

Divide claim there is no geologic reason for predicting minable concentrations of ore pods to be present except perhaps in the southernmost 50 to 100 feet of the claim. In the area adjacent to the open pit and extending into the Divide claim for 100 feet a reserve of 500 tons of ore containing about 1 percent WO_3 is inferred.

There are no measured, indicated, or inferred reserves on the Divide No. 1, Short Shot or Medium Shot claims.

PAST OPERATION

The largest production of scheelite has been produced from the south portion of the Divide claim which had been sold by the applicant. This section produced about 850 tons of ore containing about 500 units of WO_3.

Production from the portion of the Divide claim included in the application has been about 50 tons of ore containing about 300 units WO_3.

MANPOWER, SUPPLIES, ETC.

Manpower is available from Gardnerville and Minden, Nevada. Supplies and equipment may be obtained from Gardnerville, Minden, Carson City or Reno, Nevada.

The nearest water supply to the property is from the mill site of the Metallurgical Development Company, 5.2 miles distant.

A high tension power line passes within approximately one mile to the east of the claims.

APPLICANT'S PROPOSAL

The applicants have proposed a two-phase exploration program of diamond drilling and crosscutting. Phase I consists of 9 vertical drill holes from 50 to 200 feet deep, drilled on a 200-foot grid pattern, and 2 inclined holes about 100 feet long, to be drilled on the Divide claims (see fig. 2). Also under Phase I are 2 vertical and 2 inclined drill holes to be drilled on the Short Shot and Medium Shot claims. Phase I drilling is estimated to total about 1,410 feet and cost about $13,746.50. Other costs (labor, equipment, buildings, assaying, accounting, taxes, etc.) will bring the total to about $24,456. The applicants own a small diamond drill and propose to do the drilling themselves.

If Phase I is successful, Phase II will be proposed to consist of an additional 2,060 feet of diamond drilling, on a smaller grid pattern between the Phase I holes, and 100 feet of crosscutting. Phase II is estimated to cost about $21,375. The present application is for Phase I only.

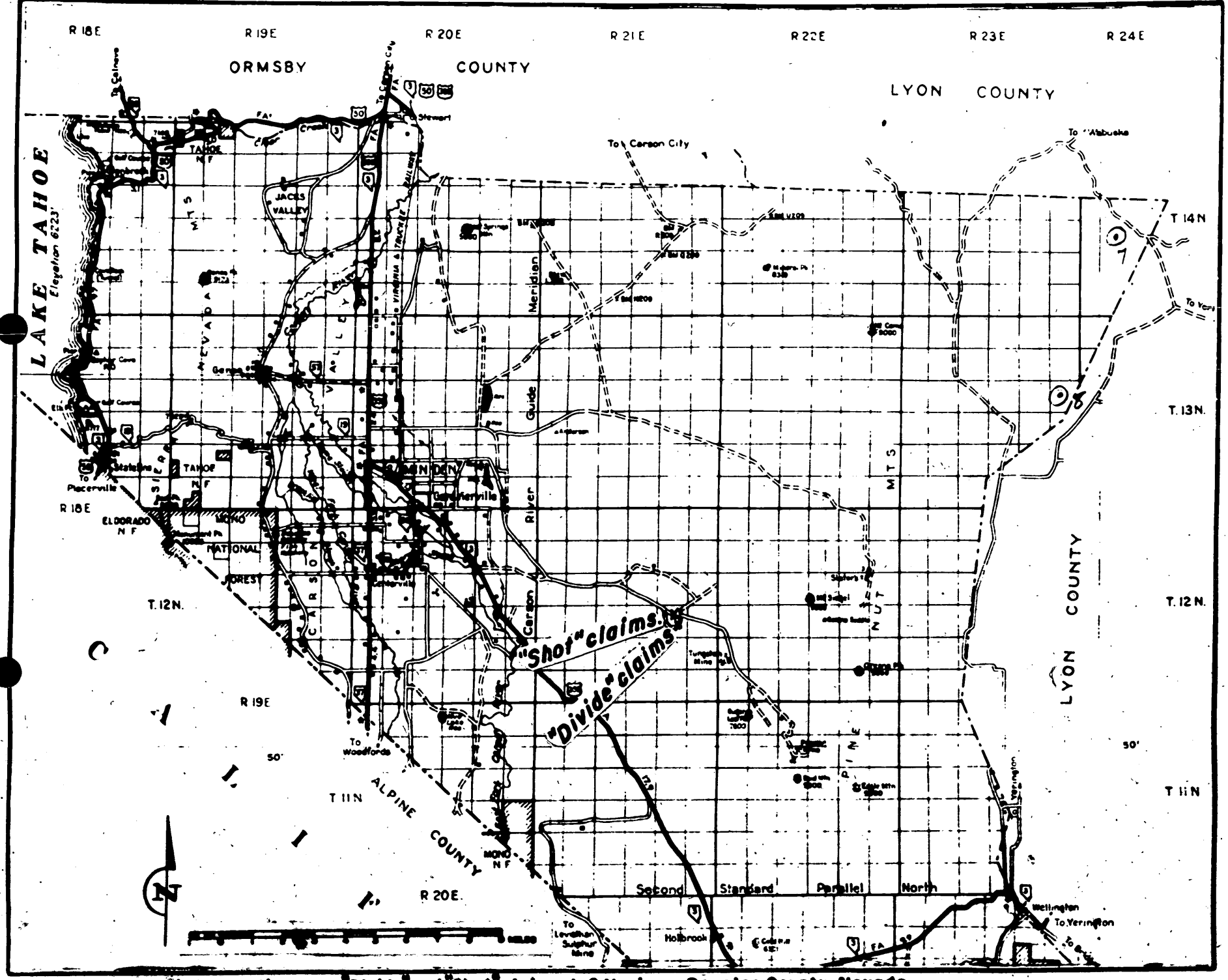
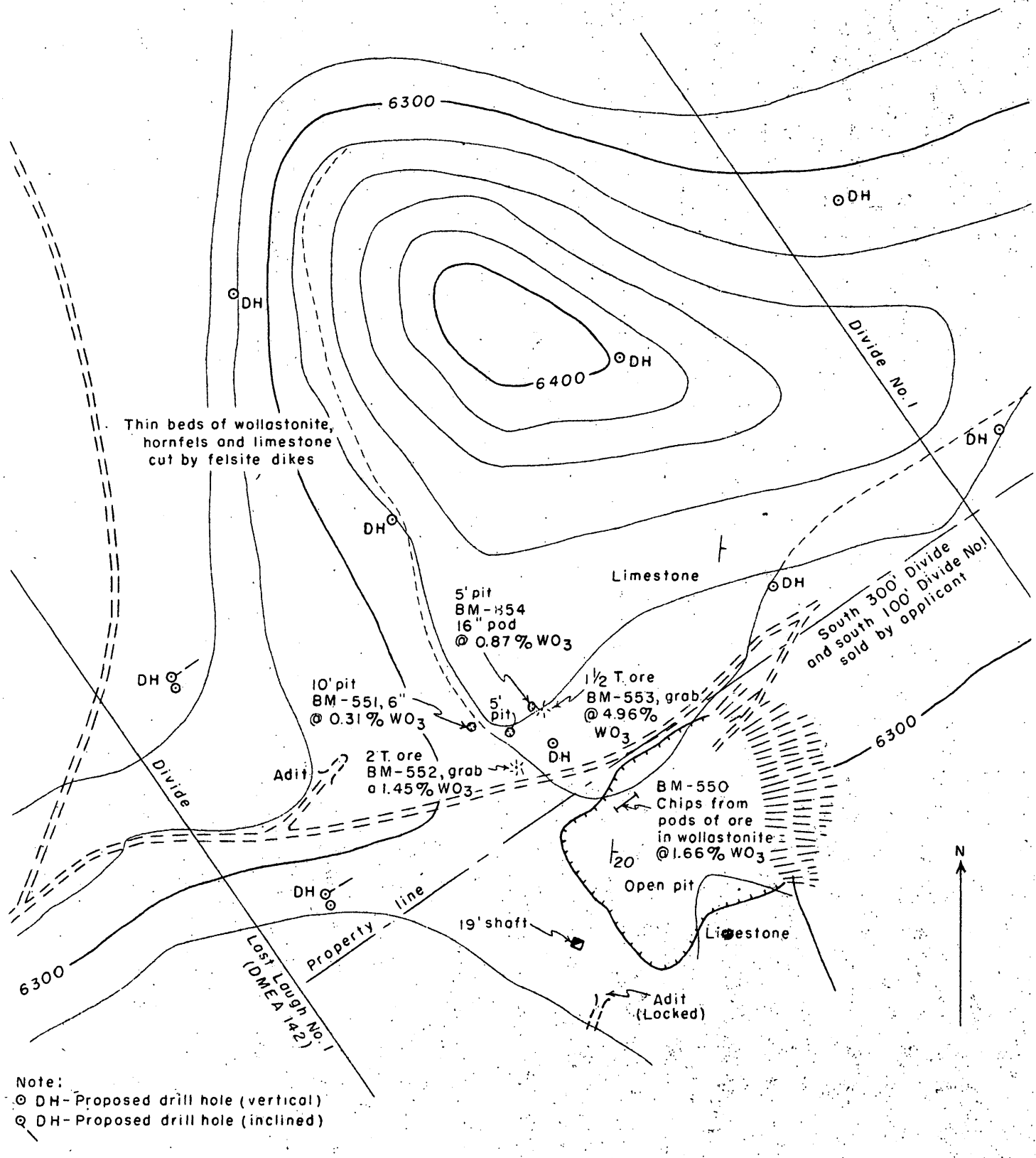


Fig.1 - Location map, "Divide" and "Shot" claims, L & N mines, Douglas County, Nevada.



SKETCH MAP OF DIVIDE CLAIM AREA, DOUGLAS COUNTY, NEVADA

100 0 100 200 FEET

Contour interval 20'
Datum approximate

FIGURE 2

500

400

JUN 10 1954

Mr. Harve P. Nelson, et al.
523 West 11th Street
Reno, Nevada

Re: Docket No. DMEA 3363 - Tungsten
Harve P. Nelson, Claude B. Lovestedt, & Darrell B. Lemaire, Partners
Divide, Divide #1, Short Shot, and Medium Shot claims
Douglas County, Nevada

Dear Mr. Nelson:

The above-docketed application for exploration assistance has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. H. C. Miller, Executive Officer, DMEA Field Team, Region III, 420 Custom House, 555 Battery Street, San Francisco 11, California, for a field examination of the property.

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

Sincerely yours,

C. O. Mittenderf

Administrator

Copy to: DOCKET
ADM. READ. FILE
FIELD TEAM, REG. III
CODE 400
OPER. COMM.
R. W. GEEHAN, USBM
T. P. THAYER, USGS

FARutledge/ls 6/10/54

JUN 1 5 1954

400

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3363 - Tungsten
Marve F. Nelson, Claude E. Lovestedt,
and Darrell E. Lemaire, Partners
Divide, Divide #1, Short Shot, and
Medium Shot claims
Douglas County, Nevada

Dear Mr. Miller:

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

In reviewing the subject docket, it was noted that the applicant controlled only the north 1150 feet of the Divide claim and the north 1450 feet of the Divide #1 claim, and that mining was now in progress on the property south of these claims. Therefore, it appears that the first line of drill holes along the south side of the referenced property would be of almost as much benefit to the adjacent property as to the two Divide claims.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

Philip W. Guild

Member, Geological Survey

Copy to: DOCKET
FIELD TEAM, REG. III
ADM. READ. FILE
CODE 400
OPERATING COMMITTEE
R. W. GERHAN, USBM
T. P. THAYER, USGS

FARutledge/ls 6/10/54

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

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

May 20, 1954

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for loan - Tungsten
Harve P. Nelson - Partnerships
Divide and Shot Claims
Douglas County, Nevada

3363

Attached are three of the four copies of an application for exploration aid received in this office on May 19, 1954.

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

Attachment

Copy to: Roscoe Smith, USGS

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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. 3363
Metal or Mineral Tungsten
Date Received
Estimated Cost $24,456
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: Harve P. Nelson -- Partnerships with Claude B. Lovestedt on Divide & Divide #1 Claims with Darrell B. Lemaire on Short Shot & Medium Shot Claims (see Encl. #2).

(*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.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

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 North 1150 ft. of the DIVIDE Claim (Volume O, p. 275); north 1450 ft. of DIVIDE #1 (Vol. P, p.410); and the SHORT SHOT (Vol.P, p.468); MEDIUM SHOT (Vol.P, p.469). See attached sketch, Encls. #3 and #4.

(*b*) State any mine name by which the property is known. Not given.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise See Encl.#5, Agreement on DIVIDE & DIVIDE #1; Original partner in locating SHORT & MEDIUM SHOT.

(*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. Attached.

(*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. All claims are recorded at Minden, Douglas County, Nevada.

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.

Defense Minerals Administration
RECEIVED
MAY 24 1954

16—66551-1

Encl. #1.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Sheelite with wollastonite and tactite as ore-bearers.

(*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 10 days and be completed within 4½ months from the date of an exploration project contract. For Phase I.

(*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.

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 15 May, 1954

Needs Field Team

Harvey P. Nelson
Harvey P. NELSON
(Applicant)

~~By~~ Address: 523 W. 11th St.
Reno, Nev.
Phone 3-7603

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

523 West Eleventh Street
Reno, Nevada
15 May 1954

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

Dear Mr. Miller:

In reference to my letter to you of 27 March and Mr. Ricker's to me dated April 1st, I am forwarding herewith four copies of the completed Form MF-103, Enclosure #1, with sketches and explanations.

Although a great deal of time and expense has been applied to mapping the area involved the topographical and other maps are not quite in shape to send. Sketches are being sent forward at this time. Maps of various scales will be available in the very near future.

Time is of essence in getting this loan processed since I will apply my full time and energy to this project after June 8th and will do so until the middle of September. To be able to commence the drilling early in the summer will be to the best interest of the Government as well as my own associates and other mining concerns in the Gardnerville District.

Answers were made on the Form MF-103 where there was adequate space. Additional information is given under the same paragraph numbers as those of the questionnaire:

4. <u>Physical description</u>:

a. No work is being done on the claims at the present time. A great deal of surface bulldozing has been done previously but this work was not effective in opening up the structures due to the nature of the terrain. There is a 20 ft. adit, which is still accessible, with its approximate location shown on sketch of the claims. The old location shaft on the Divide Claim was sunk for Ag-Pb. One can descend several feet into it.

b. Past production: There has been no known production of Pb. or minerals other than scheelite. Several years ago $10,000 worth of WO_3 ([illegible]28 per unit) was produced from the Divide Claim by Mr. H. B. Chessher and Associates. In 1952, fifteen tons of 5.6[illegible] WO_3 from the

20 ft. adit near the south end of the Divide claim. 1732 pounds of 67.56% concentrate was extracted and sold from this ore.

Three mill shipments from the open pit to the south gave the following assays:

Tons	WO_3	
850	0.6%	Average figured back from sale of concentrate
80	0.63%	Head sample (see Encl.#6)
161	0.69%	Head sample (see Encl.#6)

Enclosure #6 is made up of random assay sheets covering samples taken from the surface and of mill shipments from the Open Pit. Only one copy is available -- please return.

No production has ever been made from the SHORT SHOT or MEDIUM SHOT claims.

c. Geological features:

The exposed scheelite mineralization occurs in beds where wollastonite and calcite have replaced the limestone. Analyses of the ore is given in the following tables:

TABLE I -- Constituent Analysis

	Lower grade Ore	Hi-grade Ore
WO_3 (tungstic oxide)	0.375	1.48
SiO_2 (silica)	39.80	37.16
CaO (calcium oxide)	47.08	45.36
MgO (magnesium oxide)	0.30	0.30
CO_2 (carbon dioxide)	11.54	14.79
H_2O (water)	0.150	0.180
FeO (iron oxide)	0.015	0.011
Total	99.260	99.281

TABLE II -- The above converted to minerals

Wollastonite ($CaSiO_3$)	66.90	54.20
Calcite ($CaCO_3$)	26.20	33.60
Quartz (SiO_2)	5.20	9.10
Scheelite ($CaWO_4$)	0.469	1.88
Siderite ($FeCO_3$)	0.025	0.017
Dolomite ($CaCO_3.MgCO_3$)	0.70	0.70
Water (H_2O)	0.150	0.180
Total	99.242	99.277

Ore has been produced from a tactite on an adjacent claim to the west and mining of the orebody has recently been reopened. There are good possibilities of cutting a continuation of this tactite not far below the surface of our claims by means of the vertical drill holes.

My reasons for wishing to explore are:

(1) I believe that a fair amount of reserves of critical tungsten can be developed by such drilling.

(2) Such work should throw light on the geology and occurrence of the scheelite mineralization in the Gardnerville Mining District, making it possible to locate and develop other tungsten deposits in the area.

(3) Metallurgical tests show that the ore can be treated by simple flotation to concentrates of over 60% WO_3, which in turn can be raised to 70% by acid treatment, with a recovery of well over 90%.

(4) The Open Pit adjoining the south property line appears to have lost the ore mineralization due to faulting and lack of geological information. However, a shaft is being sunk a few feet from our boundary which is reported upon milling to have produced at the rate of 0.34% WO_3 per ton of material removed from 20 feet of the shaft, beginning just below the surface. (see Encl. #3).

d. Accessibility:

The SHORT SHOT and the MEDIUM SHOT claims are crossed by a maintained county road, 6½ miles east of U.S. Hwy.395. The terrain of these two claims are such that most of the area can be reached without any road construction.

An access road already is in existance near the south boundary line of the DIVIDE claims. However, the topography to the north becomes somewhat rough and will require the construction of trails for passage of the drilling equipment.

Distances to shipping and supply points are between 6½ and 8 miles to paved U.S. Hwy. 395; thence 2.6 miles to Gardnerville, Nevada, where many supplies will be available. From this point to Reno, Nevada, and the Southern Pacific Railroad is 43 miles over Hwy. 395.

e. Availability of Manpower, etc.:

Manpower is available in the Carson Valley (Gardnerville and vicinity). Materials, supplies and equipment that are not available there, can be obtained in Reno.

Water can be hauled from the mill site of the Metallurgical Development Company, about 5 miles away. A well could be drilled much closer to the properties, if desirable.

A high-tension power line passes within approximately one mile to the east.

5. The exploration project:

a. Sheelite is the sought-for mineral but exploration of the wollastonite beds and occurrences of tactite should uncover deposits of the tungsten.

b. Proposed work:

The exploration project should be broken up into at least two phases. Trouble can be expected from loss of drilling water due to the faulted and folded nature of the ground and the known existance of cavities and small caverns. Thus, a great quantity of water will be needed. Cementing of holes and, even the necessity of offsetting hole locations, can be expected.

Phase I is marked on the sketches (Encls.#3 & 4). Cost estimate follows: For the DIVIDE claims, approximately 9 vertical drill holes are proposed on a 200-foot grid system varying depth from 50' to 200 feet, along with the two flat holes as shown. Two short holes and two long holes (A_1 - B_1 and A_3 - B_3) are indicated for the SHOT claims. Each set of holes could be run from the same setup rather than for each individual hole as shown.

Phase II will be proposed if warranted by the results of Phase I and will consist of holes to be sunk in between on the 100', 50' and possibly smaller grid systems with a few holes on the 200 foot spacing for exploration of the north end of the claims. Cost of this part of the project is not included in the present request.

c. The work will be started within 10 days and be completed within 4½ months from the date of an exploration project contract, covering Phase I.

d. The applicant has had 11 years mining experience in Arizona, Bolivia and Mexico, including 4 years of supervision of diamond drill operations with A.S.&R. Co. and 9 months of mine examination work on the Tatasi Mine for Patino Mines & Enterprises; 6 years in the Corps of Engineers during World War II; plus 4 years teaching Mining Engineering and time to secure a B.S. in Mining at Texas College of Mines and a Ph.D. in Mining Engineering at Missouri School of Mines.

6. Estimate of Costs:

a. Independent contracts or portion of work estimated on a footage basis, if done by own organization:

$6.00/foot	for drilling & moving in rig & equipment
0.75/foot	preparation of drill sites
1.50/foot	providing water for drilling purposes
0.50/foot	moving drill between drill sites
1.00/foot	cementing, relocation, etc.
$9.75/foot	

Phase I

Core drilling:
1410 feet @ $9.75 = $13,746.50 (estimated cost).

Phase II (Depends on Results of Phase I)
(Not requested at this time.)

2060 ft. of drilling @ $8.75 (Expenses of moving in are not applicable).

100 ft. of Cross-cutting @ $33.50

b. ~~Phase I (only):~~ Phase I, only: Labor and supervision:
Engineering Consultant @ $500/mo.
Core tender, sampler, etc. @ $375/mo.
$875/mo. x 4½ = $3937.50

c. Operating materials & supplies mostly covered in (a).

d. Operating equipment:
Rental of bulldozer or other heavy equipment to prepare access trails:
5 days @ $160 = $800.00

e. Rehabilitation and repairs:
None contemplated at this time.

f. New buildings, improvements, installations:
Rent for trailer as office and supply room:
4½ mo. @ $50.00/mo. = $225.00
Core shelter 250.00
Housing facilities $475.00

g. Miscellaneous:
Analytical work (preparation and assaying)
$400./mo. x 4½ = $1800.00
Accounting & records
$200./mo. x 4½ = $ 900.00
Workman's compensation & employers liability insurance. $401.64
Payroll taxes $172.13

h. Contingencies:
10% of estimate $2223.28

GRAND TOTAL $24,456.05

7. (b) We are prepared to furnish our share of the cost of the proposed project with use of equipment owned by myself and associates and with money to take care of any difference.

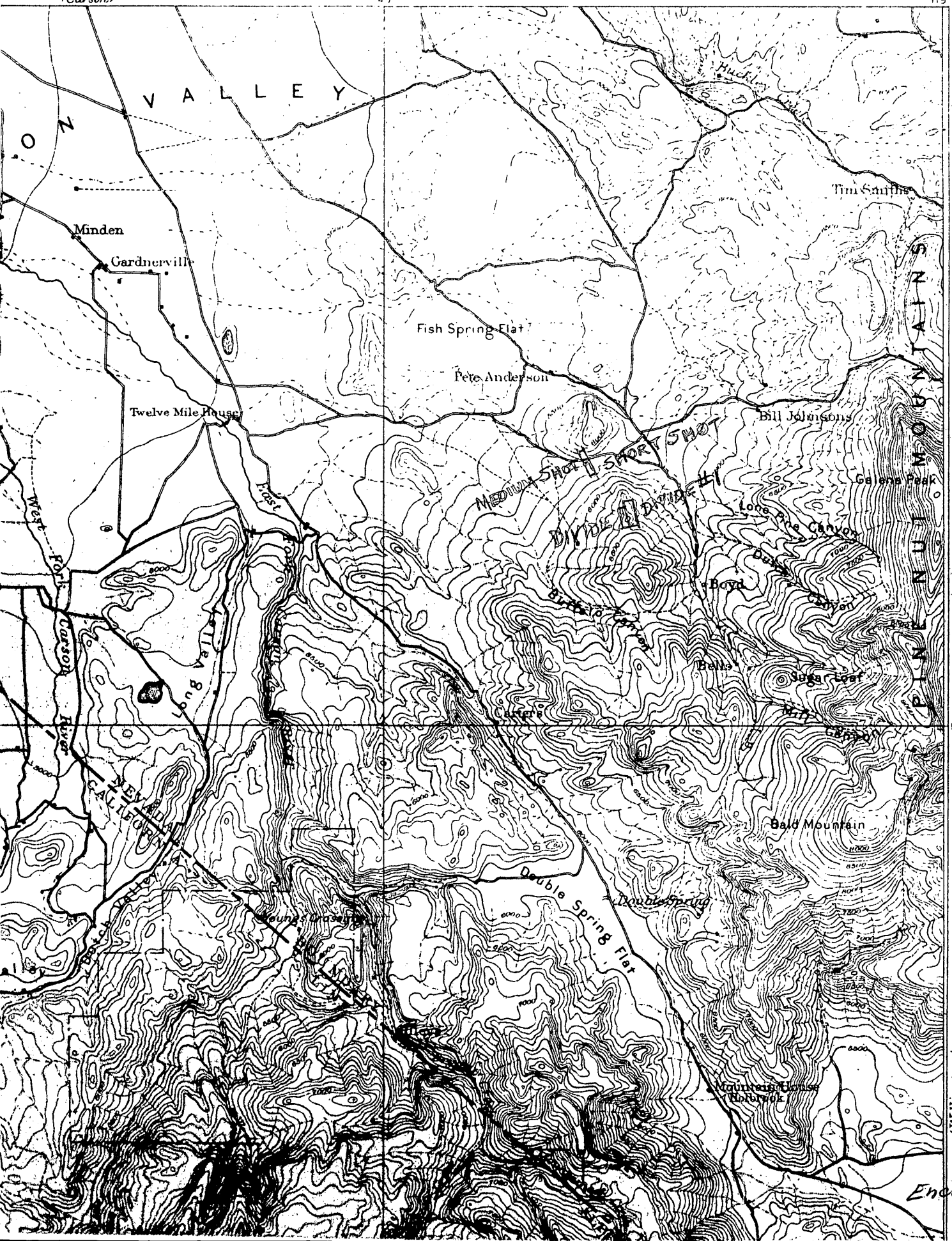
Anything that you can do to speed up action on this application will be greatly appreciated.

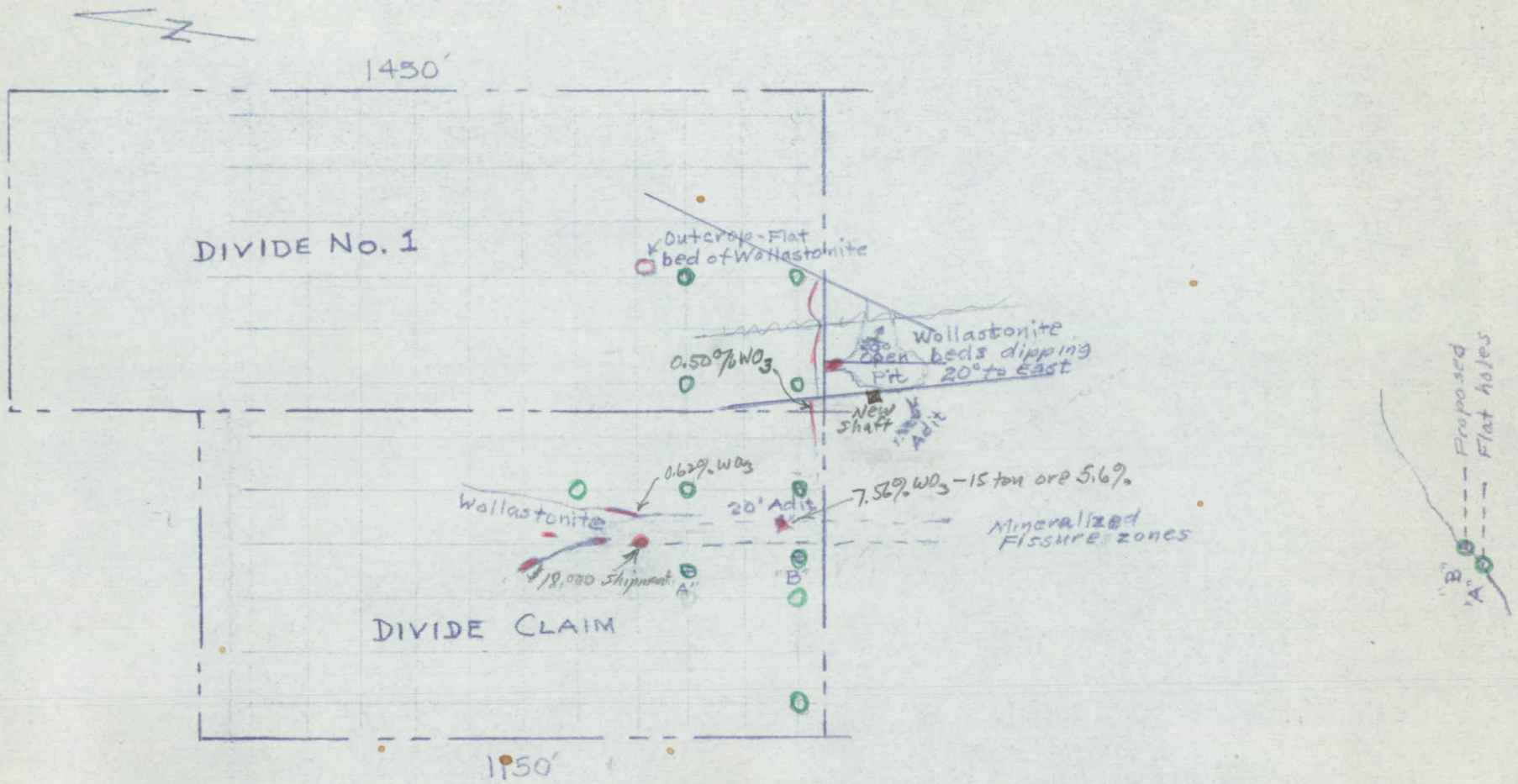
Sincerely yours,

Harve P. Nelson

Encls.: #1 Form MP-103 (4 copies)
#2 Location Map "
#3 Divide Claims "
#4 Shot Claims "
#5 Agreement (1 copy only)
#6 Assay Sheets (1 copy only)

CLAIM LOCATION MAP CALIFORNIA-NEVADA
MARKLEEVILLE SHEET

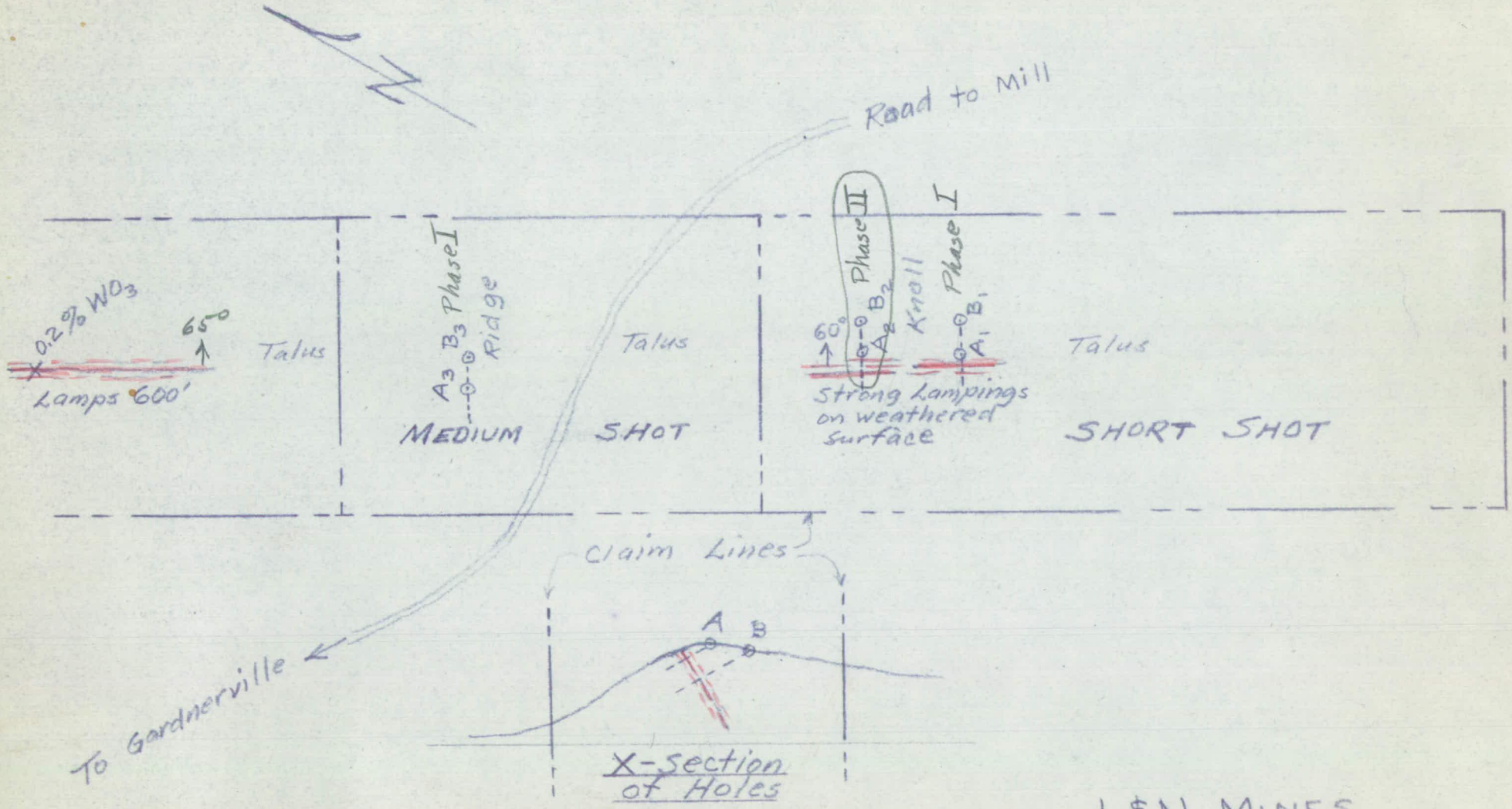




L&N MINES
DIVIDE CLAIMS
100' Grid
Approx. Scale 1" = 300'

— Wollastonite Beds
— Faults
— WO_3 Values
○ Proposed drill holes

Encl. #3



L&N MINES
"SHOT" CLAIMS
Approx. Scale 1"=300'

Wollastonite Beds
WO_3 values

Encl. #4.

400

Docket
Surname

Hopkins
Martin
Trow
Geehan
Hedges
Kilgoard
Fehlman

AUG 2 [illegible]

Mr. Harve F. Halsen
523 W. 11th Street
Reno, Nevada

Re: Docket No. DMEA 3363 - Tungsten
Divide, Divide #1, Short Shot and
Medium Shot Claims
Douglas County, Nevada

Dear Mr. Halsen:

Your application for aid for an exploration project and other data available to us in Washington relating to the above named property have been reviewed.

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

Careful study of all our information, although noting small amounts 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, under the circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

JHopkins:foc
8-19-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. Reg. 3
R. W. Geehan, USBM
E. L. Newcomb, USGS

R.G.H.

DOCKET
SURNAME

Hopkins
Martin
Trace
Gulson
Kilsgaard

August 19, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of an application for exploration assistance in the amount of $24,456.00
Docket No. DMEA 3363 - Tungsten
Harve P. Nelson, Claude B. Lovestedt, and Darrell B. Lemaire, Partners
Divide, Divide #1, Short Shot, and Medium Shot Claims
Douglas County, Nevada

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

The area of the Divide and Short Shot claims is underlain by an intrusive rock at a shallow depth.

Limestone that has been cut by thin, light-gray felsitic dikes is the predominant rock of the area. In a few places it is metamorphosed to tactite.

A bed of calcite and pyroxene-rich wollastonite 8 to 10 feet thick has been formed near the base of the limestone near the south end of the Divide claim and it is within this bed that most of the tungsten-bearing ore pods have been found. A few small deposits occur in pods of tactite and as thin veinlets or small masses along faults.

The mine workings consist of some bulldozer stripping; a 20-foot adit; a 10-foot pit and two 5-foot pits.

A production of about 850 tons of ore containing about 500 units of WO_3 came from an area approximately 100 feet in diameter. Several other small pods of wollastonite and/or tactite have yielded about 50 tons of ore containing about 300 units of WO_3.

Five samples were taken by the Field Team and gave the following results:

R.C.G.

Sample No.	% Mo	% WO_3	Description
550	0.01	1.66	A selected chip sample from 6 pods in open pit
551	*0.01	0.31	Bottom of 10-ft. pit: 6" Wide
552	0.01	1.45	Grab sample from 2-ton stock-pile.
553	*0.01	4.96	Grab sample from 1½-ton stock-pile.
554	0.01	0.87	16" pod in 5-foot pit

(*) = less than

There are no measured reserves and only a few tons of indicated reserves on the Divide claim. The remaining parts of unmined pods are too thin or too low in grade to be mined economically.

There are no measured, indicated or inferred reserves on the Divide No. 1, Short Shot and Medium Shot claims.

The examining engineer and geologist conclude that the cost of the proposed program by the applicant will greatly exceed the value of ore that will be inferred. They, therefore, recommend that Government assistance be denied. The Field Team concurs with their recommendations.

The Commodity Divisions of the Geological Survey and Bureau of Mines concur in the denial.

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

JHOPKINS:foc
8-19-54

cc to: Docket
Code 400
Adm. Reading File
Operating Comm.

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

August 19, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of an application for exploration assistance in the amount of $24,456.00
Docket No. DMEA 3363 - Tungsten
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Divide, Divide #1, Short Shot, and Medium Shot Claims
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The Commodity Divisions of the Geological Survey and Bureau of Mines concur in the denial.

W S Martin

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

IN REPLY REFER TO:

Docket

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

August 18, 1954

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3363 (tungsten)

To: W. S. Martin, Defense Minerals Exploration Administration
From: R. D. Trace, U. S. Geological Survey
Applicant: Nelson, Lovestadt, and Lemaire
Name of property: Divide and Shot Claims
Location of property: Douglas County, Nevada
Date of Field Team Report: August 6, 1954
Authorship of Field Team Report: F. J. Wiebelt, USBM, and H. K. Stager, USGS
Field Team's recommendation: Deny application.
Comments: The proposed exploration program is not warranted at this time because of the seemingly erratic and spotty nature of the eventual targets. According to Figure 2 of the Field Team report, the ore bearing wollastonite bed crops out along the west side of the hill. A trenching program on this bed would appear much more feasible. In other words, the surface should be checked for mineralization before we start looking for the favorable wollastonite bed under the hill.
ACTION RECOMMENDED: Follow Field Team recommendation.

R.D. Trace

R. D. Trace

IN REPLY REFER TO:

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

August 18, 1954

Memorandum

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ACTION RECOMMENDED: Follow Field Team recommendation.

R. D. Trace

RDTrace:hlm
G-8/18/54

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

DOCKET

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

August 10, 1954

WSM

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3363 - Tungsten
Harve P. Nelson, Claude B. Lovestedt, and
Darrell B. Lemaire, Partners
Divide, Divide #1, Short Shot, and Medium Shot Claims
Douglas County, Nevada

Reference is to your letter dated June 16, 1954, requesting a field examination of the subject property.

The property was examined on June 29-30 by a geologist of Geological Survey and a Bureau of Mines Mining Engineer. Attached are four copies of the report on the property entitled "DMEA-3363 - L. & N. Mines (Divide, Divide #1, Short Shot and Medium Shot Claims), Douglas County, Nevada," by F. J. Wiebelt, Mining Engineer, U. S. Bureau of Mines, and H. K. Stager, Geologist, U. S. Geological Survey, dated August 6, 1954.

The engineer and geologist are in agreement that it is doubtful that sufficient scheelite mineralization would be found by the exploration work to pay back the loan. Most of the scheelite mineralization that has been found to date has occurred in small pods or lenses erratically spaced in a bed of wollastonite. All of the known pods of ore have been partly mined. The remaining pods are too small or too low grade to be mined economically.

The Field Team concurs with the recommendation made by the examiners of the property that an exploration loan is not warranted.

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

Attachment

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-3363 - L. & N. MINES
(Divide, Divide #1, Short Shot and Medium Shot Claims)

Douglas County, Nevada

F. J. Wiebelt, Mining Engineer
U. S. Bureau of Mines

H. K. Stager, Geologist
U. S. Geological Survey

August 6, 1954.

Docket No.: DMEA-3363 - Tungsten

Name and address of applicant: Harvey P. Nelson,
523 W. 11th Street
Reno, Nevada
Claude B. Lovestedt
Gardnerville, Nevada
Darrell B. Lemaire
Gardnerville, Nevada

Name and location of property: Divide, Divide No. 1, Short Shot and Medium Shot claims, Douglas County, Nevada

SUMMARY

The property consisting of the Divide, Divide No: 1, Short Shot, and Medium Shot claims are situated about ten miles, by road, southwesterly of Gardnerville, Nevada.

Most of the tungsten deposits occur in a bed of wollastonite 8 to 10 feet thick that has been formed near the base of a thinly bedded metamorphosed limestone of northeast strike and a dip of about 20° southeast. A few small deposits occur in pods of tactite and as thin veinlets or small masses along faults.

All the known pods of ore have been partly mined, the remaining parts are too thin or too low in grade to be mined economically. The southern 300 feet of the Divide claim from which most of the production has come, and containing all of the indicated reserves has been sold to outside interests and is no longer the property of the applicants.

There are no measured, indicated or inferred reserves on the Divide No. 1, Short Shot or Medium Shot claims. In the area adjacent

to the open pit and extending into the Divide claim for 100 feet a reserve of 500 tons of ore containing about 1 percent WO_3 is inferred.

The applicants have proposed a two-phase exploration of diamond drilling and crosscutting.

Phase I consists of eleven drill holes, from 50 to 200 feet deep at an estimated cost of $24,456.

If Phase I is successful, Phase II will be proposed to consist of an additional 2,060 feet of diamond drilling and 100 feet of crosscutting at a cost of about $21,375.

The present application is for Phase I only.

CONCLUSIONS

Scheelite-bearing wollastonite and tactite pods have been mined from the Divide claim. The ore pods are small and erratically distributed.

The goal of Phase I is not to find minable ore bodies but only to determine the presence or absence of the wollastonite host rock in the "Divide" and "Shot" claims. If the wollastonite is found to be present the Phase II drilling and crosscutting would be proposed to search for the ore bodies.

Although the plan to determine the presence of the favorable host rock with Phase I of exploration and then limit the search for ore bodies by Phase II to the favorable areas is sound geologic practice that has been employed in other districts, the size of the Phase II targets in this case makes the entire program infeasible. The cost of

the program will greatly exceed the value of the ore that can be inferred to be present in the area to be explored.

RECOMMENDATIONS

It is recommended that Government assistance under the DMEA program be denied.

INTRODUCTION

The examiners, consisting of Harold K. Stager of the U. S. Geological Survey and Frank J. Wiebelt of the U. S. Bureau of Mines, spent June 29 and 30, 1954, on the property. They were accompanied by Harvey P. Nelson and Claude B. Lovestedt of the Company.

NAME AND LOCATION OF PROPERTY

The property is known as the L & N Mines and consists of the "Divide" claims and the "Shot" claims.

The "Divide" claims are accessible by automobile from Gardnerville, Nevada, by following U. S. Highway 395 southerly 2.5 miles, at which point turn to the left and go 7.8 miles (keeping to the right at all intersections) to the claims.

To reach the "Shot" claims from the "Divide" claims follow the road toward Gardnerville 1.1 miles, then turn to the left and go 0.5 miles at which point turn right and continue to the right 0.3 miles and then turn left and go 0.2 miles to the discovery pit on the Short Shot claim.

CONDITION AND SEASONAL ACCESSIBILITY OF ROAD TO PROPERTY

The road to the property is accessible throughout most of the

year except at times of heavy snow. The last 7.8 miles of the road is a narrow unsurfaced road.

COMPETENCY OF APPLICANT AND OPERATING PERSONNEL

The applicant, Mr. Harvey P. Nelson, is an experienced mining engineer and is now teaching mining engineering courses at the University of Nevada. His estimate of the cost of the proposed exploration work is excessive and out of line. His partner, Claude B. Lovestedt, has been operating on a small scale several tungsten properties of his own.

APPLICANT'S PROPERTY RIGHTS

The property involved in the application for exploration aid consists of the following unpatented claims:

North 1150 feet of the Divide Claim	recorded	in	Vol.	O, Page 275
North 1450 feet of the Divide Claim #1	"	"	"	P, Page 410
Short Shot Claim	"	"	"	P, Page 468
Medium Shot Claim	"	"	"	P, Page 469

The record of location notices of the above claims are recorded at Minden, Douglas County, Nevada.

Harve P. Nelson and Claude B. Lovestedt are in partnership on the "Divide" claims and Harve P. Nelson and Darrell B. Lemaire are in partnership on the "Shot" claims.

DESCRIPTION OF PROPERTY

There are no buildings or equipment on the property.

The mine workings consist of some bulldozer stripping; a 20-foot adit; a 10-foot pit and two 5-foot pits.

Five samples were taken by the field team. The data on these samples follow:

Sample No.	% Mo	% WO_3	Description
550	0.01	1.66	A selected chip sample from 6 pods exposed along the north side of the open pit in southern section of the Divide claim sold by the applicant and not included in application.
551	*0.01	0.31	From bottom of 10-foot pit; 6 inches wide.
552	0.01	1.45	Grab sample from 2-ton stockpile
553	*0.01	4.96	Grab sample from 1 1/2 ton stockpile.
554	0.01	0.87	16" pod in 5-foot pit.

*less than

The mine workings and location of the above samples are shown in Figure 2.

GEOLOGY

The area of the Divide and Short Shot claims is underlain by a large mass of metasedimentary rocks that are probably underlain by an intrusive rock at a shallow depth.

The geology and tungsten deposit of an adjoining claim were studied and described by Holmes and Irwin in 1952[1/].

Limestone is the predominant rock of the area and has been altered by varying degrees of metamorphism from a sugary-textured, light-colored rock to a dense, dark gray or spotted rock. It is sparsely fossiliferous and was noted to contain crinoid stems and frag-

1/ Holmes, George H., Jr., and Irwin, W. P., 1952, Final Report, Contract Idm-E3, Last Laugh Tungsten, Douglas County, Nevada, Defense Minerals Administration.

ments of brachiopods (Rhynchonella?). It is moderately thin bedded. The beds strike northeast and dip about 20° southeast.

Thin, light-gray felsitic dikes cut the limestone. They dip steeply and most of them trend northeasterly. Cubes of pyrite that average about 1/16 inch in diameter are fairly abundant and, in places, small feldspar phenocrysts are visible.

In most places the limestone has been little affected by the intrusion of the dike rock, but in a few places the limestone has been metamorphosed to tactite. A bed of calcite and pyroxene-rich wollastonite 8 to 10 feet thick has been formed near the base of the limestone near the south end of the Divide claim (see fig. 2) and it is within this bed that most of the tungsten-bearing ore pods have been found.

Small outcrops of quartz monzonite are found in the vicinity of the Divide claims and although none is exposed on the claims it seems reasonable to expect that the metamorphism of the sedimentary rocks has resulted from the intrusion of this rock and that an igneous mass underlies the property at a shallow depth.

Faulting, that has offset the limestone beds a few feet in places, has provided passageways for tungsten-bearing solutions. Small, high-grade pods of ore have been mined along these faults near the south end of the Divide claim.

ORE DEPOSITS

Most of the tungsten deposits occur in wollastonite, formed by the metamorphism of impure limestone. A few small deposits occur in pods of tactite and as thin veinlets or small masses along faults.

Scheelite is the only ore mineral present in the deposits.

Pods of scheelite-bearing material averaging about five feet across and two feet thick are erratically distributed throughout a bed of calcite and pyroxene-rich wollastonite 8 to 10 feet thick that is enclosed between two beds of dense, dark gray limestone. About 850 tons of ore containing about 500 units of WO_3 was produced from an area about 100 feet in diameter near the south end of the Divide claim. A selected chip sample taken by the field team across the pods exposed along the north side of the open pit assayed 1.66 percent WO_3.

Several other small pods of wollastonite and/or tactite near the south end and west side of the Divide claim have yielded from 1 to 25 tons each of scheelite-bearing material that contained from 1 to 15 percent WO_3. Total production from these isolated pods has been about 50 tons of ore containing about 300 units. of WO3

ORE RESERVES

There are no measured reserves and only a few tons of indicated reserves on the Divide claim. All the known pods of ore have been partly mined; the remaining parts are too thin or too low in grade to be mined economically. The southern 300 feet of the Divide claim, containing the open pit, shaft, and adit from which most of the production has come, and containing almost all of the indicated reserves, has been sold to outside interests and is no longer the property of the applicants.

Although the wollastonite bed in which most of the ore pods have been found probably extends under much of the remaining part of the

Divide claim there is no geologic reason for predicting minable concentrations of ore pods to be present except perhaps in the southernmost 50 to 100 feet of the claim. In the area adjacent to the open pit and extending into the Divide claim for 100 feet a reserve of 500 tons of ore containing about 1 percent WO_3 is inferred.

There are no measured, indicated, or inferred reserves on the Divide No. 1, Short Shot or Medium Shot claims.

PAST OPERATION

The largest production of scheelite has been produced from the south portion of the Divide claim which had been sold by the applicant. This section produced about 850 tons of ore containing about 500 units of WO_3.

Production from the portion of the Divide claim included in the application has been about 50 tons of ore containing about 300 units WO_3.

MANPOWER, SUPPLIES, ETC.

Manpower is available from Gardnerville and Minden, Nevada. Supplies and equipment may be obtained from Gardnerville, Minden, Carson City or Reno, Nevada.

The nearest water supply to the property is from the mill site of the Metallurgical Development Company, 5.2 miles distant.

A high tension power line passes within approximately one mile to the east of the claims.

APPLICANT'S PROPOSAL

The applicants have proposed a two-phase exploration program of diamond drilling and crosscutting. Phase I consists of 9 vertical drill holes from 50 to 200 feet deep, drilled on a 200-foot grid pattern, and 2 inclined holes about 100 feet long, to be drilled on the Divide claims (see fig. 2). Also under Phase I are 2 vertical and 2 inclined drill holes to be drilled on the Short Shot and Medium Shot claims. Phase I drilling is estimated to total about 1,410 feet and cost about $13,746.50. Other costs (labor, equipment, buildings, assaying, accounting, taxes, etc.) will bring the total to about $24,456. The applicants own a small diamond drill and propose to do the drilling themselves.

If Phase I is successful, Phase II will be proposed to consist of an additional 2,060 feet of diamond drilling, on a smaller grid pattern between the Phase I holes, and 100 feet of crosscutting. Phase II is estimated to cost about $21,375. The present application is for Phase I only.

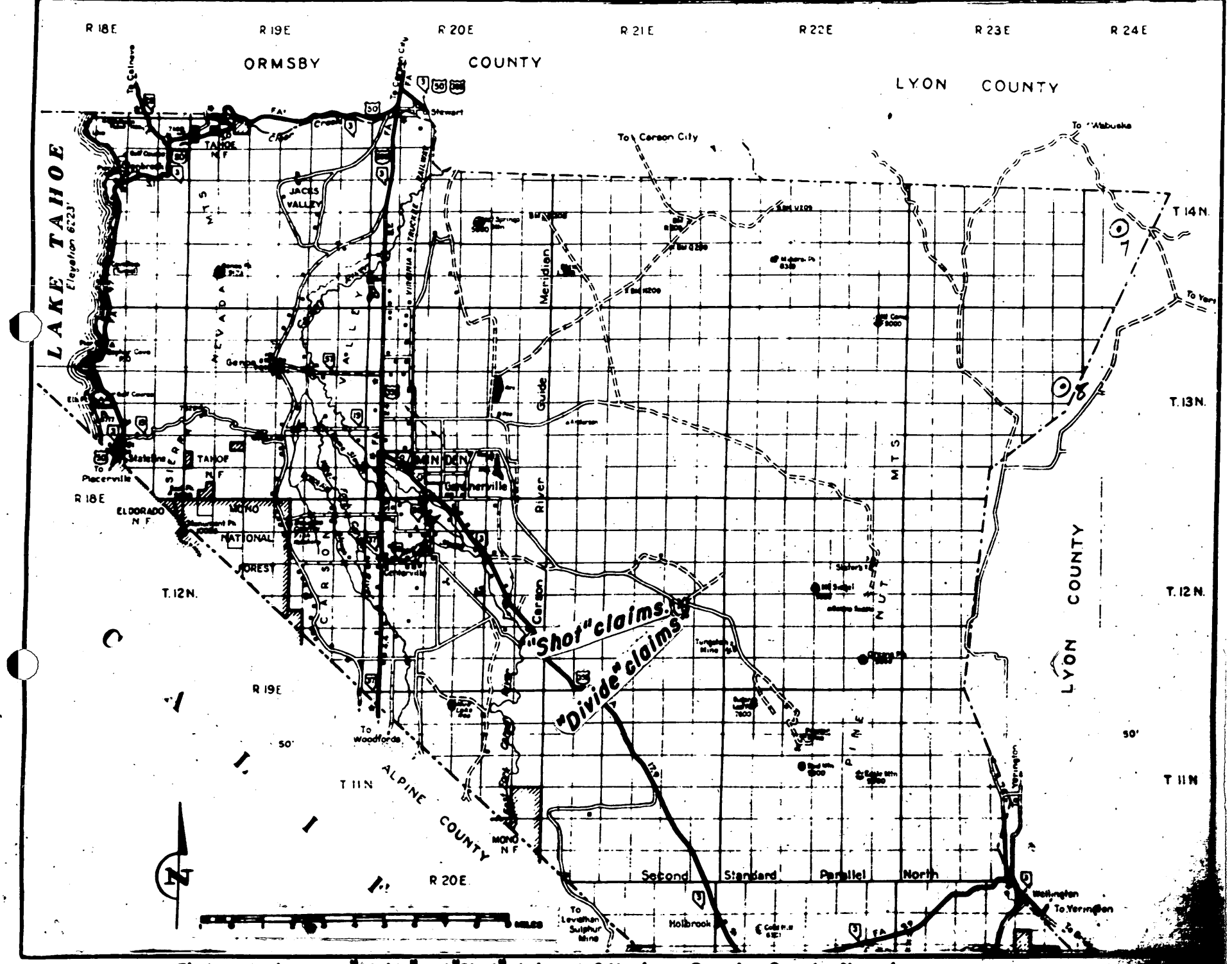
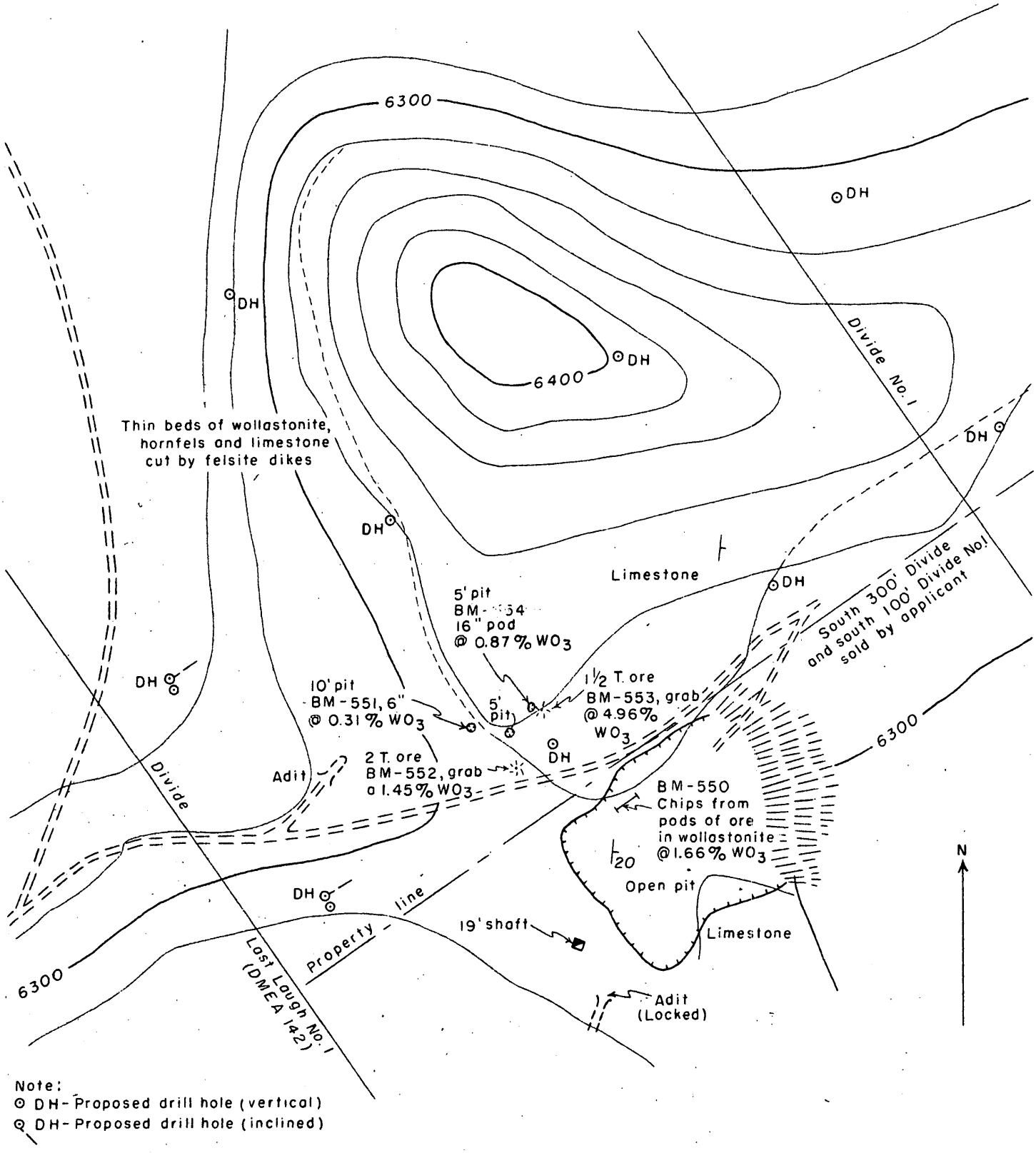


Fig.1 - Location map, "Divide" and "Shot" claims, L & N mines, Douglas County, Nevada.



SKETCH MAP OF DIVIDE CLAIM AREA, DOUGLAS COUNTY, NEVADA

100 0 100 200 FEET

Contour interval 20'
Datum approximate

FIGURE 2

DOCKET
Surname:
Rutledge
Mentzer
Geehan
Hedges
Guild
Selfridge
Stephenson

JUN 1 5 1954

Mr. Harve P. Nelson, et al.
523 West 11th Street
Reno, Nevada

Re: Docket No. DMEA 3363 - Tungsten
Harve P. Nelson, Claude B. Lovestedt,
& Darrell B. Lemaire, Partners
Divide, Divide #1, Short Shot, and
Medium Shot claims
Douglas County, Nevada

Dear Mr. Nelson:

The above-docketed application for exploration assistance has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. H. C. Miller, Executive Officer, DMEA Field Team, Region III, 420 Custom House, 555 Battery Street, San Francisco 11, California, for a field examination of the property.

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

Sincerely yours,

C. O. Mittendorf (fw)
Administrator

Copy to: DOCKET
ADM. READ. FILE
FIELD TEAM, REG. III
CODE 400
OPER. COMM.
R. W. GEEHAN, USBM
T. P. THAYER, USGS

FARutledge/ls 6/10/54

R.C.G.

DOCKET
Surname:
Rutledge
Martin
Thayer
Geehan
Selfridge
Hefferman

JUN 10 1954

Mr. M. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3363 - Tungsten
Harve P. Nelson, Claude B. Lovestedt,
and Darrell B. Lemaire, Partners
Divide, Divide #1, Short Shot, and
Medium Shot claims
Douglas County, Nevada

Dear Mr. Miller:

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

In reviewing the subject docket, it was noted that the applicant controlled only the north 1150 feet of the Divide claim and the north 1450 feet of the Divide #1 claim, and that mining was now in progress on the property south of these claims. Therefore, it appears that the first line of drill holes along the south side of the referenced property would be of almost as much benefit to the adjacent property as to the two Divide claims.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Approved:

J. H. Hedges

Member, Bureau of Mines (JHH)

Philip W. Guild

Member, Geological Survey (PWG)

Copy to: DOCKET
FIELD TEAM, REG. III
ADM. READ. FILE
CODE 400
OPERATING COMMITTEE
R. W. GEEHAN, USBM
T. P. THAYER, USGS

FARutledge/ls 6/10/54

R.C.S.

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

May 24, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region III

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 - 3363 Harve P. Nelson, et al.

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

May 25, 1954

Mr. Harve P. Nelson, et al.
523 W. 11th Street
Reno, Nevada

Subject: DMEA-3363
Re: Exploration Assistance

Gentlemen:

The receipt of your application dated May 15, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3363 and referred to the Iron and Ferro Alloys Division.

Kindly refer to DMEA-3363 in any future correspondence relating to your application.

Sincerely yours,

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

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

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

May 20, 1954

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for loan - Tungsten
Harve P. Nelson - Partnerships
Divide and Shot Claims
Douglas County, Nevada

Attached are three of the four copies of an application for exploration aid received in this office on May 19, 1954.

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

Attachment

Copy to: Roscoe Smith, USGS

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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. 3363
Metal or Mineral Tungsten
Date Received
Estimated Cost $24,456
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: Harve P. Nelson -- Partnerships with Claude B. Lovestedt on Divide & Divide #1 Claims with Darrell B. Lemaire on Short Shot & Medium Shot Claims (see Encl. #2).

(*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.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

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 North 1150 ft. of the DIVIDE Claim (Volume O, p. 275); north 1450 ft. of DIVIDE #1 (Vol. P, p.410); and the SHORT SHOT (Vol.P, p.468); MEDIUM SHOT (Vol.P, p.469). See attached sketch, Encls. #3 and #4.

(*b*) State any mine name by which the property is known. Not given.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise See Encl.#5, Agreement on DIVIDE & DIVIDE #1; Original partner in locating SHORT & MEDIUM SHOT.

(*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. Attached.

(*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. All claims are recorded at Minden, Douglas County, Nevada.

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.

Bureau of Mines
Minerals Administration
16-66551-1
RECEIVED
MAY 24 1954

Encl. #1.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Sheelite with wollastonite and tactite as ore-bearers.

(*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 10 days and be completed within 4½ months from the date of an exploration project contract. For Phase I.

(*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.

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 15 May, 1954

Harve P. Nelson
Harve P. NELSON
(Applicant)
Address: 523 W. 11th St.
Reno, Nevada
Phone 3-7603

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

523 West Eleventh Street
Reno, Nevada
15 May 1954

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

Dear Mr. Miller:

In reference to my letter to you of 27 March and Mr. Ricker's to me dated April 1st, I am forwarding herewith four copies of the completed Form MF-103, Enclosure #1, with sketches and explanations.

Although a great deal of time and expense has been applied to mapping the area involved the topographical and other maps are not quite in shape to send. Sketches are being sent forward at this time. Maps of various scales will be available in the very near future.

Time is of essence in getting this loan processed since I will apply my full time and energy to this project after June 8th and will do so until the middle of September. To be able to commence the drilling early in the summer will be to the best interest of the Government as well as my own associates and other mining concerns in the Gardnerville District.

Answers were made on the Form MF-103 where there was adequate space. Additional information is given under the same paragraph numbers as those of the questionnaire:

4. Physical description:

a. No work is being done on the claims at the present time. A great deal of surface bulldozing has been done previously but this work was not effective in opening up the structures due to the nature of the terrain. There is a 20 ft. adit, which is still accessible, with its approximate location shown on sketch of the claims. The old location shaft on the Divide Claim was sunk for Ag-Pb. One can descend several feet into it.

b. Past production: There has been no known production of Pb. or minerals other than scheelite. Several years ago $18,000 worth of WO_3 (@ $28 per unit) was produced from the Divide Claim by Mr. H. B. Chessher and Associates. In 1952, fifteen tons of 5.6% WO_3 from the

20 ft. adit near the south end of the Divide claim. 1732 pounds of 67.56% concentrate was extracted and sold from this ore.

Three mill shipments from the open pit to the south gave the following assays:

Tons	WO_3	
850	0.6%	Average figured back from sale of concentrate
80	0.63%	Head sample (see Encl.#6)
161	0.69%	Head sample (see Encl.#6)

Enclosure #6 is made up of random assay sheets covering samples taken from the surface and of mill shipments from the Open Pit. Only one copy is available -- please return.

No production has ever been made from the SHORT SHOT or MEDIUM SHOT claims.

c. Geological features:

The exposed scheelite mineralization occurs in beds where wollastonite and calcite have replaced the limestone. Analyses of the ore is given in the following tables:

TABLE I -- Constituent Analysis

	Lower grade Ore	Hi-grade Ore
WO_3 (tungstic Oxide)	0.375	1.48
SiO_2 (silica)	39.80	37.16
CaO (calcium oxide)	47.08	45.36
MgO (magnesium oxide)	0.30	0.30
CO_2 (carbon dioxide)	11.54	14.79
H_2O (water)	0.150	0.180
FeO (iron oxide)	0.015	0.011
Total	99.260	99.281

TABLE II -- The above converted to minerals

Wollastonite ($CaSiO_3$)	66.90	54.20
Calcite ($CaCO_3$)	26.20	33.60
Quartz (SiO_3)	5.20	9.10
Scheelite ($CaWO_4$)	0.469	1.88
Siderite ($FeCO_3$)	0.023	0.017
Dolomite ($CaCO_3.MgCO_3$)	0.70	0.70
Water (H_2O)	0.150	0.180
Total	99.242	99.277

Ore has been produced from a tactite on an adjacent claim to the west and mining of the orebody has recently been reopened. There are good possibilities of cutting a continuation of this tactite not far below the surface of our claims by means of the vertical drill holes.

My reasons for wishing to explore are:

(1) I believe that a fair amount of reserves of critical tungsten can be developed by such drilling.

(2) Such work should throw light on the geology and occurrence of the scheelite mineralization in the Gardnerville Mining District, making it possible to locate and develop other tungsten deposits in the area.

(3) Metallurgical tests show that the ore can be treated by simple flotation to concentrates of over 60% WO_3, which in turn can be raised to 70% by acid treatment, with a recovery of well over 90%.

(4) The Open Pit adjoining the south property line appears to have lost the ore mineralization due to faulting and lack of geological information. However, a shaft is being sunk a few feet from our boundary which is reported upon milling to have produced at the rate of 0.34% WO_3 per ton of material removed from 20 feet of the shaft, beginning just below the surface. (see Encl. #3).

d. Accessibility:

The SHORT SHOT and the MEDIUM SHOT claims are crossed by a maintained county road, 6½ miles east of U.S. Hwy. 395. The terrain of these two claims are such that most of the area can be reached without any road construction.

An access road already is in existance near the south boundary line of the DIVIDE claims. However, the topography to the north becomes somewhat rough and will require the construction of trails for passage of the drilling equipment.

Distances to shipping and supply points are between 6½ and 8 miles to paved U.S. Hwy. 395; thence 2.6 miles to Gardnerville, Nevada, where many supplies will be available. From this point to Reno, Nevada, and the Southern Pacific Railroad is 43 miles over Hwy. 395.

e. Availability of Manpower, etc.:

Manpower is available in the Carson Valley (Gardnerville and vicinity). Materials, supplies and equipment that are not available there, can be obtained in Reno.

Water can be hauled from the mill site of the Metallurgical Development Company, about 5 miles away. A well could be drilled much closer to the properties, if desirable.

A high-tension power line passes within approximately one mile to the east.

5. The exploration project:

a. Sheelite is the sought-for mineral but exploration of the wollastonite beds and occurrences of tactite should uncover deposits of the tungsten.

b. Proposed work:

The exploration project should be broken up into at least two phases. Trouble can be expected from loss of drilling water due to the faulted and folded nature of the ground and the known existance of cavities and small caverns. Thus, a great quantity of water will be needed. Cementing of holes and, even the necessity of offsetting hole locations, can be expected.

Phase I is marked on the sketches (Encls.#3 & 4). Cost estimate follows: For the DIVIDE claims, approximately 9 vertical drill holes are proposed on a 200-foot grid system varying depth from 50' to 200 feet, along with the two flat holes as shown. Two short holes and two long holes (A_1 - B_1 and A_3 - B_3) are indicated for the SHOT claims. Each set of holes could be run from the same setup rather than for each individual hole as shown.

Phase II will be proposed if warranted by the results of Phase I and will consist of holes to be sunk in between on the 100', 50' and possibly smaller grid systems with a few holes on the 200 foot spacing for exploration of the north end of the claims. Cost of this part of the project is not included in the present request.

c. The work will be started within 10 days and be completed within 4½ months from the date of an exploration project contract, covering Phase I.

d. The applicant has had 11 years mining experience in Arizona, Bolivia and Mexico, including 4 years of supervision of diamond drill operations with A.S.&R. Co. and 9 months of mine examination work on the Tatasi Mine for Patino Mines & Enterprises; 6 years in the Corps of Engineers during World War II; plus 4 years teaching Mining Engineering and time to secure a B.S. in Mining at Texas College of Mines and a Ph.D. in Mining Engineering at Missouri School of Mines.

6. Estimate of Costs:

a. Independent contracts or portion of work estimated on a footage basis, if done by own organization:

$6.00/foot	for drilling & moving in rig & equipment
0.75/foot	preparation of drill sites
1.50/foot	providing water for drilling purposes
0.50/foot	moving drill between drill sites
1.00/foot	cementing, relocation, etc.
$9.75/foot	

Phase I

Core drilling:
1410 feet @ $9.75 = $13,746.50 (estimated cost).

Phase II (Depends on Results of Phase I)
(Not requested at this time.)

2060 ft. of drilling @ $8.75 (Expenses of moving in are not applicable).

100 ft. of Cross-cutting @ $33.50

b. ~~Phase I (only):~~ Phase I, only: Labor and supervision:
Engineering Consultant @ $500/mo.
Core tender, sampler, etc. @ $375/mo.
$875/mo. x 4½ = $3937.50

c. Operating materials & supplies mostly covered in (a).

d. Operating equipment:
Rental of bulldozer or other heavy equipment to prepare access trails:
5 days @ $160 = $800.00

e. Rehabilitation and repairs:
None contemplated at this time.

f. New buildings, improvements, installations:
Rent for trailer as office and supply room:
4½ mo. @ $50.00/mo. = $225.00
Core shelter 250.00
Housing facilities $475.00

g. Miscellaneous:
Analytical work (preparation and assaying)
$400./mo. x 4½ = $1800.00
Accounting & records
$200./mO. x 4½ = $ 900.00
Workman's compensation & employers liability insurance. $401.64
Payroll taxes $172.13

h. Contingencies:
10% of estimate $2223.28

GRAND TOTAL $24,456.05

7. (b) We are prepared to furnish our share of the cost of the proposed project with use of equipment owned by myself and associates and with money to take care of any difference.

Anything that you can do to speed up action on this application will be greatly appreciated.

Sincerely yours,

Harve P. Nelson

Harve P. Nelson

Encls.: #1 Form MF-103 (4 copies)
#2 Location Map "
#3 Divide Claims "
#4 Shot Claims "
#5 Agreement (1 copy only)
#6 Assay Sheets (1 copy only)

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1991 MAY 20 AM 9:00

SAN FRANCISCO, CALIFORNIA

A G R E E M E N T

Between CLAUDE B. LOVESTEDT, Party of the First Part, and HARVE P. NELSON, Party of the Second Part. Entered into this _____day of April, 1954.

The First Party is the owner of certain unpatented mining claims located in the Pine Nut Mining District, Douglas County, Nevada, described as follows:

North 1150 feet of the Divide mining claim;
North 1450 feet of the Divide #1 mining claim.

Both parties are desirous of exploring and mining said claims.

Now, therefore, it is mutually agreed by and between the said parties hereto as follows:

I. It is mutually agreed that the Party of the Second Part will furnish the necessary money for exploration, prospecting and testing of said property.

II. It is mutually agreed that the Second Party shall supervise and direct the prospecting, exploration and sample taking of said property.

III. If through said exploration, ore reserves are discovered, the Party of the Second Part agrees to raise finances for the mining of these reserves.

IV. It is mutually agreed by and between the parties hereto, that for said financing, the Second Party shall receive 50 per cent of the profits from sale of concentrates.

V. If at anytime it is mutually agreed by the parties hereto, that it is more profitable to sell said property, both parties will share and share alike in the

Encl. 75

money from such a sale.

IN WITNESS WHEREOF, the said Parties have hereunto set their hand the day and year first above written.

PARTY of the FIRST PART:

Claude B. Lovestedt

Claude B. Lovestedt

PARTY of the SECOND PART:

Harve P. Nelson

Harve P. Nelson

STATE OF NEVADA, } ss.
County of Washoe

On this 1st day of May A. D. one thousand nine hundred and Fifty Four personally appeared before me, Mary Moulton a Notary Public in and for the said County of Washoe

known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of Washoe, the day and year in this certificate first above written.

Mary Moulton

Notary Public in and for the County of Washoe, State of Nevada.

My Commission Expires June 14, 1955

Cowdery's Form No. 36N—(Acknowledgment General)

STATE OF NEVADA, } ss.
County of Douglas

On this 5th day of May A. D. one thousand nine hundred and Fifty Four personally appeared before me, D. W. Malo a Notary Public in and for the said County of Douglas
Claude B. Lovestedt

known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of Douglas, the day and year in this certificate first above written.

D. W. Malo

Notary Public in and for the County of Douglas, State of Nevada.

My Commission Expires January 8, 1956

Cowdery's Form No. 36N—(Acknowledgment General)

A G R E E M E N T

Between CLAUDE B. LOVESTEDT, Party of the First Part, and HARVE P. NELSON, Party of the Second Part. Entered into this _____day of April, 1954.

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money from such a sale.

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PARTY of the FIRST PART:

Claude B. Lovestedt

Claude B. Lovestedt

PARTY of the SECOND PART:

Harve P. Nelson

Harve P. Nelson

STATE OF NEVADA,
County of Washoe } ss.

On this 1st day of May A. D. one thousand nine hundred and Fifty Four personally appeared before me, Mary Moulton a Notary Public in and for the said County of Washoe

known to me to be the person..... described in and who executed the foregoing instrument, who acknowledged to me that....he.... executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of Washoe, the day and year in this certificate first above written.

Mary Moulton

Notary Public in and for the County of Washoe, State of Nevada.
My Commission Expires June 14, 1955.

Cowdery's Form No. 36N—(Acknowledgment General)

STATE OF NEVADA.
County of Douglas } ss.

On this 5th day of May A. D. one thousand nine hundred and Fifty Four personally appeared before me, P. R. McCo a Notary Public in and for the said County of Douglas
Claude B. Lovestedt

known to me to be the person..... described in and who executed the foregoing instrument, who acknowledged to me that....he.... executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of Douglas, the day and year in this certificate first above written.

P. R. McCo

Notary Public in and for the County of Douglas, State of Nevada.
My Commission Expires January 6, 1957

Form No. 36N—(Acknowledgment General)

FORM A-7

REPORT OF ASSAY

Sheet 1

ABBOT A. HANKS, INC.

ASSAYERS, CHEMISTS, ENGINEERS
624 SACRAMENTO STREET
SAN FRANCISCO

June 18, 1953

DEPOSITED BY Metallurgical Development Corp.
Gardnerville,
Nevada

SAMPLE OF PRODUCTS

Labty. No.	Mark	GOLD, per ton of 2,000 lbs. Troy Ounces	GOLD, per ton of 2,000 lbs. Value @ $35.00 oz.	SILVER, per ton of 2,000 lbs. Troy Ounces	SILVER, per ton of 2,000 lbs. Value @ $	Percentages TUNGSTIC OXIDE
56252	C. Lovestedt Flot. Conc. #1-2-&-3 6-8-53					2.41 %
56257	Heads #1 6-2-53					0.05 %
80 tons 58	Heads #2 6-2-53					0.63 %
161 tons 59	Heads #3 6-2-53					0.69 %
60	Flot. Tails #1 & 2 - 6-2-53					0.02 %
61	Flot. Tails #3 6-2-53					0.03 %

Milled June 3-7-1958
ore come out of center of the pit, below ore bin; mined in May 1953
My assays were 1.70 plus on this ore.

ABBOT A. HANKS, INC.
Original Signed by
[illegible]

bob

Encl. #6

J. BENJ. PARKER

NEVADA MINERAL LABORATORIES

336 MORRILL P. O. BOX 387 PHONE RENO 21001
RENO, NEVADA

Sheet 2

ASSAY CERTIFICATE

M. Claude Lovestedt 3-4-53

WE HAVE ASSAYED YOUR ..... SAMPLES AND FIND ..... CONTAINS: (PER TON OF 2000 LBS.)

NO.	MARK	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent Wet	COPPER Per Cent	MERCURY Lbs. Per Ton	ZINC Per Cent	WO, Per Cent	LIME CaO	Per Cent
1	Claude								.50	hole below trap north of tank	
1	Norman								.26	Pit south	
2	Claude								.62	- Contact sample	
2	Norman								.94	Pit - east end -	
4	Claude								7.56	from portal of short drift north of road, blue tank	

From the 90 ft. adit shown on Divide sketch

Had 15 tons

Remarks:

Charges: $ Paid

J. Benj. Parker

Sheet 3

UNITED STATES VANADIUM COMPANY

UCC

A DIVISION OF UNION CARBIDE AND CARBON CORPORATION

BISHOP · CALIFORNIA

November 10, 1953

Mr. C. B. Lovestedt
P. O. Box "W"
Gardnerville, Nevada

Dear Mr. Lovestedt:

The six samples of tungsten ore which you submitted to us were assayed in our laboratory, with the following results:

Sample No. 1	-	0.41 % WO_3		drift ore
2	-	1.16	-	pit [illegible]
3	-	0.11	-	Pioneer low grade
4	-	1.38	-	pit
5	-	1.01	-	pit
6	-	4.03	-	high grade

These assays are indicative of the type of orebody in which this Company might be interested, and it is my understanding that you wish to have us examine the property with the object of determining its possible value to us.

If this is the case, would you please let me know whom to meet, and where, in order to arrange for a preliminary examination of the ground.

Yours very truly,

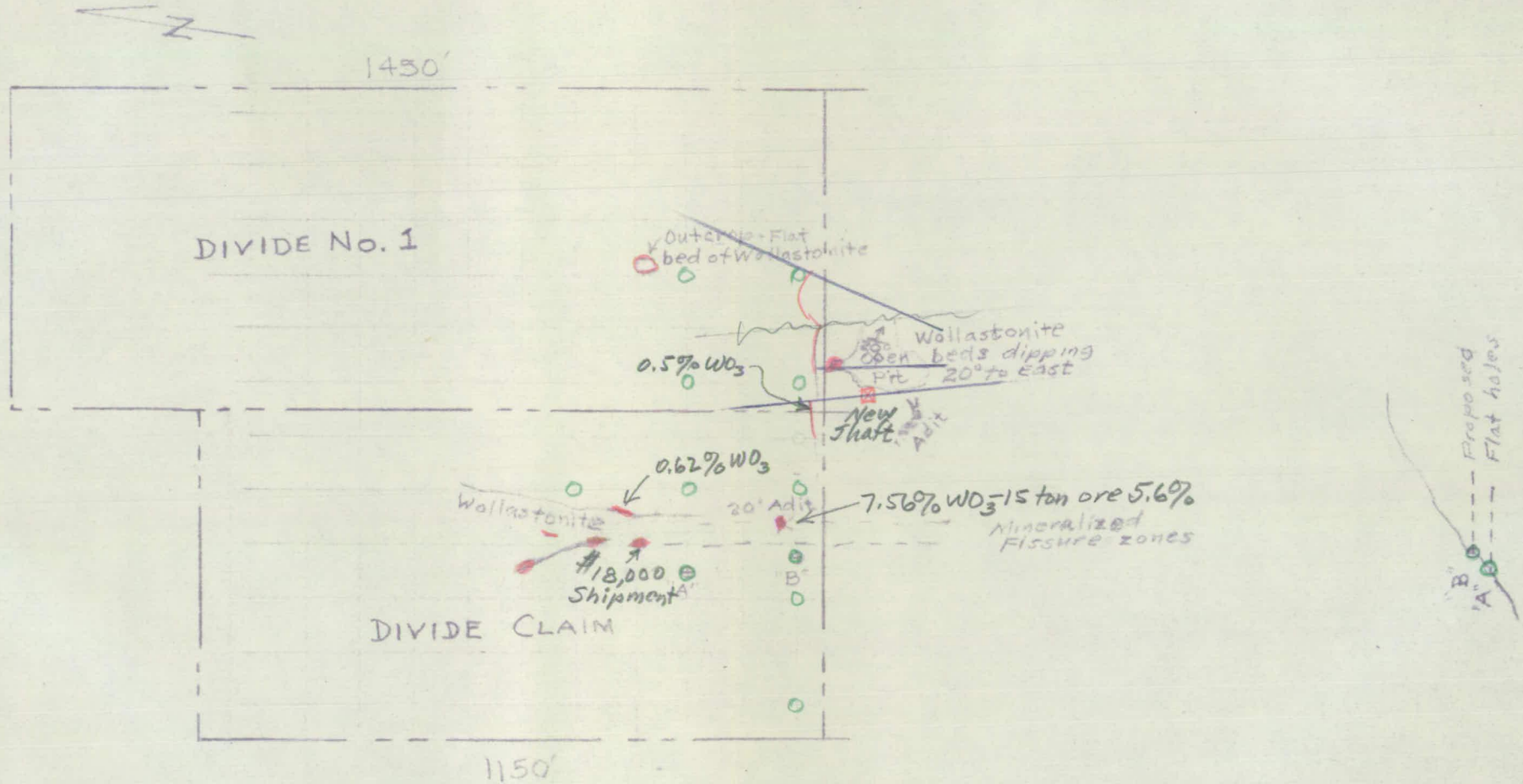
UNITED STATES VANADIUM COMPANY

W H Kohler

W. H. Kohler
Mining Engineer

These samples are from ore I had stockpiled at mill except .11 and 4.03

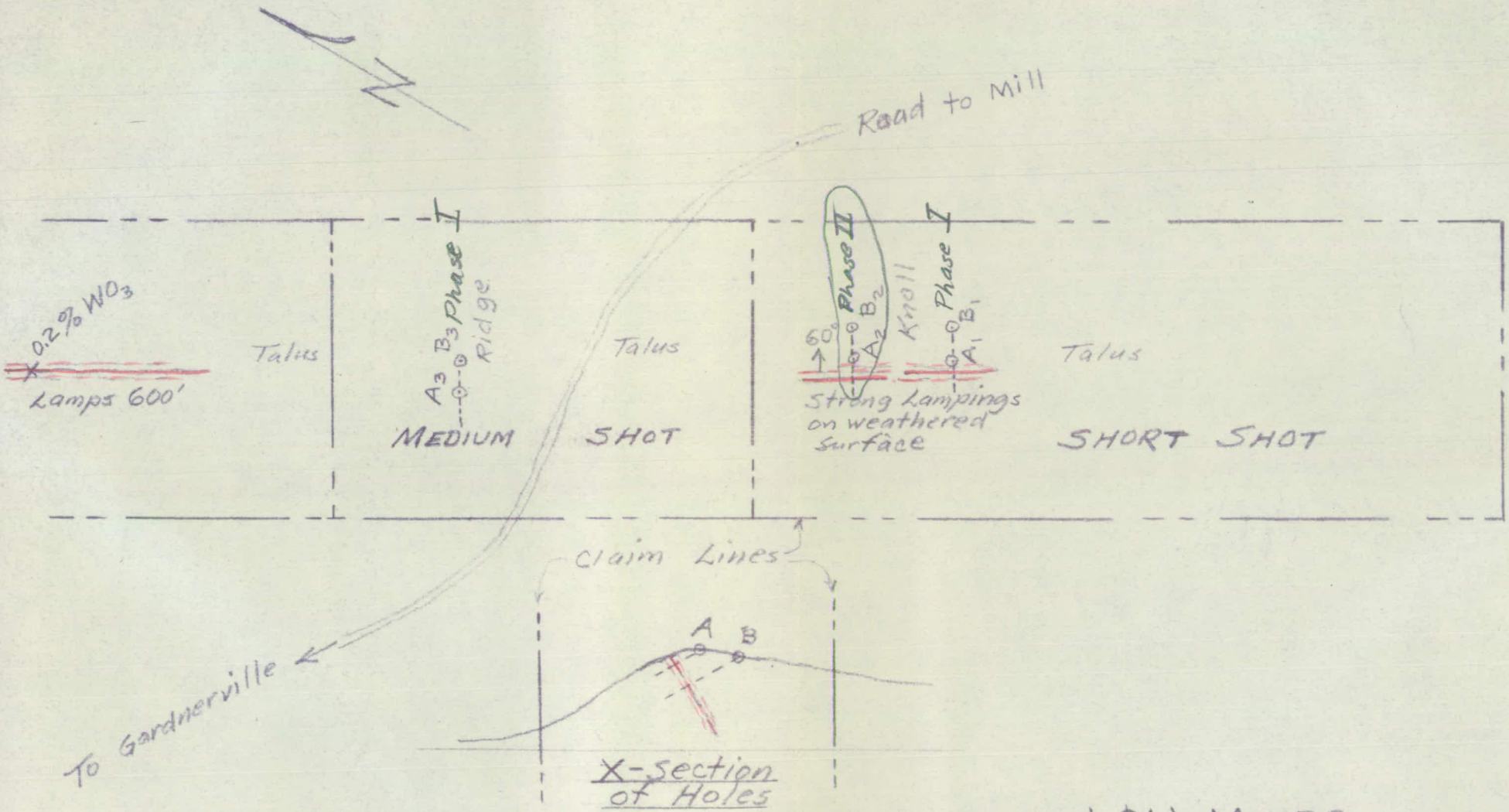
WHK:aml



L&N MINES
DIVIDE CLAIMS
100' Grid
Approx. Scale 1" = 300'

— Wollastonite Beds
— Faults
— WO_3 values
⊙ Proposed drill holes

Encl. #3



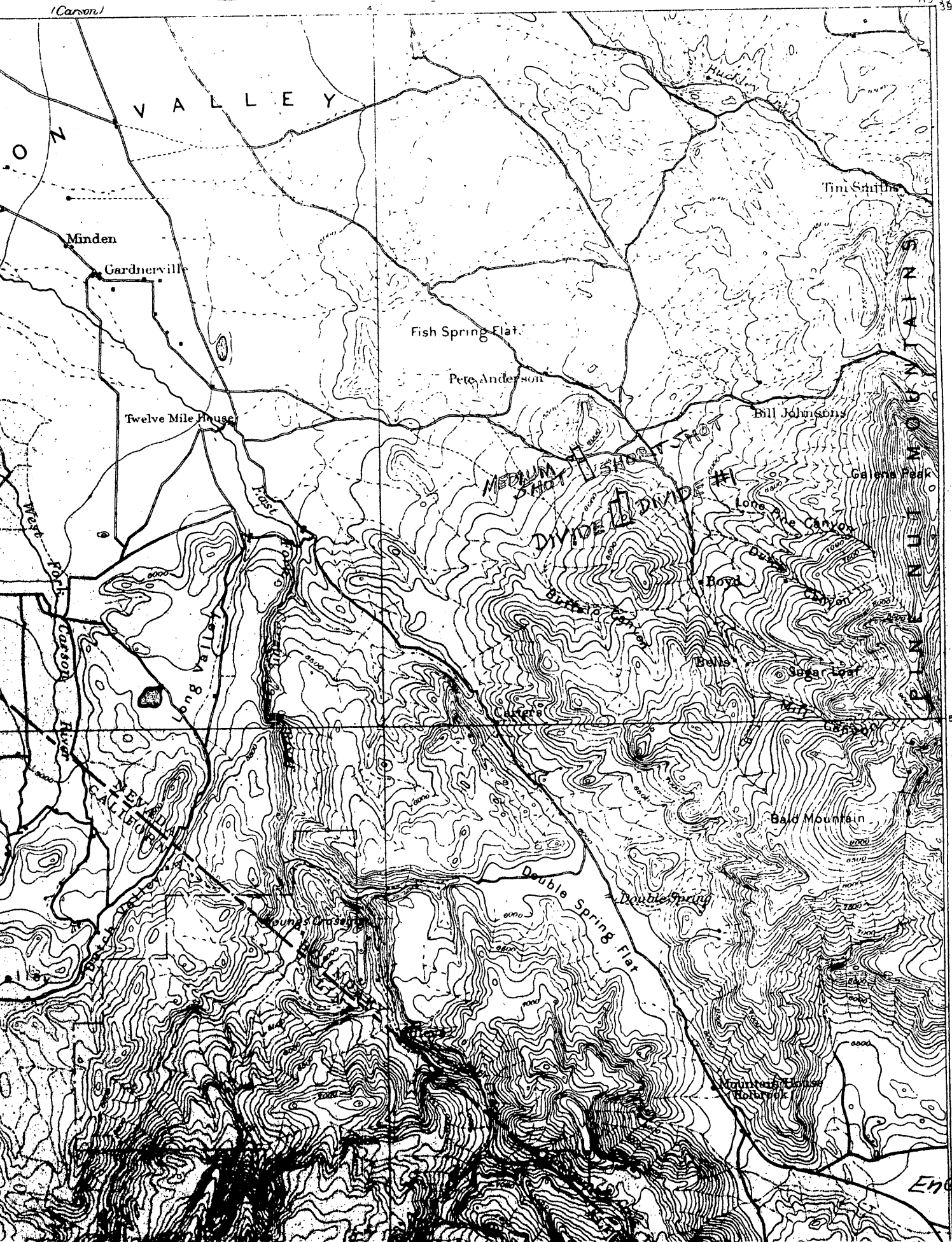
L&N MINES
"SHOT" CLAIMS
Approx. Scale 1"=300'

Wollastonite Beds
WO_3 values

Encl. #4

CLAIM LOCATION MAP

CALIFORNIA-NEVADA
MARKLEEVILLE SHEET



SPOKANE 2, WASHINGTON

OFFICIAL BUSINESS

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.