DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

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DMA Docket No. 2010

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EXPLORATION LOAN

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

Routing Slip

CODE #350 365

To:	Lead-Zinc Br.	Date	8-27-51
To:	ATTENTION: Mr. McKnight	Date	
To:	Supply Division	Date	OCT 24 1951
To:	~~Production Expansion Division~~	Date	OCT 30 1951
To:	F. L. KNOUSE	Date	11-5-51
To:	Supply Division ~~Bunnard Johnson~~	Date	11/7/51
To:	Coordinating Committee	Date	11-14-51
To:	USGS	Date	2/13/52
To:	Operating Com	Date	3-7-52
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

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FILE COPY
SURNAME:

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

Keating
Moulds
Hedges
Thayer
Fitzsimmons

MAR 1 0 1952

Mr. Amos Epperson
Silver Butte Mine & Mill
249 East South Temple Street
Salt Lake City, Utah

Re: Docket No. DMEA 2010

Dear Mr. Epperson:

The Government has made a careful study of the data submitted in your application together with all the geological and field reports available. The study of your project indicates that by the nature of the ore occurrence, in small localized pods or lenses, it is unlikely that larger ore shoots can reasonably be expected to be uncovered by the work you propose. This work would be conducted in an area already proven unfavorable by the existing developments. Because of these conditions, we regret that we have been unable to reach a favorable conclusion regarding your project. Your application for exploration project assistance is therefore denied.

We have appreciated the opportunity to review your application in the interest of strategic mineral discovery and regret that it does not fulfill the requirements for Government participation in a defense exploration project under Mineral Order-5.

Sincerely yours,

C. O. Mittenderf (for) J.N. 3-10-52

Acting Administrator
Defense Minerals Exploration
Administration

~~DEMO~~ AGKeating/meh
3/3/52
cc to: Adm. R. File
Docket File Copy
Mr. Moulds
Mr. Keating
Mr. Bishop
Mr. McKnight
Region IV (2)

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

March 5, 1952

Memorandum

To: Acting Administrator

From: Base Metals Division

Subject: Denial of a revised application for exploration project assistance, Amos Epperson (DBA) Silver Butte Mine, Elko County, Nevada. Docket No. DMEA 2010.

The initial application for a production loan covering this project was presented January 4, 1951, and assigned Docket No. DMA 475. The applicant requested $60,000.00 to pay indebtedness, buy necessary equipment, obtain working capital and further develop the mine.

Upon recommendation of the Field Team, this application was denied, however, they suggested that an exploration loan be applied for. Following the suggestion of the Field Team, and after consultation with them, Mr. Epperson submitted an application on Form MF-103 for an exploration program in an amount of $20,000.00. The proposed work was to be as follows:

(1) 200 foot level main shaft:

Drift north on vein 50 feet @ $30.00 per foot	$ 1,500.00
Raise on vein 25 feet @ $40.00 per foot	1,000.00

(2) 250 foot level main shaft:

Drift south on vein 150 feet @ $30.00 per foot	4,500.00
Raise on vein 50 feet @ $40.00 per foot	2,000.00
Drift north on vein 75 feet @ $30.00 per foot	2,250.00

(3) 300 foot level main shaft:

South of shaft raise on vein 50 feet, @ $40.00 per foot	2,000.00
Drift from top of raise 25 feet @ $30.00 per foot	750.00
South of shaft (160 ft.) raise on vein 50 feet @ $40.00 per foot	2,000.00
	$ 16,000.00
Contingency allowance 10%	1,600.00
Replace hoist and engine	2,400.00
Total	$ 20,000.00

The Field Team reported that the property had sufficient merit to warrant further exploration work but concluded that it was possible an operation by leasing the smaller, higher grade seams of ore would be more successful than company operation.

Recently engineers of the Bureau of Mines and the Geological Survey in Washington reviewed the application and in a memorandum to H. C. Miller, reached the following conclusions.

> "In evaluating the possible merit of the proposed work, we have been strongly influenced by the low assay values and the limited amounts of minable ore which are exposed in the rather extensive drifts.
>
> The nature of the ore occurences, in localized pods or lenses, would seem to indicate that larger ore shoots can not reasonably be expected to be found by the proposed exploration which involves ground already indicated as unfavorable by the existing developments.
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> The drifts and assays, as given on the map, have shown very well that only small amounts of ore can be inferred to exist between the levels. In our review of the docket material, we are unable to marshal sufficient evidence in support of the proposed program."

The Washington examiners requested further information from the Field Team to justify approval of the loan. The Field Team presented no additional data but suggested that more sampling might be desirable. However, the examiners felt that it was doubtful whether further sampling would furnish additional evidence to support the program. In their report to H. C. Miller, the examiners expressed the opinion that they believed with the Field Team that there was a strong possibility of finding additional lenses of lead ore, if the proposed drifts and raises were financed, but that past experience at the project indicated that these lenses were so small that the recoverable metal content would scarcely pay exploration, mining, milling and freighting costs.

Conclusions:

The Base Metals Division is of the opinion that the denial recommended by the engineers of the Bureau of Mines and the Geological Survey is justified. The mine has been sufficiently developed to provide a reasonably dependable basis for appraisal. The ore occurs in small localized lenses which are not of sufficient size or value to insure a commercially successful operation.

The limited amounts of minable ore exposed by rather extensive development indicate that larger ore shoots are not likely to be developed. Therefore, the application for assistance for an exploration loan in this instance is recommended for denial.

D E Moulds

D. E. Moulds

FILE COPY
SURNAME:

Keating
Moulds

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

March 5, 1952

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Contingency allowance 10%	1,600.00
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Total	$ 20,000.00

The Field Team reported that the property had sufficient merit to warrant further exploration work but concluded that it was possible an operation by leasing the smaller, higher grade seams of ore would be more successful than company operation.

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Conclusions:

The Base Metals Division is of the opinion that the denial recommended by the engineers of the Bureau of Mines and the Geological Survey is justified. The mine has been sufficiently developed to provide a reasonably dependable basis for appraisal. The ore occurs in small localized lenses which are not of sufficient size or value to insure a commercially successful operation.

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D. E. Moulds mch

D. E. Moulds

AGKeating/hmj
3-5-52
cc to: Adm. R. File
Docket File Copy
Mr. Moulds
Mr. Keating

IN REPLY REFER TO:

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

February 25, 1952

Memorandum

To: Mr. D. E. Moulds

From: Erwin J. Lyons, USGS and
O. M. Bishop, GSBM

Subject: Recommendation for denial of application, Docket DMEA-2010, Amos Epperson, Salt Lake City, Utah.

The applicant, Amos Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

After examining the docket material the Washington reviewers, in a memorandum to H. C. Miller, stated:

"In evaluating the possible merit of the proposed work, we have been strongly influenced by the low assay values and the limited amounts of minable ore which are exposed in the rather extensive drifts. The nature of the ore occurrences, in localized pods or lenses, would seem to indicate that larger ore shoots cannot reasonably be expected to be found by the proposed exploration which involves ground already indicated as unfavorable by the existing developments. The drifts and assays, as given on the map, have shown very well that only small amounts of ore can be inferred to exist between the levels. In our review of the docket material, we were unable to marshal sufficient evidence in support of the proposed program."

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It is therefore recommended that the application be denied.

E. J. Lyons (ETM)
E. J. Lyons
USGS

O M Bishop
O. M. Bishop
USBM

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

February 25, 1952

Memorandum

To: Mr. D. E. Moulds

From: Erwin J. Lyons, USGS and
O. M. Bishop, GSBM

Subject: Recommendation for denial of application, Docket DMEA-2010, Amos Epperson, Salt Lake City, Utah.

The applicant, Amos Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

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It is therefore recommended that the application be denied.

E. J. Lyons
USGS

OMB
O. M. Bishop
USBM

FILE COPY
Surname:

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

February 25, 1952

Memorandum

To: Mr. D. E. Moulds

From: Erwin J. Lyons, USGS and
O. M. Bishop, GSBM

Subject: Recommendation for denial of application, Docket DMEA-2010, Amos Epperson, Salt Lake City, Utah.

The applicant, Amos Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

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E. J. Lyons
USGS

EJLyons:emp

Copies to: Geol. Div. files
Branch files 4208
Directors r. files
Branch r. files
O. M. Bishop
3423 Interior Bldg.
E. T. McKnight

O. M. Bishop
USBM

February 25, 1952

Memorandum

To: Mr. D. E. Moulds

From: Erwin J. Lyons, USGS and
W. M. Bishop, GSBM

Subject: Recommendation for denial of application, Docket DMEA-2010, Amos Epperson, Salt Lake City, Utah.

The applicant, Amos Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

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E. J. Lyons
USGS

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Directors r. files
Branch r. files
O. M. Bishop
3423 Interior Bldg.
E. T. McKnight

O. M. Bishop
USBM

February 25, 1952

Memorandum

To: Mr. R. L. Moulds

From: Erwin J. Lyons, USGS and
O. M. Bishop, USBM

Subject: Recommendation for denial of application, Docket DMA-2010, Amos Epperson, Salt Lake City, Utah.

The applicant, Amos Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

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It is therefore recommended that the application be denied.

E. J. Lyons
GGS

EJLyons:amp
Copies to: Geol. Div. files
Branch files 4203
Directors r. files
Branch r. files
O. M. Bishop
3423 Interior Bldg.
E. T. McKnight

O. M. Bishop
USBM

E. T. McKnight

February 25, 1952

Memorandum

To: Mr. D. K. Moulds

From: Erwin J. Lyons, USGS and
O. M. Bishop, GSBM

Subject: Recommendation for denial of application, Docket DMEA-2010, Amos Epperson, Salt Lake City, Utah.

The applicant, Amos Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

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It is therefore recommended that the application be denied.

E. J. Lyons
USGS

EJLyons:emp
Copies to: Geol. Div. files
Branch files 4208
Directors r. files
Branch r. files
C. M. Bishop
3423 Interior Bldg.
E. T. McKnight

C. M. Bishop
USBM

February 25, 1952

Memorandum

To: Mr. D. H. Moulds

From: Erwin J. Lyons, USGS and
O. M. Bishop, GSM

Subject: Recommendation for denial of application, Docket DMA-6010, Anne Epperson, Salt Lake City, Utah.

The applicant, Anne Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

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It is therefore recommended that the application be denied.

E. J. Lyons
USGS

EJLyons:emp
Copies to: Geol. Div. files
Branch files 4206
Directors r. files
Branch r. files
O. M. Bishop
3423 Interior Bldg.
E. T. McKnight

O. M. Bishop
USBM

February 25, 1952

Memorandum

To: Mr. D. E. Moulds

From: Erwin J. Lyons, USGS and
O. M. Bishop, GSBM

Subject: Recommendation for denial of application, Docket DMEA-2010, Amos Epperson, Salt Lake City, Utah.

The applicant, Amos Epperson of 249 East South Temple Street, Salt Lake City, Utah, originally requested a direct loan (DMA-475) of $60,000 which was denied on the recommendation of the field team, who, however, suggested that an exploration grant be asked for. The exploration program involving the expenditure of $20,000 was prepared and submitted by the applicant after consultation with the members of the field team.

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E. J. Lyons
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EJLyons:emp
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Branch files 4208
Directors r. files
Branch r. files
C. M. Bishop
3423 Interior Bldg.
E. T. McKnight

C. M. Bishop
USBM

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

WASHINGTON 25, D. C.

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

Office of
Executive Officer
DMEA Field Team
Region III

January 30, 1952

Memorandum

To: C. O. Mittendorf, Acting Administrator, Defense Minerals Exploration Administration, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMA-(475)-2010 - Silver Butte Mine, Elko County, Nevada - Amos Epperson, 249 East South Temple, Salt Lake City, Utah - Exploration Loan $20,000 (Lead) -- Reconsideration of recommendation for exploration loan.

Reference is made to your subject letter dated November 28, requesting further advice or information on subject property.

Attached are four copies of each of the following:

1. Memorandum from R. M. Smith to H. C. Miller, dated December 17, 1951, with covering letter from Ralph J. Roberts, dated December 17, 1951.

2. Memorandum from Glenn G. Gentry to A. C. Johnson, dated December 20, 1951.

3. Memorandum from A. C. Johnson to H. C. Miller, dated January 29, 1952.

I trust that the information contained in the cited memoranda is sufficient to enable you to process the application.

The docket and field report included therein are being returned herewith.

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
FEB 4 8 05 AM '52

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

Attachments

Copy to E. H. Bailey, USGS

Reviewed by
DMEA OPERATING COMMITTEE

2-6-52
(hl) (date)

UNITED STATES
DEPARTMENT OF THE INTERIOR

Bureau of Mines

P. O. Box 1551
Reno, Nevada

January 29, 1952

Memorandum

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

From: A. C. Johnson, Chief, Mining Division, Region III

Subject: Silver Butte Mine, Elko County, Nevada. Docket DMA (475) - 2010; Exploration Loan $20,000. (Lead)

Reference is made to your memorandum of December 3 and to Mr. Mittendorf's memorandum to you of November 28 relative to an exploration loan for the above mentioned property.

The original application, by the applicant, was for a development loan. The examining engineer and geologist did not believe that there was sufficient ore reserves to warrant the loan but they did believe that the property warranted a limited amount of exploration work.

Their recommendations were as follows:

"The property has sufficient merit to warrant further exploration work. There is a large area of undeveloped ground between the 250 and 300 foot level that has not been explored sufficiently to determine its mineral potential. There are also two areas represented by samples Nos. 91 and 92 that warrants further exploration.

"It is possible that leaser operations, mining the small higher grade seams of ore, would be more successful than company operations."

An amended application for exploratory work was submitted that would comprise the following work to explore the most favorable areas recommended by the examining engineer and geologist:

"200 Level
North of shaft
Drift on vein 50 ft. at $30.00 per foot.....$ 1,500.00
Raise on vein 25 ft. at $40.00 per foot..... 1,000.00

250 Level
South of shaft
1st project
Drift on vein 150 ft. at $30.00 per ft. 4,500.00
Raise on vein 50 ft. at $40.00 per ft. 2,000.00

North of shaft
2nd project
Drift on vein 75 ft. at $30.00 per ft. 2,250.00

Memo: Mr. H. C. Miller January 29, 1952

"300 Level

South of shaft (above Winze to 350 Level)

Raise on vein 50 ft. at $40.00 per ft.	$ 2,000.00
Drift at top of raise 25 ft. at $30.00 per ft. ...	750.00

South of shaft (160 ft. south of shaft)

Raise on vein 50 ft. at $40.00 per ft.	2,000.00
	$
	$16,000.00
Contingency allowance 10%	1,600.00
	$17,600.00
Replace Hoist and Engine	2,400.00
	$20,000.00"

The examining field team realizes that there is an element of speculation in the search for additional ore lenses but they do believe that an exploration program as outlined does have possibilities of adding to the possible ore reserves at the property. According to the field team there are no measured ore reserves at the property but there is an indicated and inferred tonnage of 7,775 tons of ore that might average 5% lead and 3 ounces of silver a ton.

Under the circumstances I believe the exploration loan is warranted, as it has possibilities of increasing reserves.

Docket and correspondence relative to it are returned herewith.

(s) A. C. Johnson

Encls.

CC H. M. Smith, USGS
E. H. Bailey, USGS

A. C. Johnson, Chief, Mining Div., Region III Dec. 20, 1951

Glenn G. Gentry, Mining Engineer, Bureau of Mines, Reg. III

Silver Butte Mine, Elko County, Nevada - Docket DMA (475)-2010
Exploration loan $20,000 (Lead)

Reference is made to a letter from Mr. H. C. Miller, Executive Officer, dated Dec. 3, 1951 and a letter from Mr. C. O. Mittendorf, Acting Administrator, dated Nov. 28, 1951, requesting advice or further information relative to "Reconsideration of Recommendation for Exploration Loan".

The original examination indicated that ore reserves and values were insufficient to justify the requested loan of $50,000. However, the examining engineer[1] and the geologist[2] considered the property had sufficient merit to warrant further exploration work as there is a large area of undeveloped ground between the 250 and 550 foot levels that has not been explored sufficiently to determine its mineral potential, and other mineralized surface exposures which have not been explored.

Under date of Sept. 13, 1951, the applicant applied for a loan of $10,000 to be matched with an equal amount of private funds, and submitted a definite proposed exploration program after consultation with the Geological Survey and the Bureau of Mines. This program was recommended to the Defense Minerals Administration.

The Examining Field Team realized there is an element of speculation in the search for additional ore reserves and considered the geological conditions and the vein structure of sufficient interest to warrant the limited amount of exploration work proposed. The matter has again been discussed with Mr. Roscoe M. Smith and his letters and report are herewith attached.

The writer agrees with Mr. Smith that continued exploration in the district has a chance to uncover new ore bodies.

No new data is available and Mr. Smith advises that a re-examination of the mine for the purpose of securing additional samples is not feasible at this time as the mine has been closed down for the winter. It is therefore suggested that consideration be given to "Holding the final decision in abeyance until such time in the spring of 1952 that additional mine samples may be secured."

1/ Glenn G. Gentry, Mining Engineer, Bureau of Mines, Region III
2/ Roscoe M. Smith, Geologist, U. S. Geological Survey

Glenn G. Gentry

Glenn G. Gentry

UNITED STATES
DEPARTMENT OF THE INTERIOR

Bureau of Mines

P. O. Box 1551
Reno, Nevada

January 29, 1952

Memorandum

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

From: A. C. Johnson, Chief, Mining Division, Region III

Subject: Silver Butte Mine, Elko County, Nevada. Docket DMA (475) - 2018; Exploration Loan $20,000. (Lead)

Reference is made to your memorandum of December 3 and to Mr. Mittendorf's memorandum to you of November 28 relative to an exploration loan for the above mentioned property.

The original application, by the applicant, was for a development loan. The examining engineer and geologist did not believe that there was sufficient ore reserves to warrant the loan but they did believe that the property warranted a limited amount of exploration work.

Their recommendations were as follows:

"The property has sufficient merit to warrant further exploration work. There is a large area of undeveloped ground between the 250 and 300 foot level that has not been explored sufficiently to determine its mineral potential. There are also two areas represented by samples Nos. 91 and 92 that warrants further exploration.

"It is possible that lessser operations, mining the small higher grade seams of ore, would be more successful than company operations."

An amended application for exploratory work was submitted that would comprise the following work to explore the most favorable areas recommended by the examining engineer and geologist:

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Raise on vein 25 ft. at $40.00 per foot..... 1,000.00

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South of shaft
1st project
Drift on vein 150 ft. at $30.00 per ft. 4,500.00
Raise on vein 50 ft. at $40.00 per ft. 2,000.00

North of shaft
2nd project
Drift on vein 75 ft. at $30.00 per ft. 2,250.00

Memo: Mr. H. C. Miller January 29, 1952

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South of shaft (above Winze to 350 Level)

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Drift at top of raise 25 ft. at $30.00 per ft. ...	750.00

South of shaft (160 ft. south of shaft)

Raise on vein 50 ft. at $40.00 per ft.	2,000.00
	$16,000.00
Contingency allowance 10%	1,600.00
	$17,600.00
Replace Hoist and Engine	2,400.00
	$20,000.00"

The examining field team realizes that there is an element of speculation in the search for additional ore lenses but they do believe that an exploration program as outlined does have possibilities of adding to the possible ore reserves at the property. According to the field team there are no measured ore reserves at the property but there is an indicated and inferred tonnage of 7,775 tons of ore that might average 5% lead and 3 ounces of silver a ton.

Under the circumstances I believe the exploration loan is warranted, as it has possibilities of increasing reserves.

Docket and correspondence relative to it are returned herewith.

(s) A. C. Johnson

Encls.

CC H. M. Smith, USGS
E. H. Bailey, USGS

A. C. Johnson, Chief, Mining Div., Region III Dec. 20, 1951

Glenn G. Gentry, Mining Engineer, Bureau of Mines, Reg. III

Silver Butte Mine, Elko County, Nevada - Docket DMA (475)-2010
Exploration loan $20,000 (Lead)

Reference is made to a letter from Mr. E. C. Miller, Executive Officer, dated Dec. 3, 1951 and a letter from Mr. C. O. Mittendorf, Acting Administrator, dated Nov. 28, 1951, requesting advice or further information relative to "Reconsideration of Recommendation for Exploration Loan".

The original examination indicated that ore reserves and values were insufficient to justify the requested loan of $30,000. However, the examining engineer[1] and the geologist[2] considered the property had sufficient merit to warrant further exploration work as there is a large area of undeveloped ground between the 250 and 350 foot levels that has not been explored sufficiently to determine its mineral potential, and other mineralized surface exposures which have not been explored.

Under date of Sept. 18, 1951, the applicant applied for a loan of $10,000 to be matched with an equal amount of private funds, and submitted a definite proposed exploration program after consultation with the Geological Survey and the Bureau of Mines. This program was recommended to the Defense Minerals Administration.

The Examining Field Team realized there is an element of speculation in the search for additional ore reserves and considered the geological conditions and the vein structure of sufficient interest to warrant the limited amount of exploration work proposed. The matter has again been discussed with Mr. Roscoe M. Smith and his letters and report are herewith attached.

The writer agrees with Mr. Smith that continued exploration in the district has a chance to uncover new ore bodies.

No new data is available and Mr. Smith advises that a re-examination of the mine for the purpose of securing additional samples is not feasible at this time as the mine has been closed down for the winter. It is therefore suggested that consideration be given to "Holding the final decision in abeyance until such time in the spring of 1952 that additional mine samples may be secured."

1/ Glenn G. Gentry, Mining Engineer, Bureau of Mines, Region III
2/ Roscoe M. Smith, Geologist, U. S. Geological Survey

Glenn G. Gentry

Glenn G. Gentry

Room 307, 120 South Main
Salt Lake City 1, Utah
17 December 1951

Mr. A. C. Johnson, Chief
Mining Division
U. S. Bureau of Mines
Reno, Nevada

DMA (475)-2010
Silver Butte Mine
Elko County, Nevada

Dear Mr. Johnson:

In reply to your letter of December 10, 1951, we have reviewed the contents of the docket in terms of Mr. Mittendorf's letter of November 28, 1951, and conclude that pertinent data on the nature and extent of the ore deposits have been omitted from the report. As the purpose of the original examination was to determine the blocked out ore reserves for a production loan, the exploration possibilities were not fully documented in the report. A more detailed discussion of the ore deposits may supply sufficient additional data to substantiate a favorable recommendation.

Accordingly we are enclosing, with the complete docket, a memorandum to Mr. Miller and a geologic surface map of the Silver Butte claims (fig. 5).

A re-examination of the property for the purpose of obtaining more samples possibly would be desirable, but it is not now feasible as the mine has been closed for the winter.

Sincerely yours,

Ralph J. Roberts

cc: Edgar H. Bailey

Reviewed by
DMEA OPERATING COMMITTEE
2-6-52
(date) NB

Room 307, 320 South Main
Salt Lake City 1, Utah
17 December 1951

Mr. A. G. Johnson, Chief
Mining Division
U. S. Bureau of Mines
Reno, Nevada

IMA (475)-2020
Silver Butte Mine
Elko County, Nevada

Dear Mr. Johnson:

In reply to your letter of December 10, 1951, we have reviewed the contents of the docket in terms of Mr. Mittendorf's letter of November 26, 1951, and conclude that pertinent data on the nature and extent of the ore deposits have been omitted from the report. As the purpose of the original examination was to determine the blocked out ore reserves for a production loan, the exploration possibilities were not fully documented in the report. A more detailed discussion of the ore deposits may supply sufficient additional data to substantiate a favorable recommendation.

Accordingly we are enclosing, with the complete docket, a memorandum to Mr. Miller and a geologic surface map of the Silver Butte claims (Fig. 5).

A re-examination of the property for the purpose of obtaining more samples possibly would be desirable, but it is not now feasible as the mine has been closed for the winter.

Sincerely yours,

Ralph J. Roberts

cc: Edgar M. Bailey

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Mines

P. O. Box 1551
Reno, Nevada

January 29, 1952

Memorandum

To: Mr. H. G. Miller, Executive Officer, DMEA Field Team, Region III

From: A. C. Johnson, Chief, Mining Division, Region III

Subject: Silver Butte Mine, Elko County, Nevada. Docket DMA (475) - 2910; Exploration Loan $20,000. (Lead)

Reference is made to your memorandum of December 3 and to Mr. Mittendorf's memorandum to you of November 28 relative to an exploration loan for the above mentioned property.

The original application, by the applicant, was for a development loan. The examining engineer and geologist did not believe that there was sufficient ore reserves to warrant the loan but they did believe that the property warranted a limited amount of exploration work.

Their recommendations were as follows:

"The property has sufficient merit to warrant further exploration work. There is a large area of undeveloped ground between the 250 and 300 foot level that has not been explored sufficiently to determine its mineral potential. There are also two areas represented by samples Nos. 91 and 92 that warrants further exploration.

"It is possible that lessor operations, mining the small higher grade seams of ore, would be more successful than company operations."

An amended application for exploratory work was submitted that would comprise the following work to explore the most favorable areas recommended by the examining engineer and geologist:

"200 Level
North of shaft
Drift on vein 50 ft. at $30.00 per foot.....$ 1,500.00
Raise on vein 25 ft. at $40.00 per foot..... 1,000.00

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South of shaft
1st project
Drift on vein 150 ft. at $30.00 per ft. 4,500.00
Raise on vein 50 ft. at $40.00 per ft. 2,000.00

North of shaft
2nd project
Drift on vein 75 ft. at $30.00 per ft. 2,250.00

Memo: Mr. H. C. Miller January 29, 1952

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South of shaft (above Winze to 350 Level)

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Contingency allowance 10%	1,600.00
	$17,600.00
Replace Hoist and Engine	2,400.00
	$20,000.00"

The examining field team realizes that there is an element of speculation in the search for additional ore lenses but they do believe that an exploration program as outlined does have possibilities of adding to the possible ore reserves at the property. According to the field team there are no measured ore reserves at the property but there is an indicated and inferred tonnage of 7,775 tons of ore that might average 5% lead and 3 ounces of silver a ton.

Under the circumstances I believe the exploration loan is warranted, as it has possibilities of increasing reserves.

Docket and correspondence relative to it are returned herewith.

(s) A. C. Johnson

Encls.

CC H. M. Smith, USGS
E. H. Bailey, USGS

COPY

A. C. Johnson, Chief, Mining Div., Region III Dec. 20, 1951

Glenn G. Gentry, Mining Engineer, Bureau of Mines, Reg. III

Silver Butte Mine, Elko County, Nevada - Docket DMA (475)-2010
Exploration loan $20,000 (Lead)

Reference is made to a letter from Mr. H. C. Miller, Executive Officer, dated Dec. 3, 1951 and a letter from Mr. C. O. Mittendorf, Acting Administrator, dated Nov. 28, 1951, requesting advice or further information relative to "Reconsideration of Recommendation for Exploration Loan."

The original examination indicated that ore reserves and values were insufficient to justify the requested loan of $30,000. However, the examining engineer[1] and the geologist[2] considered the property had sufficient merit to warrant further exploration work as there is a large area of undeveloped ground between the 250 and 350 foot levels that has not been explored sufficiently to determine its mineral potential, and other mineralized surface exposures which have not been explored.

Under date of Sept. 13, 1951, the applicant applied for a loan of $10,000 to be matched with an equal amount of private funds, and submitted a definite proposed exploration program after consultation with the Geological Survey and the Bureau of Mines. This program was recommended to the Defense Minerals Administration.

The Examining Field Team realized there is an element of speculation in the search for additional ore reserves and considered the geological conditions and the vein structure of sufficient interest to warrant the limited amount of exploration work proposed. The matter has again been discussed with Mr. Roscoe M. Smith and his letters and report are herewith attached.

The writer agrees with Mr. Smith that continued exploration in the district has a chance to uncover new ore bodies.

No new data is available and Mr. Smith advises that a re-examination of the mine for the purpose of securing additional samples is not feasible at this time as the mine has been closed down for the winter. It is therefore suggested that consideration be given to "Holding the final decision in abeyance until such time in the spring of 1952 that additional mine samples may be secured."

1/ Glenn G. Gentry, Mining Engineer, Bureau of Mines, Region III
2/ Roscoe M. Smith, Geologist, U. S. Geological Survey

s/ Glenn G. Gentry

Glenn G. Gentry

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 2-7-52

REFERRED TO:

1. CODE 500-RM. 2614
2.
3.
4.

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	
..... Conference	..... Referring to .....
..... Consideration	
..... Filing	..... Reply for signature of .....
..... Instructions	
..... Investigation	..... Rewriting
..... Initials	..... Signature
..... Mailing	..... Suggestions
..... Previous correspondence	..... Your information

REMARKS: .....

Check (X) before the items needing attention.

Adams (AL)
Initials of sender.

GPO 16—63815-1

Room 307, 320 South Main
Salt Lake City 1, Utah
17 December 1951

Mr. A. C. Johnson, Chief
Mining Division
U. S. Bureau of Mines
Reno, Nevada

DMA (475)-2010
Silver Butte Mine
Elko County, Nevada

Dear Mr. Johnson:

In reply to your letter of December 10, 1951, we have reviewed the contents of the docket in terms of Mr. Mittendorf's letter of November 28, 1951, and conclude that pertinent data on the nature and extent of the ore deposits have been omitted from the report. As the purpose of the original examination was to determine the blocked out ore reserves for a production loan, the exploration possibilities were not fully documented in the report. A more detailed discussion of the ore deposits may supply sufficient additional data to substantiate a favorable recommendation.

Accordingly we are enclosing, with the complete docket, a memorandum to Mr. Miller and a geologic surface map of the Silver Butte claims (fig. 5).

A re-examination of the property for the purpose of obtaining more samples possibly would be desirable, but it is not now feasible as the mine has been closed for the winter.

Sincerely yours,

Ralph J. Roberts

cc: Edgar H. Bailey

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY Room 307, 320 South Main
Salt Lake City 1, Utah
17 December 1951

Memorandum

To: H. C. Miller, Executive Officer, DMA Field Team, Region III

From: Roscoe M. Smith

Subject: DMA (475)-2010, Silver Butte Mine, Elko County, Nevada. Supplement to Report of Examination by Field Team, Region III, July 12, 1951.

The lead ore bodies at the Silver Butte Mine are in narrow veins along vertical faults that strike northeast. The ore shoots are discontinuous lenses; they range from 10 to 70 feet long, are as much as 3 feet wide, and some shoots extend 60 feet down the dip. They have been mined from a maximum depth of 400 feet.

The ore minerals are galena and, near the surface, cerusite; the main gangue mineral is barite. The galena is in pods and veinlets as much as 6 inches wide in the barite. Grade of ore mined averaged about 20 percent lead and 8 ounces of silver per ton.

The fault that contains the barite veins of the Silver Butte mine is composed of several interlacing strands. Ore lenses in the veins occur at or near the intersections of major strands of the fault, although not all intersections contain ore. As the ore shoots or lenses are small, there remains a large area of the vein that is inadequately explored, although the underground workings are extensive laterally.

Other veins that parallel the Silver Butte vein are mineralized, but very little exploratory work has been done on them. Two of these veins were sampled; a description of the veins appears with the assay results, samples 91 and 92 (p. 18). A third parallel vein, which lies about 800 feet southeast of the Silver Butte vein, was the objective of a crosscut (now inaccessible) from the 600 level. Crosscutting is reported to have stopped short of the objective. Surface showings on this vein are most promising about 1,000 feet northeast of the shaft (fig. 5). Kildale [1] has examined

---

[1] Kildale, M. B., Report of examination, Silver Butte Mine, 1930.

these showings and reports that: "Here two smaller, parallel veins appear to terminate on the edge of the valley against east-west cross fissuring or an igneous contact. There is some brecciation along an east-west line and both veins locally show values in lead and silver on the surface. It is a possible source of ore but judging from the general character of mineralization thus far exposed, the odds are against anything large being found here."

While there is little hope that a major discovery will be made at the Silver Butte mine, nevertheless there is reasonable hope that sufficient tonnage will be found to permit profitable operation of the existing mill for one or two seasons. The production of lead will aid in relieving the current shortage but more important, it will permit continued work in the district. As there are three other promising showings on the property, continued exploration in the district may well result in the discovery of ore bodies that will, in aggregate, yield a significant tonnage.

R. M. Smith

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS ADMINISTRATION
DOCKET NO. (475) 2010

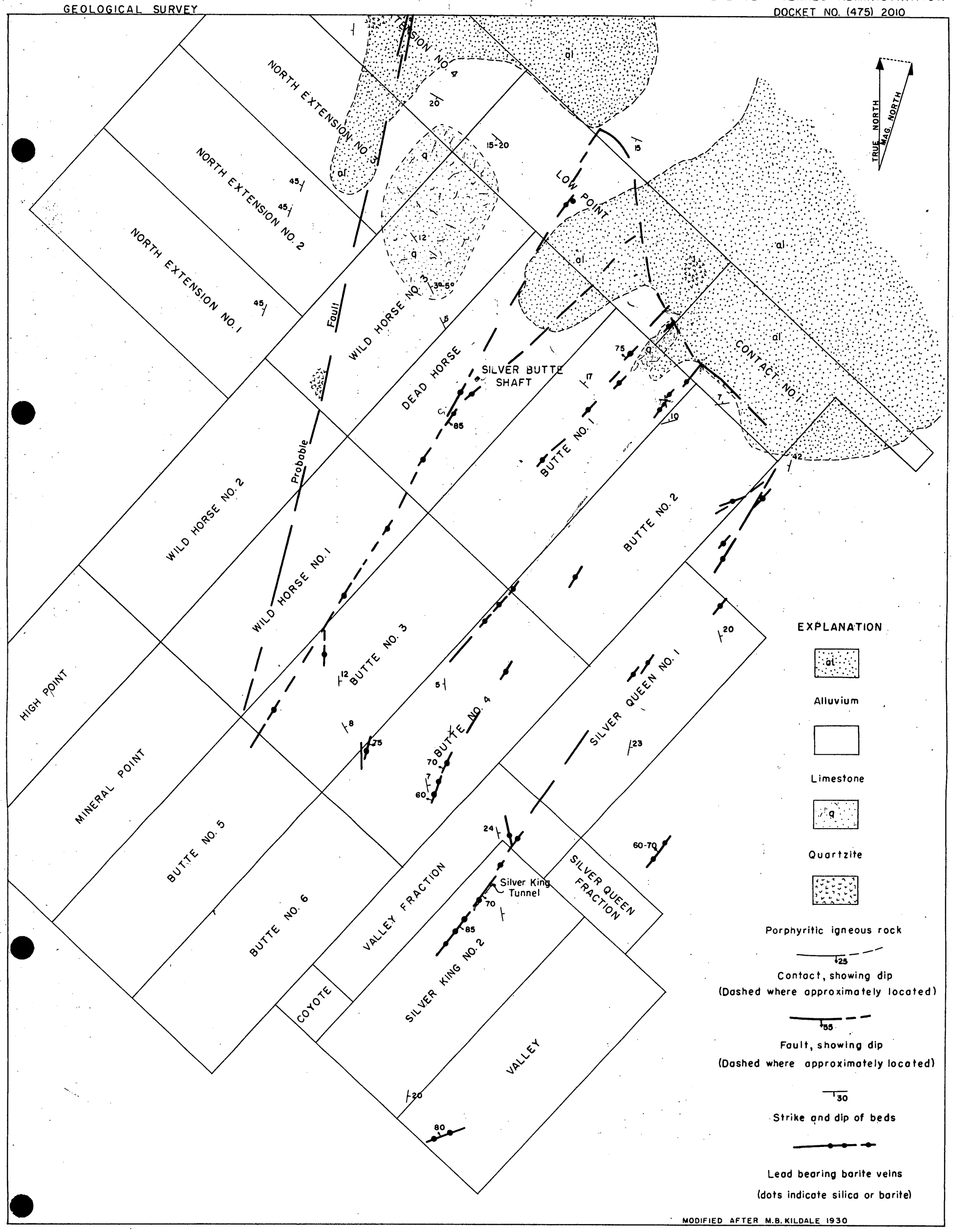

FIG. 5

GEOLOGIC MAP OF THE SILVER BUTTE CLAIMS
MUD SPRINGS DISTRICT, ELKO COUNTY, NEVADA

0 500 1000 FEET
Scale

Room 307, 320 South Main
Salt Lake City 1, Utah
17 December 1951

Memorandum

To: H. C. Miller, Executive Officer, DMA Field Team, Region III

From: Roscoe M. Smith

Subject: DMA (475)-2010, Silver Butte Mine, Elko County, Nevada. Supplement to Report of Examination by Field Team, Region III, July 12, 1951.

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U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS ADMINISTRATION
DOCKET NO. (475) 2010

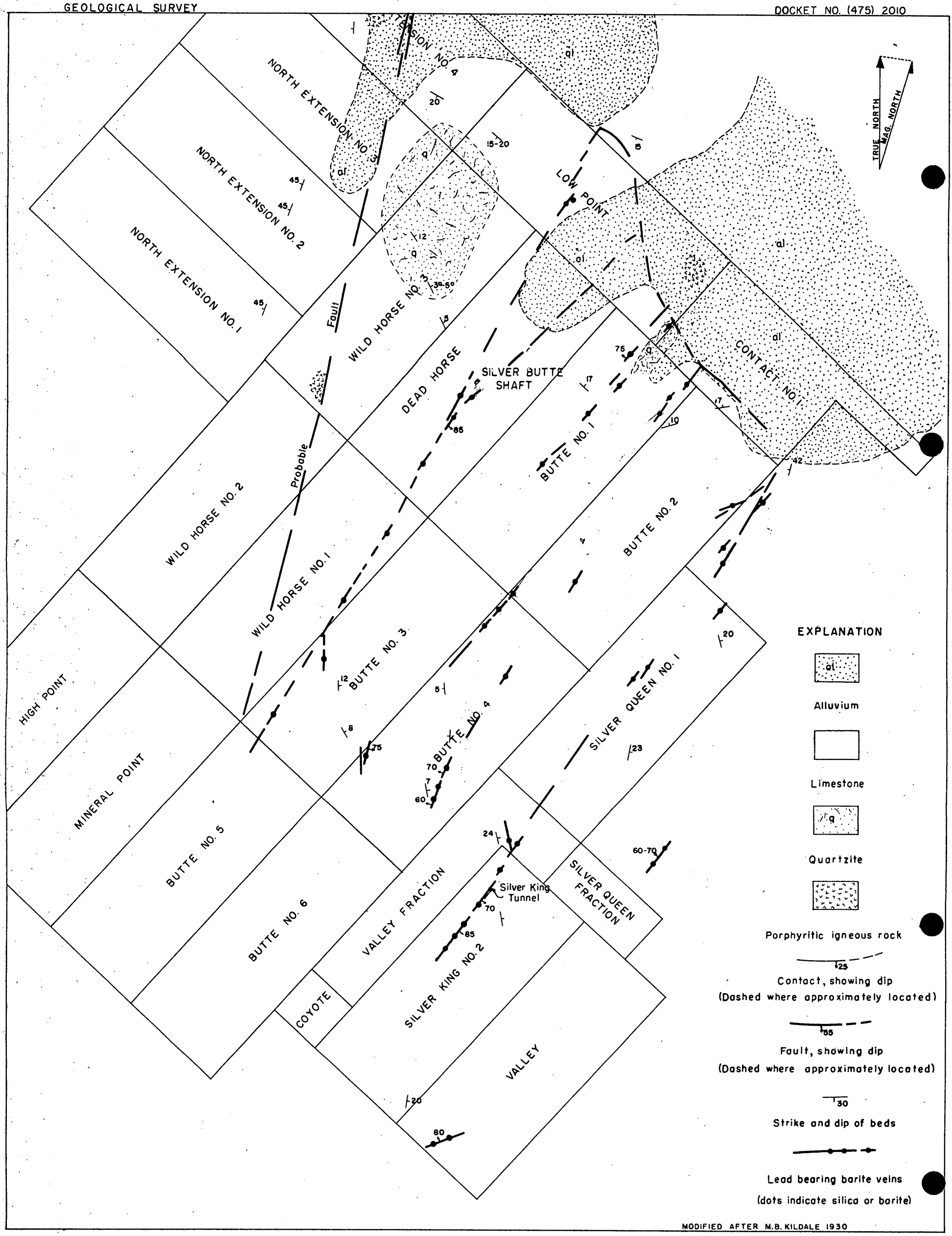

FIG. 5

GEOLOGIC MAP OF THE SILVER BUTTE CLAIMS
MUD SPRINGS DISTRICT, ELKO COUNTY, NEVADA

0 500 1000 FEET
Scale

Pelican Butte Mine
DMA 2010
Effjerson

Average grade of inferred ore - 5.16 Pb 3.1 oz Ag - 3400 tons

Direct Costs

Mining	$10.00 per ton ore
Haul to mill	1.00 " "
Milling	3.50 " "
Haul to smelter	1.50 " "
Smelter chgs.	7.00
	$18.00

103 lb
19
927
103
1957

5.16 Pb = 103 lb Pb @ $.19 = $19.57
3.1 Ag = 3.1 x 90¢ = $2.70
$22.27 at 100% extraction
85%
11135
17816
$18.9295 estimated returns.

Cost per ton $18.00
Returns " $18.93

FILE COPY
SURNAME: 350

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

Newcomb (E TM)
McKnight
Bishop
For Tribute

NOV 28 1951

Re: DMA(475)-2010
Silver Butte Mine
Elko County, Nevada
Amos Epperson
249 E. South Temple
Salt Lake City, Utah
Exploration loan $20,000
Lead

Memorandum

To: H. C. Miller, Executive Officer, DMA Field Team, Region III

From: Acting Administrator
Through: Coordinating Committee

Subject: Reconsideration of recommendation for exploration loan

We wish to advise that the Silver Butte Mile application which has been recommended for an exploration loan by the DMA Field Team, has been reviewed jointly by the Lead-Zinc Branch and the Production Expansion Division.

In evaluating the possible merit of the proposed work we have been strongly influenced by the low assay values and the limited amounts of minable ore which are exposed in the rather extensive drifts. The nature of the ore occurrences, in localized pods or lenses, would seem to indicate that larger ore shoots cannot reasonably be expected to be found by the proposed exploration which involves ground already indicated as unfavorable by the existing developments. The drifts and assays, as given on the map, have shown very well that only small amounts of ore can be inferred to exist between the levels. In our review of the docket material, we were unable to marshal sufficient evidence in support of the proposed program.

It is possible that further drifting and raising would discover some additional ore, but it seems unlikely that the applicant could realize an adequate profit to protect his investment. We consider that we might be doing the operator an injustice in encouraging him to overextend himself financially on this project.

We would appreciate any further advice or information you may care to give us, as we may have overlooked some pertinent material in arriving at our conclusions. However, on the basis of the information at hand, we propose to recommend that the application for an exploration loan be denied.

The docket, including the field team report, is enclosed herewith, kindly return this docket and report with your reply.

S.H. 11-28

ewcomb:emp
-13-51
s to: Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop

for Bureau of Mines

Signed
Acting Administrator

For Geological Survey

GSA
Directors r. files 4214
Br. r. files 4214 GSA
Administrators r. file
DMA docket files

ACE REALTY COMPANY

What You Have for What You Want

PHONE 3-1905

~~132 SOUTH SIXTH EAST STREET~~

SALT LAKE CITY 2, UTAH

249 E. So. Temple

Defense Minerals Administration
RECEIVED
NOV 1 3 1951

November 8, 1951

Mr. Tom Lyon, Director
Supply Division
Defense Minerals Administration
Washington 25, D. C.

Re: DMA-2010
LEAD-ZINC

Dear Mr. Lyon:

Inclosed is (6) six copies of MF-202, Landlord's Subordination Agreement at your request. I trust that this will complete my application.

Awaiting your early reply.

Very truly yours,

Amos Epperson

OFFICAL FILE COPY

To		Date
210		

DEPARTMENT OF THE INTERIOR
RECEIVED
NOV 2 7 1951
Defense Minerals Administration,
Production Expansion Division.

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Elko, State of Nevada, described in a certain Exploration Project Contract dated August 20, 1951, between Amos Epperson Docket Number DMA- 2010, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated 21st day of July 1948, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 7th day of November, 1951.

Silver Butte Con. Mng. Co.
By W. W. Walker

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Elko, State of Nevada, described in a certain Exploration Project Contract dated August 20, 1951 between Amos Epperson Docket Number DMA-2010, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated 21st day of July 1948, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 7th day of November, 1951

Silver Butte Con Mining Co.
By W. W. Walter
Genl Mgr

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Elko, State of Nevada, described in a certain Exploration Project Contract dated August 20, 1951 between Amos Epperson Docket Number DMA-2010, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated 21st day of July 1948, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 7th day of November, 1951

Silver Butte Con. Mng. Co.
By O. G. Walton
Genl Mgr.

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Elko, State of Nevada, described in a certain Exploration Project Contract dated August 20, 1951, between Mrs. Epperson Docket Number DMA-2010, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated 21st day of July 1948, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 7th day of November, 1951.

Silver Butte Con. Mng. Co.
By O. W. Walton
Genl. Mgr.

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Elko, State of Nevada, described in a certain Exploration Project Contract dated August 20, 1951, between Amos Epperson Docket Number DMA- 2010, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated 21st day of July 1948, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 7th day of November, 1951

Silver Butte Con Mines Co.
By D. H. Walker
Gen'l Mgr.

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Elko, State of Nevada, described in a certain Exploration Project Contract dated August 20, 1951, between Amos Epperson Docket Number DMA- 2010, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated 21st day of July 1948, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 7th day of November, 1951.

Silver Butte Con Mng Co
By D. H. Walker
Genl Mgr

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

FILE COPY
SURNAME: 350

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

OCT 31 1951

Re: DMA-2010

Newcomb (E.T.K.)
McFarlet
Johnson
Bishop

Mr. Amos Epperson
249 E. South Temple
Salt Lake City, Utah

Dear Mr. Epperson:

Your application for an exploration loan on the Silver Butte property, Elko County, Nevada, has been reviewed by the Defense Minerals Administration.

In order to complete your application, it will be necessary for you to send in six (6) copies of MF-202, Landlord's Subordination Agreement. Further action on your docket cannot be undertaken until we receive these forms.

We wish to thank you for your consideration in this matter.

Very truly yours,

Tom Lyon
Tom Lyon, Director
Supply Division

ELNewcomb:emp
G 10-23-51
Copies to: H. C. Miller, Region III (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. file
DMA docket files

OCT 31 1951

Re: DMA-2010

Mr. Amos Epperson
249 E. South Temple
Salt Lake City, Utah

Dear Mr. Epperson:

Your application for an exploration loan on the Silver Suite property, Elko County, Nevada, has been reviewed by the Defense Minerals Administration.

In order to complete your application, it will be necessary for you to send in six (6) copies of MT-202, Landlord's Subordination Agreement. Further action on your docket cannot be undertaken until we receive these forms.

We wish to thank you for your consideration in this matter.

Very truly yours,

Tom Lyon, Director
Supply Division

EMAewcomb:emp
G 10-23-51
Copies to: H. C. Miller, Region III (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 G A
Administrators r. file
DMA docket files

DMA-2019 ('75) Lead-Zinc Region III	AMOS EPPERSON, SALT LAKE CITY, UTAH. Silver Butte Mine, Elko County, Nevada. Proposed denial. Referred to Field Team for further comment.

Ref: [illegible]-2010

Mr. [illegible] Spurgeon
[illegible] South Temple
Salt Lake City, Utah

Dear Mr. Spurgeon:

Your application for an exploration lease on the Silver Butte property, Lincoln County, Nevada, has been reviewed by the staff of the [illegible] Administration.

In order to complete your application, it will be necessary for you to send us six (6) copies of AF-[illegible], Landlord's Prospectorship Agreement. Further action on your docket cannot be undertaken until we receive these forms.

We wish to thank you for your consideration in this matter.

Very truly yours,

[illegible] Lyon, Director
Supply Division

[illegible]:ewc:mbtemp
G 10-[illegible]-51
Copies to: [illegible] Miller, Region III (2)
Chief, Land-Line Br.
[illegible] Knight [illegible]
C. M. Bishop
~~Directors r. files [illegible]~~
Br. r. files [illegible]
Administrators r. file
DSA docket files

350

FILE COPY

SURNAME:

Johnson
Bishop
McKnight

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

WASHINGTON 25, D. C.

OCT 19 1951

DMA-2010
Silver White Mine
Mud Springs District
Elko County, Nevada

G.E.C.

Mr. James Superson
[illegible] South Temple
Salt Lake City, Utah

Dear Mr. Superson:

This is to acknowledge your letter of October 8, 1951 to Mr. C. E. Billings. Mr. Billings is no longer with the Defense Minerals Administration.

A letter has been received from Mr. A. E. Smith enclosing more recording your exploration project. The geological department has reviewed your application and a cost appraisal is now being made.

I assure you everything is being done to expedite the processing of your application for final action.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

JF 10/19

GEJOHNSON
TMBILLINGS:ks
10/16/51

cc: Administrator
Deputy Administrator
/ Docket File DMA-2010
Bishop
McKnight
Billings

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.

OCT 10 9 10 AM '51

Salt Lake City, Utah
October 8, 1951

Department of the Interior
Defense Minerals Administration
Washington 25, D, C.
Mr. T. P. Billings Chief
Lead-Zinc Branch

Re: Docket No. DMA-2010

Dear Mr. Billings:

On September 17, 1951 I sent you a letter informing you that the team of Smith and Gentry of DMA had sent your office maps and recomendations relative to my application on Form MF-103, as to this date I have not received a reply and am anxious to know what disposition you have arrived at regarding same.

Please advise me at at an early date so I will not stay suspended in the air.

Yours very truly.

Amos Epperson
Silver Butte Mine

OFFICIAL FILE COPY

To	Init.	Date
350	A.E.C.	10-10
210		

OCT 10 1951

OCT 19 1951

DMA-2010
Silver Butte Mine
Red Springs District
Elko County, Nevada

Mr. Amos Apperson
[illegible] South Temple
Salt Lake City, Utah

Dear Mr. Apperson:

This is to acknowledge your letter of October 8, 1951 to Mr. W. I. Billings. Mr. Billings is no longer with the Defense Minerals Administration.

A letter has been received from Mr. A. H. Smith concerning more reporting your exploration project. The geological department has reviewed your application and a cost appraisal is now being made.

I assure you everything is being done to expedite the processing of your application for final action.

Very truly yours,

Tom Lyon, Director
Supply Division

DWJOHNSON
TEHIAFFMEMike
10/16/51

cc: Administrator
Deputy Administrator
Docket File DMA-2010
Bishop
McKnight
Billings

Room 307, 320 South Main
Salt Lake City 1, Utah
13 September 1951

Mr. T. P. Billings, Chief
Lead-Zinc Branch
Defense Minerals Administration
Washington 25, D. C.

Dear Mr. Billings:

Mr. Amos Epperson, 249 E. South Temple, Salt Lake City, Utah, applied on January 4, 1951, for a production loan (DMA-475) of $30,000 to equip and develop the Silver Butte Mine, Elko County, Nevada. A field examination to determine the ore reserves disclosed that there are insufficient reserves to justify the loan. The outlook for the discovery of new ore reserves is promising, however, and further exploratory work is warranted.

The Lead-Zinc Branch therefore suggested to the applicant that an application for an exploration loan be submitted. As a result, the applicant applied for a loan of $10,000 to be matched with an equal amount of private funds (Docket DMA 2010), and requested this office to assist him in outlining an exploration program.

An exploratory program was prepared by the applicant, after consultation with the Geological Survey and the Bureau of Mines. It is recommended that a program estimated to cost $20,000 be undertaken jointly by the applicant and the Defense Minerals Administration.

The work to be done is itemized in the accompanying "Proposed Exploration" and shown on the enclosed figures 2 and 3, which are to be made a part of the application.

Sincerely yours,

R. M. Smith

R. M. Smith
Geologist

cc: Billings - 4
Johnson - 1
Bailey - 1

PROPOSED EXPLORATION

Silver Butte Mine, Elko County, Nevada

Docket DMA 2010, Lead

200 Level	
North of shaft	
Drift on vein 50 ft. @ $30.00 per ft.....	$ 1,500.00
Raise on vein 25 ft. @ $40.00 per ft.....	1,000.00
250 Level	
South of shaft	
1st project	
Drift on vein 150 ft. @ $30.00 per ft.....	4,500.00
Raise on vein 50 ft. @ $40.00 per ft.....	2,000.00
North of shaft	
2nd project	
Drift on vein 75 ft. @ $30.00 per ft.....	2,250.00
300 Level	
South of shaft (above Winze to 350 Level)	
Raise on vein 50 ft. @ $40.00 per ft.....	2,000.00
Drift at top of raise 25 ft. @ $30.00 per ft.....	750.00
South of shaft (160 ft. south of shaft)	
Raise on vein 50 ft. @ $40.00 per ft.....	2,000.00
	$16,000.00
Contingency allowance 10%.....	1,600.00
	$17,600.00
Replace Hoist and Engine.....	2,400.00
	$20,000.00

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.

SEP 20 9 28 AM '51

Salt Lake City, Utah
September 17, 1951

Department of the Interior
Defense Minerals Administration
Washington 25, D. C.
Mr. T. P. Billings Chief
Lead-Zinc Branch

Dear Mr. Billings:

Having just talked with Mr. Smith of DMA here in Salt Lake City office, I am informed that he together with Mr. Gentry of the Bureau of Mines at Reno Nevada, as a team have prepared Maps and proposed exploration work to be done at the Silver Butte Mine Elko County Nevada, same having been forwarded to your office tobe attached to my application for a loan. Docket No. DMA-2010.

Trusting that this will complete the information necessary to warrent the loan.

Thanking you for an early reply.

Yours very truly,

Amos Epperson
249 E. So. Temple
Salt Lake City Utah

CENTRAL FILE

350 R&C. 9-20

SEP 21 1951

August 27, 1951

Subject: DMA-2010
Re: Exploration Loan
Silver Butte Mine

Mr. Amos Epperson
249 E. South Temple
Salt Lake City, Utah

My dear Mr. Epperson:

This will acknowledge receipt of your application dated August 20, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMA- 2010 and referred to the Lead-Zinc Branch.

Kindly refer to DMA- 2010 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams

Robert E. Adams, Chief
Reports and Records Unit

AUG 28 1951

2463

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 2010

Date received 8-27-51

Participation

Amos Epperson
Silver Butte Mine
249 E. So. Temple
Salt Lake City, Utah

Re: Docket DMA- ~~475~~ 2010

Name and address of applicant

Date Aug. 20, 1951

FILL IN THIS BLOCK

Date of application Aug. 20, 1951

Estimated cost $ 20,000.00

Mineral or metal Lead-Zinc

Percentage of Government participation 50 %

Location of mine Mud Springs Dist.

Elko County Nevada

Date of filing MF-100

DMA Docket Number, if available ~~475~~ 2010

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? All this datais given in other application under Docket DMA- 475
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? yes

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

AUG 2 1967
RECEIVED
Department of the Interior
Bureau of Land Management

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Lead-Zinc

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    4 (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. $ 13.00 per Day
    1 (*b*) Supervisors, by numbers and positions, with salaries of each. One at $ 500.00 per month
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings. none
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings. none
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each. none
    (*f*) Cost of rental for equipment which the operator proposes to rent. none
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work. All equip. needed.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each. $ 450.00 per Mo.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

By Amos E. Peterson
(Name of company) (Signature of authorized official)

(Date) (Title)

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

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 2010

Date received 8-28-51

Participation

Amos Epperson
Silver Butte Inc
249 E. So. Temple
Salt Lake City, Utah

Re: Docket DMA- ~~475~~ 2010

Name and address of applicant

Date Aug. 20, 1951

FILL IN THIS BLOCK

Date of application Aug. 20, 1951

Estimated cost $ 20,000.00

Mineral or metal Lead-Zinc

Percentage of Government participation 50 %

Location of mine Mud Springs Dist.

Elko County Nevada

Date of filing MF-100

DMA Docket Number, if available ~~475~~ 2010

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.

All this details given in other application under Docket DMA- 475

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

yes

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

DEPARTMENT OF THE INTERIOR
Release Minerals Administration
RECEIVED
AUG 2 3 1961

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Lead-Zinc
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. $ 13.00 per Day
    (*b*) Supervisors, by numbers and positions, with salaries of each. One at $ 800.00 per month
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings. none
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings. none
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each. none
    (*f*) Cost of rental for equipment which the operator proposes to rent. none
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work. All equip. needed.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each. $ 450.00 per Mo.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

---------- (Name of company) By Amos Epperson (Signature of authorized official)

---------- (Date) ---------- (Title)

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

*Same as footnote on page 1.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 2010

Date received 8-28-51

Participation

Amos Epperson
Silver Butte Mine
249 E. So. Temple
Salt Lake City, Utah

Re: Docket DMA* ~~475~~ 2010

Name and address of applicant

Date Aug. 20, 1951

FILL IN THIS BLOCK

Date of application Aug. 20, 1951

Estimated cost $ 20,000.00

Mineral or metal Lead-Zinc

Percentage of Government participation 50 %

Location of mine Mud Springs Dist.

Elko County Nevada

Date of filing MF-100

DMA Docket Number, if available ~~475~~ 2010

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
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*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.

All this datais given in other application under Docket DMA- 475

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9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

yes

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
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    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

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State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
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    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

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---------- (Name of company) By Amos E Jefferson (Signature of authorized official)

---------- (Date) ---------- (Title)

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Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 2010

Date received Aug 8-27-51

Participation

Amos Epperson
Silver Butte Mine
249 E. So. Temple
Salt Lake City, Utah

Re: Docket DMA-~~475~~ 2010

Name and address of applicant

Date Aug. 20, 1951

FILL IN THIS BLOCK

Date of application Aug. 20, 1951

Estimated cost $ 20,000.00

Mineral or metal Lead-Zinc

Percentage of Government participation 50 %

Location of mine Mud Springs Dist.

Elko County Nevada

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. AUG 20 AM 1952

Date of filing MF-100

DMA Docket Number, if available ~~475~~ 2010

INSTRUCTIONS

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16—64067-1

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RECEIVED
AUG 2 3 1951
Defense Minerals Administration
Bureau of the Mines

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---------- (Name of company) By Amos Epperson (Signature of authorized official)

---------- (Date) ---------- (Title)

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*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

3v0

Salt Lake City, Utah
August 20, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 23 1951

Mr. T. P. Billings, Chief
Lead-Zinc Branch
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

DM 4 2010

Dear Mr. Billings:

In reply to your letter under date of Aug. 2, 1951 I am inclosing four copies of form MF-103 I have been consulting Mr. Smith head of DMA (here in the Salt Lake City office) concerning a developing plan at the mine. He is preparing maps and details, footage, costs and etc., which he will send to your office to accompany my application.

I trust this will serve in connection with my other application to give all necessary information to warrent the loan.

You should receive the maps and details from Mr. Smith in the next few days.

Thanking you for your prompt attention.

Yours very truly,

Amos Epperson
249 E. So Temple
Salt Lake City, Ut.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 23 1951

AUG 23 1951

Noted	Date

Answered

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

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

Office of
Executive Officer
DMA FieldTeam
Region III

July 13, 1951

Memorandum

To: Tom Lyon, Chairman, Coordinating Committee, Defense Minerals Administration, Washington, D. C.

From: Executive Officer, DMA Field Team, Region III

Subject: DMA-475, Silver Butte Mine, Elko County, Nevada
Amos Epperson, 249 East South Temple, Salt Lake City, Utah.

Reference is made to your subject letter dated May 23. Attached are four copies of a report entitled "DMA-475, Silver Butte Mine, Elko County, Nevada", by Glenn G. Gentry, Mining Engineer, Bureau of Mines, and Roscoe M. Smith, Geologist, Geological Survey, dated July 12, 1951.

The examination and sampling by the Field Team did not indicate sufficient ore reserves to justify a loan of $30,000 from the Defense Minerals Administration. However, the Region III DMA Field Team concurs with the engineers and geologists conclusion that the property has sufficient merit to warrant an exploration loan.

According to the Field Team report there is a large area of undeveloped ground between the 250 and 350 foot levels that has not been explored sufficiently to determine its possibilities for future production.

The docket is being returned herewith.

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
FEB 4 8 06 AM '52

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 16 1951
LANDON F. STROBEL
Executive Secretary

Attachment

Copy to: E. H. Bailey, USGS

JUL 20 1951

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1971 NOV 30 AM 9:25

SAN FRANCISCO, CALIFORNIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
102 Old Mint Building
San Francisco 3, California

U. S. GEOLOGICAL SURVEY
RECEIVED
MAY 31 1951
MINERAL DEPOSITS BRANCH

May 29, 1951

Subject: DMA - 475 Silver Butte Mine
and Mill, Elko County, Nevada

Mr. Ralph J. Roberts
U. S. Geological Survey
Room 307
300 South Main
Salt Lake City, Utah

Dear Ralph:

Enclosed is Docket DMA - 475 concerning the Silver Butte Mine and Mill, Elko County, Nevada. The field team has been requested to make an examination to determine the adequacy of the ore reserves for amortizing a $30,000 loan.

Will you please have the mine examined to determine the amount of reserves. Will you also inform Mr. A. C. Johnson when the Survey geologist will make the examination so that Mr. Johnson will have an opportunity to assign a Bureau engineer to be there at the same time.

Please return your report and docket to this office by registered mail.

Sincerely yours,

Edgar

Edgar H. Bailey

Enclosure (1)

May 24 1951

Mr. Harold C. Miller
Bureau of Mines
1415 U. S. Appraiser's Building
San Francisco, 11, California

Re: Docket SSA-475
Silver Butte Mine & Mill
Amos Epperson
249 E. South Temple St.
Salt Lake City, Utah

Dear Mr. Miller:

The application for a development and plant expansion loan, as submitted by Amos Epperson, has been reconsidered by the Lead-Zinc Branch in view of the recent changes in policy regarding loans for lead mines.

In a letter dated April 19, Mr. Epperson requests that the loan be reinstated and that the amount requested be reduced from $60,000 to $30,000. It is the intention of the applicant to use this money as follows:

Purchase additional equipment.....	$ 10,000.00
Development work.....	10,000.00
Working capital.....	10,000.00
	$ 30,000.00

The applicant estimates that the mine has 9,500 tons of measured ore reserves but fails to give adequate grade data to support a valid evaluation. The original application indicated an indebtedness of $43,250.00 but the applicant states in his letter of April 19, 1951, that this indebtedness has been satisfied. It is possible that the statement concerning the indebtedness represents the facts but it also is possible that the statement has been inserted to create a favorable impression on the reviewer. This debt, if it still exists, plus the request for $30,000 from the Government and plus production costs, possibly will present a financial obligation greater than can be retired by the return from the ore sales.

It is recommended that the application be referred to the field team for an examination to determine the adequacy of the ore reserves for amortizing this loan. A preliminary investigation of the conditions concerning the indebtedness of Mr. Epperson would be desirable if it is found that the property has merit.

ALBrokaw:emp g 5/11/51
Copies to: Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
L. B. Moon

Lyon
Chairman, Coordinating Committee

R. H. Mote
L. F. Strobel
T. Lyon

Directors reading file 4214 GSA
Br. reading file 4214 GSA Files

Moon
Member, Bureau of Mines

Member, Geological Survey

May 14, 1951

Re: Docket DMA-475

Mr. Amos Epperson
249 East South Temple Street
Salt Lake City, Utah

Dear Mr. Epperson:

Your application (Docket DMA-475) for a Government loan under the provisions of the Defense Production Act of 1950 has been reconsidered by the Lead-Zinc Branch of the Defense Minerals Administration in view of a restudy of lead requirements in relation to expected supply. The revision requested in your application as per your letter of April 19 has been incorporated with your application. Before final decision can be taken on your request, it will be necessary to obtain additional information on your property. Your application, therefore, has been referred to the Executive Officer of the Field Team, Mr. Harold G. Miller, 1415 U. S. Appraiser's Building San Francisco 11, California, with the request that the needed information be supplied to us.

Very truly yours,

Tom Lyon, Director
Supply Division

ALBrokaw:emp G 5/11/51
Copies to: H. C. Miller, Region III (2)
Chief, Lead-Zinc Br.
McKnight 4204 GSA
L. B. Moon
R. H. Mote
L. F. Strobel
T. Lyon
Directors reading file 4214 GSA
Br. reading file 4214 GSA
Files

C O P Y

(Copy)

J. D. Carter
P. O. Box 1650
Salt Lake City, Utah.

Mr. Amos Epperson
249 East South Temple
Salt Lake City, Utah

September 12, 1949.

Dear Sir:

In line with your request, I made a trip to the Silver Butte property during the period July 8th to July 11th for the purpose of examining the possibilities of that property.

On the 150-ft. level of the main shaft there were exceptionally good showings of ore both north and south of the shaft. The cut which I took on the north end assayed 13.8 oz. silver and 10% lead. The sample taken at the south end assayed 7.35 oz. silver and 17.4 lead.

I did not sample the ore on the 200-ft level due to the fact that it was of the same character as that on the 150-ft. I also checked the 300-ft. level, showing a continuation of the upper ore. The levels below the 300 were inaccessible, but all indications pointed to the fact that this ore continued to considerable depth.

The property has been well prospected, with short drifts, trenches and shafts, all of which showed very good mineralization and some of them, particularly on the east end of the property, showed high-grade lead. I found definite evidence of three parallel veins, and a possibility of two additional parallel veins. The vein on which the main shaft is located could easily be traced for a distance of 1500 feet.

The property looked so good that I made two additional trips out there to complete further examination, and after each trip I was more convinced that you had a property of exceptional merit.

I believe that as a result of my recommendation you purchased a gravity concentration mill which I understand you erected at a spring approximately five miles from the mine. At the time I examined the mill for you I approved the coarse crushing end, the jigs and concentrating tables, but advised that the generator was not in very good shape and its capacity was inadequate, and recommended that you replace that particular unit.

At the mine I felt that your hoist equipment would not handle the tonnage that the mine could easily develop; also your compressor was entirely too small for the number of the faces in the mine which could be worked. At that time I recommended that you replace both the hoist unit and the compressor, which are not only unsuited for your property, but definitely hamper production.

In conclusion I wish to state that of several hundred properties which I have examined in the past fifteen years, the Silver Butte is one of the most promising, and has indicated possibilities which should materialize with the expenditure of sufficient mony to replace the units mentioned above.

Sincerly,

J. D. Carter

LANDON E. STR[illegible]

Salt Lake City, Utah

April 19, 1951.
Re: Docket DMA-475

Mr. Tom Lyon, Director
Supply Division
Defense Minerals Administration

Dear Mr. Lyon:

Inclosed, please find your letter addressed to me dated Feb. 27, 1951. This letter was read in the public meeting at the Tribune-Telegram Auditorium, Salt Lake City, this morning by Dr. James Boyd and he advised me that conditions had changed relative to lead ore and that Lead was now essential and therefore my application would be reconsidered for a loan without filing a new application. I would like to call to your attention the fact that we have zinc on our property but have not developed same. The assayes you have showing zinc are surface showings.

Will you kindly revise my application as to the loan required. I have satisfied the mortgage indebtness in the amount of $30,000.00 thus making the property free from debts. Will you please make the application to read the total loan of $ 30,000.00 instead of $ 60,000.00.

7 copies

As Follows:

To buy necessary additional equipment -----	$ 10,000.00
For further development ----------	$ 10,000.00
For working capital ----------	$ 10,000.00
Total amount applied for ----------	$ 30,000.00

Will you kindly give this your earliest consideration and advise me as soon as possible.

Very truly yours,

Asmon Epperson

APR 25 1951

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

February 27, 1951

Re: Docket DMA-475

Mr. Amos Epperson
249 East South Temple Street
Salt Lake City, Utah

Dear Mr. Epperson:

Your application for Government assistance under provisions of the Defense Production Act of 1950 has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration.

The evidence supporting your application indicates that your property is essentially a silver and lead producer. Silver is not a strategic material covered by the Defense Production Act of 1950. The expected supply of lead in the next few years is believed to be adequate for the defense needs of the Nation, hence no specific program for increasing lead production has been considered necessary for the present. The Defense Minerals Administration is particularly interested in the production of zinc, but only those projects can be supported at the present time which will give promise of yielding a significant output of that metal. In view of these facts, therefore, the Lead-Zinc Branch feels that an expenditure of public funds for a project such as you propose is not justifiable at the present time.

We wish to thank you for bringing this property to our attention.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division
Defense Minerals Administration

C O P Y

COMBINED METALS REDUCTION COMPANY

(Copy) January 25, 1951

Mr. Amos Epperson
249 East South Temple No. 28
Salt Lake City, Utah.

Dear Mr. Epperson:

In September of 1949, Mr. L. G. Thomas and I spent a day at the property known as the Silver Butte Mine in the Mud Springs district, Elko County, Nevada. This district is about sixty-five miles southwest of Wells, Nevada, and is reached by driving fifty-eight miles south from Wells on U. S. Highway 93, then westerly twenty-seven miles on a good desert road.

The area in which the workings occur consists of drab to cream-colored limestones which are sometimes cherty. Interbedded in this series is a 75-foot bed of yellow, calcareous shale and a 25-foot bed of light-colored sandy quartzite. A study of the fossils places the series in the quartz-porphyry permian. In general, the beds have a low dip of 10-15 degrees to the east. North and westerly the sediments are bordered by a large area of quartz porphyry. The deposits are replacements in limestone along brecciated fractures which strike north to north 35 east and dip steeply. The principal fracture can be traced on the surface for about 2,000 feet and is exposed in numerous workings. The most important operation is through a vertical, two-compartment shaft which is said to extend to the 600 with levels as deep as 400 feet. The mine was not accessible below the 200 level at the time of our visit. The fracture zone varies from a few feet up to about 12 feet and consists of several clay slips, separated by crushed limestone and narrow bands and pods of ore. This ore contains galena, anglesite, cerrusite, some zinc carbonate, barite and quartz. Silver is present in worth-while amounts and may run as high as 40 ounces while the usual assays between 5 and 15 ounces. Gold is negligible.

Elsewhere on the property there are a number of shallow shafts and pits which in some places show other northeast mineralized fissures or replacement in the limestone beds. Development is too limited to justify and estimate of probable ore tonnages. However, the showings are sufficient to justify an active development program.

At the time of our visit the buildings which consisted of several cabins and a hoist house, were in good condition; and the equipment, though limited as to capacity, was in good workable shape, It seemed evident that a mill would be needed to treat the ores before shipment. Two springs in the area, Mud Springs, and Medicine Springs, indicate an assurance of sufficient water for a small mill.

We are favorable impressed with the property and with the attitude of the men who propose to develop the area.

Yours very truly,

Earl B. Young
Chief Geologist

EBY-K

C O P Y

INFORMATION REQUIRED BY RFC FORM 4

1. EXPERIENCE: The applicant is also the manager and has been actively engaged in mining in Utah and Nevada since 1932. For references see: Walter Landwehr of AS&R, Glen Bert of IS&R, Mr. Earl Young of Combined Metals, and J. D. Carter of Kennicott Copper and Les Breken of Kennicott Copper; all of Salt Lake City, Utah. The applicant has also been a real estate broker since 1920 in S.L.C, Ut.

2. APPLICANTS INTEREST:
Bond and lease.
The former owner is D.A. Walton, 330 So. 5th East, S.L.C., Ut.

3. LEGAL DESCRIPTION:
The property, sixteen unpatented claims, is known as the Silver Butte Mine, located in Mud Springs Mining District, Elko County, Nevada, about 65 miles southwest of Wells, Nevada on a good road. Recorded in Elko County, Nevada.

4. HISTORY AND PRESENT CONDITIONS:
The mine is worked from a vertical shaft with drifts on the vein, 150, 200 and 300 foot levels. The property was worked many years ago and high grade shipments were made. Most of the work done was development, a shaft double compartment sunk verticle 600 feet off the vein and then a crosscut 800 feet to cut another fissure, but was never completed. It is about 200 feet short of the objective. The vein on 150 and 200 foot levels are as much as 12 feet wide with good mill ore in the stopes after extracting the high grade. The vein can be seen at openings on the surface at diverse points more than 2,000 feet along the vein. Cross breaks occur at intervals all along the vein and at such junctions large deposits occur. The shaft is in good shape to the 200 foot level. The walls dip about 85 degrees and stand up well with very little timber required.

The equipment at the mine consists of a small compressor in good condition, hoist in fair condition, cage in good condition, and rope gong cable mine cars buckets, track, air-lines, hose, stoper, and jackhammer all in good condition; a 6 by 6 ten wheeled GMC ore truck in good condition, No. 60 cat in poor condition, and five cabins in fair condition.

The road is hard surfaced in excellent condition except 30 miles of very good gravel and 6 miles good dirt. The present name is Silver Butte Mine and Mill and was formerly Silver Butte Consolidated.

5. WATER SUPPLY:
The water supply was developed about five miles from the mine at Medicine Springs and is ample during all seasons of the year. We have 20 gal. per minute and more could be had. The flow is about the same through out the year.

6. PROPOSED WORK AND PRODUCTION:
The proposed work is to drift to the south along the fissure.
See Maps:
Just started production, all shipments hereto attached.
The product will be milled at the property. The cost of hauling to the smelter is $ 8.50 per ton. The smelting charge is $ 8.02 per ton.

7. COSTS:

Mining costs $ 1.50 per ton crude ore.

Milling costs $ 1.45 per ton crude ore.

Applicant has spent $ 26,000.00 for timber, powder, caps, fuse, carbide, machinery, labor, drifting, sinking, stoping, timbering and general development.

8. MILLING:

Product is treated in applicant's mill just completed. The capacity is 60 tons, 85% extraction, 16 to 1 ratio on low grade ore. The mill building is corrugated iron and cement, 20 x 100 feet in good condition. One crude ore bin; forty tons, one feeder bin, forty tons, one concentrate bin 30 tons, one jaw crusher 9 x 15, one set rolls 12 x 16, one large bucket elevator dry one set rolls 16 x 30, one vertical bucket elevator wet, one classifier, feeder, two jigs, four flow tables, one climax power unit, 1 bluestreak power unit (should be replaced), one generator; 40 horsepower, 9 electric motors, 1 centrifugal pump, 10,000 gallon water tank, pipe lines, wiring, etc., all in good condition except as stated. There is ample room for tailings and tailing do not enter streams or water. Only tonnage produced is on exhibit; see attached sheets. We generate all our own power.

9. SMELTING:

Concentrates are sold to a custom smelter.

See settlement sheets attached from U.S. Smelting, Midvale, Utah, and IS&R Tooele, Utah.

No contracts outstanding.

10. LABOR:

Experienced labor is available.

Three to five additional men will be needed.

Current wage scale is $ 11.50 per day.

Have supplementary housing for housing workmen.

11. ORE RESERVES:

Stope # I 150 x 5 x 100 equals 7500 tons; Stope #II 25 x 4 x 200 equals 2000 tons, a total of 9500 tons at 16 to 1 equals 600 tons of concentrates. Value after hauling and smelting $ 96,500.00. Cost of producing same $ 28,500.00; Net $ 78,000.00

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMA-475, Silver Butte Mine

Elko County, Nev.

Glenn G. Gentry, Mining Engineer
U. S. Bureau of Mines

Roscoe M. Smith, Geologist
U. S. Geological Survey

July 12, 1951

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
FEB 4 8 06 AM '52

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUL 16 1951
LANDON F. SIMMEL
Executive Secretary

DOCKET DMA-475

UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

SILVER BUTTE MINE
Elko County, Nev.

SUMMARY

Pursuant to a loan application dated Jan. 4, 1951, for the sum of $60,000 signed by Mr. Amos Epperson whose mailing address is 249 East South Temple Street, Salt Lake City, Utah, an examination of the mine and mill was made on June 8 and 9, 1951 by an engineer[1] of the Bureau of Mines, Region III and a geologist[2] from the Salt Lake City, Utah office of the U. S. Geological Survey. Mr. Epperson has requested the loan for the purpose of paying a $30,000 debt and to purchase and install necessary mining and milling equipment, to further develop the mine, and for working capital.

However, in a letter dated April 19, 1951 and addressed to Mr. Tom Lyon, Director, Supply Division, DMA, Mr. Epperson has reduced his lean request to the sum of $30,000 and states the indebtedness of $30,000. has been satisfied.

INTRODUCTION

The purpose of the examination by the DMA Field Team was to determine whether or not a sufficient tonnage of lead ore reserves was available to justify the loan and to investigate the machinery requirements and the milling procedure.

1/ Glenn G. Gentry, Mining engineer.
2/ Roscoe M. Smith, Geologist.

Mr. Amos Epperson and Mr. Max Epperson, owner and superintendent respectively, acted as guides during the examination and sampling.

LOCATION

The mining claims and the mill are situated in the Mud Springs Mining District, T. 28 N., R. 60 E., in the south central part of Elko County, Nev. The mine and mill may be reached via automobile either from Wells, Nev., or from Currie, Nev., as shown by the attached location map, fig. 1.

The nearest railroad facilities are located at Wells, Nev., which is served by the Southern Pacific and Western Pacific Railroads, and are 62.3 miles north of the mine and mill. Elko, Nev., the County Seat of Elko County, is situated 50 miles west of Wells, Nev.

PROPERTY AND OWNERSHIP

The mining property consists of 19 lode mining claims, held by location by the Silver Butte Consolidated Mining Co., Mr. D. A. Walton, General Manager. The claims are reported as being properly recorded at the Elko County Court House, however, the titles to said claims were not investigated by the engineers.

Mr. Amos Epperson holds a Bond and Lease on the mining claims together with all buildings, machinery, equipment and appurtenances, for a period of ten years, from the Silver Butte Consolidated Mining Co. The Bond and Lease was made on July 21, 1948 and has been extended for a 5 year period, expiring on July 21, 1963. The Bond and Lease, copy of which is attached to the loan application, is in the amount of $125,000 payable on the basis of 10% royalty of the net proceeds from production.

The mining claims under lease to Mr. Epperson are listed as the: Dead Horse, Wild Horse Nos. 1, 2, 3, High Point, Mineral Point, Butte Valley, Buttle Valley Nos. 1, 2, 3, 4, 5, 6, Valley, Valley Fraction, Silver King No. 2, Coyote, Silver Queen and Low Point. Refer to Exhibit 4.

In order to treat the low grade lead-silver ores from the mine, Mr. Epperson has purchased and erected a mill building and installed adequate machinery and ore bins for a concentrating plant having a capacity for treating approximately 60 tons of crude ore per 24 hours. The mill is 6.3 miles northwest of the mine. Mr. Epperson has advised the Field Team that the mining property and the mill are free and clear and that no debts are outstanding against the property.

Water for the mine and the mill is obtained from Medicine Springs situated closely adjacent to the mill. Mr. Epperson holds a permit covering 20 gallons of water per minute, issued by the State Engineer of Nevada.

HISTORY AND PRODUCTION

According to the 1937 edition of Mines Register, pages 857-858, the Silver Butte Consolidated Mining Co. was a consolidation of mining claims owned by the Nevada Dividend Mng. Co. and Butte Valley Mng. Co. A 100 ton flotation plant was installed in 1929 operating on ore carrying 7% to 20% Pb. The mine and mill were active in 1935 but laid dormant in 1936 due to financial difficulties. In March 1937 the mine and mill were being reconditioned for resumption of operations. "Unquote".

We have no information on the date of the original location of the mine, however, we do have a record showing that shipments of crude

lead-silver ores were made as early as Dec. 3, 1915 to the United States Smelting Refining and Mining Co. at Salt Lake City, Utah. The recorded shipments from Dec. 3, 1915 to Nov. 26, 1929 amounted to 433.41 tons of ore having an average grade of 32.7% Pb and 8.1 ounces of silver. From the size of the stopes, this tonnage does not appear to represent all the ore mined and shipped. The 100 ton flotation plant mentioned is reported to have been unsuccessful and that only a very limited tonnage was treated. This plant has been dismantled and removed from the property.

The present milling plant was constructed by Mr. Epperson during 1949 and 1950 and the small tonnage mined was for the purpose of mill tests and to determine what changes would be necessary in the flow sheet.

The shipments of lead concentrates during the mill tests made by Mr. Epperson follows:

Date	Smelter	Dry Weight Lbs	Ounces Au	Ounces Ag	% Pb	Value Per ton	Gross Value	Net Receipts
7/5/50	USSR&M Co.	37222	0.005	19.30	49.90	$98.03	$1824.44	$546.44
8/14/50	Intl.Smelting & Refining Co.	19971	Tr	25.85	47.5	99.168	990.24	311.20
9/13/50	"	13420	Tr	17.15	55.2	130.949	878.67	378.32
10/24/50	"	14209	0.005	15.3	58.4	149.772	1064.06	384.50
11/21/50	"	11970	0.005	18.6	58.2	162.027	969.73	336.13
		96792					5727.14	1956.59

The Smelter Settlement Sheets for the above shipments show that 880 wet tons of crude ore was mined to produce 48.396 dry tons of concentrates, a ratio of 18.1 to 1.

C O P Y

INTERNATIONAL SMELTING AND REFINING COMPANY
Tooele Plant

Salt Lake City, Utah

BOUGHT OF Amos Epperson
132 South 6th East St.
City

5/24/50

Mine: Silver Butte

Shipped from: Currie, Nev.

Received: Sampled: 5/12 By: Class: Concts. Mine Lot: 1 Smelter Lot:522

Assays	Copper %	Lead %	Zinc %	Silver Oz./T	Gold Oz./T	Insol. %	Iron %	Sulphur %	Lime %
I.S.&R.Co.	Tr	32.4	.6	13.5	Tr	55.1	.5	3.2	.5
Mining Co.		32.4	.7	15.35	.01	50.9	1.4	2.9	.2
Umpire C&N				13.695m		50.5s			
		-1.5							
Settlement		30.9	.65	13.695	.005	50.9	.95	3.05	.35

E. & M. J. Metal Quotations

Lead (Average for Week Ending) 5/10	11	292
Silver 5/12	90	000

Values Per Ton

Lead 90% @.09292	51	682
Silver 95% @.90000	11	709
Gross Metal Payment	63	391
Less Treatment	10	560
Net Value Per Ton	52	831

Treatment

Base	5	354
Cr lead over 30%@.10		090
	5	264
Insoluble %@.10	5	090
Sulphur 1.05 %@.25		263
	10	617
Iron %@.06		057
Net Treatment	10	560

Initial	Car Number	Weight
		14.1325

Payment

Dry Tons @ 52.831 Per Ton 746 63

Union Assay Office, Assaying 6.50
Crismon & Nichols, Umpire 4.00

Hauling @ $8.50 per wet ton,
pay Wells Cargo, Inc., Box 1511,
Reno, Nevada 124.78
3% Federal tax 3.74
Vo. 52255 128.52
Hauling & milling 200 tons of
crude ore @ $3.50 per ton, pay
Amos Epperson, 132 S. 6th East
St., City 700.00
Net proceeds to apply
Vo. 52256 607.61
No Royalty

Truck
Total Freight Weight 29360

% Moisture 3.73
Dry Weight 28265

Total 746 63
Net Proceeds - --

COPY

INTERNATIONAL SMELTING AND REFINING COMPANY
Tooele Plant

BOUGHT OF Amos Epperson
132 South 6th East St.
City

Salt Lake City, Utah
8/14/50

Mine Silver Butte

Shipped from Currie, Nevada

Received Sampled 8/7 By Class Concts. Mine Lot 2 Smelter Lot 915

Assays	Copper %	Lead %	Zinc %	Silver Oz./T	Gold Oz./T	Insol. %	Iron %	Sulphur %	Lime %
I.S.& R. CO.	Tr	49.0	.4	25.85	Tr	37.7	.2	5.2	2.8
Mining Co.									
Umpire									
		-1.5							
Settlement		47.5							

E. & M. J. Metal Quotations			
Lead (Average for Week Ending)	8/2	12	000
Silver	8/7	90	000

Values Per Ton			
Lead 90% @ .10000		85	500
Silver 95% @ .90000		22	102
Gross Metal Payment		107	602
Less Treatment		8	434
Net Value Per Ton		99	168

Treatment		
Base	5	626
Cr lead over 30% @ .10	1	750
	3	876
Insoluble % @ .10	3	770
Sulphur 3.2 % @ .25		800
	8	446
Iron % @ .06		012
	8	434

Payment

9.9855 Dry Tons @ 99.168 Per Ton 990 24

Hauling @ $8.00 per wet ton, pay Allen L. White, 1888 Roberta St., City 82.00
3% Federal tax 2.46
Vo. 52598 84.46

Hauling & Milling 160 wet tons of crude ore @ $3.50 per ton, pay Amos Epperson 132 S. 6th East St., City Vo. 52599 560.00

Royalty 10% of $345.78 pay D. Walton, 320 E. 1st South St., City Vo. 52600 34.58

Truck
Total Freight Weight 20500

Total 679.04
Net Proceeds 311.20

% Moisture 2.58
Dry Weight 19971 Voucher No. 52599

INTERNATIONAL SMELTING AND REFINING COMPANY
Tooele Plant

BOUGHT OF Amos Epperson
132 South 6th East St.
City

Salt Lake City, Utah
9/13/50

Mine: Silver Butte

Shipped from: Currie, Nevada

Received Sampled: 9/7 By: Class: Concts. Mine Lots 4 Smelter Lot: 1032

Assays	Copper %	Lead %	Zinc %	Silver Oz.T	Gold Oz./T	Insol. %	Iron %	Sulphur %	Lime %
I.S.&R. Co.	Tr	55.2	Tr	17.15	Tr	30.7	.2	6.5	.4
Mining Co.									
Umpire									
		-1.5							
Settlement		53.7							

E. & M. J. Metal Quotations			Treatment		
Lead (Average for Week Ending) 9/6	14	800	Base	5	626
			Cr. lead over 30% @ .10	2	370
Silver 9/6	90	000			
Values Per Ton				3	256
			Insoluble % @ .10	3	070
Lead 90% @ .12800	123	725	Sulphur 4.5 % @ .25	1	125
Silver 95% @ .90000	14	663		7	451
Gross Metal Payment	138	388	Iron % @ .06		012
Less Treatment	7	439			
Net Value Per Ton	130	949	Net Treatment	7	439

Initial	Car Number	Weight	Payment		
			6.710 Dry Tons @ 130.949 Per Ton	878	67
			Handling charge, under ten tons	10	00
				868	67
			Hauling @ $9.00 per wet ton, pay Lewis Sharp, Jr., Box 117, Wells, Nevada 61.47		
			3% Federal tax 1.84		
			Vo. 52752 63.31		
			Hauling & Milling Crude ore, 110 tons @ $3.50 per ton, pay Amos Epperson, 132 South 6th East St., City Vo. 52753 385.00		
			Royalty 10% of $420.36 pay D. A. Walton, 320 East 1st South, City Vo. 52754 42.04		
Truck					
Total Freight Weight		13660			
% Moisture 1.76			Total	490	35
Dry Weight		13420	Voucher No. 52753 Net Proceeds	378	32

COPY

INTERNATIONAL SMELTING AND REFINING COMPANY
Tooele Plant

Salt Lake City, Utah

BOUGHT OF Amos Epperson
132 South 6th East St.
City

10/24/50

Shipped from: Currie, Nevada

Received: Sampled: 10/17 By: Class: Concts. Mine Lot 5 Smelter Lot 1229

Assays	Copper %	Lead %	Zinc %	Silver Oz./T	Gold Oz./T	Insol. %	Iron %	Sulphur %	Lime %
I.S.&R. Co.	.1	58.4	Tr	15.3	.005	25.8	.3	6.8	4.4
Mining Co.									
Umpire									
		-1.5							
Settlement		56.9							

E.& M. J. Metal Quotations

Lead (Average for Week Ending)	10/11	16	000
Silver	10/17	90	000

Values Per Ton

Lead 90% @ .14000	143	388
Silver 95% @ .90000	13	082
Gross Metal Payment	156	470
Less Treatment	6	698
Net Value Per Ton	149	772

Treatment

Base	5	626
Cr lead over 30% @ .10	2	690
	2	936
Insoluble % @ .10	2	580
Sulphur 4.8% @ .25	1	200
	6	716
Iron % @ .06		018
Net Treatment	6	698

Initial	Car Number	Weight
		7.1045

Payment

Dry Tons @ 149.772 Per Ton	1064	06
Handling charge, Under ten tons	10	00
	1054	06

Hauling @ $9.00 per wet ton, pay Lewis Sharp, Jr., Wells, Nevada 64.89
3% Federal tax 1.95
Vo. 52974 66.84

Hauling & Milling crude ore, 160 tons @ $3.50 per ton, pay Amos Epperson, 132 S. 6th East St., City
Vo. 52975 560.00

Royalty 10% of $427.22 pay D.A. Walton, 330 S. 5th East St., City
Vo. 52976 42.72

Truck
Total Freight Weight 14420

% Moisture 1.46
Dry Weight 14209 Voucher No. 52975

Total	669	56
Net Proceeds	384	50

COPY

INTERNATIONAL SMELTING AND REFINING COMPANY
Tooele Plant

Salt Lake City, Utah
11/21/50

BOUGHT OF Amos Epperson
132 S. 6th East St.
City

Mine: Silver Butte Shipped from: Currie, Nevada

Received: Sampled: 11/11 By: Class: Concts. Mine Lot: 6 Smelter Lot: 1339

Assays	Copper %	Lead %	Zinc %	Silver Oz./T	Gold Oz./T	Insol. %	Iron %	Sulphur %	Lime %
I.S.&R. Co.	.1	58.2	Nil	18.6	.005	26.4	.4	5.4	1.0
Mining Co.									
Umpire									
		-1.5							
Settlement		56.7							

E.& M. J. Metal Quotations			Treatment		
Lead (Average for Week Ending) 11/8	17	000	Base	6	170
			Cr lead over 30% @ .10	2	670
Silver 11/13	90	000			
				3	500
Values Per Ton			Insoluble % @ .10	2	640
Lead 90% @ .15000	153	090	Sulphur 3.4% @ .25		850
Silver 95% @ .90000	15	903		6	990
			Iron % @ .06		024
Gross Metal Payment	168	993			
Less Treatment	6	966			
Net Value Per Ton	162	027	Net Treatment	6	966

Initial	Car Number	Weight
		5.985

Payment

Dry Tons @ 162.027 Per Ton	969	73
Handling charge, under ten tons	10	00
	959	73
Hauling @ $9.50 per wet ton, pay Lewis Sharp, Jr., Wells, Nevada 59.47; 3% Federal tax 1.78; Vo. 53118 — 61.25		
Hauling & milling 150 tons @ $3.50 per ton, pay Amos Epperson, 132 S. 6th East St., City Vo. 53119 — 525.00		
Royalty 10% of $373.48 pay D. A. Walton, 330 South 5th East St., City Vo. 53120 — 37.35		
	623	60
Voucher No. 53119	336	13

Truck
Total Freight Weight 12520

% Moisture 4.39
Dry Weight 11970

C O P Y

Phone 9-9962

SILVER BUTTE MINE

WELLS, NEVADA

Certificate of Assay
DEASON & NICHOLS
Assayers & Chemists
C. Ivan Nichols Wm J. Deason
160 So. West Temple Street
Salt Lake City 1, Utah

ASSAY PER TON OF 2000 POUNDS

Description 1949	No.	Gold Ounces	Silver Ounces	Wet Lead %
May 3rd	1	.008	44.0	26.8
"	2	.005	27.2	19.7
"	3	Tr	28.2	22.2
"	4	Tr	11.2	15.7
"	5	Tr	5.0	49.2
May 16th	1	Tr	6.0	9.8
"	2	Tr	4.0	5.2
July 28	1	.005	4.2	10.2
"	2	Tr	1.2	2.3
"	3	Tr	.8	5.5
Aug. 8th	1	.005	11.6	18.9
"	2	Tr	1.2	2.8
"	3	.01	17.0	31.1

C. Ivan Nichols

Phone 9-9962

C O P Y

Certificate of Assay
DEASON & NICHOLS
Assayers & Chemists
C. Ivan Nichols Wm J. Deason
160 So. West Temple Street
Salt Lake City 1, Utah

SILVER BUTTE MINE

WELLS, NEVADA

ASSAY PER TON OF 2000 POUNDS

Description 1950	No.	Gold Ounces	Silver Ounces	Wet Lead %	Zinc %	Fe %	Sn %
Jan. 6th	1	.002	15.15	53.2			
Feb. 8th	1	Tr	5.2	11.7			
Feb. 16th	1	.007	3.8	4.4			
Apr. 15th	1	,025	13.2	33.9	1.2		
Apr. 22nd	1	Tr	14.2	38.1			
May 5th	1	.015	40.4	6.8			
July 6th	1	.001	19.2	26.7			
Dec. 2nd	1	.005	13.6	6.8	16.5		
Jan. 2nd	1	.01	72.6	60.8	5.9	10	0.2
Mar. 1st	1	.01	11.3	5.2	8.7		
			24.9	12.0	25.2		
	Ave.	.01	12.5	6.0	12.1		

C. Ivan Nichols

The mine and mill have not operated since Nov. 1950 due to lack of capital. (See pages 12-a and 12-b).

MINE DEVELOPMENT

The mine has been opened by means of a 2 compartment vertical shaft to a depth of 600 feet. Six levels have been turned off the shaft and are designated as the 150-200-250-300-350 and 400 foot levels. A total of approximately 4,000 feet of drifting, crosscuts and raises have been done in past operations. Each level down to and including the 350 foot level has encountered the vein which has a general strike of from N. 15° to N. 35° E. and dips NW 70° to 85° and vertically. The width of the vein where sampled ranged from 27 inches to 78 inches.

A few days prior to the examination by the Field Team, Mr. Epperson had installed ladders from the collar of the shaft to the 350 level and had repaired the mine hoist, power unit, cage guides, etc., in order that the mine cage could be used to the 250 foot level. The cage could not be used below the 250 foot level as there were no shaft sets in place and no cage guides.

The levels 150 to 300 inclusive are open and were examined and sampled. Dangerous rock conditions prevented any examination below the 300 level, however, a quick inspection showed the vein in place. The following samples were taken on the levels possible to examine:

Sample No.	Percent Pb	Percent Zn	Ounces/Ton Au	Ounces/Ton Ag	Location
70	0.1	1.1	Trace	0.60	150-foot level, width of cut 46 inches. Across back of drift. South edge of old stope from the 200 foot level.
71	*0.1	*0.1	Trace	1.00	150-foot level (20 ft. south of Sample 70) Width of cut 51 inches. Across back of drift.
72	0.1	0.5	Trace	1.80	150-foot level (17 ft. south of Sample 71) Width of cut 48 inches. Across back of drift.
73	0.3	0.6	Trace	2.10	150-foot level (49 ft. north of Sample 70) Width of cut 52 inches. Across floor of drift. Stoped above. No stopeing below drift.
74	2.0	*0.1	Trace	2.40	150-foot level (44 ft. north of Sample 73) Width of cut 45 inches. Across back of drift. No stopeing above or below.
75	0.1	0.8	Trace	1.40	250-foot level (S. 45° E. of shaft, under new raise), width of cut 28 inches. 30-foot stope above. Unable to examine this stope.
76	15.9	0.8	Trace	7.25	250-foot level (20 ft. south of Sample 75) Width of cut 48 inches. East wall of drift. Heavy bands of galena.
77	3.2	*0.1	Trace	2.50	300-foot level (23½ ft. south of shaft) Width of cut 78 inches. West wall of drift. Part of reported ore reserves. (Prior sample here by operators reported to contain 7% Pb.
78	0.1	*0.1	Trace	1.90	North drift off shaft. Width of cut 46"
79	0.4	3.7	Trace	1.45	300-foot level. Cut in west end of 18 ft. raise over winze to 500 level, 333 ft. south of shaft. Width of cut 50"
80	0.7	3.8	Trace	1.90	300-foot level. (South end of small stope 30 ft. south of sample 79) Width of cut 39 inches. Across back of drift.
81	0.2	0.8	Trace	1.00	300-foot level (North side of small stope, 14 ft. above level, at vein intersection) Width of cut 60 inches. No walls exposed.
82	2.9	0.5	Trace	2.40	200-foot level (face of stope at south breast of level) Width of cut 27 inches. Footwall side of vein. 15 ft. above level. Stoped above but not south of face.

Sample No.	Percent Pb	Percent Zn	Ounces/Ton Au	Ounces/Ton Ag	Location
83	4.2	4.1	Trace	2.10	200-foot level (same face as sample 82) Width of cut 40 inches. Quartz-limestone and ore on hanging wall side of vein.
84	-0.1	3.9	Trace	1.50	200-foot level (64 ft. south of shaft) Width of cut 51 inches. Across back of drift. Stoped above.

During past mining operations the vein has been mined by means of open-stulled stopes. The walls appear to stand well and only a moderate amount of timbering has been required. Cleaning up the various levels from the 150 to 300, laying track, etc. will probably require a months time. However, mining could be started almost immediately on the 150 and 250 foot levels.

PRESENT MINE OPERATIONS

The mine hoist is a single drum manufactured by the Ottumwa Iron Works and is driven by a 40 horsepower Novo gasoline engine. 700 feet of 5/8-inch steel cable is spooled on the hoist drum. The hoist and the power unit are in poor mechanical condition and should be replaced with good equipment. The mine cage is operated without safety doors or landing chairs or safety dogs. The cage is in fairly good condition, however, it was not possible to examine all of the steel cable.

Shaft timber sets are hung from the collar down to about 75 feet. From this point to the 250 ft. level the cage guides are attached to stulls which are placed at 10 ft. intervals. It is suggested that standard shaft timber sets should be installed to replace these stulls in order to speed up hoisting ore and to eliminate a condition that might be dangerous in hoisting and/or lowering men.

The manner of handling ore from the mine has been to hand shovel into a small ore car then push the car onto the cage and hoist to the surface. The car is then hand trammed a distance of about 150 feet and the ore dumped into a 50-ton crude ore bin. This process is slow and expensive but will have to be continued until details and costs of ore pockets underground and an ore bin at the shaft headframe can be worked out.

Ventilation has been by natural air currents with a moderate up cast along and through old water courses on the hanging wall side of the vein. However, with increasing mining operations and blasting on several levels, it is suggested that an adequate ventilating blower and pipe would be required. This will be especially necessary between the 300 and 350 foot levels.

Compressed air for the machine drills is furnished by a portable, Schramm air compressor which has a rated capacity of 105 cu.ft. min. This machine is in good operating condition but only supplies sufficient air for one drill. Therefore an air compressor of adequate capacity for three drills would be necessary.

The mine workings available for inspection are dry and all water for mining purposes must be hauled via truck from the mill camp, a distance of 6.3 miles over good desert road.

The mine does not have a safety or secondary means of exit. Adequate housing for about 8 to 10 men is available and located approximately one-half mile east of the mine.

Water for domestic use of the mine camp must also be hauled from the spring adjacent to the mill.

GEOLOGY

The mine area is in flat to gently dipping fossiliferous Permian limestone which is about 600 feet thick at the mine shaft. Quartzite conformably overlies the limestone about 500 feet northwest of the shaft.

The sedimentary rocks have been intruded by dacite or quartz diorite porphyry that crops out 500 feet north and northeast of the shaft. Dacite occurs on the dump and is said to have come from the 600 level (now inaccessible) of the mine.

Five vertical faults striking about N. 30° E. cut the limestone over an area about 1600 feet wide. These faults can be traced for at least 2000 feet south of the contact between limestone and the intrusive rock. The Silver Butte mine is on the most westerly of these faults.

ORE DEPOSITS

The ore consists principally of galena in a barite gangue. Small amounts of cerussite accompany the galena in the upper levels of the mine.

The deposits are along a vertical fault zone 3 to 50 feet wide made up of many individual interlacing strands. The barite is in discontinuous overlapping lenses as much as 3 feet wide. The galena forms veinlets as much as 6 inches wide and isolated groups of crystals in the barite.

No silicification along the vein was seen underground but locally at the surface the mineralized zone crops out as a silicified gossan.

Localization of ore appears to be controlled by the intersection of major strands of the fault zone although not all such intersections contain ore.

ORE RESERVES

Two ore reserve blocks were indicated by the applicant to contain about 12,000 tons of ore averaging 5% lead. Block 1 is between the 300 and 100 levels just south of the vertical shaft. The ore exists as areas left unstoped by earlier mining and is not developed to the extent necessary for measured reserves. Sampling during this examination disclosed three areas (fig. 3) that total 3,375 tons[1] of inferred ore averaging 5.1% lead and 3.1 oz. silver per ton.

The applicants block 2 is above the 300 level winze. Samples 79 and 80 indicate that the ore in this block is not of minable grade; therefore no indicated reserves are credited to this block.

The probability of the occurrence of additional ore shoots appears to be good on the basis that there are many unexplored fault intersections in the blocks above the 300 level both north and south of the shaft. An inferred tonnage of mill grade ore equal to the indicated ore (3400 tons) is considered to be within the range of modest development expense.

Sample 91 was taken from a 20 foot shaft about 4500 feet southwest of the main shaft. Sample 92 was taken from the face of the Silver King tunnel on the Silver King No. 2 claim. Mineralization at both of these occurrences is similar to that along the main vein. No facilities for mining these exposures are installed but a limited tonnage could be mined without a permanent installation or additional roads. An inferred tonnage of 500 tons each appears reasonable.

1/ The factor used for calculation of tonnage is 8 cu. ft. per ton of ore in place.

Total reserves of the property are as follows:

Measured ore	0 tons
Indicated ore	3,375 tons
Inferred ore - from shaft.	3,400 tons
Inferred ore - from other workings	1,000 tons
Total	7,775 tons

Reserves below the 300 level might exceed those estimated above the level but have not been included because the amount of underground work necessary to explore the block is beyond the scope of the applicants program.

Additional claims are held by Mr. Epperson upon which veins roughly parallel to the Silver Butte are noted. Two samples, as follows, were taken in the underground workings:

Sample No.	Percent Pb	Percent Zn	Ounces/Ton Au	Ounces/Ton Ag	Location
91	9.9	3.4	Trace	17.80	Face of 20 ft. prospect shaft on the King claim about 4,500 ft. S.W. of the Silver Butte shaft. Width of cut 36 inches. Gangue is barite-calcite and quartz. Vein is in bedding plane of limestone.
92	15.0	3.1	Trace	9.45	Face of King tunnel - 175 ft. from portal S.E. of Silver Butte shaft. Width of cut 24 inches. Oxidized material with barite and calcite in limestone bedding plane which strikes E-W.

MINE EQUIPMENT

A detailed list of the mine equipment follows:

Hoist house - timber frame covered with corrugated sheets about 16- by 20-feet. Fair condition. Contains:

Ottumwa Iron Works single drum hoist with 700 feet of 5/8-inch steel cable. - No indicator. Driven by 40-horsepower Novo gasoline engine. Hoist and gasoline engine in poor condition and should be replaced.

Misc. small hand tools.

1 Mine cage (4 man capacity) without safety gates or landing chairs.

1 Schramm portable air compressor, 105 cu. ft. capacity, gasoline driven - Good condition. Compressor capacity is too small for the job.

1 Air receiver (riveted tank) 3 feet by 12 feet. Good condition.

1 Air receiver (riveted tank) 3 feet by 7 feet. Good condition.

Air and water lines to the 350 foot level.

1 Gardner-Denver Co. jackhammer - Model 55 - New - 7/8-inch chuck.
1 Gardner-Denver Co. stoper - Model R-94 - Good condition
Small amount of drill steel.

2 Pressure tanks 12 inches by 3 feet, iron, for drilling water in mine. Good condition.
100 ft. Air hose. Good condition.
100 ft. Water hose. Good condition.
1,000 ft. 8-pound mine rail. Good condition.

1 Blacksmith shop: Frame bldg., 8 ft. by 10 ft. Very poor condition. Contains: Homemade forge, good condition.
Lancaster Blower, hand operated. Good condition.
Blacksmith anvil, good condition.

1 Double drum tugger hoist on 300 level. Condition unknown. Has been dropped and will probably require extensive repairs and/or replacements.

1 Ore bucket, iron, 24-inch by 31-inch. Fair condition (not in use).
2 Mine cars, iron body, 2 ft by 2 ft. x 36 inches, end dump, 18 inch ga. Fair condition.

1 Underground gasoline storage tank, 39 inches by 6 ft, with Tokheim high vacuum hand pump, Serial No. 964-4850 and hose. Good condition.

1 OK air compressor, 260 cu. ft. capacity, driven by 6 cyl. Hercules gasoline engine. Portable, on iron wheels. The compressor unit is worn out but the Hercules engine is good. This assembly would require a new compressor unit and probably a general overhauling.

1 6 by 6 GMC truck, 10 wheel, dump body, 8 to 10 tons capacity. New tires will be needed for the truck; otherwise it is in good condition.

1 Willys jeep, 1947 model, 4 wheel drive. Good condition.

1 14 foot by 16 foot frame building covered with sheet iron, used as a residence by 2 miners. Good condition.
3 Small frame buildings covered with tar paper, located about one-half mile east of the mine. Will accommodate 8 to 10 men. Fair condition.
1 Small rock house for storage of blasting powder. Capacity about 1,000 lbs., located approximately 150 feet west of the mine shaft. Poor condition.

1 Wheelbarrow, iron body, iron wheel, (in the mine). Fair condition.

Shaft: Timber headframe over 2-compartment vertical shaft. Headframe, sheave and cage in fair condition.

150 lineal feet of track (8 lb. rail) from collar of shaft to 50 ton ore bin of timber construction. Bottom of bin on 45° slope. Track is O.K.; bin in fair condition.

The power unit is, of course, direct connected to the mine hoist and located in the hoist house approximately 50 feet northwest of the shaft. This power unit is operated by a gasoline engine and no fire protection is provided. It is recommended that adequate fire extinguishers be installed and that attention be given to Section 20, pages 85 and 86 of the State and Federal Mining Laws, 1947 edition as compiled by A. E. Bernard, Inspector of Mines of the State of Nevada. Section 20 is as follows:

"In every mine within this state, if more than 200 feet in depth, where a single shaft affords the only means of egress to persons employed underground and the ladderway compartment is covered by a nonfireproof building, it shall be the duty of the operator of said mine to cause said ladderway to be securely bulkheaded or a trap door placed over the same at a point at least twenty-five feet below the collar of the shaft, and if a trap door is used it must be kept closed or so arranged that it can be closed from a point outside of the building by the releasing of a rope, and below this bulkhead or trap door, if the shaft is situated upon a sidehill, a drift shall be driven to the surface, and if the shaft containing said ladderway may be otherwise situated, this drift shall be driven on a level to a safe distance, but in no case less than thirty feet beyond the walls of the building covering the main shaft and from such a point a raise shall be made to the surface. The said raise shall be equipped with a ladderway and it, together with the drift connecting with the main shaft, shall be kept in good repair and shall afford an easy exit in the event of fire."

MILLING

Crude ore from the mine is hauled to the mill by means of a GMC truck having a capacity of from 8 to 10 tons of ore. The time required for a round trip from mine to mill is estimated at 1-1/2 hours for a total distance of 12.6 miles.

During winter months, probably from late December to late in March, weather and road conditions will no doubt make ore delivery difficult and may force milling to be discontinued during that period. It would be advisable to have a good caterpillar tractor, with dozer blade on hand in order to remove accumulating snow and to maintain roads in good condition.

Water for milling is obtained from Medicine Springs located approximately 200 feet west of the mill. The present flow is estimated at 20 g.p.m. and this can probably be increased. The flow is considered adequate for the mill requirements. If necessary, probably 30% to 40% of the milling water could be reclaimed. Water for the mill is pumped by a Fairbanks-Morse vertical pump operated by a 7-1/2 horsepower electric motor. This pump has a rated capacity of 3,500 g.p.m. and the water is pumped through 250 feet of 4-inch and 3-inch pipe line to a steady head storage tank which has a capacity of 10,000 gallons. From this storage tank, pipe lines supply water to the mill.

The mill flow sheet, copy of which is attached, is a simple wet concentrating plant. Crude ore is fed by gravity to the primary jaw crusher, set to crush to 1/2 inch, then elevated to a set of crushing rolls which are placed directly over the mill ore bin which has a capacity of 40 tons. The rolls are set to crush to 1/4 inch.

From the mill ore bin the ore is fed by means of a belt conveyor to a 3- by 6-foot vibrating screen with screen openings of 3/16-inch diameter. The oversize material from the screen is conveyed through a launder, by means of water, to a set of crushing rolls which are set tight. The material from the rolls is then elevated to the head of the vibrating screen. The undersize material 3/16-inch and finer is sent directly to the No. 1 table from which a high grade lead-silver concentrate is made. The middlings and the tailing from this table are combined as one product and sent to table No. 2 for retreatment. From table No. 2 a medium grade of lead-silver concentrate is made and the middlings and tailing goes to a tailing pond and are impounded for possible future retreatment.

Concentrate from tables No. 1 and 2 is shoveled into a mine car and hand trammed approximately 75 feet and the concentrate dumped into a bin which has a capacity of 30 tons. A truck can then back up under the concentrate bin, load and haul to the smelters near Salt Lake City, Utah, where a ready market for the product is available.

The present mill capacity, useing four concentrating tables, is designed to treat 60 tons of crude ore per 24 hour day. However, inasmuch as the crushing and grinding machinery is adequate for a larger tonnage, it will only require the installation of two additional concentrating tables for the treatment of 100 tons of ore per day.

About 5 tons of fresh ore was mined during the period of the examination by the Field Team and this ore was run through the mill in order to show the Field Team the plant operation and the method of extraction. During this operation the following samples were taken

by the examining engineer:

Sample No.	Percent Pb	Percent Zn	Ounces/Ton Au	Ounces/Ton Ag	Location
85	5.9	1.0	Trace	3.30	Mill heads from discharge of feed conveyor to the vibrating screen.
86	0.9	0.9	Trace	2.35	Middlings & tailings from No. 1 table.
87	70.2	*0.1	0.005	21.95	Concentrate from No. 1 table.
88	34.2	*0.1	0.005	21.40	Concentrate from No. 2 table.
89	0.7	0.9	Trace	1.60	Tailings from No. 2 table.
90	0.7	1.2	Trace	1.35	General tailing sample from tailing pond.

Refer to figure 5 which shows the flow sheet of the present milling operation.

Project Re-O-2.61 Lead Ore from Silver Butte Mine[2/]
Elko County, Nevada
D.M.A. 475

A composite was made of fifteen samples received from the Mining Division for the purpose of making a gravity concentration test under conditions similar to those in a small mill treating ore from the same mine. According to the information furnished the mill was treating ore crushed to pass a 3/16-inch screen opening going directly to a modified Wilfley table. Concentrates were produced and the middlings and tailings were retreated on a second table. More concentrates and final tailings were produced at that point.

This operation was said to be on ore containing about 6 percent lead. High-grade concentrates were made and tailings carried about 0.7 percent lead.

The samples of the mill products sent in at the same time as the mine samples were examined and it was found that all the mill products were minus 10-mesh. However, on request of the engineer submitting the samples, a table test was made at minus 3/16-inch size.

The ore tested contained only about 1.9 percent lead with 1.4 percent zinc and 2.0 oz/T silver and no gold. The gangue minerals included a great deal of barite, quartz, calcite, and small amounts of iron oxides. Nearly all the lead present was galena but no zinc mineral was identified.

The ore was crushed to minus 3/16-inch size and fed to the laboratory Wilfley table without further sizing or classification, to

2/ Report dated June 28, 1951 from the Hydrometallurgical and Ore-Dressing Branch, Metallurgical Division, Region III, Reno, Nev.

simulate the practice described. Results were unsatisfactory as shown in the following tabulation:

Table test 1.-- Minus 3/16-inch feed

Product	Weight, percent	Analyses, percent			Distribution, percent		
		Pb	Zn	Ag oz/T	Pb	Zn	Ag
Concentrates	43.2	3.34	1.0	2.70	74.1	31.2	58.5
Middlings	14.9	0.3	1.4	1.35	2.2	14.8	10.0
Tailings(-3/16+-14 mesh)	11.6	0.4	-	-	2.4	-	-
Tailings (-14+-48 mesh)	13.6	0.4	-	-	2.8	-	-
Tailings(-48 sands)	7.7	2.6	-	-	10.2	-	-
Tailings (slimes)	9.0	1.8	-	-	8.3	-	-
Tailings composite	41.9	1.1	1.8	1.50	23.7	54.0	31.5
Heads composite	100.0	1.9	1.4	2.00	100.0	100.0	100.0

As indicated in the tabulation, the losses of lead were chiefly in the fine-sized portions of the tailings.

In order to see what would happen under the same conditions of treatment, but with minus 10-mesh heads, the concentrates from the previous test were crushed to pass a 10-mesh screen and tabled, again without sizing or classification, with the following results:

Table test 2.-- Concentrates crushed to minus 10-mesh

Product	Weight, percent	Analyses, percent			Distribution, percent		
		Pb	Zn	Ag oz/T	Pb	Zn	Ag
Concentrates	2.6	40.3	0.5	12.20	53.4	0.9	15.8
Middlings	14.8	2.4	0.6	3.30	18.1	6.3	24.5
Tailings	25.8	0.2	1.3	1.40	2.6	24.0	18.2
Composite	43.2	3.34	1.0	2.70	74.1	31.2	58.5

Power for the electric motors in the mill, the electric motor operating the pump, mill lights and lights in the superintendents cottage, is furnished by a Ford industrial gasoline engine direct connected to a 50 KW generator. The generator is owned by Mr. Epperson but the Ford industrial gasoline engine is owned by a firm in Salt Lake City, Utah. Mr. Epperson had arranged for the use of this piece of equipment on a rental basis in order to have sufficient power for the milling plant demonstration to the Field Team.

The equipment in the mill appears to be in good operating condition and no trouble was experienced during the short period of operation observed by the Field Team.

The Continental concentrating tables are 42 inches wide and are operated at a slower than standard strokes per minute. The deck is bare, no deck covering being used. The riffles have been reduced in size and length to fit this particular ore.

MILL EQUIPMENT

Mill water tank, wood stave construction, capacity 10,000 gals. Deep well pump, Fairbanks-Morse, vertical, operated by 7-1/2-horsepower electric motor, rated capacity 3500 g.p.m., water pumped thru 250 feet of 4" and 3" pipe line to tank. Lift about 50 feet. Water pump is housed in 8'x8' building, constructed of railroad cross ties. Good condition.

Item 1 - Mill ore bin for crude ore, 40 tons capacity, timber construction, bottom set on about 45° slope and covered with sheet iron. Discharge gate is rack and pinon type. Rail grizzly over bin. All in good condition.

Rail grizzly between ore bin and crusher. Good condition.

Item 2 - Jaw type crusher, Farrel Foundry and Mach. Co., 9" x 15", set to crush to 1/2", capacity 10 tons per hr. Needs new stationary jaw plate. Belt driven from line shaft. Crusher appears to be in good operating condition. Adequate safety guard rails should be placed around crusher and drive belt.

Item 3.- Belt and bucket elevator, 8" x 4 ply canvas belt. Buckets are 7" x 4" x 4" on 16-1/2" cc. Head and tail pulleys on 21' cc. Belt driven from line shaft. Good condition. The elevator should have adequate covering as a safety measure and guard rails should be installed around sides of the elevator pit.

Item 4 - Parallel crushing rolls, Gate Iron Works, 16" face x 24" diam., set to crush to minus 1/4". Rolls and shells appear to be in good condition.

Item 5 - Fine ore bin, 40 tons capacity. Timber construction, good condition.

Item 6 - Belt type feed conveyor, head and tail pulley, ratchet mechanism operated by 2 HP Westinghouse motor. Belt is 12" wide x 6' long. In good operating condition.

Item 7 - Vibrating screen, manufactured in Salt Lake City, 36" wide by 6' long. Wire mesh screen with 3/16" openings. Driven by 1-1/2 horsepower Sprague Electric Works motor in good operating condition. Stairway should be installed to reach the screen and walkway and guard rails should be constructed around the screen.

Item 8 - Parallel crushing rolls, could not obtain name of manufacturing company, belt driven by 15 horsepower electric motors 12" face by 24" diam., set to crush to minus 3/16" in good operating condition. Roll shells are good.

Item 9 - Belt and bucket elevator. 16' cc of head and tail pulley. Belt is 8" wide by 4 ply., iron buckets 6-1/2" x 3" x 4" on 12" cc. Belt driven from 3 horsepower electric motor, in good operating condition.

Item 10-11-12-13 (4) Gravity concentrating tables - Continental Mfg. Co., individual belt driven from 3-horsepower electric motors. (No deck covering used.) Special flat, wood riffles. The tables appear to be in good operating condition.

Item 14 - Mine car, iron body, end dump, 18 cu. ft. capacity, 18" ga., good condition.

Item 15 - About 75 lineal ft. of track (150' of 8 lb. rail) from mill to conct. bin. Good condition.
Concentate bin, 30 ton capacity, hopper bottom, timber construction, good condition.

Item 16 - (items no's. 2-3-4) are driven by:
Climax, double head, 4 cyl. power unit with power clutch and drive pulley. Gasoline operated, mounted on an iron skid base. Power is transmitted to the crusher, elevator and rolls by means of flat belts and line shafting. The machine is in fair operating condition, however, consideration should be given to repairing or replacing the main bearings and clutch bearing. The belting and line shafts appear in good condition. Suggest safety guards around the drive belts.

(Items 6 to 13 incl. are motivated by electric motors for which power is generated by:
Ford industrial engine, gasoline operated, direct connected to Palmer Electric Mfg. Co. generator, 50 KW, 40 HP, 440 V, 1200 RPM with V belt driven exciter.
The Ford industrial engine is new, however, it has not been paid for. The generator is in good operating condition.

MISC. MILL EQUIPMENT

Gasoline storage tanks for mill power units:

1 iron body tank, 500 gal. capacity.
1 iron body tank, 300 gal. capacity.
with Tokheim high vacuum hand pump and hose. Good condition.

1 Acetylene, oxygen welding outfit with gauges and hose, tips, etc. Good condition.

1 Small blacksmith anvil, bench vise, pipe vise, Misc. hand tools. Good condition.

1" and 2" water lines installed. Good condition.

1 Cement mixer (no name) 1/4 sk. size. Mounted on skids. Operated by hand or gasoline engine. Good condition.

1 Denver mineral jig, 12" x 18", 2-compartment. Needs new basket, otherwise in operating condition. Not in use.

1 Caterpillar Sixty Tractor with 10' dozer blade. The tractor is nearly completely worn out but the dozer blade and dozer apparatus is O.K. Not useable.

1 Hercules power unit, 30 HP, gasoline operated. 4 cycle engine, in good condition. Not in use.

1 Trailer house, sleeps 3 persons, good condition.

1 Frame cottage, about 14' x 30', (Supts. residence). Fair condition.

Mill Bldg.: Wood frame covered with galv. sheets. 100' long by 20' to 40' wide. Cement floors and retaining walls. Building fair condition.

No fire insurance is carried on the mill building or the equipment and no fire protection apparatus is available in the mill building or the adjacent superintendents residence. Reasonably adequate fire protection could be secured from the mill water tank and from the main water pipe line from the pump, by installing valves and fire hose at three strategic points.

The mill building has a timber frame work covered with corrugated sheets, with cement floors and concrete retaining walls, however the power units for the crushing plant and mill are gasoline operated and are located inside the mill and are a potential source of danger.

It is suggested that adequate fire protection be provided and efforts made to obtain fire insurance.

During the milling operation by Mr. Epperson, the tailings have been impounded immediately adjacent to the north end of the mill in an area about 40 feet wide by 150 feet in length. This area has been scooped out by a bulldozer and tailings have already had to be moved or scraped out twice on the small tonnage treated. This type of expense will continue and will increase with steady and increased mill tonnage. The present tailing pond is also situated about 40 feet east of the superintendents residence and at about 6 feet higher elevation.

The location and size of the tailing pond is not satisfactory and it is suggested the tailings should be piped or carried by launder across the road and away from the camp. An adequate site is available approximately 200 feet north of the present location.

At this time, there is one small cottage occupied by the superintendent, Mr. Max Epperson and his family and one trailer house which will house 2 or 3 persons.

Additional housing for 5 to 6 men will be required with the installation of a water tank, pipe lines and bath facilities. Water for domestic purposes is now carried in buckets from the spring to the houses.

The nearest source for labor and supplies is at Wells, Nev., which is 62.3 miles north of the mill.

ROAD CONDITIONS

From Wells, Nev., the route to the mine follows U. S. Highway 93 south for a distance of 29.5 miles over an all weather road. From this point the route is via the Ruby Valley road westward and south for a distance of 32.8 miles over a fairly good desert road to the mill camp.

The distance from the mill camp to the mine is 6.3 miles over an unimproved desert road. Grades on the entire road are moderate. The soil is principally adobe and during the winter months and rainy weather, it will be difficult to travel the roads and haul heavy loads unless the roads are maintained and kept in repair by the County.

COSTS

Mr. Amos Epperson has furnished the following estimate of his costs, production, daily revenue and equipment requirements:

Tons treated per day of 24 hours each . . . 60 tons crude ore.
Low Grade ore 5%
% Pb 5.0 Oz. Ag. 1.7 . . . Milled Gross Value . . . 3 tons conct. $523.86
Grade of Concts. % Pb 60.00 Oz. Ag 20.00

Costs:		
Labor: 11 men @ $12.00 per day	$132.00	
Supplies:		
Gasoline	21.84	
Powder, caps, fuse, carbide	14.00	
Timber	8.00	
Hauling crude ore to the mill	36.00	
Hauling concts. to smelter 3 ton @ $9.00	27.00	
Treatment charges @ 6.96 per ton	20.88	
Less Royalty at 10% on Bond	26.41	
Other miscellaneous expenses	25.00	
		$311.13
Net Revenue on 60 tons of crude ore or 3 tons Concts. per Da.		$212.73

With the addition of two more tables to the mill the production can be stepped up to 100 tons in 24 hours for an added cost of $102.00 or a total cost per day of $413.13
Net Revenue per day on basis of 100 tons of crude ore $459.97
This arrangement would allow the reduction of a lower grade of ore.

We have figured on this low grade of ore being fully aware that the average grade of ore will be much higher.

Machinery Required in Application

Hoist and Power Unit for same	$2000.00
Power Unit for generator to run the mill	1000.00
60-Cat. parts and overhaul	1000.00
Tires for 10 wheel ore truck	900.00
Classifier screens	100.00
2 only 3 Hp. elect. motors	100.00
Ore bin vibrators	1200.00
315 cu. ft. gasoline compressor	3000.00
	$9300.00

A Compressor with Diesel Fuel could be had at a cost of $2000.00 more and may prove to be cheaper. The first cost is the question.

The Field Team have prepared their estimate of organization covering the labor and supplies for the mine and mill together with an estimate of additional equipment that would be necessary for the operations. The following estimates for operation of the property was made by the Field Team:

Organization:

Manager: Amos Epperson

Mining Costs

		Per day
General Superintendent:	Max Epperson @ $400 a mo.	$13.33
1	Hoist engineer @ $14 per day	14.00
2	Miners @ $12 per day	24.00
1	Miner-timber man @ $14 per day	14.00
2	Mine trammers @ $11 per day	22.00
1	Topman @ $11 per day	11.00
1	Blacksmith @ $14 per day	14.00
9		$112.33
	add 14% insurance	15.73
		$128.06

Brot Fwd. 128.06

Supplies

	Per day	
Gasoline - 5 gal. per hr. @ $.30	$12.00	
Powder (25 lbs.)	5.00	
Caps	2.50	
Fuse	4.50	
Grease and oil	1.00	
Carbide	1.12	
Lumber and timber	25.00	
Tools	1.00	
Drill bits	1.20	
Sampling and assaying	1.00	
Blacksmith coal	0.75	
Castor mach. oil	0.50	
	$55.57	$55.57
		$183.63
Add 10% Contingency fund		18.36
		$202.19

Mining @ 60 tons per day = $3.37 per ton

Organization:	Cost per day
1 Truck driver @ $12 per day	$12.00
1 Crusher operator @ $11 per day	11.00
3 Mill operators @ $12 per day	36.00
	$59.00
Add 14% insurance	8.26
	$67.26
Mill supplies:	
Gasoline - 100 gal. per day @ $.30	30.00
Grease and oil	1.20
Water	3.00
Sampling and assaying	3.00
Waste rags	.60
Jeep	.75
Repairs	1.00
	$39.55
Add 10% contingency	4.00
	$43.55
Cost per day Labor and supplies	$110.81

Milling 60 tons per day = $1.85 per ton.

Resume:

Total employees		14
Daily expense -	Mine	$202.19
	Mill	110.81
		$313.00

Cost per ton: Mining and milling = $5.22

Production: 60 tons crude ore per day
Based on production tests 7/5/50 to 11/21/50
Concentration ratio 18:1 = 3.3 tons Pb-Ag concts.

	Per day
3.3 tons concts. @ $118.35 per ton	$390.55
Less hauling and treatment	52.67
	$237.88
Less 10% Royalty	23.79
	$214.09
Less daily costs of labor & supplies	313.00
Financial loss per day	$ 98.91

Production: 100 tons ore per day @ 5.0% Pb, 3.1 ozs. Ag.
Concentration ratio 18:1 = 5.5 tons Pb-Ag Concts.

5.5 tons concts. @ $118.35 per ton	$650.93
Less hauling and treatment	87.78
	$563.15
Less 10% Royalty	56.32
	$506.83
Less daily cost of labor and supplies	313.00
Daily revenue	$193.83 *

*Does not include: Taxes, overhead, insurance, interest on investment, or hauling supplies from Salt Lake City, Utah or Wells, Nev.

3,400 tons of inferred ore @ 100 tons per day = 34 days operation.

34 days operation @ daily gross operating profit of $193.83 . . . . . $6,590.22

Estimated requirements to mine and mill 100 tons curde ore per day:

Hoist and power unit for same	$2,000.00
Power unit for mill generator	1,000.00
Overhaul and repair Caterpillar tractor	1,000.00
Tires for 10 wheel ore truck	900.00
Classifier screens	100.00
2 3-horsepower electric motors	100.00
Ore bin vibrators	1,200.00
315 cu. ft. air compressor	3,000.00
Additional housing at mill, water, etc.	5,000.00
	$14,300.00
Add operating capital	5,000.00
	$19,300.00

CONCLUSIONS

Examination and sampling by the Field Team indicates that the ore reserves and values are insufficient to justify the requested loan of $30,000. Under the most favorable mining conditons selective mining would be necessary.

However, no ore was estimated between the 300 and 350 levels as this area was not open for examination.

RECOMMENDATIONS

The property has sufficient merit to warrant further exploration work. There is a large area of undeveloped ground between the 250 and 300 foot level that has not been explored sufficiently to determine its mineral potential. There are also two areas represented by samples Nos. 91 and 92 that warrants further exploration.

It is possible that leaser operations, mining the small higher grade seams of ore, would be more successful than company operation.

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1981 NOV 30 AM 9:23

SAN FRANCISCO, CALIFORNIA

Looking west from mill showing snow banks on Ruby range.

Supt.'s residence at mill camp. Mr. & Mrs. Amos Epperson
Mr. & Mrs. Max Epperson
and children.

Collar of Silver Butte Mine Shaft.
L. to R.- Mr. Max Epperson, Supt., Mr. Roscoe Smith, U.S.G.S., miner,
Mr. Amos Epperson, miner.

Truck dumping ore into mill ore bin.

Mill building and concentrate bin.

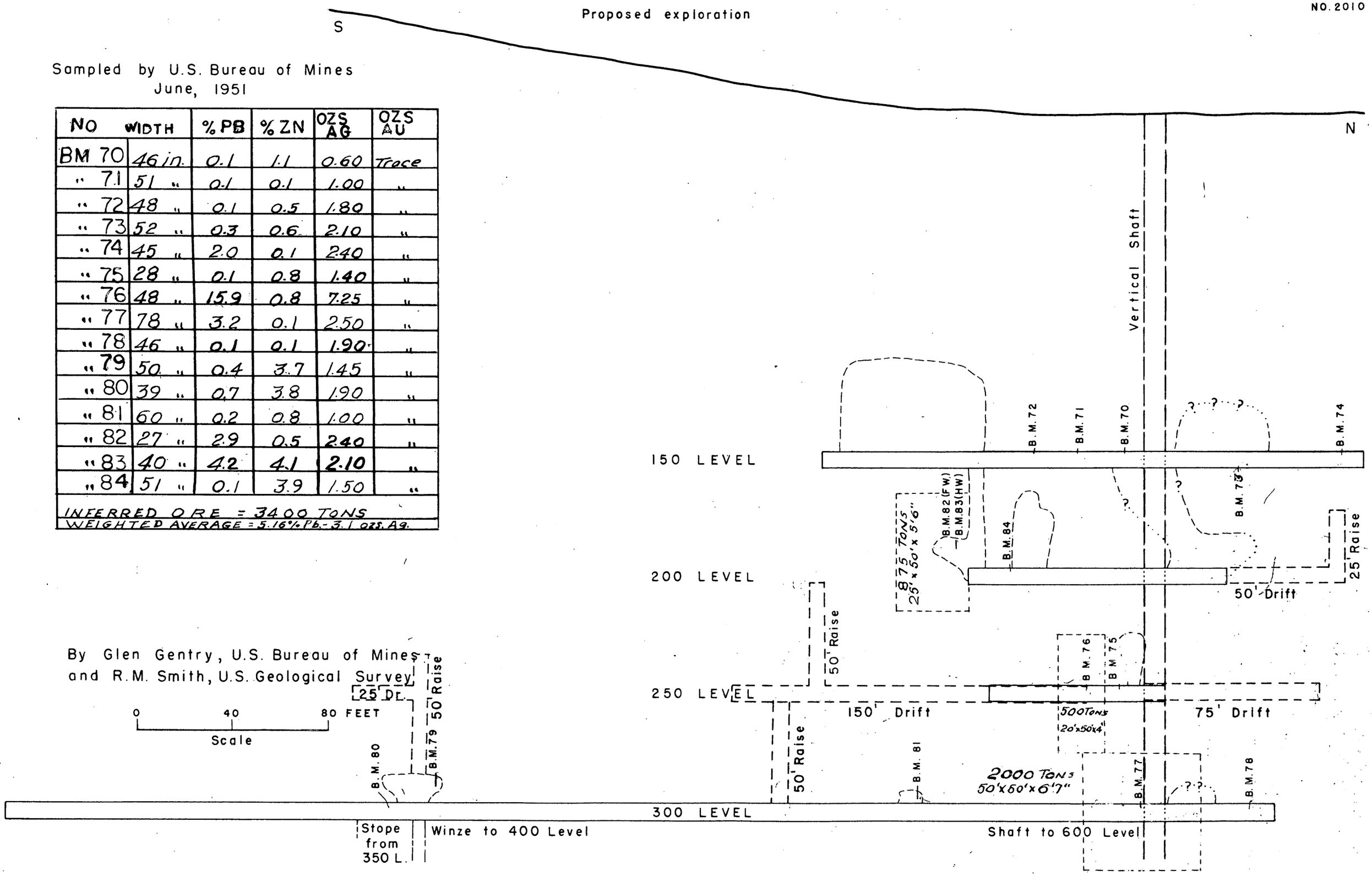
Headframe and buildings at Silver Butte Mine.

Headframe over 20 ft. prospect shaft on King claim. Sample No. 91 taken here.

Docket D.M.A. 2010
Proposed exploration

Sampled by U.S. Bureau of Mines
June, 1951

NO	WIDTH	% PB	% ZN	OZS AG	OZS AU
BM 70	46 in.	0.1	1.1	0.60	Trace
" 71	51 "	0.1	0.1	1.00	"
" 72	48 "	0.1	0.5	1.80	"
" 73	52 "	0.3	0.6	2.10	"
" 74	45 "	2.0	0.1	2.40	"
" 75	28 "	0.1	0.8	1.40	"
" 76	48 "	15.9	0.8	7.25	"
" 77	78 "	3.2	0.1	2.50	"
" 78	46 "	0.1	0.1	1.90	"
" 79	50 "	0.4	3.7	1.45	"
" 80	39 "	0.7	3.8	1.90	"
" 81	60 "	0.2	0.8	1.00	"
" 82	27 "	2.9	0.5	2.40	"
" 83	40 "	4.2	4.1	2.10	"
" 84	51 "	0.1	3.9	1.50	"
INFERRED ORE = 3400 TONS					
WEIGHTED AVERAGE = 5.16% Pb. - 3.1 ozs. Ag.					



By Glen Gentry, U.S. Bureau of Mines
and R.M. Smith, U.S. Geological Survey

FIG. 3- VERTICAL LONGITUDINAL SECTION OF THE SILVER BUTTE MINE
MUD SPRINGS DISTRICT, ELKO COUNTY, NEVADA

Sampled by U.S. Bureau of Mines
June, 1951

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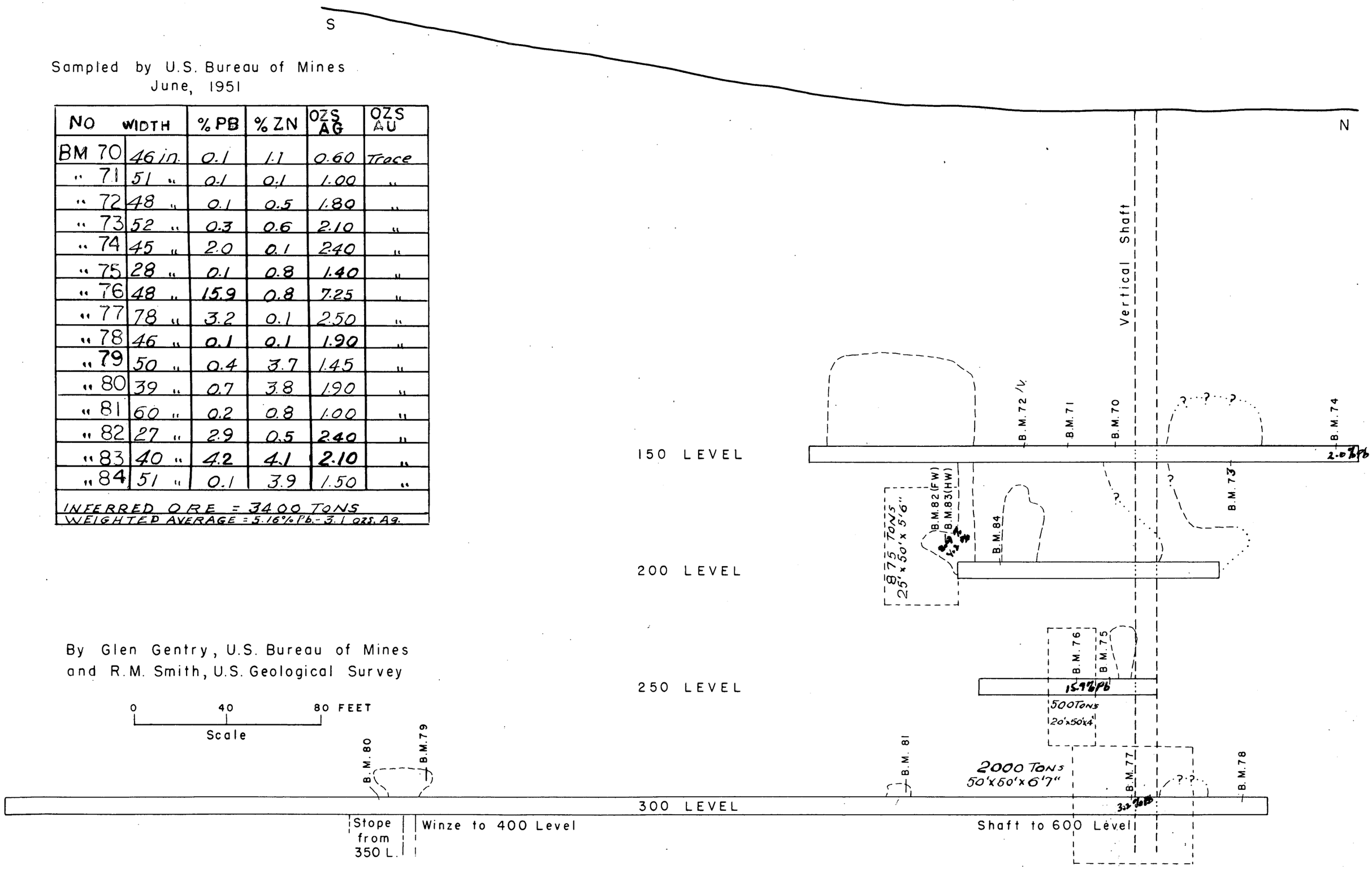

By Glen Gentry, U.S. Bureau of Mines
and R.M. Smith, U.S. Geological Survey

0 40 80 FEET
Scale

FIG. 3- VERTICAL LONGITUDINAL SECTION OF THE SILVER BUTTE MINE
MUD SPRINGS DISTRICT, ELKO COUNTY, NEVADA

Docket D.M.A. 2010
Proposed exploration

Sampled by U.S. Bureau of Mines
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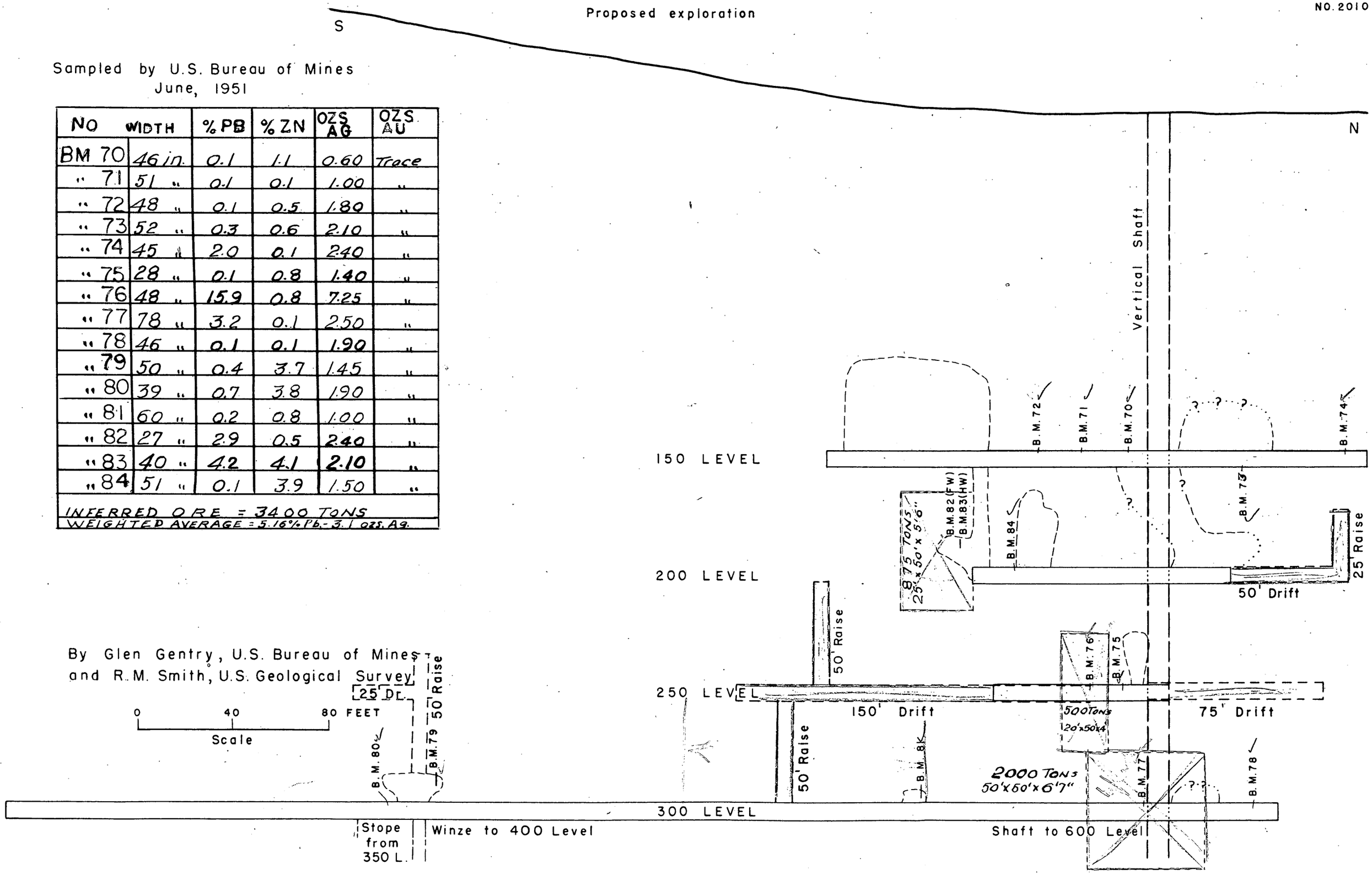

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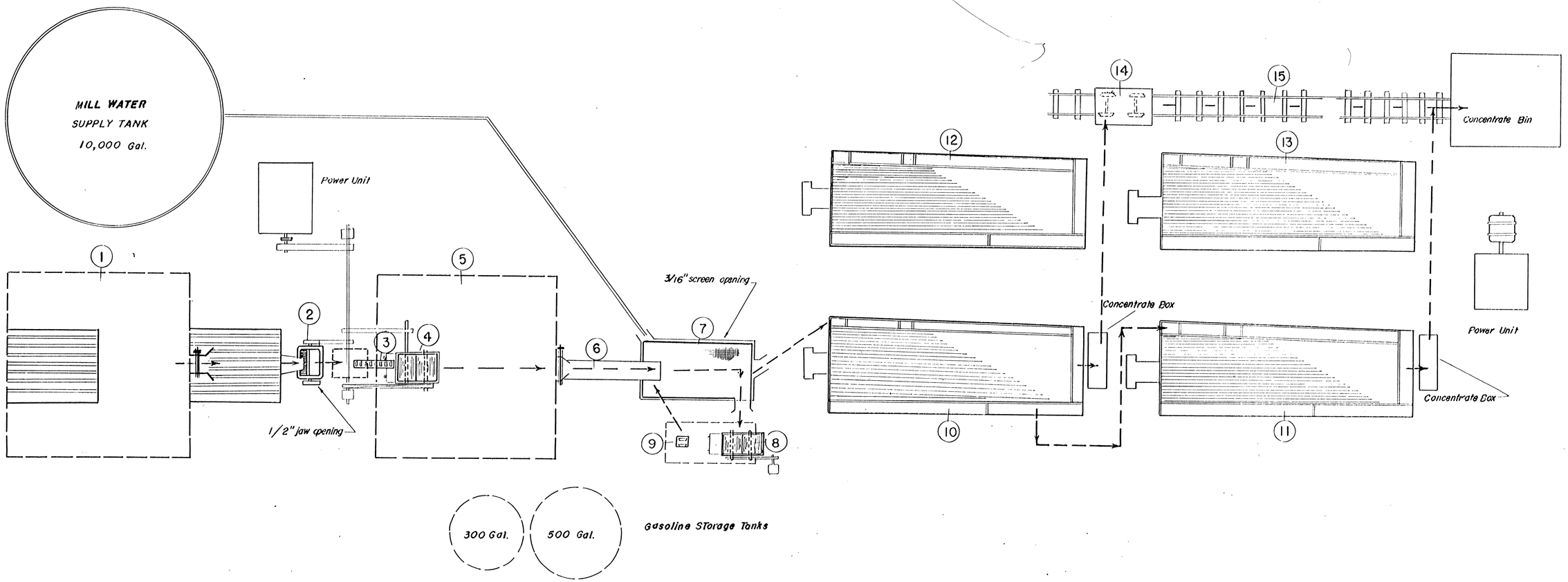
FIG. 3- VERTICAL LONGITUDINAL SECTION OF THE SILVER BUTTE MINE
MUD SPRINGS DISTRICT, ELKO COUNTY, NEVADA



ITEM	DESCRIPTION
1	Mill Ore Bin – Crude Ore Capacity 40 Tons
2	Jaw Crusher – 9" X 15" size, 10 ton per hr. capacity
3	Belt & Bucket Elevator – 7" X 4" X 4" buckets
4	Parallel Crushing Rolls – 16" face, 24" diameter
5	Fine Ore Bin – 40 ton capacity
6	Belt Conveyor – 12" width, 6' length
7	Vibrating Screen – 3/16" square mesh
8	Parallel Crushing Rolls – 12" face, 24" diameter
9	Belt & Bucket Elevator – 6-1/2" X 3" X 4" buckets
10–13 inc.	Gravity Concentrating Tables – Continental Mfg. Co.
14	Mine Car – 8 cu. ft. capacity, 18" gauge
15	Track – 8 lb., 18" gauge, ± 75' long

PLAN MILL FLOWSHEET
SILVER BUTTE MINE
ELKO CO., NEVADA

FIG 5

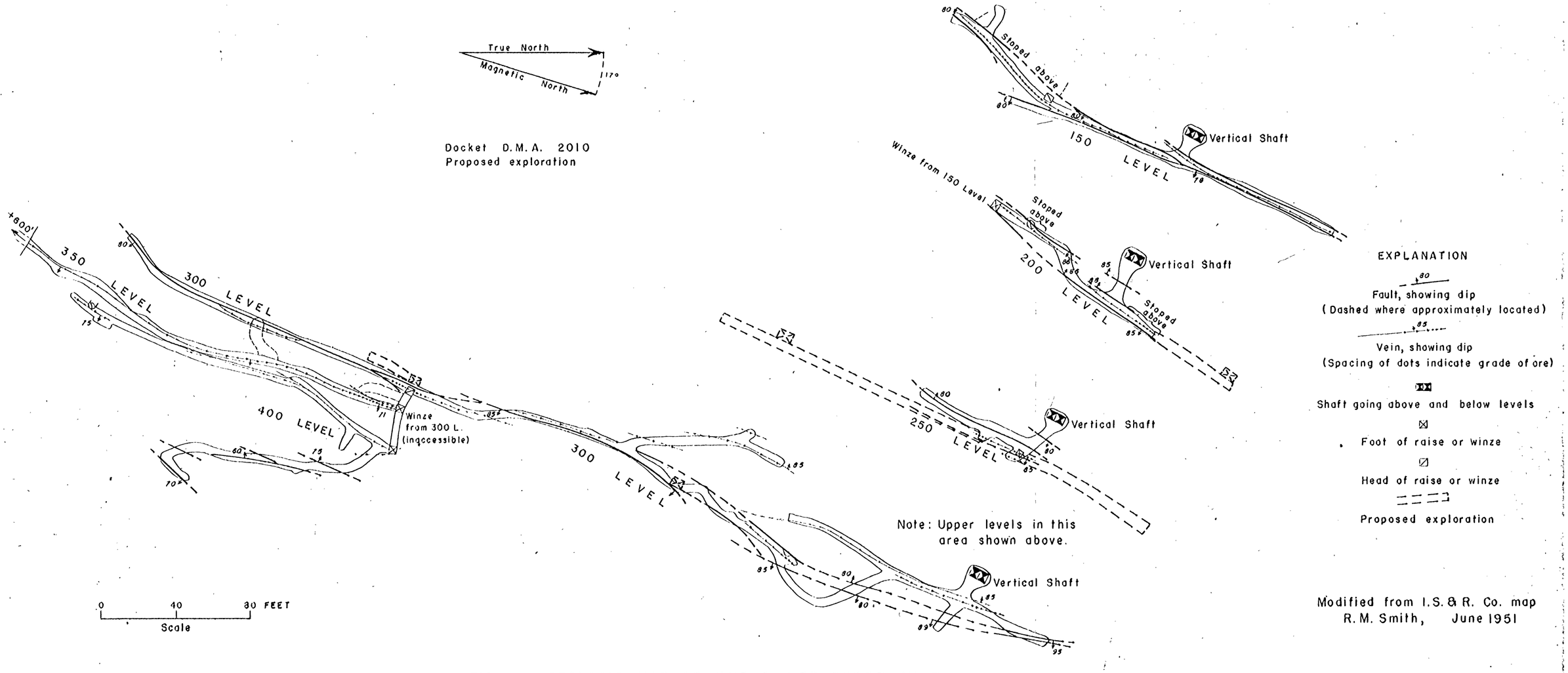
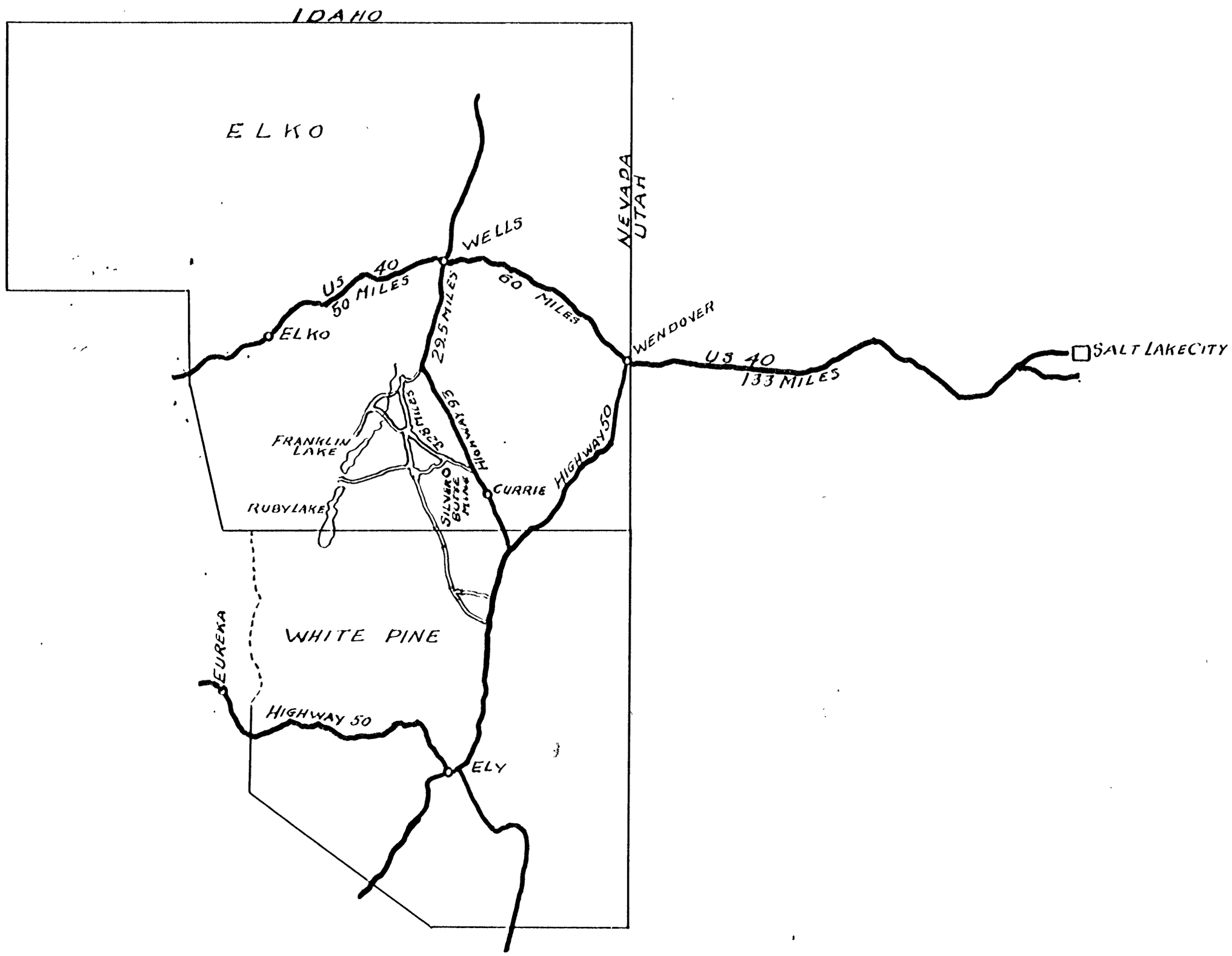


FIG. 2- GEOLOGIC MAP OF THE SILVER BUTTE MINE
MUD SPRINGS DISTRICT, ELKO COUNTY, NEVADA



LOCATION MAP
SILVER BUTTE MINE
ELKO COUNTY, NEVADA

FIG 1

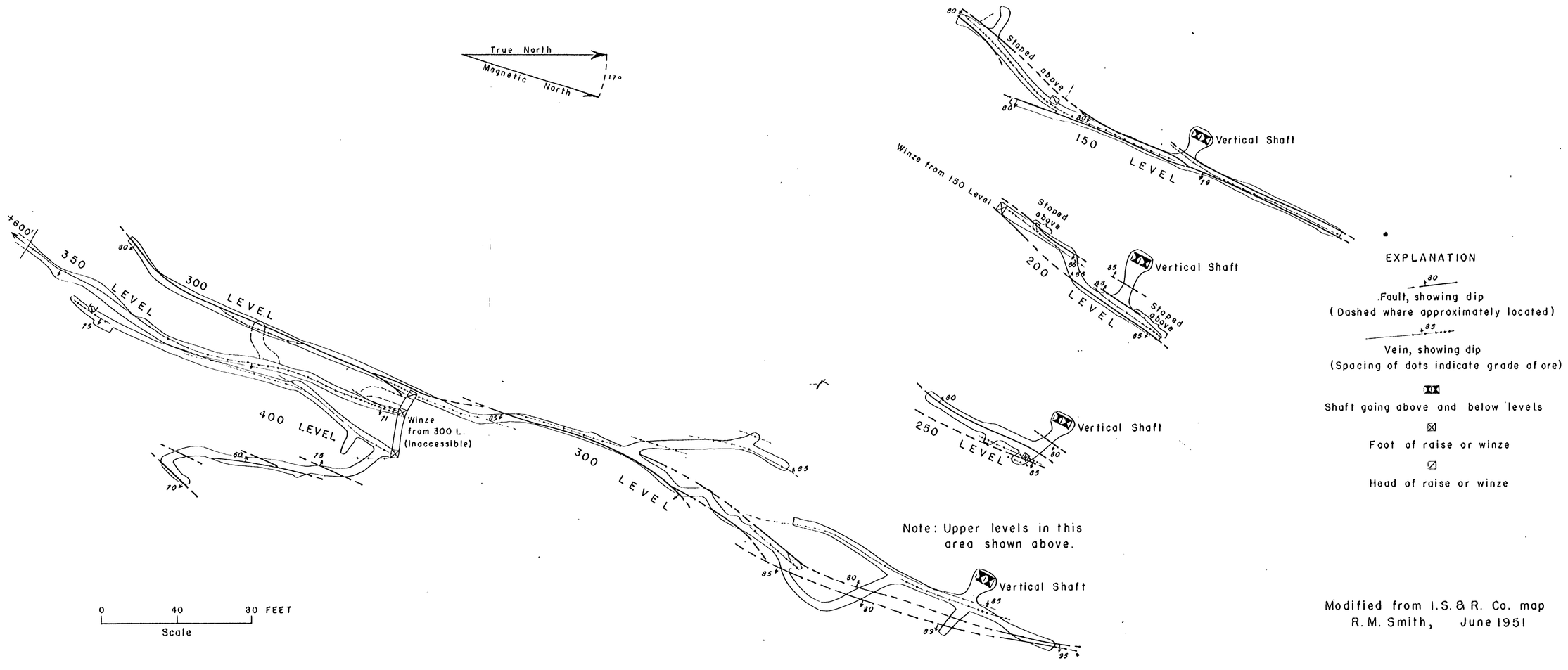
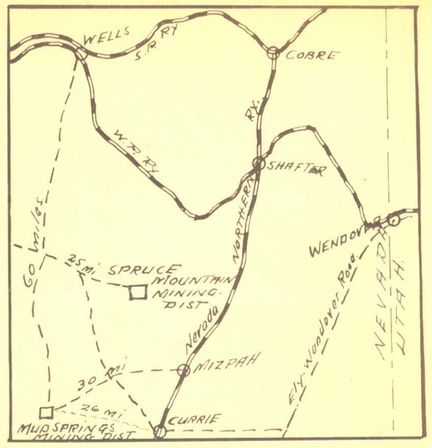


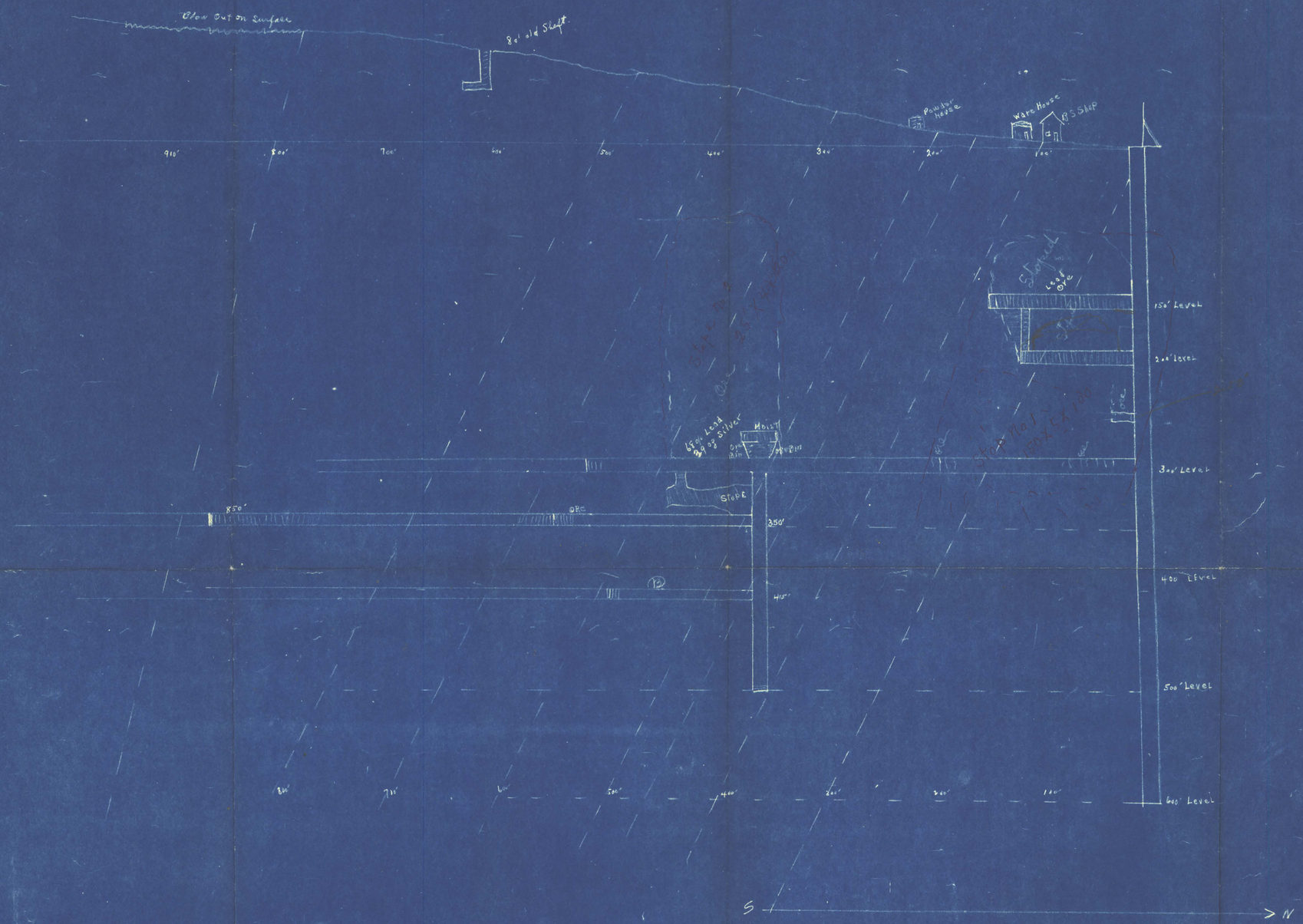
FIG. 2- GEOLOGIC MAP OF THE SILVER BUTTE MINE
MUD SPRINGS DISTRICT, ELKO COUNTY, NEVADA

PROPERTY MAP
of the
SILVER BUTTE CON. MINING CO.

Mud Springs Mining District
Elko County Nevada
Scale 1" = 400 Ft.
C.L.



INDEX MAP FIG 4



Scale - 2" Equals 100'

SILVER BUTTE CONSOLIDATED MINING CO.

MUD SPRINGS DISTRICT - ELKO COUNTY
NEVADA