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DMA Docket No. 2749

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INT.-DUP. SEC., WASH., D.C. 98868

September 16, 1943

2749

MEMORANDUM

To: Administrator, WPA

From: Iron and Ferro-Alloys Division, WPA

Subject: Denial of exploration project in the amount of $14,560.00
Docket No. DMA 2749 - Tungsten
. J. Hefler
Homestead 2 & 3, Hilltop, and Hillside claims
Mineral County, Nevada

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

1. The applicant proposed to tunnel and drift in several directions to determine possible ore bodies. He also proposed to do some shaft work, sink test holes, and trench where there is indication of tungsten.

2. The deposit was examined separately by representatives of the Bureau of Mines and the Geological Survey. The tungsten occurs as scheelite. According to the Geological Survey, the scheelite is in a quartz-garnet vein in fine-grained gabbro. The Bureau of Mines engineer stated that the scheelite occurs in a tactite zone along a granodiorite limestone contact.

3. One of the applicants, Mr. W. J. Hefler, is considered incapable of supervising or working in connection with the proposed exploration project. He apparently does not comprehend the conditions upon which the Government is willing to participate in an exploration project and he would be unable to properly execute the necessary records and cost data. He is considered difficult to work for, is stated to be exceedingly obstinate as to the mode of the exploration work, and is financially unable to supply his share of the 25 percent of the cost of the project. The other applicant, Mr. O. . Birks, is able to furnish his share of the project costs, but has had no previous mining experience. Mr. Birks states that he has a satisfactory agreement with Mr. Hefler to supervise the proposed work without charge against the project.

4. During June 1953, 0.61 tons of ore containing 0.55 percent WO_3 were mined from surface pit No. 1, which is located almost directly above the present face of the Hefler adit.

5. The tungsten-bearing vein varies widely in both width and tungsten content. Where exposed for 25 feet in the adit, for 35 feet in pit No. 1, and in adjacent outcrops, the vein is from 1 to 3½ feet wide. In four prospect pits, which lie up to 500 feet southwest of the adit portal, the vein is 8 to 12 inches in width.

   Samples taken from pit No. 1 by the Bureau of Mines contained from 0.59 to 1.13 percent WO_3. The Bureau of Mines sample, from the face of the Hefler adit, contained 0.11 percent WO_3. Geological Survey samples from the face of the adit and test pits Nos. 2 and 4 contained less than 0.02 percent WO_3.

6. The Bureau of Mines member of the Field Team recommended a 2-stage exploration contract consisting of underground work.

7. The Geological Survey members of the Field Team recommended that the application be denied, but that if exploration was to be considered, a trenching program would be most appropriate.

8. The Field Team recommends denial.

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

SIGNED

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

DARutledge/ls
9/16/53

cc: Docket
Adm. Head. File
Code 400
Oper. Committee

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

402

September 11, 1953

Memorandum

To: W. S. Martin, DMEA

From: T. P. Thayer, USGS

Subject: DMEA-2749, Tungsten
W. J. Hefler and George L. Birks property
Mineral County, Nevada

The report by Rinehart and Peck, in contrast to that of J. D. Warne, indicates that the deposit has little promise. Certainly the Geological Survey map and samples, showing very limited exposures and only traces of WO_3, do not justify underground work.

I concur with Messrs. Miller and Bailey in recommending that the application be denied.

T. P. Thayer

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

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

August 31, 1953

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 [illegible]-2749 - Tungsten
W. J. Hefler, Homestead 2 & 3, Hilltop and Hillside Claims,
Wiley Meadow Mining District, Mineral County, Nevada

Reference is to Frank D. Johnson's letter, dated November 13, 1952, submitting the subject project to us for a field examination. Examination of the surface exposures at this property was delayed because of snow. However, during the early summer the property was examined by an engineer and a report, dated July 8, 1953, was prepared by him. The examining engineer recommended that exploration, consisting of extending a present adit 100 feet and doing 30 feet of drifting, be allowed as Stage I of a project to be followed by an additional 200 feet of drifting if work done under Stage I warrants it.

However, Mr. H. H. Bailey, of the Geological Survey, and I were not satisfied with the engineer's recommendations, in that we did not think the evidence brought out in his report justified underground exploration. We felt that before we could definitely recommend what we thought should be done that a geological examination was necessary.

Accordingly, two geologists were dispatched to the property and we now have their report, dated August 14, 1953, based upon the examination they made on July 22 and 23. The geologists recommend against underground exploration and believe that if any exploration is warranted it should be confined to surface trenching.

Mr. Bailey and I have reviewed both reports, and it is our conclusion that from the evidence presented by the engineer and the geologists, underground exploration is not warranted. We recognize that some fairly good ore was mined in one of the pits and that some may still be available, but cannot go along with the engineer in his recommendations

Thru OC
9-11-53

for drifting to a blind target. In fact, taking everything into consideration, we believe the application should be denied.

In order that you may have the opportunity to satisfy yourself as to what should be done, we are attaching four copies of the report entitled "DMEA-2749, W. J. Hefler and George L. Birks Property, (Homestead 2 and 3, Hilltop and Hillside claims), Mineral County, Nevada, (Tungsten)," by John D. Warne, Mining Engineer, U. S. Bureau of Mines, dated July 6, 1953, and four copies of the geologists' report entitled "DMEA-2749, W. J. Hefler and George L. Birks Property (Homestead 2 and 3, Hilltop and Hillside Claims), Mineral County, Nevada, (Tungsten)," by C. D. Rinehart and D. L. Peck, Geologists, U. S. Geological Survey, dated August 14, 1953.

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

Attachments

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
SECRETARY OF THE INTERIOR, D. McKAY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2749, W. J. Hefler and George L. Birks Property

(Homestead 2 and 3, Hilltop, and Hillside claims)

Mineral County, Nevada

(Tungsten)

C. D. Rinehart, Geologist
U. S. Geological Survey

D. L. Peck, Geologist
U. S. Geological Survey

August 14, 1953

Reviewed by
DMEA OPERATING COMMITTEE

9-11-53
(date)

DMEA-2749, W. J. Hefler and George L. Birks property
(Homestead 2 and 3, Hilltop, and Hillside claims)
Mineral County, Nevada

by

C. D. Rinehart and D. L. Peck
U. S. Geological Survey

Summary and Conclusions

In the Hefler tungsten property, Mineral County, Nevada, scheelite occurs in a nearly vertical, northeast trending quartz-garnet vein in fine-grained gabbro. In detail the vein varies in strike, following differently oriented fractures. In the adit and the overlying pit No. 1 the vein varies from 1 to 3½ feet in width. In four prospect pits which lie up to 500 feet southwest of the adit portal the vein is 8 to 12 inches wide.

Judging from Bureau of Mines assays, mill returns on 9 tons of ore from pit No. 1, and lamping, the WO_3 content of the vein in pit No. 1 and near the face of the adit appears to be between ½ and 1 unit per ton. In pits Nos. 2 and 4 the average grade of WO_3 in the same vein drops below 0.02 percent. Considering both the grade and the vein width, the total WO_3 content does not appear to be sufficient to warrant a government loan for further exploration.

Recommendation

An exploration loan is not recommended since the value of the ore to be gained through exploration does not appear to be commensurate with the cost of finding and mining it, and the deposit does not offer promise of ever yielding an appreciable tonnage of ore. If exploration is to be undertaken, trenching across the vein at closely spaced intervals for several hundred feet to the NE and SW of the adit would constitute an enlightening and relatively inexpensive program.

Examination

The Hefler mining property was examined on July 22 and 23 by C. D. Rinehart and D. L. Peck of the U. S. Geological Survey. As a result of erroneous directions in a Bureau of Mines report by John D. Warne, a Survey vehicle was stuck on a wrong road and most of one day was lost.

The relative position of the adit portal, prospect pits and nearby outcrops was mapped by means of a telescopic alidade and stadia rod. The geology of the adit and the individual pits was mapped by brunton compass and tape, and a surrounding area roughly 1000 feet square was examined but not mapped. Except in the prospect pits, bed rock exposures are poor, averaging less than 5% of the surface area.

Three chip samples were taken during the examination, and were assayed by the Hydrometallurgical and Ore Dressing Branch of the Bureau of Mines at Reno, Nevada. The samples were taken after the most favorable tungsten bearing areas had been outlined by means of an ultraviolet lamp.

Geology

Scheelite occurs in a northeast-trending quartz-garnet vein in fine-grained gabbro. White quartz, the most abundant vein mineral, forms coarse, irregular intergrowths with red-brown garnet and minor epidote. The walls of the vein are sharp but irregular, and locally the gabbro bordering the vein is silicified and iron-stained for a distance of a foot or less from it.

The vein trends N. 30° E. and dips 80° to 90° to the west, but in detail the strike varies from due north to N. 50° E. (see figures 1 and 2). As exposed in the adit the change in strike is abrupt, and each segment of the vein is parallel to jointing in the adjacent country rock. Where exposed for 25 feet in the adit, for 35 feet in the overlying pit No. 1, and in adjacent outcrops, the vein is from 1 to 3½ feet wide. In four prospect pits, which lie up to 500 feet southwest of the adit portal, the vein is 8 to 12 inches in width. In pit No. 5 a quartz-garnet vein 5 feet wide is exposed; however, the pit is 25 feet west of the projected position of the vein and may expose a segment of a different vein.

The only country rock in the area of the prospect that was observed is gabbro. The gabbro is fine to medium grained, equigranular, with anhedral grains of plagioclase feldspar and pyroxene plus minor euhedral feldspar laths. The gabbro is free of banding and is remarkably constant in texture over the entire area. It is well jointed, and along the northeasterly trending joints are thin stringers of quartz, epidote, and very minor garnet bordered by several inches of bleached gabbro.

Sampling

Locations and assay results of chip samples taken during the examination are as follows:

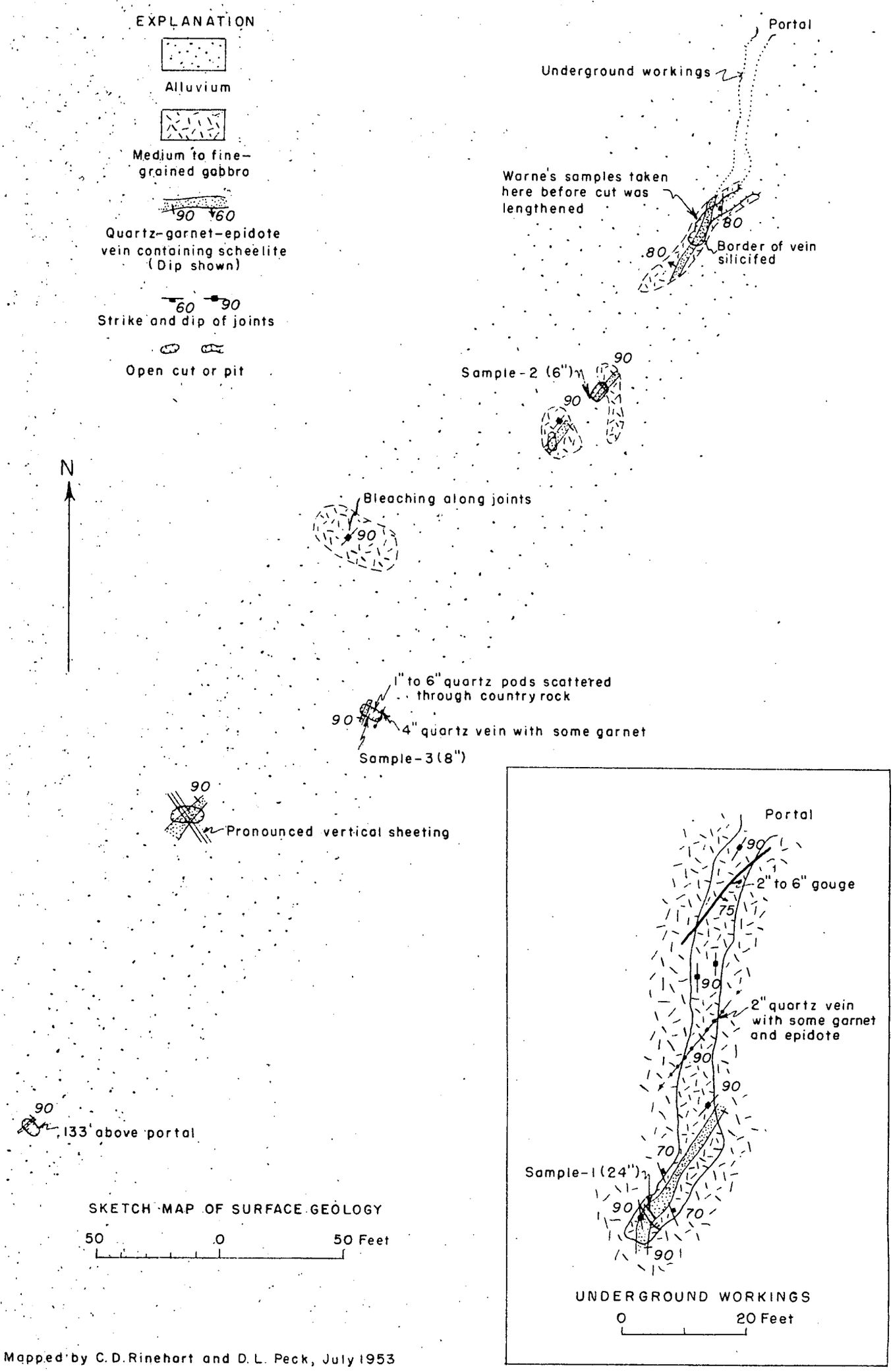
Sample No.	Location	%WO_3	%Mo
1	Across bench near face of adit	*0.02	0.01
2	Across S. face of pit No. 2	*0.02	*0.01
3	Across S. face of pit No. 4	*0.02	*0.01

* less than

In pits Nos. 1, 2, and 4, and in the floor of the adit near the face, the scheelite content of the vein appeared to be of commercial grade over widths of 8 to 30 inches when examined by the mineral lamp. The assays of samples 2 and 3, however, indicate that the scheelite content is too low to form commercial ore, and suggest that visual estimates of WO_3 in this deposit are unreliable. Selected hand specimens from the same pits probably would contain more scheelite, but elsewhere on the property the scheelite content appeared to be lower in grade.

Reserves

Based on the present examination and Bureau of Mines sampling, the inferred ore reserves are limited to a block bounded by the adit and pit No. 1 and continuing 20 to 30 feet south of the most northerly exposure of the vein in pit No. 1. These reserves would be 100 to 200 tons of ore with .5 to 1 unit of WO_3 per ton and an average vein width of 2 to 3 feet. Southward from pit No. 1 the vein is too low-grade and too narrow for economic mining. Any expectation of additional reserves must be based on the premise that the vein widens beneath the adit and the prospect pits, but such an increase in width is not indicated.



Mapped by C.D. Rinehart and D.L. Peck, July 1953

HEFLER PROSPECT, HOMESTEAD, HILTON, AND HILLSIDE CLAIMS, MINERAL COUNTY, NEVADA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2749, W. J. Hefler and George L. Birks Property (Homestead 2 and 3, Hilltop, and Hillside claims) Mineral County, Nev.

(Tungsten)

John D. Warne, Mining Engineer
U. S. Bureau of Mines

July 8, 1953

Reviewed by
DMEA OPERATING COMMITTEE

(date)

EXAMINATION REPORT

Docket No.: DMRA-2749 (Tungsten)

Name and address of applicant: W. J. Hefler and George L. Birks
718 University Avenue,
Reno, Nevada

Name and location of property: Homestead 2 and 3, Hilltop, and Hillside claims; located in secs. 19, 20, 29 and 30, T. 6 N., R. 27 E.; about 23 miles southwest of Hawthorne, Mineral County, Nev.

SUMMARY

The Hefler tungsten mine adit was examined on January 8 and 9, 1955; but heavy snows prevented examination of surface workings. Upon the request of the applicant a later examination was made by an engineer[1] of the Bureau of Mines of surface pits showing scheelite tungsten mineralization.

The mine is located about three miles southeast of Masonic, California and about 23 miles west of Hawthorne, Mineral County, Nevada (fig. 1).

The property consists of four unpatented mining claims which were originally prospected for gold and copper about 1930.

During June 1953, a production of 8.61 tons of ore which contained 0.55 percent WO_3 was mined from surface pit No. 1 which is located almost directly above the present face of the proposed exploration drift (fig. 2).

The mineralized zone sampled in surface pit No. 1 averaged from 0.59 to 1.15 percent WO_3 and from 2.4 to 3.0 feet in width near the surface.

1/ John D. Harms.

The applicant now proposes under Stage I to drift south to southwestward (perhaps about S.40°W) from the present face of the 68-foot Hefler adit; and to crosscut 30 feet from the most favorable point in the drift. Figure 2 illustrates the proposed exploration work. Under Stage II an additional 200 feet (from 168 to 368 feet) of drifting - in a south to southwest direction following the mineralized zone - is planned.

Exploration work proposed under Stage I (estimated to cost $4,771.00) is recommended; and work outlined under Stage II (estimated to cost $7,340.00) should be undertaken only if exploration work performed under Stage I is successful and has been performed in a satisfactory manner.

CONCLUSIONS

The applicants' final proposal is reasonable; and he states that sufficient equipment is now on hand to complete the exploration project.

Samples taken by the Bureau of Mines show that the mineralized zone in surface pit No. 1 averages from 0.59 to 1.15 percent WO_3 content, and is from 2.4 to 5.0 feet in width. A recent ore shipment of 8.61 tons of ore mined from surface pit No. 1 contained 0.55 percent WO_3. This production, and analysis of samples taken, indicate that the mine property is worthy of further exploration.

RECOMMENDATIONS

It is recommended that the deposit be further explored by drifting from 68 to 168 feet (in an approximate S. 40° W. direction)

from the present face of the 68-foot Hefler drift-adit located on Homestead No. 2 claim; and to crosscut a distance of 30 feet in one or more directions from the most favorable point in the drift to explore the width of the mineralized structure. This work to be performed under a Stage I of the project; and is estimated to cost $4,771.00.

Further exploration, as Stage II, should consist of lengthening the exploration drift from 168 to 368 feet, southwestward along the mineralized structure. This phase of the project is estimated to cost $7,340.00; but should not be undertaken unless work performed under Stage I is successful.

Insofar as the applicants are unfamiliar with mining, or considered incapable of properly supervising the exploration project, the designated project supervisor and the conduct of the work should be subject to the approval of the Government. Close inspection of the work is recommended.

LOCATION AND ACCESSIBILITY

The Hefler tungsten mine property is situated on the western slope of a group of foothills about three miles southeast of [redacted], California in Mineral County, Nevada. Elevations at the mine range from 5500 to about 5900 feet above sea level. From Wellington, Nevada, the mine is accessible by automobile, except during the winter months, by traveling 23 miles southeastward along paved Nevada State Highway No. 22; continuing southeastward along a graveled Lyon-Mineral county road which follows East Walker river a distance

of 8 miles; and finally following an unimproved mine access road 7 miles to the camp site.

PROPERTY AND OWNERSHIP

The property consists of four unpatented mining claims located in the Wiley Meadow Mining District of Mineral County, Nev.:

Homestead No. 2	Hilltop
Homestead No. 3	Hillside

The Homestead No. 2 and Hilltop claims are jointly owned by W. J. Hefler and George L. Birks, 718 University Avenue, Reno, Nevada. Homestead No. 3 and Hillside claims are owned by W. J. Hefler.

Exploration work proposed by this application is located on Homestead No. 2 claim.

HISTORY AND PRODUCTION

Little is known of the history of the mining property. Mr. Hefler states that he originally located the claims about 1930 and that most of the prospecting work was done on the property for gold and copper during the period 1934 to about 1938. Tungsten in the form of scheelite has been only recently discovered.

No production records are available with the exception of a single shipment made during June 1953 by G. L. Birks of ore mined from surface pit No. 1. This shipment consisted of 8.61 dry tons which contained 0.55 percent WO_3, or 4.73 units.

DESCRIPTION OF THE PROPERTY

The mine workings consist of a 68-foot adit bearing in a south and southeasterly direction (fig. 2) which is located on the Homestead No. 2 claim; and several shallow prospect holes and shafts

located near the adit.

Only a few old hand tools were at the mine property at the time of the examination. The applicant states that he has recently acquired pneumatic mining equipment and additional hand tools; and he is proceeding with further exploration work.

The camp facilities consist of a single frame building of about 12 by 25 feet in size which serves as a combination cook and bunk house. Adequate water supply is available at the camp for domestic and mining purposes.

SAMPLING

Five samples of scheelite bearing tactite were taken from available exposures at the time of the examination. Descriptions, and analysis of these samples by the Hydrometallurgical and Ore Dressing Branch are as follows:

Sample No.	%, WO_3	%, Mo	Description
1	0.59	-	2.9-foot channel across mineralized tactite in south face of surface pit No. 1, 7 feet below the surface.
2	0.98	-	2.4-foot channel across mineralized tactite in south face of surface pit No. 1, 9 feet below surface.
3	0.11	-	Chip sample across 3.0 feet of mineralized tactite at face of 68-foot adit.
4	1.93	0.02	60-pound sample of sorted ore mined from surface pit No. 1.
5	1.13	0.02	Chip sample across 3.0 feet of bottom of surface Pit No. 1, 10.0 feet below surface.

DESCRIPTION OF THE DEPOSIT

Scheelite occurs within a nearly vertical tactite zone along a granodiorite-limestone contact. Quartz masses and stringers occur with garnet, which is the dominant mineral. The mineralized zone within the tactite averages about three feet in width near the surface in Pit No. 1, but increases to about five feet near the bottom. Tactite exposures may be traced in a general south to southwestward direction from Pit No. 1 along the surface for over 300 feet; however, prospecting has been insufficient to reveal the total width or extent of mineralization. Several narrow low-grade scheelite zones were followed and crossed by the 68-foot south-southwest trending adit (fig. 2).

About 40 tons of indicated ore and 40 tons of inferred ore is estimated adjacent to surface pit No. 1. No ore of minable grade has been encountered in the Hefler adit.

STATEMENT OF APPLICANTS PROPOSAL

The applicants original proposal was "to tunnel and drift in several directions to determine possible ore bodies". The proposal of exploration work was poorly conceived at the time of the application. However, later surface exploration has revealed the general attitude of scheelite mineralization, and a definite proposal for a moderate exploration program was made as shown in figure 2.

The applicant now proposes to initially drift in a south to southwestward direction (perhaps about S. 40° W.) from the face

of the 68-foot adit a distance of 100 feet and to crosscut 30 feet from the most favorable location in the drift; and to drift an additional 200 feet during a second phase of the project. Figure 2 illustrates the general plan of exploration work; however, the exploration contract should be prepared sufficiently flexible to allow drifting along the most favorable mineralized structure regardless of direction.

RECOMMENDED EXPLORATION PROJECT

An exploration project which consists of two stages is recommended. Stage I consists of drifting 100 feet southwestward from the present face of the 68-foot Hefler adit, which is located on the Homestead No. 2 claim; and crosscutting 30 feet in one or more directions from the most favorable point in the drift to explore the width of the mineralized structure.

Stage II will consist of additional drifting 200 feet southwestward along the mineralized structure from the terminal of 100-foot exploration drift completed under Stage I. This work to be performed only if the exploration work under Stage I is successful. Figure 2 illustrates the proposed project work.

DETAILED COST ESTIMATE

Stage I

Drifting or crosscutting:

Extending the present Hefler adit from 68 to 168 feet; and crosscutting 30 feet from the most favorable point in crosscut - total 130 feet. Complete 12 feet weekly (5-day work week) or 2.4 feet daily = 10.83 weeks, or 54.17 work days - say 11 weeks, or 2.5 months.

Supervision and labor:

1	Supervisor, working foreman - 2½ months @ $400.00/month	$1,000.00
2	Miners, $16.00/day each, 5-day work week - 11 weeks @ $160.00/week	1,760.00
		$2,760.00
	Add 15.2 percent insurance, etc.	419.52
	Total cost, 130 feet of drifting and crosscutting	$3,179.52

	Per foot
Supervision and labor	$24.46
Powder, fuse, detonators	3.00
Compressor supplies	2.00
Steel and bits	1.50
Rail, repairs, etc.	1.00
Office and accounting	1.25
Transportation (supplies to camp, etc.	1.25
Rental of equipment furnished by operator	2.24
Total cost per foot of drifting and crosscutting	$36.70
Total cost of drifting or crosscutting 130 feet	$4,771.00

The operator will furnish all necessary operating equipment to perform exploration work - estimated value $7,000.00.

$\frac{\$7,000.00}{60}$ = $116.67 per month; 2.5 months drifting and crosscutting = $291.68 = $2.24/foot.

Stage II

Drifting 200 feet southwestward from 168 to 368 feet along the tungsten mineralized structure at an estimated cost of $36.70 per foot.

Total cost of drifting (200 feet) $7,340.00

Resume of estimated costs

Stage I:	Drifting or crosscutting 130 feet @ $36.70/ft.	$4,771.00
Stage II:	Drifting 200 feet @ $36.70/ft.	7,340.00
	Total cost of project	$12,111.00
	Government participation 75 percent	$ 9,083.25

It is estimated that work under Stage I can be completed within 2½ months , or 11 weeks (allow 90 days); and that work under Stage II can be completed within 4 months, or 17 weeks (allow 120 days). Time allowed to complete the exploration project should be 220 days.

OTHER CONTRACT DATA

The following data should be incorporated in the contract:

Stage I:

The direction of drifting and crosscutting shall closely follow the mineralized structure subject to the approval of the Government.

The project supervisor for the operator should be employed subject to the approval of the Government.

Stage II:

This phase of the exploration project should not be undertaken unless work under Stage I is successful and is performed in a satisfactory manner at the discretion of the Government.

GENERAL INFORMATION

At the time of the original examination of the Hefler tungsten mine property on January 3 and 9, 1953, the mine was inaccessible with automobile due to heavy snow and completed examination was impossible; however, main underground workings (the 65-foot Hefler adit located on the Homestead No. 2 claim) was examined and mapped. At that time the applicant requested that another examination of the property be made at a later date to permit examination and sampling of shallow surface pits which showed more promising tungsten mineralization. This examination and report was delayed awaiting favorable

weather conditions, to allow the applicant time to repair the 7-mile mine access road, and to reopen surface pits for examination and sampling. A final examination and sampling of the property was made on May 13 and 14, 1953.

During April, 1953, the applicant began work reopening several shallow surface pits showing scheelite tungsten mineralization. The most extensive work was done in Surface Pit No. 1 (fig. 2). This pit was excavated to about 10 feet below the surface; and a promising mineralized tactite formation which averaged from 0.59 to 1.13 percent WO_3 content, and about 3.0 feet in width, was sampled. During June 1953, this pit was enlarged along the mineralized structure and a trial shipment of ore (which the operator claims was not sorted or selected) was shipped to the Sodaville tungsten mill, located near Mina, Nev. This ore shipment which weighed 8.61 tons, contained 0.55 percent WO_3 (or 4.73 units), for which the operator received $149.06 at $31.50 per unit. This examination report was held awaiting results of this ore shipment.

One of the applicants - Mr. R. J. Hefler - is considered incapable of supervising or working in connection with the proposed exploration project. He apparently does not comprehend the conditions upon which the Government is willing to participate in an exploration project and he would be unable to properly execute the necessary records and cost data. He is considered difficult to work for by men engaged on the property during the final examination; and he is stated to be exceedingly obstinate as to the mode of exploration work to be

performed according to his partner Mr. G. L. Birks. Mr. Hefler is almost totally blind and he is now unable to perform mining work; however, he has done considerable mining and prospecting in the past. Mr. Hefler is financially unable to perform the work alone, or to supply 25 percent under a DMEA contract.

Recent work has been supervised by Mr. Birks who is considered a capable business man, and he is financially able to participate in the exploration work with the Government, but he has had no previous mining experience. Therefore, the exploration contract should stipulate that both the type of work and the supervisor be subject to the approval of the Government. Mr. Birks states that he has a satisfactory agreement with his partner (Hefler) whereby he will supervise the proposed work without charge against the project. It is believed that this arrangement will allow satisfactory completion of the project if a suitable working foreman is engaged on the work. Project work is estimated at a reasonable unit cost, and Stage I includes only a small amount of work which will allow the operator an opportunity to display his efficiency and ability to continue with a more elaborate, or adequate, project if Stage II is undertaken.

At the time of the examination, the applicant was unable to supply the book and page number of the Mineral County, Nevada records wherein his claims are recorded; however, he stated that he will furnish substantiating documents pertaining to the validity of his claims if exploration work is approved.

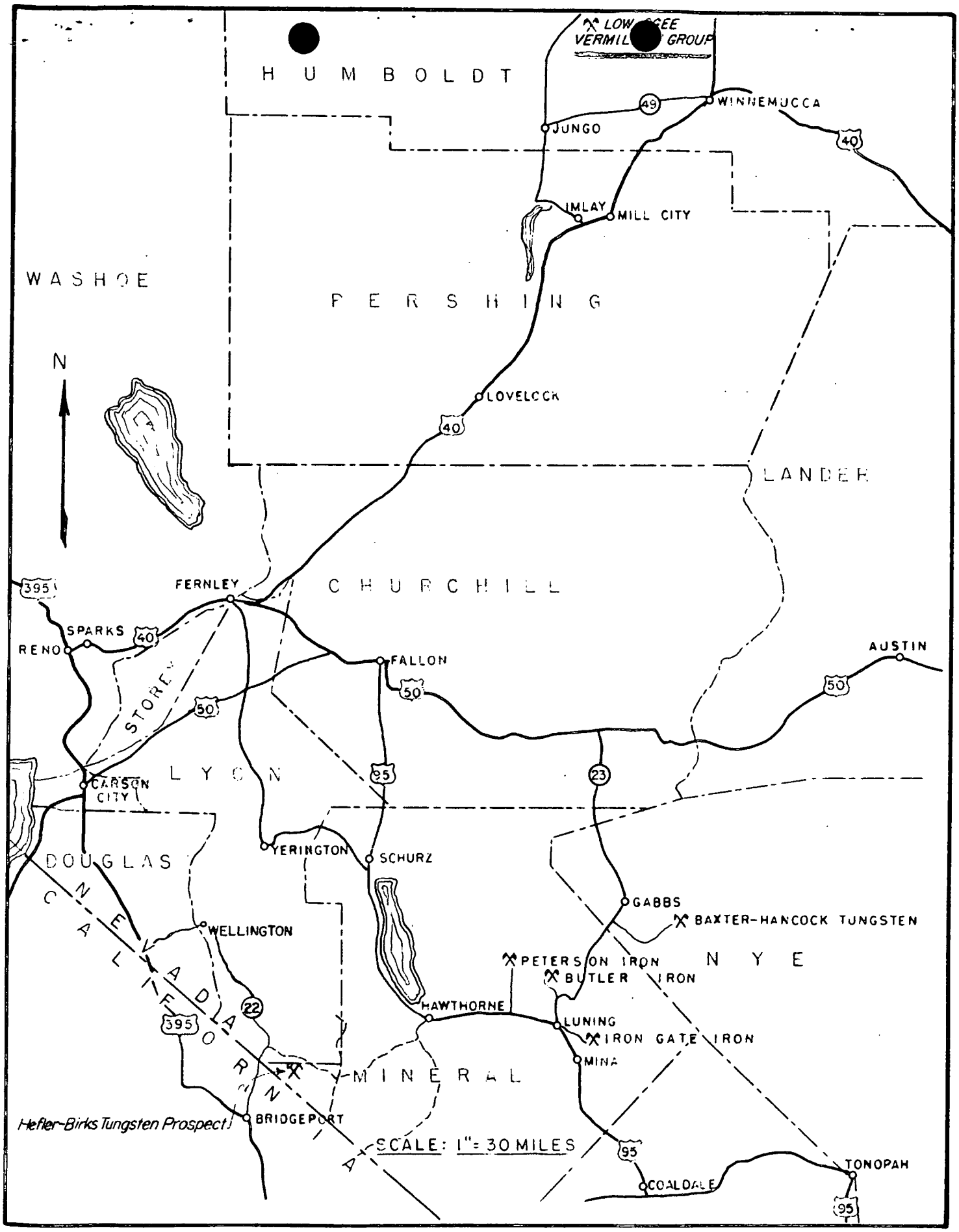
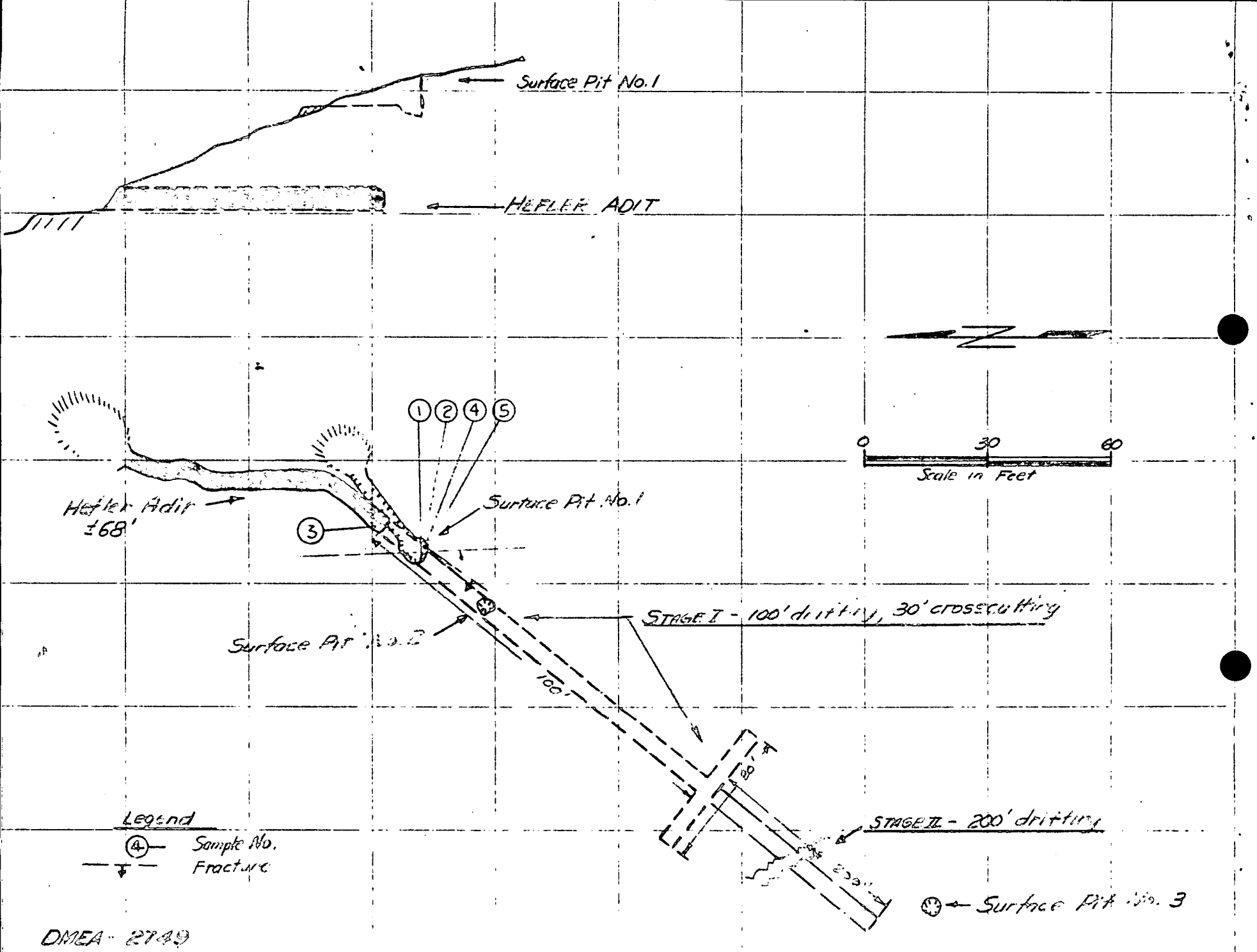


FIGURE 1. LOCATION MAP.



DMEA - 2749

FIG. 2 Hefler-Birks Tungsten Mine - Proposed Exploration Project

TLChapman'lm
11/7/52

cc: Admn. Reading File
Docket
R. W. Geehan, USBM
D. H. Lemmon, USGS
Field Team Reg. III
Operating Committee
G. C. Selfridge
T. L. Chapman
NOV 13 1952

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

Re: Docket No. DMEA 2749 - Tungsten
W. J. Hefler
Homestead 2 & 3, Hilltop and
Hillside Claims
Wiley Meadow Mining District
Mineral County, Nevada

Dear Mr. Miller:

We are referring the above-noted project to you for a field team examination.

You will note the application calls for tunnels, shafts and test pits, but no mention is made of the amount of work they expect to accomplish. This will have to be checked on by the field team.

The book and page number in which the claims are recorded should be obtained from the applicant.

The costs of labor, supplies and equipment are moderately well presented, but should be checked.

Enclosed find 2 copies of a memorandum by the Commodity Division of the U. S. Geological Survey.

Sincerely yours,

Frank E. Johnson

Chairman, Operating Committee

Enclosures

Approved:

J. H. Hedges
Member, Bureau of Mines

E. J. McKnight
Member, Geological Survey

NOV 13 1952

Mr. W. J. Hafler
710 University Avenue
Reno, Nevada

Re: Docket No. DMEA 2740 - Tungsten
Forested 2 & 3, Hilltop and
Hillside Claims
Mineral County, Nevada

Dear Mr. Hafler:

Your application for assistance in exploring the above-noted project has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. W. C. Miller, Executive Officer, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

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

Sincerely yours,

C. O. Mittendorf

Administrator

WLChapman'lm
11/7/52

cc: Adm. Reading File
Docket
R. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team Reg. III
G. C. Selfridge
W. L. Chapman

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

(400)

November 6, 1952

Memorandum

To: George C. Selfridge, DMEA

From: T. P. Thayer

Subject: DMEA-~~2748~~ 2749, Tungsten - W. J. Hefler, G. L. Birks, Rena, Nevada

The applicants propose spending $14,560 "to tunnel and drift in several directions to determine possible ore bodies." Two assays and a map referred to were missing from the docket when received by me. In view of the vagueness of the application it seems doubtful whether they would add much.

The Geological Survey has no information on the deposit, or on tungsten prospects in the area mentioned.

Recommendation

The application will have to be referred to the field for appraisal of possible exploration targets, and competence of the operators.

T. P. Thayer
Geologist

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 1 1952

Not To Be Filled in by Applicant

Docket No. Dmea-2749
Metal or Mineral
Date Received 10-27-52
Amount $
Participation (Government %)

Name and address of applicant

W.J. HEFLER
George L.Birks
718 University Avenue
Reno Nevada

Date October 16, 1952

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

CERTIFICATION

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

(Name of company)

By W J Kelley
(Signature of authorized officer)
George L Birks.
Owner
(Title)

(Date)

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—64067-2

1. (a) The property involved in this Project will be 4 Lode Claims namely:

HOMESTEAD #2
HOMESTEAD #3
HILLTOP
HILLSIDE

as map shows.

(b) We a re owners

(c) These claims are located in the Wiley Meadow Mining District, Mineral County, Nevada, about 25 miles West of Hawthorne, Nevada.

2.

(a) Tungsten

(b) The forma tion of this ground is: Garnet, Granite, Lime Contacts, and from former prospecting and testing, we have found a showing of Scheelite in a number of places, as map will show. We are enclosing 1 map and 2 assays, which are self explanatory. It will not be necessary to return them.

There will also be some photographs.

7. (a) We are going to tunnel and drift in several directions to determine possible ore bodies. We will do some shaft work , also test holes and trenching where there is indication of Tungsten.

(b) It will require about 30 days to start the Project and about 90 days to complete it. In this time we may be able to produce ore, or start mining.

5. 1 House copletely furnished for Cooking and Sleeping with accomodations for 8. There are also some out-buildings.

1 Blacksmith shop
Cased spring with pump.

We must repair roof, windows and floor, as well as the Heating and Water system, as they were damaged by the winter storms and summer cloudbursts.
This will cost about $ 1000.00

6. There will be no additional buildings.

7. (a) To be rented:

1 Ingersoll Compressor
1 Water liner Drill
1 Jack hammer
1 5 H.P. Engine and water pump
Tram cars

(b) Nothing

(c) Furnished by us:

Blacksmith Forge
Emery and Grindstone
Hand tools
Car and pickup
Ore Bucket
Winch
Gasoline Storage Tanks
2 Windlasses

Car track

8.

1 Supervisor		$ 16.00	per day	$ 416.00	per month
2 Miners	@ $15.00 per day	$ 30.00	per day	$ 780.00	per month
2 Muckers	@ $14.00 per day	$ 28.00	per day	$ 728.00	per month
1 Maintenance Man	@ $14.00 per day	$ 14.00	per day	$ 364.00	per month
1 Cook	@ $12.00 per day	$ 12.00	per day	$ 312.00	per month
	Total	$100.00	per day	$2600.00	per month

9. Repairs on buildings, water and heating equipment $ 1000.00

Repairs on road	1000.00
Lumber 5,000 feet	300.00
Hauling Machinery	200.00
Hauling Material, Lumber, Supplies & Pipe	250.00
Hauling Supplies and Transportation @ $ 250.00 per month for 3 months	750.00
Gasoline, Kerosene, Carbide, Batteries, Bulbs, Miners Lamps, Blacksmith's Coal, Drill Bits, etc	800.00
Powder, Caps and Fuses	150.00
Rental on Machinery @ $ 400.00 per month	1200.00
Engineering and Assays @ 200.00 per month	600.00
Bookkeeping, typing, Office work @ $200.00	600.00
Labor @ $ 2600.00; for 3 months	7800.00
Total	$ 14,560.00

We have no electricity, but lots of water.
Also plenty of wood for fuel, and a considerable amount of mine timber for poles and lagging.

10. (a) We are prepared to invest ,at least, $ 4,000.00

(b) Yes

II. We have roads within twenty miles of main highway and forty miles from railroad loading point. Custom Tungsten mills are now operating within sixty miles of property.

We own good mill site with plenty of water, and hope to have a mill as soon as ore body warrants.

We can also furnish electric power.

400

FILE COPY
SURNAME: LB

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

Rutledge
Martin
Geehan
Weller
U.R. Curtis
Hedges
Sutfridge

SEP 21 1953

Mr. W. J. Hefler
718 University Avenue
Reno, Nevada

Re: Docket No. DMEA 2749 - Tungsten
Homestead 2 & 3, Hilltop, and
Hillside claims
Mineral County, Nevada

Dear Mr. Hefler:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced 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 the occurrence of tungsten mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application is denied.

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

Sincerely yours,

Frank E. Johnson (for)

ACTING Administrator

FARutledge/ls
9/16/53

cc: Docket
Field Team, Reg. 3
Code 400
Adm. Reading File
Mary Miller, USGS
R. W. Geehan, USBM

DENIED

R.C.G.
9-21-53

AB

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

September 16, 1953

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $14,560.00
Docket No. DMEA 2749 - Tungsten
W. J. Hefler
Homestead 2 & 3, Hilltop, and Hillside claims
Mineral County, Nevada

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

1. The applicant proposed to tunnel and drift in several directions to determine possible ore bodies. He also proposed to do some shaft work, sink test holes, and trench where there is indication of tungsten.

2. The deposit was examined separately by representatives of the Bureau of Mines and the Geological Survey. The tungsten occurs as scheelite. According to the Geological Survey, the scheelite is in a quartz-garnet vein in fine-grained gabbro. The Bureau of Mines engineer stated that the scheelite occurs in a tactite zone along a granodiorite limestone contact.

3. One of the applicants, Mr. W. J. Hefler, is considered incapable of supervising or working in connection with the proposed exploration project. He apparently does not comprehend the conditions upon which the Government is willing to participate in an exploration project and he would be unable to properly execute the necessary records and cost data. He is considered difficult to work for, is stated to be exceedingly obstinate as to the mode of the exploration work, and is financially unable to supply his share of the 25 percent of the cost of the project. The other applicant, Mr. G. L. Birks, is able to furnish his share of the project costs, but has had no previous mining experience. Mr. Birks states that he has a satisfactory agreement with Mr. Hefler to supervise the proposed work without charge against the project.

4. During June 1953, 8.61 tons of ore containing 0.55 percent WO_3 were mined from surface pit No. 1, which is located almost directly above the present face of the Hefler adit.

5. The tungsten-bearing vein varies widely in both width and tungsten content. Where exposed for 25 feet in the adit, for 35 feet in pit No. 1, and in adjacent outcrops, the vein is from 1 to 3½ feet wide. In four prospect pits, which lie up to 500 feet southwest of the adit portal, the vein is 8 to 12 inches in width.

   Samples taken from pit No. 1 by the Bureau of Mines contained from 0.59 to 1.13 percent WO_3. The Bureau of Mines sample, from the face of the Hefler adit, contained 0.11 percent WO_3. Geological Survey samples from the face of the adit and test pits Nos. 2 and 4 contained less than 0.02 percent WO_3.

6. The Bureau of Mines member of the Field Team recommended a 2-stage exploration contract consisting of underground work.

7. The Geological Survey members of the Field Team recommended that the application be denied, but that if exploration was to be considered, a trenching program would be most appropriate.

8. The Field Team recommends denial.

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

W S Martin

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

FILE COPY
SURNAME:

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

Rutledge
Martin
Kuhn
Weldon

September 16, 1953

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $14,560.00
Docket No. DMEA 2749 - Tungsten
W. J. Hefler
Homestead 2 & 3, Hilltop, and Hillside claims
Mineral County, Nevada

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1. The applicant proposed to tunnel and drift in several directions to determine possible ore bodies. He also proposed to do some shaft work, sink test holes, and trench where there is indication of tungsten.

2. The deposit was examined separately by representatives of the Bureau of Mines and the Geological Survey. The tungsten occurs as scheelite. According to the Geological Survey, the scheelite is in a quartz-garnet vein in fine-grained gabbro. The Bureau of Mines engineer stated that the scheelite occurs in a tactite zone along a granodiorite limestone contact.

3. One of the applicants, Mr. W. J. Hefler, is considered incapable of supervising or working in connection with the proposed exploration project. He apparently does not comprehend the conditions upon which the Government is willing to participate in an exploration project and he would be unable to properly execute the necessary records and cost data. He is considered difficult to work for, is stated to be exceedingly obstinate as to the mode of the exploration work, and is financially unable to supply his share of the 25 percent of the cost of the project. The other applicant, Mr. G. L. Birks, is able to furnish his share of the project costs, but has had no previous mining experience. Mr. Birks states that he has a satisfactory agreement with Mr. Hefler to supervise the proposed work without charge against the project.

R. C. G. 9-21-53

4. During June 1953, 8.61 tons of ore containing 0.55 percent WO_3 were mined from surface pit No. 1, which is located almost directly above the present face of the Hefler adit.

5. The tungsten-bearing vein varies widely in both width and tungsten content. Where exposed for 25 feet in the adit, for 35 feet in pit No. 1, and in adjacent outcrops, the vein is from 1 to 3½ feet wide. In four prospect pits, which lie up to 500 feet southwest of the adit portal, the vein is 8 to 12 inches in width.

   Samples taken from pit No. 1 by the Bureau of Mines contained from 0.59 to 1.13 percent WO_3. The Bureau of Mines sample, from the face of the Hefler adit, contained 0.11 percent WO_3. Geological Survey samples from the face of the adit and test pits Nos. 2 and 4 contained less than 0.02 percent WO_3.

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8. The Field Team recommends denial.

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

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

FARutledge/ls
9/16/53

cc: Docket
Adm. Read. File
Code 400
Oper. Committee

IN REPLY REFER TO:

Docket

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

September 11, 1953

Memorandum

To: W. S. Martin, DMEA

From: T. P. Thayer, USGS

Subject: DMEA-2749, Tungsten
W. J. Hefler and George L. Birks property
Mineral County, Nevada

The report by Rinehart and Peck, in contrast to that of J. D. Warne, indicates that the deposit has little promise. Certainly the Geological Survey map and samples, showing very limited exposures and only traces of WO_3, do not justify underground work.

I concur with Messrs. Miller and Bailey in recommending that the application be denied.

T. P. Thayer

T. P. Thayer

AB

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

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

August 31, 1953

Memorandum

WSM

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2749 - Tungsten
W. J. Hefler, Homestead 2 & 3, Hilltop and Hillside Claims, Wiley Meadow Mining District, Mineral County, Nevada

Reference is to Frank E. Johnson's letter, dated November 13, 1952, submitting the subject project to us for a field examination. Examination of the surface exposures at this property was delayed because of snow. However, during the early summer the property was examined by an engineer and a report, dated July 8, 1953, was prepared by him. The examining engineer recommended that exploration, consisting of extending a present adit 100 feet and doing 30 feet of drifting, be allowed as Stage I of a project to be followed by an additional 200 feet of drifting if work done under Stage I warrants it.

However, Mr. E. H. Bailey, of the Geological Survey, and I were not satisfied with the engineer's recommendations, in that we did not think the evidence brought out in his report justified underground exploration. We felt that before we could definitely recommend what we thought should be done that a geological examination was necessary.

Accordingly, two geologists were dispatched to the property and we now have their report, dated August 14, 1953, based upon the examination they made on July 22 and 23. The geologists recommend against underground exploration and believe that if any exploration is warranted it should be confined to surface trenching.

Mr. Bailey and I have reviewed both reports, and it is our conclusion that from the evidence presented by the engineer and the geologists, underground exploration is not warranted. We recognize that some fairly good ore was mined in one of the pits and that some may still be available, but cannot go along with the engineer in his recommendations

Reviewed by
DMEA OPERATING COMMITTEE
9-11-53
(date)

for drifting to a blind target. In fact, taking everything into consideration, we believe the application should be denied.

In order that you may have the opportunity to satisfy yourself as to what should be done, we are attaching four copies of the report entitled "DMEA-2749, W. J. Hefler and George L. Birks Property, (Homestead 2 and 3, Hilltop and Hillside claims), Mineral County, Nevada, (Tungsten)," by John D. Warne, Mining Engineer, U. S. Bureau of Mines, dated July 8, 1953, and four copies of the geologists' report entitled "DMEA-2749, W. J. Hefler and George L. Birks Property (Homestead 2 and 3, Hilltop and Hillside Claims), Mineral County, Nevada, (Tungsten)," by C. D. Rinehart and D. L. Peck, Geologists, U. S. Geological Survey, dated August 14, 1953.

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

Attachments

Copy to: E. H. Bailey, 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-2749, W. J. Hefler and George L. Birks Property
(Homestead 2 and 3, Hilltop, and Hillside claims)
Mineral County, Nev.

(Tungsten)

John D. Warne, Mining Engineer
U. S. Bureau of Mines

July 8, 1953

EXAMINATION REPORT

Docket No.: DMEA-2749 (Tungsten)

Name and address of applicant: W. J. Hefler and George L. Birks
718 University Avenue,
Reno, Nevada

Name and location of property: Homestead 2 and 3, Hilltop, and Hillside claims; located in secs. 19, 20, 29 and 30, T. 6 N., R. 27 E.; about 23 miles southwest of Hawthorne, Mineral County, Nev.

SUMMARY

The Hefler tungsten mine adit was examined on January 8 and 9, 1953; but heavy snows prevented examination of surface workings. Upon the request of the applicant a later examination was made by an engineer[1/] of the Bureau of Mines of surface pits showing scheelite tungsten mineralization.

The mine is located about three miles southeast of Masonic, California and about 23 miles west of Hawthorne, Mineral County, Nevada (fig. 1).

The property consists of four unpatented mining claims which were originally prospected for gold and copper about 1930.

During June 1953, a production of 8.61 tons of ore which contained 0.55 percent WO_3 was mined from surface pit No. 1 which is located almost directly above the present face of the proposed exploration drift (fig. 2).

The mineralized zone sampled in surface pit No. 1 averaged from 0.59 to 1.13 percent WO_3 and from 2.4 to 3.0 feet in width near the surface.

1/ John D. Warne.

The applicant now proposes under Stage I to drift south to southwestward (perhaps about S.40°W) from the present face of the 68-foot Hefler adit; and to crosscut 30 feet from the most favorable point in the drift. Figure 2 illustrates the proposed exploration work. Under Stage II an additional 200 feet (from 168 to 368 feet) of drifting - in a south to southwest direction following the mineralized zone - is planned.

Exploration work proposed under Stage I (estimated to cost $4,771.00) is recommended; and work outlined under Stage II (estimated to cost $7,340.00) should be undertaken only if exploration work performed under Stage I is successful and has been performed in a satisfactory manner.

CONCLUSIONS

The applicants' final proposal is reasonable; and he states that sufficient equipment is now on hand to complete the exploration project.

Samples taken by the Bureau of Mines show that the mineralized zone in surface pit No. 1 averages from 0.59 to 1.13 percent WO_3 content, and is from 2.4 to 3.0 feet in width. A recent ore shipment of 8.61 tons of ore mined from surface pit No. 1 contained 0.55 percent WO_3. This production, and analysis of samples taken, indicate that the mine property is worthy of further exploration.

RECOMMENDATIONS

It is recommended that the deposit be further explored by drifting from 68 to 168 feet (in an approximate S. 40° W. direction)

from the present face of the 68-foot Hefler drift-adit located on Homestead No. 2 claim; and to crosscut a distance of 30 feet in one or more directions from the most favorable point in the drift to explore the width of the mineralized structure. This work to be performed under a Stage I of the project; and is estimated to cost $4,771.00.

Further exploration, as Stage II, should consist of lengthening the exploration drift from 168 to 368 feet, southwestward along the mineralized structure. This phase of the project is estimated to cost $7,340.00; but should not be undertaken unless work performed under Stage I is successful.

Insofar as the applicants are unfamiliar with mining, or considered incapable of properly supervising the exploration project, the designated project supervisor and the conduct of the work should be subject to the approval of the Government. Close inspection of the work is recommended.

LOCATION AND ACCESSIBILITY

The Hefler tungsten mine property is situated on the western slope of a group of foothills about three miles southeast of Masonic, in California in Mineral County, Nevada. Elevations at the mine range from 5500 to about 5900 feet above sea level. From Wellingston, Nevada, the mine is accessible by automobile, except during the winter months, by traveling 23 miles southeastward along paved Nevada State Highway No. 22; continuing southeastward along a graveled Lyon-Mineral county road which follows East Walker river a distance

of 8 miles; and finally following an unimproved mine access road 7 miles to the camp site.

PROPERTY AND OWNERSHIP

The property consists of four unpatented mining claims located in the Wiley Meadow Mining District of Mineral County, Nev.:

Homestead No. 2	Hilltop
Homestead No. 3	Hillside

The Homestead No. 2 and Hilltop claims are jointly owned by W. J. Hefler and George L. Birks, 718 University Avenue, Reno, Nevada. Homestead No. 3 and Hillside claims are owned by W. J. Hefler.

Exploration work proposed by this application is located on Homestead No. 2 claim.

HISTORY AND PRODUCTION

Little is known of the history of the mining property. Mr. Hefler states that he originally located the claims about 1930 and that most of the prospecting work was done on the property for gold and copper during the period 1934 to about 1938. Tungsten in the form of scheelite has been only recently discovered.

No production records are available with the exception of a single shipment made during June 1953 by G. L. Birks of ore mined from surface pit No. 1. This shipment consisted of 8.61 dry tons which contained 0.55 percent WO_3, or 4.73 units.

DESCRIPTION OF THE PROPERTY

The mine workings consist of a 68-foot adit bearing in a south and southeasterly direction (fig. 2) which is located on the Homestead No. 2 claim; and several shallow prospect holes and shafts

located near the adit.

Only a few old hand tools were at the mine property at the time of the examination. The applicant states that he has recently acquired pneumatic mining equipment and additional hand tools; and he is proceeding with further exploration work.

The camp facilities consist of a single frame building of about 12 by 25 feet in size which serves as a combination cook and bunk house. Adequate water supply is available at the camp for domestic and mining purposes.

SAMPLING

Five samples of scheelite bearing tactite were taken from available exposures at the time of the examination. Descriptions, and analysis of these samples by the Hydrometallurgical and Ore Dressing Branch are as follows:

Sample No.	%, WO_3	%, Mo	Description
1	0.59	-	2.9-foot channel across mineralized tactite in south face of surface pit No. 1, 7 feet below the surface.
2	0.98	-	2.4-foot channel across mineralized tactite in south face of surface pit No. 1, 9 feet below surface.
3	0.11	-	Chip sample across 3.0 feet of mineralized tactite at face of 68-foot adit.
4	1.93	0.02	60-pound sample of sorted ore mined from surface pit No. 1.
5	1.13	0.02	Chip sample across 3.0 feet of bottom of surface Pit No. 1, 10.0 feet below surface.

DESCRIPTION OF THE DEPOSIT

Scheelite occurs within a nearly vertical tactite zone along a granodiorite-limestone contact. Quartz masses and stringers occur with garnet, which is the dominant mineral. The mineralized zone within the tactite averages about three feet in width near the surface in Pit No. 1, but increases to about five feet near the bottom. Tactite exposures may be traced in a general south to southwestward direction from Pit No. 1 along the surface for over 300 feet; however, prospecting has been insufficient to reveal the total width or extent of mineralization. Several narrow low-grade scheelite zones were followed and crossed by the 68-foot south-southwest trending adit (fig. 2).

About 40 tons of indicated ore and 40 tons of inferred ore is estimated adjacent to surface pit No. 1. No ore of minable grade has been encountered in the Hefler adit.

STATEMENT OF APPLICANTS PROPOSAL

The applicants original proposal was "to tunnel and drift in several directions to determine possible ore bodies". The proposal of exploration work was poorly conceived at the time of the application. However, later surface exploration has revealed the general attitude of scheelite mineralization, and a definite proposal for a moderate exploration program was made as shown in figure 2.

The applicant now proposes to initially drift in a south to southwestward direction (perhaps about S. 40° W.) from the face

of the 68-foot adit a distance of 100 feet and to crosscut 30 feet from the most favorable location in the drift; and to drift an additional 200 feet during a second phase of the project. Figure 2 illustrates the general plan of exploration work; however, the exploration contract should be prepared sufficiently flexible to allow drifting along the most favorable mineralized structure regardless of direction.

RECOMMENDED EXPLORATION PROJECT

An exploration project which consists of two stages is recommended. Stage I consists of drifting 100 feet southwestward from the present face of the 68-foot Hefler adit, which is located on the Homestead No. 2 claim; and crosscutting 30 feet in one or more directions from the most favorable point in the drift to explore the width of the mineralized structure.

Stage II will consist of additional drifting 200 feet southwestward along the mineralized structure from the terminal of 100-foot exploration drift completed under Stage I. This work to be performed only if the exploration work under Stage I is successful. Figure 2 illustrates the proposed project work.

DETAILED COST ESTIMATE

Stage I

Drifting or crosscutting:

Extending the present Hefler adit from 68 to 168 feet; and crosscutting 30 feet from the most favorable point in crosscut - total 130 feet. Complete 12 feet weekly (5-day work week) or 2.4 feet daily = 10.83 weeks, or 54.17 work days - say 11 weeks, or 2.5 months.

Supervision and labor:

1	Supervisor, working foreman - 2½ months @ $400.00/month	$1,000.00
2	Miners, $16.00/day each, 5-day work week - 11 weeks @ $160.00/week	1,760.00
		$2,760.00
	Add 15.2 percent insurance, etc.	419.52
	Total cost, 130 feet of drifting and crosscutting	$3,179.52

	Per foot
Supervision and labor	$24.46
Powder, fuse, detonators	3.00
Compressor supplies	2.00
Steel and bits	1.50
Rail, repairs, etc.	1.00
Office and accounting	1.25
Transportation (supplies to camp, etc.	1.25
Rental of equipment furnished by operator	2.24
Total cost per foot of drifting and crosscutting	$36.70
Total cost of drifting or crosscutting 130 feet	$4,771.00

The operator will furnish all necessary operating equipment to perform exploration work - estimated value $7,000.00.

$\frac{\$7,000.00}{60}$ = $116.67 per month; 2.5 months drifting and crosscutting = $291.68 = $2.24/foot.

Stage II

Drifting 200 feet southwestward from 168 to 368 feet along the tungsten mineralized structure at an estimated cost of $36.70 per foot.

Total cost of drifting (200 feet) $7,340.00

Resume of estimated costs

Stage I:	Drifting or crosscutting 130 feet @ $36.70/ft.	$4,771.00
Stage II:	Drifting 200 feet @ $36.70/ft.	7,340.00
	Total cost of project	$12,111.00
	Government participation 75 percent	$ 9,083.25

It is estimated that work under Stage I can be completed within 2½ months , or 11 weeks (allow 90 days); and that work under Stage II can be completed within 4 months, or 17 weeks (allow 130 days). Time allowed to complete the exploration project should be 220 days.

OTHER CONTRACT DATA

The following data should be incorporated in the contract:

Stage I:

The direction of drifting and crosscutting shall closely follow the mineralized structure subject to the approval of the Government.

The project supervisor for the operator should be employed subject to the approval of the Government.

Stage II:

This phase of the exploration project should not be undertaken unless work under Stage I is successful and is performed in a satisfactory manner at the discretion of the Government.

GENERAL INFORMATION

At the time of the original examination of the Hefler tungsten mine property on January 8 and 9, 1953, the mine was inaccessible with automobile due to heavy snow and completed examination was impossible; however, main underground workings (the 68-foot Hefler adit located on the Homestead No. 2 claim) was examined and mapped. At that time the applicant requested that another examination of the property be made at a later date to permit examination and sampling of shallow surface pits which showed more promising tungsten mineralization. This examination and report was delayed awaiting favorable

weather conditions, to allow the applicant time to repair the 7-mile mine access road, and to reopen surface pits for examination and sampling. A final examination and sampling of the property was made on May 13 and 14, 1953.

During April, 1953, the applicant began work reopening several shallow surface pits showing scheelite tungsten mineralization. The most extensive work was done in Surface Pit No. 1 (fig. 2). This pit was excavated to about 10 feet below the surface; and a promising mineralized tactite formation which averaged from 0.59 to 1.13 percent WO_3 content, and about 3.0 feet in width, was sampled. During June 1953, this pit was enlarged along the mineralized structure and a trial shipment of ore (which the operator claims was not sorted or selected) was shipped to the Sodaville tungsten mill, located near Mina, Nev. This ore shipment which weighed 8.61 tons, contained 0.55 percent WO_3 (or 4.73 units), for which the operator received $149.05 at $31.50 per unit. This examination report was held awaiting results of this ore shipment.

One of the applicants - Mr. W. J. Hefler - is considered incapable of supervising or working in connection with the proposed exploration project. He apparently does not comprehend the conditions upon which the Government is willing to participate in an exploration project and he would be unable to properly execute the necessary records and cost data. He is considered difficult to work for by men engaged on the property during the final examination; and he is stated to be exceedingly obstinate as to the mode of exploration work to be

performed according to his partner Mr. G. L. Birks. Mr. Hefler is almost totally blind and he is now unable to perform mining work; however, he has done considerable mining and prospecting in the past. Mr. Hefler is financially unable to perform the work alone, or to supply 25 percent under a DMEA contract.

Recent work has been supervised by Mr. Birks who is considered a capable business man, and he is financially able to participate in the exploration work with the Government, but he has had no previous mining experience. Therefore, the exploration contract should stipulate that both the type of work and the supervisor be subject to the approval of the Government. Mr. Birks states that he has a satisfactory agreement with his partner (Hefler) whereby he will supervise the proposed work without charge against the project. It is believed that this arrangement will allow satisfactory completion of the project if a suitable working foreman is engaged on the work. Project work is estimated at a reasonable unit cost, and Stage I includes only a small amount of work which will allow the operator an opportunity to display his efficiency and ability to continue with a more elaborate, or adequate, project if Stage II is undertaken.

At the time of the examination, the applicant was unable to supply the book and page number of the Mineral County, Nevada records wherein his claims are recorded; however, he stated that he will furnish substantiating documents pertaining to the validity of his claims if exploration work is approved.

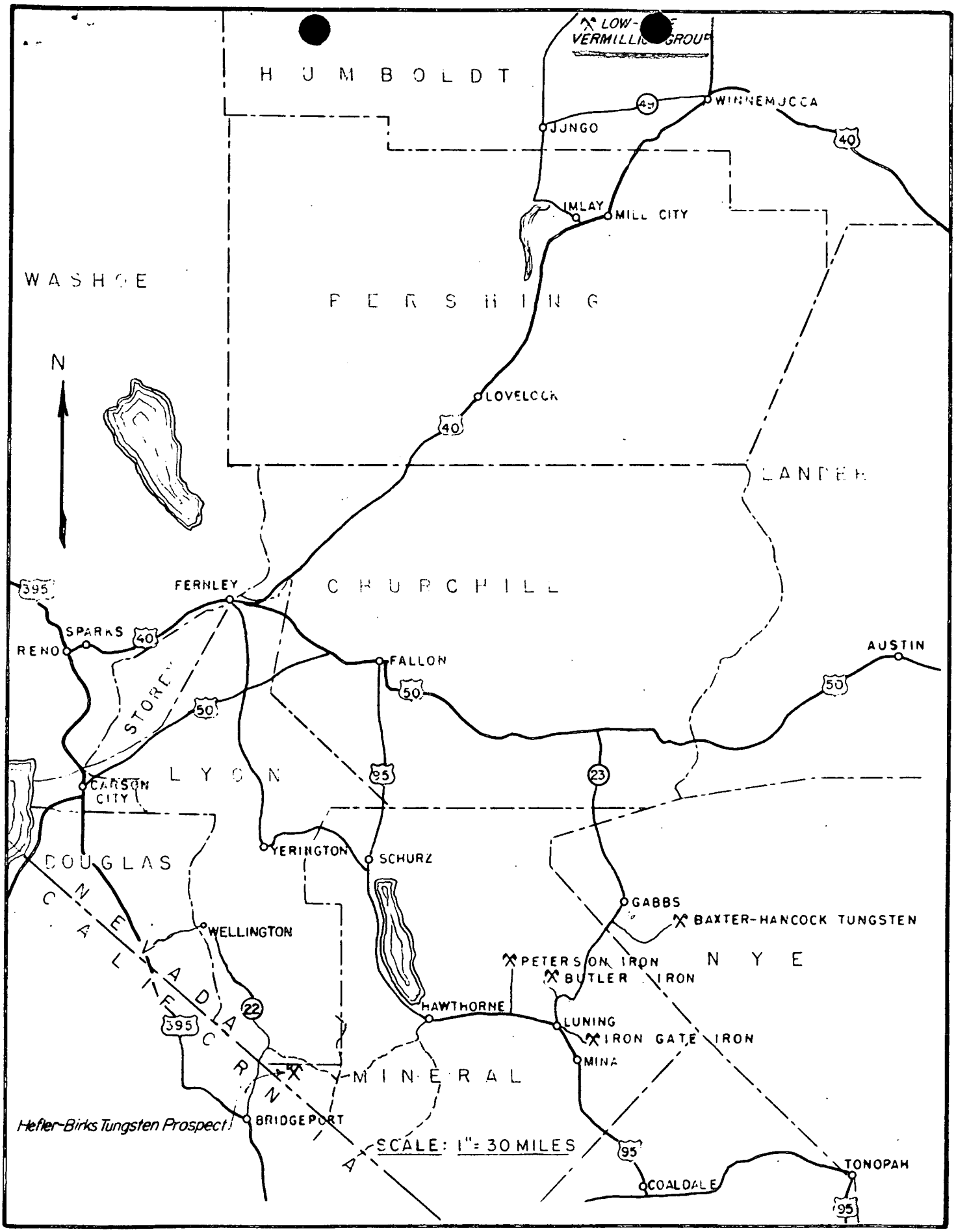
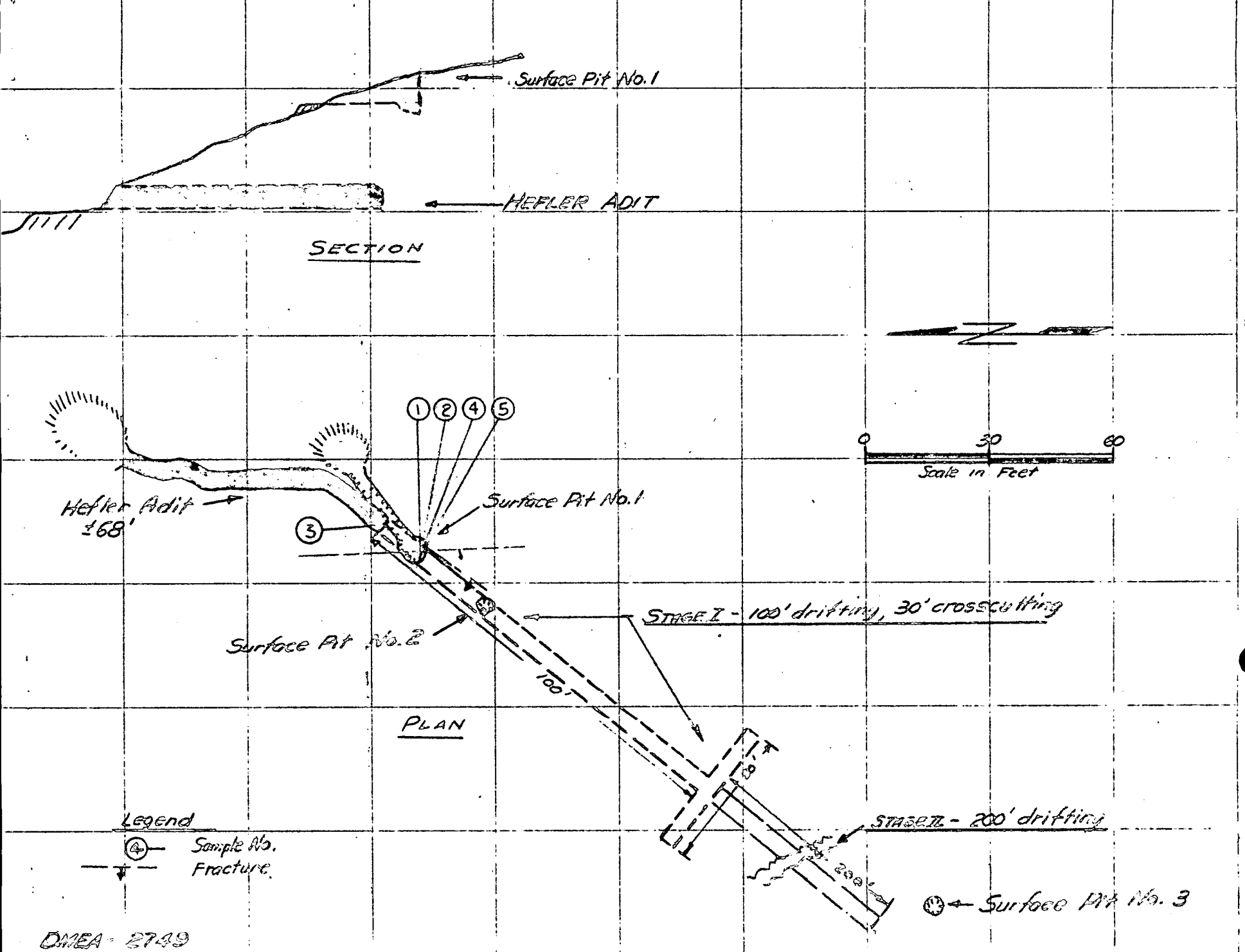


FIGURE 1. LOCATION MAP.



DMEA - 2749

FIG. 2 Hefler-Birks Tungsten Mine - Proposed Exploration Project

9/18/53

UNITED STATES
DEPARTMENT OF THE INTERIOR
SECRETARY OF THE INTERIOR, D. McKAY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2749, W. J. Hefler and George L. Birks Property

(Homestead 2 and 3, Hilltop, and Hillside claims)

Mineral County, Nevada

(Tungsten)

C. D. Rinehart, Geologist
U. S. Geological Survey

D. L. Peck, Geologist
U. S. Geological Survey

August 14, 1953

DMEA-2749, W. J. Hefler and George L. Birks property
(Homestead 2 and 3, Hilltop, and Hillside claims)
Mineral County, Nevada

by
C. D. Rinehart and D. L. Peck
U. S. Geological Survey

Summary and Conclusions

In the Hefler tungsten property, Mineral County, Nevada, scheelite occurs in a nearly vertical, northeast trending quartz-garnet vein in fine-grained gabbro. In detail the vein varies in strike, following differently oriented fractures. In the adit and the overlying pit No. 1 the vein varies from 1 to $3\frac{1}{2}$ feet in width. In four prospect pits which lie up to 500 feet southwest of the adit portal the vein is 8 to 12 inches wide.

Judging from Bureau of Mines assays, mill returns on 9 tons of ore from pit No. 1, and lamping, the WO_3 content of the vein in pit No. 1 and near the face of the adit appears to be between $\frac{1}{2}$ and 1 unit per ton. In pits Nos. 2 and 4 the average grade of WO_3 in the same vein drops below 0.02 percent. Considering both the grade and the vein width, the total WO_3 content does not appear to be sufficient to warrant a government loan for further exploration.

Recommendation

An exploration loan is not recommended since the value of the ore to be gained through exploration does not appear to be commensurate with the cost of finding and mining it, and the deposit does not offer promise of ever yielding an appreciable tonnage of ore. If exploration is to be undertaken, trenching across the vein at closely spaced intervals for several hundred feet to the NE and SW of the adit would constitute an enlightening and relatively inexpensive program.

Examination

The Hefler mining property was examined on July 22 and 23 by C. D. Rinehart and D. L. Peck of the U. S. Geological Survey. As a result of erroneous directions in a Bureau of Mines report by John D. Warne, a Survey vehicle was stuck on a wrong road and most of one day was lost.

The relative position of the adit portal, prospect pits and nearby outcrops was mapped by means of a telescopic alidade and stadia rod. The geology of the adit and the individual pits was mapped by brunton compass and tape, and a surrounding area roughly 1000 feet square was examined but not mapped. Except in the prospect pits, bed rock exposures are poor, averaging less than 5% of the surface area.

Three chip samples were taken during the examination, and were assayed by the Hydrometallurgical and Ore Dressing Branch of the Bureau of Mines at Reno, Nevada. The samples were taken after the most favorable tungsten bearing areas had been outlined by means of an ultraviolet lamp.

Geology

Scheelite occurs in a northeast-trending quartz-garnet vein in fine-grained gabbro. White quartz, the most abundant vein mineral, forms coarse, irregular intergrowths with red-brown garnet and minor epidote. The walls of the vein are sharp but irregular, and locally the gabbro bordering the vein is silicified and iron-stained for a distance of a foot or less from it.

The vein trends N. 30° E. and dips 80° to 90° to the west, but in detail the strike varies from due north to N. 50° E. (see figures 1 and 2). As exposed in the adit the change in strike is abrupt, and each segment of the vein is parallel to jointing in the adjacent country rock. Where exposed for 25 feet in the adit, for 35 feet in the overlying pit No. 1, and in adjacent outcrops, the vein is from 1 to $3\frac{1}{2}$ feet wide. In four prospect pits, which lie up to 500 feet southwest of the adit portal, the vein is 8 to 12 inches in width. In pit No. 5 a quartz-garnet vein 5 feet wide is exposed; however, the pit is 25 feet west of the projected position of the vein and may expose a segment of a different vein.

The only country rock in the area of the prospect that was observed is gabbro. The gabbro is fine to medium grained, equigranular, with anhedral grains of plagioclase feldspar and pyroxene plus minor euhedral feldspar laths. The gabbro is free of banding and is remarkably constant in texture over the entire area. It is well jointed, and along the northeasterly trending joints are thin stringers of quartz, epidote, and very minor garnet bordered by several inches of bleached gabbro.

Sampling

Locations and assay results of chip samples taken during the examination are as follows:

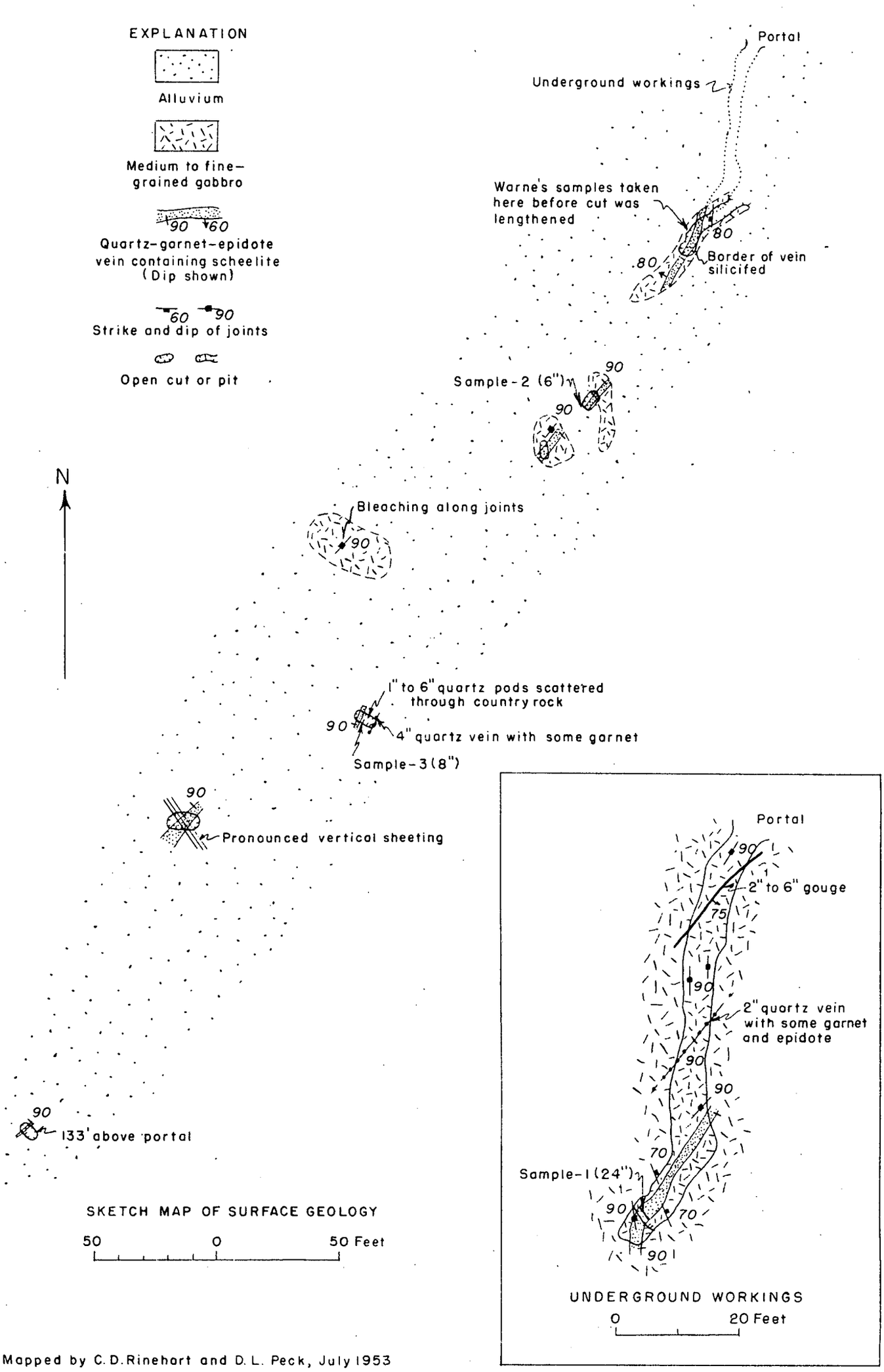
Sample No.	Location	%WO_3	%Mo
1	Across bench near face of adit	*0.02	0.01
2	Across S. face of pit No. 2	*0.02	*0.01
3	Across S. face of pit No. 4	*0.02	*0.01

* less than

In pits Nos. 1, 2, and 4, and in the floor of the adit near the face, the scheelite content of the vein appeared to be of commercial grade over widths of 8 to 30 inches when examined by the mineral lamp. The assays of samples 2 and 3, however, indicate that the scheelite content is too low to form commercial ore, and suggest that visual estimates of WO_3 in this deposit are unreliable. Selected hand specimens from the same pits probably would contain more scheelite, but elsewhere on the property the scheelite content appeared to be lower in grade.

Reserves

Based on the present examination and Bureau of Mines sampling, the inferred ore reserves are limited to a block bounded by the adit and pit No. 1 and continuing 20 to 30 feet south of the most northerly exposure of the vein in pit No. 1. These reserves would be 100 to 200 tons of ore with .5 to 1 unit of WO_3 per ton and an average vein width of 2 to 3 feet. Southward from pit No. 1 the vein is too low-grade and too narrow for economic mining. Any expectation of additional reserves must be based on the premise that the vein widens beneath the adit and the prospect pits, but such an increase in width is not indicated.



Mapped by C. D. Rinehart and D. L. Peck, July 1953

HEFLER PROSPECT, HOMESTEAD, HILTON, AND HILLSIDE CLAIMS, MINERAL COUNTY, NEVADA

May 1953 monthly report from Region 3

DMEA 2749 -- Said property examined May 12 and 13; report being prepared & will be forwarded to Regional Office upon completion.

July report says Warne's report forwarded San Francisco July 10 recommending contract.

9/5/53. Hazel advises FT report need operators to come to us.

FILE COPY
SURNAME: 400

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

Chapman
Selfridge.
Lehrand
McWright for Thayer
Johnson

NOV 13 1952

Mr. W. J. Hefler
718 University Avenue
Reno, Nevada

Re: Docket No. DMEA 2749 - Tungsten
Homestead 2 & 3, Hilltop and
Hillside Claims
Mineral County, Nevada

Dear Mr. Hefler:

Your application for assistance in exploring the above-noted project has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. H. C. Miller, Executive Officer, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

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

Sincerely yours,

C. O. Mittendorf (for) S.H. 11-12-52

Administrator

WLChapman'lm
11/7/52

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

FILE COPY 400
SURNAME:

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

T. Chapman/lm
11/7/52

Adm. Reading File
Docket
R. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team Reg. III
Operating Committee
G. C. Selfridge
T. L. Chapman

Chapman
Selfridge
Richard

NOV 13 1952

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

Re: Docket No. DMEA 2749 - Tungsten
W. J. Hefler
Homestead 2 & 3, Hilltop and
Hillside Claims
Wiley Meadow Mining District
Mineral County, Nevada

Dear Mr. Miller:

We are referring the above-noted project to you for a field team examination.

You will note the application calls for tunnels, shafts and test pits, but no mention is made of the amount of work they expect to accomplish. This will have to be checked on by the field team.

The book and page number in which the claims are recorded should be obtained from the applicant.

The costs of labor, supplies and equipment are moderately well presented, but should be checked.

Enclosed find 2 copies of a memorandum by the Commodity Division of the U. S. Geological Survey.

Sincerely yours,

Frank E. Johnson (GVB)
Chairman, Operating Committee

R.H. 11-12-52

Enclosures

Approved:

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

E. J. McKnight (GVB)
Member, Geological Survey

IN REPLY REFER TO:

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

November 6, 1952

Memorandum

To: George C. Selfridge, DMEA

From: T. P. Thayer T P Thayer

Subject: DMEA-~~2748~~ 2749, Tungsten - W. J. Hefler, G. L. Birks, Rena, Nevada

The applicants propose spending $14,560 "to tunnel and drift in several directions to determine possible ore bodies." Two assays and a map referred to were missing from the docket when received by me. In view of the vagueness of the application it seems doubtful whether they would add much.

The Geological Survey has no information on the deposit, or on tungsten prospects in the area mentioned.

Recommendation

The application will have to be referred to the field for appraisal of possible exploration targets, and competence of the operators.

T. P. Thayer
T. P. Thayer
Geologist

Copy retained 400

October 27, 1952

Mr. W. J. Hefler
718 ~~719~~ University Avenue
Reno, Nevada

Subject: DMEA-2749
Re: Exploration Assistance
Homestead #2 & 3, Hilltop,
Hillside

My dear Mr. Hefler:

The receipt of your application dated October 16, 1952 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2749 and referred to the Iron & Ferro-Alloys Division.

Kindly refer to DMEA-2749 in any future correspondence relating to your application.

Sincerely yours,

R. E. ADAMS

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

25451

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

Not To Be Filled in by Applicant

Docket No. Dmea-2748
Metal or Mineral
Date Received 10-27-52
Amount $
Participation (Government %)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 1952

W.J.Hefler
George L. Birks
718 University Avenue
Reno Nevada

Name and address of applicant

Date October 16,1952

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

CERTIFICATION

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

(Name of company)	By W J Hobler (Signature of authorized official)
(Date)	George L Berko Owner (Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

1. (a) The property involved in this Project will be 4 Lode Claims namely:

HOMESTEAD #2
HOMESTEAD #3
HILLTOP
HILLSIDE

as map shows.

(b) We a re owners

(c) These claims are located in the Wiley Meadow Mining District, Mineral County, Nevada, about 25 miles West of Hawthorne, Nevada.

2.

(a) Tungsten

(b) The forma tion of this ground is: Garnet, Granite, Lime Contacts, and from former prospecting and testing, we have found a showing of Scheelite in a number of places, as map will show. We are enclosing 1 map and 2 assays, which are self explanatory. It will not be necessary to return them.

There will also be some photographs.

3. (a) We are going to tunnel and drift in several directions to determine possible ore bodies. We will do some shaft work , also test holes and trenching where there is indication of Tungsten.

(b) It will require about 30 days to start the Project and about 90 days to complete it. In this time we may be able to produce ore, or start mining.

5. 1 House copletely furnished for Cooking and Sleeping with accomodations for 8. There are also some out-buildings.

1 Blacksmith shop
Cased spring with pump.

We must repair roof, windows and floor, as well as the Heating and Water system, as they were damaged by the winter storms and summer cloudbursts.
This will cost about $ 1000.00

6. There will be no additional buildings.

7. (a) To be rented:

1 Ingersoll Compressor and air hose
1 Water liner Drill
1 Jack hammer
1 5 H.P. Engine and water pump
Tram cars

(b) Nothing

(c) Furnished by us:

Blacksmith Forge
Emery and Grindstone
Hand tools
Car and pickup
Ore Bucket
Winch
Gasoline Storage Tanks
2 Windlasses
Car track

8.

1 Supervisor		$ 16.00	per day	$ 416.00 per month
2 Miners	@ $15.00 per day	$ 30.00	per day	$ 780.00 per month
2 Muckers	@ $14.00 per day	$ 28.00	per day	$ 728.00 per month
1 Maintenance Man	@ $14.00 per day	$ 14.00	per day	$ 364.00 per month
1 Cook	@ $12.00 per day	$ 12.00	per day	$ 312.00 per month
	Total	$100.00	per day	$2600.00 per month

9.	Repairs on buildings,water and heating equipment	$ I000.00
	Repairs on road	I000.00
	Lumber 5,000 feet	300.00
	Hauling Machinery	200.00
	Hauling Material,Lumber,Supplies & Pipe	250.00
	Hauling Supplies and Transportation @ $ 250.00 per month for 3 months	750.00
	Gasoline, Kerosene, Carbide, Batteries,Bulbs, Miners Lamps, Blacksmith's Coal,Drill Bits,etc	800.00
	Powder, Caps and Fuses	I50.00
	Rental on Machinery @ $ 400.00 per month	I200.00
	Engineering and Assays @ 200.00 per month	600.00
	Bookkeeping, typing,Office work @ $200.00	600.00
	Labor @ $ 2600.00;for 3 months	7800.00
	Total	$ I4,560.00

We have no electricity,but lots of water.
Also plenty of wood for fuel, and a considerable amount of mine timber for poles and lagging.

10. (a) We are prepared to invest ,at least, $4,000.00

(b) Yes

II. We have roads within twenty miles of main highway and forty miles from railroad loading point. Custom Tungs - ten mills are now operating within sixty miles of property.

We own good mill site with plenty of water, and hope to have a mill as soon as ore body warrants.

We can also furnish electric power.

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
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1952 OCT 20 AM 8:08

SAN FRANCISCO, CALIFORNIA

Form NMAL:2

NEVADA MINING ANALYTICAL LABORATORY

UNIVERSITY OF NEVADA

No. 890

RENO, NEVADA

Mr. W. J. Heffer

Date August 28, 1952

Report on sample or specimen received from you on August 27, 1952, is as follows:

Number	MINERAL OR ROCK	Ounces Per Ton		
		Gold	Silver	
	Quartz, limonite, malachite, garnet rock with traces of scheelite.			Tungsten Trioxide - 0.12%
	This assay taken from surface of vein			

By: Claude W. Hammond
Analyst.

The Laboratory very often receives a letter which does not state definitely what is desired on a given sample, or we may misunderstand a request, therefore in case we have not made the determination you desire or you want further information regarding these samples, please write within a month, and refer to the number of this report given above.

Form NMAL:2

NEVADA MINING ANALYTICAL LABORATORY

UNIVERSITY OF NEVADA

No. 663

RENO, NEVADA

Mr. W. J. Heffler

Rt 2 Box 18 Kitske Lane, Reno

Date July 11, 1952

Report on sample or specimen received from you on July 9, 1952, is as follows:

Number	MINERAL OR ROCK	Ounces Per Ton		
		Gold	Silver	
	1. Quartz, garnet, scheelite and powellite.			Tungsten trioxide 0.46%
	2. Quartz, limonite, chrysocolla, country rock.	Trace	None	Copper 0.3%
	This Tungsten assay was taken from the face of the tunnel			

By: Claude W. Hammond
Analyst.

The Laboratory very often receives a letter which does not state definitely what is desired on a given sample, or we may misunderstand a request, therefore in case we have not made the determination you desire or you want further information regarding these samples, please write within a month, and refer to the number of this report given above.

Dnea-2749

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Omu-2449

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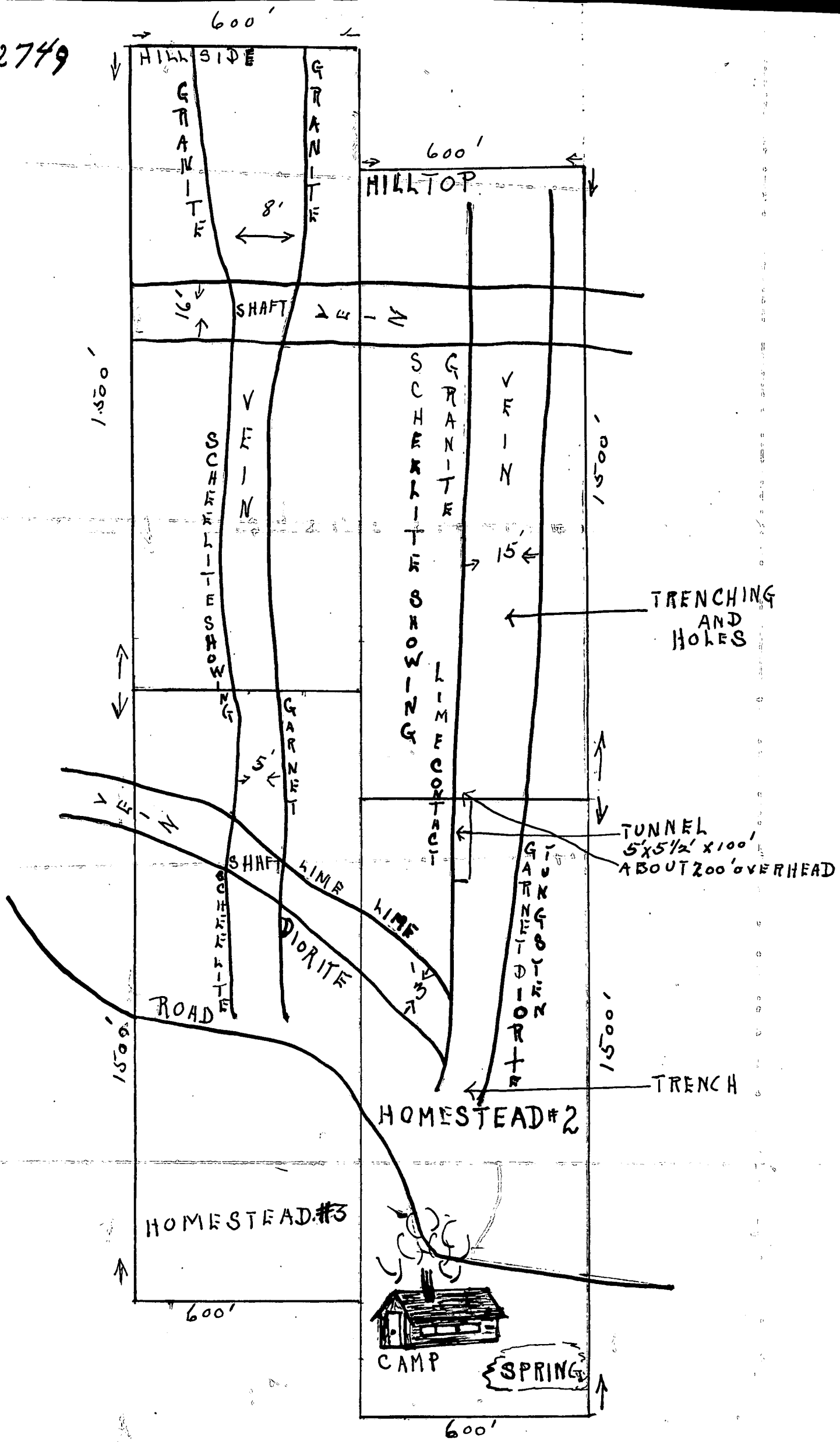
Dmea-2749


600'
HILLSIDE
GRANITE
GRANITE
8'
600'
HILLTOP
16'
SHAFT
1500'
VEIN
SCHEELITE SHOWING
SCHEELITE SHOWING
GRANITE
LIMECONTACT
VEIN
15'
1500'
TRENCHING AND HOLES
GARNET
5'
VEIN
SHAFT
LIME
LIME
DIORITE
GARNET DIORITE
GUNGSTEN
TUNNEL 5'x5½' x 100' ABOUT 200' OVERHEAD
13'
ROAD
1500'
1500'
TRENCH
HOMESTEAD #2
HOMESTEAD #3
600'
CAMP
SPRING
600'

Map & 2 pictures enclosed

Onea - 2749