JAN 30 1952

Mr. Mark Harris
P.O. Box 277
Yerington, Nevada

Re: Docket No. DMA 1621X - Tungsten
Ball Flat Tungsten Claims
Churchill County, Nevada

Dear Mr. Harris:

Receipt of your letter of January 21, 1952, is acknowledged and your comments therein noted.

It was not our intent to revise the whole work program but to precede it with a small surface program which, if successful, would have aided in carrying out the underground phase.

Occasionally, we do not wholly agree with the programs outlined by members of our field teams. This difference of opinion can and does exist in any organization including large mining companies. We regret that it occurred in your particular instance where another party might have suggested sinking a limited distance on the presently exposed ore showings before contemplating driving adits or crosscuts.

As you requested, we are withdrawing your application and are herewith returning the following:

1 - Assay report, July 16, 1948, by Grimson & Nichols

1 - Small photostat map

1 - Blueprint map

1 - Letter, January 10, 1951, from Union Carbide and Carbon Corporation.

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

cc: Admn. Reading File
Docket
R. W. Gochen, USBM
E. M. Lemmon, USGS
Field Team Eng. III
G. O. Selfridge

Enclosures - 4

GOSelfridge'lm
1/28/52

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

File

January 7, 1952

Memorandum

To: George Selfridge, MEA

From: Robert W. Geehan, Bureau of Mines

Subject: Bell Flat Tungsten
Midnight and Midnight No. 2
Churchill Co., Nevada

I have reviewed the docket on the subject property, including the January 4th, memo from R. A. Brown. I have also examined this deposit in the field in 1943 or 1944.

Recommendations-

An exploration program on this deposit should be approved provided that surface exploration consisting of trenching, sampling and mapping is conducted. The results of such a program indicate that under present work is feasible, it is almost certain that the location of the proposed mills would be changed. It is suggested that the applicants file this application into a "surface" proposal rather than "underground" proposal, and that the surface work be completed before final approval of the underground work is granted. Because of the large ratio of powellite to scheelite in this deposit, assays will be necessary, and should be provided for in the application. Estimates of tungsten content made by ultra-violet lamping are not reliable under these conditions.

Robert W. Geehan

RWGeehan:HLE

CC: Mr. Geehan
Ferrous MEA
Files

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

January 7, 1952

Memorandum

1621 X

To: George Selfridge, DMEA

From: Robert W. Geehan, Bureau of Mines

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Midnight and Midnight No. 2
Churchill Co., Nevada

I have reviewed the docket on the subject property, including the January 4th, memo from D. M. Lemon. I have also examined this deposit in the field in 1943 or 1944.

Recommendation:-

An exploration program at this deposit should be approved provided that surface exploration consisting of trenching, sampling, and mapping is conducted. If results of such a program indicate that underground work is desirable, it is almost certain that the location of the proposed adits would be changed. It is suggested that the applicants divide this application into a "surface" proposal and an "underground" proposal, and that the surface work be completed before final approval of the underground work is granted. Because of the large ratio of powellite to scheelite at this deposit, assays will be necessary, and should be provided for in the application. Estimates of tungsten content made by ultra-violet lamping are not reliable under these conditions.

Robert W. Geehan

RWGeehan:ELK

CC: Mr. Geehan
Ferrous MEA
Files

File

George Selfridge, DMEA

January 4, 1952

D. M. Lemmon, U.S.G.S.

Exploration application
Mark Harris et al
928 35th Street
Sacramento, Calif.

DMA 1621 X - Tungsten

Property: Bell Flat Tungsten Claims
(Midnight and Midnight No. 2)
Sec. 6, T. 14 N., R. 34 E.
Churchill County, Nevada

I have reviewed the field team report, dated October 19, 1951, received in Washington November 13 (examination September 20-21).

The field report does not provide any adequate justification for the recommendation that the proposed work be approved. The only samples that represent possible commercial ore (samples 4 and 5) were taken from the surface cut on the Midnight claim, where the vein is 2 feet wide. The adit beneath this outcrop contains no ore at the face.

The statements made July 9 in a letter to the applicant from Mr. Holderer, DMA, still hold. The property warrants surface trenching and sampling to determine if any ore shoots exist; any proposals for underground exploration are premature. I am attaching a copy of this letter herewith, to be returned to USGS files at your convenience.

I recommend that the proposal as presented be denied, but that the applicant be informed that DMEA will consider a modest program of trenching, sampling, and mapping.

DM Lemmon

DMLemmon:gt

Copy to: RMGoshan

George Selfridge, DMEA

January 4, 1952

D. M. Lemmon, U.S.G.S.

Exploration application
Mark Harris et al
928 35th Street
Sacramento, Calif.

DMA 1621 X - Tungsten

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D M Lemmon

DMLemmon:gt

Copy to: R.Geehan

1621

Withdrawn on Applicant's Request

1/24/82

with return of 1 B.P. up
1 Statutory up
1 - letter ucc
1 - Assignment

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.

NOV 13 3 16 PM '51

UNITED STATES
DEPARTMENT OF THE
INTERIOR

Oscar L. Chapman, Secretary

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMA-16R1X, Bell Flat Tungsten Property

Churchill County, Nev.

E. J. Matson, Mining Engineer
U. S. Bureau of Mines

October 18, 1951

DOCKET DMA-1621X

UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

# BELL FLAT TUNGSTEN PROPERTY
Churchill County, Nev.

## SUMMARY

The Bell Flat Tungsten property, located in the southern extremity of Churchill County, Nev., contains numerous small outcrops or showings of tungsten mineralization in metamorphosed limestone interbedded in calcareous schists.

Very little development work has been done on the property. One small shipment of sorted ore amounting to 6.7 tons and averaging 1.48% $WO_3$ was made.

## INTRODUCTION

The Bell Flat Tungsten property was examined by an engineer[1/] of the Bureau of Mines on September 20 and 21, 1951, accompanied by Mark Harris, one of the owners. The examination was made in connection with an application for exploration assistance (docket DMA-1621X).

## LOCATION

The property location has not been surveyed in respect to any section corners but it is believed to be in sec. 6, T. 14 N., R. 34 E. of Churchill County, Nev. (fig. 1).

It is reached by driving easterly from Fallon, Nev., a distance of 57 miles along U. S. Highway 50 to the intersection with State Highway 23; thence traversing south on State Highway 23 for a distance of 15 miles to a road fork leading to the property. This road is then

1/ E. J. Matson.

traversed a distance of 10 miles westerly to the property. Both, U. S. Highway 50 and State Highway 23 are paved; the route to the mine from State Highway 23 is ungraded and is a dirt or desert road. There are no steep grades and the property can be reached in a modern touring car. The last two miles are silty and in wet weather might be difficult to traverse. Total distance to the property from Fallon is 82 miles and it is 25 miles from Gabbs, Nevada (fig. 1).

## HISTORY AND OWNERSHIP

The property was discovered and located in 1941 by Mark Harris, P. O. Box 297, Fallon, Nev., and comprised 12 unpatented mining claims known as Shelite, Shelite Nos. 1 to 5, inclusive, and Midnight, Midnight Nos. 1 to 5, inclusive. In 1943 the property was leased to F. W. Cook of Las Vegas, Nev. He drove a short adit 50 feet in length and later relinquished his lease.

A partnership was later formed by Mark Harris of Fallon, Nev., Fred T. Pine, and W. M. Brown, both of Las Vegas, Nev. Two of the above mentioned claims were dropped; namely, Shelite No. 3 and Shelite No. 4.

## DEVELOPMENT

Development consists of a 50-foot adit, driven on the strike of a mineralized bed, and a small open cut about 27 feet in vertical distance above the adit or about 50 feet along the dip of the beds. Several other small pits and the customary work as required by law to hold the claims constitute the development of the property.

## PHYSICAL FEATURES

The Bell Flat Tungsten property is situated on the eastern side of Slate Mountain at an elevation of an estimated 5,000 feet. The claims are in an area of moderate to rugged relief. The area is semi-arid, typical of the desert regions. Vegetation consists of desert grass, sage and greasewood in the lower regions and pinon trees at higher elevations.

Summer months are hot and arid. Winters are moderate to cold with only light snow falls. Snow falls are not severe enough to hamper working conditions.

A small 10- by 12-foot cabin is located on the property. It is suitable to accommodate one or two men.

No transmitted electric power is near the property.

No water supply has been developed, however, a supply could probably be developed by drilling a well in Bell Flat about one mile distant. The applicant claims to have two potential sources of water as shown by figure 2 (a spring and a well). No water was found at either place at the time of visit. The spring had indications of moisture at the spot shown and probably by digging or some development work might be able to furnish water for camp use and possibly mining needs. The well which is reported to be down 50 feet was caved up to within 6 feet of the surface and had no indication of water.

## DESCRIPTION OF THE DEPOSITS

The deposits are in a metamorphosed area of calcareous schists with interbedded lenses of limestone. The main geologic feature is a broad monocline dipping from 30° to 36° to the southeast, and

striking about N. 25° E. Within the area are aplite and rhyolite dikes on the northwest (fig. 2) and a granite mass at the east side. Minor folding occurs in the monoclinal structure, also faulting.

Scheelite with powellite occurs in the metamorphosed limestone within the schists. The limestone contains considerable epidote, garnet and quartz. The scheelite and powellite occurs as sparsely spaced crystals. Some of the crystals are 1/2-inch in diameter and closely follows bedding planes. Continuity of the mineralization appears along the bedding in fairly straight narrow lines, and is not uniformally distributed across the bedding. No thick bed of disseminated tungsten mineralization was noted. The scheelite is found in a series of parallel bands, sometimes only a crystal or two wide. Barren bands of epidote limestone are found between the mineralized planes. This is especially true in the adit and small open cut and adit (section A-A') fig. 4.

In the small pits (section B-B', fig. 6), the scheelite is sparsely disseminated, however not enough development work has been done to determine the general character of the mineralization. Parallel mineralized beds may occur between the small surfaced cuts in section B-B'.

Other small mineralized exposures were found, however, sections A-A' and B-B' were the most promising. Not enough exploration work has been done to determine the extent or thickness of the mineralized beds or to determine whether other parallel mineralized beds are present.

## SAMPLING

The ground was examined in daylight and the exposures were also observed at night with the aid of an ultra violet lamp. The scheelite all had a more or less yellow caste indicating the presence of powellite.

Five samples were taken as follows:

| Sample No. | Ft. Width | Percent $WO_3$ | Percent Mo | Place |
|---|---|---|---|---|
| 1 | 4.0 | 0.02 | | Lower pit on ridge. |
| 2 | 2.0 | 0.04 | | Upper pit on ridge. |
| 3 | 3.0 | 0.05 | | Right face in adit. |
| 4 | 2.0 | 2.41 | 0.06 | Open cut above adit. |
| 5 | Grab | 1.26 | 0.03 | Sorted ore at dump. |

(See figs. 3 and 5 for location).

## ORE RESERVES

No ore reserves of any consequence can be determined.

## PROPOSED EXPLORATION BY APPLICANT

The applicant first proposes to drive the adit (section A-A'), figures 2, 3, and 4, along the strike of the mineralized bedding for a distance of 175 feet, and to crosscut from the mineralized bed westerly to determine whether a parallel mineralized bed exists.

Next he proposes to drive an adit (section B-B', figs. 2, 3, and 6) 148 feet to crosscut the formation and intersect the two mineralized beds exposed on the surface. This work will prospect for parallel structures and determine the thickness of the mineralized beds.

## CONCLUSIONS

The showings on the property are not impressive but a small exploration project is warranted to determine the merits of the property.

The plans for exploration submitted by the applicant are reasonable and the adits and crosscuts proposed will determine the tungsten possibilities of the property.

The following sheets contain the itemized requirements and costs.

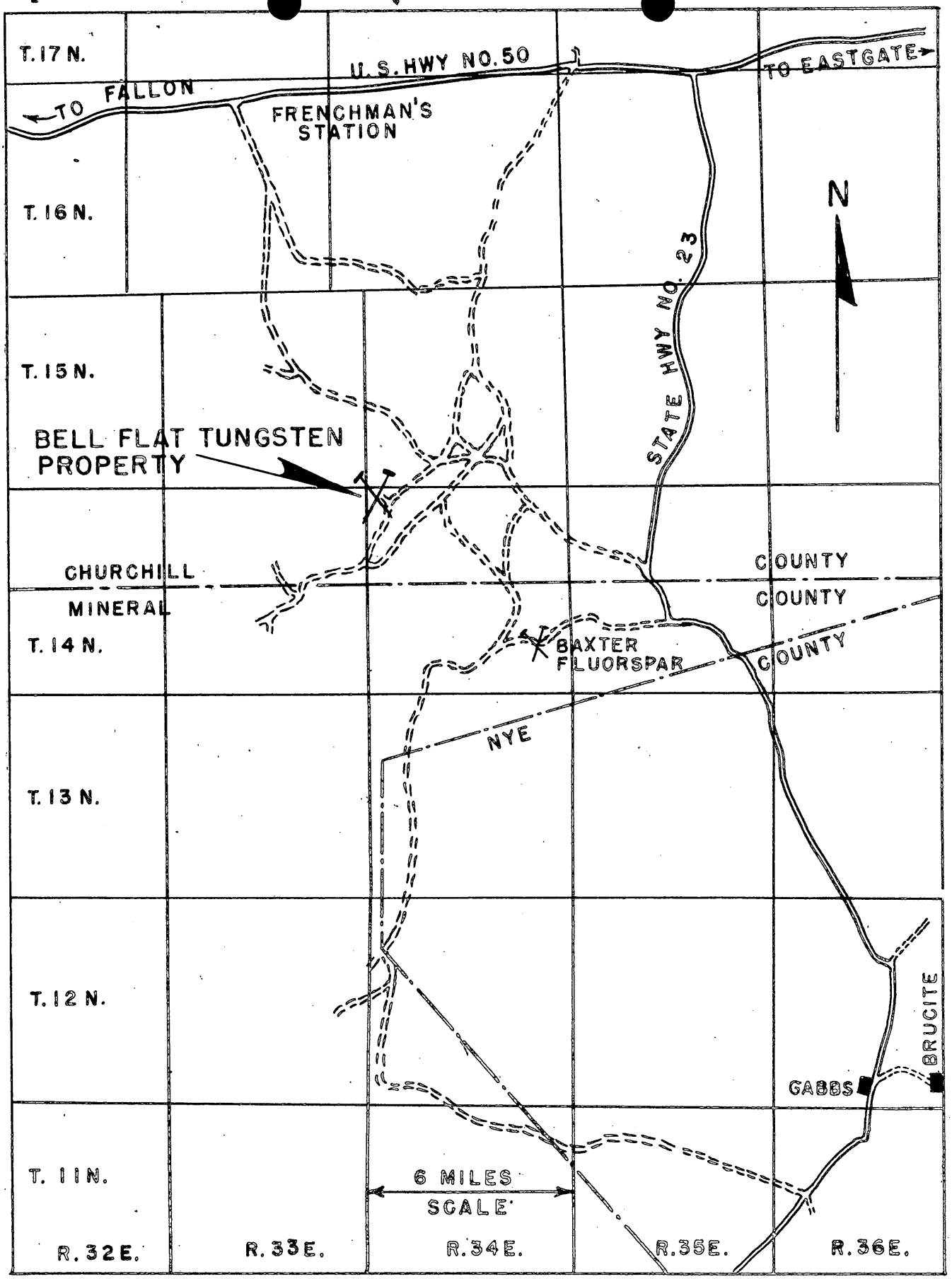


FIG. 1,—LOCATION MAP,—BELL FLAT TUNGSTEN PROPERTY, NEVADA.

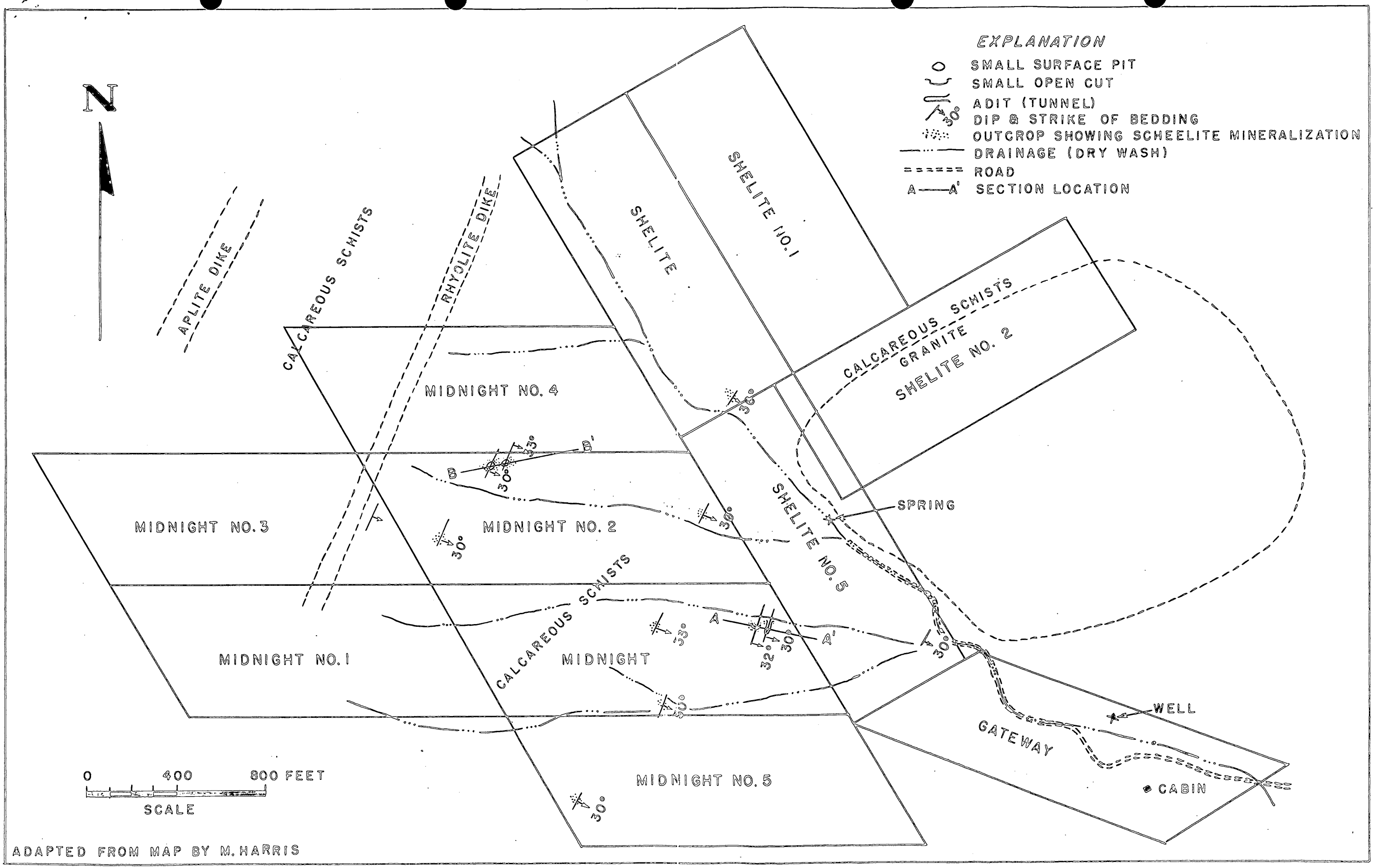


FIG. 2, — BELL FLAT TUNGSTEN PROPERTY, CHURCHILL COUNTY, NEVADA.

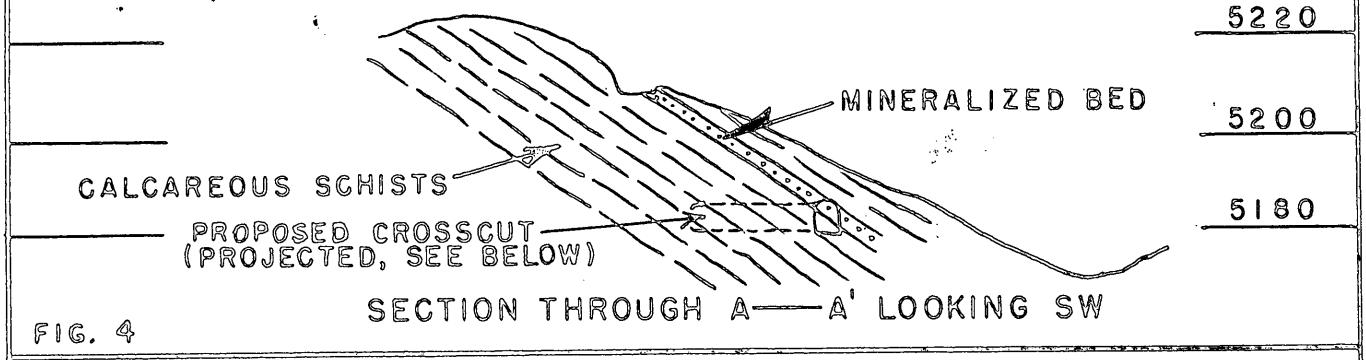


FIG. 4

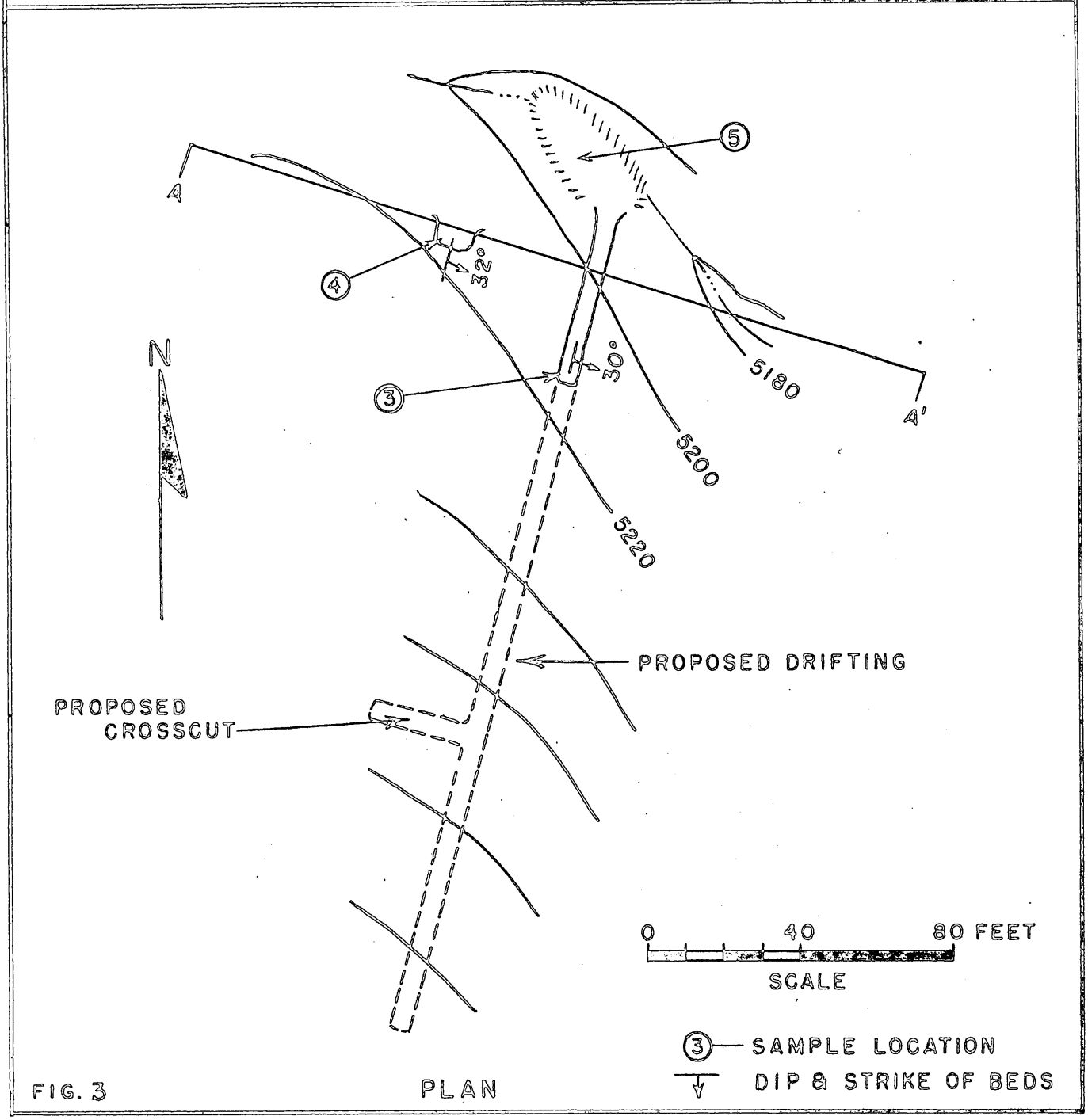


FIG. 3 PLAN

FIGS. 3 & 4.— PLAN AND SECTION SHOWING PROPOSED EXPLORATION
BELL FLAT TUNGSTEN PROPERTY, CHURCHILL COUNTY, NEVADA

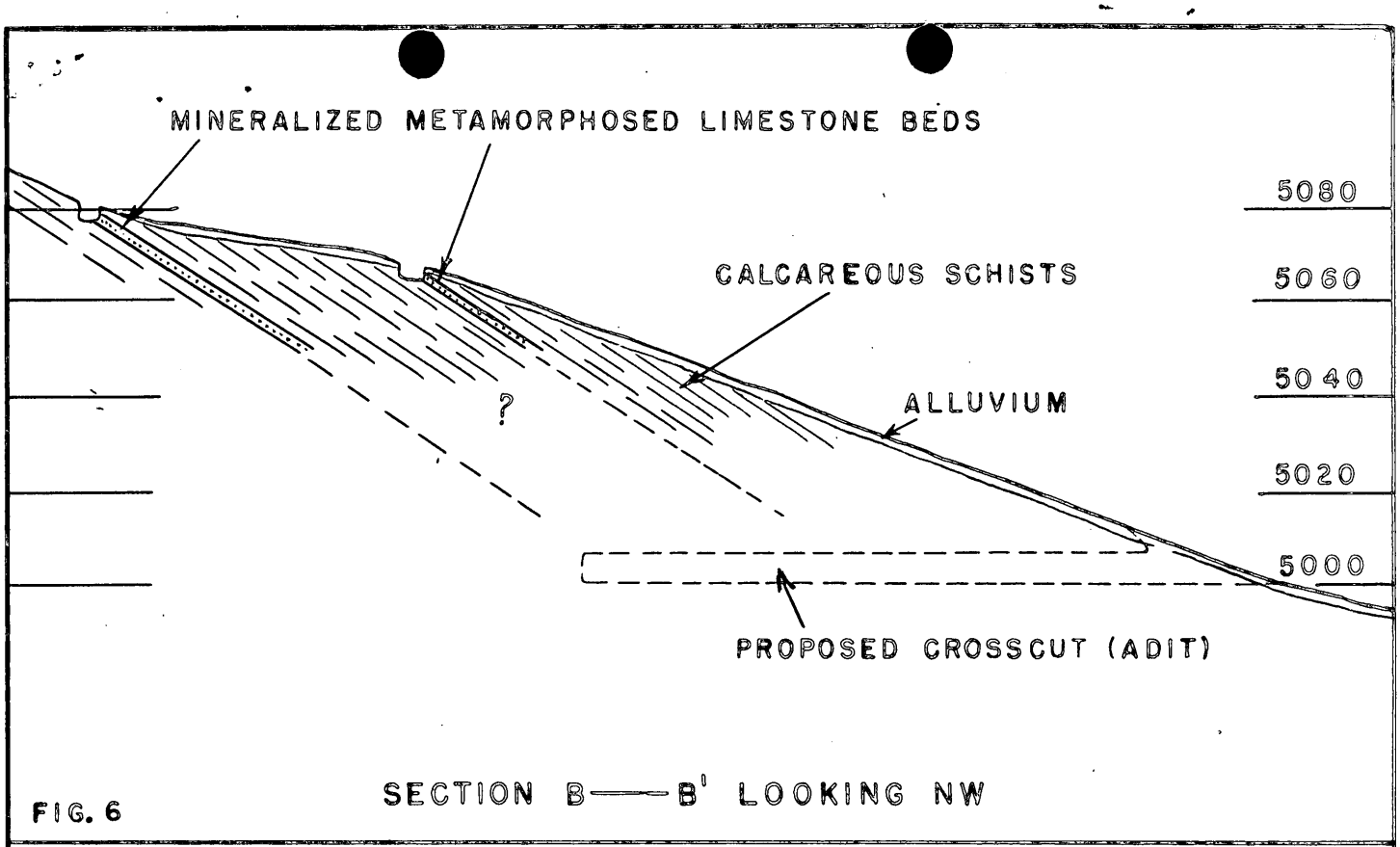


FIG. 6 SECTION B——B' LOOKING NW

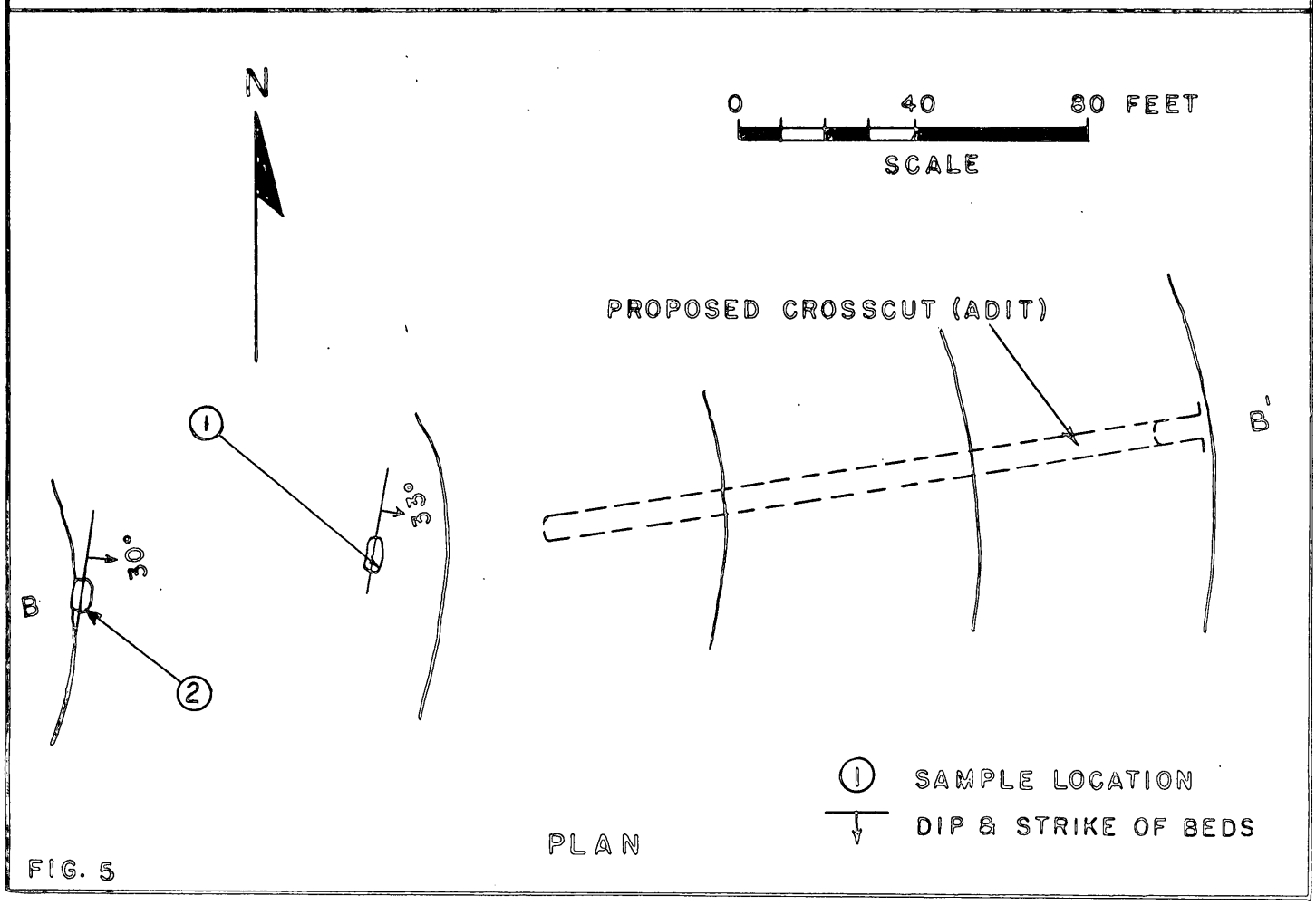


FIG. 5

FIGS. 5 & 6, — PLAN AND SECTION SHOWING PROPOSED EXPLORATION BELL FLAT TUNGSTEN PROPERTY, CHURCHILL COUNTY, NEV.

REQUIREMENTS AND COSTS
over 6-month period

| | | |
|---|---|---|
| a. | 2 miners, 120 days @ $15.60 | $5,264 |
| | 1 truckdriver, 130 days @ $13.60 | 1,768 |
| b. | Supervision, $350/mo., 6 months | 2,100 |
| c. | Repairs | - |
| d. | Material for floor and frame of tent | 80 |
| e. | Compressor, jackhammer, steel, and hose, estimated purchase price from California Mining Journal adv., Sept. 1951 | 750 |
| | Mine car | 60 |
| | 400 feet of 8-pound rails | 90 |
| | 200 feet of 1½-inch pipe | 50 |
| f. | Cost of rental equipment which operator proposes to rent | 0 |
| g. | Dodge pick-up, 1/2-ton, 4-wheel drive 6 mo. @ $25 | 150 |
| h. | 1000 feet mine lumber | 180 |
| | Powder, caps & fuse | 500 |
| | Gasoline and oil | 590 |
| | Drill bits, hand tools, misc. | 77 |
| i. | Insurance @ $8 per $100 | 571 |
| | | $10,000 |

Summary:

| | |
|---|---|
| Rehabilitation, clean out spring and erect tent with wood frame and floor | 200 |
| 148 feet of crosscut in upper workings @ $25/ft. | 3,700 |
| 175 feet of drift and 25 feet of crosscut @ $25/ft. | 5,000 |
| Equipment cost | 1,100 |
| | $10,000 |

July 9, 1951

Mr. Mark Harris
928 35th Street
Sacramento, California

In reply please refer to:
DMA-1621-I — Tungsten

Dear Mr. Harris:

We have carefully reviewed your application for an exploration project costing $10,000 at the Bell Flat tungsten prospects, Churchill County, Nevada. It appears to us that insufficient trenching and sampling has been done on the surface, and that proposals for underground work are premature. Your statement lists 2 samples taken by Mr. Dobson on the Scheelite and Midnight No. 2 claims assaying 0.8 and 0.4 percent of $WO_3$, one sample taken by yourself on the Midnight claim assaying 1.5 percent, and a bulk sample of the same ore amounting to 6.7 tons which was sold to the Pine Creek mill of U. S. Vanadium Corporation at an assay of 1.49 percent. These 4 samples appear to represent small pods of ore rather than continuous mineralization in veins or beds.

It appears that some good tungsten ore is present in the open cut on the Midnight claim. It also appears from samples taken during World War II by a Government engineer that much of the fluorescent material on the claims is powellite, the assays of which were disappointingly low in tungsten.

Your comments on the high cost of custom milling at the Pine Creek mill are partly true for ores containing more than 1.0 percent of $WO_3$. For lower-grade ores, however, it can be shown that the milling charges are not unreasonable inasmuch as payments are based on 100 percent recovery compared to an expectable recovery of 60 to 70 percent in a small plant such as you might erect on your claims. The high molybdenum content in your ore necessitates chemical digestion of the concentrates for purification, an expensive procedure. When these factors are taken into consideration, a price of $18 per ton of ore assaying 0.5% $WO_3$ is not out of line when finished concentrates are priced at $65 per unit. Incidentally, we do not know of any sales of domestic tungsten concentrates at prices above $65 per unit during 1951.

If your analysis of costs shows that the transportation [illegible] is too expensive, even though [illegible] is higher, you might be able to arrange for [illegible] use of the [illegible] Chevrolet, Cadillac, or Harvard Thunderbird corp. aircraft.

We are enclosing a copy of Form [illegible], the exploration contract, for your information so that you can see what exhibits are necessary as part of the contract. Exhibit A is particularly important, and should consist both of a statement and a map showing precisely what work is to be done under the contract. The location and length should be given of all [illegible] trenches, pits, shafts, roads, and other work. If you wish to provide the necessary exhibits, we will consider your application further.

Very truly yours,

George B. Holderer

jam

George B. Holderer
Chief, Exploration Branch

DMLemmon:avj

cc: Adm. Reading File
Reports & Record Division
Field Team III
F I L E
Mr. Holderer
Mr. McCarran (2)
Mr. Lemmon