United States Department of the Interior

GEOLOGICAL SURVEY
Box 25046
Denver Federal Center
Denver, Colorado 80225

IN REPLY REFER TO:

DMEA-2592

June 3, 1977

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: Monthly Report of OME activities for May 1977

Received 42 requests for information and literature. There were no on-site examinations, nor were there any interior or annual inspections made during May.

Work has been terminated on OME docket 6885, C. H. Turner and Anne Z. Turner I/b/a Hamilton Resources Corporation's San Juan mine. The operator should submit his final report during June.

Submitted 45 OME and DMEA dockets to the CRIB file.

I testified May 10, 1977, under subpoena, on civil action suit No. 10713 in the District Court of Clear Creek County, Colorado, for Jack Pine Mining Company in an action between Jack Pine Mining Company, plaintiff, and the State Highway Department, defendant.

The Civic Action suit invoked a report of examination on the Gabanta Mine owned by the Jack Pine Mining Company, under DMEA docket No. 2592. Most questions asked pertained to accuracy of the report of examination and some questions involved an explanation of the DMEA mineral assistance program in general.

I was on annual leave from May 16 through May 30.

J. William Hasler

Enclosures

United States Department of the Interior

GEOLOGICAL SURVEY
Box 25046 Mail Stop 101
Denver Federal Center
Denver, Colorado 80225

IN REPLY REFER TO:

May 9, 1977

Memorandum

To: Mr. J. William Hasler, Geologic Division, Denver, Colorado

From: Assistant Director, Central Region

Subject: LEGAL: Jack Pine Mining Company versus State Highway Department, Civil Action No. 10713, District Court, Clear Creek County, Colorado

In accordance with the subpoena served to you in connection with the above legal action, you are authorized to appear in court and to give testimony.

You may not act as an expert witness or consultant on behalf of the parties to the litigation, but you are authorized to furnish factual data from your knowledge and from Geological Survey records.

You will be in a duty and pay status for time spent on the case. The gross amount of any fees or travel expenses paid to you are to be returned by check or money order payable to the Geological Survey, Branch of Financial Management, Reston, Virginia 22092.

By copy of this memorandum, we are advising the Attorney for the plaintiff of our approval for your attendance.

Robert F. Evans

Robert F. Evans, Acting
Assistant Director
Central Region

Copy to: Richard L. Feffer, Attorney
P.O. Box 871
Boulder, Colorado
Regional Geologist, Denver, Colo.
Chief Geologist, Reston, Va.
Assistant Director for Administration, Reston, Va.

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

No. 197.—Rev. '71—SUBPOENA—CIVIL ACTION—Bradford Publishing Co., 1824-46 Stout Street, Denver, Colorado —10-75

Court Filing Stamp

IN THE DISTRICT COURT
IN AND FOR THE
COUNTY OF CLEAR CREEK
AND STATE OF COLORADO

Civil Action No. 10713

SUBPOENA

THE PEOPLE OF THE STATE OF COLORADO

To William Hassler
U.S.G.S. - Field Officer, Region 3
P. O. Box 25046
Denver Federal Center, Denver, Colo. 80225 GREETING:

YOU ~~AND EACH OF YOU~~ are hereby ordered to attend and give testimony in the District Court of said Clear Creek County of Colorado on the 10th day of May, 19 77, at nine o'clock A. M., as witness for Jack Pine Mining Company in an action between JACK PINE MINING COMPANY, plaintiff, and the State Highway Department, defendant.

And this you shall in nowise omit, under penalty of the law.

Dated May 8, 19 77

(Seal of Court)

Clerk of said Court

By

Deputy Clerk

Richard L. Fetter
Attorney for Plaintiff

P. O. Box 871, Boulder, Colorado
Address of Attorney

This subpoena is issued pursuant to Rule 45 of the Colorado Rules of Civil Procedure.

STATE OF COLORADO,
.....County of..... } ss.

I hereby certify that I have served the within subpoena in the.....County of....., Colorado, by*

and paid witness fees‡ and mileage‡ as follows

..... Fee $..... Mileage $..... Total $.....
Name

..... Fee $..... Mileage $..... Total $.....
Name

..... Fee $..... Mileage $..... Total $.....
Name

..... Fee $..... Mileage $..... Total $.....
Name

.....
Sheriff

By .....
Deputy

STATE OF COLORADO,
.....County of Boulder } ss.

Thyria Wilson, the affiant, being sworn, says: that affiant is over the age of eighteen years and is not a party to this action; and that affiant has served the within subpoena in the.....County of....., Colorado, by*

and paid witness fees‡ and mileage‡ as follows:

William Hassler Fee $2.50 Mileage $13.50 Total $16.00
Name

..... Fee $..... Mileage $..... Total $.....
Name

..... Fee $..... Mileage $..... Total $.....
Name

..... Fee $..... Mileage $..... Total $.....
Name

.....

Subscribed and sworn to before me this.....day of....., 19.....,

My commission expires:.....

(Seal of Notary)

.....
Notary Public

*State date and manner of service.
‡For amounts of witness fees and mileage, see Title 13-33-102 and 103, C.R.S. 1973.

EXPENSE OF SERVICE

Fees ..... $

Mileage .....

Fees and Mileage of Witnesses .....

Total .....

BRADFORD PUBLISHING CO., DENVER

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

February 11, 1977

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado
State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

Dear Mr. Gibb:

This is in further reply to your request of January 31, 1977, to Mr. Dick Darnell, U.S. Bureau of Mines, Denver, Colorado, which was referred to us by Mr. R. O. Swenarton, Chief, Office of Minerals Information, Bureau of Mines, Washington, D.C. You requested certain documents from the files of the Defense Minerals Administration (DMA) program, and specifically those concerning the application by the Jack Pine Mining Company for financial assistance to explore the Gabanta mine in Clear Creek County, Colorado.

In compliance with your request, we enclose certified copies of the following documents:

1. Loan application submitted in 1952 by Jack Pine Mining Company to Defense Minerals Administration.

2. Memorandum from A. H. Koschman to DMEA Field Team, Region IV dated August 20, 1952.

3. Memorandum dated August 12, 1952, from W. M. Traver, Jr., to Executive Officer, Field Team, Region IV.

4. Memorandum dated August 21, 1952, from W. H. King to Field Team, Region IV.

5. Summary, Conclusions and Recommendations of E. N. Harshman and C. M. Harrer entitled DMEA 2592

6. Geologic Report of E. N. Harshman - DMEA Docket 2592.

7. Engineering Report of C. M. Harrer - DMEA 2592 with two attached drawings.

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

8. Correspondence from Defense Minerals Administration to Jack Pine Mining Company declining the loan.

Reference to Figure 1 is noted on page 1, paragraph 1 of the Geologic Report by E. N. Harshman, U.S. Geological Survey. This figure is not in our files so we are unable to include it with the copy of the report.

Charges for the enclosed material are as follows:

35 pages @ $0.10 each	$3.50
8 certifications @ $0.25 each	2.00
Total	$5.50

A check in the amount of $5.50 should be made out to the Geological Survey and mailed to:

U.S. Geological Survey
National Center, Mail Stop 507
12201 Sunrise Valley Drive
Reston, Virginia 22092
Attention: Mr. Cal Palfrey

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Chief
Office of Minerals Exploration

Enclosures

Phone 703-860-6045

U.S. DEPARTMENT OF THE INTERIOR · GEOLOGICAL SURVEY

NCIC

NATIONAL CARTOGRAPHIC INFORMATION CENTER

CAL PALFREY
Deputy Chief, User Services

507 National Center
Reston, Va. 22092

U.S. DEPARTMENT OF THE INTERIOR · GEOLOGICAL SURVEY
NCIC
NATIONAL CARTOGRAPHIC INFORMATION CENTER
507 National Center, Reston, Virginia 22092
Phone 703-860-6045

Date 2/11 1977

To: Harold

Charges for attached are as follows:

35 pages @ .10 each = $3.50
8 certifications @ .25 ea. = 2.00

Total due $5.50

Check should be made out to U.S. Geological Survey and sent to my attention.

Cal

NCIC files

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed is a true copy of the Engineering Report Jack Pine Mining Company, Gabanta Mine, DMEA 2592 by C. M. Harrer, Bureau of Mines; and I further certify that the original report and figures from which this copy was made is in the official files of the Geological Survey.

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of February 10, 1977.

(Sgd) J. B. Balsley

Acting Director.

INT: 2912-75

NCIC Files

Palfrey
Kirkham

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed is a true copy of the application for aid submitted in 1952 by Jack Pine Mining Company to Defense Minerals Administration; and I further certify that the original application with attachments from which this copy was made is in the official files of the Geological Survey.

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State
Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of February 10, 1977.

(Sgd) J. R. Balsley

Acting Director.

INT: 2912-75

NCIC Files

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed **is a true copy of the August 20, 1952 memorandum from A. H. Koschmann, Defense Minerals Administration to DMEA Field Team, Region IV; and I further certify that the original from which this copy was made is in the official files of the Geological Survey.**

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State
Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of **February 10,** 19**77**.

(Sgd) J. R. Balsley

Acting Director.

INT: 2912-75

NCIC Files

Pattey
Memo

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed **is a true copy of the August 12, 1952 memorandum from W. M. Traver, Jr., Bureau of Mines to Executive Officer, Field Team, Region IV; and I further certify that the original from which this copy was made is in the official files of the Geological Survey.**

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of February 10, 1977.

(Sgd) J. R. Balsley

Acting Director.

INT: 2912-75

NCIC Files

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed is a true copy of the August 21, 1952 memorandum from W. H. King, Acting Chief, Mining Division, Region IV to Field Team, Region IV; and I further certify that the original from which this copy was made is in the official files of the Geological Survey.

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of February 10, 1977.

(Sgd) J. R. Balsley

Acting Director.

INT: 2912-75

NCIC files

Caffrey
Sierbenco

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed is a true copy of the August 11, 1952 Report of Examination by Field Team, Region IV, Summary, Conclusions, and Recommendations of DMEA 2592, Jack Pine Mining Company, Gabanta Mine by E. N. Marshman and C. M. Harrer; and I further certify that the original from which this copy was made is in the official files of the Geological Survey.

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of February 10, 1977.

(Sgd) J. R. Balsley

Acting Director.

INT: 2912-75

NCIC files

Paffry
Kirkham

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed **is a true copy of the Geologic Report Jack Pine Mining Company, Gabanta Mine, DMEA Docket 2592 by E. N. Harshman, U.S. Geological Survey; and I further certify that the original report and figure from which this copy was made is in the official files of the Geological Survey.**

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of **February 10,** 19**77**.

(Sgd) J. R. Balsley

Acting Director.

INT: 2912-75

NCIC files

Pathfinder Resources

Form 9-790
(Dec. 1974)

UNITED STATES OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Reston, Virginia 22092

PURSUANT to the act approved August 24, 1912 (37 Stat. 497) as amended (43 U. S. C., sec. 1460), I hereby certify that the annexed **is a true copy of the August 21, 1952 letter from John F. Shaw (for W. H. King) and A.H. Koschmann, Defense Minerals Administration to Douglas V. Watrous, President, Jack Pine Mining Company; and I further certify that the original from which this copy was made is in the official files of the Geological Survey.**

Mr. Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

IN TESTIMONY WHEREOF, I have subscribed my name and caused the seal of the Geological Survey, Department of the Interior, to be affixed on this day of February 10, 1977.

(Sgd) J. R. Balsley

Acting Director.

INT: 2912-75

United States Department of the Interior

BUREAU OF MINES
2401 E STREET, NW.
WASHINGTON, D.C. 20241

IN REPLY REFER TO:

EBM---OMI

February 3, 1977

ORIGINAL COPY
O. M. I.
RECEIVED
FEB 4

INTERNAL CORR
HR

Mr. ~~Clarence~~ Thomas W. Gibb
Assistant Solicitor General
The State of Colorado State Services Building
1525 Sherman Street, 3rd Floor
Denver, Colorado 80203

Dear Mr. Gibb:

This is in response to your Freedom of Information request of January 31, addressed to Mr. Dick Darnell of the Bureau of Mines in Denver, Colorado.

Your request is being referred to Mr. Harold Kirkemo, Chief, Office of Minerals Exploration, United States Geological Survey, National Center, Mail Stop 953, Reston, Va. 22092. The Office of Minerals Exploration is the successor to the Defense Minerals Exploration Administration and Mr. Kirkemo is the official custodian of the records in which you are interested.

The 10 days provided under the Freedom of Information Act for a response to your request will not start until the request is received in Mr. Kirkemo's office. He has, however, been alerted concerning the nature of your request and should be in touch with you within a few days of its receipt. Should you wish to contact him in the meantime, his telephone number is (703) 860-6681.

Sincerely yours,

(Signed)

R. O. SWENARTON, Chief
Office of Mineral Information

cc: Ray Lowrie - Denver
~~Mr.~~ Kirkemo
DRF (2)
R.O. Swenarton
FOI File

EBM:ROSwenarton:jah:x41001:2-2-77

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

2-2-77 URGENT (Please give to)
TO: Robert O. [illegible]enarton - Room 1033

FROM: R. L. Lowrie - DFCTR
2-page Letter
IFOC

FREEDOM OF INFORMATION REQUEST
Date rec'd in OMI 2-2-77, 11:05 am

J.D. MacFarlane
Attorney General

Jean E. Dubofsky
Deputy Attorney General

Edward G. Donovan
Solicitor General

The State of Colorado

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

STATE SERVICES BUILDING
1525 Sherman Street, 3rd. Fl.
Denver, Colorado 80203
Phone 892-3611

January 31, 1977

Our File No:

71-05-45
EI DH DTH

Mr. Dick Darnell
United States Bureau of Mines
Building 20
Denver Federal Center
Denver, CO 80225

RE: Jack Pine Mining Company v.
Colorado Department of Highways
Civil Action No. 10713
Clear Creek County

Dear Mr. Darnell:

We hereby request certified copies of the following documents under the Public Information Law (5 U.S.C. § 552):

✓ 1. Loan application submitted in 1952 by Jack Pine Mining Company to Defense Minerals Administration for a $16,000 loan to develop the Gabants Mine in Clear Creek County, Colorado.

✓ 2. Memorandum from A. H. Koschman to DMEA Field Team, Region IV dated August 20, 1952.

✓ 3. Memorandum dated August 12, 1952 from W. M. Traver, Jr. to Executive Officer, Field Team, Region IV.

✓ 4. Memorandum dated August 21, 1952 from W. H. Ring to Field Team, Region IV.

✓ 5. Summary, Conclusions and Recommendations of E. N. Harshman and C. M. Harrer entitled DMEA 2592.

✓ 6. Geologic Report of E. N. Harshman - DMEA Docket 2592.

RE: Jack Pine Mining Company v.
Colorado Department of Highways
Our File No: 71-05-45 HI DH DTN

7. Engineering Report of C. M. Harrer - DMEA 2592 with two attached drawings.

8. Correspondence from Defense Minerals Administration to Jack Pine Mining Company declining the loan.

The loan application was processed under DMEA Docket No. 2592. I understand some of the original documents are available. In those instances we request certified copies of the originals. The remaining documents are on microfilm, Document No. 402361, Reel No. 4032, Frame No. 478. Mr. Rick Donkin previously located these documents.

Please advise me the cost of these copies and I will obtain a warrant to cover your charges. Give me a call at 892-3611 if you have any questions.

These documents are needed in our defense of a suit brought by Jack Pine Mining Company against the Colorado Department of Highways.

Very truly yours,

Thomas W. Gibb

THOMAS W. GIBB
Assistant Solicitor General

TWG:nm

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

224 New Customhouse
Denver 2, Colorado

August 21, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration, Attention: 210

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2592 (Lead-Zinc), Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado

Enclosed are the original and three copies of the final report on DMEA 2592, the original and one copy of Form 3b, and a copy of the letter of denial to the applicant.

for M. H. King

A. H. Koschmann

Enclosures

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

224 New Customhouse
Denver 2, Colorado

August 21, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration, Attention: 210

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2592 (Lead-Zinc), Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado

Enclosed are the original and three copies of the final report on DMEA 2592, the original and one copy of Form 3b, and a copy of the letter of denial to the applicant.

for W. H. King

A. H. Koschmann

Enclosures

C
O
P
Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
Washington 25, D. C.

224 New Customhouse
Denver 2, Colorado

August 21, 1952

Mr. Douglas V. Watrous, President
Jack Pine Mining Company
Idaho Springs, Colorado

BL

Dear Mr. Watrous:

Reference is made to your application for Government aid in exploration work on the Gabanta Mine.

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

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application for Government aid is denied.

Very truly yours,

/s/ John F. Shaw
for W. H. King
Field Team, Region IV

/s/ A. H. Koschmann
A. H. Koschmann
Region IV, Field Team

HMC:jp
cc Actg. Administrator DMEA
WMTraver
Subject
Chron
A.H.Koschmann (2)

Mining Division
Region IV

August 21, 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2592 (Lead-Zinc), Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado

Enclosed are eight copies of the final report on DMEA 2592 by C. M. Harrer of the Bureau of Mines.

Harrer concludes that ore found as a result of the proposed program would not add materially to known reserves of strategic minerals. He recommends denial of the request for exploration assistance in the amount of $16,000.

We concur in this recommendation.

for John F. Shaw
W. H. King

Enclosures

[illegible] OF THE LIBRARY
[illegible] Mines Bureau of
[illegible]
AUG 28 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20
Denver Federal Center
Denver 14, Colorado

August 12, 1952

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Colorado Branch, Mining Division, Region IV

Subject: DMEA 2592 (Lead-zinc), Jack Pine Mining Company, Gabanta mine, Clear Creek County, Colorado

Please find enclosed the original and eight copies of the "Summary, Conclusions, and Recommendations", by E. N. Harshman and C. M. Harrer, and of Harrer's engineering report on the above docket.

The applicant's request for the $16,000.00 loan is based entirely on hearsay, mostly second and third hand. A sample take by the examiners of one exposure of the vein was less than 6 inches wide and, although it proved high in lead and zinc, it is doubtful if reopening the old workings would expose a vein width sufficient to justify mining except on a small scale and at high cost. It is certainly doubtful if the loan would ever be repaid. A sample of the stope fill indicates that, even should it be available in large amount, it would not be of importance economically.

The fact that development would extend the tunnel to within 150 feet of the end line of the Gabanta claim is not objectionable as the applicant owns the property adjoining or could locate a small intervening block between two owned claims.

Harrer recommends denial of the loan request. I concur.

Enclosed also is the brochure furnished with the Region IV Field Team's memorandum of instruction to make the examination.

W. M. Traver, Jr.

W. M. Traver, Jr.

Enclosures

WMT/ban

cc: 8
DMEA 2592
DMEA Chron.

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

200 New Customhouse
Denver 2, Colorado

August 20, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2592, Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado.

Attached are 8 copies of the geological report by E. N. Harshman covering DMEA Docket 2592, Jack Pine Mining Company, Clear Creek County, Colorado.

The applicant has applied for a loan of $16,000.00 to spile through an estimated 300 feet of caved stope fill to gain access to the east face of drift, allegedly in high grade sphalerite ore, on the Gabanta vein. The Gabanta vein occupies a fissure in pre-Cambrian granite, gneiss, and schist. Along the vein fissure are found 1 to 10 feet of brecciated rock, most of which has been silicified; however, some portions of fault breccia are relatively unaltered. Where exposed in the drift the ore, chiefly sphalerite with small amounts of galena, occurs in narrow stringers and veins up to 0.4 feet wide. Two ore shoots have been mined in the east drift of the Gabanta vein, but during 5 years of continuous operation only 1259 tons of ore were mined.

Harshman concludes that there are no known ore reserves and there is no evidence that large bodies of ore remain in the mine, or that the mine will ever be more than a small producer of hand sorted ore. He, therefore, recommends that the application for a loan be denied.

I concur in this recommendation.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 2592, Jack Pine Mining Company

Gabanta Mine

Clear Creek County, Colorado

Lead-zinc

E. N. Harshman, Geologist
U. S. Geological Survey

C. M. Harrer, Mining Engineer
Bureau of Mines

August 11, 1952

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By E. N. Harshman
Geologist
U. S. Geological Survey

and

C. M. Harrer
Mining Engineer
Bureau of Mines

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By E. N. Harshman and G. M. Harrer

The Jack Pine Mining Company has applied for a Defense Minerals Exploration Administration loan of $16,000.00 to rehabilitate about 300 feet of drift on the Gabanta vein, now inaccessible beyond a cave of stope fill, the extent of which is indeterminate. In addition, it is proposed to drift a maximum of 150 feet beyond the northeast end of old workings, depending on whether vein exposures justify further work.

Representatives of the company base their belief that high-grade zinc ore is to be found beyond the cave on the recollections of old-time residents of the district. Their statements that large bodies of high-grade sphalerite remain in the mine are based on memory and are very questionable considering that the property was worked chiefly for zinc and has been shut down since 1913.

A field examination was made on July 15, 1952.

The Gabanta claim and mine are in sec. 18, T. 4 S., R. 74 W., Griffith Mining District, Clear Creek County, at an altitude of 9,100 feet.

The claim was located in 1902. During its active life, 1908-12 inclusive, production totaled 1,259 tons of ore reported as 595 tons of shipping-grade sphalerite, 3 tons of direct smelting galena ore, and and 661 tons of mill-grade ore.

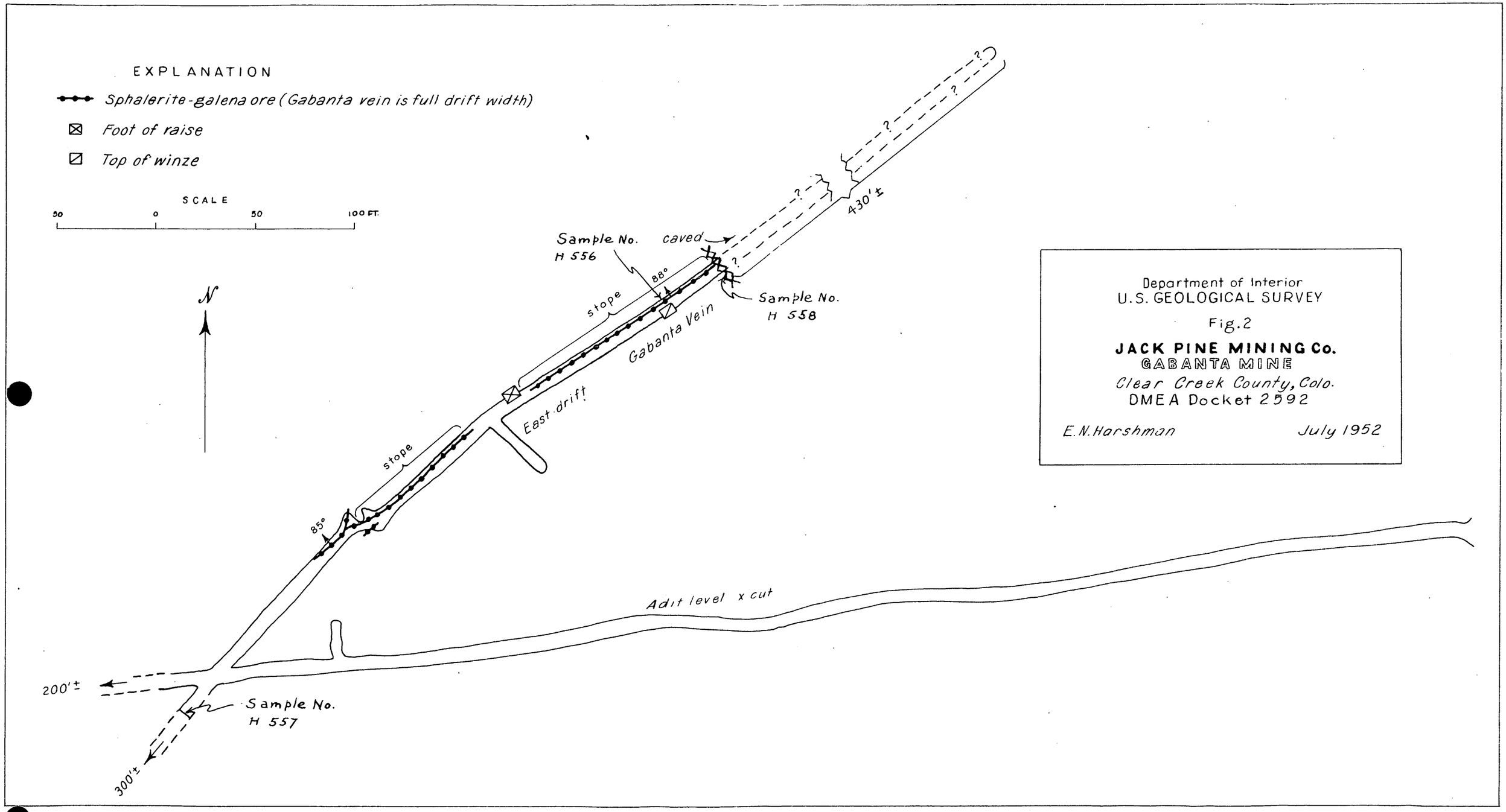
The Gabanta vein occupies a strong, nearly vertical fissure in pre-Cambrian granite, gneiss, and schist. On the adit level the hanging and footwalls are straight and well defined. They are separated by from 1 to 10 feet of brecciated rock which, for the most part, has been silicified. Exposures of sulfide ore are limited to the east drift of the mine where a high-grade, hanging wall stringer reaches a maximum width of 0.4 feet. Two stopes, respectively 75 and 90 feet long, are separated by 50 feet of barren vein material. From the geological viewpoint, there is little or no reason to believe that the total sulfide content of the vein will increase in the area northeast of the old workings.

Production records and reported operating conditions do not confirm statements of large ore reserves.

Ore found as a result of the proposed program would not repay the cost of the project and would not add materially to known reserves of strategic minerals.

Development on the vein, according to authentic reports, extends to within 150 feet of the end line of the Gabanta claim.

The request by the Jack Pine Mining Company for $16,000.00 exploration assistance under the Defense Minerals Production Act, (docket DMEA 2592) is recommended for denial.


EXPLANATION
Sphalerite-galena ore (Gabanta vein is full drift width)
Foot of raise
Top of winze
SCALE
50
0
50
100 FT.
N
Sample No.
H 556
caved
88°
stope
Gabanta Vein
Sample No.
H 558
430'±
East drift
stope
85°
Adit level x cut
200'±
Sample No.
H 557
300'±
Department of Interior
U.S. GEOLOGICAL SURVEY
Fig. 2
JACK PINE MINING Co.
GABANTA MINE
Clear Creek County, Colo.
DMEA Docket 2592
E.N. Harshman
July 1952

JACK PINE MINING COMPANY

GABANTA MINE

CLEAR CREEK COUNTY, COLORADO

DMEA DOCKET 2592

Geologic Report

By E. N. Harshman
U. S. Geological Survey

JACK PINE MINING COMPANY
GABANTA MINE, CLEAR CREEK COUNTY, COLORADO

INTRODUCTION

The Jack Pine Mining Company, 705 Boston Building, Denver, Colorado, has applied for assistance in exploring for zinc ore in the Gabanta mine. The company owns 2 patented claims and an undivided two-thirds interest in another, all located in the Griffith Mining District, Clear Creek County, Colorado. The Gabanta mine portal is about half a mile southwest of Georgetown, Colorado, and within 400 yards of U. S. Highway No. 6 (Fig. 1). A dirt road connects the mine with the highway.

The property was examined on July 15, 1952, in company with C. M. Harrer and C. N. Conwell of the U. S. Bureau of Mines.

The Gabanta vein is developed by about 900 feet of crosscuts, 1060 feet of drifts, and an unknown footage of raises, winzes, and stopes. In DMEA Docket 2502, the applicant proposes to spile through an estimated 300 feet of caved stope fill that prevents access to the face of the east drift (Fig. 2). It is alledged that considerable high grade sphalerite ore remains in the area to the northeast of the caved stope fill. The applicants estimate the total cost of the project will be $16,000.

GEOLOGY

The Gabanta vein has been explored along its strike for a distance of about 1060 feet (Fig. 2). It occupies a strong, nearly vertical fissure in pre-Cambrian granite, gneiss, and schist. Striae on the walls indicate

considerable horizontal movement; the amount and direction of movement are unknown. On the adit level the hanging and foot walls are remarkably straight and well defined. Along the fissure are found 1 to 10 feet of brecciated rock, which for the most part has been silicified by mineralizing solutions. Some portions of fault breccia are relatively unaltered, and fresh biotite crystals can be observed.

Examination of the old stopes and raises was considered extremely dangerous and the winze was flooded. Observations of the Gabanta vein were therefore restricted to the adit level.

Two ore shoots have been mined in the east drift on the Gabanta vein. The first or westernmost shoot is about 75 feet long and apparently extends upward for several hundred feet (Fig. 2). Where the ore is exposed in the back of the drift, it consists of a narrow stringer of high grade sphalerite with minor amounts of galena. The ore ranges from a knife edge seam to a maximum width of 0.6 feet, averaging about 0.2 or 0.25 feet. The ore generally occurs on the hanging or northwest wall of the vein. The remaining portion of the vein is devoid of sulfides except in the southwest end of the stope where several narrow stringers of sulfides are distributed over a total vein width of 10 feet.

The second shoot lies about 50 feet northeast of the first, and on the adit level the vein between the two ore shoots appears barren (Fig. 2). It is possible that the two ore shoots join above the level. The ore in the northeast shoot extends 90 feet along the drift to the caved area. It is reported that ore was mined for a distance of about 400 feet beyond the cave. This ore is similar to that noted in the first shoot, has a maximum width of 0.5 feet, and is limited to the hanging wall of the vein.

PRODUCTION, SAMPLES, AND ORE RESERVES

Production figures obtained from U. S. Bureau of Mines records are as follows:

Year	Tons Crude Ore	Tons Concentrates	% Pb	% Zn
1908	15 (d)	----	----	53.8
	----	7 (lead)	57.4	----
	385 (m)	70 (zinc)	----	52.5
1909	50 (d)	----	5.6	20.2
	28 (m)	14	11.1	52.0
1910	225 (d)	----	----	50.0
1911	216 (d)	----	----	51.0
	23 (d)	----	2.9	39.5
	58 (m)	29	10.8	43.6
1912	116 (d)	----	----	48.4
	5 (d)	----	43.6	----
	140 (m)	2 (lead)	51.8	----
	" "	45 (zinc)	----	49.3

(d) ---direct shipping ore
(m) ---milling ore

During 5 years of continuous operation, 1259 tons of ore were mined with a metal content as follows: Gold--9.69 oz., Silver--564 oz., Lead--29,009 lbs., and Zinc--769,637 lbs. These totals do not include the metal loss incurred in milling operations.

Three samples were taken at the time of examination (See Fig. 2).

No.	Width	Description	% Pb	% Zn
M-556	0.4'	High grade streak on hanging wall above winze	20.	37.9
M-557	4.0'	Full vein width 25' SW. of adit	<0.1	0.05
M-558	----	Grab sample of stope fill at cave in NE. drift	<0.1	0.05

All ore in that part of the mine accessible for examination has been mined, and there are no reserves.

CONCLUSIONS AND RECOMMENDATIONS

Observations made during this examination are not entirely in accord with information secured from those purportedly familar with the property at the time of operation. It is reported that development work in the caved portion of the northeast drift was following a 4 to 5 foot vein of high grade sphalerite, and that large bodies of this ore remain in the mine. An average production of about 250 tons per year, of which 200 tons were direct shipping ore, in a mine employing 10 men does not confirm this allegation. Also a statement in the "Inspectors Mine Records" of 1911, Vol. 13 (Under Joplin), Page 36, to the effect that the vein width was 1 to 20 feet, averaging 5 feet, and that half the vein filling was smelting ore and half milling ore does not check with production figures or the observations made during this examination.

There is no geologic evidence that large bodies of high grade sphalerite ore remain in the Gabenta mine, or that the mine will ever be more than an extremely small producer of hand sorted ore.

On the basis of available data, it is recommended that the application for a lease (DMEA Docket 2592) be denied.

REFERENCE

Spurr, J. E., and Garrey, G. H., Economic geology of the Georgetown quadrangle, Colorado: U. S. Geological Survey Professional Paper 63, 1908

DMEA 2592

JACK PINE MINING COMPANY
GRANITA MINE
CLEAR CREEK COUNTY, COLORADO

Engineering Report

By C. M. Harper
Mining Engineer
Bureau of Mines

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

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ILLUSTRATIONS

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1. Location map, Jack Pine Mining Company, Gabanta mine, Clear Creek County, Colorado	2
2. Plan of a portion of the mine workings, Gabanta mine, Jack Pine Mining Company, Clear Creek County, Colorado	*
3. Assumed development, Jack Pine Mining Company, Gabanta mine, Clear Creek County, Colorado	8

* See figure following Geologic Report.

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

ENGINEERING REPORT

By C. M. Harrer

INTRODUCTION

D. V. Watrous, president of the Jack Pine Mining Company, a Colorado corporation, has applied for a Defense Minerals Exploration Administration loan of $16,000.00 to rehabilitate about 300 feet of caved workings in the Gabanta mine for examination, and to drift a maximum of 150 feet on the Gabanta vein.

He bases his belief that good zinc ore will be found within and beyond the caved area on the unsubstantiated statements of old residents. There has been no production since 1912.

Field examination of mine workings on the Gabanta claim, survey number 1730, was made July 15, 1952, by the examining team of the Defense Minerals Exploration Administration.

ACKNOWLEDGMENTS

D. V. Watrous, president of Jack Pine Mining Company, accompanied the examining team to the property and served as guide. J. Buxton, of Silver Plume, added his views on the property which he last saw about 1917.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Gabenta claim is in sec. 18, T. 4 S., R. 74 W., Griffith Mining District, Clear Creek County, Colo. (fig. 1), at an altitude of 9,100 feet. The mine portal is about 1 mile west of Georgetown, Colo., and within 1,200 feet of paved U. S. Highway 6.

The terrain is steep and rugged and is part of Republic Mountain. The mine is accessible throughout the year in spite of severe cold and heavy snows. There is no water on the property and it must be obtained from mine workings and Clear Creek in the valley floor.

HISTORY AND PRODUCTION

The Gabenta claim and mine, U. S. survey number 1730, is known locally as the Gambetta claim. It was originally located in 1902. There is no record of production prior to 1908 or after 1912. During the period 1908-12, inclusive, the property had a recorded production of 1,259 tons of sorted ore of which 595 tons were direct shipping zinc ore, 3 tons direct smelting lead ore, and 661 tons were milled both as a lead-zinc bulk concentrate and as lead and zinc concentrates. Production data are incorporated in the following table.

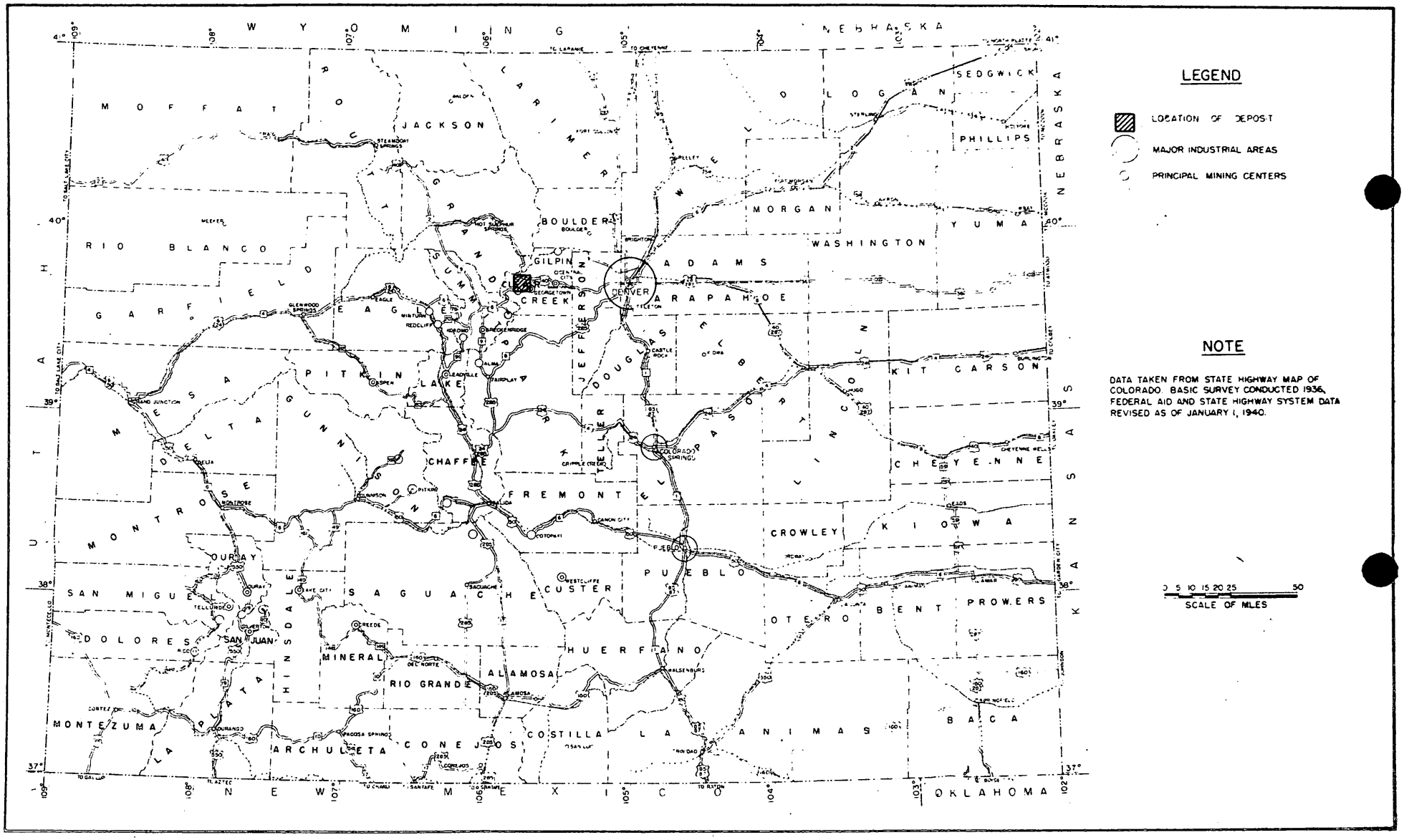


Figure 1. Location Map, Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado, DMRA 2592.

Production Data, Gabanta Claim 1/

Year	Tons Crude Ore	Tons Concentrates	Assays: Ounces per ton Au	Ag	Percent Pb	Zn	Metal Content: Ounces Au	Ag	Pounds Pb	Zn
1908	385	(7 lead	0.083	12.71	57.4	-	0.58	89	8,034	-
		(70 zinc	.031	2.56	-	52.5	2.20	179	-	73,483
	15	-	.020	1.53	-	53.8	0.30	23	-	16,152
1909	28	14	.145	2.79	11.1	52.0	2.03	39	3,120	14,560
	50	-	.060	1.84	5.6	20.2	3.00	92	5,560	20,160
1910	225	-	-	-	-	50.0	-	-	-	225,000
1911	58	29	-	-	10.8	43.6	—	-	6,260	25,302
	23	-	.036	2.96	2.9	39.5	0.82	68	1,350	18,185
	216	-	-	—	-	51.0	-	-	-	220,173
1912	140	(2 lead	.23	20.5	51.8	-	0.46	41	2,070	-
		(45 zinc	-	-	-	49.3	-	-	-	44,337
	3	-	0.10	11.0	43.6	-	0.30	33	2,615	-
	116	-	-	-	-	48.4	-	-	-	112,287
Totals	1,259	167					9.69	564	29,009	769,639

1/ Statistics Branch, Economics Division, Region IV, Bureau of Mines, Denver, Colo.

OWNERSHIP AND EXTENT

The applicant, Jack Pine Mining Company, a Colorado corporation, with offices at 507 Boston Building, Denver, Colo., owns the Gabanta lode claim, U. S. survey number 1730, which is the site of the proposed exploration program. In addition, it owns the East Magenta claim, U. S. survey number 552, to the northeast, and a 2/3 interest in the Turner lode claim, survey number 599, which partly overlaps the East Magenta claim. Each claim covers an area of 150 by 1,500 feet.

DESCRIPTION OF THE DEPOSITS

The Gabanta vein fills a prominent fissure about 4 feet wide in pre-Cambrian granite, gneiss, and schist and strikes northeast with dips steeply to the north, approaching vertical. Walls are clear cut and strong.

An 830-foot crosscut adit intersects the Gabanta vein 630 feet west of the portal (fig. 2 with geologic report and fig. 3). From this junction the vein was drifted on about 300 feet to the southwest and is barren to weakly mineralized with little rock alteration apparent. In addition, the Gabanta vein has been reported developed about 760 feet northeasterly. Exploration northeast of the adit exposes the vein for 330 feet at which point the drift is blocked by a caved stope fill. Examination of stopes and raises was considered too dangerous and observations were restricted to the level or immediately above.

Starting 150 feet northeast of the adit, stoping on an ore shoot was reported[2/] to extend about 400 feet along the vein. It is the

2/ Colorado State Bureau of Mines, Inspectors' mine records, Vol. 13, 1911, p. 36, and Vol. 14, 1912, p. 128, and a letter from W. E. Scott, Jr., Colorado State Commissioner of Mines, dated July 29, 1952

source of past production totaling 1,259 tons of sorted ore, principally sphalerite with some galena. Two ore shoots, which may have been connected above the level, were examined. These form part of the 400-foot section of vein reported stoped. The first exposure and stope northeast of the adit was 75 feet long and apparently extends upwards for several hundred feet. Sphalerite and galena occur in narrow, lenticular, and interrupted bands of high value which are the source of production. Two such streaks of ore remain exposed along the hanging wall of the drift and average about 0.25 foot wide, ranging from knife edge to 0.4 foot. The rest of the vein is brecciated granite, poorly mineralized except in a few places where narrow stringers of sulfides including sphalerite and galena are distributed over the width of the vein.

The second ore shoot to the northeast, which is separated from the first by a 50-foot barren zone, is exposed for 90 feet to the cave. Its extension beyond the cave is indeterminate. Vein characteristics and ore occurrence are a replica of the first ore shoot.

An inaccessible, water-filled winze located 290 feet northeast of the adit intersection has probably developed the vein under the stoped areas. There is no information on this work.

No maps are available on the extent of mine workings northeast of the cave; however, descriptions[3/] indicate that they extend about 430 feet beyond the cave. The end of the mine workings is thus about 150 feet from the end line of the Gabanta claim. Extent of stoping beyond the cave is unknown.

3/ See reference cited in footnote 2.

Old-time residents state that the section of drift beyond the cave exposed considerable high-grade sphalerite left behind when the property was shut down after 1912. Their observations, made about 1918 and based on memory only, are sincere but subject to doubt.

MINEABLE ORE RESERVES

There are no mineable reserves of consequence.

Ore reserves existing beyond the cave and based on hearsay are questionable and cannot be classed on an inferred basis.

SAMPLING

Three character samples were taken and include: a sample of the best ore streaks exposed over a width of 0.4 feet; a 4-foot sample of the Gabanta vein, 25 feet southwest of the adit intersection with the vein; and a sample of stope fill at the cave. Sample locations, descriptions, and assays are shown on figure 3.

PRESENT STATUS

Exploration and Development

The Gabanta claim is developed by 900 feet of adit and crosscuts and about 1,060 feet of drift on the vein, with an unknown footage of raises and stopes including one winze and shaft. The adit and crosscut are accessible for their entire length. The drift on the vein southwest is accessible for its full length of 300 feet and the drift on the Gabanta vein northeast is accessible for 330 feet where it is blocked by a cave of stope fill. It is reported[4] to extend about 430 feet farther northeast, beyond the cave. If this is correct, the end of the

4/ See reference cited in footnote 2.

drift is about 150 feet from the northeast end line of the Gabanta claim.

All stopes and raises are inaccessible and entry without rehabilitation is dangerous. The winze is filled with water and no records of its extent are available.

Mining and Milling Equipment

There is no mining or milling equipment on the property. A frame building, 23 feet by 26 feet by 25 feet, near the portal of the mine is in poor condition. Exploration equipment would be rented. Ore would be trucked to the Mendota mill at Silver Plume, Colo., for gravity concentration. The mill is about 2 miles from the mine.

PROJECT PROPOSALS

D. V. Watrous, president of the Jack Pine Mining Company, proposes to rehabilitate about 300 feet of drift beyond a cave of stope fill to the limits of old mine development. The cave is 330 feet northeast of the intersection of the main crosscut adit with the Gabanta vein. If vein exposures justify further work, it is proposed to drift a maximum of 150 feet northeasterly along the vein. The project is estimated to require 6 months for completion at a cost of $16,000.00.

CONCLUSIONS

The applicant's proposal to explore for sphalerite ore beyond the cave is based on recollections of old residents of the district. Their statements that large bodies of high-grade sphalerite remain in the mine beyond the cave are based on unsubtantiated memories prior to 1918 and are questionable, considering that the property was worked principally for zinc and has been shut down since 1913.

Production records and reported operating conditions do not confirm statements of large reserves of high-grade ores.

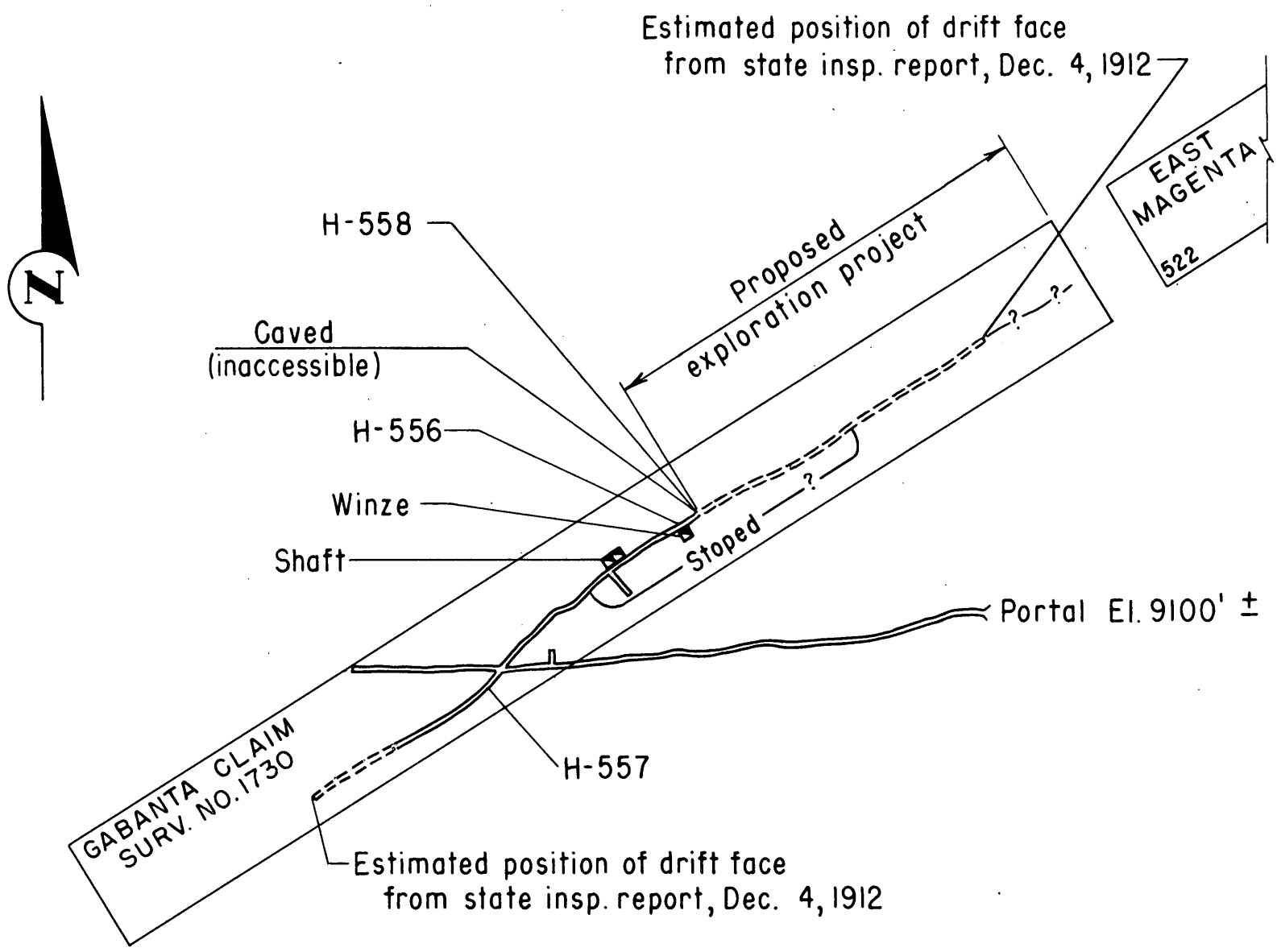
There is no evidence that large bodies of high-grade sphalerite remain.

Drifting on the vein is reported about 150 feet from the end line of the Gabanta claim.

Ore found as a result of the proposed rehabilitation and exploration program would not repay the cost of the project and would not add materially to known reserves of strategic minerals.

RECOMMENDATIONS

The request by Jack Pine Mining Company for $16,000.00 exploration assistance under the Defense Minerals Exploration Administration (docket DMEA 2592) is recommended for denial.



LEGEND

Accessible mine workings

Inaccessible mine workings

SAMPLE DATA

NO.	WIDTH (FEET)	PERCENT LEAD	PERCENT ZINC	DESCRIPTION
H-556	0.4	20.0	37.9	Ore in place.
H-557	4.0	<0.1	0.05	Vein width, 25' SW. of adit.
H-558	Grab	<0.1	0.50	Stope fill at cave.

REFERENCES:

Accessible workings mapped by D.M.E.A. team 7-15-52.
Inaccessible workings plotted from data in the files of W.E. Scott, Colorado State Commissioner of Mines, 7-29-52.

0 200 600

SCALE IN FEET

FIG. 3.-ASSUMED DEVELOPMENT, JACK PINE MINING CO. GABANTA MINE, CLEAR CREEK CO., COLO. DMEA. 2592

C
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P.
Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
Washington 25, D. C.

224 New Customhouse
Denver 2, Colorado

August 21, 1952

Mr. Douglas V. Watrous, President
Jack Pine Mining Company
Idaho Springs, Colorado

2592

Dear Mr. Watrous:

Reference is made to your application for Government aid in exploration work on the Gabanta Mine.

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

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application for Government aid is denied.

Very truly yours,

/s/ John F. Shaw
for W. H. King
Field Team, Region IV

/s/ A. H. Koschmann
A. H. Koschmann
Region IV, Field Team

HMC:jp
cc Actg. Administrator DMEA
WMTraver
Subject
Chron
A.H.Koschmann (2)

DMEA 2592

JACK PINE MINING COMPANY
GARANTA MINE
CLEAR CREEK COUNTY, COLORADO

Engineering Report

By C. M. HARTER
Mining Engineer
Bureau of Mines

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

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* See figure following Geologic Report.

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

ENGINEERING REPORT

By C. M. Harrer

INTRODUCTION

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HISTORY AND PRODUCTION

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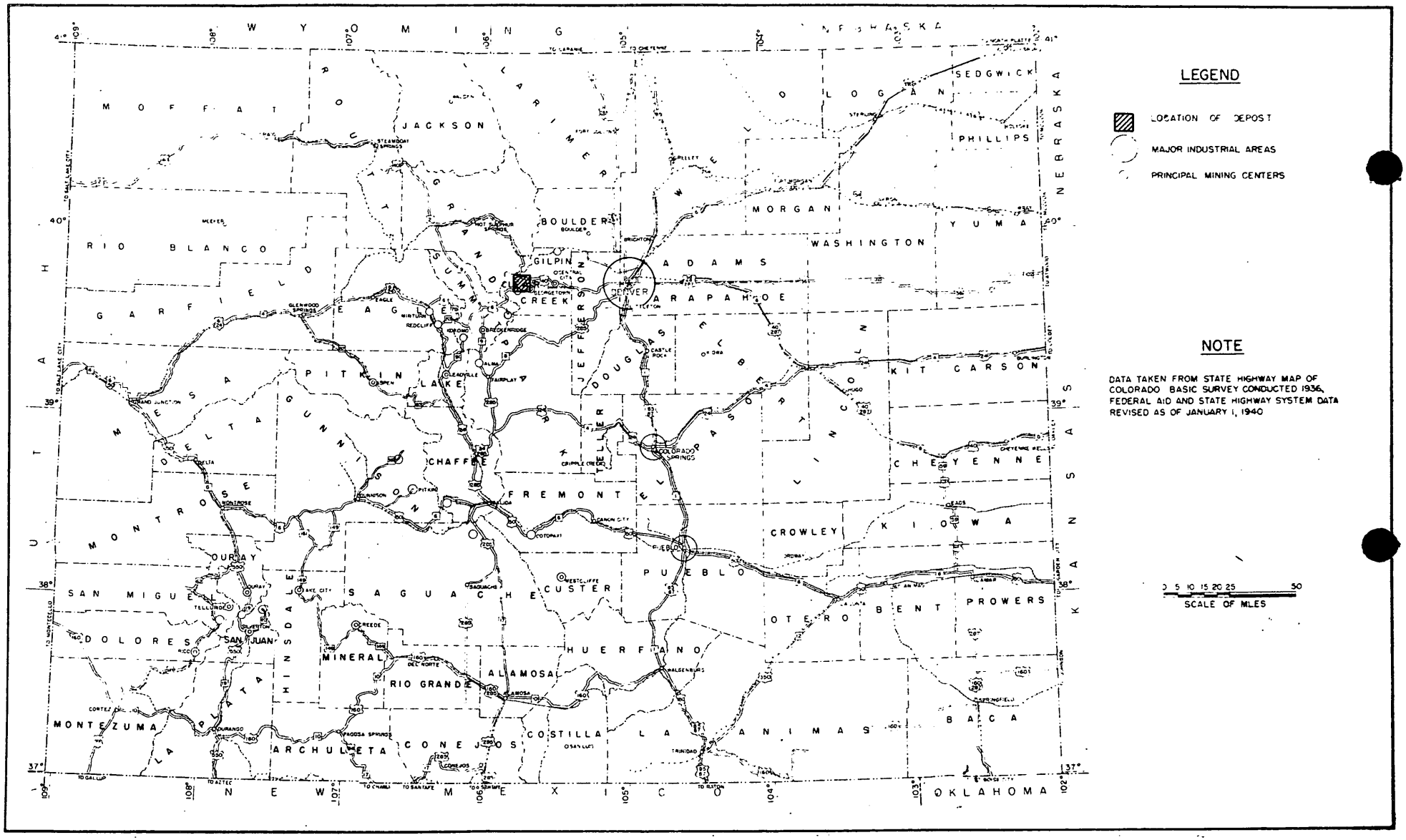

Figure 1. Location Map, Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado, DMEA 2592.

Production Data, Gabbett Stein 1/

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	3	-	0.10	11.0	43.6	-	0.30	33	2,615	-
	116	-	-	-	-	48.4	-	-	-	112,287
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1/ Statistics Branch, Economics Division, Region IV, Bureau of Mines, Denver, Colo.

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An 830-foot crosscut adit intersects the Gabanta vein 630 feet west of the portal (fig. 2 with geologic report and fig. 3). From this junction the vein was drifted on about 300 feet to the southwest and is barren to weakly mineralized with little rock alteration apparent. In addition, the Gabanta vein has been reported developed about 760 feet northeasterly. Exploration northeast of the adit exposes the vein for 330 feet at which point the drift is blocked by a caved stope fill. Examination of stopes and raises was considered too dangerous and observations were restricted to the level or immediately above.

Starting 150 feet northeast of the adit, stoping on an ore shoot was reported[2] to extend about 400 feet along the vein. It is the

2/ Colorado State Bureau of Mines, Inspectors' mine records, Vol. 13, 1911, p. 36, and Vol. 14, 1912, p. 128, and a letter from W. E. Scott, Jr., Colorado State Commissioner of Mines, dated July 29, 1952

source of past production totaling 1,259 tons of sorted ore, principally sphalerite with some galena. Two ore shoots, which may have been connected above the level, were examined. These form part of the 400-foot section of vein reported stoped. The first exposure and stope northeast of the adit was 75 feet long and apparently extends upwards for several hundred feet. Sphalerite and galena occur in narrow, lenticular, and interrupted bands of high value which are the source of production. Two such streaks of ore remain exposed along the hanging wall of the drift and average about 0.25 foot wide, ranging from knife edge to 0.4 foot. The rest of the vein is brecciated granite, poorly mineralized except in a few places where narrow stringers of sulfides including sphalerite and galena are distributed over the width of the vein.

The second ore shoot to the northeast, which is separated from the first by a 50-foot barren zone, is exposed for 90 feet to the cave. Its extension beyond the cave is indeterminate. Vein characteristics and ore occurrence are a replica of the first ore shoot.

An inaccessible, water-filled winze located 290 feet northeast of the adit intersection has probably developed the vein under the stoped areas. There is no information on this work.

No maps are available on the extent of mine workings northeast of the cave; however, descriptions[3/] indicate that they extend about 430 feet beyond the cave. The end of the mine workings is thus about 150 feet from the end line of the Gabanta claim. Extent of stoping beyond the cave is unknown.

3/ See reference cited in footnote 2.

Old-time residents state that the section of drift beyond the cave exposed considerable high-grade sphalerite left behind when the property was shut down after 1912. Their observations, made about 1918 and based on memory only, are sincere but subject to doubt.

MINEABLE ORE RESERVES

There are no mineable reserves of consequence.

Ore reserves existing beyond the cave and based on hearsay are questionable and cannot be classed on an inferred basis.

SAMPLING

Three character samples were taken and include: a sample of the best ore streaks exposed over a width of 0.4 feet; a 4-foot sample of the Gabanta vein, 25 feet southwest of the adit intersection with the vein; and a sample of stope fill at the cave. Sample locations, descriptions, and assays are shown on figure 3.

PRESENT STATUS

Exploration and Development

The Gabanta claim is developed by 900 feet of adit and crosscuts and about 1,060 feet of drift on the vein, with an unknown footage of raises and stopes including one winze and shaft. The adit and crosscut are accessible for their entire length. The drift on the vein southwest is accessible for its full length of 300 feet and the drift on the Gabanta vein northeast is accessible for 330 feet where it is blocked by a cave of stope fill. It is reported[4] to extend about 430 feet farther northeast, beyond the cave. If this is correct, the end of the

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4/ See reference cited in footnote 2.

drift is about 150 feet from the northeast end line of the Gabanta claim.

All stopes and raises are inaccessible and entry without rehabilitation is dangerous. The winze is filled with water and no records of its extent are available.

Mining and Milling Equipment

There is no mining or milling equipment on the property. A frame building, 23 feet by 26 feet by 25 feet, near the portal of the mine is in poor condition. Exploration equipment would be rented. Ore would be trucked to the Mendota mill at Silver Plume, Colo., for gravity concentration. The mill is about 2 miles from the mine.

PROJECT PROPOSALS

D. V. Watrous, president of the Jack Pine Mining Company, proposes to rehabilitate about 300 feet of drift beyond a cave of stope fill to the limits of old mine development. The cave is 330 feet northeast of the intersection of the main crosscut adit with the Gabanta vein. If vein exposures justify further work, it is proposed to drift a maximum of 150 feet northeasterly along the vein. The project is estimated to require 6 months for completion at a cost of $16,000.00.

CONCLUSIONS

The applicant's proposal to explore for sphalerite ore beyond the cave is based on recollections of old residents of the district. Their statements that large bodies of high-grade sphalerite remain in the mine beyond the cave are based on unsubtantiated memories prior to 1918 and are questionable, considering that the property was worked principally for zinc and has been shut down since 1913.

Production records and reported operating conditions do not confirm statements of large reserves of high-grade ores.

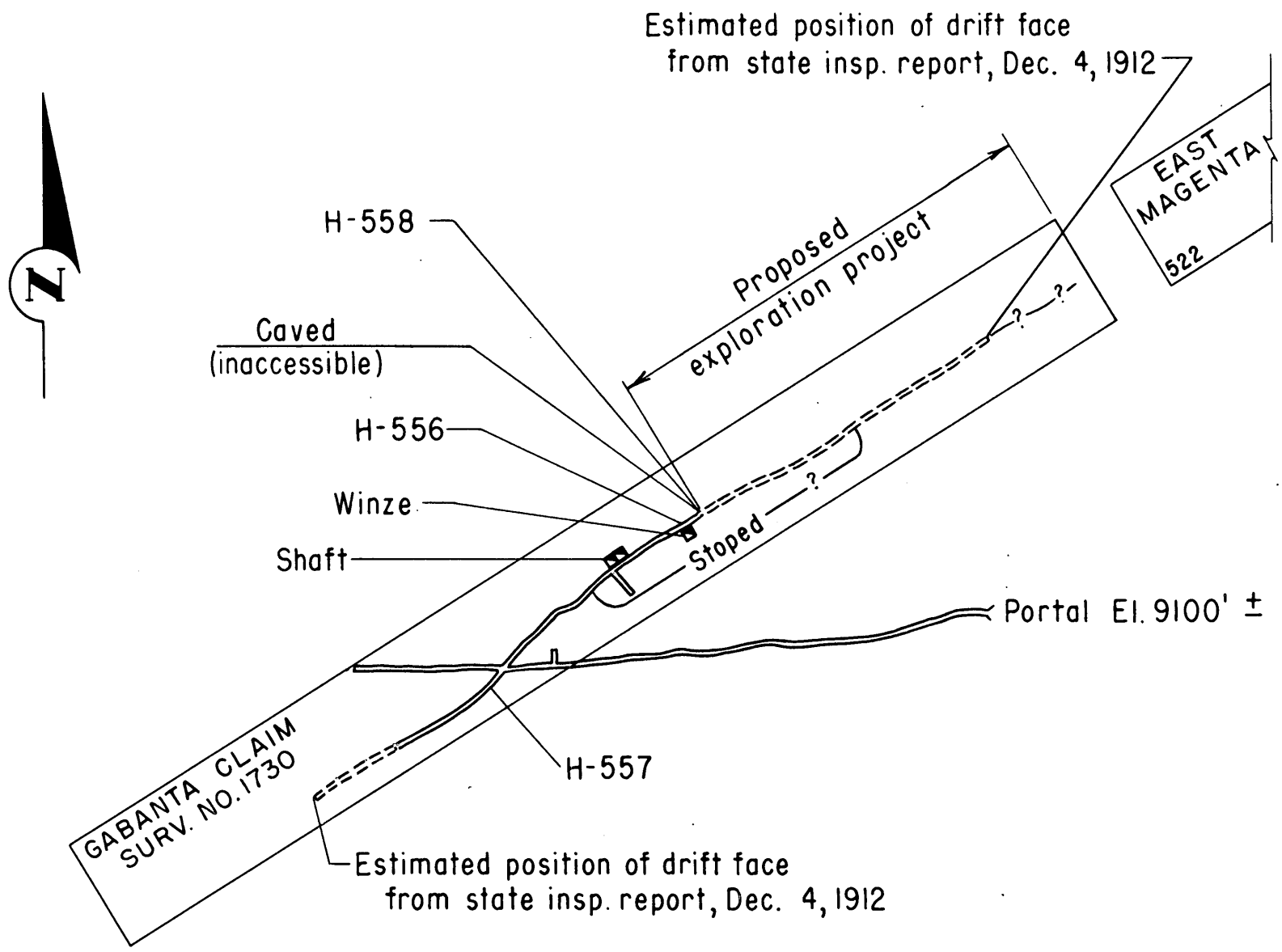
There is no evidence that large bodies of high-grade sphalerite remain.

Drifting on the vein is reported about 150 feet from the end line of the Cabanta claim.

Ore found as a result of the proposed rehabilitation and exploration program would not repay the cost of the project and would not add materially to known reserves of strategic minerals.

RECOMMENDATIONS

The request by Black Pine Mining Company for $16,000.00 exploration assistance under the Defense Minerals Exploration Administration (docket DMEA 2592) is recommended for denial.



LEGEND

Accessible mine workings

Inaccessible mine workings

SAMPLE DATA

NO.	WIDTH (FEET)	PERCENT LEAD	PERCENT ZINC	DESCRIPTION
H-556	0.4	20.0	37.9	Ore in place.
H-557	4.0	<0.1	0.05	Vein width, 25' SW. of adit.
H-558	Grab	<0.1	0.50	Stope fill at cave.

REFERENCES:

Accessible workings mapped by D.M.E.A. team 7-15-52.
Inaccessible workings plotted from data in the files of W.E. Scott, Colorado State Commissioner of Mines, 7-29-52.

0 200 600

SCALE IN FEET

FIG. 3.-ASSUMED DEVELOPMENT, JACK PINE MINING CO. GABANTA MINE, CLEAR CREEK CO., COLO. DMEA. 2592

MR-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-2592
Metal or Mineral
Date Received 6-30-52
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: JACK PINE MINING COMPANY, a Colorado corporation, 507 Boston Building, Denver, Colorado.
D.V. Matrous, President, Idaho Springs, Colorado
R.L. Middlekauff, Vice Pres., 1767 Locust St., Denver, Colo.
W.D. Blood, Secretary-Treasurer, 80 Wm St., Denver, Colo.

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract
Cabanta Lode Claim, U. S. Survey No. 1730; Und. 2/3 Turner Lode Claim, U. S. Survey No. 599; East Magenta Lode Claim, U. S. Survey No. 552; All located in the Griffith Mining District, Clear Creek County, Colorado.

(*b*) State any mine name by which the property is known. Cabanta Mine

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

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

(*e*) If you own the land, describe any liens or encumbrances on it No liens or encumbrances against the land.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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

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

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

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 30 1952

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated ....., 195...

.....
(Applicant)

By.....

.....

.....

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

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

4. (a) and (b). GABANTA MINE. The portal of the Gabanta Mine is located approximately one-half mile from Georgetown, Colorado, and within 400 yards of paved State Highway No. 6. A mine road, in need of repairs, connects the mine with the highway.

The accessible Gabanta workings consist of a crosscut 900 feet long intersecting the Gabanta vein 700 feet from the portal. A drift running in a westerly direction from the intersection for a distance of about 300 feet shows very little ore. However, the drift running in an easterly direction from this intersection shows fair ore in the ceiling, the solid zinc ore being 4 to 5 inches wide in place. A stope starts on the vein about 150 feet from the intersection, and the stoping is more or less continuous to a cave about 250 feet from the intersection. The stopes will average better than 4 feet wide, and the vein shows very strong with excellent walls. The following letter from Mr. George Rowe, of Silver Plume, Colorado, dated October 10, 1949, describes what may be expected in back of this cave:

"Mr. Douglas Y. Watrous,
Denver, Colorado.

"When you were up here several weeks ago you and I talked about the Gabanta Mine, situated on the mountain just above Georgetown. I have thought a lot about this property, as to its background of heavy ore production in the past, and what may be done with it at the present time in bringing it back as a good producer of lead and zinc ores.

"You may remember I could not tell you too much of my personal knowledge of the workings of the mine because of the many years passed since the last major operation there, but I do know and saw heavy wagon loads of solid ore come down that old steep road from the mine. I also knew Barney O'Connell, the man who was mining it at the time, and I think, as most people will tell you who knew him, he was one of the best and most successful men in the district at that time. As you probably have heard, there were several thousand miners working in the mines around here. Everybody made real money in these good old days of mining.

"The one outstanding thing that makes me think well of the property is what I was told by one of our best old-time miners here, a man who passed on about 10 years ago. I think you may remember him, and I am sure your father knew him well; in fact, I think worked for your father in his mines in later years. He was James Mitchell, and a man who knew the mines in this district I think better than anyone else I ever talked with. He was a man who took time to study things out before going into any venture. He had a wonderful memory and helped me a lot in later years as I advanced in the work.

"Mr. Mitchell told me about a good streak of ore in the Gabanta at that time that he was planning to work. He at that time was working the Collins Mine east of town here. This mine had been worked for years and a long tunnel driven, but Jim said to me: 'They have missed a streak of ore back in that wall about 15 feet and I'm going to drive a cross-cut over to it. There was very little to show the reason for this but when he drove his cross-cut there was a streak of solid lead ore 12 in. in width that assayed 70% lead. This is just to illustrate what I think of his judgment; so I always felt sure of what he told me about the Gabanta.

JACK PINE MINING COMPANY

4. (a) and (b). George Rowe letter continued:

"It was several years ago that Mitchell told me of the ore in the Gabanta, and before I got around to personally explore the mine the drift had caved and I could not get to the winze. Now, after a lapse of so much time I can't remember if the ore was in a drift down in that winze or in the main drift inside the winze. I know for sure that this ore was never mined for the reason, in these later years, I was in close contact with all producing mines, as I was in charge of operation of a concentration mill, and doing considerable custom milling. I did not, however, mill any of the ore from the Gabanta, as it was solid ore and could be shipped direct to the smelters. Both the lead and zinc were very high grade, as you can now find by ore scattered around on the dump.

"I think you know this work I am telling you about was many years ago, and the only other work I know of being done was along about the years 1942 to 1944. There were two brothers, Harry and Howard Kaufman, from Empire, Colorado, who from some other source had gathered about the same information that I had in regard to the property, and they had some records and maps showing more detail of the work than I had.

"My opinion, as you find it, was based on the heavy ore that I saw hauled from there many years ago, and what I have mentioned here. Knowing this, and that the mine work was stopped probably rather suddenly while there was still abundance of ore to mine, it could have been market conditions for the ores, especially zinc at that time.

"You know all three of the mines that have been re-opened right here in Silver Plume District have come over the top when it comes to ore production, yet when new interest comes along, and makes investigations as to how much money they have made on the right side of the book, it does not show up well; yet no one knows better than I do that it was not the fault of the mines but entirely the management of operations that is the cause of it all. The mines have done their part. Yet take all these men who have been sitting in the pilot's seat, blaming everything and everybody. 'We can't get good miners, etc.' How about some good managers to go along with it? Guess I better cut off on this before I really get mad, as I usually do, but still want to say there is no doubt that this Gabanta Mine will respond just as these other three or four have in the past ten years. It all depends on how it is done.

"Hoping what little information I have been able to give will at least do justice to the mine.

Yours very truly,

/s/ GEORGE ROWE"

JACK PINE MINING COMPANY

4. (a) and (b). The following information obtained from the State Bureau of Mines gives additional information about the property. The price of zinc in 1911 was 5.6 cents per pound.

"Mine Records: Vol. 13, Page 125. September 14, 1911.

Joplin Tunnel; Claims:

Gabanta	Senator Bailey
Dewey	F. E. Garringer
Senator Carmack	Washington
Little Willie	W. J. Bryan
Joplin	Madge O'Connel
Schley	N. P. Vanek

Work: Vertical 380 Ft.; Horizontal, 1,850 Ft.
Ore Type: Lead, Zinc, Copper Sulphide, Gold, Silver, Talc, Quartz, Granite
Value: $30.00 ton
Labor: 10 men

Inspector's Mine Records: 1911, Vol. 13 (Under) Joplin, Page 36

TITLE:
Gold and Silver Mining Company, Colorado corporation.
Capital stock, $500,000 - Par, $1.00.
Office: 782 New Foster Bldg., Denver, Colorado.
Pres., N. J. Vanek, Joplin, Mo.; Vice-Pres., B. J. O'Connel, Georgetown, Colorado; Secretary-Treasurer, F. C. Garinger, New Foster Bldg., Denver, Colorado.

HISTORY: Original location, 1902. First two years' work intermittent.

TOPOGRAPHY: Elevation, 9,000 feet. No water or timber, 1/4 mile to switch of Colorado & Southern Railroad Co.

GEOLOGY: Granite. Geologic Age - Archean.

ORES - ORE BODIES: Fissure veins. One ore-shoot on Gabanta vein 400' long; vein 1' to 20', average 5'. Length, 800'; height, 450'. Strike, N.E. by S.W. Dip N. 12 known veins in this area, but all work done on Gabanta vein. No values returned for any metal but zinc. Mine is worked for this metal only. Average value of ore, $30 ton. One-half of vein filling is smelting ore; balance of concentrating nature. All ore shipped to Zinc works at Altuna, Kansas.

SURFACE PLANT: Frame building, iron roof, 83'x 26'x 25' east tunnel portal. Small water supply furnished by spring 250' east of tunnel.

EXPLOSIVES: du Pont, 40%, etc. Stores in tunnel 300' east of main tunnel.

MINING METHODS: Main opening is crosscut to tunnel 900' length - 700' from portal Gabanta Vein intersected. Drifts on this vein - east, 500'; west, 300' - 200' from intersection of vein connection made with shaft which is 325' to surface. This shaft properly equipped, good condition, and used for additional exit.

JACK PINE MINING COMPANY

4. (a) and (b). State Bureau of Mines record, continued:

"Tunnel No. 2. 150' length, driven 236' lower down on mountain. All work abandoned on this tunnel, and no connection with main tunnel. All work confined to stoping and extending drifts on Gabana vein. Single hand-drilling employed. Method of timbering in stopes and drifts is stulls covered with lagging.

TRACKAGE: 18" gauge; 8-lb. T. rails.

DRAINAGE: Ventilation good; no noxious gases.

STATISTICS:

Average tonnage per month,	40
Average value,	$30.00
Cost per ton, mining,	13.00
Transportation,	4.50

TOTAL NO. FEET:

Shafts,	380
Tunnels,	1,050
Drifts,	800

Average No. men employed per year, 10

Property is worked continuously, and is a regular producer and paying a regular monthly dividend.

Examination made by W. H. PARENTEAU, September 14, 1911."

4. (c). Fissure vein and granite porphyry. Vein has Northeast-Southwest strike and very strong walls. Stope fill grab samples ran about 2% lead, 5% zinc, 2 oz. silver, and .06 oz. gold per ton. Mine produced around 1910-1911 for the last time. Crude zinc shipments ran about 45% zinc. Last workers in the mine before stope fills caved said that large bodies of zinc ore are still present in the mine, and that the mine shut down because zinc concentrates were bringing only $15.00 per ton.

4. (d). The mine is located one-half mile from Georgetown, Colorado, and within 400 yards of the paved State Highway No. 6. Ore would be shipped for treatment at the Mendota Mill at Silver Plume, Colorado, a distance of two miles. Lead concentrates would be shipped to Leadville, Colorado, a distance of 65 miles. Zinc concentrates would be shipped to Amarillo, Texas.

4. (e). Adequate manpower, materials, supplies, equipment and water are available. Gasoline-powered engines would be used.

5. (a). Zinc and lead.

5. (b). Proposed work consists of spiling through approximately 300 feet of stope fills that have caved to the main haulage drift in order to re-open this drift. This should uncover the ore referred to in 4. (a), (b) and (c). If this ore warrants further development it is then proposed to drift approximately 150 feet on this ore. These stope fills may or may not be milled.

5. (c). Work will start within 30 days and be completed within 6 months from date of contract.

JACK PINE MINING COMPANY

5. (d). D. V. Watrous will supervise operations. He is a graduate of the Colorado School of Mines, Golden, Colorado, and has been active in mining in Clear Creek County for 20 years.

6. (a). None

6. (b).

Class	Hourly rate	Number needed	Total Wages for 6 months	
Timbermen	$1.50	2	$ 4,096.00	
Trammers,	1.50	1	2,048.50	
Supervision,	2.00	1	2,496.00	
Engineering,			500.00	$ 9,080.50

6. (c).

Stull Timber,	2¢ per inch of diameter per linear foot,	250.00	
Lagging Timber,	16' long, 75¢ each	250.00	
Powder,	$23.00 per cwt.	460.00	
Power,	gasoline,	400.00	
Hand tools,		100.00	
Rail, ties, spikes, fishplates,		250.00	
2" Pipe,	1,400' @ 30¢ per ft.	420.00	2,130.00

6. (d).

Rent, 265 cu.ft. Compressor,	3 mos. @ $300.00	900.00	
Rent, mounted jackhammer,	3 " " 90.00	270.00	
Rent, mucking machine,	2 " " 250.00	500.00	
Purchase, 6 tram cars,		600.00	
Purchase, 1 burro		50.00	2,320.00

6. (e).

Rehabilitate change room and blacksmith shop,	200.00	
Rehabilitate road to mine	200.00	400.00

6. (f).

Construct 100-ton ore bin,	1,000.00	1,000.00

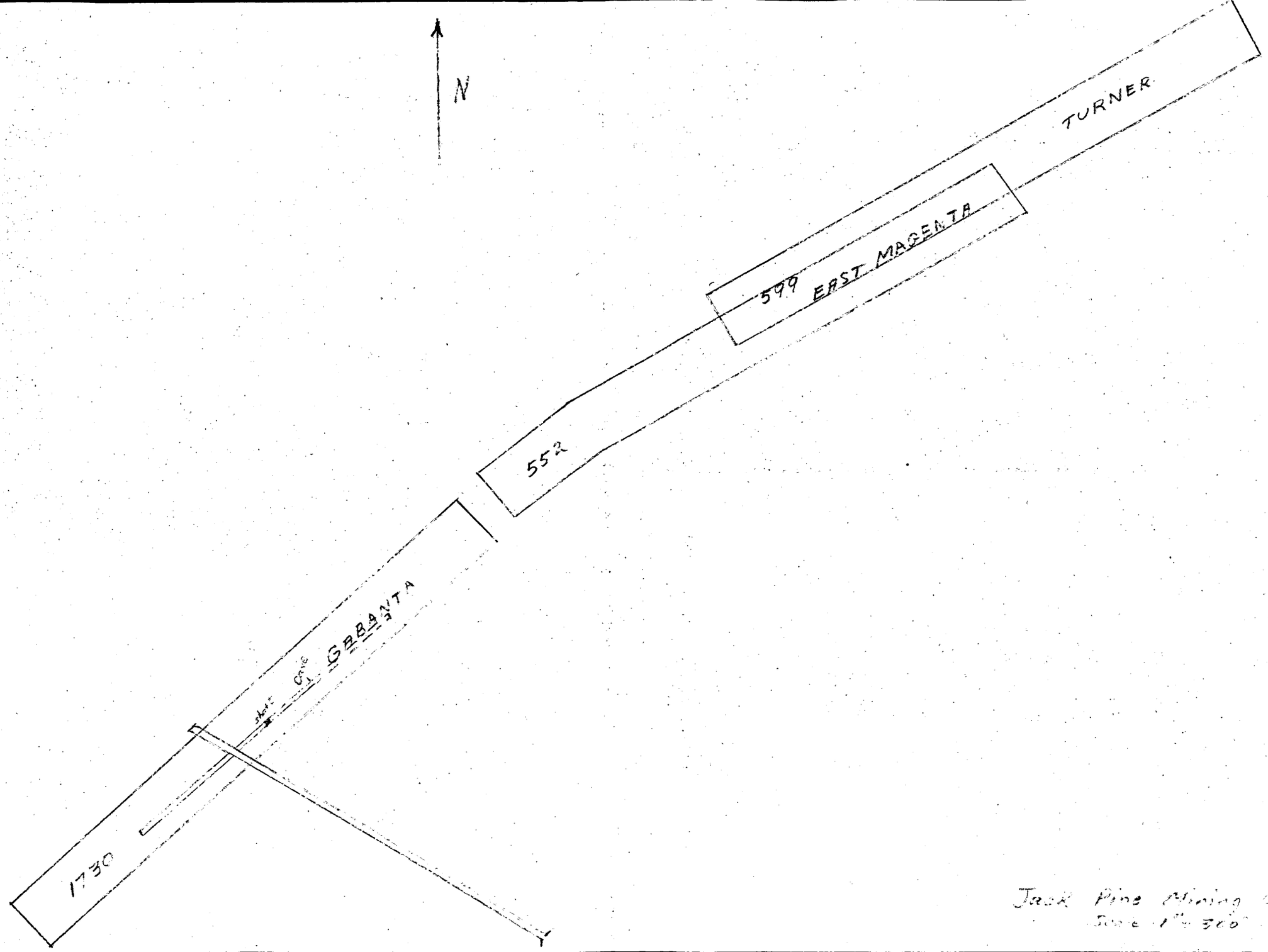
6. (g).

Accounting,	100.00	
Insurance and payroll taxes,	500.00	
Maintenance and repair,	250.00	850.00

6. (h).

Contingencies,	219.50	219.50
		$16,000.00

7. (a). Yes.



Jack Pine Mining Co.
Scale 1" = 300'

GEOLOGICAL SURVEY
E. 157 HOWARD ST.
Spokane 8, Wash.

OFFICIAL BUSINESS

Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Mining Division
Region IV

August 21, 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2592 (Lead-Zinc), Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado

Enclosed are eight copies of the final report on DMEA 2592 by C. M. Harrer of the Bureau of Mines.

Harrer concludes that ore found as a result of the proposed program would not add materially to known reserves of strategic minerals. He recommends denial of the request for exploration assistance in the amount of $16,000.

We concur in this recommendation.

for John F. Shea
W. H. King

Enclosures

[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20
Denver Federal Center
Denver 14, Colorado

August 12, 1952

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Colorado Branch, Mining Division, Region IV

Subject: DMEA 2592 (Lead-zinc), Jack Pine Mining Company, Gabanta mine, Clear Creek County, Colorado

Please find enclosed the original and eight copies of the "Summary, Conclusions, and Recommendations", by E. N. Harshman and C. M. Harrer, and of Harrer's engineering report on the above docket.

The applicant's request for the $16,000.00 loan is based entirely on hearsay, mostly second and third hand. A sample take by the examiners of one exposure of the vein was less than 6 inches wide and, although it proved high in lead and zinc, it is doubtful if reopening the old workings would expose a vein width sufficient to justify mining except on a small scale and at high cost. It is certainly doubtful if the loan would ever be repaid. A sample of the stope fill indicates that, even should it be available in large amount, it would not be of importance economically.

The fact that development would extend the tunnel to within 150 feet of the end line of the Gabanta claim is not objectionable as the applicant owns the property adjoining or could locate a small intervening block between two owned claims.

Harrer recommends denial of the loan request. I concur.

Enclosed also is the brochure furnished with the Region IV Field Team's memorandum of instruction to make the examination.

W. M. Traver, Jr.

W. M. Traver, Jr.

Enclosures

WMT/ban

cc: 8
DMEA 2592
DMEA Chron.

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

200 New Customhouse
Denver 2, Colorado

August 20, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2592, Jack Pine Mining Company, Gabanta Mine, Clear Creek County, Colorado.

Attached are 8 copies of the geological report by E. N. Harshman covering DMEA Docket 2592, Jack Pine Mining Company, Clear Creek County, Colorado.

The applicant has applied for a loan of $16,000.00 to spile through an estimated 300 feet of caved stope fill to gain access to the east face of drift, alledgedly in high grade sphalerite ore, on the Gabanta vein. The Gabanta vein occupies a fissure in pre-Cambrian granite, gneiss, and schist. Along the vein fissure are found 1 to 10 feet of brecciated rock, most of which has been silicified; however, some portions of fault breccia are relatively unaltered. Where exposed in the drift the ore, chiefly sphalerite with small amounts of galena, occurs in narrow stringers and veins up to 0.4 feet wide. Two ore shoots have been mined in the east drift of the Gabanta vein, but during 5 years of continuous operation only 1259 tons of ore were mined.

Harshman concludes that there are no known ore reserves and there is no evidence that large bodies of ore remain in the mine, or that the mine will ever be more than a small producer of hand sorted ore. He, therefore, recommends that the application for a loan be denied.

I concur in this recommendation.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 2992, Jack Pine Mining Company

Gabanta Mine

Clear Creek County, Colorado

Lead-zinc

E. N. Harshman, Geologist
U. S. Geological Survey

C. M. Harrer, Mining Engineer
Bureau of Mines

August 11, 1952

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By E. N. Harshman
Geologist
U. S. Geological Survey

and

C. M. Harrer
Mining Engineer
Bureau of Mines

DMEA 2592

JACK PINE MINING COMPANY
GABANTA MINE
CLEAR CREEK COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By E. N. Harshman and C. M. Harrer

The Jack Pine Mining Company has applied for a Defense Minerals Exploration Administration loan of $16,000.00 to rehabilitate about 300 feet of drift on the Gabanta vein, now inaccessible beyond a cave of stope fill, the extent of which is indeterminate. In addition, it is proposed to drift a maximum of 150 feet beyond the northeast end of old workings, depending on whether vein exposures justify further work.

Representatives of the company base their belief that high-grade zinc ore is to be found beyond the cave on the recollections of old-time residents of the district. Their statements that large bodies of high-grade sphalerite remain in the mine are based on memory and are very questionable considering that the property was worked chiefly for zinc and has been shut down since 1913.

A field examination was made on July 15, 1952.

The Gabanta claim and mine are in sec. 18, T. 4 S., R. 74 W., Griffith Mining District, Clear Creek County, at an altitude of 9,100 feet.

The claim was located in 1902. During its active life, 1908-12 inclusive, production totaled 1,259 tons of ore reported as 595 tons of shipping-grade sphalerite, 3 tons of direct smelting galena ore, and and 661 tons of mill-grade ore.

The Gabenta vein occupies a strong, nearly vertical fissure in pre-Cambrian granite, gneiss, and schist. On the adit level the hanging and footwalls are straight and well defined. They are separated by from 1 to 10 feet of brecciated rock which, for the most part, has been silicified. Exposures of sulfide ore are limited to the east drift of the mine where a high-grade, hanging wall stringer reaches a maximum width of 0.4 feet. Two stopes, respectively 75 and 90 feet long, are separated by 50 feet of barren vein material. From the geological viewpoint, there is little or no reason to believe that the total sulfide content of the vein will increase in the area northeast of the old workings.

Production records and reported operating conditions do not confirm statements of large ore reserves.

Ore found as a result of the proposed program would not repay the cost of the project and would not add materially to known reserves of strategic minerals.

Development on the vein, according to authentic reports, extends to within 150 feet of the end line of the Gabenta claim.

The request by the Jack Pine Mining Company for $16,000.00 exploration assistance under the Defense Minerals Production Act, (docket DMEA 259Z) is recommended for denial.

JACK PINE MINING COMPANY

CADANTA MINE

CLEAR CREEK COUNTY, COLORADO

DMEA DOCKET 2302

Geologic Report

By C. N. Manselman
U. S. Geological Survey

JACK PINE MINING COMPANY
CABANTA MINE, CLEAR CREEK COUNTY, COLORADO

INTRODUCTION

The Jack Pine Mining Company, 765 Boston Building, Denver, Colorado, has applied for assistance in exploring for zinc ore in the Cabanta mine. The company owns 3 patented claims and an undivided two-thirds interest in another, all located in the Griffith Mining District, Clear Creek County, Colorado. The Cabanta mine portal is about half a mile southwest of Georgetown, Colorado, and within 300 yards of U. S. Highway No. 6 (Fig. 1). A dirt road connects the mine with the highway.

The property was examined on July 15, 1952, in company with C. H. Hanna and G. H. Cassell of the U. S. Bureau of Mines.

The Cabanta vein is developed by about 600 feet of crosscuts, 1060 feet of drifts, and an unknown footage of raises, winzes, and stopes. In DMEA Docket 2502, the applicant proposes to spile through an estimated 300 feet of caved stope fill that prevents access to the face of the east drift (Fig. 3). It is alleged that considerable high grade sphalerite ore remains in the area to the northeast of the caved stope fill. The applicants estimate the total cost of the project will be $16,000.

GEOLOGY

The Cabanta vein has been explored along its strike for a distance of about 1060 feet (Fig. 2). It occupies a strong, nearly vertical fissure in pre-Cambrian granite, gneiss, and schist. Striae on the walls indicate

considerable horizontal movement; the amount and direction of movement are unknown. On the adit level the hanging and foot walls are remarkably straight and well defined. Along the fissure are found 1 to 10 feet of brecciated rock, which for the most part has been silicified by mineralizing solutions. Some portions of fault breccia are relatively unaltered, and fresh biotite crystals can be observed.

Examination of the old stopes and raises was considered extremely dangerous and the mine was flooded. Observations of the Cabanto vein were therefore restricted to the adit level.

Two ore shoots have been mined in the east drift on the Cabanto vein. The first or westernmost shoot is about 75 feet long and apparently extends upward for several hundred feet (Fig. 2). Where the ore is exposed in the back of the drift, it consists of a narrow stringer of high grade sphalerite with minor amounts of galena. The ore ranges from a knife edge seam to a maximum width of 0.6 feet, averaging about 0.2 or 0.25 feet. The ore generally occurs on the hanging or northwest wall of the vein. The remaining portion of the vein is devoid of sulfides except in the southwest end of the stope where several narrow stringers of sulfides are distributed over a total vein width of 10 feet.

The second shoot lies about 50 feet northeast of the first, and on the adit level the vein between the two ore shoots appears barren (Fig. 2). It is possible that the two ore shoots join above the level. The ore in the northeast shoot extends 90 feet along the drift to the caved area. It is reported that ore was mined for a distance of about 400 feet beyond the cave. This ore is similar to that noted in the first shoot, has a maximum width of 0.3 feet, and is limited to the hanging wall of the vein.

PRODUCTION, SAMPLES, AND ORE RESERVES

Production figures obtained from U. S. Bureau of Mines records are as follows:

Year	Tons Crude Ore	Tons Concentrates	% Pb	% Zn
1908	15 (d)	----	----	53.0
	----	7 (lead)	57.4	----
	385 (m)	70 (zinc)	----	52.5
1909	58 (d)	----	5.6	20.2
	28 (m)	14	11.1	52.0
1910	225 (d)	----	----	50.0
1911	216 (d)	----	----	51.0
	23 (d)	----	2.9	30.5
	58 (m)	29	10.0	45.6
1912	186 (d)	----	----	48.4
	5 (d)	----	43.6	----
	140 (m)	2 (lead)	51.0	----
	" "	65 (zinc)	----	49.3

(d) ---direct shipping ore
(m) ---milling ore

During 5 years of continuous operation, 1258 tons of ore were mined with a metal content as follows: Gold--0.60 oz., Silver--356 oz., Lead--29,009 lbs., and Zinc--769,637 lbs. These totals do not include the metal loss incurred in milling operations.

Three samples were taken at the time of examination (See Fig. 2).

No.	Width	Description	% Pb	% Zn
M-556	0.4'	High grade streak on hanging wall above glaze	20.	37.9
M-557	4.0'	Full vein width 25' SW. of adit	<0.1	0.03
M-558	----	Grab sample of stope fill at cave in NE. drift	<0.1	0.05

All ore in that part of the mine accessible for examination has been mined, and there are no reserves.

CONCLUSIONS AND RECOMMENDATIONS

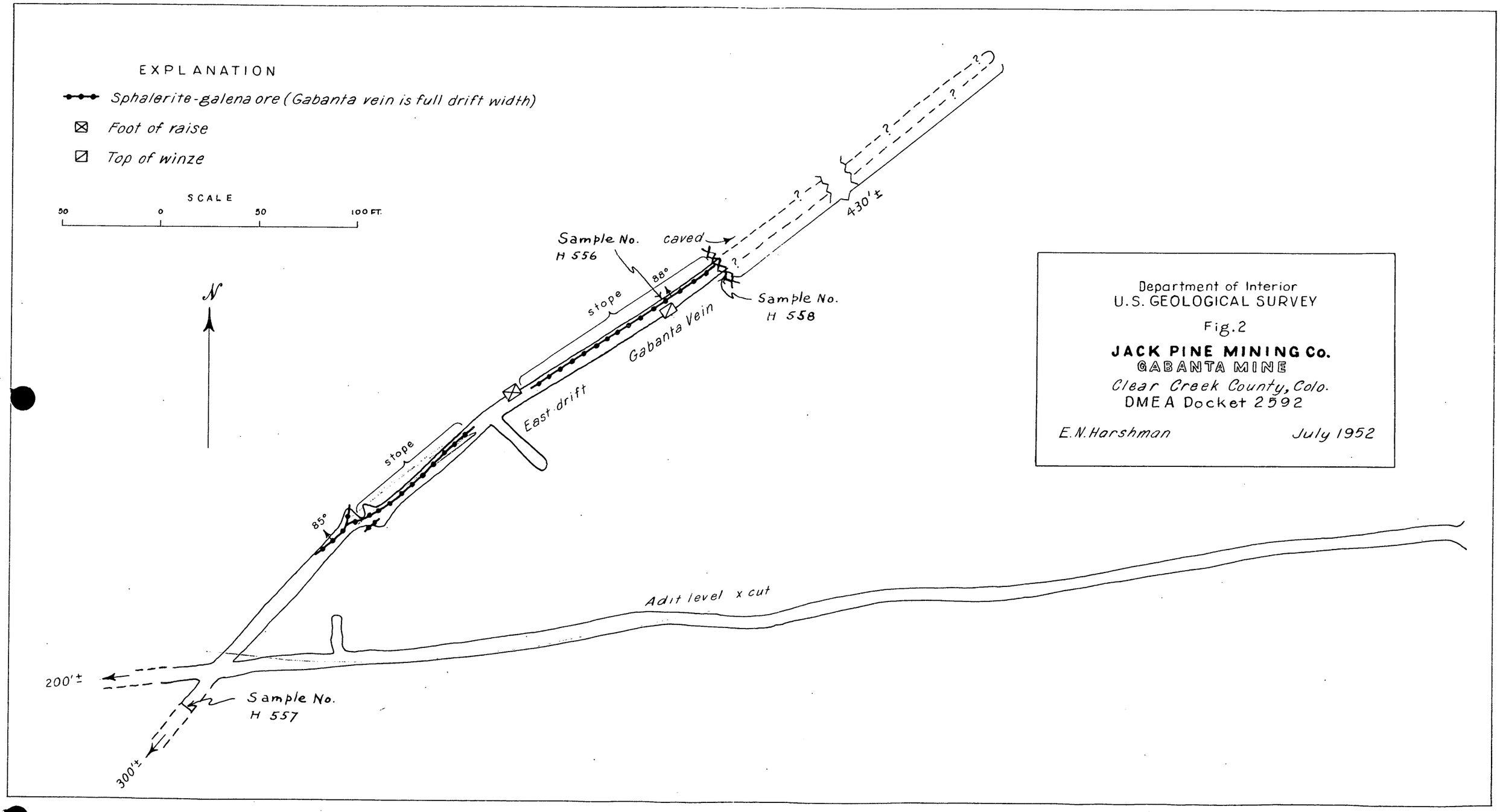
Observations made during this examination are not entirely in accord with information secured from those purportedly familiar with the property at the time of operation. It is reported that development work in the caved portion of the northeast drift was following a 4 to 5 foot vein of high grade sphalerite, and that large bodies of this ore remain in the mine. An average production of about 250 tons per year, of which 200 tons were direct shipping ore, in a mine employing 10 men does not confirm this allegation. Also a statement in the "Inspectors Mine Records" of 1911, Vol. 13 (Under Joplin), Page 36, to the effect that the vein width was 1 to 20 feet, averaging 5 feet, and that half the vein filling was smelting ore and half milling ore does not check with production figures or the observations made during this examination.

There is no geologic evidence that large bodies of high grade sphalerite are remain in the Cabonfa mine, or that the mine will ever be more than an extremely small producer of hand sorted ore.

On the basis of available data, it is recommended that the application for a loan (SBA Docket 2592) be denied.

REFERENCE

Spurr, J. E., and Garrey, G. H., Economic geology of the Georgetown quadrangle, Colorado: U. S. Geological Survey Professional Paper 63, 1908



Department of Interior
U.S. GEOLOGICAL SURVEY

Fig. 2

JACK PINE MINING Co.
GABANTA MINE
Clear Creek County, Colo.
DMEA Docket 2592

E. N. Harshman *July 1952*