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DMA Docket No. 3270

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

Newcomb
Hedges
Selbridge
Johnson

JAN 31 1955

Messrs. J. E. & Lee Shook
Copper Canyon Mining Corporation
Conner, Montana

Re: Docket No. DMEA-3270 (Copper)
J. E. & Lee Shook
Copper Canyon Mining Corp.
New Strike & Silver Tip Lode Claims
Ravalli County, Montana

Dear Sirs:

Your application for aid for an exploration project and other reports available to us in Washington concerning the subject 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 a small amount copper mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

WRGrimwold/er 1/26/55
Copy to: Docket
Region I (2)
Northwest Dist.
Admr R. File
Op. Committee
Base Metals
Mr. M. E. Velin, USBM
Mr. Kiilsgaard, USGS
Chron.

R.C.S.

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

January 26, 1955

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Denial of Application, Docket No. DMEA-3270, Copper Canyon Mining Corporation, Ravallie County, Montana, Copper

The cited application covers a copper project which apparently consisted of one small ore pod. Nevertheless Mr. C. H. Johnson, USBM, in reviewing the application, was of the opinion that some work was warranted.

Such was also the opinion of the Base Metals Division and our letter to the field of August 10, 1954, so intimated. However, the field persists in its opinion of denying the application, and since it is a borderline affair we are deferring to their judgment.

W. R. Griswold

W. R. Griswold

File Copy
Surname

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

January 26, 1955

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Denial of Application, Docket No. DMEA-3270, Copper Canyon Mining Corporation, Ravallie County, Montana, Copper

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WRG/er

Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

Defense Minerals Administration
RECEIVED
JAN 24 1955

January 14, 1955

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

Re: Docket No. DMEA-3270 (copper)
Copper Canyon Mining Corporation
Ravalli County, Montana

Dear Mr. Selfridge:

Because of the Field Team's recommendation for denial of the above project in our letter of July 19, 1954, we have considered that the docket was closed; however, on reviewing the docket file and rereading the Operating Committee's letter of August 10, 1954, we find that the docket is still open.

Our feelings with respect to the property are that all available information suggests that because of the small size of the one known ore lens and the erratic metal content, we do not feel that further exploration by the Government could be justified. If further exploration which the applicant was going to do in any event should prove that the Field Team was wrong, we would, of course, be glad to reconsider our decision and change our recommendation.

On receipt of the Operating Committee's letter we wrote the applicant on August 16, 1954, asking if any more work had been done on the property which might change our decision. No reply has been received, and we, therefore, assume that no additional favorable evidence has been uncovered. Therefore, the Field Team's original recommendation for denial is reaffirmed and recommends the docket be closed.

By Field Team, Region I

A. E. Weissenborn / O.R.F.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E. Howard

For: Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM(2)
Nick

IN REPLY REFER TO:

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

Shorts

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN - 4 1955

January 3, 1955

Answered
Betty

Docket

Mr. A. E. Weissenborn
U. S. Geological Survey
South 157 Howard Street
Spokane, Washington

Re: Docket No. DMEA 3270
Copper Canyon Mining Corp.
Ravalli County, Montana

Dear Al:

I have just returned from a conference with Bill Griswold on the cited application. Bill believes you have had sufficient time to answer his letter of August 10, but rather than write you another Operating Committee letter, he suggested I drop you a personal note.

To review the situation, Nick visited the property in April and again in May. Following his first visit, I recall that he was indecisive on which way he would recommend, as he believed that although the property looked sick, it might have possibilities. Following the second visit, during which he was accompanied by Verdo Johnson, I believe he decided to recommend denial. About that time, I recall your telling me that Walter March was sending Sahinen to the mine to make an examination and that we should withhold sending Nick's report until we heard from Sahinen. At that point, I became out of touch with the matter.

In reading through the docket, I now find that in June Sahinen's report was transmitted to Washington along with Nick's report. The accompanying Field Team letter concurred with Nick and recommended denial. The closing sentence of that letter states, "It will be noted that Mr. Sahinen's recommendations are similar to those of Mr. Nicholsen". In that sentence lies the dilemma of the entire issue because Nick's and Sahinen's recommendations are certainly not similar. Nick recommended denial but in a half-hearted manner, as evidenced by the numerous quotes from his report that are contained in Griswold's letter of August 10. On the other hand, Sahinen makes some very definite recommendations for additional exploration and concludes his report as follows: "The property should not be abandoned until at least the above work is done".

It was in part to resolve this difference of opinion between Nick and Sahinen that Griswold wrote his letter of August 10. To me, that letter, as well as Charley Johnson's attached memorandum, reflects confusion brought on by Nick's report, particularly the closing paragraph, which says in effect that the applicant plans to do further exploration and that if this shows the deposit to continue and become larger, a small DMEA program would be justified. This, unfortunately, is more a matter of a "play of words", as we commonly deny applications concluding that if the applicant can uncover additional evidence we will reconsider another application. However, because of this "play of words", I gather that Johnson and Griswold thought that if the property was such as to deserve any additional exploration, such exploration could justifiably be participated in by DMEA since DMEA is designed for such a purpose.

In any event, it was not the intent in Griswold's letter to have the applicant do more work to provide additional information, or to make another field examination, as suggested in Jack Vhay's letter of August 16. Instead, he wanted to know if you might favor some exploration along the lines suggested by Sahinen or whether you would prefer to disagree with Sahinen and make a flat denial on the basis of Nick's work. Such a decision would not need further information from the applicant nor should it have required another field examination, unless it was your intent to send a different examiner in which case Jack's letter was unnecessary.

This looks like a case of too many hands in the stew, but as the boss you're the one who has to look into the crystal ball and come up with a decision. I believe the entire matter can be settled with a prompt Field Team letter.

Sincerely,

Thor H. Kiilsgaard
Staff Assistant for DMEA

Copy to: W. R. Griswold

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 1, Washington

August 16, 1951

Glasswold
Betty

Docket

Messrs. J. . . Cho k
Copper Canyon Mining Corporation
Conner, Montana

Re: Project No. [illegible]-2172 (Copper)
New Strike and Silver Tip Mole Claims
Ravalli County, Montana

Dear Mrs:

We have been informed by our Washington office that before further consideration can be given to your request for [illegible] assistance more information is needed.

If you have long and further work on your property, please advise us so that another field examination can be scheduled. The results of this examination will be sent on to Washington in order that further consideration can be given your request for [illegible] assistance.

Sincerely yours,

J. [illegible] May
for: [illegible] Glossbrenner
Executive Officer, [illegible]
Mail Tear, Region [illegible]

cc: [illegible] 2
[illegible]
[illegible]

File Copy
Surname

500

Finnell
Martin
Johnson
Nickelson

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

AUG 1 0 1954

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3270 (Copper)
Copper Canyon Mining Corporation
Lee and Ernest Shook
Ravalli County, Montana

Dear Mr. Weissenborn:

We have your letter of July 19 covering the cited application, together with the memorandum of Mr. Howard B. Nickelson, dated June 25, and also a report on the property by Mr. Sahinen, of June 1954.

From reading Mr. Nickelson's report we receive the impression that he feels the Applicant might be well advised in doing a little more work. He states:

"Should the operator by further prospecting demonstrate that the deposit has greater lateral continuity than now believed, he should be encouraged to submit another application.

"It is possible a copper deposit could exist in areas of shear zones, breccia zones or as veins, but the overburden and heavy timber makes prospecting for these structures difficult.

". . . Sinking the Lucky Strike shaft on the small ore zone at the bottom of the shaft may discover minable amounts of copper ore.

"The operators plan to continue prospecting by deepening the shaft and bulldozing a trench about 200 feet northwest of the Lucky Strike shaft. A small DMEA exploration program would be justified, if any of this work indicates the deposit will continue and become larger."

R.C.L.

Mr. Sahinen also stated:

"The property certainly should not be abandoned until at least the above work is done."

We are enclosing two copies each of memorandums by Mr. E. L. Newcomb, dated August 3, and Mr. C. H. Johnson, dated August 4. We are inclined to agree with Mr. Johnson that a moderate amount of DMEA assistance might well be granted this Applicant. Certainly not on the elaborate scale which he requests but perhaps in the form of bulldozing surface trenches as suggested by Sahinen, or possibly in the form of a few diamond drill holes from surface.

Certainly the property, at the moment, is nothing other than a small prospect, but if a little additional work is indicated, there is no reason why we should not participate in such work.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (JHB)

Enclosures 2

APPROVED:

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

Philip W. Guild (JHB)
Member, Geological Survey

WRGriswold/er 8/6/54

Copy to: Docket
Op Committee
Admr. R. File
Base Metals
Mr. Gildersleeve
Mr. C. H. Johnson
Chron.

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

August 4, 1954

Memorandum

To: W. R. Griswold, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-3270 (Copper) Shook and Shook, (Silver Strike, Tip Top claims,) Ravalli County, Montana

The examination report by Nickelson, dated June 25, 1954, presents the results of his careful mapping and sampling, and recommends denial, which is concurred in by the Field Team. The basis for denial is that the oreshoot was too small to encourage support of any exploration, by the Government at least. It is stated, however, that bulldozing might uncover other pods of ore, or that shaft sinking might discover minable amounts of ore. If the owner persists in prospecting and finds something substantial, then he should reapply for assistance, according to the report.

The report by Sahinen, dated June, 1954, is unfavorable to shaft sinking, but strongly recommends trenching.

It would be unfortunate if a good copper prospect remained incompletely explored, for lack of DMEA assistance, because there was not a plain, regular structure to follow. Pipes, pods, and irregular-shaped orebodies in general are difficult to explore, especially at the beginning, but they may be big, rich, and productive just the same, when found.

Rather than deny the application, it seems to me our field men might take another look and figure out a small exploration project that would, at least, do justice to the immediate vicinity of the little orebody that was found and mined.

The Sahinen report is returned herewith.

C. H. Johnson

C. H. Johnson

Attachment

Copy to - Mr. Newcomb, USGS
Minerals Division
C. H. Johnson
Files

IN REPLY REFER TO:

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

August 3, 1954

Re: DMEA-3270
Copper Canyon Mining Corp.
Shook Property
Ravalli County, Mont.
$40,239.60 - Copper

Memorandum

To: W. R. Griswold
Defense Minerals Exploration Administration

From: E. L. Newcomb
U. S. Geological Survey

Subject: Concurrence with Field Team recommendation for denial

The applicant requested assistance on a two stage project involving bulldozing, shaft sinking and drifting.

The Field Team has recommended the proposal be denied. However, they suggest that if further prospecting discloses favorable evidence of significant copper mineralization the applicant should be encouraged to resubmit his application.

A small pod of ore was exposed by trenching. Subsequent mining from a shaft in this pod indicated that the deposit is an irregular, pipe-like occurrence. Further work might disclose other small pods or lenses of similar ore, but it is unlikely that a significant amount of ore would be found by the proposed work.

I concur with the Field Team conclusions and recommend this application be denied.

E. L. Newcomb

E. L. Newcomb

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

WASHINGTON 25, D. C.
No. 157 [illegible] Street
[illegible], Washington

[illegible]

[illegible]
[illegible]
Department of the Interior
Washington 25, D. C.

Re: Docket No. [illegible] 3277
[illegible] Mining Corporation
[illegible]
[illegible] County, Montana

Dear Mr. [illegible]:

Attached is a memorandum from [illegible] Nicholson relative to the examination of the Copper Canyon Mining Corporation's property in [illegible] County, Montana. [illegible] concludes that the single lens exposed by the workings is of too limited an extent to warrant a DMEA contract, although, should the operator by [illegible] or prospecting demonstrate that the deposit has greater continuity than is now visible, he should be encouraged to submit another application.

Also enclosed is a report by [illegible] of the Montana Bureau of Mines, which we just received. [illegible] that Mr. [illegible]'s recommendations are similar to those of Mr. Nicholson.

[illegible]

[illegible]
[illegible] Geological Survey

[illegible]
[illegible] Bureau of Mines

[illegible]
[illegible] 2[illegible]
[illegible]

Reviewed by
DMEA OPERATING COMMITTEE
7-28-54
(date)

Dmea

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

June 25, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: Howard B. Nickelson, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3270, Field Examination, Copper Canyon Mining Corporation, Ravalli County, Montana, Lee and Ernest Shook, Conner, Montana.

INTRODUCTION

On February 9, 1954, an application to explore for copper was submitted by the Copper Canyon Mining Corporation to the Defense Minerals Exploration Administration. The exploration program was estimated to cost $40,239.60.

The property was first examined on April 1 and 2, 1954, and then re-examined on May 10, 1954. Ernest Shook, Lee Shook, and their father accompanied the examiner on the first visit. V. Z. Johnson, mining engineer, Bureau of Mines, Lee Shook, and his father were present on the second visit.

Sampling, examining, and mapping required 1½ days during the first examination. A brief re-examination was necessary because at the time of the first visit snow prohibited a thorough inspection of all workings and because the applicant was doing additional work which, it was hoped, would uncover information that would justify further exploration.

RECOMMENDATIONS

It is recommended that the application be denied. Evidence now available suggests that the deposit is a lens of limited extent and erratic metal content.

Should the operator by further prospecting demonstrate that the deposit has greater lateral continuity than now believed, he should be encouraged to submit another application.

Reviewed by
DMEA OPERATING COMMITTEE
7-28-54
(date)

LOCATION OF THE PROPERTY

The property is located in sec. 21, T. 3 S., R. 22 W., M.P.M., Ravalli County, Montana. The mine is on Woods Creek, about half a mile off the old road between Darby, Montana, and Shoup, Idaho. The nearest town is Conner, Montana, which is about 42 miles east of the mine. Darby, Montana, a few miles north of Conner, is the end of the Northern Pacific branch line from Missoula, Montana.

A good gravel road off U. S. Highway 91, just south of Darby, extends about 15 miles up the West Fork of the Bitterroot River. From the end of this road a single lane dirt road continues to the mine. These roads are passable throughout the year, but they require snow removal during winters of exceptional snowfall.

TERRAIN AND CLIMATE

The Bitterroot Mountains in this area are covered with heavy timber. Considerable snow and cold weather are common during the winter months, but the summers are ideal.

COMPETENCY OF THE APPLICANT

Ernest Shook and Lee Shook stated that they have very little money to finance the project, but intend to contribute their labor and mining machinery toward their share of the costs. They are not experienced miners, but the work to date has been satisfactorily accomplished. No doubt they can perform the work proposed in the application.

PROPERTY RIGHTS

The unpatented claims are owned by the corporation. The claims are recorded at the County Court House, Hamilton, Montana, as follows: The New Strike Claims in book 8, pages 390 to 460; the Silver Tip Claims in book 8, pages 415 to 434. Lucky Strike shaft, where the exploration work is proposed, is located approximately in the center of the Silver Tip claim. The long axis of this claim extends approximately north and south.

DESCRIPTION OF THE PROPERTY

Several comfortable cabins on Woods Creek below the mine serve as living quarters. The well-constructed head frame, ore bin, hoist house, and compressor house are at the shaft site. The operators own a 1½-ton truck, a small bulldozer, a compressor, hoist, and drilling equipment. A small sawmill provides sawed mine timbers and lumber for buildings. The applicant also owns a small jaw crusher, a set of rolls, and a concentrating table. Other equipment is listed in the application.

The underground workings consist of the Lucky Strike shaft, 30 feet deep, and an old drift with 226 feet of workings located 40 feet northwest of the shaft. These two workings are illustrated by the enclosed map. Other shallow workings are located within about half a mile northeast and east of the Lucky Strike shaft.

GEOLOGY

Very little is known about the regional geology in the area except that country rock is made up of sediments of the pre-Cambrian Belt series, intruded by granites and basic dikes.

The area is covered with overburden and the outcrops in argillite are few. A small granitic body outcrops about 300 feet north of the shaft and other granite bodies are in the vicinity.

A pod of ore containing quartz, chalcopyrite, bornite, and oxidized copper minerals in argillite was found in a bulldozer trench. This pod was mined and shipped to the Anaconda Smelter at Anaconda. The shipment, which amounted to 35.3445 tons, was valued at $24.90 per ton and assayed 4.37 percent copper, 4.3 ounces silver, and 0.16 ounce gold. The elliptical pod was about 25 feet long and about 8 feet at its greatest diameter. A shaft was started under the pod and continued to a depth of 20 feet where a small crosscut was driven to the northeast. Copper minerals associated with quartz were found disseminated in the argillite as small lenses and pods in an irregular chimney-type occurrence about the size of the shaft.

The samples taken by the operator, the field examiner, and the Anaconda Mining Company show a wide variation in assay results which is indicative of the spotty and lens-like nature of the copper occurrence. These samples are listed below to compare the results.

SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
1. A.C.M. cut across the dozer trench at the shaft location.	?	0.14	0.05	0.002	34.8	
SAMPLES OF THE POD						
2. A.C.M. at the top of pod.	?	21.3	31.10	1.27	8.1	
OPERATOR'S SAMPLES OF HIGH GRADE POD						
3. (Grab Samples?)	?	36.48	46.60	1.04		
4. " "	?	28.80	46.2	1.96		
5. " "	?	11.48	10.0	0.24		
6. " "	?	12.72	34.8	2.04		
7. " "	?	21.76	13.8	0.09		
8. " "	?	0.04	0.20	0.01		This sample may be wall rock.
9. Sample of bornite to determine Au and Ag.	?	10.46	10.6	0.99		
10. A.C.M. settlement on 35.3445 tons from the pod.		4.57	4.3	0.16		The operators were dissatisfied with the settlement. No representative of the operator was present during the sampling at the smelter.

SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
OPERATOR'S SAMPLES OF THE WALL ROCK OFF THE VEIN AT THE COLLAR OF SHAFT						
11.	?	6.4	6.8	1.38		These samples do not represent the wall rock that exists at the present time.
12.	?	14.31	9.4	0.42		" "
13.	?	1.66	0.70	0.09		" "
14.	?	6.67	18.20	1.02		" "
15.	?	31.78	68.6	1.23		" "
SAMPLES TAKEN BY U.S.G.S. AS SHOWN ON ENCLOSED MAP						
16. No. 452	2.5'	1.01	0.6	0.015		
17. No. 453	11.0'	0.66	0.7	0.01		
OPERATOR'S SAMPLES TAKEN JUST BELOW THE POD OF ORE						
18.	?	0.12	0.40	0.05		
19.	?	0.64	0.60	0.06		
20.	?	0.68	0.90	0.11		
	?	1.07	0.80	0.10		

SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
OPERATOR'S SAMPLES IN THE SHAFT AT 20'						
21. Main lead	?	12.96	13.1	0.06		
22. Soft dirt	?	8.52	8.6	0.32		
23. Hard rocks		2.20	1.4	0.02		
24. Sulphide		26.62	4.2	0.09		
25. Hi grade		51.52	27.7	0.60		
A.C.M. SAMPLES IN SHAFT AT 20'. (SEE ENCLOSED MAP.)						
26. No. 125	6"	3.92	4.8	0.23		
No. 126	5'	4.25	5.80	0.18		
No. 127	4"	1.11	1.00	0.04		
U.S.G.S SAMPLES IN SHAFT AT 20'. (SEE ENCLOSED MAP.)						
27. No. 454	3½'	0.10	0.1	Tr.		
28. No. 455	5½'	0.41	0.4	Tr.		
29. No. 458	4'	0.66	0.7	0.03		
30. No. 456	2.3'	0.76	0.8	0.016		
31. No. 457	6.0	0.66	0.4	0.01		

SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
OPERATOR'S SAMPLES TAKEN IN SHAFT AND CROSSCUT AT 20'						
32.	?	6.84	9.6	0.12		Roughly corresponds to location U.S.G.S. No. 457.
33. Loose formation in face of drift at 12', 20' depth of shaft.	?	1.06	1.40	0.12		
		3.68	2.3	0.09		
34. U.S.G.S. No. 464 grab sample in shaft at 30'.		1.93	1.0	0.02		

The samples taken by the field examiner were much lower in mineral content than those taken by the operators and the A.C.M. geologist. It is believed the examiner's samples were essentially the wall rock surrounding the chimney-type ore occurrence. U.S.G.S. samples No. 452 and 453 were taken from the wall rock, but some oxidized copper minerals were evident as specks and blebs in the material sampled. U.S.G.S. sample No. 455 was taken after a small round was blasted from the area sampled by the A.C.M. geologist. A.C.M. samples No. 125 and 126 across 5½ feet showed a weighted assay of 4.19 percent copper, 4.8 ounces silver, and 0.23 ounce gold, whereas U.S.G.S. sample No. 455 across 5½ feet assayed 0.66 percent copper, 0.41 ounce silver, and a trace gold.

The dozer trench in the vicinity of the shaft exposed a considerable strip of bedrock which was examined for continuity of the ore exposed in the shaft. No continuity could be found, but small local areas in the trench had some staining from oxidized copper minerals along small fractures and between the bedding planes of the argillite.

Early day gold miners followed a set of small northeast-trending fractures in a drift which portals a few feet northwest of the shaft. (See attached map.) A small amount of disseminated chalcopyrite and oxidized copper minerals occurred scattered along the fractures and in the argillite adjacent to them.

A drift about 100 feet long located about half a mile east of the Lucky Strike shaft followed a small fault; minor copper minerals were found within the fault and in the adjacent argillite.

A vertical shaft about 30 feet deep located about half a mile northeast of the Lucky Strike shaft exposed disseminated copper minerals in a lens about 20 by 6 feet which followed the argillite bedding. Assays from two samples taken across the stained beds in the shaft were 0.3 and 0.15 percent copper. Some small pods of chalcopyrite, bornite, and oxidized-copper minerals were reported found in the shaft. Pieces of copper-stained float are quite common on the surface in the area.

Exploration geologists from the Anaconda Copper Mining Co. and the Kennecott Mining Company have inspected the area, but their opinion of the property is not known.

It is possible a copper deposit could exist in areas of shear zones, breccia zones or as veins, but the overburden and heavy timber makes prospecting for these structures difficult.

APPLICANT'S PROPOSAL

The applicants proposed the following exploration program:

STAGE I

1. Bulldoze 4 trenches across the vein.

2. Sink 80 feet of shaft from the bottom of the Lucky Strike shaft.

3. Drift on the vein 150 feet each side of the shaft on 100-foot level.

STAGE II

1. Sink the shaft an additional 100 feet.

2. Drift 150 feet on each side of the shaft on the 200 level.

At the time of submitting the application, the operators believed a vein existed and that their proposed program would adequately explore such a vein, but evidence now suggests a chimney-type deposit of limited extent that would leave only small reserves on completion of the shaft. If a vein did exist, the same objective could be reached with a crosscut 400 to 500 feet long.

Bulldozing trenches across an area roughly extending N. 50° W. and S. 50° E. of the Lucky Strike shaft might disclose other pods or determine if a zone of copper minerals exists in the area. Sinking the Lucky Strike shaft on the small ore zone at the bottom of the shaft may discover minable amounts of copper ore.

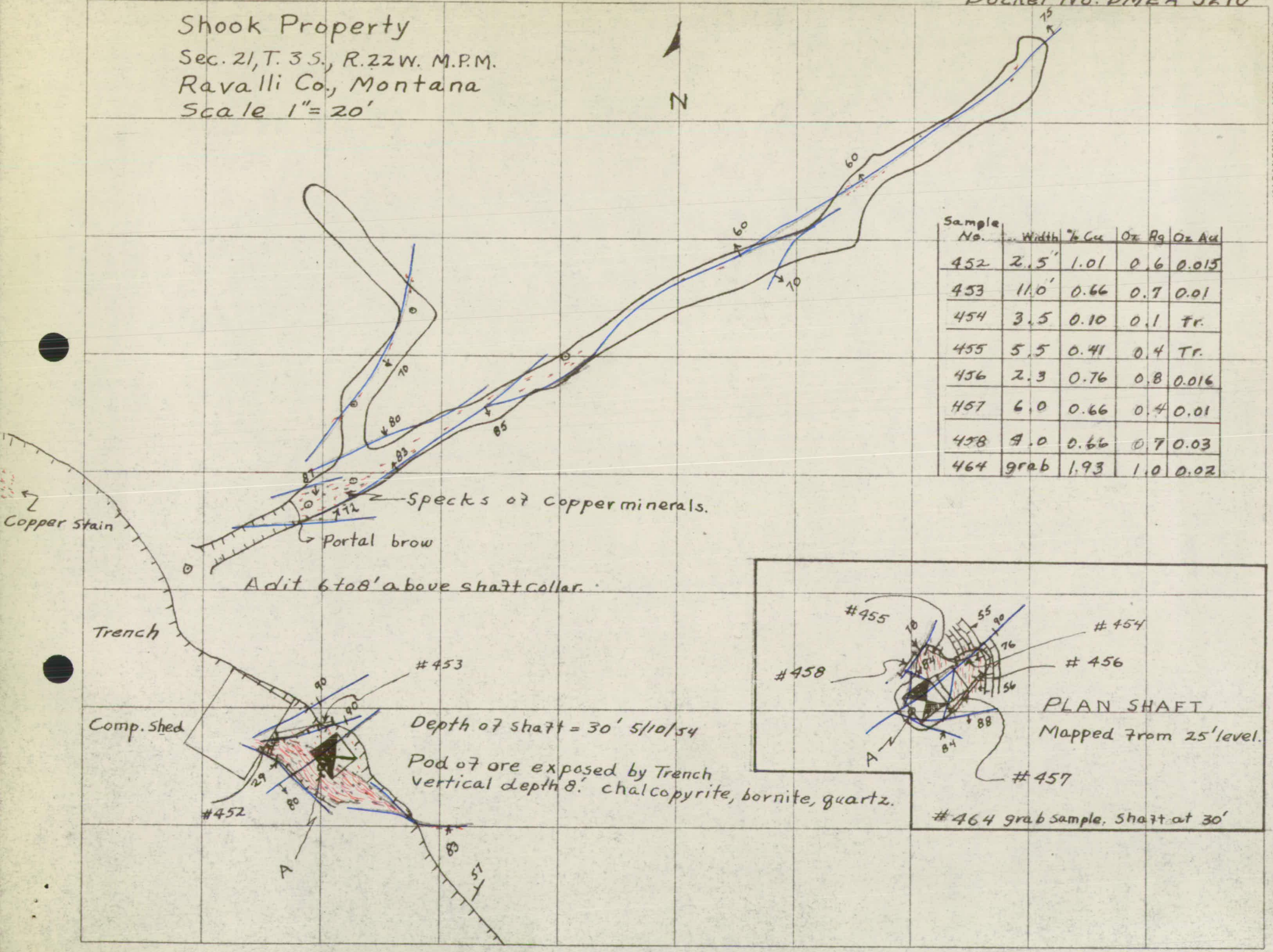
The operators plan to continue prospecting by deepening the shaft and bulldozing a trench about 200 feet northwest of the Lucky Strike shaft. A small DMEA exploration program would be justified, if any of this work indicates the deposit will continue and become larger.

Enclosures (2)
Distribution:
DMEA(4)
USBM(2)
USGS(SRO)
Nickelson
Docket

Docket No. DMEA 3270

Shook Property

Sec. 21, T. 3 S., R. 22 W. M.P.M.
Ravalli Co., Montana
Scale 1" = 20'



Sample No.	Width	% Cu	Oz Ag	Oz Au
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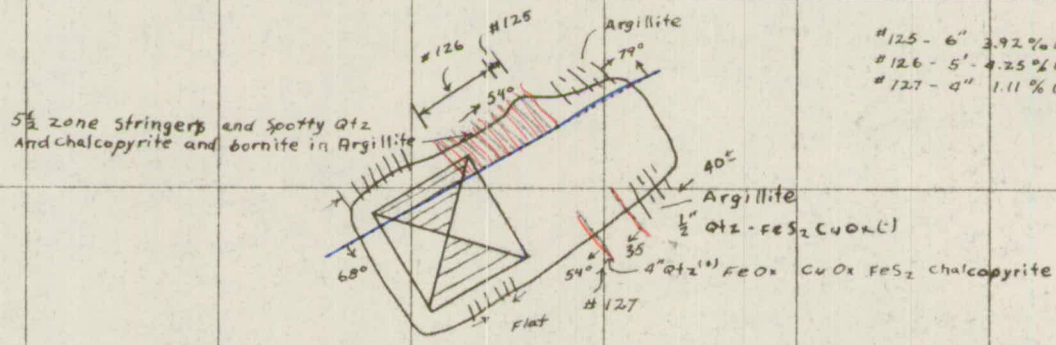
453	11.0'	0.66	0.7	0.01
454	3.5	0.10	0.1	Tr.
455	5.5	0.41	0.4	Tr.
456	2.3	0.76	0.8	0.016
457	6.0	0.66	0.4	0.01
458	9.0	0.66	0.7	0.03
464	grab	1.93	1.0	0.02

N



#125 - 6" 2.92% Cu. - 4.8 Oz Ag. - 0.23 Oz Au.
#126 - 5' - 4.25% Cu - 5.80 Oz Ag - 0.18 Oz. Au.
#127 - 4" 1.11 % Cu. - 1.00 Oz. Ag. - 0.04 Oz. Au.

SKETCH OF SHAFT Bottom @ 20'

COPPER CANYON CLAIM

Scale = 1 In. = 10 Ft.

SHOOK PROPERTY

Copyed From Anaconda Mining Co. Sketch.

"ALBANENE" NO. 195M K&E CO., N.Y.
REG. U.S. PAT. OFF.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

July 19, 1954

Arnold

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

Re: Docket No. DMEA 3270
Copper Canyon Mining Corporation
Lee and Ernest Shook
Ravalli County, Montana

Dear Mr. Selfridge:

Attached is a memorandum from Howard B. Nickelson relative to the examination of the Copper Canyon Mining Corporation's property in Ravalli County, Montana. Nickelson concludes that the single lens exposed by the workings is of too limited an extent to be worth a DMEA contract, although, should the operator by further prospecting demonstrate that the deposit has greater continuity than is now visible, he should be encouraged to submit another application.

Also enclosed is a report by Uuno M. Sahinen of the Montana Bureau of Mines, which we just received. It will be noted that Mr. Sahinen's recommendations are similar to those of Mr. Nickelson.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
(U. S. Geological Survey)

Wing G. Agnew

Wing G. Agnew, Member
(U. S. Bureau of Mines)

Enclosures
cc: USBM(2)
Nickelson

Reviewed by
DMEA OPERATING COMMITTEE
7-28-54
(date)

D Mea

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

June 25, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: Howard B. Nickelson, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3270, Field Examination, Copper Canyon Mining Corporation, Ravalli County, Montana, Lee and Ernest Shook, Conner, Montana.

INTRODUCTION

On February 9, 1954, an application to explore for copper was submitted by the Copper Canyon Mining Corporation to the Defense Minerals Exploration Administration. The exploration program was estimated to cost $40,239.60.

The property was first examined on April 1 and 2, 1954, and then re-examined on May 10, 1954. Ernest Shook, Lee Shook, and their father accompanied the examiner on the first visit. V. Z. Johnson, mining engineer, Bureau of Mines, Lee Shook, and his father were present on the second visit.

Sampling, examining, and mapping required 1½ days during the first examination. A brief re-examination was necessary because at the time of the first visit snow prohibited a thorough inspection of all workings and because the applicant was doing additional work which, it was hoped, would uncover information that would justify further exploration.

RECOMMENDATIONS

It is recommended that the application be denied. Evidence now available suggests that the deposit is a lens of limited extent and erratic metal content.

Should the operator by further prospecting demonstrate that the deposit has greater lateral continuity than now believed, he should be encouraged to submit another application.

Reviewed by
DMEA OPERATING COMMITTEE
7-28-54
(date)

LOCATION OF THE PROPERTY

The property is located in sec. 21, T. 3 S., R. 22 W., M.P.M., Ravalli County, Montana. The mine is on Woods Creek, about half a mile off the old road between Darby, Montana, and Shoup, Idaho. The nearest town is Conner, Montana, which is about 42 miles east of the mine. Darby, Montana, a few miles north of Conner, is the end of the Northern Pacific branch line from Missoula, Montana.

A good gravel road off U. S. Highway 91, just south of Darby, extends about 15 miles up the West Fork of the Bitterroot River. From the end of this road a single lane dirt road continues to the mine. These roads are passable throughout the year, but they require snow removal during winters of exceptional snowfall.

TERRAIN AND CLIMATE

The Bitterroot Mountains in this area are covered with heavy timber. Considerable snow and cold weather are common during the winter months, but the summers are ideal.

COMPETENCY OF THE APPLICANT

Ernest Shook and Lee Shook stated that they have very little money to finance the project, but intend to contribute their labor and mining machinery toward their share of the costs. They are not experienced miners, but the work to date has been satisfactorily accomplished. No doubt they can perform the work proposed in the application.

PROPERTY RIGHTS

The unpatented claims are owned by the corporation. The claims are recorded at the County Court House, Hamilton, Montana, as follows: The New Strike Claims in book 8, pages 390 to 460; the Silver Tip Claims in book 8, pages 415 to 434. Lucky Strike shaft where the exploration work is proposed is located approximately in the center of the Silver Tip claim. The long axis of this claim extends approximately north and south.

DESCRIPTION OF THE PROPERTY

Several comfortable cabins on Woods Creek below the mine serve as living quarters. The well-constructed head frame, ore bin, hoist house, and compressor house are at the shaft site. The operators own a 1½-ton truck, a small bulldozer, a compressor, hoist, and drilling equipment. A small sawmill provides sawed mine timbers and lumber for buildings. The applicant also owns a small jaw crusher, a set of rolls, and a concentrating table. Other equipment is listed in the application.

The underground workings consist of the Lucky Strike shaft, 30 feet deep, and an old drift with 226 feet of workings located 40 feet northwest of the shaft. These two workings are illustrated by the enclosed map. Other shallow workings are located within about half a mile northeast and east of the Lucky Strike shaft.

GEOLOGY

Very little is known about the regional geology in the area except that country rock is made up of sediments of the pre-Cambrian Belt series, intruded by granites and basic dikes.

The area is covered with overburden and the outcrops in argillite are few. A small granitic body outcrops about 300 feet north of the shaft and other granite bodies are in the vicinity.

A pod of ore containing quartz, chalcopyrite, bornite, and oxidized copper minerals in argillite was found in a bulldozer trench. This pod was mined and shipped to the Anaconda Smelter at Anaconda. The shipment, which amounted to 35.3445 tons, was valued at $24.90 per ton and assayed 4.37 percent copper, 4.3 ounces silver, and 0.16 ounce gold. The elliptical pod was about 25 feet long and about 8 feet at its greatest diameter. A shaft was started under the pod and continued to a depth of 20 feet where a small crosscut was driven to the northeast. Copper minerals associated with quartz were found disseminated in the argillite as small lenses and pods in an irregular chimney-type occurrence about the size of the shaft.

The samples taken by the operator, the field examiner, and the Anaconda Mining Company show a wide variation in assay results which is indicative of the spotty and lens-like nature of the copper occurrence. These samples are listed below to compare the results.

SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
1. A.C.M. cut across the dozer trench at the shaft location.	?	0.14	0.05	0.002	34.8	
SAMPLES OF THE POD						
2. A.C.M. at the top of pod.	?	21.3	31.10	1.27	8.1	
OPERATOR'S SAMPLES OF HIGH GRADE POD						
3. (Grab Samples?)	?	36.48	46.60	1.04		
4. " "	?	28.80	46.2	1.96		
5. " "	?	11.48	10.0	0.24		
6. " "	?	12.72	34.8	2.04		
7. " "	?	21.76	13.8	0.09		
8. " "	?	0.04	0.20	0.01		This sample may be wall rock.
9. Sample of bornite to determine Au and Ag.	?	10.46	10.6	0.99		
10. A.C.M. settlement on 35.3445 tons from the pod.		4.57	4.3	0.16		The operators were dissatisfied with the settlement. No representative of the operator was present during the sampling at the smelter.

SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
OPERATOR'S SAMPLES OF THE WALL ROCK OFF THE VEIN AT THE COLLAR OF SHAFT						
11.	?	6.4	6.8	1.38		These samples do not represent the wall rock that exists at the present time.
12.	?	14.31	9.4	0.42		" "
13.	?	1.66	0.70	0.09		" "
14.	?	6.67	18.20	1.02		" "
15.	?	31.78	68.6	1.23		" "
SAMPLES TAKEN BY U.S.G.S. AS SHOWN ON ENCLOSED MAP						
16. No. 452	2.5'	1.01	0.6	0.015		
17. No. 453	11.0'	0.66	0.7	0.01		
OPERATOR'S SAMPLES TAKEN JUST BELOW THE POD OF ORE						
18.	?	0.12	0.40	0.05		
19.	?	0.64	0.60	0.06		
20.	?	0.68	0.90	0.11		
	?	1.07	0.80	0.10		

SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
OPERATOR'S SAMPLES IN THE SHAFT AT 20'						
21. Main lead	?	12.96	3.1	0.06		
22. Soft dirt	?	8.52	8.6	0.32		
23. Hard rocks		2.20	1.4	0.02		
24. Sulphide		26.62	4.2	0.09		
25. Hi grade		51.52	27.7	0.60		
A.C.M. SAMPLES IN SHAFT AT 20'. (SEE ENCLOSED MAP.)						
26. No. 125	6"	3.92	4.8	0.23		
No. 126	5'	4.25	5.80	0.18		
No. 127	4"	1.11	1.00	0.04		
U.S.G.S SAMPLES IN SHAFT AT 20'. (SEE ENCLOSED MAP.)						
27. No. 454	3½'	0.10	0.1	Tr.		
28. No. 455	5½'	0.41	0.4	Tr.		
29. No. 458	4'	0.66	0.7	0.03		
30. No. 456	2.3'	0.76	0.8	0.016		
31. No. 457	6.0	0.66	0.4	0.01		

	SAMPLE DESCRIPTION	WIDTH	% CU	OZ. AG	OZ. AU	% FE	REMARKS
	OPERATOR'S SAMPLES TAKEN IN SHAFT AND CROSSCUT AT 20'						
32.		?	6.84	9.6	0.12		Roughly corresponds to location U.S.G.S. No. 457.
33.	Loose formation in face of drift at 12', 20' depth of shaft.	?	1.06	1.40	0.12		
			3.68	2.3	0.09		
34.	U.S.G.S. No. 464 grab sample in shaft at 30'.		1.93	1.0	0.02		

The samples taken by the field examiner were much lower in mineral content than those taken by the operators and the A.C.M. geologist. It is believed the examiner's samples were essentially the wall rock surrounding the chimney-type ore occurrence. U.S.G.S. samples No. 452 and 453 were taken from the wall rock, but some oxidized copper minerals were evident as specks and blebs in the material sampled. U.S.G.S. sample No. 455 was taken after a small round was blasted from the area sampled by the A.C.M. geologist. A.C.M. samples No. 125 and 126 across 5½ feet showed a weighted assay of 4.19 percent copper, 4.8 ounces silver, and 0.23 ounce gold, whereas U.S.G.S. sample No. 455 across 5½ feet assayed 0.66 percent copper, 0.41 ounce silver, and a trace gold.

The dozer trench in the vicinity of the shaft exposed a considerable strip of bedrock which was examined for continuity of the ore exposed in the shaft. No continuity could be found, but small local areas in the trench had some staining from oxidized copper minerals along small fractures and between the bedding planes of the argillite.

Early day gold miners followed a set of small northeast-trending fractures in a drift which portals a few feet northwest of the shaft. (See attached map.) A small amount of disseminated chalcopyrite and oxidized copper minerals occurred scattered along the fractures and in the argillite adjacent to them.

A drift about 100 feet long located about half a mile east of the Lucky Strike shaft followed a small fault; minor copper minerals were found within the fault and in the adjacent argillite.

A vertical shaft about 30 feet deep located about half a mile northeast of the Lucky Strike shaft exposed disseminated copper minerals in a lens about 20 by 6 feet which followed the argillite bedding. Assays from two samples taken across the stained beds in the shaft were 0.3 and 0.15 percent copper. Some small pods of chalcopyrite, bornite, and oxidized-copper minerals were reported found in the shaft. Pieces of copper-stained float are quite common on the surface in the area.

Exploration geologists from the Anaconda Copper Mining Co. and the Kennecott Mining Company have inspected the area, but their opinion of the property is not known.

It is possible a copper deposit could exist in areas of shear zones, breccia zones or as veins, but the overburden and heavy timber makes prospecting for these structures difficult.

APPLICANT'S PROPOSAL

The applicants proposed the following exploration program:

STAGE I

1. Bulldoze 4 trenches across the vein.

2. Sink 80 feet of shaft from the bottom of the Lucky Strike shaft.

3. Drift on the vein 150 feet each side of the shaft on 100-foot level.

STAGE II

1. Sink the shaft an additional 100 feet.

2. Drift 150 feet on each side of the shaft on the 200 level.

At the time of submitting the application, the operators believed a vein existed and that their proposed program would adequately explore such a vein, but evidence now suggests a chimney-type deposit of limited extent that would leave only small reserves on completion of the shaft. If a vein did exist, the same objective could be reached with a crosscut 400 to 500 feet long.

Bulldozing trenches across an area roughly extending N. 50° W. and S. 50° E. of the Lucky Strike shaft might disclose other pods or determine if a zone of copper minerals exists in the area. Sinking the Lucky Strike shaft on the small ore zone at the bottom of the shaft may discover minable amounts of copper ore.

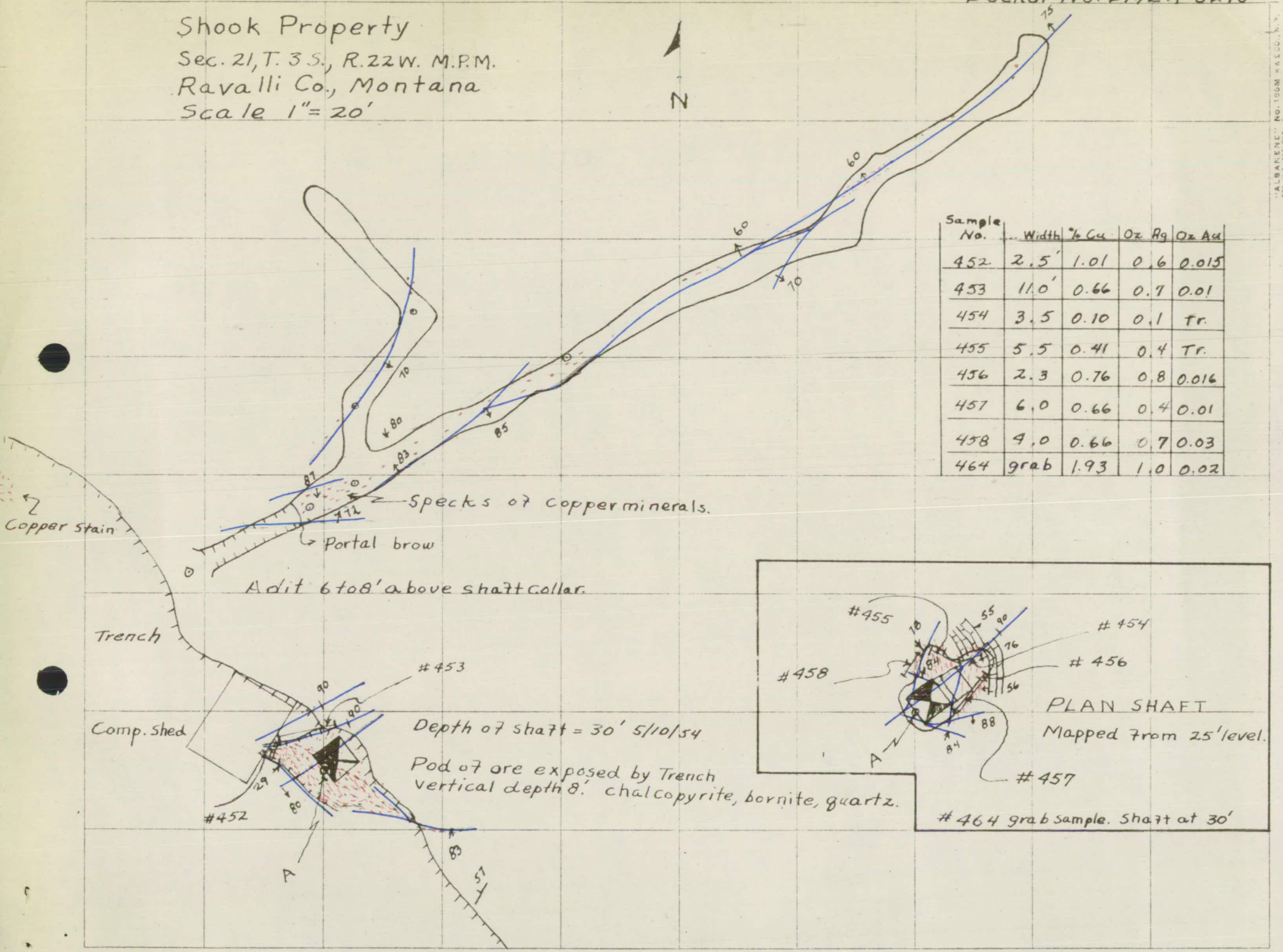
The operators plan to continue prospecting by deepening the shaft and bulldozing a trench about 200 feet northwest of the Lucky Strike shaft. A small DMEA exploration program would be justified, if any of this work indicates the deposit will continue and become larger.

Enclosures (2)
Distribution:
DMEA(4)
USBM(2)
USGS(SRO)
Nickelson
Docket

Docket No. DMEA 3270

Shook Property

Sec. 21, T. 3 S., R. 22 W. M.P.M.
Ravalli Co., Montana
Scale 1" = 20'



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N

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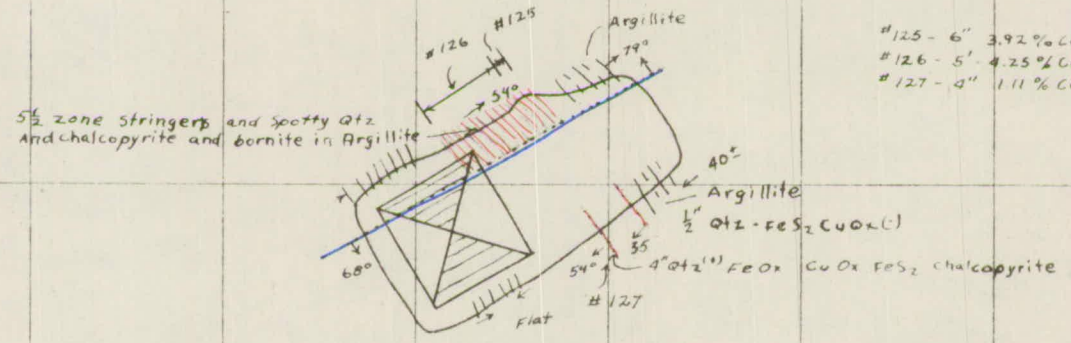

SKETCH OF SHAFT Bottom @ 20'
COPPER CANYON CLAIM
Scale = 1 In. = 10 Ft.

SHOOK PROPERTY
copyed From Anaconda Mining Co. Sketch.

"ALBANENE" NO. 195M K&E CO., N. Y.
REG. U.S. PAT. OFF.

Knowald
Betty

Docket

7-19-54

DMEA 3270 - Copper Canyon (J. E. & Lee Shook)

This company applied for exploration aid for tungsten on a Nevada property. Iron and Ferro-Alloys Division discussed company's standing with R. F. C., which agency was anxious to foreclose. The tungsten application was DMEA 3191.

Shook

This case awaiting F.T. opinion in Reg. 4

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

xxxxxxxxxxxxxxxx
No. 157 Howard Street
Spokane 4, Washington

July 23, 1954

Greenwood
Betty

Mr. J. [illegible] Brock
Copper Canyon Mining Co.
Conner, Montana

Re: Docket No. IM[illegible]-3270 (copper)
Copper Canyon Mining Co.
Pend Oreille County, Washington.

Dear Mr. Brock:

This will acknowledge receipt from you of the report of Mr. [illegible] on your property. The report is being sent to our Washington office to supplement the application.

Yours sincerely,

John [illegible] Vhay
For [illegible] Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: W. C. March
Montana Bureau of Mines
Butte, Montana

DMEA (2)
USBM (2)
Nickelson

IN REPLY REFER TO:

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

March 10, 1954

Memorandum

Re: IMEA-3270
Copper Canyon Mining Corp.
Ravalli County, Montana
$40,239.60
Copper

To: Mr. W. R. Griswold

From: E. L. Newcomb

Subject: Review of application

The applicant proposes a two-stage program of trenching, shaft sinking and drifting on the New Strike and Silver Tip Claims.

A limited amount of exploration has been done on the property, but sufficient supporting evidence has not been submitted with the application.

The field team will examine the prospect when it becomes accessible later this spring.

We are returning the application to your office. Further consideration of the operator's proposal will be made after we receive the field team's examination report.

E. L. Newcomb
E. L. Newcomb
Geologist

IN REPLY REFER TO:

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

March 10, 1954

Memorandum

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E. L. Newcomb
Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Sc. 157 Howard Street
Spokane 4, Washington

March 4, 1954

Mr. J. E. Shook
Copper Canyon Mining Corporation
Conner, Montana

Re: Application for DMEA assistance

Dear Mr. Shook:

This will acknowledge receipt of your application for DMEA assistance in exploring your Copper Canyon property. Your application has been forwarded to Washington, D. C., for their consideration.

We would appreciate your advising us as soon as all workings on your property are accessible so that we can schedule an examination of your property at an early date.

Enclosed are the original of all assay returns submitted with your application and which you requested be returned to you.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: DMEA (2)
USBM (2)
Nickelson

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

So. 157 Howard Street
Spokane 4, Washington

March 4, 1954

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Copper Canyon Mining Corporation
Conner, Montana

Re: Application for DMEA assistance

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A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: DMEA (2)
USBM (2)
Nickelson

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

Messrs. J. E. & Lee Shook
Copper Canyon Mining Corp.
Conner, Montana

March 8, 1954
Subject: DMEA-3270
Re: Exploration Assistance
Lucky Strike

Dear Sirs:

The receipt of your application dated January 28, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3270 and referred to the Base Metals Division.

Kindly refer to DMEA-3270 in any future correspondence relating to your application.

Sincerely yours,

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

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

March 9, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region II

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region II.

DMEA - 3270 J. E. & Lee Shook

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

March 4, 1954

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

Re: Application for DMEA assistance

Dear Mr. Selfridge:

Enclosed are the original and two copies of an application submitted by J. E. Shook and Lee Shook of the Copper Canyon Mining Company for assistance in exploring a copper property in Ravalli County, Montana. One copy of the application has been retained for the files of this office.

An examination of the property will be scheduled as soon as we determine if the property is accessible.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: USBM (2)
Nickelson

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

No. 157 Howard Street
Spokane 4, Washington

March 4, 1954

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

Re: Application for DMEA assistance

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Sincerely yours,

A. K. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: USGS (2)
Kiskaloon

COPPER CANYON MINING CORPORATION

Conner, Montana
January 28, 1954

RECEIVED
BUREAU OF MINES
FEB 8 - 1954
SPOKANE, WASH.

Mr. Tom Howard
Member, DMEA, Field Team, Region 11
1201 North Division Street
Spokane 2, Washington

DMEA

Dear Sir:

Enclosed is our application (forms and sheets attached) for a government loan for exploration of our copper prospect.

We applied for this loan upon the advice of Mr. McNabb of the Butte School of Mines, after a favorable report both to us and to Mr. McNabb from Mr. Uuno M. Sehenin, geologist of the Butte School of Mines.

Mr. Sehenin has made a personal survey and examination of our property and he and Mr. McNabb both believe the prospect, the shaft now started, warrants an immediate examination; however the mapping and surveying of the entire prospect could not be made until the snow was gone in the spring, around the first to the fifteenth of April.

We maintain residence the entire year at the mine. The road to the property is in good condition, affording no difficulty in reaching the property at any time of year.

If our application meets with approval for examination, your field man can inquire at the Conner, Montana store, nine miles south of Darby, Montana on highway #93 for road directions. On week ends we are usually down from the property to our residence at Medicine Tree, south and east of Conner on highway #93. Mrs. White of the Conner store would direct your man to, either the mine or our home at Medicine Tree.

~~We are very anxious to know if this loan is considered. If it is~~ given we would like to start working by the first of April as the summer months are the best time and least expensive to operate.

Any action on the application that would hasten a discision, that you would give, will be greatly appreciated.

Yours truly,

J. E. Shook, Sec.,Treasurer

COPPER CANYON MINING CORPORATION

Conner, Montana
January 28, 1954

Mr. Tom Howard
Member, DMEA, Field Team, Region 11
1201 North Division Street
Spokane 2, Washington

DMEA

RECEIVED
BUREAU OF MINES
FEB 8 - 1954
SPOKANE, WASH.

Dear Sir:

Enclosed is our application (forms and sheets attached) for a government loan for exploration of our copper prospect.

We applied for this loan upon the advice of Mr. McNabb of the Butte School of Mines, after a favorable report both to us and to Mr. McNabb from Mr. Uuno M. Sehonin, geologist of the Butte School of Mines.

Mr. Sehonin has made a personal survey and examination of our property and he and Mr. McNabb both believe the prospect, the shaft now started, warrants an immediate examination; however the mapping and surveying of the entire prospect could not be made until the snow was gone in the spring, around the first to the fifteenth of April.

We maintain residence the entire year at the mine. The road to the property is in good condition, affording no difficulty in reaching the property at any time of year.

If our application meets with approval for examination, your field man can inquire at the Conner, Montana store, nine miles south of Darby, Montana on highway #93 for road directions. On week ends we are usually down from the property to our residence at Medicine Tree, south and east of Conner on highway #93. Mrs. White of the Conner store would direct your man to, either the mine or our home at Medicine Tree.

~~We are very anxious to know if this loan is considered. If it is~~ given we would like to start working by the first of April as the summer months are the best time and least expensive to operate.

Any action on the application that would hasten a discision, that you would give, will be greatly appreciated.

Yours truly,

J. E. Shook, Sec.,Treasurer

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. 3270
Metal or Mineral
Date Received
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: J. E. Shook and Lee Shook, Conner, Montana
(b) Copper Canyon Mining Corp., Conner, Montana, Incorporated 3/24/52
Lee Shook, President; Ernest J. E. Shook, Sec., Treas.
Incorporated in State of Montana

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Refer to map and diagram submitted by Uuno H. Sahinen, Geologist, Butte School of Mines, Butte, Mont.

(*b*) State any mine name by which the property is known. Shaft Name "Lucky Strike" on Silver Tip Claim

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owners

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

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. New Strike Claims recorded Book 8, pgs 390 to 406, Silver Tip Lode Claims, Book 8, pgs 415 to 434, County of Ravalli, Hamilton, Mont.

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

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

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

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

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

16—66551-1

Attached Schedules, etc.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Copper

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☒ Use of equipment owned by you ☐ Other Labor and supplies of owners

Explain in detail on acompanying paper.
The attached Sheets show the machinery, buildings etc, privately owned and corporate owned. to be

CERTIFICATION

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

Dated January 28, 195 4

Lee Shook

(Applicant) J. E. Shook

By .....

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

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

Schedule [illegible] (for item [illegible])

a. [illegible] 1931 by bull-dozer onto [illegible] [illegible] [illegible] be- [illegible] At this time [illegible] [illegible] [illegible] Silver Tip [illegible] [illegible] out. [illegible] bull-dozer out [illegible] [illegible] or anything [illegible] Silver Tip [illegible] [illegible] [illegible] 1931 through 1935.

In July 1935 [illegible] Silver Tip [illegible] [illegible] [illegible] [illegible] [illegible]

b. [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
1 [illegible]
1 [illegible]
1 House (living quarters) 16' by [illegible]
1 [illegible] 16' by 16' ([illegible]
[illegible]
1 [illegible] 14' by 20', [illegible]
1 Dry bin, 10' by 17' by 12' ([illegible]) [illegible]
[illegible] 10' by 10' [illegible]
[illegible] [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
any time [illegible]
[illegible]
the [illegible]
[illegible]

c. Refer to Map by [illegible]

d. It is [illegible]
[illegible]
[illegible]
[illegible]
Derby, [illegible] Derby [illegible] [illegible] [illegible]
[illegible] Derby [illegible]
[illegible]
Residence [illegible]

e. [illegible]
[illegible]
[illegible]

COPY

Schedule 111

5- b. Description of Exploration Project: Stage 1
1. Four bull-dozer trenches across strike of vein.
2. 80 Feet of shaft plus ten feet of sump on vein.
3. Drift on vein 150 feet on each side of shaft on 100 foot level.

Contingent upon Stage 1 results: Stage 11
1. Sink shaft additional 100 feet to 200 foot level.
2. Drift on vein 150 feet on each side on 200 foot level.

c. Work to begin immediately after contract is signed.
d. We have done all the exploration mentioned in Schedule 11 and have prospected for the past ten years

6- a. Independent contracts---------None
b. Three men will be employed full time at the property on a six day week basis. The following tabulation of wage rates include an allowance for over time on the sixth day of each week:

Class of Labor	Wages Per Shift
Miner	$16.00
Miner Foreman	18.00
Top Man	15.00
Geo. and Engineering	75.00

6- Stage 1
100 hours of bull-dozing
80 feet of shaft sinking
500 feet of drifting

6- Stage 11
100 feet of shaft sinking
500 feet of drifting

1

Cost Estimate Stage 1
Bulldozer 100 hours at 10.00 per hour 1000.00
Work to include cutting four trenches shown on enclosed maps. Road maintenance for snow removal during course of project and logging timbers to be used at the project.
Copper Canyon Mining Co. will rent a Cletrac 55 bulldozer with driver from one of the company officials at a rate of $10.00 per hour.

Time Schedule (one) 1 month

Unit cost for Breaking and Hoisting---------Shaft sinking
Average------one foot advance per shift
one compartment-----5'4" by 5'4" in the clear

Labor and Supervision for one shift

1 miner @ $16.00 per shift	16.00	
1 miner foreman	18.00	
1 top man	15.00	
Total		49.00
Plus 12.2% for FICA and other taxes		5.98
Total		54.98

Operating Equipment:

Furnished	Cost	Allowance for Depreciation
1 105 CFM compressor	1500.00	55.00
1 3/4 Ton Chev. P-Up trk.		30.00
	1500.00	
2 Jackhammers, Model CPC-60 @ 125.00 ea.	250.00	9.00
1 1000# Cap. mine car	50.00	1.00

Schedule 111 (continued)

Operating Equipment

1 Air receiver	50.00	1.00	
1 Gandill (equipped)	3000.00	3.00	
Used 3 dn. per no.			
1/10 of 600.00			
per no. dep.			
1 Single Drum Reico 25 HP	500.00	7.00	
Gas powered			
1 Stabbing Bucket	50.00	3.00	
Misc. Small tools	250.00	10.00	
1 50 gpm pump	500.00	12.00	
1 Tent Pen	300.00	9.00	
1 Hand Crane	300.00	9.00	
1 Compressor sled	200.00	4.00	
1 Storage sled	50.00	1.00	
Total dep. per no.			155.00

($155.00 for 25 shifts equals $5.40 per shift per 1' advance---shift equals $5.40 per 1 foot) 5.40

Cargo 1. ---Shaft Sinking:

Supplies per foot of advance or per shift,

Powder 15% per foot @ $20.00 ea.	3.00
Caps, 10 required per 4' round @ .04 ea.	.10
Fuse, 10' @ 2¢ per foot	.20
Dito	1.00
Steel	.25
Timber, 100 bd. ft. @ $50.00 M	5.00
Power (gas, oil etc.)	3.00
Air Pipe, 1' of 2" @ 50¢ per ft.	.50
Water Pipe, 1' @ 25¢ per ft.	.25
Misc, 1' of 1" @ 50¢ per ft.	.50
Shaft Guides, 2' @ 15¢ per ft.	.30
Ladders, 1' @ 30¢ per ft.	.30
Wire Rope @ 1.00 per ft.	1.00
Total	20.40

Recapitulation:

Labor and Supplies per foot of advance		50.00
Operating equipment, cost per foot of advance		5.40
Total Cap 1, cost per foot of advance		25.00
Total	80.40	
Plus 10% for contingencies	8.04	
Total Cost Per foot of Shaft		88.04

Total cost for 50 foot of shaft 4403.50

Size Schedule---------- Three (3) Shafts

Schedule.111 (continued)

Stage 1-- -Drifting: Cost Estimate

Unit cost for breaking and mucking--drifting average four feet advance per shift (7' by 5' cross-section)

Labor and supervision for one shift

1 miner @ 16.00	16.00	
1 miner Sorrin @ 18.00	18.00	
1 top man @ 15.00	15.00	
Total		$49.00
Plus 12.2% for FICA and other ins. and taxes		5.90
Total Per shift		54.90

$54.90 divided by 4' round equals $13.75/ one foot advance $13.75

Operating Equipment

Furnished	Cost	Allowance for Depreciation	
1 105 cfm compressor	1500.00	35.00	
1 3/4 T. Chev. P-Up	1500.00	30.00	
1 Hammer and Jack leg drifter	600.00	20.00	
3 1000# Cap. Mining cars	150.00	3.00	
1 Air receiver	50.00	1.00	
1 Cornill (Equipped)	4000.00	8.00	
Used 5 da. per mo.			
1/10 of 1 mo. dep of $80.00			
1 Single drum hoist 25 HP	400.00	7.00	
Misc. Small tools	250.00	10.00	
1 Mine Cage	200.00	5.00	
1 50 GPM Pump (sump)	500.00	12.00	
1 Vent Fan	350.00	9.00	
1 Head Frame	250.00	5.00	
1 Compressor shed	200.00	4.00	
1 Sheave Wheel	50.00	1.00	
Total per mo.			$150.00

$150.00 for 25 shifts equals $6.00 per shift per 4' advance, one shift equals $1.50 per ft. $1.50

Supplies per 4' Round per shift

Powder 50# @ $20.00 CWT	10.00	
Caps, 16 @ 4¢ ea.	.64	
Fuse, 120 @ 3¢	2.56	
Bits	3.00	
Steel	1.00	
Rail, $150.00 Per T.	4.00	
Fish plate, bolts, etc.,	.25	
Ties	.50	
Fuse (gas,oil,etc)	9.00	
Pipe, 2" @ 50¢ per foot	2.00	
Pipe, 1" @ 25¢ per ft.	1.00	
Repair Parts	3.00	
Vent Tubing @ 1.00 per ft.	4.00	
Total		40.95

Four ft advance per shift equals $10.24 per ft. $10.24

Schedule III (continued) Drifting

Recapitulation:

Labor and Supervision per foot of advance		15.75	
Operating equipment cost per foot of advance		1.50	
Total supply cost per foot of advance		10.04	
Total		25.49	
Plus 10% for contingencies		2.55	
Total cost per foot of untimbered drift			28.04

Timbered drift: It is estimated that the cost of timbering a drift is 25% of the cost of driving a raised heading.

Cost of one foot of raised drift,	28.04	
25% per foot	7.01	
Cost of Timbered drift per foot		35.05

It is estimated that 100% of the proposed drifting will require timbering,

300 feet of drifting at $35.05 per foot	10,515.00

Time Schedule----------Four Months

Stage 1

Geology and Engineering Consulting:
10 days at $75.00 per day 750.00
Sampling and Assaying
100, Copper, silver and gold assays 200.00
at $2.00 each
Completion of Stage 1-----Time Schedule---9 Months

Bull-dozing--- 100 hours	1000.00	
Shaft Sinking	8175.60	
Drifting	10515.00	
Geo. & Eng.	575.00	
Assaying & Sampling	100.00	
Total		$20,166.60

Stage II Contingent upon results of Stage I

1. Sink shaft to -200- foot level, an additional 100 ft from Stage I.
2. Drift on main 150 feet on each side of shaft, on 200 foot level.

Shaft Sink------- Breaking and Hoisting
Average------one foot advance per shift
one o Superintendent- -5'4" by 5'0" in the clear

Labor and Supervision for one shift

1 miner @ 16.00 per shift	$16.00	
1 miner foreman @ 18.00	18.00	
1 top man @ 15.00	15.00	
Total	49.00	
Plus 10.3% for FICA and other taxes	5.00	
Total		54.00

Operating Equipment:

Furnished	Cost	Allowance for Depreciation
1 105 CFM compressor	1500.00	75.00
1 - 3/4 T Pick-Up truck	1500.00	30.00
2 Jackhammers, Model CFC 60 @ $125.00 ea.	250.00	5.00
1 1300# Cap. mine car	50.00	1.00
1 Air Receiver	50.00	1.00
1 Gunnill (equip) Used 3 ds. per mo. 1/10 of 200.00- or 1 mo. dep.	4000.00	0.00
1 Single Drum Hoist 25Hp (gas Powered)	400.00	7.00
1 Climbing bucket	50.00	3.00
Misc. Small tools	250.00	10.00
1 50 GPM Pump	500.00	12.00
1 Vent Fan	350.00	9.00
1 Head Frame	250.00	5.00
1 Comp. Shed	200.00	4.00
1 Sheave Wheel	50.00	1.00
Total Per Mo. Depreciation		159.00

($159.00 for 25 shifts equals $5.40 per shift---
one foot advance per shift equals $5.40 per foot) 5.40

Supplies-----Per foot of advance or Per Shift

Powder, 215 per ft. @ $20.00 CWT	3.00
Caps, 16 required per 4' round @ 4¢ ea.	.16
Fuse, 16' @ 2¢ per ft.	.32
Bits,	1.50
Steel	.35
Timber, 100BM. ft @ $50.00 M	5.00
Power (gas, oil, etc.)	5.00
Air Pipe 1' of 2" @ 50¢ per ft.	.50
Water Pipe, 1' of 2" @ .50¢ per ft.	.50

Stage 11——Continued
Supplies

Water Pipe, 1" @ .25 per ft.	.05	
Shaft Guides, 2' @ 10¢ per ft.	.20	
Ladders, 1' at 50¢ per ft.	.50	
Fan bag, @ 1.00 per ft.	1.00	
Total		22.20

Recapitulation

Labor and Supervision per foot of advance		54.00
Operating Equipment, cost per foot of advance		5.40
Total Day by Cost per foot of advance		22.20
Total		82.50
Plus 10% for Contingencies		8.25
Total Cost per foot of shaft		90.75

Total cost for 100 feet of shaft, $9,075.00

Time Schedule- ——— 4 Months

Drifting Cost Estimate Stage 11

Unit Cost for Breaking and Hauling, drifting average, four foot advance per shift (7' by 9') Cross section.

Labor and Supervision for one shift

1 miner	16.00	
1 Labor Foreman	10.00	
1 top man	15.00	
Total	41.00	
Plus 12.2% FICA and other ins.	5.00	
Total per shift		54.00

$54.00 divided by four feet round equals $13.75 per one foot advance 13.75

Operating Equipment

Furnished	Cost	All. for Dep.
1 10" Air Comp.	1500.00	30.00
1 3/4 T. Chev. P-up	1500.00	30.00
1 Hammer and Jack leg drilling	600.00	20.00
1 1000' Comp. line per	150.00	3.00
1 Air Receiver	50.00	1.00
1 Gamill (equip) 3 da. per mo. used 1/10 of 1 mo. of 000.00	4000.00	0.00
1 Single Drum Hoist 25HP	400.00	7.00
Misc Gal. Tools	250.00	10.00
1 Cage	200.00	5.00
1 50 gpm Pump	500.00	12.00
1 Vent Fan	550.00	9.00

Stage 11 Operating Equipment Continued

1 Hand Drill	250.00	5.00	
1 Compressor Set	200.00	5.00	
1 Drill Steel	50.00	1.00	
Total per mo.			150.00

@150.00 for 3) drifts equals 16.00 per drift, per four foot advance, one drift equals @1.50 per ft. 1.50

Supplies--Per four foot round per drift

Dynamite, 70% @ 000.00 ctg	10.00	
Caps @ 4¢ ea	.04	
Fuse, 100 ft @ 2¢ per ft.	2.00	
Bits	3.00	
Steel	1.00	
Rail @ @150.00 per T.	4.00	
Stick plate, bolts etc.	.05	
Wire	.50	
Power (gas, oil, etc.)	9.00	
Pipe, 2" at 20¢ per ft	2.00	
Pipe, 1" at 25¢ per ft.	1.00	
Repair parts	5.00	
Vent tubing @ 1.00 per ft.	1.00	
Total		40.05

Four foot advance per drift equals @10.24 per foot 10.24

Recapitulation

Drifting Stage 11

Labor and Supervision per foot of advance	15.75	
Operating Equipment cost per foot of advance	1.50	
Total supply cost per foot of advance	10.24	
Total		27.49
Plus 10% for contingencies		2.75
Total per foot of untimbered drift		30.24

Timbered drift -- It is estimated that the cost of timbering a drift is 25% of the cost of driving a mined heading.

Cost of one foot of mined drift --	30.24	
25% per foot equals 7.61	7.61	
Cost of timbered drift @37.85		37.85

It is estimated that 100% of the proposed drifting will require timbering.

500 feet of drifting at @37.85 per foot 18,919.00

Time Schedule--- 4 months---

Geology and Engineering consulting 10 days at @75.00 per day @750.00

Sampling and Assaying.

100, Copper, gold and silver assays at @2.00 ea. 200.00

Completion of Stage 11--Time Schedule--2 Months

Recap. for Stage 11

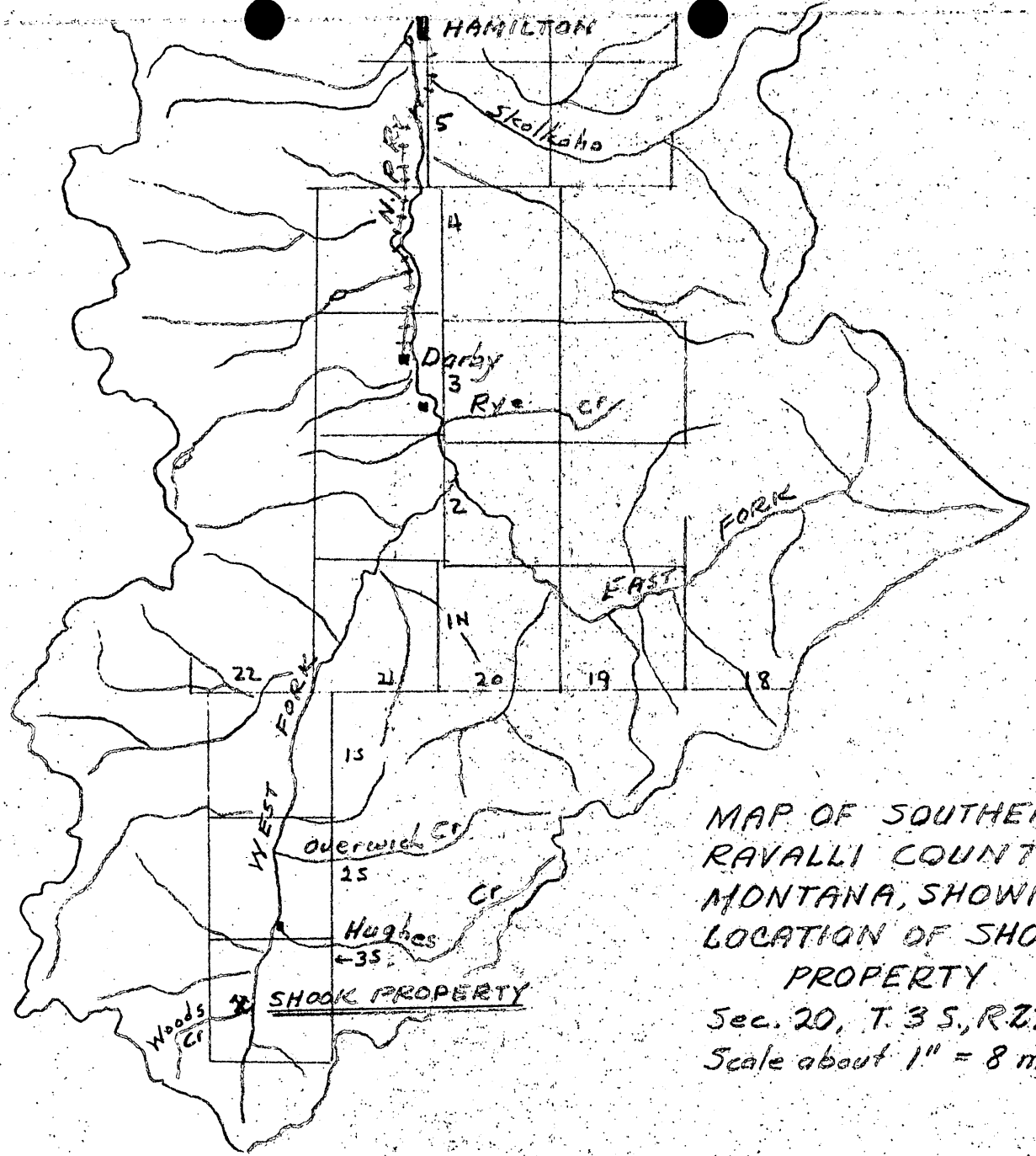
Totals:

Shaft Sinking	9,000.00	
Drifting	10,919.00	
Geo. & Eng.	275.00	
Sampling & Assaying	100.00	
Total		20,274.00

Contract Recapitulation:

Bulldozer, 100 hrs.	1000.00	
Shaft Sinking, 100 ft.	17,259.60	
Drifting, 600 ft.	21,050.00	
Geo. & Eng. Cons.	750.00	
Sampling & Assaying	200.00	
Total		40,259.60

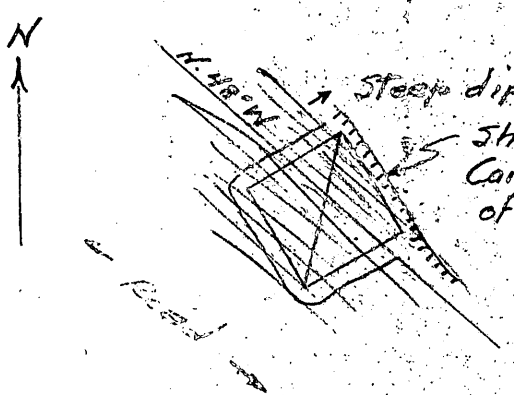
Request that the time Schedule be reviewed in the event that winter weather conditions make work on the project impractical.



MAP OF SOUTHERN RAVALLI COUNTY, MONTANA, SHOWING LOCATION OF SHOOK PROPERTY

Sec. 20, T. 3 S., R 22 W

Scale about 1" = 8 mi.



Shaft - 12'± deep in shear zone in pre-Cambrian argillite mineralized by seams of chalcopyrite + bornite and quartz

(Sketch of shaft 12' deep Aug. 27, 1953, from memory by U.M. Sahinen Approx. 1" = 10')

U.M.S. Feb. 1, 1954

MF-103
(Revised April 1952)

RECEIVED
BUREAU OF MINES
FEB 8 - 1954
SPOKANE, WASH.

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

8 - 1954

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

U. S. C. S.
SPOKANE, WASH.

Not to be filled in by applicant

Docket No. 3270
Metal or Mineral Copper
Date Received
Estimated Cost $20,167
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: J. E. Shook and Lee Shook, Conner, Montana
(b) Copper Canyon Mining Corp., Conner, Montana, Incorporated 3/24/52
Lee Shook, President; Ernest J. E. Shook, Sec., Treas.
Incorporated in State of Montana

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Refer to map and diagram submitted by Unno M. Sahinen, Geologist, Butte School of Mines, Butte, Mont.

(*b*) State any mine name by which the property is known. Shaft Name "Lucky Strike" on Silver Tip Claim

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owners

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

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. New Strike Claims recorded Book 8, pgs 390 to 406, Silver Tip Lode Claims, Book 8, pgs 415 to 434, County of Ravalli, Hamilton, Mont.

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

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

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

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

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

16—66551-1

Attached Schedules, etc.

5. *The exploration project.*—(*a*) [redacted]e the mineral or minerals for which you wis[redacted] explore Copper

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☒ Use of equipment owned by you ☐ Other Labor and supplies of owners

Explain in detail on acompanying paper.

The attached Sheets show the machinery, buildings etc, privately owned and corporate owned. to be used.

CERTIFICATION

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

Dated January 28, 195 4

Lee Shook

(Applicant) J. E. Shook

By .....

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

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

Schedule 2 (for item 4)

a. Exploration work was started in May of 1951 by bull-dozer cuts and roads, approximate length of roads at that time one- and one-half miles. Atthis time two discoveries of interest were made in the area of New Strike #1 and New Strike #2. Discoveries of promise were made on Silver Tip #10. We explored New Strike #1 with a bull-dozer cut, New Strike #2 was explored by bull-dozer cut and approximately 40 feet of tunnel on small vein of high grade copper sulphides in quartz. Silver Tip #10 was explored by bull-dozer cut and approximately 40 feet of vertical shaft, finding ore of low grade throughout entire exploration. This work was continued from 1951 through 1953.

In July 1953 we made a discovery on Silver Tip #1 of a very high grade copper ore. This exploration was started by bull-dozer cut which showed a vein approximately 50 feet across the cut. Twenty feet of shaft was sunk from the bottom of the bull-dozer cut, making an estimated distance of forty feet from the surface to the bottom of the shaft. Drift of 10 feet at bottom of the shaft was made.

b. Refer to Shipping Invoice attached as to production.
Ore reserves unknown, not sufficiently explored to make statement
Grade of Ore----Refer to attached assay sheets.
Production facilities: Machinery, privately owned and Company owned.
On this property are the following buildings:

- 1 house 24' by 26', log const., concrete foundation
- 1 Office building, 16' by 16', log construction
- 1 House (living quarters) 16' by 24', frame construction
- 1 Filing room adjoining sawmill, 16' by 16' (inside measure) frame construction
- 1 Storage building, 18' by 20', frame construction.
- 1 Ore bin, 16' by 16' by 12' (inside measure) two compartments, construction, 10" by 10" dimension and 4" sheeting.

Existing mine workings are mentioned above in exploration. Owners Owners are doing own work on the property.
Accessibility of mine workings for e xamination purposes. Road is
k kept open through-out entire year. Property now in exploration.
Examination of property can be made of the immediate workings at any time of year. A complete examination could not be made until the snow is off, about the first of April; however Mr. McNabb of the Bureau of Mines, Butte, Montana believes the property warrants an examination of the workings at the present time.

c. Refer to Map by Uuno M. Sehinen

d. It is possible to work on property through-out entire year, roads being open, except in some cases of extreme heavy snow and below zero weather. These weather conditions do not prevail only, at the most, two months of the year. The shipping point is at Darby, Montana, forty miles from location of prospect. Supply points are at Darby, Montana and Hamilton, Montana. (Hamilton fifty-five miles from prospect location)
Residence location- ----On property.

e. Manpower: Will be worked by owners.
Materials, supplies and equipment furnished by owners.
Water in abundance for property at all times of year.

Schedule 111

5- b. Discription of Exploration Project: Stage 1

1. four bull-dozer trenches across strike of vein.
2. 80 Feet of shaft plus ten feet of sump on vein.
3. Drift on vein 150 feet on each side of shaft on 100 foot level.

Contingent upon Stage 1 results: Stage 11

1. Sink shaft additional 100 feet to 200 foot level.
2. Drift on vein 150 feet on each side on 200 foot level.

c. Work to begin immediately after contract is signed.

d. We have done all the exploration mentioned in Schedule 11 and have prospected for the past ten years.

6- a. Independent contracts-- ----None

b. Three men will be employed full time at the property on a six day week basis. The following tabulation of wage rates include an allowance for over time on the sixth day of each week:

Class of Labor	Wages Per Shift
Miner	$16.00
Miner Forman	18.00
Top Man	15.00
Geo. and Engineering	75.00

6- Stage 1

100 hours of bull-dozing
90 feet of shaft sinking
300 feet of drifting

6- Stage 11

100 feet of shaft sinking
300 feet of drifting

1.

Cost Estimate Stage 1

Bulldozer 100 hours at 10.00 per hour 1000.00

Work to include cutting four trenches shown on enclosed maps. Road maintenance for snow removal during course of project and logging timbers to be used at the project. Copper Canyon Mining Co. will rent a Cletrac 55 bull-dozer with driver from one of the company officials at a rate of $10.00 per hour.

Time Schedule (one) 1 month

Unit cost for Breaking and Mucking--------Shaft sinking

Average------one foot advance per shift

one compartment----5'4" by 5'4" in the clear

Labor and Supervision for one shift

1 miner @ $16.00 per shift	16.00	
1 miner forman	18.00	
1 top man	15.00	
Total		49.00
Plus 12.2% for FICA and other taxes		5.98
Total		54.98

Operating Equipment:

Furnished	Cost	Allowance for Depreciation
1 105 CFM compressor	1500.00	35.00
1 3/4 Ton Chev. P-Up trk.	1500.00	30.00
2 Jackhammers, Model CPC-60 @ 125.00 ea.	250.00	9.00
1 1000# Cap. mine car	50.00	1.00

continued

Schedule 111 (continued)

Operating Equipment

1 Air receiver	50.00	1.00	
1 Sawmill (equipped)	4000.00	8.00	
Used 3 da. per mo. 1/10 of $80.00 per mo. dep.			
1 Single Drum Hoise 25 HP	400.00	7.00	
Gas powered			
1 Sinking bucket	50.00	3.00	
Misc. Small tools	250.00	10.00	
1 50 gpm pump	500.00	12.00	
1 Vent Fan	350.00	9.00	
1 Head frame	250.00	5.00	
1 Compressor shed	200.00	4.00	
1 Sheave Wheel	50.00	1.00	
Total dep. per mo.		135.00	
($135.00 for 25 shifts equals $5.40 per shift per 1' advance---shift equals $5.40 per 1 foot)			5.40

Stage 1-----Shaft Sinking:

Suppolies per foot of advance or per shift,

Powder 15# per foot @ $20.00 CWT	3.00
Caps, 16 required per 4' round @ 4¢ ea.	.16
Fuse, 16' @ 2¢ per foot	.32
Bits	1.50
Steel	.35
Timber, 100 bd. ft. @ $50.00 M	5.00
Power (gas, oil etc.)	9.00
Air Pipe, 1' of 2" @ 50¢ per ft.	.50
Water Pipe, 1' @ 50¢ per ft.	.50
Pipe, 1' of 1" @ 25¢ per ft.	.25
Shaft Guides, 2' @ 16¢ per ft.	.32
Ladders, 1' @ 30¢ per ft.	.30
Fan bag @ 1.00 per ft.	1.00
Total	22.20

Recapitulation:

Labor and Supervision per foot of advance		54.00
Operating equipment, cost per foot of advance		5.40
Total supply cost per foot of advance		22.20
Total	82.58	
Plus 10% for contingencies	8.26	
Total Cost Per foot of Shaft		90.84

Total cost for 90 feet of shaft $8175.60

Time Schedule----------Four (4) Months

Schedule 111 (continued)

Stage 1-----Drifting: Cost Estimate

Unit cost for breaking and mucking--drifting average four feet advance per shift (7' by 5' cross-section)

Labor and supervision for one shift

1 miner @ 16.00	16.00	
1 miner forman @ 18.00	18.00	
1 top man @ 15.00	15.00	
Total		$49.00
Plus 12.2% for FICA and other ins. and taxes		5.98
Total Per shift		54.98

$54.98 divided by 4' round equals $13.75/ one foot advance. $13.75

Operating Equipment

Furnished	Cost	Allowance for Depreciation
1 105 cfm compressor	1500.00	35.00
1 3/4 T. Chev. P-Up	1500.00	30.00
1 Hammer and Jack leg drifter	600.00	20.00
3 1000# Cap. Mining cars	150.00	3.00
1 Air receiver	50.00	1.00
1 Sawmill (Equipped) Used 3 da. per mo. 1/10 of 1 mo. dep of $80.00	4000.00	8.00
1 Single drum hoist 25 HP	400.00	7.00
Misc. Small tools	250.00	10.00
1 Single Cage	200.00	5.00
1 50 GPM Pump (sump)	500.00	12.00
1 Vent Fan	350.00	9.00
1 Head Frame	250.00	5.00
1 Compressor shed	200.00	4.00
1 Sheave Wheel	50.00	1.00
Total per mo.		$150.00

$150.00 for 25 shifts equals $6.00 per shift per 4' advance, one shift equals $1.50 per ft. $1.50

Supplies per 4' Round per shift

Powder 50# @ $20.00 CWT	10.00
Caps, 16 @ 4¢ ea.	.64
Fuse, 128 @ 2¢	2.56
Bits	3.00
Steel	1.00
Rail, $150.00 Per T.	4.00
Fish plate, bolts, etc.,	.25
Ties	.50
Power (gas,oil,etc)	9.00
Pipe, 2" @ 50¢ per foot	2.00
Pipe, 1" @ 25¢ per ft.	1.00
Repair Parts	3.00
Vent Tubing @ 1.00 per ft.	4.00
Total	40.95

Four ft advance per shift equals $10.24 per ft. $10.24

Schedule 111 (continued) Drifting

Recapitulation:

Labor and Supervision per foot of advance		13.75	
Operating equipment cost per foot of advance		1.50	
Total supply cost per foot of advance		10.24	
Total	25.49		
Plus 10% for contingencies	2.55		
Total cost per foot of untimbered drift			28.04

Timbered drift: It is estimated that the cost of timbering a drift is 25% of the cost of driving a naked heading.

Cost of one foot of naked drift,	28.04	
25% per foot	7.01	
Cost of Timbered drift per foot		35.05

It is estimated that 100% of the proposed drifting will require timbering,

300 feet of drifting at $35.05 per foot 10,515.00

Time Schedule----------Four Months

Stage 1

Geology and Engineering Consulting;		
10 days at $75.00 per day	750.00	
Sampling and Assaying.		
100, Copper, silver and gold assays at $2.00 each	200.00	

Completion of Stage 1-----Time Schedule----9 Months

Bull-dozing--- 100 hours	1000.00	
Shaft Sinking	8175.60	
Drifting	10515.00	
Geo. & Eng.	375.00	
Assaying & Sampling	100.00	
Total		$20,166.60

Stage 11 Contingent upon results of Stage 1

1. Sink shaft to -200- foot level, an additional 100 ft from Stage 1.
2. Drift on vein 150 feet on each side of shaft, on 200 foot level.

Shaft Sink-------- Breaking and Mucking
Average-------one foot advance per shift
one compartment- -5'4" by 5'4" in the clear

Labor and Supervision for one shift

1 miner @ 16.00 per shift	$16.00	
1 miner forman @ 18.00	18.00	
1 top man @ 15.00	15.00	
Total	49.00	
Plus 12.2% for FICA and other taxes	5.98	
Total		54.98

Operating Equipment:

Furnished	Cost	Allowance for Depreciation	
1 105 CFM compressor	1500.00	35.00	
1 - 3/4 T Pick-Up trk	1500.00	30.00	
2 Jackhammers, Model CPC 60 @ $125.00 ea.	250.00	9.00	
1 1000# Cap. mine car	50.00	1.00	
1 Air Receiver	50.00	1.00	
1 Sawmill (equip) Used 3 da. per mo. 1/10 of $80.00- or 1 mo. dep.	4000.00	8.00	
1 Single Drum Hoise 25Hp (gas Powered)	400.00	7.00	
1 Sinking bucket	50.00	3.00	
Misc. Small tools	250.00	10.00	
1 50 GPM Pump	500.00	12.00	
1 Vent Fan	350.00	9.00	
1 Head Frame	250.00	5.00	
1 Comp. Shed	200.00	4.00	
1 Sheave Wheel	50.00	1.00	
Total Per Mo. Depreciation		135.00	
($135.00 for 25 shifts equals $5.40 per shift--- one foot advance per shift equals $5.40 per foot)			5.40

Supplies-----Per foot of advance or Per Shift

Powder, #15 per ft. @ $20.00 CWT	3.00
Caps, 16 required per 4' round @ 4¢ ea.	.16
Fuse, 16' @ 2¢ per ft.	.32
Bits,	1.50
Steel	.35
Timber, 100Bd. ft @ $50.00 M	5.00
Power (gas, oil, etc.)	9.00
Air Pipe 1' of 2" @ 50¢ per ft.	.50
Water Pipe, 1' of 2" @ .50¢ per ft.	.50

Stage 11-----Continued
Supplies

Water Pipe, 1" @ .25 per ft.	.25	
Shaft guides, 2" @ 16¢ per ft.	.32	
Ladders, 1' at 30¢ per ft.	.30	
Fan bag, @ 1.00 per ft.	1.00	
Total		22.20

Recapitulation

Labor and Supervision per foot of advance	54.00	
Operating Equipment, cost per foot of advance	5.40	
Total Supply Cost per foot of advance	22.20	
Total		82.58
Plus 10% for Contingencies		8.26
Total Cost per foot of shaft		90.84

Total cost for 100 feet of shaft, $9,084.00

Time Schedule------- 4 Months

Drifting Cost Estimate Stage 11

Unit Cost for Breaking and Mucking, drifiting average, four feet advance per shift (7' by 5') Cross section.

Labor and Supervision for one shift

1 miner	16.00	
1 miner forman	18.00	
1 top man	15.00	
Total	49.00	
Plus 12.2% FICA and other ins.	5.98	
Total per shift		54.98

$54.98 divided by four foot round equals $13.75 per one foot advance 13.75

Operating Equipment

Furnished	Cost	All. for Dep.
1 105 CFM Comp.	1500.00	35.00
1 3/4 T. Chev. P-up	1500.00	30.00
1 Hammer and Jack leg drifter	600.00	20.00
3 1000# Cap. Mine car	150.00	3.00
1 Air Receiver	50.00	1.00
1 Sawmill (equip) 3 da. per mo. used 1/10 of 1 mo. of $80.00	4000.00	8.00
1 Single Drum Hoist 25HP	400.00	7.00
Misc Sml. Tools	250.00	10.00
1 Cage	200.00	5.00
1 50 gpm Pump	500.00	12.00
1 Vent Fan	350.00	9.00

Stage 11 Operating Equipment Continued

1 Head Frame	250.00	5.00	
1 Compressor Shed	200.00	4.00	
1 Sheave Wheel	50.00	1.00	
Total per mo.			150.00

$150.00 for 25 shifts equals $6.00 per shift, per four foot advance, one shift equals $1.50 per ft. 1.50

Supplies--Per four foot round per shift

Powder , 50# @ $20.00 CWT	10.00	
Caps @ 4¢ ea	.64	
Fuse, 128 ft @ 2¢ per ft.	2.56	
Bits	3.00	
Steel	1.00	
Rail @ $150.00 per T.	4.00	
Fish plate, bolts etc.	.25	
Ties	.50	
Power (gas, oil, etc.)	9.00	
Pipe, 2" at 50¢ per ft	2.00	
Pipe, 1" at 25¢ per ft.	1.00	
Repair parts	3.00	
Vent tubing @ 1.00 per ft.	4.00	
Total		40.95

Four foot advance per shift equals $10.24 per foot 10.24

Recapitulation

Drifting Stage 11

Labor and Supervision per foot of advance	13.75	
Operating Equipment cost per foot of advance	1.50	
Total supply cost per foot of advance	10.24	
Total		25.49
Plus 10% for contingencies		2.55
Total per foot of untimbered drift		28.04

Timbered drift ----It is estimated that the cost of timbering a drift is 25% of the cost of driving a naked heading.

Cost of one foot of naked drift----------	28.04	
25% per foot equals $7.01	7.01	
Cost of timbered drift $35.05		35.05

It is estimated that 100% of the proposed drifting will require timbering.

300 Feet of drifting at $35.05 per foot 10,515.00

Time Schedule- ------4 months--------

Geology and Engineering consulting 10 days at $75.00 per day	$750.00
Sampling and Assaying,	
100, Copper, gold and silver assays at $2.00 ea.	200.00

Completion of Stage 11----Time Schedule---9 Months

9

Recap. for Stage 11

Totals:

Shaft Sinking	9,084.00	
Drifting	10,515.00	
Geo. & Eng.	375.00	
Sampling & Assaying	100.00	
Total		$20,074.00

Contract Recapitulation:

Bulldozer, 100 hrs.	1000.00	
Shaft Sinking, 190 ft.	17,259.60	
Drifting, 600 ft.	21,030.00	
Geo. & Eng. Cons.	750.00	
Sampling & Assaying	200.00	
Total		$40,239.60

Request that the time Schedule be recessed in the event that winter weather conditions make work on the project impractical.

JOHN S. ROACH

EDWARD ROACH

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

Phone 3982

108 North Wyoming Street
BUTTE, MONTANA

Date May 12, 1953

Mr. Lee Sims

Your Sample Assayed as Follows:

	OZS. PER TON	OZS. PER TON	VALUE PER TON AT $35 PER OZ.	%	%	%	%	%	%	%
	SILVER	GOLD	GOLD $ CTS.	COPPER	LEAD	ZINC	SILICA	IRON	MANGANESE	
#1-	45.60	1.04	36.40	36.48						
#2-	46.20	1.96	68.80	28.80						

Charges $

Please Return

Respectfully Submitted

Lewis & Walker

JOHN S. ROACH

Phone 2-8131

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

108 North Wyoming Street
BUTTE, MONTANA

Date May 21, 1953

Mr. Lee Hook

Your Sample Assayed as Follows:

	OZS. PER TON	OZS. PER TON	VALUE PER TON AT $35 PER OZ.	%	%	%	%	%	%	%
	SILVER	GOLD	GOLD $ Cts.	COPPER	LEAD	ZINC	SILICA	IRON	MANGANESE	
#1-	6.80	0.38	48.30	6.44						
#2-	9.40	0.42	14.70	14.31						
#2b-	0.70	0.09	3.15	1.66						
#5-	38.20	1.02	35.70	6.67						
#6-	4.10	0.34	11.90							
#6-	68.60	1.23	43.05	31.78						

Charges $

Respectfully Submitted

Lewis & Walker

F 151F4-A-3-53-50M
STANDARD

ANACONDA COPPER MINING COMPANY

ANACONDA REDUCTION DEPARTMENT

ASSAY OFFICE

DATE 5-28-53 19

Copper Ore
O P Eastman
(R G Bowman)

Copper Silver Gold Silica Iron Arsenic Antimony Bismuth

Date of Sample	Lot	Cu	Ag	Au	SiO_2	Fe	As	Sb	Bi
5/21	36038	21.3	31.10	1.270	46.4	8.1	trace	Nil	*

* = Insufficient Sample

"Lucky Hope" Shaft

CHIEF CHEMIST /s/ R. D. Macheson

Pleasantwood

F. 15154 A-C-53-50M
STANDARD

ANACONDA COPPER MINING COMPANY

ANACONDA REDUCTION DEPARTMENT

ASSAY OFFICE

DATE 6-25-53 , 19

R. G. Montgomery
Gate.
(R G Bowman)

Date of Sample	Lot	% Copper	oz. Silver	oz. Gold	% Iron
		Cu	Ag	Au	Fe
6/19	36059	.14	.05	.002	34.8

CHIEF CHEMIST /s/ E. N. Bryce
M.

JOHN S. ROACH

Phone 2-8131

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

108 North Wyoming Street
BUTTE, MONTANA

Date July 16, 1953

Mr. J. F. Shook

Your Sample Assayed as Follows:

	OZS. PER TON SILVER	OZS. PER TON GOLD	VALUE PER TON AT $35 PER OZ. GOLD $ Cts.	% COPPER	% LEAD	% ZINC	% SILICA	% IRON	% MANGANESE	%
#1-	2.20	0.05	1.75							
#2-	1.20	0.02	0.70							
#3-	1.60	0.04	1.40							
#4-	1.10	0.05	1.75							
#5-	0.20	0.02	0.70							
R. Shook (Paid $2.50)	10.60	0.99	34.65	10.46						

Charges $

Respectfully Submitted

Lewis & Walker

JOHN S. ROACH

Phone 2-8131

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

108 North Wyoming Street
BUTTE, MONTANA

Date July 28, 1953

Mr. Lee Shock

Your Sample Assayed as Follows:

	OZS. PER TON	OZS. PER TON	VALUE PER TON AT $35 PER OZ.	%	%	%	%	%	%	%
	SILVER	GOLD	GOLD $ CTS.	COPPER	LEAD	ZINC	SILICA	IRON	MANGANESE	
#1	10.00	0.24	8.40	11.48						
#2	34.80	2.04	71.40	18.72						
#3	13.80	0.09	3.15	21.76						
#4	0.20	0.01	0.35	0.04						

Charges $

Respectfully Submitted

Lewis & Walker

JM

JOHN S. ROACH

Phone 2-8131

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

108 North Wyoming Street
BUTTE, MONTANA

Date Aug 10, 1953

Mr. J. E. Shook

Your Sample Assayed as Follows:

	OZS. PER TON SILVER	OZS. PER TON GOLD	VALUE PER TON AT $35 PER OZ. GOLD $ Cts.	% COPPER	% LEAD	% ZINC	% SILICA	% IRON	% MANGANESE	%
#1	0.40	0.05	1.75	0.18						
#2	0.60	0.06	2.10	0.64						
#3	0.90	0.11	3.85	0.68						
#4	0.80	0.10	3.50	1.07						

Mr. Roach, Sample Turn Over to State

Charges $

"Please Return"

Respectfully Submitted

Lewis & Walker

JOHN S. ROACH

Phone 2-8131

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

108 North Wyoming Street
BUTTE, MONTANA

Date Aug 17, 1963

Mr. J. P. Shook

Your Sample Assayed as Follows:

	OZS. PER TON SILVER	OZS. PER TON GOLD	VALUE PER TON AT $35 PER OZ. GOLD $ Cts.	% COPPER	% LEAD	% ZINC	% SILICA	% IRON	% MANGANESE	%
Rain lead	3.10	0.06	2.10	12.96						
Soft dirt	8.60	0.32	11.20	8.52						
Hard rocks	1.40	0.02	0.70	2.20						
Sulfide	4.20	0.09	3.15	26.69						
Bigrade	27.70	0.60	21.00	51.52						

Charges $

Respectfully Submitted

Lewis & Walker

JMR

Please Return

JOHN S. ROACH

Phone 2-8131

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

108 North Wyoming Street
BUTTE, MONTANA

Date Nov 25, 1953

Copper Canyon Mining Company

Your Sample Assayed as Follows:

	OZS. PER TON	OZS. PER TON	VALUE PER TON AT $35 PER OZ.	%	%	%	%	%	%	%
	SILVER	GOLD	GOLD $ Cts.	COPPER	LEAD	ZINC	SILICA	IRON	MANGANESE	
#1	1.40	0.12	4.20	1.06						
#2	2.30	0.09	3.15	3.68						

Loose

Charges $

Respectfully Submitted

Lewis & Walker

HR

JOHN S. ROACH

Phone 2-8131

LEWIS & WALKER

ASSAYERS AND CHEMISTS

SHIPPERS' REPRESENTATIVES

Drawer 1980

108 North Wyoming Street
BUTTE, MONTANA

Date Nov 21, 1953

Copper Canyon Mining Company

Your Sample Assayed as Follows:

	OZS. PER TON	OZS. PER TON	VALUE PER TON AT $35 PER OZ.	%	%	%	%	%	%	%
	SILVER	GOLD	GOLD $ CTS.	COPPER	LEAD	ZINC	SILICA	IRON	MANGANESE	
	9.60	0.12	4.20	6.84						

Charges $

Respectfully Submitted

Pleasa Return

This shipment was made from the bull-dozer cut at about a depth of twelve to eighteen feet from the surface, at the top of the present shaft.

RECEIVED
SEP 8 1953

Anaconda Copper Mining Co., Washoe Sampler

RECEIVED FROM Copper Canyon Mining Co. BUTTE, MONTANA. Sept. 14, 1953

ADDRESS Conner, Montana SAMPLER LOT 9193

MINE Copper Canyon Ore SMELTER LOT

	CAR NUMBER	WEIGHTS Pounds Gross	Per Cent Water	Pounds Dry	ASSAYS Per Cent Copper	Ounces Silver	Ounces Gold	TREATMENT CHARGE Dollars	PRICE PER TON Dollars	VALUE Dollars	Dest. No.
NP	70171	72800	2.9	70689	4.57	4.3	0.160	5.04	24.90	880.08	
		N. P. R. Freight $3.01, plus 15%, plus 3% war tax								155.64	
										724.44	1744

SILICA	56.8
ALUMINA	14.6
IRON	5.0

PAYMENT FOR METALS

Copper less .5% @ 27.670¢ Less 2½c		$22.12
Silver less 1 oz. @ 90¢	Less 2c	4.92
Gold less .01 oz. $32.81825		2.90

Date of Quotations 9/2/53

TREATMENT

BASE	$4.00
Add—12c for each 1% Iron	0.60
Add—10% of sum of metal payments in excess of $15.00	1.49
Deduct—2.5c for each 1% Silica in excess of Alumina	1.05
NET TREATMENT	$5.04

An extra charge of $5.00 made for sampling all lots under ten tons.
Rates subject to change without notice.

Extensions and footings correct

Anaconda Copper Mining Co., Washoe Sampler

By

SUPERINTENDENT

Geological Report
on the property of
THE COPPER CANYON MINING COMPANY
Woods Creek, Ravalli County, Montana

By

Uuno M. Sahinen

Butte, Montana
June 1954

Geological Report
on the property of
THE COPPER CANYON MINING COMPANY
Woods Creek, Ravalli County, Montana

By

Uuno M. Sahinen

Butte, Montana

June 1954

RECEIVED
JUL 12 1954
U. S. G. S.
SPOKANE, WASH.

Geological Report
on the property of
THE COPPER CANYON MINING COMPANY
Woods Creek, Ravalli County, Montana

by Uuno M. Sahinen

Introduction

The property of the Copper Canyon Mining Company is on Woods Creek in the southernmost tip of Ravalli County, Montana. The principal development is on sec. 20, T. 3 S., R. 22 W. They are accessible by fair country road and graveled highway from Darby, the terminus of the Bitterroot Valley branch of the Northern Pacific Railroad. U. S. Highway 93 also passes through Darby. The prospect is 43 miles by road south of Darby. The location is shown on the accompanying index map.

Geology and Development

The country rocks of the area are grey to greenish grey thin-bedded slaty micaceous argillite and quartzite. The rocks have been classified as of the Ravalli formation of the Belt series of pre-Cambrian age. The rocks in the vicinity of the principal copper deposit have been intensely folded and contorted along a shear zone which strikes about N. 45° W. and dips about 72° SW. In the bulldozer cut across the small creek, the sedimentary beds strike north and dip about 57° W., (on the southwest side of the shear zone). On the northeast side of the shear zone, the beds strike N. 45° W., and dip about 64° NE. Granitic rocks are exposed south of Woods Creek, but no igneous roxks are exposed in the vicinity of the copper prospects.

About 1,700 feet N. 75° ~~W.~~ E from the lower 31-foot vertical shaft, there is a 34-ffot vertical shaft in grey to greenish grey argillite which dips gently northwest and is cut by thin seams of quartz and calcite. The quartz seams contain some chalcopyrite, and oxidized copper minerals are exposed on the surface. This showing, however is not very promising. About 150 feet northwest of this shaft is a bulldozer cut which has exposed a strong vein of white quartz and pale buff ankerite, but no ore minerals were found in the exposed rock.

About half way down the hill, along the road between the upper and lower shafts, there is an adit driven about 50 feet northerly in slide or slump material composed of broken grey argillite. At the bottom of the drift, or ddit is some

quartz vein matter up to two feet thick and carrying some chalcopyrite. At the end of the adit, the vein appears to turn over and assume a northerly dip. No sinking has been done on the vein.

The principal copper showing is near the foot of the hill on a small southward flowing tributary of Woods Creek. Here, there is a very strong shear zone about 15 or 20 feet wide cutting slaty micaceous grey argillite and quartzite. The shear zone strikes about N. 45° W., and appears to dip from 72° SW to vertical. Within the shear zone the rock is highly crushed and contorted, and is mineralized by seams, stringers, and irregular masses of quartz, and of chalcopyrite and bornite. A vertical shaft has been sunk on this zone to a depth of 31 feet. No true hanging or footwall has as yet been exposed in these workings. A bulldozer cut across the creek 200 feet northwest of this shaft was not extended far enough northward to cut the projected extension of the shear zone, however, at the north end of this cut, in the over-burden, is a large boulder of quartz 'float' which contains considerable chalcopyrite--and this boulder has undoubtedly come from the northwestward extension of the shear zone.

At the 31-foot vertical shaft, a 10-ton 'kidney' of high-grade ore was mined out within 8 feet of the surface. This ore was composed almost entirely of pure bornite and chalcopyrite, much of which was intimately intergrown. The writer did not see the ore in place but did see that which was mined out There was very little quartz and pyrite with the bornite-chalcopyrite. Southeastward, this bornite-chalcopyrite mass graded

into crushed and slickensided argillite with considerable malachite deposited along fractures. The malachite zone is about four feet wide. On the northeast side of the malachite zone is about 12 inches of mixed crushed argillite and bornite with chalcopyrite a sample of which assayed 3.[illegible] per cent copper with 0.[illegible] ounces of gold and 3.4 ounces of silver per ton. Next to this is some more high-grade chalcopyrite-bornite ore about 18 inches wide. This mass appears to dip 50° NE into the wall. This same streak is exposed below the first set on the southeast side of the shaft, but 15 feet to the southeast may be cut off by a vertical fault which strikes N. 62° E. Another small body of high-grade is reported to have been encountered above a point 18 feet down on the northeast side of the shaft, but this area was tightly lagged at the time of examination, so its relation to the other high-grade bodies described above could not be observed. Below this point, on the southeast side of the short drift near the bottom of the shaft there is exposed 12 inches of hard vein matter carrying 5.04 per cent copper and 0.03 ounces of gold and 2.4 ounces of silver per ton.

Sampling Results

Due to much tight lagging in the shaft, all points in the shaft could not be sampled. Furthermore, the contorted character of the rock and the indefiniteness of the structure made it difficult to determine just how the samples should be taken, but in general, they were taken at right angles to the

general dip of the mineralized streaks. The results of the sampling, except for the high-grade streaks, was rather disappointing. The average of all samples (weighted) was 2.2 feet carrying 3.03 per cent copper and 0.445 ounces of gold and 2.7 ounces of silver with a gross value of $33.21 per ton. A sample from the bottom of the muck pile from the last round in the shaft carried better metal content than most of the samples cut in the shaft, to wit: 2.02 per cent copper, and 0.06 ounces of gold and 1.2 ounces of silver per ton. Following are tabulated the results of the assays made by the McCarthy Laboratories of Butte, Mont., on the samples.

No.	Gold oz.	Silver oz.	Copper %	Width ft.	Remarks
S-1	0.01	0.1	0.42	4.00	Much white quartz
S-2	0.02	0.2	0.16	1.50	Clay near fault
S-3	0.01	0.4	0.52	3.00	Min. argillite
S-4	0.03	2.4	5.04	1.00	Quartz plus chalcop.
S-5	0.04	0.7	0.88	3.00	Much hard quartz
S-6	0.02	1.0	0.89	3.75	Min. argillite
S-7	0.03	0.3	0.48	1.25	Back of drift
S-8	0.22	24.5	25.20	1.50	High grade.
S-9	0.20	3.4	2.32	1.00	Arg. & sulphides
S-10	No assay				Arg. & malachite
S-11	0.06	1.2	2.02		Muck sample.

Conclusions and Recommendations

Due to the poor showing of the sampling at the bottom of the shaft, it is not recommended that shaft sinking be continued at present. On the other hand, ~~due to~~ the presence of so much high grade in the upper part of the workings, coupled with the presence of high grade copper sulphide float about 240 feet northwest of the shaft certainly warrants further investigation of the property, and the following recommendations are made:

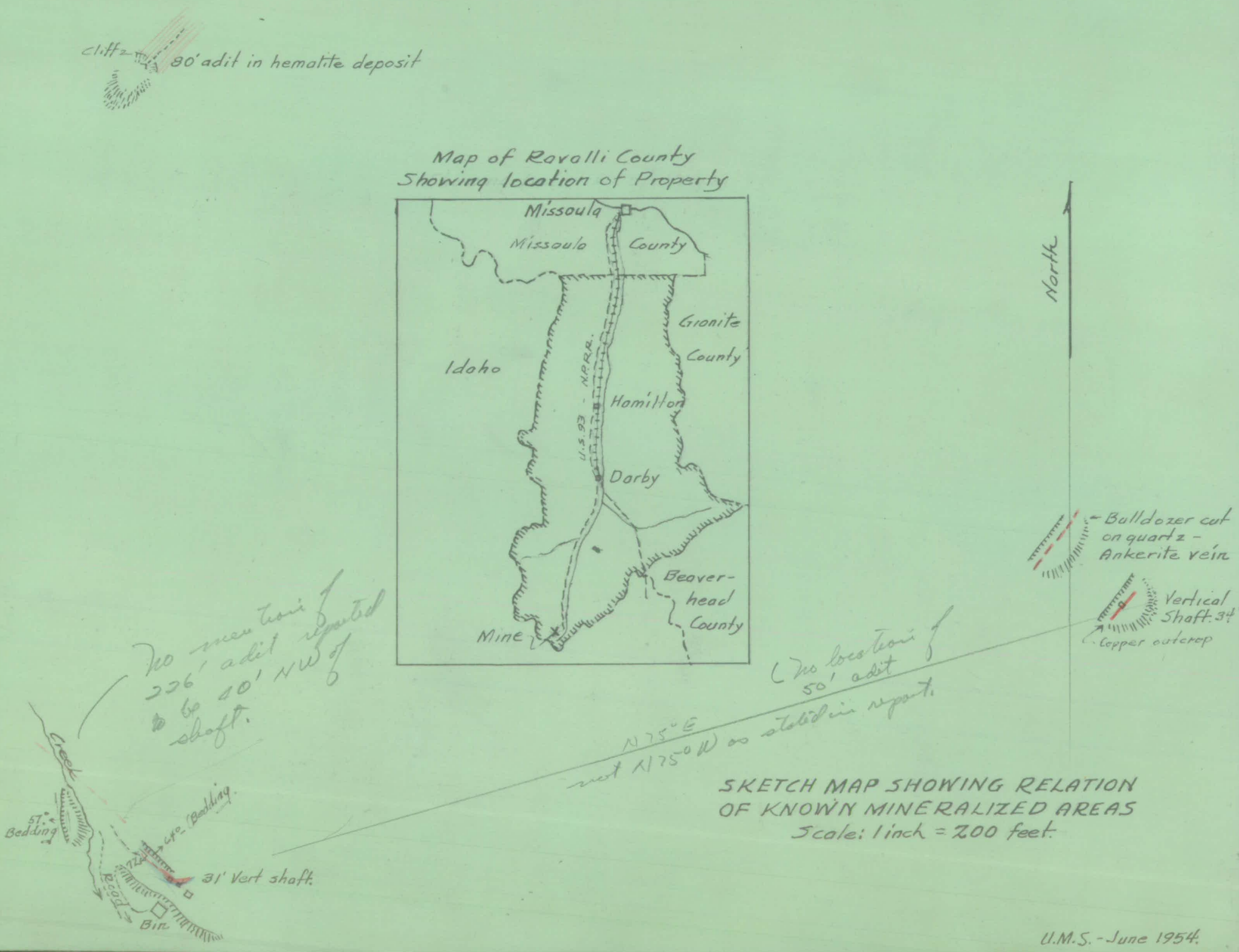
(1) The exposure of high grade ore to the southeast of the shaft should be explored down-dip and to the southeast to determine its true character and extent.

(2) The presence of copper sulphide float to the northwest indicates that sulphide mineralization extends in that direction. This could be most easily proven by bulldozer cuts crosscutting the shear zone on the hillside northwest of the shaft. As the overburden and hillside slump is quite deep, even on such a steep hill slope, care should be taken to make the cuts deep enough to expose the true bed rock. The present cut should be extended northward and deepened, and from this cut, other cuts should be zig-zagged on the hill side in order not to lose the trend of the shear zone.

"The property certainly should not be abandoned until at least the above work is done."

Butte, Montana
June, 1954

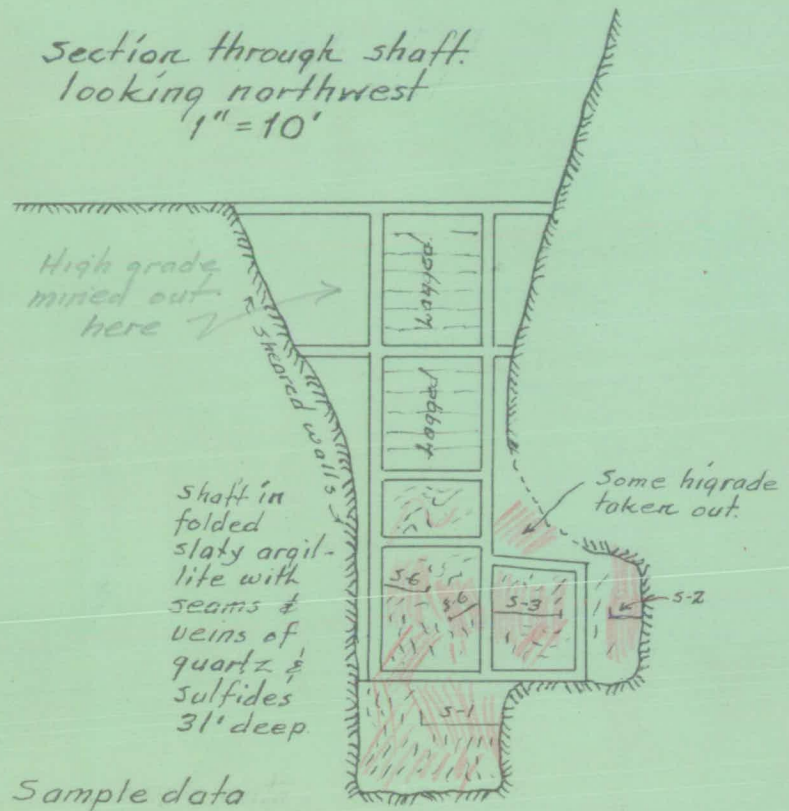
Uuno M. Sahinen
Geologist



SKETCH MAP SHOWING RELATION OF KNOWN MINERALIZED AREAS
Scale: 1 inch = 200 feet.

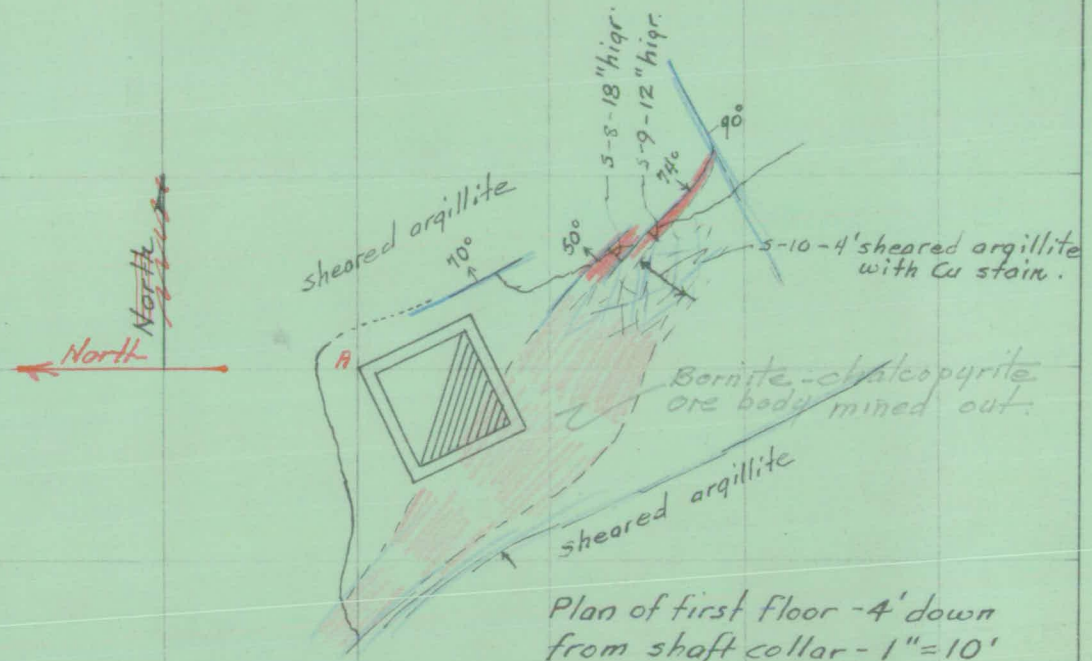
U.M.S. - June 1954.

Section through shaft looking northwest 1" = 10'



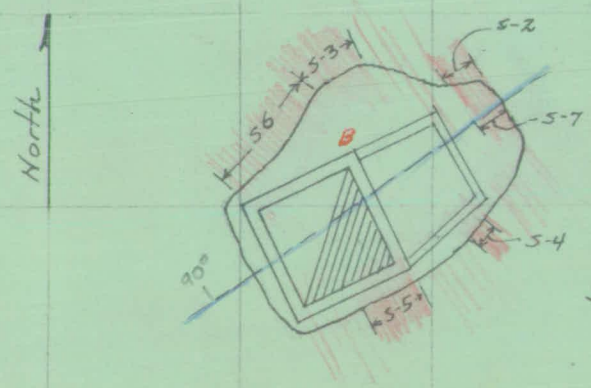
Sample data

No.	oz. Au.	oz Ag	% Cu	Width
S-1	0.01	0.1	0.42	4'
S-2	0.02	0.2	0.16	1.5'
S-3	0.01	0.4	0.52	3.0'
S-4	0.03	2.4	5.04	1.0'
S-5	0.04	0.7	0.88	3.0'
S-6	0.02	1.0	0.89	3.75'
S-7	0.03	0.3	0.48	1.25'
S-8	0.22	24.5	25.20	1.50'
S-9	0.20	3.4	2.32	1.0'
S-10		No assay		
S-11	0.06	1.2	2.02	last round in shaft.



Plan of first floor - 4' down from shaft collar - 1" = 10'

A & B are common corners of shaft.



Plan 22' down from Shaft collar - 1" - 10'

Brunton Survey by U.M. Sahinen - June 1954

COPPER CANYON PROSPECT - Woods Creek, Ravalli County, Mont.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

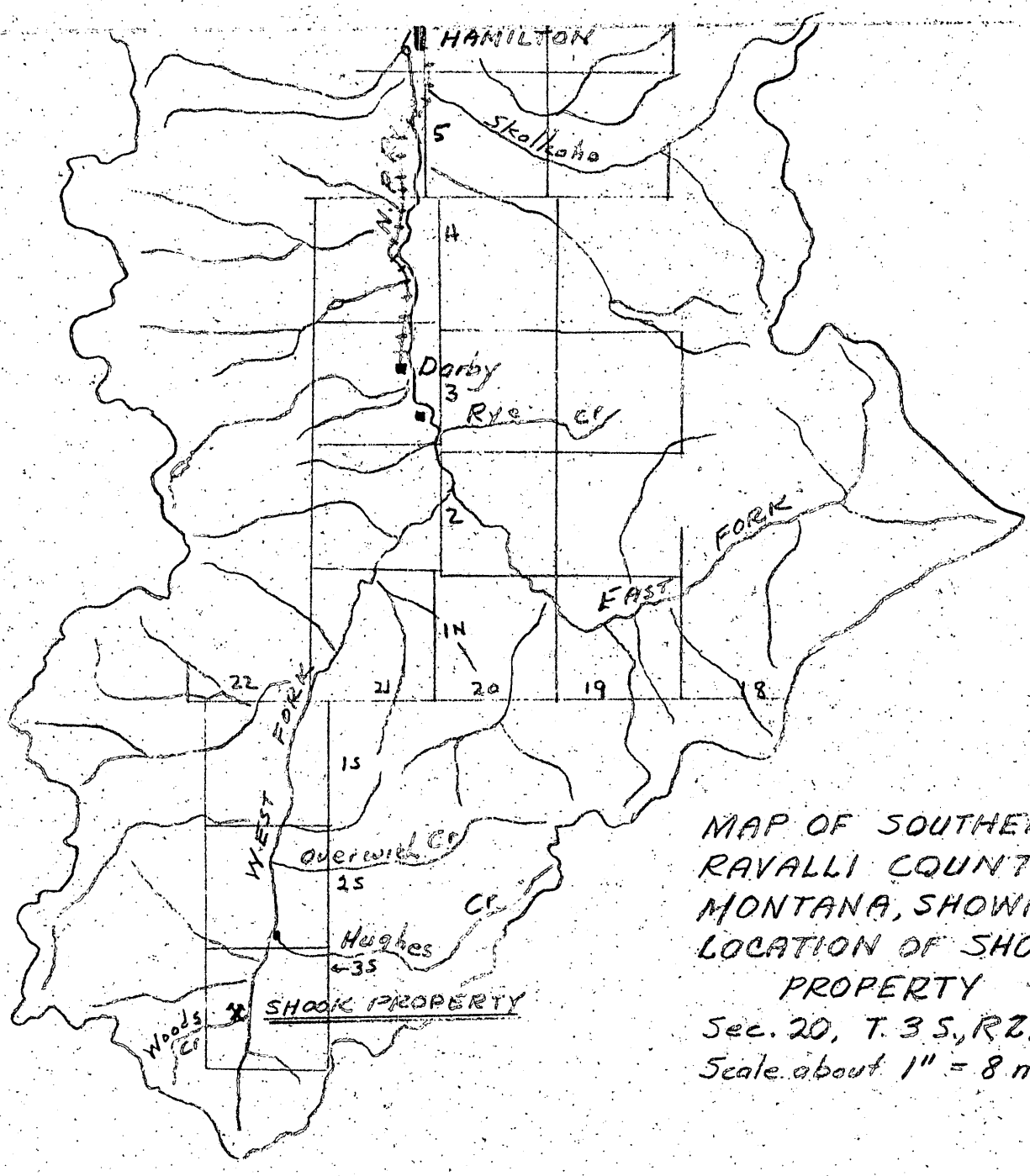
OFFICIAL BUSINESS

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

PE AVOID

DENVER
MAR
8
7PM
1954
COLO

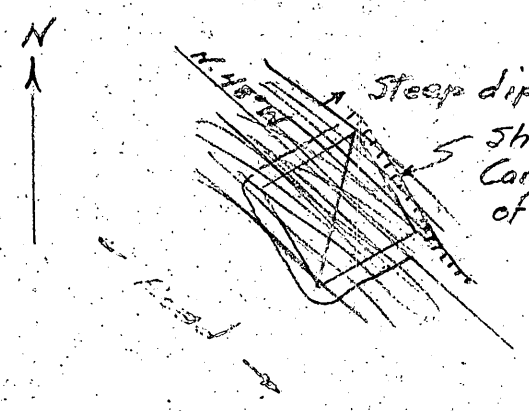
Defense Minerals Exploration Administration
Interior Bldg.
Washington 25, D.C.



MAP OF SOUTHERN RAVALLI COUNTY, MONTANA, SHOWING LOCATION OF SHOOK PROPERTY

Sec. 20, T. 3 S., R 22 W

Scale about 1" = 8 mi.



Shaft - 12'± deep in shear zone in pre-Cambrian argillite mineralized by seams of chalcopyrite + bornite and quartz

(Sketch of shaft 12' deep Aug. 27, 1953, from memory by U.M. Sahinen Approx. 1" = 10'

U.M.S. Feb. 1. 1954.