MME Form 9
Rev. Mar. 59

UNITED STATES
DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

OFFICIAL DOCKET FILE

Contract No. ~~14-23~~ IdmE V61 Docket No. ~~MME~~ DMEA V70

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [ ] Application and Attachments

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [ ] On-site Exam. Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports

- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

Right Side

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with Transmittal, Narrative and Maps

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty Material

Inactive 1960 (v-13-61)

52615

Docket Copy

TERMINATION OF WORK UNDER AN EXPLORATION PROJECT CONTRACT
BY AGREEMENT

It is agreed this 8th day of July, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Montana Mining Development Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract I-dm-E261, Docket No. DMEA-270X, dated February 19, 1952, that (1) all exploration work under the said contract shall be terminated as of the date first above written.

2. Any work prosecuted or costs incurred by the Operator after the date first above written shall be for the sole account of the Operator, except for (a) such necessary and reasonable costs and expenses as may be incurred in preserving and disposing of any facilities, buildings, fixtures, equipment, or other items, to the cost of which the Government has contributed and in which the Government has an equity, and (b) the costs of any reports, accounts, and winding-up and settlement actions provided for in the contract.

3. The undersigned Operator hereby releases and agrees to save harmless the Government from all claims and demands under or arising out of said Exploration Project Contract, except as herein expressly otherwise provided.

4. The Government's right to a percentage royalty on production and lien for its payment, and all provisions relevant thereto, are preserved with respect to all of the land described in the contract and any production therefrom, in the same manner and to the same extent as if the Government, as of the date first above written, had made its certification of discovery or development as provided in the Exploration Project Contract.

Witness the following signatures as of the day and year first above written.

UNITED STATES OF AMERICA

By C. R. Mitchell
Administrator, Defense Miner
Exploration Administration

DeKoven
Robin
Bramer

MONTANA MINING DEVELOPMENT COMPANY

By W. A. Bolinger Jr. President

Extra Copy

TERMINATION OF WORK UNDER AN EXPLORATION PROJECT CONTRACT
BY AGREEMENT

It is agreed this 8th day of July, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Montana Mining Development Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract I-dm-E261, Docket No. DMEA-270X, dated February 19, 1952, that (1) all exploration work under the said contract shall be terminated as of the date first above written.

2. Any work prosecuted or costs incurred by the Operator after the date first above written shall be for the sole account of the Operator, except for (a) such necessary and reasonable costs and expenses as may be incurred in preserving and disposing of any facilities, buildings, fixtures, equipment, or other items, to the cost of which the Government has contributed and in which the Government has an equity, and (b) the costs of any reports, accounts, and winding-up and settlement actions provided for in the contract.

3. The undersigned Operator hereby releases and agrees to save harmless the Government from all claims and demands under or arising out of said Exploration Project Contract, except as herein expressly otherwise provided.

4. The Government's right to a percentage royalty on production and lien for its payment, and all provisions relevant thereto, are preserved with respect to all of the land described in the contract and any production therefrom, in the same manner and to the same extent as if the Government, as of the date first above written, had made its certification of discovery or development as provided in the Exploration Project Contract.

Witness the following signatures as of the day and year first above written.

UNITED STATES OF AMERICA

By C. O. Mittendorf
Administrator, Defense Minerals
Exploration Administration

MONTANA MINING DEVELOPMENT COMPANY

By _____

copy
1/16/53
Hoffland

No. 3

AMENDMENT OF CONTRACT: No. Idm-E261

Contract Docket No. DMEA 270X, dated February 19, 1952, between the United States of America and Montana Mining Development Company is hereby amended as follows, effective as of the date of said contract:

> Referring to Amendment No. 2, dated July 24, 1952, which voided Amendment No. 1, dated May 14, 1952, void said Amendment No. 2 in its entirety.
>
> Referring to Amendment No. 1 dated May 14, 1952, which amended Article 3, Exploration Project Contract Form MF-200, said Amendment is hereby voided.
>
> Referring to Article "3. Exploration Project" of Exploration Project Contract Form MF-200, following the words "The Operator, within", delete "(60) sixty" and in lieu thereof substitute "(180) one hundred eighty"; and following the words "all properly designed to bring the project to completion within a period of", delete "six (6) months" and in lieu thereof substitute "seventeen (17) months".

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 13 of the contract form.

Dated December 29 1952.

MONTANA MINING DEVELOPMENT COMPANY

By W A Bolinger Jr.
President

UNITED STATES OF AMERICA

By W. H. King
Executive Officer, DMEA
Field Team, Region IV

December 12, 1952

Defense Minerals Exploration Administration
U. S. Department of the Interior
224 New Customhouse
Denver 2, Colorado

Attention: W. H. King

Re: DMEA-270 X Contract Idm-B261

Dear Sir:

The expiration date of the above contract is December 19, 1952, which was one reason that I thought it advisable to discontinue work as of the first of December, but since you have requested that we continue driving the drift under this project, which is agreeable with us, it will be necessary to have an extension of this contract for that purpose until December 31, 1952. On behalf of the Company, I desire to make application for this extension.

The Company would like very much to have the time extended for completing the core drilling under this contract until July 1, 1953, and I am also applying for that extension.

I appreciated very much your calling me and I was sorry that it was impossible for me to contact you personally before deciding to quit on this but did the next best thing and called Mr. Travers' office early Monday morning to report this fact and obtain information about it.

The reason I was discouraged about continuing the extension of this drift was that in the 172 feet that we had driven this drift, we had received no encouragement whatsoever and the work done behind this drift indicates that the defined vein which exists through most of the tenth level of this mine is broken up and that by their previous work they were unable to locate any ore of sufficient value to mine.

There is a very good gamble in this mine which would not require too large an expenditure to develop and I would appreciate it if you would have your men consider the advisability of extending this project to include doing work on this.

At the Y, being the intersection of the drift on the drain on the Ben-Harrison claim and the drainage tunnel from the Lamartine shaft, our Company heretofore made a raise on the vein between the Morgan stope and the Lamphear stope. This raise is 110-20 feet above the tenth level and was done in a substantial manner or of some value

assays showing eight to twenty-eight dollars has been followed in making this raise. On the Morgan stope side of this raise, we did some mining on a vein which had considerable lead ore.

Approximately 200 feet toward the portal from this raise a raise was made to the surface in connection with a boundary line dispute. I have talked with L. Hanchett in Salt Lake City on two occasions, who is the man in charge of making this raise to the surface. He informs me that mineable ore was disclosed practically through the entire length of this raise. By extending this raise 50 to 70 feet, a drift could be made in both directions above the Morgan stope and also above the Lamphear stope.

I understand that ore which appears to be practically solid lead, approximately a foot wide, can be viewed in the top of the Morgan stope at the present time but is inaccessible and that there is also a fair vein of lead ore showing in the top of the Lamphear stope.

The history of these two stopes involves the compromise line which is 205 feet above the tenth level and is probably the reason that mining was not carried on above these stopes.

From looking at a map of the work done on these mining claims, it appears that the owners of the Falcon claim worked up to, and there is some indication into, the portal side of the Ben-Harrison claim and that the owners of the Lamartine claim worked up to the far boundary line of the Ben-Harrison claim and that this work was done primarily above the eighth level.

If this work should be approved, I believe the shaft and any drifting that is done should be as small in size as practicable for doing discovery work which could be enlarged if necessary when paying ore was discovered.

I am enclosing an extra copy of this letter for your convenience in referring it to your engineers if you deem it advisable.

Yours very truly,

H. A. Bolinger, Jr.

HAB:pt

Enclosure

Docket Copy

No. 2

AMENDMENT OF CONTRACT: No. IdmE-261

Contract Docket No. DMEA 270X, dated February 19, 1952, between the United States of America and Montana Mining Development Company is hereby amended as follows, effective as of the date of said contract:

> Referring to Amendment No. 1 dated May 14, 1952, which amended Article 3, Exploration Project Contract Form MF-200, said Amendment is hereby voided.
>
> Referring to Article "3. Exploration Project" of Exploration Project Contract Form MF-200, following the words "The Operator, within", delete "(60) sixty" and in lieu thereof substitute "(180) one hundred eighty"; and following the words "all properly designed to bring the project to completion within a period of", delete "six (6) months" and in lieu thereof substitute "ten (10) months".

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 13 of the contract form.

Dated July 24, 1952.

MONTANA MINING DEVELOPMENT COMPANY

By H.A. Bolinger Jr.
H.A. Bolinger, Jr., Secretary

UNITED STATES OF AMERICA

By W. H. King
Executive Officer - DMEA

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 28 1952

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

224 New Customhouse
Denver 2, Colorado

July 24, 1952

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: Amendment No. 2 to Contract IdmE-261, Docket DMEA 270, Montana Mining Development Company

Enclosed are the original and two copies of Amendment No. 2 to Contract IdmE-261. Copies of this amendment have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

W. H. King

W. H. King

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 28 1952

RECEIVED
JUL 30 1952
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

SDS
7-28-52

Docket Copy
Lead. File

No. 1

AMENDMENT OF CONTRACT: No. IdmE-261

Contract Docket No. DMEA 270K, dated February 19, 1952, between the United States of America and Montana Mining Development Company is hereby amended as follows, effective as of the date of said Contract:

> Referring to Article 3, Exploration Project Contract Form MP-200, captioned "Exploration Project", following the words: "The Operator, within", delete the following: "(60) sixty" and in lieu thereof substitute (120) one hundred-twenty.
>
> Referring to said Article following the words: "all property designed to bring the project to completion within a period of", delete the following: "six (6) months" and in lieu thereof substitute "eight (8) months".

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 13 of the contract form.

Dated May 14, 1952.

MONTANA MINING DEVELOPMENT COMPANY

By W. A. Bolinger Jr.
Secretary

UNITED STATES OF AMERICA

By J. H. Ecc[illegible]
Executive Officer - DMA

DEPARTMENT OF THE ARMY
Defense Materials Administration
RECEIVED
MAY 21 1952

SdS

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

224 New Customhouse
Denver 2, Colorado

May 14, 1952

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: Amendment to Contract IdmE-261, Docket DMEA 270X, Montana Mining Development Company

Enclosed are the original and two copies of an amendment to Contract IdmE-261, Docket DMEA 270X, Montana Mining Development Company. Copies of this amendment have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 19 1952

845

MF-200
(June 1951)

DMA-2701
Docket No. DMA
Commodity Lead-Zinc

Sol

IdmE-261

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DOCKET COPY

EXPLORATION PROJECT CONTRACT [1]

It is agreed this 19th day of February, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Montana Mining Development Company, a Montana corporation
P. O. Box 458
Idaho Springs, Colorado

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Colorado, County of Clear Creek described as follows: [3]

The Ben Harrison and Croesus Lode Mining Claims, U.S. Mineral Survey #6381, in the Trail Creek Mining District.

with respect to which the Operator represents and undertakes: [4]

(~~a) That he is the owner of the following~~ ~~as attached~~:

(b) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within (60) sixty days from the date of this contract shall commence work on a project of exploration for [5] Lead-Zinc; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] six (6) months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. As to equipment purchased for the project, the Government will contribute its agreed pro rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 50 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $7,500.00, which is 50 percent of the agreed estimated total cost of this project, $15,000.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

MONTANA MINING DEVELOPMENT COMPANY
(Operator)

By W. A. Bolinger Jr.

THE UNITED STATES OF AMERICA

By C. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration

Witness
Hotchkiss (Jones)

U. S. GOVERNMENT PRINTING OFFICE 16—[illegible]

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 Clear Creek, State of Colorado, described in a certain Exploration Project Contract dated February 19, 1952, between Montana Mining Development Co., the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated August 23, 1950, 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 15th day of January, 1952.

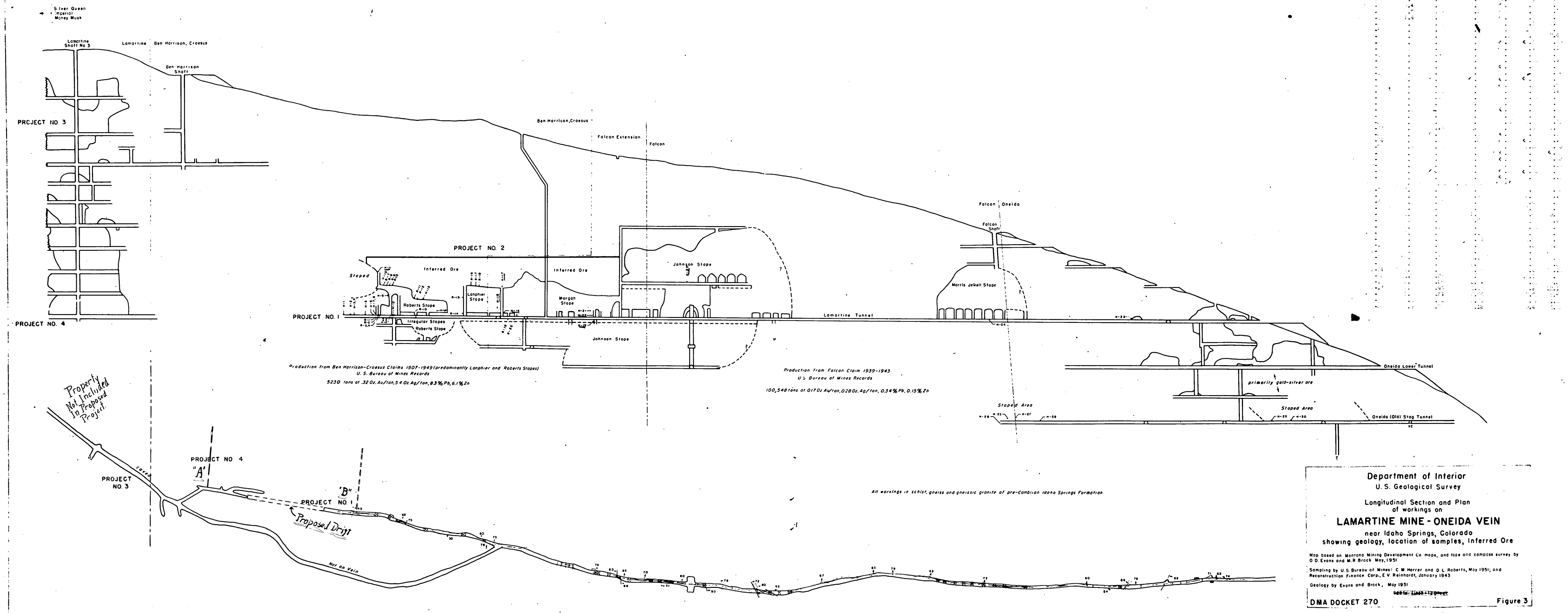
Katherine A. Clark

Charles Armstrong

Grace M. Nolan

DEPARTMENT OF THE INTERIOR
Bureau of Mines
FEB 4 1952

U. S. GOVERNMENT PRINTING OFFICE 840768



Plan of Lamartine Tunnel - 10th Level

EXPLORATION PROJECT CONTRACT
MONTANA MINING DEVELOPMENT COMPANY
DOCKET NO. DMEA-270X

EXHIBIT "A"

Statement of the Work

1. Extend the Ben Harrison - Croesus drift on the Lamartine tenth level along the vein southwesterly to an intersection or to a distance not to exceed 260 feet, the point of beginning being the present face of the drift which is 645 feet from the frog point at the "Y" in the drift.

2. Drill two diamond drill holes totaling 400 feet, each hole to be AX size or larger and approximately 200 feet in depth. These two holes are to be drilled northwesterly into the hanging wall of the Ben Harrison - Croesus drift to explore for possible parallel veins. The holes have been located by mutual agreement between the applicant and Defense Minerals Exploration Administration engineers. One hole has been located at the "Y", point B, and the other is to be drilled from the most advantageous location in the vicinity of point A, the exact location to be determined after an examination of the intersection area.

3. Unwater the Roberts winze and stopes below the Lamartine tunnel tenth level to make these workings available for sampling and geologic study.

Details of Estimated Costs

Fixtures and Improvements

None

Operating Equipment

a) To be purchased

1	Rock drill complete with necessary accessories	$973.00

b) To be rented

		Estimated rental per month	Estimated rental for 3 months
1	Mucking machine	$220.00	$660.00
1	Air pump for unwatering Roberts winze and stope	34.00	102.00
			$762.00

Operating Equipment (continued)

c) To be furnished by Operator

Monthly allowances are computed on a depreciation basis and allowed only when the items of equipment are used for the benefit of the project.

		Present Value	Allowance per month	
1	425 c.f.m. Ingersoll-Rand compressor, Imperial type 10, electric drive, 75 horsepower, General Electric induction type motor, 440 volt	$4,200.00	$ 70.00	
1	Storage battery locomotive with batteries and charger	4,000.00	70.00	
10	Mine cars	1,500.00	25.00	
	Allowance per month		$165.00	
	Allowance for 3 months			$495.00
	Diamond drill equipment	$3,000.00	$ 50.00	
	Allowance for 2 months			100.00
	Allowance for compressor use for one additional month for diamond drilling			70.00
	Total allowance for project			$665.00

If other mining operations are carried on at the same time, the compressor depreciation allowance will be prorated accordingly.

Rehabilitation and Repairs

None

Labor and Supervision

2	miners, one of which will also operate mucking machine	base rate $1.65 per hour, or $13.20 per day
1	trammer	base rate $1.65 per hour, or $13.20 per day
1	motorman	base rate $1.65 per hour, or $13.20 per day
1	diamond drill operator	base rate $2.25 per hour, or $18.00 per day
1	diamond drill helper	base rate $1.65 per hour, or $13.20 per day

The base rate is for an 8-hour day, 40-hour week of 5 days, with overtime allowed at time and one-half for time in excess of the 40 hours per week.

1	superintendent Amount charged per month to be prorated if full time is not spent on project.	$450.00 per month
	Bookkeeping	$ 50.00 per month

Summary of Estimated Costs

Footage charges for drifting and diamond drilling include all labor, supervision, engineering, accounting, sampling, assaying, power, supplies, repairs, pipe, rail, timber, explosives, and transportation.

260 feet of drifting, 6-foot by 8-foot cross section, at $35.00 per foot	$ 9,100.00
400 feet of diamond drilling, AX size or larger, at $8.50 per foot	3,400.00
Allowance for cutting drill station	100.00
Equipment to be purchased	973.00
Equipment to be rented	762.00
Equipment to be furnished by operator	665.00
	$15,000.00

MF-200
(June 1951)

Docket No. DMA DMA-2764
Commodity Lead-Zinc
IdmE-261

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Filed here

EXTRA COPY

EXPLORATION PROJECT CONTRACT [1]

It is agreed this 19th day of February, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Montana Mining Development Company, a Montana corporation
P. O. Box 458
Idaho Springs, Colorado

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Colorado, County of Clear Creek described as follows: [3]

The Jen Harris and Crocus Lode Mining Claims, U.S. Mineral Survey #6361, in the Trail Creek Mining District.

with respect to which the Operator represents and undertakes: [4]

~~(a) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:~~

(b) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within (60) sixty days from the date of this contract shall commence work on a project of exploration for [5] Lead-Zinc; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] six (6) months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. As to equipment purchased for the project, the Government will contribute its agreed pro rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 50 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $7,500.00, which is 50 percent of the agreed estimated total cost of this project, $15,000.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

MONTANA MINING DEVELOPMENT COMPANY

(Operator)

By

THE UNITED STATES OF AMERICA

By Acting Administrator
Defense Minerals Exploration Administration

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

EXPLORATION PROJECT CONTRACT
MONTANA MINING DEVELOPMENT CO.
DOCKET NO. DMEA-270X

EXHIBIT "A"

Statement of the Work

1. Extend the Ben Harrison - Croesus drift along the vein southwesterly about 260 feet, and connect with the nearest workings of the Lamartine No. 3 shaft.

2. Drive two diamond drill holes as indicated on the accompanying map, one near point "A", one near point "B", each hole limited to 200 feet depth and drilled by a contract driller. The "B" hole can be drilled concurrently with the drift. The "A" hole can be finished within a month after the completion of the drifting.

All drifting and diamond drilling is to be done on the Ben Harrison and Croesus Claims.

Changes in the location of drill hole may be authorized by the Government.

The proposed drifting and drill hole locations are shown on the accompanying map.

Summary of Estimated Costs

260 feet of drifting, 6' X 8' cross section at $35/ft.	$ 9,100.00
400 feet of diamond drilling by contract at not to exceed $8.50 per foot	3,400.00
Allowance for cutting two drill stations	500.00
Equipment to be purchased	973.00
Use of equipment furnished by Operator	525.00
Allowance for contingencies	502.00
Total Estimated Cost	$15,000.00

Details of Estimated Costs

Fixtures and Improvements

None

Operating Equipment

To be rented

None

To be purchased

1 Drifter rock drill, 3½"	$ 973.00

To be furnished by Operator

	Estimated Present Value	Allowance for Use
1 - 315 cu. ft. compressor	$ 3,500.00	$ 60.00 per mo.
1 - Storage Battery locomotive with battery & charger	4,000.00	70.00 per mo.
10 - Mine cars	1,500.00	25.00 per mo.
		$155.00 per mo.

Allowance for use for 3 months	$465.00
Allowance for use of compressor only for one additional month	60.00
Total allowance for use for completion of project	$525.00

Labor and Supervision

Rates per day for six day week

2 miners @ $13/day each	$ 26.00
1 mucker	11.70
1 motorman	13.00
1 supervisor	17.00

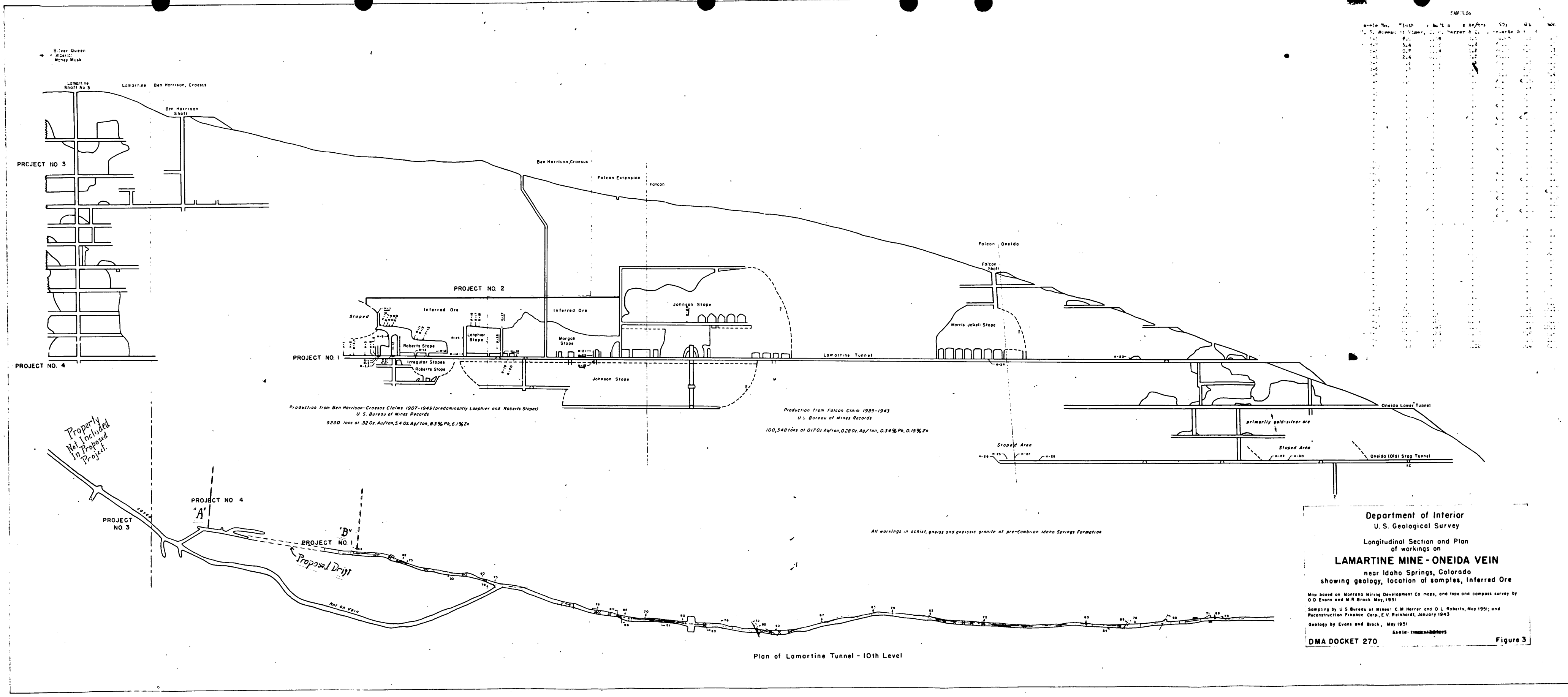
Rehabilitation and Repairs

None

Footage cost for drifting includes all labor, supervision, engineering , accounting, sampling, assaying, bookkeeping, utilities, repairs, pipe, rail and supplies.

The diamond drilling is to be done by contract. The cost per foot of $8.50, includes cost of transportation of equipment, logging of holes, boxing of core and all costs to complete the specified amount of drilling.

To provide for possible under-estimations of these costs, an allowance for contingencies of $502.00 has been included in the total estimated cost for such additional expenses as are necessary to complete the project.


Silver Queen
Imperial
Money Musk
Lamartine Shaft No. 3
Lamartine
Ben Harrison, Crocsus
Ben Harrison Shaft
PROJECT NO 3
PROJECT NO. 4
Ben Harrison, Crocsus
Falcon Extension
Falcon
Falcon
Oneida
Falcon Shaft
PROJECT NO. 2
Stoped
Inferred Ore
Inferred Ore
Johnson Stope
Roberts Stope
Langhier Stope
Morgan Stope
Morris Jewell Stope
PROJECT NO. 1
Irregular Stopes
Roberts Stope
Johnson Stope
Lamartine Tunnel
Production from Ben Harrison-Crocsus Claims 1907-1949 (predominantly Langhier and Roberts Stopes)
U. S. Bureau of Mines Records
5230 tons at 32 Oz. Au/ton, 5.4 Oz. Ag/ton, 8.3% Pb, 6.1% Zn
Production from Falcon Claim 1939-1943
U. S. Bureau of Mines Records
100,548 tons at 0.17 Oz. Au/ton, 0.28 Oz. Ag/ton, 0.34% Pb, 0.15% Zn
Oneida Lower Tunnel
primarily gold-silver ore
Stoped Area
Stoped Area
Oneida (Old) Stoping Tunnel
Property Not Included In Proposed Project.
PROJECT NO 4
"A"
PROJECT NO 3
"B"
PROJECT NO. 1
Proposed Drift
Hot on Vein
All workings in schist, gneiss and gneissic granite of pre-Cambrian Idaho Springs Formation
Department of Interior
U. S. Geological Survey
Longitudinal Section and Plan of workings on
LAMARTINE MINE - ONEIDA VEIN
near Idaho Springs, Colorado
showing geology, location of samples, Inferred Ore
Map based on Montana Mining Development Co maps, and tape and compass survey by O. D. Evans and M. R. Brock May, 1951
Sampling by U. S. Bureau of Mines: C. M. Harrer and D. L. Roberts, May 1951; and Reconstruction Finance Corp., E. V. Reinhardt, January 1943
Geology by Evans and Brock, May 1951
DMA DOCKET 270
Figure 3
Plan of Lamartine Tunnel - 10th Level

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 270

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as
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

To:	Supply Division	Date	AUG 29 1951
To:	Mr. Mittendorf	Date	AUG 30 1951
To:	Gen. Counsel	Date	2/8/52
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

FILE COPY
Surname:

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

N.S. in R.D. March 30, 1954

PROJECT SUMMARY REPORT

By: J. W. Alt

1. Docket No. DMEA-270X (Lead-Zinc)
Contract No. Idm-E261
Property: Lamartine Mine
Location: Clear Creek County, Colorado

Operator: Montana Mining Development Company
P. O. Box 458
Idaho Springs, Colorado

Operator's Property Rights:
Lessee - Lease and Option - dated January 23, 1951
Landlord's Subordination Agreement - dated January 15, 1952

2. Contract dated February 19, 1952, To complete - 6 months

Work Authorized

1. Extend the Ben Harrison-Croesus drift on the Lamartine tenth level to an intersection to a distance not to exceed 260 feet.

2. Drill two diamond drill holes totaling 400 feet. These two holes are to be drilled northwesterly into the hanging wall of the Ben Harrison-Croesus drift to explore for possible parallel veins.

3. Unwater the Roberts winze and stopes below the Lamartine tenth level to make these workings available for sampling and geologic study.

Summary of Estimated Costs:

260 feet of drifting @ $35.00/ft.	$ 9,100.00
400 feet of diamond drilling @ $8.50/ft.	3,400.00
Allowance for cutting drill station	100.00
Equipment to be purchased	973.00
Equipment to be rented	762.00
Equipment to be furnished by Operator	665.00
Total	$15,000.00
Government participation @ 50%	$ 7,500.00

Amendments

No. 1, dated May 14, 1952 - changes commencing time from 60 to 120 days and changes completion time from 6 to 8 months.

No. 2, dated July 24, 1952 - Changes commencing time from 60 to 180 days and changes completion time from 6 to 10 months.

No. 3, dated December 29, 1952 - Changes completion time from 6 to 17 months.

Work Completed

Only item 1 of the contract was completed.

200.4 feet of drifting was completed at a total cost of $8,748.64 or $43.66/ft.

Total cost	$8,748.64
Government participation	$4,374.32

Work on contract was started August 18, 1952 and item 1 was completed in December 1952. Contract was terminated on July 8, 1953.

3. Audit Certificate - dated January 22, 1954

Total cost as billed by contractor	$ 9,138.64
Less: Salvage proceeds on rock drill	215.00
Net cost as claimed by contractor	$ 8,923.64
Exceptions	175.00
Total accepted cost	$ 8,748.64
Government participation	$ 4,374.32

4. Certification date - No certificate of discovery but the so called psudo certification was included in the Termination Agreement dated July 8, 1953.

5. The Field Team states: "In a period of about 4.4 months the Operator completed 200.4 feet of drifting for an average of 45.5 feet per month. The operation was considered efficient and well managed."

Drifting under item 1 of the contract did not result in a significant discovery. The drifting followed small, irregular, intersecting veins contained little lead-zinc mineralization. Quartz with disseminated pyrite made up a major portion of the vein material. Lead and zinc sulfides occured as very small irregular lenses within the veins with some dissemination within the wall rock near the vein intersection.

The Field Team states: "On May 25, 1953, the Operator requested termination of the contract due to lack of sufficient capital to continue. The contract was terminated by mutual agreement on July 8, 1953, wherein the Government established a lien on the property and established its right to a percentage royalty on all production for a period of 10 years, beginning as of the date of the contract."

/s/ Alt

J. W. Alt

JWAlt:ag 4/6/54

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

O.M.E.
DEPARTMENT OF THE INTERIOR
MAY 7 1962
REGION III
DENVER, COLORADO

MAY 2 1962

OFFICIAL FILE COPY
O. M. E
RECEIVED MAY 10 1962

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-270X (Lead-Zinc)
Montana Mining and Development Company
Lamartine Mine
Clear Creek County, Colorado
Contract Idm-E261

DATE		
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Enclosed are two copies of a letter forwarded by us to Miss Katherine A. Clark and Mr. Charles D. Armstrong, both of Canon City, Colorado, signers of a Landlord's Subordination Agreement, dated January 15, 1952, together with Miss Grace M. Robinson, 1610 Boulder St Denver, Colorado, with reference to the subject property.

Also enclosed is a copy of the letter which we request you forward to Miss Robinson if her address in Denver can be ascertained.

In accordance with the recommendation in your April 23 memorandum, the subject docket is being closed on our records.

George C. Selfridge

Enclosures

Selfridge

Letter forwarded 5-7-62
HMC.

ME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/25	[illegible]	500
4/30	[illegible]	140
4/[illegible]	[illegible]	
	App'd. Sol. [illegible]	140
5/2	[illegible]	800
5/2	[illegible]	120
"	Johnson	110
5-2	[illegible]	100
		220

MAY 3 1962

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-270X (Lead-Zinc)
Montana Mining and Development Company
Lamartine Mine
Clear Creek County, Colorado
Contract Idm-E261

Enclosed are two copies of a letter forwarded by us to Miss Katherine A. Clark and Mr. Charles D. Armstrong, both of Canon City, Colorado, signers of a Landlord's Subordination Agreement, dated January 15, 1952, together with Miss Grace M. Robinson, Denver, Colorado, with reference to the subject property.

Also enclosed is a copy of the letter which we request you forward to Miss Robinson if her address in Denver can be ascertained.

In accordance with the recommendation in your April 23 memorandum, the subject docket is being closed on our records.

FROM SOLICITOR
MAY 1 1962
FOR SIGNATURE

George C. Selfridge

(GCS)

Enclosures

GLAult/a
4-25-62
cc to: Director's Reading File
Review Committee
Docket
Code 500

RECEIVED
APR 26 1962
ASST. SOLICITOR
MINERAL RESOURCES

43683

CANON CITY
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1962
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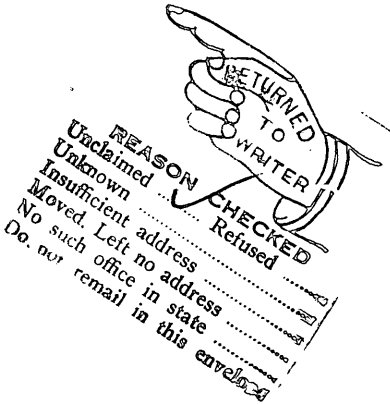
UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
WASHINGTON 25, D. C

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF INTERIOR



Mr. Charles D. Armstrong
Canon City, Colorado

Wm. Gleason
2 28

13

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

270

MAY 2 1962

Miss Katherine A. Clark
Canon City, Colorado

Miss Grace M. Robinson
Denver, Colorado

Mr. Charles D. Armstrong
Canon City, Colorado

Re: DMEA-270X (Lead-Zinc)
Montana Mining and Development Company
Lamartine Mine
Clear Creek County, Colorado
Contract Idm-E261

Dear Misses Clark and Robinson, and Mr. Armstrong:

By the terms of the subject Exploration Project Contract and Paragraph 4 of the "Termination of Work Under an Exploration Project Contract by Agreement," dated July 8, 1953, all minerals mined or produced from February 19, 1952, to February 19, 1962, were subject to the Government's percentage royalty as set forth in said contract.

On January 15, 1952, you signed a Landlord's Subordination Agreement covering certain property in the project area. As the period during which production from that property was subject to royalty has now expired, the Government according to its present records retains no claim or lien against your property or any future production therefrom.

Sincerely yours,

George Fumich, Jr.

Director

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/25	[illegible]	500
4/30	[illegible]	140
5-1	[illegible]	140
	App'd. Sol. Off.	
5/2	[illegible]	800
5/2	[illegible]	120
"	[illegible]	110
5-2	[illegible]	100
		220

MAY 2 1962

Miss Katherine A. Clark
Canon City, Colorado

Miss Grace M. Robinson
Denver, Colorado

Mr. Charles D. Armstrong
Canon City, Colorado

INTERIOR DEPT.
APR 26 1962
SOLICITOR

Re: IMEA-270X (Lead-Zinc)
Montana Mining and Development Company
Lamartine Mine
Clear Creek County, Colorado
Contract Idm-E261

Dear Misses Clark and Robinson, and Mr. Armstrong:

By the terms of the subject Exploration Project Contract and Paragraph 4 of the "Termination of Work Under an Exploration Project Contract by Agreement," dated July 8, 1953, all minerals mined or produced from February 19, 1952, to February 19, 1962, were subject to the Government's percentage royalty as set forth in said contract.

On January 15, 1952, you signed a Landlord's Subordination Agreement covering certain property in the project area. As the period during which production from that property was subject to royalty has now expired, the Government according to its present records retains no claim or lien against your property or any future production therefrom.

Sincerely yours,

FROM SOLICITOR
MAY 1 1962
FOR SIGNATURE

George Fumich, Jr.

Director

RECEIVED
APR 30 1962
[illegible]

GLAult/a
4-25-62
cc to: Director's Reading File
Contract Division
Region III (2)
Docket
Code 500

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code

April 25, 1962

Memorandum to the File

From: W. R. Griswold, Chief
Division of Minerals

Subject: DMEA-270X (Lead-Zinc)
Montana Mining and Development Company
Lamartine Mine
Clear Creek County, Colorado
Contract Idm-E261

The expiration date for payment of royalty in this case was February 19, 1962. Mr. Connors' memorandum, dated April 23, 1962, reports that final examination of this property was completed on April 20, and recommends that the file be closed on this exploration project.

Since the field was advised by note on letter, dated July 1, 1957, that the Montana Mining Development Company ceased operations in December 1953 and the property was abandoned, a release letter has been prepared only to the signers of the Landlord's Subordination Agreement, dated January 15, 1952: Katherine A. Clark, Charles D. Armstrong, and Grace M. Robinson.

W R Griswold

GLAult/a
cc to: Docket

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado

OFFICIAL FILE COPY
O. M. E
RECEIVED APR 25 1962
DATE
4/24 mod 800
" Received 580
220

April 23, 1962

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington 25, D. C.

From: Acting Field Offiver, OME, Region III

Subject: DMEA 270X (Lead-Zinc)
Contract No. Idm-E261
Montana Mining and Development Company
(Lamartine Mine)
Clear Creek County, Colorado
EXPIRATION OF DMEA CONTRACTS PAYING ROYALTY

The final examination of this property was completed on April 20, 1962. The property is idle and I believe no work has been accomplished on the Lamartine Mine since the project was terminated by agreement dated the 8th day of July 1953.

The Humphreys Exploration Company is presently making arrangements to explore the Mc Peek property which joins the Lamartine Claims on the west.

I recommend that the file be closed on this exploration project.

Hugh M. Connors

Hugh M. Connors

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

DMEA
DEPARTMENT OF THE INTERIOR
JUL 8 1957
REGION III
DENVER, COLORADO

July 1, 1957

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Boseman, Montana

Re: Docket DMEA 270X (Lead-Zinc), Contract Idm-E261, Montana Mining Development Company (Lamartine Mine), Clear Creek County, Colorado

Dear Mr. Bolinger:

This office has received information which indicates your company is no longer lessee of property described in the above subject contract.

You are referred to Article 16 of Contract Idm-E261, and hereby requested to submit a statement relative to the status of your lease with the property owners. If the lease has been terminated, please include pertinent data as the owner's mailing addressess and termination date of the lease.

CONTRACT ADMIN
DMEA
RECEIVED JUL 10 1957

DATE	INITIALS	CODE
7-10	C	220
7/10	G.E.P.	800
		225

Very truly yours,

W. H. King
Executive Officer, DMEA
Field Team, Region III

NOTE

The Montana Mining Development Company ceased operations, I believe, in December, 1953. It was in default in terms of its lease and the property was abandoned by it after a chattel mortgage was foreclosed against the equipment. I have no idea as to the present status of the property or its present lessees, if any.

Yours very truly,

H. A. Bolinger, Jr.

WO-2
DMEA/DFC ATTN: TESCH
CORRESP.
SAFE Rec'd

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

July 1, 1957

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Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Bozeman, Montana

Re: Docket DMEA 270X (Lead-Zinc), Contract Idm-E261, Montana Mining Development Company (Lamartine Mine), Clear Creek County, Colorado

Dear Mr. Bolinger:

This office has received information which indicates your company is no longer lessee of property described in the above subject contract.

You are referred to Article 16 of Contract Idm-E261, and hereby requested to submit a statement relative to the status of your lease with the property owners. If the lease has been terminated, please include pertinent data as the owner's mailing addressess and termination date of the lease.

Very truly yours,

Original signed
W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region III

MHM/vj

cc: Royalty File E261
Corres. File E261
Sec. Opr. Comm. (2)
DMEA/DFC (2)
Marshall
Chron.

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

RECEIVED
SEP 1 9 1956

224 New Customhouse
Denver 2, Colorado

September 17, 1956

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Boseman, Montana

Re: Docket DMEA 270X (Lead-Zinc), Contract Idm-E261, Montana Mining Development Company (Lamartine Mine), Clear Creek County, Colorado

Dear Mr. Bolinger:

This office has received information which indicates your company is no longer lessee of property described in the above subject contract.

You are referred to Article 16 of Contract Idm-E261, and hereby requested to submit a statement relative to the status of your lease with the property owners. If the lease has been terminated, please include pertinent data as the owner's mailing addressess and termination date of the lease.

Yours very truly,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

MHM/vj

cc: Royalty File E261
Corres. File E261
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

File Copy
Surname:
J. W. Alt
Chamberlain
Martin
Johnson

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

MAY - 9 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-270X (Lead-Zinc)
Montana Mining Development Co.
Lamartine Mine
Clear Creek County, Colorado
Contract No. Idm-E261

Dear Mr. Traver:

With reference to your memorandum of April 18, 1955, we quote in part, a memorandum from the Acting Assistant Solicitor, Defense Minerals, dated July 2, 1954, in regard to another contract which appears to answer the royalty question raised on this contract.

> "The contract is dated August 7, 1953, is on the short form, and contains a royalty annex which provides that the Operator shall pay royalty "...on all minerals mined or produced from the land described in Article 2 ..." It appears from the correspondence that the ore in question was produced before the date of the contract by stripping operations from land described in Article 2, was stockpiled on land described in Article 2, and after the date of the contract was shipped to a concentrator, blended with ore produced from land not described in Article 2.
>
> "The legal question is whether ore produced before the date of the contract from land described in the contract, and stockpiled on that land, can thereafter be subject to the Government's royalty claim.
>
> "In my opinion, it cannot. I think that the ore was "mined or produced" within the meaning of the contract when it was stockpiled, and that nothing that occurs thereafter can subject it to the Government's royalty claim."

The above quotation substantiates your interpretation of the contract that no royalty payments are due from production of concentrates from dump rock on the subject property.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (S/B)

Enclosures

APPROVED:

C. W. Johnson (S/B)
Member, Bureau of Mines

/s/ R. D. Trace (S/B)
Member, Geological Survey

R.C.S.

JWAlt/er;JLChambers/wb 5/9/55

cc to: Admr. M. Tracy, Base Metals, Mr. Bishop, USBM, Mr. Kiilsgaard, USGS
Chron.

File Copy
Surname
J. M. Alt.
Mr. Arnold

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

500

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-270X (Lead-Zinc)
Montana Mining Development Co.
Lamartine Mine
Clear Creek County, Colorado
Contract No. Idm-E261

Dear Mr. Traver:

With reference to your memorandum of April 18, 1955, we are enclosing 2 copies of a memorandum from the Acting Assistant Solicitor, Defense Minerals, dated May 4, 1955. This memorandum substantiates your interpretation of the contract that no royalty payments are due from production of concentrates from dump rock on the subject property.

Sincerely yours,

Chairman, Operating Committee

Enclosures

JWAlt/er 5/6/55

APPROVED:

Copy to: Adm R. File
Docket
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

Member, Bureau of Mines

Member, Geological Survey

File Copy
Surname
J. W. [illegible]

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

500

April 18, 1955

Memorandum

To: Acting Assistant Solicitor, Defense Minerals

From: Chief, Base Metals Division

Subject: Interpretation of royalties due on Docket No. DMEA-270X, Contract No. Idm-E261, Montana Mining Development Company, Lamartine Mine, Clear Creek County, Colorado (Lead-Zinc)

Will you please give us your interpretation of the Contract and of the Termination Agreement, which contains a pseudo-certification, as to what royalties are due the Government. Please refer to the memorandum, dated April 5, from the Executive Officer, Region III, and to the memorandum, dated April 5, from John T. Shaw, Supervising Mining Engineer.

W. R. Griswold

W. R. Griswold

WRG/er

Copy to: Docket
Base Metals
Chron.

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

224 New Customhouse
Denver 2, Colorado

March 4, 1955

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Boseman, Montana

Re: Royalty payments, DMEA Docket 270X (Lead-Zinc), Contract Idm-E261, Montana Mining Development Company, Lamartine Mine, Clear Creek County, Colorado

Dear Mr. Bolinger:

Reference is made to our previous letter to you dated February 4, 1955, a copy of which is enclosed.

According to our records several shipments of ore were made from the Lamartine Mine upon which royalty is due the United States Government.

If we do not hear from you by April 4, 1955, in answer to these requests for royalty payment, it will be necessary for us to refer this matter to the Washington DMEA office for their appropriate action.

Yours very truly,

W. M. TRAVER

W. M. Traver
Executive Officer
DMEA Field Team, Region III

Enclosure

RDB:la

Copy to: Royalty File [illegible]
J. F. [illegible]
T. A. Christensen
Sec. Opr. Comm. ( )
R. D. Beckenkotter
Chron

224 New Customhouse
Denver 2, Colorado

February 4, 1955

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Bozeman, Montana

Re: DMEA Docket 270X (Lead-Zinc),
Contract Idm-E261
Montana Mining Development Company
Lamartive Mine
Clear Creek County, Colorado

Dear Mr. Bolinger:

According to "Termination Agreement" of Contract Idm-E261, dated July 9, 1953, the Government's right to a percentage royalty on production from the Ben Harrison and Croesus Lode Mining claims, U. S. Mineral Survey No. 6381, is preserved as though a "Certification of Discovery" had been issued.

Royalty payments are therefore due on all production from the above mentioned claims from the date of Contract Idm-E261, February 19, 1952. The method of royalty calculation is fully explained in Article 10 of the enclosed copy of DMEA Order 1 - Amended.

Please send us four copies of all settlement sheets pertaining to ore shipments from this property since February 19, 1952. Any royalty payments due from this production should be paid by check sent to Executive Officer, DMEA, Region III, Room 224, New Customhouse, Denver 2, Colorado. Checks should be made payable to the Defense Minerals Exploration Administration.

Yours very truly,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

RDB:pw

cc: Sec.Op.Comm. (2)
Royalty File E261
Shaw
Christensen
Berkenkotter
Chron

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

224 New Customhouse
Denver 2, Colorado

March 17, 1954

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region IV

Subject: Docket DMEA 270X (Lead-Zinc), Contract Idm-E261, Montana Mining and Development Company, Lambertine Mine, Clear Creek County, Colorado

Enclosed are the following final reports pertaining to work completed under the subject contract:

1. Original and one copy of the operator's final report.

2. Original and three copies of the final geologic report by the U.S. Geological Survey.

3. Original and three copies of the final engineering report by the Bureau of Mines.

Final payment to the operator was processed by this office February 16, 1954, in conformance with the report of review by the Contract Administration and Audit Division dated January 22, 1954.

The exploration work consisted of 204.5 feet of drifting at a total accepted cost of $8,748.64 in which the Government participated to the extent of 50 percent or an amount of $4,374.32.

No significant orebody was discovered as a result of the project work, however the contract was terminated by mutual agreement before completion with the stipulation that repayment of the loan as a percentage royalty is required should the property start production within ten years.

W H King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

NARRATIVE PROGRESS REPORT

Docket No. DMEA -270X
Contract Idm-E261

Operator's Final Report.

This project was started August 18, 1952 and continued until approximately December 31, 1952, when that portion of the project consisting of driving a drift approximately 200 feet was completed. This work was completed when the drift was extended so that it broke through into old workings along the vein.

No ore of sufficient value to mine was discovered in connection with doing this work and no ore was recovered in connection with doing this work.

After filing the last account, which was approved after certain deductions, a reimbursement was due Montana Mining Development Co. of $689.50.

Montana Mining Development Co. has submitted a bid on an Atlas rock drill in which the government participated in purchasing at a cost of $593.00, which bid is in the sum of $215.00, half of which would be due to the government, which should leave a balance owing to the Montana Mining Development Co. of $582.00. Payment of this balance should complete the proceedings under this loan.

MONTANA MINING DEVELOPMENT CO.

By H A Bolinger Jr.
President.

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

COPY

224 New Customhouse
Denver 2, Colorado

March 17, 1954

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region IV

Subject: Docket DMEA 270X (Lead-Zinc), Contract Idm-E261, Montana Mining and Development Company, Lambertine Mine, Clear Creek County, Colorado

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3. Original and three copies of the final engineering report by the Bureau of Mines.

Final payment to the operator was processed by this office February 16, 1954, in conformance with the report of review by the Contract Administration and Audit Division dated January 22, 1954.

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No significant orebody was discovered as a result of the project work, however the contract was terminated by mutual agreement before completion with the stipulation that repayment of the loan as a percentage royalty is required should the property start production within ten years.

/s/ W. H. King

/s/ A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
3-26-54
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

February 16, 1954

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 270, Montana Mining Development Company, Lamartine Mine, Clear Creek County, Colorado

Attached are 9 copies of the final geologic report covering DMEA Docket 270, Lamartine Mine, Montana Mining Development Company, Clear Creek County, Colorado.

Only the first stage of the exploration program outlined in contract Idm-E261 was completed. On May 25, 1953, the operator made a formal written request that the contract be terminated. This request was approved.

No significant ore body was discovered; however, the exploration program was not completed, and geologic objectives of stages 2 and 3 of the exploration program have not been reached. MacLaren, therefore, recommends that the lien against the property as set forth in paragraph 4 of the cancellation agreement be continued until the program is completed.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

Reviewed by
DMEA OPERATING COMMITTEE
3-26-54
(date)

MONTANA MINING DEVELOPMENT COMPANY

LAMARTINE MINE

CLEAR CREEK COUNTY, COLORADO

DMEA DOCKET 270

FIELD TEAM
FINAL REPORT

Final Geologic Report

Reviewed by
DMEA OPERATING COMMITTEE
3-26-54
(date)

By D. R. MacLaren
U. S. Geological Survey

MONTANA MINING DEVELOPMENT COMPANY
LAMARTINE MINE
CLEAR CREEK COUNTY, COLORADO

INTRODUCTION

The Montana Mining Development Company, under the terms of contract Idm-E261, dated February 19, 1952, was authorized by the DMEA to explore for lead and zinc in the Lamartine mine, Trail Creek mining district, Clear Creek County, Colorado. The mine, 6 miles west of Idaho Springs, Colorado, is in secs. 1 and 2, T. 4 S., R. 74 W; sec. 6, T. 4 S., R. 73 W., and sec. 31, T. 3 S., R. 73 W., 6th Principal Meridian. The program, estimated to cost $15,000, of which the Government's share was 50% or $7,500, consisted of three separate operations or stages, as follows:

1. Extend the Ben Harrison-Croesus drift on the Lamartine tenth level about 260 feet.
2. Drill two diamond drill holes a total of 400 feet, each hole to be about 200 feet deep.
3. Unwater the Roberts winze and stopes below the tenth level to permit sampling and geologic study of the lower workings.

The work started August 18, 1952, and the first stage was completed January 6, 1953, at which time further work was recessed until spring. In a letter dated February 9, 1953, the operator requested that instead of completing the contract as provided for in stages 2 and 3, he be allowed to explore in the Stag tunnel. This request was denied. On March 16, 1953, the operator stated that he would prefer to have the contract terminated, rather than continue the work as provided for in this contract. The Bureau of Mines recommended that at least the drilling under stage 2 be completed before considering termination. On May 25, 1953, the operator made a formal

written request that the contract be terminated on the grounds that the company liabilities were far in excess of its assets and that there were no funds available for exploration, that low metal prices made it impossible to interest new capital, and that a large amount of money would be required to reinforce and recondition the tunnel sufficiently for safe operation. This request was approved and a termination agreement became effective July 8, 1953.

GEOLOGY

The geologic setting of the Lamartine mine is described by O. D. Evans of the U. S. Geological Survey in the original geologic report, DMA Docket 270. The rocks of the area are pre-Cambrian in age and consist of gneiss, schist, and pegmatite of the Idaho Springs formation, intruded by Silver Plume granite. The Oneida vein, toward the east side of the property, strikes northeast for about 3,800 feet and dips vertically to steeply northwest. Joining the Oneida vein at the southwest end is the Lamartine vein which strikes east and dips vertically to steeply north. Beyond the west end of the Lamartine vein which is about 4,000 feet long, the R. E. Lee vein strikes northeast and dips vertically to steeply northwest, paralleling the Oneida vein. Evans believed the Lamartine was a cross-vein that extended from the Oneida to the R. E. Lee. However, information gained as a result of a subsequent study by Jack Harrison of the U. S. Geological Survey makes Evans' interpretation appear unlikely. The Oneida and the Lamartine veins occupy a continuous S-shaped fissure which, at the west end, dissipates into a stringer-horsetail type structure and dies out before it reaches the R. E. Lee vein. The curve of the main structure is actually made up of a series of small fractures and complementary

cross-fractures.

In the northeast half to two-thirds of the Oneida vein, the ore minerals are essentially pyrite, chalcopyrite, and gold in a gangue of quartz, with practically no galena or sphalerite. Proceeding southwest along the vein, lead and zinc minerals appear in increasing amounts until, near the southwest end of the Oneida vein, where the strike starts its swing eastward, the minerals are largely galena, sphalerite, and silver in a gangue of quartz and carbonate minerals. Large ore shoots have been found in both veins. In the pyrite-gold area, ore shoots range in length from 200 to 700 feet along the drift, while in the lead-zinc-silver area they range from 250 to 500 feet. The R. E. Lee vein, in contrast, is essentially a barren fissure.

EXPLORATION

Originally the Lamartine and Oneida drifts were joined for drainage purposes. A segment of the drift was driven off the vein in order to avoid trepass on property not under control of the operators of that day. The drifting set up under Stage I of Contract Idm-E261 was designed to explore the missing segment. Although no significant ore body was discovered in approximately 240 feet of drifting, many small shoots and veins containing appreciable amounts of galena and sphalerite in a quartz-carbonate gangue were found. Several of these veins and shoots passed into the drift walls. It is quite possible that ore shoots in these veins or in other veins in the walls paralleling the drift were missed.

CONCLUSIONS AND RECOMMENDATIONS

Although no significant ore body was discovered as a result of this

partially completed project, it is concluded that there is a good chance that the drift may have followed the less favorable fractures, and that some of the mineralized veins that passed into the walls may lead to ore bodies. This could best be determined by a series of drill holes, 15 to 20 feet deep, at intervals along both walls of the drift. No new information has been acquired that would alter in any way the conditions upon which stages 2 and 3 were based. As the operator is unable or unwilling to continue the program, it is recommended that the Government continue its lien against the property as set forth in paragraph 4 of the cancellation agreement as long as possible, or until the program is completed.

Mining Division
Dare Herd
MAR 1[illegible] 1954
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
March 11, 1954

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 27OX, Contract Idm-E261 (Lead-zinc), Montana Mining Development Company (Lamartine mine), Clear Creek County, Colorado.

Enclosed are the original and eight copies of W. L. Dare's final engineering report on the above contract.

The contract was terminated by mutual agreement before completion, with the stipulation that repayment of the loan as a percentage royalty is required should the property start production within 10 years. This is the same as if a certification of discovery or development had been made.

Dare considers the two uncompleted stages more worthwhile than the one stage completed.

W. M. Traver

W. M. Traver

Enclosures

cc (8)
E 261
Chron.

WMT/ici

Reviewed by
DMEA OPERATING COMMITTEE
3-26-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

FINAL ENGINEERING REPORT

DMEA 270X, Exploration Project Contract Idm-E261

Lamartine Mine

Montana Mining Development Company

Clear Creek County, Colorado

Lead - Zinc

W. L. Dare, Mining Engineer
Bureau of Mines

March 1, 1954

Reviewed by
DMEA OPERATING COMMITTEE
3-26-54
(date)

DMEA 270X
Contract Idm-E261

LAMARTINE MINE
MONTANA MINING DEVELOPMENT COMPANY
CLEAR CREEK COUNTY, COLORADO

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Location, history, production, and ownership..... 2
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Work completed under contract..... 3
Expenditures..... 5
Efficiency of operation..... 5
Equipment..... 5
Conclusions and recommendations..... 6

ILLUSTRATIONS

Figure — Follows Page

1. Location map, Lamartine mine, Montana Mining Development Company, Trail Creek mining district Clear Creek County, Colorado..... 2
2. Plan of Lamartine tunnel level, showing completed drifting, Lamartine mine, Clear Creek County, Colo.... 3

DMEA 270X
Contract Idm-E261

LAMARTINE MINE
MONTANA MINING DEVELOPMENT COMPANY
CLEAR CREEK COUNTY, COLORADO

FINAL ENGINEERING REPORT

By

W. L. Dare

SUMMARY AND INTRODUCTION

The Montana Mining Development Company entered into Exploration Project Contract Idm-E261 with the Defense Minerals Exploration Administration on February 19, 1952. The contract provided Government financial assistance for the exploration of lead and zinc at the Lamartine mine, Trail Creek Mining District, Clear Creek County, Colo.

The contract outlined a three-phase exploration program. The operator completed only the first phase, that of drifting 200.4 feet along an unexplored section of the Oneida vein on the Lamartine 10th level. Project drifting did not result in a significant discovery.

Total costs of the project, after settlement of jointly purchased equipment, and as approved by the Contract Administration and Audit Division, amounted to $8,748.64. Government participation amounted to 50 percent, or $4,374.32.

The contract was terminated by mutual agreement on July 8, 1953, wherein the Government established a lien on the property and right to a percentage royalty on all production beginning as of the effective date of the contract.

Reserves above the Lamartine tunnel, in ground covered by the claims listed in the contract are estimated as 4,000 tons of inferred ore averaging 0.20 ounce gold, 3.0 ounces silver per ton, 6.0 percent lead and 6.0 percent zinc. These reserves are not a result of the project work.

LOCATION, HISTORY, PRODUCTION, AND OWNERSHIP

The Ben Harrison and Croesus claims, both mineral survey No. 6381, are located in sec. 6, T. 4 S., R. 73 W., Trail Creek mining district, Clear Creek County, Colo. (fig. 1). Access to the portal of the Lamartine tunnel is reached from U. S. Highway 6-40, at the west end of Idaho Springs, by 5.7 miles of steep, but well maintained, secondary road which crosses Clear Creek and parallels Trail Creek. The portal is at an elevation of about 9,590 feet.

The two claims were located in 1889 and patented in 1892.

Total past production credited to the Lamartine mine for the period from 1901 to 1950 from records of the Statistics Branch, Mineral Industry Division, U. S. Bureau of Mines, Region IV, is about 131,050 tons averaging 0.37 ounce gold, 5.8 ounces silver per ton, 0.4 percent lead, 0.2 percent zinc, and 0.004 percent copper. Production credited to the Ben Harrison and Croesus claims amounts to 5,230 tons averaging 0.32 ounce gold, 5.4 ounces silver per ton, 8.26 percent lead, 6.14 percent zinc, and 0.2 percent copper.

The Ben Harrison and Croesus claims are owned by Katherine A. Clark of Canon City, Colo., Grace M. Robinson m. Kobius Soll of Denver, Colo., and Charles D. Armstrong Kermatroy, address unknown.

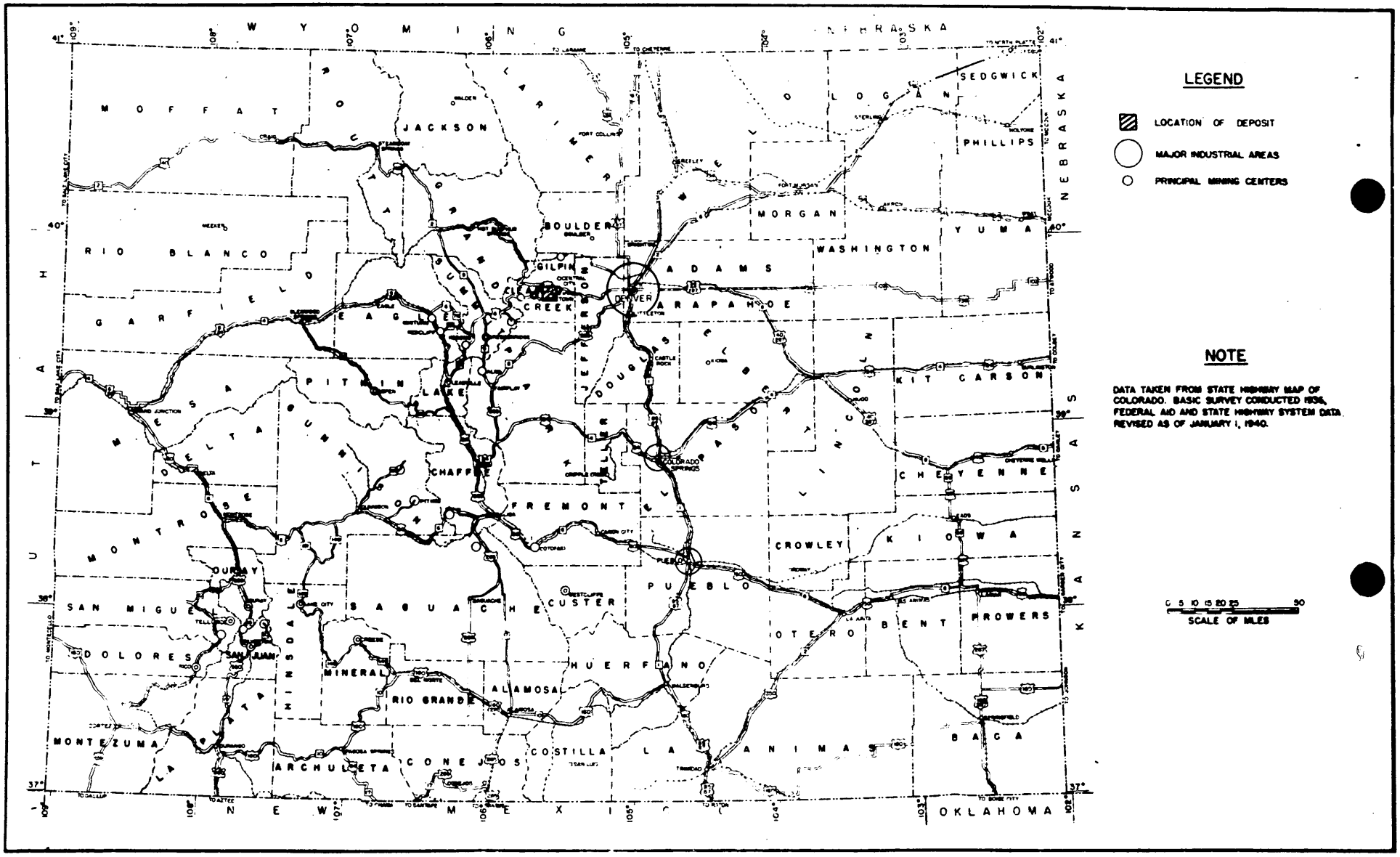

FIGURE 1. - LOCATION MAP, LAMARTINE MINE, MONTANA MINING DEVELOPMENT COMPANY, TRAIL CREEK MINING DISTRICT, CLEAR CREEK COUNTY, COLO. DMA 270, Contract Idm-E261

DESCRIPTION OF THE DEPOSIT

The veins in the Lamartine mine dip steeply through granite, schist, and pegmatite of the Idaho Springs formation. The Lamartine vein, striking east--west, is over 4,000 feet long and forms a diagonal link between the Oneida and R. E. Lee veins striking northeast-southwest. The richest ore shoots in the vein system are in the area of intersecting minor veins near the junction of the Oneida and Lamartine veins.

High-grade ore containing gold, silver, and the sulphides of lead and zinc were mined from these ore shoots during the early period of operation.

Mineralization in the Oneida vein has proven less intense, and the R. E. Lee vein is essentially a barren fissure.

WORK COMPLETED UNDER CONTRACT

The exploration program as outlined in the contract consisted of three stages. The first stage provided a maximum of 260 feet of drifting on the Lamartine 10th level along an unexplored section of the Oneida vein. The second stage provided 400 feet of diamond drilling to explore for possible parallel veins north of the Lamartine vein. The third stage was to unwater the Roberts winze and stopes below the Lamartine 10th level for sampling and geological study.

Work under the first stage began on August 18, 1952, and continued through December 1952. Completed work amounted to 200.4 feet of drifting (fig. 2).

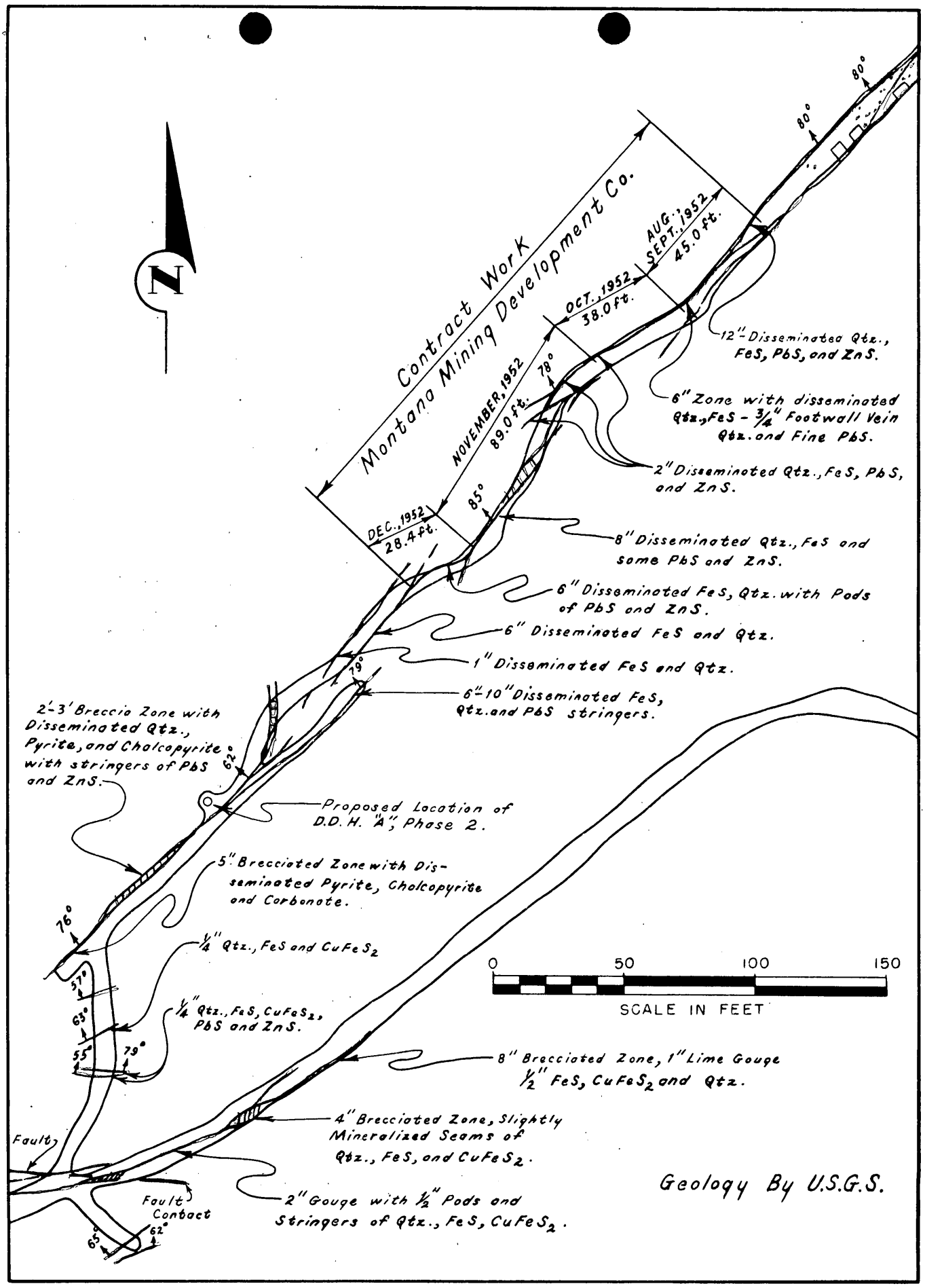

FIGURE 2 - PLAN OF LAMARTINE TUNNEL LEVEL, SHOWING COMPLETED DRIFTING, LAMARTINE MINE, CLEAR CREEK COUNTY, COLO. DMEA 270, CONTRACT Idm E-261

No work was accomplished under either of the two other approved stages.

EXPENDITURES

Drifting was completed under an approved subcontract at a cost of $35.00 per linear foot of advance. Project costs, including equipment rental, depreciation, and purchase of a jack-leg type rock drill, as accepted by the Contract Administration and Audit Division, totaled $8,963.64. Less the accepted salvage value of the jointly purchased drill, total expenditures amounted to $8,748.64. Government participation was 50 percent, or $4,374.32.

The unit cost per foot of drifting averaged $43.66, or fairly close to the estimated cost.

EFFICIENCY OF OPERATION

In a period of about 4.4 months the operator completed 200.4 feet of drifting for an average of 45.5 feet per month. The operation was considered efficient and well managed.

EQUIPMENT

Equipment owned by the operator and used for the benefit of the project consisted of the following:

Item	Allowable Monthly depreciation
1 Ingersoll-Rand, Imperial type 10 compressor with 75--horsepower G.E. electric drive	$70.00
1 1 1/2-ton Atlas battery locomotive with batteries and charger	70.00
10 Mine cars	25.00
Total	$165.00

Equipment rented consisted of an Eimco loader and slusher. The slusher was used during the initial months of the project when a mucking machine was not available for rental.

Equipment purchased under the program consisted of an Atlas rock drill, pneumatic pusher, hoses, and four lengths of drill steel, complete, including taxes, costing $605.06. Final salvage value bid by the operator and accepted by the Government was $215.00.

CONCLUSIONS AND RECOMMENDATIONS

Drifting under the program did not result in a significant discovery. On May 25, 1953, the operator requested termination of the contract due to lack of sufficient capital to continue. The contract was terminated by mutual agreement on July 8, 1953, wherein the Government established a lien on the property and established its right to a percentage royalty on all production for a period of 10 years, beginning as of the date of the contract.

At the time of the original examination, prior to contract negotiations, reserves calculated by the Defense Minerals Exploration Administration examining engineer and geologist, above the Roberts, Lanphier, and Morgan stopes, in ground covered by the Ben Harrison, Croesus, and Falcon Extension claims, amounted to 8,000 tons of inferred ore estimated to average 0.20 ounce gold, 3.0 ounces silver per ton, 6.0 percent lead, and 6.0 percent zinc. On the basis of these calculations, reserves above the Lamartine tunnel level, in ground covered only by the Ben Harrison and Croesus claims are estimated at 4,000 tons of inferred ore with the same average grade.

The second and third stages of the program are still considered worthwhile. The possibility of other veins existing parallel to the Lamartine vein would be determined by the second stage and the third stage would prove or disprove extension of the Lamartine vein with depth.

wld/ici

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

224 New Customhouse
Denver 2, Colorado

February 17, 1954.

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA-270 (Lead-Zinc), Contract No. Idm-E261, Montana Mining Development Company, Lamartine Mine, Clear Creek County, Colorado.

Reference is made to your letter of February 9, 1954 wherein you request advice as to when you may expect to receive the final report by the Operator and the final Field Team report on the subject contract.

The final payment to the Operator was processed in this office February 16, 1954. The engineering and geologic reports necessary for formulating the Field Team report will not be available before some time late in March due to the present heavy work load of the personnel involved.

W. H. King

FILE COPY
SURNAME:

500

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

FEB - 9 1954

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-270 (Lead-Zinc)
Montana Mining Development Co.
Lamartine Mine
Clear Creek County, Colorado
Contract No. Idm-8261

Dear Mr. King:

A review of the above contract, which was terminated on July 8, 1953, shows that in order for us to close the files on this contract we will need the final Field Team report and the final report of the Operator. Will you please advise us as to when we may expect to receive them.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SHB)

APPROVED:

J. H. Hodson

Member, Bureau of Mines (SHB)

A. R. Kinkel, Jr.

Member, Geological Survey (SHB)

JWAlt/bjl (2/5/54)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Kinkel
Mr. Bishop
Chron.

R.G.S.
2-9-54

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
January 26, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: W. L. Dare

Subject: DMEA 270X, Contract Idm-E261 (Lead-zinc), Montana Mining Development Company (Lamartine mine), Clear Creek County, Colorado - Progress report for December 1952

Underground progress at the Lamartine mine for the month of December was checked on January 6, 1953, with George Anderson, manager. At the time of the visit, operations had all but ceased with the exception of mucking out the last round. This last round will terminate the exploratory drifting for the new drift holed through to an old drift to the southwest - the extent allowed by the contract. It so happened that the old drift encountered was not the drift that was expected. At the time of the original examination, the maps available did not show the extent of this drift, although both old drifts ran roughly parallel, about 15 to 20 feet apart, with the most northerly, the one intersected, extending farther to the northeast. This accounts for the difference between the estimated footage of 260 and lower actual footage of 200.4. Note the sketch attached.

On form MF-104A, the operator has shown the total footage as 205.4, whereas the actual footage made was 200.4. The distance of 205.4 is the total distance measured from a wood plug in the wall which was 5 feet from the face when the project started. Anderson was told that, accordingly, the actual footage was then 200.4 feet, but he apparently misunderstood or had forgotten, for the totals shown are 205.4 feet. This means that his footage this month is 28.4 instead of 33.4 and, consequently, the operator has overpaid the subcontractor for 5 feet of advance, or $175.00.

When the new drift was holed through, the bottom was found to be about 7-1/2 feet below the bottom of the old drift. The old workings were not accessible and the operator had not figured the rise in the old workings to be as much as it actually was. This is not too important as, primarily, the drift was exploratory and nothing of value was cut.

Under the second phase of the program, one drill station is tentatively located in a short stub drift in the old drift ahead of the connection, as indicated on the sketch. When the operator starts his drilling operation in the spring, it will not be necessary to take up the bottom of the old drift to even the grade, for the equipment and materials needed for the drilling operation can easily be carried from the end of the track in the new drift to the drill station.

Approval is given the amount of $1,379.00, which is the total reported, $1,554.00, less $175.00. It is recommended that 50 percent of this amount, or $689.50, be reimbursed the operator.

W. L. Dare
Mining Engineer

attachment

WLD/amh

cc: 6
E261
DMEA Chron.

FILE COPY
SURNAME:

Chambers

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

JAN 26 1954

Mr. Donald T. Finch
DMEA Auditor
224 New Customhouse Building
Denver 2, Colorado

Re: Idm-E261, DMEA-270X
Montana Mining and
Development Company
Clear Creek County, Colorado

Dear Mr. Finch:

Receipt is acknowledged of your Report of Review covering the above-cited Exploration Project Contract.

The Report is acceptable and normal distribution of the copies may be made.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

WBorovies/wb
January 26, 1954

Copy to: Docket
Admr. Reading File
Mr. Chambers

Rec'd. 1-26-54

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
January 11, 1954

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: M. H. Salsbury

Subject: DMEA 270X, Contract Idm-8861 (Lead-zinc), Montana Mining Development Company (Lamartine mine), Clear Creek County, Colorado--Disposal of jointly owned property

The contractor on the subject project lists jointly owned drilling equipment to be disposed of to a total of $586.70, original cost. On an inventory made by a Bureau of Mines engineer dated June 3, 1953, the original cost is given as $605.06, or $18.36 more. Most of the difference is in Colorado state sales tax which is included in the Government figures. The inventory amount agrees with the amount allowed by the DMEA inspector in the progress report for April 1953.

The contractor's representative submits three bids, including one for his company, which is the high bid in the amount of $215.00, or 35.5 percent of the original cost of the equipment, $605.06.

On an active market, the equipment would be worth at least 50 percent of the original cost inasmuch as it was used for only 200 feet of drifting. Checking the drill specifications with the local representative, it was found that this model has been superseded by an improved model which tends to reduce the value of the older drill. In addition, the demand locally for mining machinery of this type is very poor at this time.

Because of the above circumstances, it is recommended that the bid of $215.00 by the Montana Mining Development Company for the jointly owned equipment listed be accepted.

M. H. Salsbury
M. H. Salsbury
Mining Engineer

MHS/kp

cc: 7
8861
Chron

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

224 New Customhouse
Denver 2, Colorado

November 10, 1953

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA 270X (Lead-Zinc), Contract Idm-E261, Montana Mining and Development Co., Clear Creek County, Colorado

Enclosed is a copy of a letter dated November 10, 1953 which is self-explanatory of our efforts to resolve matters to enable closing accounts under the subject contract.

W H King
W. H. King

Enclosure

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

224 New Customhouse
Denver 2, Colorado

November 10, 1953

Mr. H. A. Bolinger, Jr., President
Montana Mining and Development Co.
Box 747
Bozeman, Montana

Re: Docket No. DMEA 270X
Contract Idm-E261

Dear Mr. Bolinger:

We are desirous of making final payment and closing our files on Contract Idm-E261 at an early date. In order to do so we first must receive your final report and your proposal in the liquidation of the Government's interest in property acquired under the contract. As to your obligation under the terms of the contract, you are referred to article 17 of Exploration Project Contract Form MF-200 on which Contract Idm-E261 is prepared.

At the time of your visit to this office some time back, you were advised of the procedure to follow in disposing of the rock drill and accessories which were purchased under the contract at a reported cost of $593.00. You assured us at the time that you would expedite matters to enable closing the account.

We will appreciate your attention to the cited matters as soon as possible.

Very truly yours,

W. H. King

W. H. King

E. N. Haushmann

for A. H. Koschmann

DMEA Field Team, Region IV

JWT:jp
cc Contract
Chron
WMTraver
AHKoschmann
JWTownsend
COMittendorf

REA. 913

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

224 New Customhouse
Denver 2, Colorado

September 18, 1953

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA-270X (Lead-Zinc), Contract Idm-E261, Montana Mining Development Co., Clear Creek County, Colorado

Enclosed are the Government, Docket, and Division copies of the "Termination of Work Under an Exploration Project Contract by Agreement" which was executed by you relevant to the subject contract.

Copies of the termination agreement have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

W. H. King

W. H. King

Enclosures

FILE COPY
SURNAME:

500

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

JUL 9 1953

J. W. Alt
Chamberlin
Selfridge
Hedges
Kinkel
Pc

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-270 (Lead-Zinc)
Montana Mining Development Company
Lamartine Mine
Clear Creek County, Colorado
Contract No. Idm-9261

Dear Mr. King:

In response to your letter dated June 9, 1953, please find enclosed the original and five copies of the "Termination of Work under An Exploration Project Contract by Agreement", which have been signed by the Government.

When the termination agreement has been properly executed, please make the usual distribution of the copies.

Sincerely yours,

George C. Selfridge (JWA)
Chairman, Operating Committee

APPROVED:

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

A. R. Kinkel, Jr. (JWA)
Member, Geological Survey

JWAlt/bjl (written 7/3/53)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Bishop
Mr. Kinkel
Chron.

Enclosures 6

R.C.S. 7-9-

COPY

MONTANA MINING DEVELOPMENT CO.
P.O. Box 747
Bozeman, Montana

May 25, 1953

U.S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 270X
Contract Idm-E261

Attention: W.H. King
Executive Officer
Field Team, Region IV

Dear Mr. King:

I am writing this letter to request that the government terminate this contract by mutual agreement, for the reason that the operator is financially unable to proceed with the contract. The liabilities of this corporation are far in excess of its assets, and it has no moneys available at this time to carry on any exploration work.

A second reason for requesting that this contract be terminated is that the decline in metal prices has made it impossible to interest additional capital in going ahead with mining work, and a third reason for requesting this is that it would take a large amount of money to reinforce and recondition the tunnel in this mine back to the point where the exploration work was to be carried on. The condition of this mine would probably make it unprofitable to mine any ore that might be developed as a result of this exploration work.

I can see no reason for the government spending any further money under this contract, and the operator is not in a position to do so.

Yours very truly,

/s/ H.A. Bolinger, Jr.

H.A. Bolinger, Jr.
President

HAB/g

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
June 4, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMA 270X, Contract Idm-E261 (Lead-zinc), Montana Mining Development Company, (Lamartine mine), Clear Creek County, Colorado

Please find enclosed the original and five copies of Scott W. Hazen, Jr.'s memorandum recommending cancellation of the subject contract by mutual agreement, prepared in accordance with your memorandum of May 27, 1953. I am in accord with the recommendation.

Scott W. Hazen Jr.
Scott W. Hazen, Jr., for
W. M. Traver

enclosures

WMT/pam

cc 5
E261
DMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

June 4, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: Scott W. Hagen, Jr.

Subject: DMA 270A, Contract Idm-4261, (lead-zinc) Montana Mining Development Company, (Lamartine mine) Clear Creek County, Colorado

H. A. Bolinger, Jr., president of the subject company, has, by letter dated May 25, 1953, requested termination of Contract Idm-4261 by mutual agreement before completion.

The contract provides for:

1.	260 feet of drifting, at $35.00 per foot	$9,100.00
2.	400 feet of diamond drilling, AX size or larger, at $8.50 per foot	3,400.00
3.	Allowance for cutting diamond drill station	100.00
4.	Equipment to be purchased	973.00
5.	Equipment to be rented	762.00
6.	Equipment to be furnished by operator	665.00
	TOTAL	$15,000.00

The contract also provides for unwatering the Roberts winze to permit sampling of the sublevel drift. Pumping costs were included in compressor operation and equipment rental.

The operator began drifting on August 18, 1952, which was just within the allowable starting time of 6 months, according to Amendment No. 3. After numerous difficulties and delays, drifting was finally completed in December, 1952, at 200.4 feet where the drift holed into the old workings. The distance was less than the original estimate, indicating the old maps were not up-to-date or were inaccurate.

Unwatering of the Roberts winze was partially completed but not completely enough to allow sampling of the bottom of the sublevel. Diamond drilling has not been started.

Expenditures to date amount to $8,963.64, which is subject to final audit. Equipment purchase includes:

1 - Atlas rock drill, pneumatic, Copco Pacific, Ltd., Stock No. RH 656-BW, Serial No. 431682	New	$346.80
1 - Drill pusher, pneumatic, complete. Stock No. BMK 41A2	New	158.10
1 - Complete set of air and water hoses for above.	New	18.36
2 - Pieces Sandvik steel, 2 feet 7 inches	New	39.27
2 - Pieces Sandvik steel, 5 feet 3 inches	New	42.53
TOTAL		$605.06

This includes 2 percent sales tax, thus reducing the amount to about $593.00, which is claimed on the MF-104 forms. Discounting the steel as used and of no particular value, it is doubtful if a bid of more than $200.00 can be obtained for the machine and pusher, but the operator should be requested to obtain bids. This would give a Government equity of $100.00 as the rail and pipe installed are negligible in value compared with the cost of ventilating the mine and the labor cost for recovery.

Belinger has recently requested conversion of the remaining funds, plus additional funds, to change the objectives of the exploration to raising and to consider drifting on the lower Stag level. None of this work was on property covered in the contract, although Belinger claimed he could get agreements on the area. These same two objectives were denied as part of the original application (DMA 270X) and were again denied as a request for additional funds. The unwatering of the Roberts Winze would be necessary to pass on the merits of extending the lower Stag level.

Belinger now admits the lack of funds to continue the contract and desires termination. It is doubtful if much can be gained

by completing the diamond drilling and unwatering the winze. Therefore, it is recommended that the contract be terminated by mutual agreement.

Scott W. Hazen, Jr.
Mining Engineer

SWH:ld

cc: 5
E261
DMEA chron.

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

July 3, 1953

Memorandum

To: Administrator

From: Chief, Base Metals Division

Subject: Justification for Termination of Work under An Exploration Project Contract by Agreement — Docket No. DMEA-270, Contract No. Idm-E261, Montana Mining Development Company, Lamartine Mine, Clear Creek County, Colorado (Lead-Zinc)

In concurrence with the Field Team, this office approves the termination, by agreement, of this contract.

The Operator admits to the lack of funds to continue the work under the contract. The Field Team states that it is doubtful that much can be gained by completing the diamond drilling and unwatering of the winze.

The contract provides for:

1.	260 feet of drifting @ $35.00/ft.	$ 9,100.00
2.	400 feet of diamond drilling, AX size or larger, @ $8.50/ft.	3,400.00
3.	Allowance for cutting diamond drill stations	100.00
4.	Equipment to be purchased	973.00
5.	Equipment to be rented	762.00
6.	Equipment to be furnished by the Operator	665.00
	Total	$15,000.00

The contract also provides for unwatering the Roberts winze to permit sampling of the sublevel drift. Pumping costs were included in compressor operation and equipment rental.

The Operator began drifting on August 18, 1952, which was just within the allowable starting time of 6 months, according to Amendment No. 3. After numerous difficulties and delays, drifting was finally completed in December 1952 at 200.4 feet where the drift holed into the old workings. The distance was less than the original estimate, indicating that the old maps were not up-to-date or were inaccurate.

Unwatering the Roberts winze was partially completed, but not enough to allow sampling of the bottom of the sublevel. The diamond drilling was not started.

Expenditures to date amount to $8,963.64, which is subject to final audit. Equipment purchase includes:

1 -	Atlas rock drill, pneumatic, Copco Pacific Ltd.	New	$346.80
1 -	Drill pusher, pneumatic, complete	New	158.10
1 -	Complete set of air and water hoses for above	New	18.36
2 -	Pieces Sandirk steel, 2 feet 7 inches	New	39.27
2 -	Pieces Sandirk steel, 5 feet 3 inches	New	42.53
		Total	$605.06

The only items of equipment to be considered for re-sale are the Atlas rock drill and drill pusher. The Field Team states that it is doubtful if a bid of more than $200.00 can be obtained for the machine and pusher.

The work done under the terms of the contract did not expose mineralization of any significance.

W. R. Griswold

FILE COPY
SURNAME:

500

J.W. ad.

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

July 3, 1953

Memorandum

To: Administrator

From: Chief, Base Metals Division

Subject: Justification for Termination of Work under An Exploration Project Contract by Agreement — Docket No. DMEA-270, Contract No. Idm-W261, Montana Mining Development Company, Lamartine Mine, Clear Creek County, Colorado (Lead-Zinc)

In concurrence with the Field Team, this office approves the termination, by agreement, of this contract.

The Operator admits to the lack of funds to continue the work under the contract. The Field Team states that it is doubtful that much can be gained by completing the diamond drilling and unwatering of the winze.

The contract provides for:

1.	260 feet of drifting @ $35.00/ft.	$ 9,100.00
2.	400 feet of diamond drilling, AX size or larger, @ $8.50/ft.	3,400.00
3.	Allowance for cutting diamond drill stations	100.00
4.	Equipment to be purchased	973.00
5.	Equipment to be rented	762.00
6.	Equipment to be furnished by the Operator	665.00
	Total	$15,000.00

The contract also provides for unwatering the Roberts winze to permit sampling of the sublevel drift. Pumping costs were included in compressor operation and equipment rental.

The Operator began drifting on August 18, 1952, which was just within the allowable starting time of 6 months, according to Amendment No. 3. After numerous difficulties and delays, drifting was finally completed in December 1952 at 200.4 feet where the drift holed into the old workings. The distance was less than the original estimate, indicating that the old maps were not up-to-date or were inaccurate.

Unwatering the Roberts winze was partially completed, but not enough to allow sampling of the bottom of the sublevel. The diamond drilling was not started.

Expenditures to date amount to $8,963.64, which is subject to final audit. Equipment purchase includes:

1 - Atlas rock drill, pneumatic, Copco Pacific Ltd.	New	$346.80
1 - Drill pusher, pneumatic, complete	New	158.10
1 - Complete set of air and water hoses for above	New	18.36
2 - Pieces Sandirk steel, 2 feet 7 inches	New	39.27
2 - Pieces Sandirk steel, 5 feet 3 inches	New	42.53
	Total	$605.06

The only items of equipment to be considered for re-sale are the Atlas rock drill and drill pusher. The Field Team states that it is doubtful if a bid of more than $200.00 can be obtained for the machine and pusher.

The work done under the terms of the contract did not expose mineralization of any significance.

SIGNED
W. R. Griswold

JWAlt/bjl

Copy to: Docket
Op. Committee
Basc Metals
Chron.

FILE COPY
SURNAME:

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

June 25, 1953

Memorandum

N.S. in R. v R.

To: Chief Counsel

From: Chief, Base Metals Division

Subject: Termination of Contract, Docket No. [illegible]-27[illegible] (Lead-Zinc)
Montana Mining Development Company
Lamartine Mine, Clear Creek County, Colorado
Contract No. Idm-2261

The work of Item 1 of Exhibit "B" of the contract was completed. No work was done on Items 2 and 3.

The work completed in Item 1 did not result in any discovery, but the objective or the target as set forth in Exhibit "B" of the contract was not reached. We cannot state definitely if the completion of this work would have or have not resulted in a discovery. However, to be secure, it might be well to stipulate that the Government retained the privledge of making a certification at a later date if it so desired.

W. W. Griswold

Attachment
JWAlt/hmj
(6/25/53)
CC to: Docket
Base Metals
Chron.

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

224 New Customhouse
Denver 2, Colorado

June 9, 1953

Memorandum

To: C.O. Mittendorf, Administrator, DMEA

From: DMEA Field Team, Region IV

Subject: Docket No. DMA-270X (Lead-Zinc), Contract Idm-E261, Montana Mining Development Company (Lamartine Mine), Clear Creek County, Colorado

Enclosed is the following matter pertaining to the termination of Contract Idm-E261 by mutual agreement after start of work.

1. Three copies of a letter from the operator, dated May 25, 1953, requesting termination of the contract.

2. Three copies of a memorandum report and transmittal thereof, dated June 4, 1953, from the Mineral Resources Branch, Mining Division, Region IV, recommending that the contract be terminated.

We concur in the recommendations that the contract be terminated by mutual agreement.

The matter is forwarded for your consideration and appropriate action.

for John F. Shaw
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

COPY

MONTANA MINING DEVELOPMENT CO.
P.O. Box 747
Bozeman, Montana

May 25, 1953

U.S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 270X
Contract Idm-E261

Attention: W.H. King
Executive Officer
Field Team, Region IV

Dear Mr. King:

I am writing this letter to request that the government terminate this contract by mutual agreement, for the reason that the operator is financially unable to proceed with the contract. The liabilities of this corporation are far in excess of its assets, and it has no moneys available at this time to carry on any exploration work.

A second reason for requesting that this contract be terminated is that the decline in metal prices has made it impossible to interest additional capital in going ahead with mining work, and a third reason for requesting this is that it would take a large amount of money to reinforce and recondition the tunnel in this mine back to the point where the exploration work was to be carried on. The condition of this mine would probably make it unprofitable to mine any ore that might be developed as a result of this exploration work.

I can see no reason for the government spending any further money under this contract, and the operator is not in a position to do so.

Yours very truly,

/s/ H.A. Bolinger, Jr.

H.A. Bolinger, Jr.
President

HAB/g

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
June 4, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMA 270X, Contract Idm-E261 (Lead-zinc), Montana Mining Development Company, (Lamartine mine), Clear Creek County, Colorado

Please find enclosed the original and five copies of Scott W. Hazen, Jr.'s memorandum recommending cancellation of the subject contract by mutual agreement, prepared in accordance with your memorandum of May 27, 1953. I am in accord with the recommendation.

Scott W. Hazen, Jr., for
W. M. Traver

enclosures

WMT/pam

cc 5
E261
DMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

June 4, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: Scott W. Hazen, Jr.

Subject: DMA 270X, Contract Idm-E261, (lead-zinc) Montana Mining Development Company, (Lamartine mine) Clear Creek County, Colorado

H. A. Bolinger, Jr., president of the subject company, has, by letter dated May 25, 1953, requested termination of Contract Idm-E261 by mutual agreement before completion.

The contract provides for:

1.	260 feet of drifting, at $35.00 per foot	$9,100.00
2.	400 feet of diamond drilling, AX size or larger, at $8.50 per foot	3,400.00
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5.	Equipment to be rented	762.00
6.	Equipment to be furnished by operator	665.00
TOTAL		$15,000.00

The contract also provides for unwatering the Roberts winze to permit sampling of the sublevel drift. Pumping costs were included in compressor operation and equipment rental.

The operator began drifting on August 18, 1952, which was just within the allowable starting time of 6 months, according to Amendment No. 3. After numerous difficulties and delays, drifting was finally completed in December, 1952, at 200.4 feet where the drift holed into the old workings. The distance was less than the original estimate, indicating the old maps were not up-to-date or were inaccurate.

Unwatering of the Roberts winze was partially completed but not completely enough to allow sampling of the bottom of the sublevel. Diamond drilling has not been started.

Expenditures to date amount to $8,963.64, which is subject to final audit. Equipment purchase includes:

1 - Atlas rock drill, pneumatic, Copco Pacific, Ltd., Stock No. MH 656-2W, Serial No. 431682	New	$346.80
1 - Drill pusher, pneumatic, complete. Stock No. BMK 41A2	New	158.10
1 - Complete set of air and water hoses for above.	New	18.36
2 - Pieces Sandvik steel, 2 feet 7 inches	New	39.27
2 - Pieces Sandvik steel, 5 feet 3 inches	New	42.53
TOTAL		$605.06

This includes 2 percent sales tax, thus reducing the amount to about $593.00, which is claimed on the MF-104 forms. Discounting the steel as used and of no particular value, it is doubtful if a bid of more than $200.00 can be obtained for the machine and pusher, but the operator should be requested to obtain bids. This would give a Government equity of $100.00 as the rail and pipe installed are negligible in value compared with the cost of ventilating the mine and the labor cost for recovery.

Belinger has recently requested conversion of the remaining funds, plus additional funds, to change the objectives of the exploration to raising and to consider drifting on the lower Stag level. None of this work was on property covered in the contract, although Belinger claimed he could get agreements on the area. These same two objectives were denied as part of the original application (DMA 270X) and were again denied as a request for additional funds. The unwatering of the Roberts Winze would be necessary to pass on the merits of extending the lower Stag level.

Belinger now admits the lack of funds to continue the contract and desires termination. It is doubtful if much can be gained

by completing the diamond drilling and unwatering the winze. Therefore, it is recommended that the contract be terminated by mutual agreement.

Scott W. Hagen, Jr.
Mining Engineer

SWH:ld

cc: 5
M261
DMEA clrcn.

FILE COPY
SURNAME:
500

J.W.ALT
GRISWOLD
A.E.KANE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C. Rewritten 4/21/53

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

APR 27 1953

Re: Docket No. [illegible] 270[illegible] (Lead [illegible])
Montana Mining Development Co.
Lamartine Mine
Clear Creek County, Colorado
Contract No. Idm-[illegible]261

Dear Mr. King:

In reply to your memorandum of March 31, 1953, we are in accord with Mr. Scott [illegible]. Hazen Jr., Mining Engineer, who states in his memorandum of March 23, 1953:

> "Item 2 of the contract provides for two diamond drill holes which were mutually agreed upon by the applicant and the DMEA engineers. There has been no change in the conditions which were the basis for these holes. The fact that ore was not found in drifting under contract item 1 has no bearing on the possibilities of parallel veins in the hanging wall. Both holes should be drilled as agreed upon and called for by the contract. The objective of this particular exploration is as important as the completed drifting under item 1."

In your memorandum of March 31, 1953, you state:

> "The work completed to date has not resulted in a discovery but there are possibilities for a discovery if the work is completed as stipulated in the contract."

We are in agreement with Mr. Hazen that this contract should not be amended to do the additional work as proposed by the operator.

It is suggested that you advise the Operator that we are not willing to terminate the contract by mutual agreement at this time. We feel that the work of the contract should be completed. If the Operator refuses to complete the work he may be subject to a claim by the Government for its share of the cost of exploration work to date.

Sincerely yours,

SIGNED

Chairman, Operating Committee

S.N. 4/27/52

APPROVED: SIGNED

Member, Bureau of Mines

SIGNED

Member, Geological Survey

Base Metals
Mr. Kinkel
Mr. Bishop

JWAlt/hmj
(4/21/53)
CC to: Docket
Adm. R. File
Op. Committee

FILE COPY
SURNAME:
500

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

Mr. [illegible]. H. King, Executive Officer
DMA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMA-270[illegible] (Lead-Zinc)
Montana Mining Development Co.
Lamartine Mine
Clear Creek County, Colorado
Contract No. Idm-[illegible]261

Dear Mr. King:

In reply to your memorandum of March 31, 1953, referring to the above contract, we wish to advise you that you may proceed with the termination of this contract.

We are in agreement with the Field Team, and can see no justification for amending the contract as the Operator would like to do.

You may proceed to terminate the contract and this is your authority to do so.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

JWAlt/hmj
(4/9/53)
CC to: Docket
Operating Committee
Administrator's Reading File
Base Metals Division
Mr. Kinkel
Mr. Bishop
Mr. Alt
Chron.

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

224 New Customhouse
Denver 2, Colorado

March 31, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 3 1953

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA-270X (Lead-Zinc), Contract Idm-E261, Montana Mining Development Company, Clear Creek County, Colorado

Enclosed, in triplicate, is the following matter pertaining to the work under the subject contract:

1. Request from the operator, dated February 9, 1953, for a revision of the project work outline.

2. Memorandum report, dated February 25, 1953, by the Bureau of Mines relative to the operator's request which was transmitted to this office by the Chief, Mineral Resources Branch under date of February 26, 1953.

3. Telegram to the operator dated February 20, 1953, advising him of the denial of his request.

4. Letter to the operator, dated March 11, 1953, confirming the telegraphic advice of denial and advice to him that DMEA is desirous of completing the work as originally approved.

5. Letter from the operator, dated March 16, 1953, to the attention of John F. Shaw, wherein the operator indicates a desire to terminate the project rather than complete the work as originally approved.

6. Memorandum report and transmittal, dated March 23, 1953, from the Bureau of Mines recommending that at least the diamond drilling be completed as originally scheduled.

7. Letter to the operator, dated March 26, 1953, with reference to his letter of March 16, 1953.

As stated in the Operator's letter of March 16, 1953, he desires to terminate the contract rather than complete the unwatering of the winze and drilling the hole into the hanging wall of the barren drift.

The operation was recessed about January 6, 1953 on completion of the work under Item 1 of the contract, further work being deferred until Spring.

Subsequent to the date the project was recessed the operator submitted the request for a change in the work outline, which lead to the enclosed reports and correspondence.

The Operator's Form MF-104, Monthly Report and Voucher for the month of December 1952 has been received and is withheld from processing for reimbursement to him pending resumption of work in the Spring, or termination of the contract which ever the case may be.

The December report indicates that 200.4 feet of drift was completed at a total allowable cost of $8,370.64, in addition to which equipment purchases were charged in the amount of $593.00.

The work completed to date has not resulted in a discovery but there are possibilities for a discovery if the work is completed as stipulated in the contract.

We are in doubt as to how to proceed, therefore, the matter is forwarded for you consideration and appropriate action or advice to us as to how to proceed in requiring the operator to complete the work.

W. H. King

W. H. King

Enclosures

224 New Customhouse
Denver 2, Colorado

March 26, 1953

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Bozeman, Montana

Re: Docket No. DMEA 270X
Contract Idm-8261

Dear Mr. Bolinger:

Reference is made to your letter dated March 16, 1953, directed to the attention of John F. Shaw, wherein you indicate a lack of desire to complete a part of the work authorized under Contract Idm-8261. Moreover, the last paragraph of your letter states to the effect that rather than do the work you prefer to terminate the contract.

Particular reference is made to item 2 of the contract which provides for two diamond drill holes to explore in the hanging wall of the Harrison-Crocus drift for the possibility of parallel veins, a part of which work you are reluctant to accomplish. The two drill holes were located by mutual agreement between yourself and DMEA engineers. There has been no change in the conditions which were the basis for their inclusion in the exploration project. The fact that ore was not found in the drifting under item 1 of the contract has no bearing on the possibilities of parallel veins existing in the hanging wall of the barren drift.

Incidentally, the Jack Harris you mention as a USGS Geologist must in fact be Jack Harrison who is associated with the Trace Elements Branch of the USGS and not DMEA.

The matter relative to completion or termination of the contract has been referred to Washington for appropriate action.

Very truly yours,

W. H. KING
W. H. King
Executive Officer, DMEA
Field Team, Region IV

JWT:jp
cc Contract
Chron
LMTraver
AHKoschmann (2)
JWTownsend
DMEA, Washington

224 New Customhouse
Denver 2, Colorado

March 26, 1953

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Bozeman, Montana

Re: Docket No. DMEA 270X
Contract Idm-4261

Dear Mr. Bolinger:

Reference is made to your letter dated March 14, 1953, directed to the attention of John F. Shaw, wherein you indicate a lack of desire to complete a part of the work authorized under Contract Idm-4261. Moreover, the last paragraph of your letter states to the effect that rather than do the work you prefer to terminate the contract.

Particular reference is made to item 2 of the contract which provides for two diamond drill holes to explore in the hanging wall of the Harrison-Croesus drift for the possibility of parallel veins, a part of which work you are reluctant to accomplish. The two drill holes were located by mutual agreement between yourself and DMEA engineers. There has been no change in the conditions which were the basis for their inclusion in the exploration project. The fact that ore was not found in the drifting under item 1 of the contract has no bearing on the possibilities of parallel veins existing in the hanging wall of the barren drift.

Incidentally, the Jack Harris you mention as a USGS Geologist must in fact be Jack Harrison who is associated with the Trace Elements Branch of the USGS and not DMEA.

The matter relative to completion or termination of the contract has been referred to Washington for appropriate action.

Very truly yours,

W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region IV

JWT:jp
cc Contract
Chron
WMTraver
AHKoschmann (2)
JWTownsend
DMEA, Washington

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
March 23, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 270X, Contract Idm-E261 (Lead-zinc), Montana Mining Development Company (Lamartine mine), Clear Creek County, Colorado - Supplemental memorandum regarding a request for amendment

Enclosed please find the original and five copies of Scott W. Hazen, Jr.'s, supplemental memorandum on the request for an amendment to the Montana Mining Development Company contract.

Hazen recommends that the contractor be required to complete the exploration, at least the core drilling, as originally proposed. I concur.

W. M. Traver

W. M. Traver

enclosures

WMT/ob

cc 5
E261
DMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
March 23, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: Scott W. Hazen, Jr.

Subject: DMEA 27OX, Contract Idm-E261 (Lead-zinc), Montana Mining Development Company (Lamartine mine), Clear Creek County, Colorado - Supplemental memorandum regarding a request for amendment

Reference is made to a letter dated March 16, 1953, signed by H. A. Balinger, president of the Montana Mining Development Company, which again discusses the proposals for an amendment to the subject contract. The proposed amendment was fully covered in my memorandum of February 25, 1953.

Under the proposed amendment the contractor desires to add development work in the nature of raising and sublevel drifting on ground not controlled by or included in the original contract. This same plan was denied in the original application as being development and not exploration and not on ground controlled by the applicant. There should be no question concerning the final denial of this proposal.

Item 2 of the contract provides for two diamond drill holes which were mutually agreed upon by the applicant and DMEA engineers. There has been no change in the conditions which were the basis for these holes. The fact that ore was not found in the drifting under contract item 1 has no bearing on the possibilities of parallel veins in the

hanging wall. Both holes should be drilled as agreed upon and called for by the contract. The objective of this particular exploration is as important as the completed drifting under item 1. There would be no objection, from an exploration standpoint, to drilling the third hole near the Johnson shaft as requested by the applicant, but it is not on property covered by the contract.

The applicant's request concerning the Roberts winze is at odds with the contract. Item 3 of the contract requires unwatering of the Roberts winze to make these workings available to sampling and geologic study. This includes the bottom of the lowest drift and involves sampling along the bottom of this drift. The unwatering mentioned as being accomplished did make the upper workings in the immediate vicinity of the winze available to preliminary study and sampling but not to the extent necessary to arrive at any conclusion regarding the amount and extent of lead-zinc mineralization existing in the bottom winze workings. Jack Harrison, the USGS geologist mentioned as Jack Harris, is associated with their Trace Elements Branch and not DMEA.

The final paragraph of Bolinger's letter is to the effect that he will terminate the contract if the remaining items are to be completed. I believe that the items should be completed as called for in the contract. I do not believe it is within Bolinger's prerogative to terminate the contract.

Scott W. Hazen, Jr.
Mining Engineer

cc: 5, E261, DMEA Chron.

MONTANA MINING DEVELOPMENT CO.

P. O. Box 747

Bozeman, Montana

COPY

March 16, 1953

United States Department of Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 270X
Contract Idm-E261

Attention: John F. Shaw

Dear Mr. Shaw:

In regard to the above contract, we apparently just haven't got together with our ideas and I wouldn't know how to proceed at the present time.

The work remaining to be done under this contract is pumping out the Roberts' winze and digging two core drill holes. Jack Harris was down at the Roberts' winze when it was pumped out within about five feet of the bottom and was able to examine this winze. I think that he could make a sufficient report on this to avoid having to pump it out again. Our men could also make a report of their exploration of this and the assays taken by them. This work was done while we were waiting for the contract approval.

I would like to drill a core drill hole at the Y in this tunnel, but I can see no advantage in drilling one at the end of the barren ground that we drove the drift through. Jack Harris would like to have one drilled at the Y and another one out at the Johnson shaft, depending on what was revealed by drilling the first one.

If you gentlemen agreed that we did not have to unwater the winze again and agreed to the one core drill hole, with possibility of wanting to drill another one, then there would still be money enough to drive the raise and drift as asked in my proposed amendment, and certainly I do not want to run the air compressor to do the core drilling without also using it for mining at the same time.

If I understand your position to be that I have to unwater the Roberts' winze and put a core drill hole in at the back end of the drift that was driven, I will get bids on the Swede drill that was purchased, so we can terminate our contract.

Yours very truly,

/s/ H. A.Bolinger, Jr.
H. A. Bolinger, President

HAB/g
c.c. W.M. Traver, Jr., Chief

COPY

MONTANA MINING DEVELOPMENT CO.

P. O. Box 747

Bozeman, Montana

March 16, 1953

United States Department of Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 270X
Contract Idm-E261

Attention: John F. Shaw

Dear Mr. Shaw:

In regard to the above contract, we apparently just haven't got together with our ideas and I wouldn't know how to proceed at the present time.

The work remaining to be done under this contract is pumping out the Roberts' winze and digging two core drill holes. Jack Harris was down at the Roberts' winze when it was pumped out within about five feet of the bottom and was able to examine this winze. I think that he could make a sufficient report on this to avoid having to pump it out again. Our men could also make a report of their exploration of this and the assays taken by them. This work was done while we were waiting for the contract approval.

I would like to drill a core drill hole at the Y in this tunnel, but I can see no advantage in drilling one at the end of the barren ground that we drove the drift through. Jack Harris would like to have one drilled at the Y and another one out at the Johnson shaft, depending on what was revealed by drilling the first one.

If you gentlemen agreed that we did not have to unwater the winze again and agreed to the one core drill hole, with possibility of wanting to drill another one, then there would still be money enough to drive the raise and drift as asked in my proposed amendment, and certainly I do not want to run the air compressor to do the core drilling without also using it for mining at the same time.

If I understand your position to be that I have to unwater the Roberts' winze and put a core drill hole in at the back end of the drift that was driven, I will get bids on the Swede drill that was purchased, so we can terminate our contract.

Yours very truly,

/s/ H. A.Bolinger, Jr.
H. A. Bolinger, President

HAB/g
c.c. W.M. Traver, Jr., Chief

C
O
P
Y

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

224 New Customhouse
Denver 2, Colorado

March 11, 1953

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Company
P. O. Box 747
Bozeman, Montana

Re: Docket No. DMEA 270X
Contract Idm-E261

Dear Mr. Bolinger:

Confirming our telegram of February 20, 1953, the request for a change in the work outlined under Contract Idm-E261 contained in your letter of February 9, 1953, is denied. The DMEA is desirous of completing the work as originally approved.

The work you have outlined for the Stag Tunnel may be submitted in the form of a separate application when the problems of finance and ownership have been settled to comply with DMEA requirements.

Very truly yours,

/s/ John F. Shaw

For W. H. King
Executive Officer, DMEA
Field Team, Region IV

JWT:jp
cc Contract
Chron
WMTraver
AHKoschmann (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
February 26, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: IMEA 270, Contract Idm-E261 (lead-zinc), Montana Mining Development Company (Lamartine mine), Clear Creek County, Colorado - Request for amendment

Please find enclosed the original and five copies of Scott W. Hazen, Jr.'s memorandum on the above amendment request.

The contractor is requesting in this case essentially the program that was denied in his original application. It is our opinion that he should complete the exploration as outlined under the IMEA contract.

Hazen recommends denial of the request for amendment and explains his reasons adequately in his memorandum. I am in complete agreement.

W. M. Traver

W. M. Traver

enclosures

WMT/amh

cc: 5
E261
IMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20
Denver Federal Center
Denver 14, Colorado
February 25, 1953

Minerals
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3 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: Scott W. Hansen, Jr.

Subject: RMEA 270, Contract I4s-2861, (Lead-Zinc) Montana Mining Development Company (Lamartine Mine) Clear Creek County, Colorado - Request for Amendment

The subject applicant, by letter of February 9, 1953, requested an amendment to provide for changes in the existing contract. These changes include deletion of one 200-foot diamond drill hole from point "A", as shown on the map (Fig. 1), which is near the holing point of the exploration drift recently completed. The reason for the deletion is based on the fact that the exploration drift did not find commercial-grade ore and that the area is one in which the vein has split and divided. The diamond drill hole was proposed at this location because splits were known to occur (Fig. 2) and they were considered worthy of exploration by drilling. Conditions have not changed since the original proposal and the drill hole is still considered justified.

The second deletion, involving unwatering the Roberts winze, is based on the fact that the winze has already been partially unwatered and ore found. The unwatering was not completed to the extent that sampling of the bottom of old workings could be accomplished. Water in the adjoining Johnson stope could be practically all drained and regulated

by a few diamond drill holes from the Roberts winze workings. The applicant has made no effort to mine or sample the lead and zinc ore revealed by partially unwatering the Roberts winze.

A proposal, which is now presented as a means for spending the remaining funds plus the savings from deleting certain phases of the existing exploration contract, is outlined as rehabilitating an existing raise above the main level near the "Y" at point "B" on the map (Fig. 1), advance the raise 60 feet, and there start a sublevel and drift 180 feet eastward to a second raise known to extend through to surface. The original application contained a similar proposal which was denied as being development rather than exploration. A sample, taken across 2.0 feet of vein in the back of the raise which is to be extended, assayed 0.10 ounce gold and 6.2 ounces of silver per ton and 0.17 percent copper, 11.80 percent lead, and 9.23 percent zinc. In this instance, the proposed work as outlined is within a claim which is not included in the present DMEA contract (Fig. 1). The raising and sublevel drifting are all within an area which cannot be mined by the applicant because of ownership conflicts. A resultant agreement has specified mining limits for the parties concerned. The applicant cannot mine until the second raise is reached and rehabilitated for 40 or 50 feet above the proposed sublevel. It will then be necessary to drift from the second raise to explore for ore. The existence of ore in the second raise is predicated on hearsay evidence only.

The applicant again requests consideration of the 2,500 feet of drifting on the Stag level to develop lead-zinc ore at a depth of 350 feet below the Lamartine level. This proposal was denied previously on the basis that much of the drifting would be within a gold ore zone and through an area involving claims other than the Ben Harrison-Croesus and nothing was definitely known about the lead-zinc ore

below the Johnson winze sublevels. The ore was not developed below these winze sublevels when mining was being carried on in these workings. The Roberts winze was selected for unwatering and sampling in order to determine the value of ore in that one accessible winze sublevel area. The examining team, at the time of the original examination in 1951, concluded that "the field evidence of the existence of lead-zinc ore bodies in quantity below the Lamartine tunnel level is inconclusive although there is reason to believe that lead-zinc mineralization extends below the lowest workings of the Roberts and Johnson stopes."

The applicant has indicated the company may be unable financially to complete the existing contract, if it is amended, without reorganization and reassignment of the DMEA Contract.

It is recommended that the amendment request be denied in all respects at this time. The diamond drilling should be completed as now specified in the DMEA exploration contract. The contract can be terminated with or without the completion of unwatering the Roberts winze.

The other request for exploration by extending the Stag level should be considered as a new application because the work proposed will require company financial reorganization and involves different mining claims.

Floyd W. Everett for
Scott W. Hazen, Jr.

SWH:oc

cc: 5
E-261
DMEA Chron.

xxx 747

BOZEMAN, MONTANA
XXXXXXXXXXXXXXXXX

February 9, 1953

RECEIVED
3 1953

U. S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Attention: W. H. King
Executive Officer, DMEA

Re: Docket DMEA 270X
Contract Idm-E261

Dear Sir:

On behalf of Montana Mining Development Co., I hereby make application to amend Contract Idm-E261, Docket DMEA-270X, as follows:

Delete from the present contract as approved:

1. Drilling diamond drill hole designated as Project No. 4 "A" on the map attached to the application.
2. Delete the project to unwater Roberts winze and stopes below Lamartine Tunnel.

In lieu thereof and with the remainder of the money appropriated for this project, to do the following:

1. Complete diamond drill hole 200 feet in length at "Y" designated as Point "B" under Project 4 on the map attached to the contract.

2. Extend the raise that has been started at the "Y" and which is now 110 feet above the Lamartine Tunnel, an additional 60 feet.

3. Drift from the top of the extension of the raise proposed in Paragraph 2 above, to the east 180 feet to connect with the high raise that now exists in the Ben Harrison Claim, extending from the top of the Morgan stope to the surface.

The costs already expended in connection with this contract, and the proposed expenditures to be as follows:

Total cost of project to date, as reported by operator		$9,138.64
Disallowed on December work	175.00	
Disallowed on October report for rent of slusher	53.04	228.04

W. H. King
Defense Minerals Exploration Administration 2/9/53

Total approved costs under contract to date	$8,910.60
Cost of diamond drill hole, 200 feet at $3.00 per foot	600.00
Entire cost of raise by contract, 60 feet at $25.00	1,500.00
5x7 drift, 180 feet at $20.00	3,600.00
Rent of air compressor, 2-1/2 months at $70.00	175.00
Rent of electric trammer, 2-1/2 months at $70.00	175.00
Rent of 10 mine cars, 2-1/2 months at $15.76	39.40
Total	$15,000.00

The reasons for desiring to delete the core drilling at Point "A" under Project 4 is that no valuable minerals are disclosed at this point in the Lamartine Tunnel and from the drifts that have been completed in this portion of the mine, it appears that the vein is split and divided, and I am of the opinion that the chances of developing mineable ore by construction of this drilling hole are not encouraging.

The reason for not desiring to unwater the Roberts winze is that the operator has already pumped this winze out within approximately six feet of the bottom, and because of the water-filled stopes adjoining these workings, the operator does not consider it practical to mine these workings even though ore is disclosed through a shaft. The correct mining procedure for removing any ores that may be located in this winze is by extending the Stag Tunnel, which is approximately 350 feet below the Lamartine Tunnel, and raising on this ore body which would eliminate the definite hazard that exists from the water in these stopes and make the mining of the same more economical.

The operator feels that the projects requested to be carried on under this contract are very desirable and practical for the purpose of developing lead and zinc ore.

1. Project 4 "B", being the drill hole to be completed to the north at the "Y", is in that portion of the mine where valuable deposits of lead and zinc were mined from the Morgan stope and the Lamphier stope. From old workings on the third level, a parallel vein is indicated to the north of the Lamartine Tunnel and there is no indication that it has intersected the Lamartine Tunnel. This drill hole might develop such a vein.

2. It appears to the operator that the best chance of developing lead and zinc ore in this mine for the money to be expended is by carrying out Projects 2 and 3 as proposed, being extending the present raise and then drifting to the high raise that exists in the mine for the following reasons:

W. H. King 2/9/53
Defense Minerals Exploration Administration

(a) In extending this raise the 110 feet, the operator did intersect a vein of galena ore approximately 30 feet in length, which at one time was nearly a foot in width, which was stoped out and which did not continue above the stoping, but a definite vein exists upon which this raise is constructed with a solid footwall and hanging wall, and the ore at the back of the raise at the present time contains some scattered lead.

(b) There are small deposits of lead and zinc ore disclosed on the back of both the Lanphier and Morgan stopes which adjoin this raise, but which ore is inaccessible either for further exploration or mining without the completion of this raise.

(c) By connecting with the high raise above the Morgan stope, considerable exploration of this mine can be made at low cost through this riase. This raise is not accessible at the present time and cannot be reached without doing the proposed work. The information obtained from Lafayette Hanchett, who was in charge of constructing this raise, is that it follows the vein to the surface and goes through considerable ore of such value as to permit mining the same.

Mr. Marshall, of Idaho Springs, is available at this time and has agreed to complete the diamond drilling at $3.00 per foot if the operator will furnish the air pressure. Mr. Harold Anderson, who has been acting as foreman for the operator, is available at this time and will contract to pay all expenses and drive the proposed raise for $25.00 per foot, and the proposed drift at the top of the raise for $20.00 per foot.

I am of the opinion that both of these men are very reliable and would complete this work as rapidly as possible, and desire to sub-contract with them for this work and get the work started in the near future. If these amendments to the contract are approved, I would greatly appreciate your expediting their approval so that these men can be hired while they are available.

It may be necessary in connection with the operator carrying on this work, that a new company be formed and all of the assets of Montana Mining Development Co. assigned to the new company. I presume if that was done there would be no objection to assigning this contract to the new company which will complete the work.

The proposed drift at the top of the raise would extend below the compromise line and be on the Falcon Claim rather than the Ben Harrison Claim, however this drift would be about 45 feet below the compromise line and the ore developed above that would be on the Ben Harrison Claim. The operator needs no further permission from the owners of the Falcon Claim to do this work, but if the

W. H. King
Defense Minerals Exploration Administration

2/9/53

Government will require a subordination agreement from the Falcon owners. I would appreciate your sending them to me by return mail so that I can get them signed up. The owners of this claim have told me they would be willing to do this.

In connection with consideration of the foregoing and the amendment to this contract, I would like your department to consider a future amendment and enlargement of this contract to cover extending the Stag Tunnel. At the present time the operator has men working to determine a means of extending the airline from the Lamartine Tunnel to the Stag Tunnel through the old workings that have been stoped out between these tunnels. This undoubtedly can be done at not too great a cost, so that air will be available at the face of the Stag Tunnel as it now exists, extending about 60 feet into the Falcon Claim. The Stag Tunnel is in fairly good repair at this time and can be reconditioned and used without too large an expenditure. While all of the mineable ores in this mine carry some lead, it is probably true that the ore in the vicinity of the present face of the Stag Tunnel carries its largest value in gold, but the indications are that the ores extending downward from the Lamartine Tunnel further back in the mine are primarily lead and zinc ores as were mined in the Morgan, Lanphier and Roberts stopes. It appears to the operator that by an expenditure not to exceed $5,000.00, the airline can be extended into the Stag Tunnel and this tunnel reconditioned, and that my contract in the Stag Tunnel could be extended under the lead and zinc ores as disclosed in the Lamartine Tunnel for a total cost of approximately $50,000.00. The indications are that such an extension would disclose a large body of lead and zinc ore.

I believe that the operator can arrange to finance its part of such a project and that such a project is very practicable from the Government's standpoint of developing lead and zinc ores which undoubtedly would be lost in the event that mining operations cease for any period of time on these properties, which require constant attention to prevent caving.

Yours very truly,

Montana Mining Development Co.

HAB/g

H. A. Bolinger, Jr., President

xxx 747

BOZEMAN, MONTANA
XXXXXXXXXXXXXXXXX

February 9, 1953

U. S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Attention: W. H. King
Executive Officer, DMEA

Re: Docket DMEA 270X
Contract Idm-E261

Dear Sir:

On behalf of Montana Mining Development Co., I hereby make application to amend Contract Idm-E261, Docket DMEA-270X, as follows:

Delete from the present contract as approved:

1. Drilling diamond drill hole designated as Project No. 4 "A" on the map attached to the application.
2. Delete the project to unwater Roberts winze and stopes below Lamartine Tunnel.

In lieu thereof and with the remainder of the money appropriated for this project, to do the following:

1. Complete diamond drill hole 200 feet in length at "Y" designated as Point "B" under Project 4 on the map attached to the contract.

2. Extend the raise that has been started at the "Y" and which is now 110 feet above the Lamartine Tunnel, an additional 60 feet.

3. Drift from the top of the extension of the raise proposed in Paragraph 2 above, to the east 180 feet to connect with the high raise that now exists in the Ben Harrison Claim, extending from the top of the Morgan stope to the surface.

The costs already expended in connection with this contract, and the proposed expenditures to be as follows:

Total cost of project to date, as reported by operator		$9,138.64
Disallowed on December work	175.00	
Disallowed on October report for rent of slusher	53.04	228.04

W. H. King
Defense Minerals Exploration Administration 2/9/53

Total approved costs under contract to date	$8,910.60
Cost of diamond drill hole, 200 feet at $3.00 per foot	600.00
Entire cost of raise by contract, 60 feet at $25.00	1,500.00
5x7 drift, 180 feet at $20.00	3,600.00
Rent of air compressor, 2-1/2 months at $70.00	175.00
Rent of electric trammer, 2-1/2 months at $70.00	175.00
Rent of 10 mine cars, 2-1/2 months at $15.76	39.40
Total	$15,000.00

The reasons for desiring to delete the core drilling at Point "A" under Project 4 is that no valuable minerals are disclosed at this point in the Lamartine Tunnel and from the drifts that have been completed in this portion of the mine, it appears that the vein is split and divided, and I am of the opinion that the chances of developing mineable ore by construction of this drilling hole are not encouraging.

The reason for not desiring to unwater the Roberts winze is that the operator has already pumped this winze out within approximately six feet of the bottom, and because of the water-filled stopes adjoining these workings, the operator does not consider it practical to mine these workings even though ore is disclosed through a shaft. The correct mining procedure for removing any ores that may be located in this winze is by extending the Stag Tunnel, which is approximately 350 feet below the Lamartine Tunnel, and raising on this ore body which would eliminate the definite hazard that exists from the water in these stopes and make the mining of the same more economical.

The operator feels that the projects requested to be carried on under this contract are very desirable and practical for the purpose of developing lead and zinc ore.

1. Project 4 "B", being the drill hole to be completed to the north at the "Y", is in that portion of the mine where valuable deposits of lead and zinc were mined from the Morgan stope and the Lanphier stope. From old workings on the third level, a parallel vein is indicated to the north of the Lamartine Tunnel and there is no indication that it has intersected the Lamartine Tunnel. This drill hole might develop such a vein.

2. It appears to the operator that the best chance of developing lead and zinc ore in this mine for the money to be expended is by carrying out Projects 2 and 3 as proposed, being extending the present raise and then drifting to the high raise that exists in the mine for the following reasons:

W. H. King
Defense Minerals Exploration Administration

2/9/53

(a) In extending this raise the 110 feet, the operator did intersect a vein of galena ore approximately 30 feet in length, which at one time was nearly a foot in width, which was stoped out and which did not continue above the stoping, but a definite vein exists upon which this raise is constructed with a solid footwall and hanging wall, and the ore at the back of the raise at the present time contains some scattered lead.

(b) There are small deposits of lead and zinc ore disclosed on the back of both the Lanphier and Morgan stopes which adjoin this raise, but which ore is inaccessible either for further exploration or mining without the completion of this raise.

(c) By connecting with the high raise above the Morgan stope, considerable exploration of this mine can be made at low cost through this riase. This raise is not accessible at the present time and cannot be reached without doing the proposed work. The information obtained from Lafayette Hanchett, who was in charge of constructing this raise, is that it follows the vein to the surface and goes through considerable ore of such value as to permit mining the same.

Mr. Marshall, of Idaho Springs, is available at this time and has agreed to complete the diamond drilling at $3.00 per foot if the operator will furnish the air pressure. Mr. Harold Anderson, who has been acting as foreman for the operator, is available at this time and will contract to pay all expenses and drive the proposed raise for $25.00 per foot, and the proposed drift at the top of the raise for $20.00 per foot.

I am of the opinion that both of these men are very reliable and would complete this work as rapidly as possible, and desire to sub-contract with them for this work and get the work started in the near future. If these amendments to the contract are approved, I would greatly appreciate your expediting their approval so that these men can be hired while they are available.

It may be necessary in connection with the operater carrying on this work, that a new company be formed and all of the assets of Montana Mining Development Co. assigned to the new company. I presume if that was done there would be no objection to assigning this contract to the new company which will complete the work.

The proposed drift at the top of the raise would extend below the compromise line and be on the Falcon Claim rather than the Ben Harrison Claim, however this drift would be about 45 feet below the compromise line and the ore developed above that would be on the Ben Harrison Claim. The operater needs no further permission from the owners of the Falcon Claim to do this work, but if the

W. H. King
Defense Minerals Exploration Administration

2/9/53

Government will require a subordination agreement from the Falcon owners, I would appreciate your sending them to me by return mail so that I can get them signed up. The owners of this claim have told me they would be willing to do this.

In connection with consideration of the foregoing and the amendment to this contract, I would like your department to consider a future amendment and enlargement of this contract to cover extending the Stag Tunnel. At the present time the operator has men working to determine a means of extending the airline from the Lamartine Tunnel to the Stag Tunnel through the old workings that have been stoped out between these tunnels. This undoubtedly can be done at not too great a cost, so that air will be available at the face of the Stag Tunnel as it now exists, extending about 60 feet into the Falcon Claim. The Stag Tunnel is in fairly good repair at this time and can be reconditioned and used without too large an expenditure. While all of the mineable ores in this mine carry some lead, it is probably true that the ore in the vicinity of the present face of the Stag Tunnel carries its largest value in gold but the indications are that the ores extending downward from the Lamartine Tunnel further back in the mine are primarily lead and zinc ores as were mined in the Morgan, Lanphier and Roberts stopes. It appears to the operator that by an expenditure not to exceed $5,000.00, the airline can be extended into the Stag Tunnel and this tunnel reconditioned, and that my contract in the Stag Tunnel could be extended under the lead and zinc ores as disclosed in the Lamartine Tunnel for a total cost of approximately $50,000.00. The indications are that such an extension would disclose a large body of lead and zinc ore.

I believe that the operator can arrange to finance its part of such a project and that such a project is very practicable from the Government's standpoint of developing lead and zinc ores which undoubtedly would be lost in the event that mining operations cease for any period of time on these properties, which require constant attention to prevent caving.

Yours very truly,

Montana Mining Development Co.

HAB/g

H. A. Bolinger, Jr., President

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

224 New Customhouse
Denver 2, Colorado

January 28, 1953

Mr. H. A. Bolinger, Jr., President
Montana Mining Development Co.
P. O. Box 747
Bozeman, Montana

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 2 1953

Re: Docket DMEA 270X
Contract Idm-E261

Dear Mr. Bolinger:

This office is in receipt of your Form MF-104, Monthly Report and Voucher, which constitutes your claim for reimbursement for the amount of the Government's participation in the costs of work performed during the month of December 1952.

We have been informed by our inspecting engineer that work was recessed on about January 6, 1953, and that the December report will be the last until work under Contract Idm-E261 is resumed at some later indefinite date.

Inasmuch as the Government has no guarantee that work will be resumed, we are obligated to withhold from the final payment such amounts, up to 10% of the total amount of Government participation, to safeguard the Government's interest in jointly owned property, and until the final report and accounting have been received.

A review of your December report indicates that the allowable reimbursement to you would be as follows:

Total amount claimed	$1,554.00
Deduction - overclaim of 5 foot of work accomplishment @ $35.00 per foot	175.00
Corrected total amount allowable	$1,379.00
Reimbursement - 50% Government participation	689.50

Inasmuch as the reimbursable amount falls below 10% of the total authorized Government participation, which would be $750.00, the entire amount due you is withheld pending resumption of work.

Very truly yours,

W. H. King

W. H. King
Executive Officer, DMEA
Field Team, Region IV

JWT:jp
cc Contract
Chron
Sec. to Oper. Committee (2)
WMTraver
JWTownsend

C
O
P
Y

WESTERN UNION TELEGRAM

Bureau of Mines, Reg. IV (DMEA -6970.001)
Denver, Colorado STRAIGHT TELEGRAM
2/20/53

H. A. BOLINGER, JR.
COMMERCIAL BANK BUILDING
BOZEMAN, MONTANA

YOUR APPLICATION FOR AN AMENDMENT TO CONTRACT E-261 IS BEING DENIED.

W. H. KING

cc: Accounts
Sub
Chron
W.M. Traver

C
O
P
Y

WESTERN UNION TELEGRAM

Bureau of Mines, Reg. IV (DMEA -6970.001)
Denver, Colorado STRAIGHT TELEGRAM
2/20/53

H. A. BOLINGER, JR.
COMMERCIAL BANK BUILDING
BOZEMAN, MONTANA

YOUR APPLICATION FOR AN AMENDMENT TO CONTRACT E-261 IS BEING DENIED.

W. H. KING

cc: Accounts
Sub
Chron
W.M. Traver

Docket Copy

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
~~1952~~ 1953

224 New Customhouse
Denver 2, Colorado

December 29, ~~1952~~

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Amendment No. 3 to Contract Idm-E261, Docket DMEA 270X, Montana Mining Development Company

Enclosed are the original and two copies of Amendment No. 3 to Contract Idm-E261. Copies of this amendment have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

Also enclosed are three copies of a letter from the operator requesting this amendment.

W. H. King

W. H. King

Enclosures

RECEIVED
JAN 15 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

cae 1/2/53

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

224 New Customhouse
Denver 2, Colorado

December 19, 1952

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, Field Team, Region IV

Subject: Form MF-104, DMEA Docket 270X, Contract Idm-E261 (Lead-Zinc) Montana Mining and Development Company, Cleark Creek County, Colorado

Enclosed are two copies of the Operator's Monthly Progress Report MF-104 and 104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data for the month of October, 1952, pertaining to DMEA Docket 270X, Contract Idm-E261, Montana Mining and Development Company.

John F. Shaw

John F Shaw for
W. H. King

Enclosures

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

224 New Customhouse
Denver 2, Colorado

November 24, 1952

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Form MF-104, DMEA Docket 270X, Contract Idm-E261 (Lead-Zinc) Montana Mining Development Company, Clear Creek County, Colorado

Enclosed are two copies of the Operator's Monthly Progress Report Form MF-104, and Form MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data for the period of August 18, 1952 through September 30, 1952, pertaining to DMEA Docket 270X, Contract Idm-E261, Montana Mining Development Company.

W. H. King

W. H. King

Enclosures

Docket Copy
Field, 3rd

APPROVAL OF SUBCONTRACT

To: Montana Mining Development Company

That certain contract, a copy of which you have submitted with your request for approval, dated August 16, 1952, between you and Leonard Abbot, to extend the Ben Harrison-Croesus drift on the Lamartine tenth level, which is all or a specific element of the work described in an Exploration Project Contract dated February 19, 1952, IdmE-261, Docket No. DMEA 27OX, is hereby approved by the United States of America, subject to the following terms and conditions:

1. The Government shall not be nor be considered to be a party to said independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of said independent contract.

2. Regardless of the provisions of said independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary.

3. The said independent contract shall not have the effect of increasing the estimated total cost of the exploration project contract or the maximum amount which the Government will pay as provided in the exploration project contract.

Dated: September 16, 1952.

THE UNITED STATES OF AMERICA

By W. J. King
Executive Officer,
DMEA Field Team,
Region IV

Fas

A G R E E M E N T

This agreement made and entered into this 16th day of August, 1952 by and between Montana Mining Development Company, a corporation, Party of the First Part and Leonard Abbot of Idaho Springs, Colorado, Party of the Second Part, WITNESSETH:

That the Party of the First Part has entered into a Contract with the United States of America under an Exploration contract EMSA-2701, which contract as amended, requires First Party to commence work on or before August 19th, 1952, and to complete the work of extending the Lamartine drift through the Ben Harrison Croesus Mining claim on or before December 19th, 1952, and that the parties hereto desire to enter into an agreement under the terms of which second party will do said mining work in accordance with and in compliance with said contract of First Party with the Government.

IdmE-26
L. & A.
MMDC
by [illegible]

In consideration of the premises, the parties hereto agree as follows:

1. Second Party agrees to immediately commence to mine at the face of the Lamartine drift as now extended in the Ben Harrison Croesus Mining Claims. To continue mining with due diligence in extending said drift approximately two hundred and sixty (260) feet in accordance with the specifications of and time requirement of said Government contract and to furnish all labor, supervision, engineering, accounting, sampling, assaying, power, supplies, repairs, pipe, rail, timber, explosives, transportation and equipment ~~[illegible]~~ incident to said work except such equipment as is to be furnished by the First Party as hereinafter provided.

2. First Party agrees to furnish to Second Party the following equipment now located at said mine: Air compressor and air line as now installed; electric trammer with batteries and charger and ten (10) mine cars in present state of repair, one rock drill, one mucking machine, if such machine can be rented for an amount not to exceed Two Hundred Twenty ($220.00) per month, or in the event Second Party shall rent one at a higher rental, to pay Second Party Two Hundred Twenty Dollars ($220.00) per month as rental.

3. Second Party agrees to keep said equipment in good repair and to return the same to first party in as good a condition as the same is now in at the expiration of this contract.

4. Second Party agrees to keep the Lamartine Tunnel in such repair as is necessary to carry on and complete the work to be done under this agreement, except for major caveins of old workings.

5. Second Party agrees to perform and complete said work without any expense to First Party other than the payments herein provided to be paid by first party.

6. First Party agrees to pay Second Party the sum of Thirty-five Dollars ($35.00) per lineal foot of drift. Payment to be made on the first and fifteenth of each month for work done in previous fifteen days, all monies advanced by First Party to Second Party to be deducted from such payments.

7. Payment shall not be made for any work not approved by Government supervisors as being in compliance with Government contract.

8. Second Party agrees to carry workman's compensation insurance on all men employed by him in doing said work and to save First Party harmless from any liability of any kind in connection with Second Party doing said work.

9. It is agreed that in the event that Second Party shall fail to extend the drift in which the mining is to be done at least fifteen feet in each ten day period of time commencing September 1, 1952 that then in that event this contract shall terminate and end and First Party shall be under no further obligation to Second Party except for payment of work already completed by Second Party.

IN WITNESS WHEREOF the Party of the First Part has caused these presents to be executed by its duly authorized officers and the Party of the Second Part has signed his name executing eight copies of this agreement the day and year first above written.

Attest:

Montana Mining Development Company

Secretary

by H. A. Bolinger
President

Party of the First Part

Party of the Second Part

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

224 New Customhouse
Denver 2, Colorado

September 16, 1952

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: DMEA Docket 270X, Contract IdmE-261, (Lead-Zinc) Montana Mining Development Company, Clear Creek County, Colorado

Enclosed, in triplicate, for inclusion in the subject contract is Government approval of the attached copy of an agreement between the operator and Leonard Abbot, for performance of drifting authorized in Contract IdmE-261.

W. H. King

W. H. King

Enclosures

SIS
9/25/52

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
DENVER
SEP 19 1952

FILE COPY
SURNAME:

500

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

AUG 25 1952

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-270 (Lead-Zinc)
Contract No. Idm-E261
Montana Mining Development Co.

Dear Mr. King:

We have received the two amendments to the above-referenced contract, both pertaining to the time when the work on the project will commence and when it will be completed.

There seems to be considerable delay in starting the work on this project. According to Amendment No. 2, dated July 24, 1952, work should have commenced on August 17, 1952.

Please advise us if the Operator has started work on this project and the reasons for the delays.

Sincerely yours,

S. C. Selfridge
ACTING Chairman, Operating Committee

APPROVED:

C. N. Johnson
Member, Bureau of Mines

D. M. Lemmon
Member, Geological Survey

JWAlt/bjl (written 8/20/52)

Copy to: Docket
Admr. R. File
Op. Committee
H. F. Keller
Mr. Bishop
Mr. McKnight
Chron.

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

224 New Customhouse
Denver 2, Colorado

June 13, 1952

Memorandum

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

From: Field Team, Region IV

Subject: Final Report, DMA Docket 270 (Lead-Zinc), Montana Mining Development Company, Clear Creek County, Colorado

Attached is one copy of the final report on DMA-270.

Three (3) copies were forwarded you August 2, 1951.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

DEPARTMENT OF THE INTERIOR
Records Administration
JUN 16 1952

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

224 New Customhouse
Denver 2, Colorado

June 13, 1952

Memorandum

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

From: Field Team, Region IV

Subject: Final Report, DMA Docket 270 (Lead-Zinc), Montana Mining Development Company, Clear Creek County, Colorado

Attached is one copy of the final report on DMA-270.

Three (3) copies were forwarded you August 2, 1951.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

HEC:fwo

cc: Koschmann (2), Subj, Chron

JUN 16 1952

REGIONAL DIRECTOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

August 2, 1951

Memorandum

To: Landon Strobel, Executive Secretary
Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: DMA 270, Montana Mining Development Company, Lemartine Group, Clear Creek County, Colorado

Herewith are original and two copies of the report on the above docket, together with the original brochure.

This information is sent to you for your consideration and use in negotiating a contract with the applicant.

F. T. Allsman, Alternate

A. H. Kaschmann

Enclosures
One copy by Air Mail
Two copies by Regular Mail

lm
cc: DMA

Mining Division
Region IV

August 2, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: DMA 270, Western Mining Development Company, Lamartine Group, Clear Creek County, Colorado

I have reviewed the various reports, brochures and diverse opinions and proposals. I concur with the recommendations of the examiners except Item No. 2 in the Summary, Conclusions and Recommendations. It appears that the mining done previously in the Roberts and Longshot stopes under R.F.C. financing and engineering by R.F.C. engineers are sufficient to eliminate the need for this phase of the exploration. In place of this phase the writer recommends approval of the potential exploration proposed by the applicant described as Program B, comprising the extension of the Guide-Ding tunnel 2000 feet to explore the pine-lead ore shoots 350 feet below the ore previously mined under R.F.C. financing.

This would bring the total of recommended exploration to about $250,000, which may be more than the operator is willing to undertake. In the event the operator is unable to participate to this extent, the writer recommends that the 2000 feet of drifting to extend the Guide-Ding tunnel should be given first priority.

Paul F. Allgeier
P. F. Allgeier

Ld

cc: DMA

DEPARTMENT OF THE INTERIOR
Denver, Colorado
JUL 1 1952

Building 2-A
Denver Federal Center
July 11, 1951

Memorandum

To: Chief, Mining Division, Region IV

From: W. M. Traver, Jr.

Subject: DMA Docket 270, Report on the Montana Mining Development Company (Lamartine Group)

Please find enclosed the original and seven copies of Harrer's engineering report on the subject docket.

The four phases suggested by the examining team were summarized and inserted in the "Summary, Conclusions, and Recommendations" at the suggestion of A. H. Koschmann.

Few changes have been made on the original draft, but your attention is called to the fact that the report does not follow Defense Minerals Administration outlines in accordance with the Field Team's memorandum of April 18, 1951, starting with their item (8a) and continuing through item (11).

Figure 3, a plan and section of that portion of the Lamartine mine under consideration, is included only with the geological section of the report and is so referenced in the index. I see no reason for duplicating this figure in the engineering report as long as both would be identical. This procedure has been followed in several of the recent reports we have submitted.

Phase 2 of the project recommended by the examining team is to rehabilitate raises to make accessible stope faces that have already been sampled by a Reconstruction Finance Corporation engineer and were, in part, sampled by Harrer on the present examination. These samples indicated a reserve of minable ore estimated by the engineer at 8,000 tons and reported as inferred ore. I am inclined to consider this as indicated ore and the work suggested thereon as more definable as development than exploration.

Phase 3, to prepare the Lamartine mine workings at least possible expense for examination in order to check reports of unmined lead-zinc ore possibilities in the Imperial-Silver Queen area, is a substantial undertaking and I doubt if it can be accomplished with the $30,000.00 assigned for the work. It entails a considerable amount of mine rehabilitation and, in this case, whether it is done through the Lamartine No. 3 shaft working downward from the cellar, or upward from the main Lamartine tunnel level, will be exceptionally costly. Resulting reserves, if defined, may not be of great magnitude, as all the evidence presented is hearsay.

The Lamartine mine was originally a gold-silver property. If additional lead-zinc reserves beyond those estimated are to be developed, it is indicated that they will be in the area below the Lamartine tunnel level underneath the Roberts and Johnson stopes, probably as an extension downward. Accordingly, I would consider a better exploration possibility might be unwatering either one or the other of these workings, preferably the Johnson stope as it reaches the greatest depth, connect them if they are not already connected, and thoroughly sample all exposed faces. This exploration program, if successful, would serve to justify the ultimate extension of the Oneida-Stag tunnel.

Other than the suggestions given above, I am in agreement with the examining team's proposals.

Enclosed also is the original brochure as received from your office.

W. M. Traver, Jr.

W. M. Traver, Jr.

enclosures

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

200 New Customhouse
Denver 2, Colorado

July 6, 1951

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 270--Lamartine Mine, Clear Creek County, Colorado

Enclosed are the original and 7 copies of the geological report, covering DMA Docket 270, prepared by O. D. Evans of the Geological Survey. Mr. Evans concludes that the geologic setting is favorable for the discovery of additional ore of commercial grade, and that an exploration loan is warranted.

I concur in his conclusions.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-270, Montana Mining Development Company, Lamartine Group

Clear Creek County, Colorado

C. M. Harrer, Mining Engineer
U. S. Bureau of Mines

O. D. Evans, Geologist
U. S. Geological Survey

July 10, 1951

MONTANA MINING DEVELOPMENT COMPANY
LAMARTINE GROUP
CLEAR CREEK COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By C. M. Harrer
Mining Engineer
U. S. Bureau of Mines

and

O. D. Evans
Geologist
U. S. Geological Survey

LAMARTINE GROUP

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By C. M. Harrer and O. D. Evans

The Montana Mining Development Company property known as the Lamartine group, or mine, is in the Lamartine-Trail Creek Mining District, Clear Creek County, Colo..

The steeply dipping veins of the Lamartine mine are in pre-Cambrian Idaho Springs formation which includes gneissoid granite, biotite schist, and pegmatite. The Lamartine vein forms a diagonal link between the parallel Oneida and R. E. Lee veins. Near the junction of the Lamartine and Oneida veins the mineralization is strongest. The ore contains galena, sphalerite, gold and silver, some chalcopyrite and pyrite, and a quartz gangue. Gold ore with minor amounts of chalcopyrite was mined from the eastern part of the Oneida veins.

No measured or indicated ore reserves were calculable as pertinent development is inaccessible; inferred ore reserves are estimated at 8,000 tons with an expected assay of 0.2 ounce gold and 3.0 ounces silver per ton, 6.0 percent lead and 6.0 percent zinc, with minor amounts of copper.

The future of this property as a producer of lead-zinc is dependent on the developing of ore reserves at present only poorly definable.

An exploration program has possibilities of developing substantial reserves of low-grade lead-zinc ore.

The Montana Mining Development Company has introduced an original exploration program for $337,500.00 which was later reduced to an estimated $100,000.00. An amended program for $149,240.00 was filed June 14, 1951.

Exploration recommendations by the examining team are at variance with the proposed exploration program.

An expenditure of $90,474.00 is recommended by the examining team to carry on the following four-phase exploration program:

1. Advance the main level drift within the Ben Harrison claim lines 260 feet or to a possible connection with the Lamartine vein, this exploration to be limited to a distance considered geologically favorable by field representatives of Region IV. In the event it is discontinued, diamond drilling will be substituted to explore the area from the paralleling Lamartine tunnel, supplemented by short exploratory raises.

2. Rehabilitate raises from the main level to permit driving exploration drifts totalling 200 feet above the Morgan, Lanphier, and Roberts stopes, subject to changes in part or discontinuance entirely if such procedure is indicated.

3. Prepare the Lamartine mine workings for examination at least possible expense for investigation of reported lead-zinc ore bodies remaining in the Imperial-Silver Queen area.

4. Explore by transverse diamond drill holes for possible parallel vein structures corresponding to the Lamartine vein, the work to be closely supervised by Region IV engineers and geologists.

The first two phases will require approximately 40 days each, the third phase 60 days, and the fourth phase 90 days to complete, or a total of 230 days. If carried on concurrently, the four phases can be completed in about 90 days.

The proposed program is shown on figure 3.

Government participation will be on a 50 percent basis, or $45,237.00.

The Montana Mining Development Company has expressed willingness to participate in the proposed exploration program but is presently unaware of our recommendations.

It is suggested that the company's intention to change the mill flowsheet to include a zinc circuit be secured in writing prior to starting the project if it is approved.

LAMARTINE MINE

CLEAR CREEK COUNTY, COLORADO

DMA Docket 270

Geology and Ore Deposits

by O. D. Evans, Geologist

U. S. Geological Survey

Geology

LAMARTINE MINE
CLEAR CREEK COUNTY, COLORADO

GEOLOGY

The leased properties of the Montana Mining Development Company are in the Lamartine-Trail Creek District of the Georgetown quadrangle, near Idaho Springs, Colorado. The Lamartine and joining veins, which have been worked in the Lamartine Mine, are in the Idaho Springs formation of pre-Cambrian age. The vein walls are gneissoid granite, biotite schist, and pegmatite. The Lamartine vein is over 4,000 feet long and strikes east and dips vertically to steeply north. It forms a diagonal link between the Oneida vein to the east and the R. E. Lee Vein to the west. (See Figure 4) The Oneida and R. E. Lee veins strike northeast and dip vertically to steeply northwest. They have been drifted on for 3,800 and 2,500 feet respectively.

The richest ore shoots in this vein system occupied the field of intersecting minor veins which formed in the angle between the Oneida and Lamartine veins. (Spurr, Garry, and Ball, 1908) Mineralization extended west of this field of intersection for 3,000 feet. High grade silver, gold, lead, and zinc ore was mined from these ore shoots. The vein material contained galena, sphalerite and pyrite with quartz gangue. The zinc-bearing ore as a rule was poor in gold and silver. For this reason, and because zinc was then valueless, no effort was made to mine this type of ore. It is reported that considerable zinc ore still

remains on the Lamartine vein in the Silver Queen, Imperial, and Money Musk claims. Workings in this area are now inaccessible.

On the Oneida vein mineralization has been less intense. Some lead-zinc-silver-gold ore was mined from above and below the Lamartine Tunnel level on the western part of the vein. (See Figure 3) Mineralization here is similar to that on the Lamartine vein. To the east, the vein narrows and galena and sphalerite practically disappear. The values are mainly in gold, and a small amount of copper in the form of chalcopyrite.

The R. E. Lee vein is essentially a barren fracture.

ORE ESTIMATE

No ore has been estimated on the Lamartine vein because of the lack of accurate data. On the west part of the Oneida vein, above the Roberts and Lamphier stopes, a block of Inferred ore containing 8,000 tons with .20 Oz. Au per ton, 3.0 Oz. Ag per ton, 6.0% Pb and 6.0% Zn has been estimated.

CONCLUSIONS

Some zinc ore may remain on the Lamartine vein, but this can only be determined by making the workings accessible for examination.

Prospecting on the Oneida vein for lead-zinc ore should be confined to its western part. Here there is a possibility of developing ore above the two westernmost stopes. Furthermore, this vein on the Lamartine Tunnel level has not been followed westward to its junction with the Lamartine vein. There is a chance that this 250 feet of unexplored vein may contain some ore.

The Lamartine vein is the only vein known to form a diagonal link between the Oneida and R. E. Lee veins. Such structures often occur in pairs. Therefore, the ground both north and south of the Lamartine vein, between the Oneida and R. E. Lee veins, is worthy of examination.

REFERENCE

Spurr, J. E., Garry, G. H., and Ball, S. H., 1908, Geology of the Georgetown Quadrangle, U. S. G. S., Prof. Paper 63.

MONTANA MINING DEVELOPMENT COMPANY
LAMARTINE GROUP
CLEAR CREEK COUNTY, COLORADO

Engineering Report

By G. M. Harvey
Mining Engineer
U. S. Bureau of Mines

Engineering

MONTANA MINING DEVELOPMENT COMPANY
LAMARTINE GROUP
CLEAR CREEK COUNTY, COLORADO

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* See figure following Geology Report.

MONTANA MINING DEVELOPMENT COMPANY

ENGINEERING REPORT

By

C. M. Harrer
U. S. Bureau of Mines

INTRODUCTION

An examination of the mineral properties known as the Lamartine group was made by the author and O. D. Evans, of the U. S. Geological Survey, at the request of Montana Mining Development Company, of Bozeman, Montana, and Idaho Springs, Colorado, to determine the merit of a proposed mine exploration loan for $100,000.00 under the Defense Production Act of 1950 as DMA Docket 270.

J. E. Anderson, manager of Montana Mining Development Company, was contacted at Idaho Springs on May 17, 1951, and was most cooperative and helpful during the examination.

LOCATION, ACCESSIBILITY, AND PHYSICAL FEATURES

The property is 6 miles west of Idaho Springs in secs. 1 and 2, T. 4 S., R. 74 W., sec. 6, T. 4 S., R. 73 W., and sec. 31, T. 3 S., R. 73 W., 6th P. M., Trail Creek Mining District, Clear Creek County, Colo. (fig. 1). It is reached from U. S. Highway 6-40 at the west city limits of Idaho Springs over a steep, but well maintained, secondary road which crosses Clear Creek and parallels Trail Creek for a distance of 5.7 miles to the company office, mill, and the Lamartine tunnel portal at an altitude of about 9,592 feet. The property is readily accessible to industrial and supply facilities

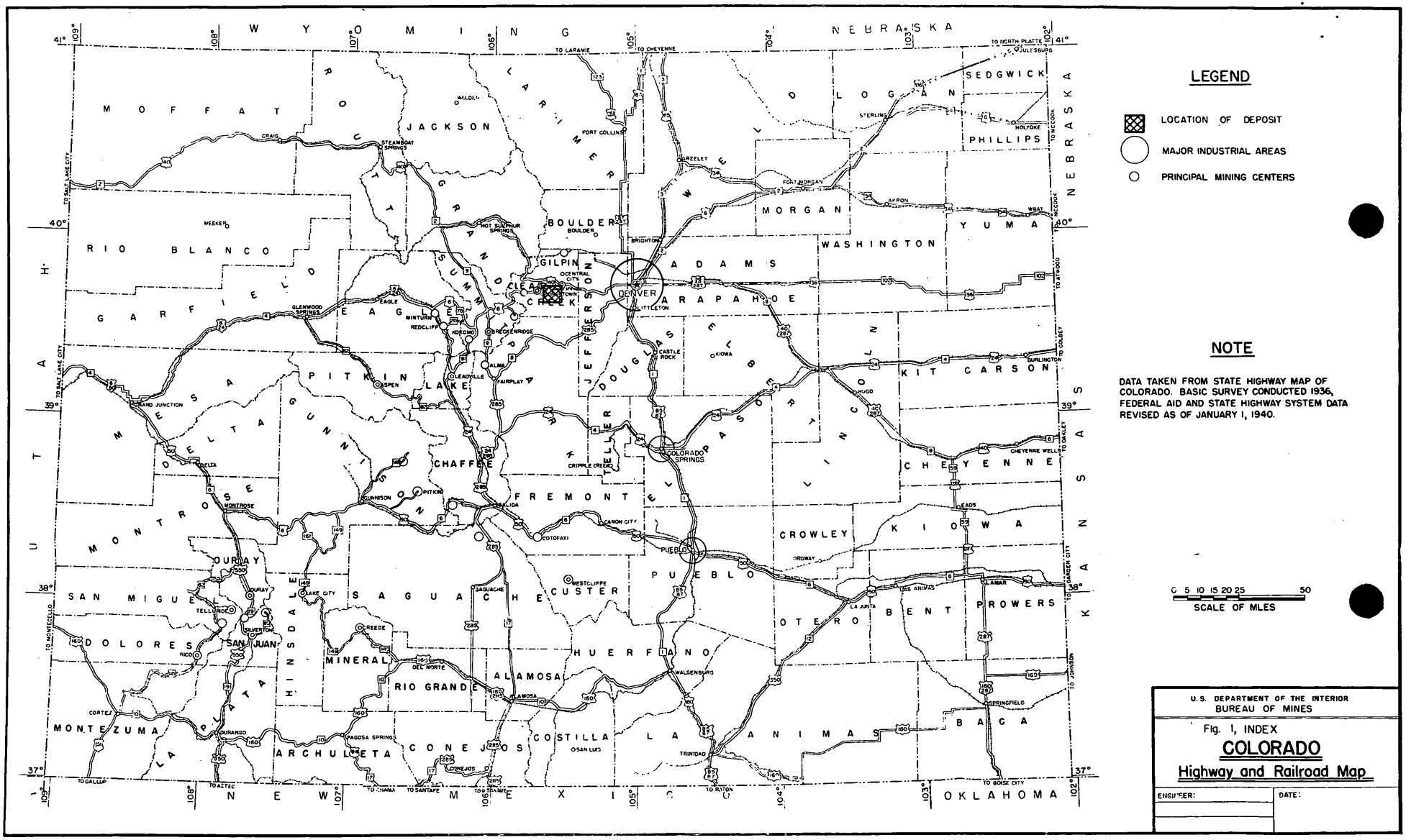

Fig. 1 - MONTANA MINE DEVELOPMENT CO. LAMARTINE MINE, IDAHO SPRINGS, COLO. (DMA-270)

through Idaho Springs. Lead concentrates are trucked to the American Smelting and Refining Company smelter at Leadville for $5.50 per ton. Zinc concentrates, when made, will be trucked to Golden for $3.25 per ton and shipped by freight to Amarillo, Texas, for $8.00 per ton.

Mine workings are between 9,140 and 10,500 feet altitude. The terrain is rough and mountainous and the steep slopes are well wooded with pine timber suitable for mining purposes. Ample water supply is available from mine drainage water through the long Lamartine tunnel and nearby Trail Creek.

Year around mining operations are readily maintained in spite of cold weather and heavy snows.

Operations are presently limited to milling dumps at the portal of the Lamartine tunnel. The manager, J. E. Anderson, and four men have been actively engaged in operating a 130-ton flotation mill on nearby dump rock since January 6, 1950. The company operates a small bunkhouse and mess hall at present and can readily accommodate a crew of over 12 men.

Labor rates are $1.40 per hour for miners, $1.25 per hour for underground labor, $1.25 per hour for mill men, and $1.00 per hour for mill helpers. Sufficient labor has been available locally to date.

HISTORY AND PRODUCTION

The Lamartine mine was located in 1867; the Ben Harrison and Crossus claims, in 1889. The total output in 1905, according to the U. S. Geological Survey, was 14,000 tons of ore averaging a recovered 1.16 ounces gold and 78.7 ounces silver per ton, and 4.8 percent lead.

During the period 1939 through 1943 A. D. Johnston, of Idaho Springs, Colo., leased the Lamartine mine and mined 100,548 tons of ore assaying 0.17 ounce gold and 0.28 ounce silver per ton, 0.004 percent copper, 0.34 percent lead, and 0.15 percent zinc, based on recovered metals. Three thousand six hundred and seventy-five tons of concentrates shipped by Johnston to the American Smelting and Refining Company smelter at Leadville during this period assayed 1.64 ounces gold and 4.07 ounces silver per ton, 7.0 percent lead, and 3.2 percent zinc.

Between October 1897 through October 1902, records in the possession of Lafayette Hanchett, former manager, identified 9,149 dry tons of ore from that portion of the Lamartine known as the Imperial-Silver Queen claims which assayed 0.79 ounce gold and 79 ounces silver per ton, 3.0 percent lead and 12.6 percent zinc. The average of 19 random lots of ore aggregating 371 tons from the above area assayed 3.45 ounces gold and 168 ounces of silver per ton, 9.0 percent lead and 20.0 percent zinc.

During the period August 1944 through January 1948, the Ben Harrison and Croesus claims were leased by the Harrison-Croesus Mining Company, of Idaho Springs, W. J. Roberts, president, and 1,646 tons of sorted crude ore were shipped to the Resurrection and Golden Cycle mills, assaying 0.46 ounce gold and 6.8 ounces silver per ton, 14.40 percent lead, 0.68 percent copper, and 11.46 percent zinc. Approximately 2,500 tons of dump rock which is the complement of the above assayed 0.12 ounce gold and 1.88 ounce silver per ton and 3.18 percent lead. The above operation was

conducted with the assistance of a Reconstruction Finance Corporation loan, No. N. D. 5275, which was completely repaid.

The past production of the Harrison-Croesus claims from 1902 to date, compiled from the records of the Economics Division, U. S. Bureau of Mines, Region IV, totalled 5,230 tons of ore assaying 0.32 ounce gold and 5.4 ounces silver per ton, 8.26 percent lead, 0.2 percent copper, and 6.14 percent zinc, on the basis of recovered metals.

In 1939, Lamartine Mines, Inc., under the direction of A. D. Johnston, erected a 60-ton gravity and flotation concentration mill. The mill operated profitably during 1939-43 on ores from the Falcon claim, predominantly gold and silver, and was consequently closed in 1943 by government directive L-208. Bureau of Mines production records of the Lamartine mine, including the Money Musk, Falcon, and Himrod claims, for the period of 1901 to date totals 131,050 tons assaying 0.37 ounce gold and 5.8 ounces silver per ton, 0.6 percent lead, 0.004 percent copper, and 0.2 percent zinc.

Production, from the same source as above, on the Oneida-Stag claims for the period 1901 to date totals 19,060 tons assaying 0.41 ounce gold and 3.0 ounces silver per ton, 0.4 percent lead, 0.31 percent copper, and 0.2 percent zinc, based on recovered metals.

During the period 1944-48, operations were limited to the Ben Harrison-Croesus claims by the Harrison-Croesus Mining Company, who shipped sorted ores directly to the Resurrection mill, at Leadville, and the Golden Cycle mill, at Colorado Springs. They were denied use of the Lamartine milling facilities.

During 1949, Montana Mining Development Company, a corporation organized in November of the same year under the laws of Montana and qualified to operate as a foreign corporation in the state of Colorado, consolidated a group of 43 mining claims and mill sites known as the Lamartine group through various lease and option-to-purchase arrangements and are prepared to carry on integrated mining and milling operations. The company commenced operation of the original 60-ton mill on dumps adjacent to the Lamartine tunnel portal in January 1950. In October 1950, the mill capacity was increased to 130 tons per day by the addition of new equipment to the pattern shown in the accompanying flowsheet, figure 2. The company expects to install additional flotation equipment to recover a zinc concentrate as lead-zinc ore reserves are developed. At present work is limited to the milling of dumps. Concentration ratio is about 55 to 1, with costs of $2.25 per ton of crude mill feed.

From January 31, 1950, to February 21, 1951, 284 tons of concentrates were shipped to the American Smelting and Refining Company smelter, at Leadville, Colo., averaging 3.03 ounces gold and 81.2 ounces silver per ton, 12.32 percent lead, 0.55 percent copper, and 11.85 percent zinc.

OWNERSHIP AND EXTENT

Montana Mining Development Company property is covered by 43 mining claims and mill sites known as the Lamartine group and are listed in tables 1 to 5 of the appendix. Claims owned outright by purchase are listed in table 1. In addition, a flotation mill located on the Jim J. and B. Fitz claims was purchased from

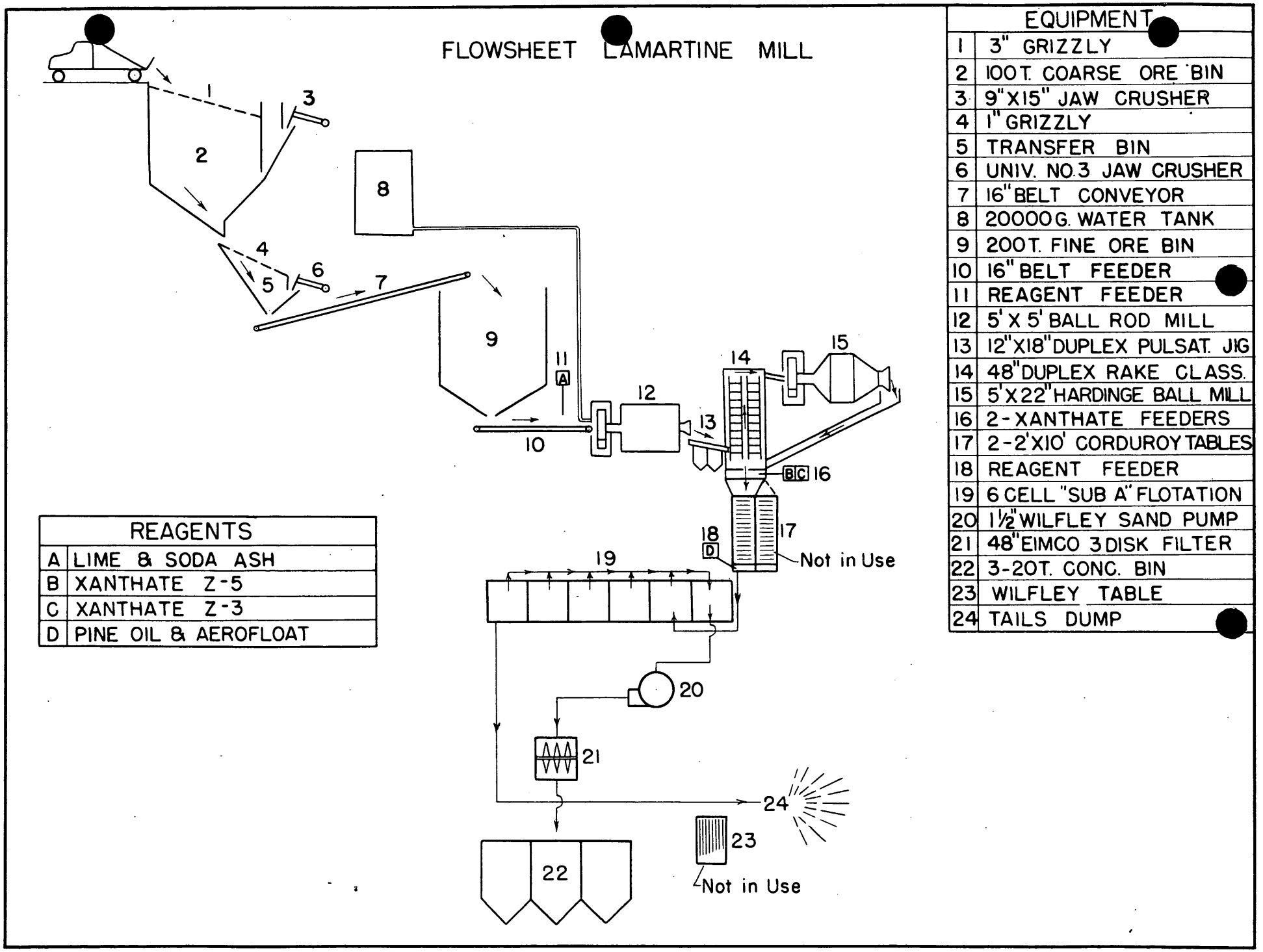

Fig.2 - MONTANA MINE DEVELOPMENT CO. LAMARTINE MINE, IDAHO SPRINGS, COLO. (DMA-270)

Lamartine Mines, Inc., and modernized to treat 130 tons per day. Lease arrangements on the claims listed in table 2 require a payment of ten percent royalty on all ores extracted, based on net mill or smelter returns, which will apply towards the purchase price of $15,000.00.

Lease arrangements on the claims listed in table 3 require a payment of ten percent royalty on crude ore shipments with an average value of $15.00 per ton; fifteen percent royalty on ores valued at $15.00 to $25.00 per ton; twenty percent royalty on ores valued at $25.00 to $40.00 per ton; twenty-five percent royalty on ores valued at $40.00 to $50.00 per ton; and thirty-three and one-third percent royalty on ores valued at $50.00 or more per ton. All concentrates of milled ores are to be settled at ten percent of the net smelter returns. Taxes during the term of the agreement will be paid by Montana Mining Development Company.

The agreement for the claims listed in table 4 requires a royalty payment of ten percent of the net mill or smelter returns on the 13/14ths fraction of the Falcon claim and shall apply towards the purchase price.

The agreement for the claims listed in table 5 requires a royalty payment of ten percent of the net smelter returns on all ores mined and milled, to apply on the purchase price.

DESCRIPTION OF THE DEPOSITS

The property encloses a strong and well mineralized zone of fracturing known as the Oneida and Lamartine veins which has been developed by mining operations from east to west on the Oneida,

Falcon, Ben Harrison, Lamartine, Money Musk, Imperial, and Silver Queen claims over a strike length of 9,200 feet and through a vertical range of 1,200 feet. A system of linked and parallel veins appears associated with the apparently continuous main vein structure.

The ore under consideration occurs as a hard, complex mixture of galena, sphalerite, chalcopyrite, and pyrite with gold and silver, as lenticular bodies within the Oneida vein structure, in gneisses of the Idaho Springs formation. The vein is characterized by strong, hard, and steeply dipping walls with very little gouge or alteration, which lends itself well to the accepted methods of open stull or shrinkage stoping. Stopes examined showed clean, firm walls apparently unaffected by time and the elements as little evidence of caving due to weakened rock masses was observed. In several instances stopes were mined from the sill without support other than lagged stulls and a shallow safety cushion of rock. Very little rock was left in the mine as gobs. Stoping width averages four feet; vein width varies between 0.5 and 6.0 feet. The wall and structural conditions of these deposits will lend themselves well to a variety of cheap mining methods. Figure 3 is a plan map and section of that part of the mine under consideration.

On the Oneida, Stag, Lamartine, Falcon, Nimrod, and Money Musk claims ore bodies were valued primarily for their gold and silver content, while combined lead-zinc was less than one percent and therefore negligible, as shown in the chapter on production.

The value of this property as a source of strategically important metal is presently limited to the Ben Harrison, Croesus, Imperial, and Silver Queen claims which are known to have produced substantial tonnages of lead-zinc ore.

SAMPLING

A total of 30 samples were cut on the Lamartine and Oneida-Stag levels and in stopes above the Lamartine tunnel to determine the quality of ore remnants and vein character. In addition, the location and assay values of 20 samples taken during 1943 by engineers of the Reconstruction Finance Corporation preliminary to the granting of their loan No. N. D. 5275 to the Harrison-Croesus Mining Company were evaluated. All 50 samples are shown on the plan and section, figure 3.

ORE RESERVES

There are no measurable ore reserves.

Indicated ore reserves were not calculable due to the inaccessibility of pertinent mine workings.

Eight thousand tons of inferred ore reserves were estimated to exist over the top of the Morgan, Lamphier, and Roberts stopes assaying 0.2 ounces gold and 3.0 ounces of silver per ton, 6.0 percent lead and 6.0 percent zinc. No further estimation of reserves was attempted due to the inaccessibility of promising locations.

An important factor in the development of substantial lead-zinc ore reserves on this property is the geologic investigation of mine workings presently inaccessible and on which no ore reserves can be estimated under present conditions of accessibility. The future of this property as a source of lead-zinc ore rests on the exploration of vein extensions in workings examined and in presently inaccessible workings.

PRESENT STATUS

Montana Mining Development Company is presently operating the flotation plant on material from a dump adjacent to the portal of the Lamartine tunnel which is also close to the mill. Mill capacity is about 130 tons per day at an approximate ratio of concentration of 55 to 1. In addition, the mine plant, compressed air line, and tracks in the Lamartine tunnel have been placed in operating condition. At present, offices, bunkhouse, shops, and snowsheds at the tunnel portal are in excellent operating condition. All the equipment listed in table 6 of the appendix is in usable condition. The mine is equipped with the necessary plant to conduct mining and milling operations.

The Lamartine tunnel is now open for a distance of 3,150 feet to the present face of the Harrison-Croesus drift, which has also been advanced about 50 feet through mineralized vein (fig. 3).

The Oneida-Stag tunnel, 350 feet below the Lamartine level, is accessible to its present face, 2,135 feet from the portal, but would require considerable rehabilitation for mining operations.

All stopes below the Lamartine level are filled with water or otherwise inaccessible.

Stopes above the Lamartine level are difficultly accessible and critical mine development on the Lamartine, Silver Queen, and Imperial claims is at present entirely inaccessible.

PROPOSED FINANCING

Montana Mining Development Company is willing to enter into an exploration agreement on the standard participating basis, currently 50 percent. The facilities and the equipment listed in

table 6 are offered on a rental basis as part of the company's participating share. As shown, rental of mine equipment not including the diamond drill will be $83.00 per day of 2 shifts. Rental of the company's new diamond drill will be on a basis of $16.00 per day of 2 shifts, not including bits or other expendable items.

EXPLORATION PROPOSAL, LAMARTINE GROUP

By Montana Mining Development Company, Idaho Springs, Colo.

The Montana Mining Development Company proposes to explore for and develop sufficient reserves of lead-zinc ore for continuous operation of the mill facilities and is prepared to augment the present lead concentrate flowsheet, figure 2, by the addition of an already purchased zinc flotation unit when zinc ore is available. Present low-grade dump operations have not encouraged this addition.

To implement this program, a revised four-fold exploration project is proposed, based on the revised docket designations contained in the applicant's letter of June 14, 1951, as well as some parts of the original docket.

Program B:

New equipment to facilitate exploration must be purchased, as listed in table 7 of the appendix, at a cost of $9,478.00 at current prices.

Program C:

Extend the Harrison-Crocus drift 500 feet westerly along the strike of the vein to prospect for mill ore and also to explore a possible lead-zinc ore shoot reportedly raking downwards and easterly through the Lamartine workings with raise exploration possibly being in ore to the fourth level, 390 feet above. It is hoped the proposed

raising may be in ore and self-financing. This would also serve the purpose of making the Lamartine workings accessible to investigation.

500 feet 8' x 6' drift at $38.68 per foot	$19,340.00
Completion time	55 days

Program D:

Advance the Oneida-Stag tunnel 2,500 feet westerly to a point near the Ben Harrison shaft, 350 feet below the Lamartine level, passing under the Jewell, Johnston, Lanphier, Morgan, and Roberts stopes and the development of program C.

2,500 feet of 8' x 6' drift at $35.80 per foot	$97,000.00
Repairing air lines, track, etc.	8,500.00
Reconditioning tunnel	6,050.00
Power line extension*	1,000.00
Total cost	$112,550.00
Completion time	270 days

*Not included in applicant's revised docket. Suggested as applicable here by engineering examiner.

Program E:

Undertake a diamond drilling program to search for ore extensions and parallel structures on the Oneida vein, estimated to take 100 days.

Rental of diamond drill, 100 days at $16.00 per day, 2 shifts	$1,600.00
Labor, 100 days	5,200.00
Social security	78.00
Workmen's Compensation	122.00
Unemployment insurance	156.00
Diamond costs	1,000.00
Total Cost	$8,156.00
Completion time	100 days

Recapitulation

Program	Time of Completion	Total Cost*	Amount of Government Participation
A**	out	none	none
B	60 days	$ 9,478.00	$ 4,739.00
C	55	19,340.00	9,670.00
D	270	112,550.00	56,275.00
E	100	8,156.00	4,078.00
Totals	485 days	$149,524.00	$74,762.00

*Total cost of project submitted by applicant as revised by examining team.
**Program A to finance property consolidations withdrawn by applicant.

All phases of the project could be carried out simultaneously if financial arrangements allow.

It is proposed that Montana Mining Development Company will offer the equipment listed in table 6 of the appendix at the rates shown, which is a total of $83.00 per day, working two 8-hour shifts. The diamond drill will rent at $8.00 per 8-hour shift, exclusive of bits.

APPROXIMATE COST ESTIMATES

The following estimates are very general and based on the existing inferred reserves which in themselves are only an approximation.

Inferred Reserves	Ounces/ton Au.	Ounces/ton Ag.	Percent Pb.	Percent Zn.
8,000 tons	0.2	3.0	6.0	6.0

Estimated Mill Recoveries

	Percent Au.	Percent Ag.	Percent Pb.	Percent Zn.
Heads	100.0	100.0	100.0	100.0
Tails	10.0	9.0	17.0	13.0
Lead concentrate	70.0	66.0	68.0	6.0
Zinc concentrate	20.0	25.0	15.0	81.0

Estimated ratio of concentration	12 to 1
Tons concentrate	667

The following tabulation shows the possible profit per ton of crude ore on a 17-cent lead and 18-cent zinc market:

		Per ton crude ore
Gross smelter return lead and zinc concentrates		$28.88
Smelter base charges	$4.66	
Trucking to Leadville	.30	
Trucking to Golden	.12	
Freight to Amarillo	.30	5.38
Net smelter return		$23.50
Mining costs	$9.50	
Milling costs	4.50	
Royalties	2.50	
Repayment of loan (5 percent of net smelter returns)	1.18	17.68
Apparent profit		$ 5.82

Repayment of the exploration would be at 5 percent, or a maximum of $1.18 per ton of crude ore, in accordance with section 14 of Mineral Order 5. At this rate it would require 63,400 tons of ore of a grade comparable to the inferred reserve to repay the Government's 50 percent of the revised loan proposed by the applicant, or $74,762.00. Any change in grade would affect this figure proportionally.

Similarly, it would require 38,300 tons of crude ore of a grade comparable to estimated reserves to repay the Government's 50 percent of the exploration loan recommended by the examining team, or $45,237.00.

CONCLUSIONS

1. There are no reserves of readily minable ore exposed at this time in properties controlled by the Montana Mining Development Company and stopes, chutes, and manways in the Lamartine mine workings are in precarious condition. The future of this property as a producer of lead-zinc is dependent on the development of ore reserves at present only poorly definable. Other than those calculated, development of reserves is predicated on flexible exploration, under geologic control, under items 1 and 2 of the program recommended by the field examiners.

Evidence of lead-zinc ore possibilities in the Imperial-Silver Queen area of the Lamartine mine is based on a letter by a former manager, Lafayette Hanchett, which is quoted;

L. Hanchett
P. O. Box 720
Salt Lake City

September 11, 1942

Mr. A. D. Johnston,
Manager Lamartine Mines, Inc.
Idaho Springs, Colorado.

Dear Sir:

In response to yours of Sept. 5th asking for data pertaining to the IMPERIAL-SILVER QUEEN portion of the LAMARTINE MINE, I have gone over the records of the mine's production and find the following:—

Between Oct. 1897 and Oct. 1902 the records show 460 sales of separate ore shipments, identified as "Imperial" with a total production, viz:-

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds	Zinc Pounds
9,149.1	7276.28	722,081.88	557,889	2,308,703

The "Imperial" ore had a high zinc content, upon which the smelters imposed a penalty charge of 50 cents per unit on all zinc in excess of 10 per cent; the result being that the zinc produced returned nothing to the miner, and in this instance, cost a penalty charge over $14,000.

In October, 1902, a body of ore was developed in "Lamartine" claim, having a very low zinc content, and consequently thereafter the "Imperial" ore was mixed with the "Lamartine" ore in order to avoid penalties by reducing the zinc content below 10 per cent, and the product was thereafter identified upon the records as "Lamartine" ore.

Of this mixed product, between Oct. 1902 and April 1908, the records show 635 sales of separate ore shipments identified as "Lamartine" ore, with total production, viz:-

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds
7,057.2	4,715.57	255,127	181,323

No record of zinc production, as the "mix" kept under the 10 per cent limit.

As more than half of this tonnage was supplied from the "Imperial-Silver Queen" territory, (which fact is personally known to me) it is a conservative estimate to include 50 per cent of the total of this item as "Imperial" ore.

Such a division supplies the following for credit to the "Imperial" production.

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds
3528.9	2,357.78	127,563	90,660

The total production from "Imperial-Silver Queen" boundaries determined by adding to the identified items the 50 per cent estimate (as above) is:-

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds	Zinc Pounds
12,956.1	9,634.06	849,644.88	648,549	2,308,703 ?

As examples of the high zinc content of Imperial ores, I submit the following lots, taken at random from the ore record:

SMELTER SETTLEMENT ASSAYS

Lot #	Weight	Gold	Silver	Lead %	Zinc%
4697	13,646	3.31	454.9	18.	10.
4770	15,000	2.17	300.82	11.56	17.2
487	23,152	2.45	187.8	7.	16.6
859	30,403	3.88	250.77	12.35	17.2
1328	21,871	3.47	251.2	7.50	17.
7274	31,322	1.79	115.	5.6	20.5
1574	21,491	2.29	122.3	11.25	20.4
7452	22,507	2.04	119.7	8.	22.
38	19,866	.92	101.	6.	24.
70	24,271	3.48	186.02	12.1	20.24
5371	9,064	5.53	249.3	13.4	20.5
5023	14,655	8.01	285.	14.3	19.7
5340	27,810	8.95	178.5	8.7	18.
5493	4,248	.40	70.6	7.5	24.
5360	19,160	.47	50.3	4.5	25.
5370	2,160	.95	249.	9.9	24.
5224	8,594	.55	38.	9.8	29.
5254	30,046	4.07	154.5	9.4	26.3
5024	31,220	4.48	9.1	4.4	16.5

CONCLUSION

My active connection with the "LAMARTINE MINE" terminated in 1905; the operations thereafter were conducted by lessees.

I am without knowledge as to the extent of their activities, but it may be assumed that they mined all saleable smelting ore in sight. The mining practice then followed in this mine was to send all of the product to the smelters, and give scant attention to what is now classed as a milling ore. There is a large block of ground above Second Level, undeveloped, which justifies considerable exploration. There is exposed in a crosscut at the Second Level in Money Musk shaft a parallel vein of equal strength to the "Crown-Imperial" vein upon which the present workings exist. This vein should be developed from a series of crosscuts made from the 4th, 5th, and 6th levels and located at points opposite the mined out stopes.

I would confidently expect such exploration to disclose ore of the same class and grade heretofore produced from the "Imperial-Silver Queen" vein. No great expense would be incurred in this exploration work.

I have no hesitation in recommending further exploration of the "Imperial-Silver Queen" ground.

Yours truly,

(signed) Lafayette Hanchett

Since all pertinent mine development in the vicinity of the Lamartine shaft is presently inaccessible, actual exploration is dependent on making these workings accessible to investigation. This is item 3 of the recommended program.

2. Field evidence of the existence of commercial lead-zinc ore bodies in quantity below the Lamartine tunnel level is inconclusive although there is reason to believe that lead-zinc mineralization extends below the lowest workings of the Roberts and Johnston stopes and the Oneida-Stag Level. Exploration from the Oneida-Stag level or between the Lamartine and Oneida-Stag levels should be dependant on the results of an examination of intra-level stopes and development presently under water. This refers to item 4 of the recommendations and program D of the company proposal.

3. Montana Mining Development Company is presently limited to the milling of mine dumps near the portal of the Lamartine tunnel. A modest profit is made by milling 130 tons per day at a concentration ratio of 55:1 and shipping a gold-silver-lead concentrate with included zinc. The company proposes to explore for and develop sufficient mill-grade lead-zinc ore reserves to insure capacity operation of the mill facilities (Fig. 2). It is not particularly gold conscious and appears sincere in the intention to produce lead and zinc concentrates. Zinc circuit equipment has been ordered and will be installed when reserves of zinc are developed.

4. This property has possibilities of developing reserves of lead-zinc ore.

RECOMMENDATIONS

(1) Advance the main level drift in the Ben Harrison claim 260 feet to a possible connection with the Lamartine vein. If conditions prove geologically unfavorable to Defense Minerals Administration field representatives at any time during its progress, substitute diamond drill exploration of the remaining area from the paralleling Lamartine tunnel, augmented by short exploration raises. Exploration should be directed by Defense Minerals Administration or other competent authority and stopped when evidence proves geologically unfavorable.

Pertinent data:

260 feet of 7' x 6' drift at $38.68 per foot	$9,996.00
Completion time	40 days

(2) Condition necessary raises and drive 200 feet of segmented exploration drift over the top of the Morgan, Lamphier, and Roberts stopes.

Pertinent data:

200 feet of 7' x 6' drift at $40.00 per foot	$ 8,000.00
Reconditioning raises	3,000.00
Total cost	$11,000.00
Completion time	40 days

This phase of the program, like that of (1), should be made flexible and subject to change or cancellation in part as field evidence directs.

(3) Prepare the Lamartine mine workings for examination at least possible expense as deemed necessary by the examining team of Defense Minerals Administration to investigate the possibilities of reported lead-zinc ore bodies in the Imperial-Silver Queen area.

Since the condition of workings is unknown and the Lamartine tunnel is presently blocked here, $30,000.00 is recommended to be spent as field conditions suggest and under the flexible control of the examining team, subject to changes and cancellation in part as necessary. Completion time is roughly estimated at 60 days.

(4) A diamond drilling exploration program is recommended to explore for parallel vein structures similar to the Lamartine vein by transverse drilling as directed by Defense Minerals Administration or other competent authority. An expenditure of $30,000.00 is recommended spent as follows:

Approximately 3000 feet of core drill hole at $8.00 per foot to include rental of company drill and purchase of supplemental equipment such as rods, etc.	$24,000.00
Incidentals	6,000.00
Total cost	$30,000.00
Completion time	90 days

(5) An expenditure of $9,478.00 is recommended for new equipment as listed in table 7 of the appendix.

Recapitulation of Exploration Recommendations

Item	Days completion time	Total cost	Government participation 50 percent	Tons ore reserves required to repay loan*	Remarks
(1)	40	$ 9,996.00	$ 4,998.00	4,300	260 feet level drifting
(2)	40	11,000.00	5,500.00	4,700	200 feet stope drifting
(3)	60	30,000.00	15,000.00	12,700	Opening old Lamartine workings
(4)	90	30,000.00	15,000.00	12,700	Diamond drilling
(5)	60	9,478.00	4,739.00	4,000	To secure new machinery
Totals	290	$90,474.00	$45,237.00	38,400	

*Ore reserves used have the same value as inferred reserves estimated, i.e., 0.2 ounce gold and 3.0 ounces silver per ton, 6 percent lead and 6 percent zinc. Repayment at 5 percent of net smelter returns, or $1.18 per ton of crude ore.

Montana Mining Development Company's proposal to extend the Oneida-Stag tunnel 2,500 feet westerly to a point near the Ben Harrison shaft is not recommended as it would traverse a considerable distance through ground known to have extremely low lead and zinc values with a predominance of gold and silver.

APPENDIX

Table 1. - Mining claims owned by Montana Mining Development Company in the Trail Creek Mining District, Clear Creek County, Colo.

Name	Type	U. S. Survey Number	Fraction	Title
Money Musk	patented	6504	5/16	purchased
Denver City	patented	5695	all	tax title
Rose Millsite	unpatented	—	all	purchased
Jean Millsite	unpatented	—	all	purchased
Grace Millsite	unpatented	—	all	purchased
Mary Millsite	unpatented	—	all	purchased
Dora Millsite	unpatented	—	all	purchased
Betty Millsite	unpatented	—	all	purchased

Table 2. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Himrod Mines Company, October 27, 1949, under lease with option-to-purchase agreement at a cost of $15,000.00.

Name	Type	U. S. Survey Number	Fraction
Chloride Hill Lode	patented	9267	all
John L. Lode	patented	9267	all
Franklin Lode	patented	9267	all
Himrod Lode	patented	9263	all
Falcon Lode	patented	1198	1/14
Falcon Extension Lode	patented	8104	all
Lafayette Lode	patented	9263	all
Lamartine Lode	patented	629	all
Crown Lode	patented	5681	all
Amuletta Lode	patented	6387	all
Imperial Lode	patented	6141	all
Silver Queen Lode	patented	6762	all
Silas Hanchett Lode	patented	9953	all
B. Fits Lode	patented	19288	all
Jim J. Lode	patented	19288	all
Fairview Lode	patented	6584	all
Crest Lode	patented	6584	all
Letout Lode	patented	6584	all
Highland Lassie Lode	patented	6584	all
Rose of Sharon Lode	patented	6584	all
Spruce Lode	patented	6584	all
Sunflower Lode	patented	6584	all
Money Musk Lode	patented	6504	11/16

Table 3. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Minnie Richards, Helen Varner, Lorraine Smith, and Ivan Ferrell of Denver, Colo., Marcella Foote of Chelan, Wash., and J. L. Dyke of Turlock, Calif., on December 9, 1950, under an "Agreement of Sale" for $25,000.00.

Name	Type	U. S. Survey Number	Fraction
Black Earth Lode	patented	417	all
Maximum Lode	patented	2262-A	all
Maximum Millsite	patented	2262-B	all
Rustler Lode	patented	2134-A	all
Rustler Millsite	patented	2132-B	all
Oneida Lode	patented	1558	all
Richmond Millsite	patented	17230	all
Old Stag Lode	patented	6117	all
Ontario Lode	patented	6117	all
Wilson Lode	patented	19944	all
Old Stag tunnel and tunnel site (on Maximum Millsite)			

Table 4. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Lamartine Mines, Inc., on October 28, 1949, under a "Lease and Option-to-Purchase Agreement" for $60,000.00.

Name	Type	U. S. Survey Number	Fraction
Falcon Lode	patented	1198	13/14

Table 5. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Katherine A. Clark and Charles D. Armstrong of Canon City, and Grace M. Robinson of Denver, Colo., on August 23, 1950, under a "Lease and Option-to-Purchase Agreement" for $50,000.00 plus 6 percent interest.

Name	Type	U. S. Survey Number	Fraction
Ben Harrison Lode	patented	6381	all
Crocsus Lode	patented	6381	all

Table 6. - Mining equipment on Montana Mining Development Company property, at the Lamartine tunnel level, offered for rental.

Item		Rental value per 8 hours
1	Worthington Blue Brute 315 diesel-driven air compressor.	$14.00
1	Ingersoll-Rand Imperial Type 10 air compressor complete with Type 1, for K starting compensator. Electric drive.	10.00
1	1-1/2-ton Atlas trammer complete with battery charger	6.00
10	Ore cars	5.00
Air tools:		
1	CF jack hammer	
1	Thor jack hammer	
3	Old Gardner-Denver drifters, Model D-79	
3	Tugger hoists	
5	Gardner-Denver R-91 stopers	
2	Gardner-Denver 104 stopers	6.50
	Total rental of equipment, excluding diamond drill	$41.50
1	Chicago Pneumatic diamond drill X-1 (new) 500 feet of EX rod	8.00
	Total rental of equipment, including diamond drill	$49.50

Table 7. - New mining machinery to be purchased and used on Montana Mining Development Company exploration.

Item		Cost
1	Eimco-Finley mucking machine	$3,492.00
1	Chicago Pneumatic Model CP60N drifter	973.00
1	Chicago Pneumatic drifter, Jumbo Model G600	4,013.00
6	Changes of drill steel*	200.00
	Anticipated price increase	1,000.00
	Total cost of new equipment	$9,478.00

*Added by examining team to applicant's estimate.

Docket

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

224 New Customhouse
Denver 2, Colorado

April 18, 1952

REGISTERED MAIL

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: Contract IdmE-261, Docket DMA 270X, Montana Mining Development Company

Enclosed are the original and three copies of the above contract. All copies have been signed by the Acting Administrator, DMEA, and by the Secretary of the Montana Mining Development Company.

One copy of this contract has been given to the Operator and one copy has been retained for our files.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

500E COPY
SURNAME:

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

APR 14

Mr. J. H. East, Jr.
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

Re: DMA Docket No. 270X (Lead-Zinc)
Montana Mining Development Co.

Dear Mr. East:

In reply to your memorandum of April 1, 1952, referring to the subject docket, there apparently is a misunderstanding of the intent expressed in the two letters relative to procedure in event the contract was not satisfactory. It was our intent, however, that if this contract was not satisfactory to you, or the Operator, you would proceed to draw up and finalize a satisfactory contract within your delegated authority. The letter from Frank E. Johnson was merely enclosed to show you that the DMEA Operating Committee had approved this contract.

We have reviewed Exhibit "A" as proposed by your office and we are in accord with the changes in equipment, location of diamond drill holes and unwatering project.

We are, therefore, returning the contract incorporating your proposed Exhibit "A" for completion by your office in the normal manner.

Sincerely yours,

(signed) FRANK E. JOHNSON

for Acting Administrator
Defense Minerals Exploration
Administration

JWAlt/hmj
4-11-52
CC to: Adm. Reading File
Operating Committee
Docket File Copy
Region IV
Mr. Bishop
Mr. McKnight
Mr. Moulds
Mr. Alt

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

224 New Customhouse
Denver 2, Colorado

April 1, 1952

REGISTERED MAIL

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: DMA Docket 270X, Montana Mining Development Company

We are returning six copies of the proposed contract between the Government and the Montana Mining Development Company. All copies of this contract have been signed by the Acting Administrator, DMEA, and were sent to this office on February 20, 1952. Your transmittal letter stated: "If the proposed contract is not satisfactory to you, or the applicant, it is suggested that you attempt to come to some agreement with the applicant for a contract in an amount within your delegated authority."

Also attached was a letter from Frank E. Johnson, Chairman, Operating Committee, in which he stated: "However, if any changes are required all the contract copies are to be returned to this office with your comments regarding the proposed changes."

The contract as submitted was not acceptable to the applicant. A field investigation was made and copies of the memorandums from Scott W. Hazen, Jr., Mining Engineer, and Truman H. Kuhn, Geologist, are enclosed. Also enclosed are six copies of a revised Exhibit "A" which conforms with present conditions at the property and is acceptable to both this office and the applicant.

If the revised Exhibit "A" meets with your approval kindly return all six copies of the revised contract to this office for the applicant's signature.

APR 7 1952

J. H. East, Jr.

Enclosures

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

224 New Customhouse
Denver 2, Colorado

April 1, 1952

REGISTERED MAIL

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: DMA Docket 270X, Montana Mining Development Company

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If the revised Exhibit "A" meets with your approval kindly return all six copies of the revised contract to this office for the applicant's signature.

J. H. East, Jr.

APR 8 1952

Enclosures

JFS:lk

cc: Contract, chron.
Koschmann
Trever

COPY

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

200 New Customhouse
Denver 2, Colorado

March 19, 1952

Memorandum

To: Mr. A. H. Koschmann

From: Truman H. Kuhn

Subject: Lamartine Mine - DMEA Docket 270X, Contract Idm-E261, Montana Mining Development Company, Clear Creek County, Colorado

On March 12, 1952, accompanied by U. S. Bureau of Mines engineers, I examined and mapped a portion of the Montana Mining and Development Corporation's Lamartine Mine near Idaho Springs, Colorado, (DMEA Docket 270X). Prior to visiting the mine I had examined Owen Evan's original DMA geologic report on the Lamartine mine.

As a result of this brief study I can concur with the general exploration project outlined in Exploration Project Contract Idm-E261, Montana Mining and Development Corporation, DMEA Docket 270X:

1. Extend the Ben Harrison-Croesus drift on the Lamartine 10th level along the vein southwesterly to an intersection or to a distance not to exceed 260 feet. The point of beginning being the present face of the drift which is 645 feet from the frog point at the "Y" in the drift.

2. Drill two diamond drill holes totaling 400 feet, each hole to be AX size or larger and approximately 200 feet in length. These two holes to be drilled northwesterly into the hanging wall of the Ben Harrison-Croesus drift to explore for possible parallel veins. The

holes have been located by mutual agreement between the Applicant and DMEA engineers. One hole has been located at the "Y", point B, and the other is to be drilled from the most advantageous location in the vicinity of point A. The exact location to be determined after examination of the intersection area.

3. Unwater the Robert's winze and stopes below the Lamartine Tunnel 10th level to make these workings available for sampling and geologic study.

/s/ Truman H. Kuhn

Truman H. Kuhn

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20
Denver Federal Center
Denver 14, Colorado
March 18, 1952

Memorandum

To: Chief, Colorado Branch, Mining Division

From: Scott W. Hazen, Jr.

Subject: DMEA 270X, Contract Idm-E261, Montana Mining Development Company (Lamartine Mine), Clear Creek County, Colorado

The proposed contract with the subject company has been revised to conform to present conditions and to fit into possible future exploration plans. The total amount of the contract remains at $15,000.00. These changes have been discussed with a company representative and are acceptable.

The following changes have been taken into account:

1. The company has advanced the Ben Harrison - Croesus drift on the Lamartine tenth level since the original Defense Minerals Administration examination and a new face and measuring point have been established. Since the accuracy of the old maps is uncertain, the wording on the contract will be changed to read extend the drift to an intersection not to exceed 260 feet. This will also allow for an expected splitting of the vein rather than making a direct connection as the maps infer.

2. The company has some additional verbal evidence from miners who worked in the Johnson stopes that a hanging wall vein was found in a sublevel crosscut near the "Y". In order to explore this possibility as well as to prevent cutting a station and to better integrate future exploration contemplated by the company, one drill hole location was moved to the "Y". The company has its own diamond drill equipment. It is, however, EX size and, to insure better core recovery, we have specified AX or larger. Incidentally, the Atomic Energy Commission is interested in testing the drill cores. The second hole is still shown at "A" but its exact location should be subject to change if conditions found after the drift is connected indicate it is advisable.

3. The company has partially unwatered the Roberts winze and stopes below the Lamartine tunnel tenth level. This should be completed in order to sample and map the lowest sublevel. Rental of a pump has been allowed for the operation.

4. Some changes have been made in specific items of equipment.

a. Rental of mucking machine and pump.

b. The company has a new compressor so the description and depreciation value have been changed.

c. Diamond drill equipment is included.

5. Labor and supervision have been clarified as to hourly and daily rates. These are shown at rates which are somewhat higher than those presently paid but the company expects to have to pay the higher rate before long as the operation is in the same general area as the Lupton contract I-DMA-E6. The reduction in actual footage in the drift will probably compensate for the wage increase. Diamond drilling costs per foot are sufficient to allow change to AX size and pay for driller and helper if the company does the work with its own equipment.

6. Increases in costs and added items have absorbed the contingencies in the original contract.

Future exploration which can be handled as an extension of this contract is desired by the applicant. The best approach seems to be to sample and map the Roberts winze and sublevels. From what can now be seen in the winze, the ore appears to be good below the Lamartine tenth level. Approval could be given later to a program costing about $30,000.00, consisting of about 3,000 feet of diamond drilling to explore the downward extension of this ore. It would require drilling at least eight 300-foot holes from four stations on the Lamartine tenth level. One would be at point B or the "Y", another in the vicinity of point A, and two in between. These last two stations would require crosscuts into the hanging wall of approximately 60 feet each. In addition, one hole should be drilled from the Johnson winze station on the tunnel level into the hanging wall to test for splits or parallel veins. This hole would also test part of the area in which the Atomic Energy Commission is interested. Radioactivity has been found to exist here, which is the transition area between the gold and base metals zones.

The applicant's representative signified his desire to work out a program along these lines.

The company is anxious to get started and is willing to sign and begin work on the contract for $15,000.00. The work can begin as soon as the contract is typed and signed.

The company has been developing ore above the Lamartine tenth level in the area of the old proposed project 2. It expects to start the mill on March 17, 1952, but as yet has not installed the zinc unit and is selling a bulk concentrate to the American Smelting and Refining Company

smelter at Leadville. The company has an agreement whereby it is allowed up to 15 percent zinc without penalty. So far, milling has been mostly dump rock so it has probably gotten by under the limit. The mine ore, however, will probably be another story, as zinc values in the ore are high.

Scott W. Hazen Jr.

Scott W. Hazen, Jr.,
Mining Engineer

FILE COPY
SURNAME:

F.E. Johnson

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

Mr. J. H. East, Jr.,
Executive Officer
DMEA Field Team, Region IV
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

Re: DMA Docket No. 270X (Lead-Zinc)
Montana Mining Development Co.
Exploration Project

Dear Mr. East:

In connection with the subject application, the exploration program recommended by the Field Team differed from the applicant's proposal. Also, suggestions from Mr. Allsman and Mr. Traver are at variance with each other and with the program recommended by the Field Team.

The application and Field Team report were reviewed by the Commodity Group here in Washington. As a result of this review the Commodity Group have agreed on an Exploration Project in the amount of $15,000.00, which is considerably less than that proposed by the applicant or recommended by the Field Team. Although a project of $15,000.00 would normally fall within the authority delegated to you, in order to expedite its completion, a contract has been prepared in this office which I have signed and the original and five copies are enclosed with letter from the Operating Committee.

If the proposed contract is not satisfactory to you, or the applicant, it is suggested that you attempt to come to some agreement with the applicant for a contract in an amount within your delegated authority.

Sincerely yours,

C. O. Mittendorf (for) 2/20

Acting Administrator
Defense Minerals Exploration
Administration

FEJohnson/bih
2/19/52
cc to: Docket
Admr's Reading File
Messrs. Moulds
Alt
FEJohnson

Enclosures (7)

Docket

FILE COPY
SURNAME:

Moulds

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

Mr. J. H. East, Jr.
Executive Officer, Region IV
224 New Customhouse Building
Denver, Colorado

FEB 15 1952

Re: Docket No. DMA 270X, Lead-Zinc
Montana Mining Development Co.
Exploration Project Contract

Dear Mr. East:

We are enclosing the original and five copies of the above subject contract, signed by this office for the Government, together with Exhibit "A" (3 pages), one map and one Landlord's Subordination Agreement.

If the terms and conditions of this contract meet your approval and are satisfactory to the Operator, all copies are to be signed by a duly authorized official of the Company. One copy is to be given to the Operator, one copy retained by your office and the original and three copies returned to this office. However, if any changes are required, all the contract copies are to be returned to this office with your comments regarding the proposed changes.

Sincerely yours,

(signed) FRANK E. JOHNSON (JWA)
Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures-6
APPROVED:

E. H. Hedges (JWB)
Member, Bureau of Mines

J.P. Thayer (JWB)
Member, Geological Survey.

JWAlt/hmj
2-14-52
cc to: Adm. R. File
Docket File Copy
Mr. Bishop
Mr. McKnight
Mr. Moulds
Mr. Alt
Region IV

500 FILE COPY
SURNAME:

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

FEB 8 1952

Mr. James E. Anderson, Manager
Montana Mining Development Co.
P. O. Box 458
Idaho Springs, Colorado

Re: Docket No. DMA 270X

Dear Mr. Anderson:

This is to acknowledge receipt of your letter of January 31, 1952 with the enclosed Landlord's Subordination Agreements for the Ben Harrison and Croesus Claims.

The work that was originally planned to be done on the Himrod property which was one 200-foot drill hole could be done on the Ben Harrison and Croesus Claims. This would allow you the 400 feet of diamond drilling (2 holes) as recommended by the letter to you of August 30, 1951 from Tom Lyon, Director, Supply Division.

With this in mind, we will proceed to draw up a contract for the work approved.

Sincerely yours,

D. E. Moulds (mes)

D. E. Moulds, Acting Chief
Base Metals Division
Defense Minerals Exploration
Administration

DEJWAlts/meh/hmj
2-6-52
cc to: Adm. Reading File
Docket File Copy
Mr. Bishop
Mr. McKnight
Mr. Alt
Mr. Moulds

MAYNARD SINTON
PRESIDENT

JAMES E. ANDERSON
MANAGER

HAL BOLINGER
SECRETARY

MONTANA MINING DEVELOPMENT CO.

P. O. Box 458

IDAHO SPRINGS, COLORADO

January 31, 1952

Re: Docket No. DMA-270X

D. E. Moulds, Acting Chief
Base Metals Division
Defense Minerals Exploration
Administration
Washington 25, D. C.

Dear Mr. Moulds:

You will find enclosed the Landlord's Subordination Agreement for the Ben Harrison and Croesus Claims.

The reason we have not returned them sooner is we have not been able to get the Subordination Agreements from the Himrod property owners. The owners are not agreeable to the lien at this time as there is very little of the work to be done on the Himrod property. In fact the only thing was a 200 foot core drill hole close to Lamartine shaft. All the rest of the tunnel and drill holes being on the Ben Harrison Croesus property.

We thought the part on the Himrod property could be struck out and we could get started with the tunnel work as outlined in the rest of the program.

Negotations are now under way by the Montana Mining Development Company to purchase the Himrod property outright, then it would be a simple matter to give you the subordination agreement. We hope this meets with your approval as we are anxious to continue development work on Ben Harrison and Croesus property.

Yours very truly,

MONTANA MINING DEVELOPMENT COMPANY

James E Anderson
Manager

James E.Anderson
Encl.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 4 1952

FILE COPY
SURNAME:

Sow
Moses
Pirtle

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

JAN 9 - 1952

Mr. R. A. Bollinger, Secretary
Montana Mining Development Company
Box 458
Idaho Springs, Colorado

Re: Docket No. [illegible]

Dear Mr. Bollinger:

A review of the Defense Minerals Administration files indicates that on October [illegible], 1951, James [illegible] Anderson, Manager of your Company wrote to Mr. Tom Lyon, Director, Supply Division, supplying him with information and stated: "The subordination of interest (forms [illegible]) will be forwarded as soon as they are executed."

To date we have not received these executed forms. In order that we may process your application we will appreciate at your earliest convenience the receipt of these forms or your request to withdraw the application in the event you do not desire the exploration assistance under the requirements of Mineral Order 5, a copy of which is enclosed for your information.

Very truly yours,

SIGNED

[illegible] Moulds, Acting Chief
Base Metals Division
Defense Minerals Exploration
Administration

Enclosure - 1
JAltemp 1/8/52
cc to: Adm. Reading File
Mails and Files
Docket
Field Team, Region IV
Mr. Mittendorf
Mr. Bishop
Mr. McKnight
Mr. Moulds
Mr. Alt

1-9-52
J.D.

ARD SINTON
PRESIDENT

JAMES E. ANDERSON
MANAGER

HAL BOLINGER
SECRETARY

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.
OCT 8 12 08 PM '51

MONTANA MINING DEVELOPMENT CO.

P. O. Box 458

IDAHO SPRINGS, COLORADO

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 8 1951
Defense Minerals Administration,
Production Expansion Division.

OFFICAL FILE COPY

October 4, 1951

To	Initials	Date
for	G-SC	10-8

Mr. Tom Lyon, Director
Supply Division
U.S. Dept. of the Interior
Defense Minerals Administration
Washington, D.C.

Dear Mr. Lyon: RE: DMA-270X

Replying to your letter dated August 30, 1951, concering exploration loan to the Lamartine mine holdings, herewith is the breakdown of the items included in the cost of drifting:

Per day -- six day week

Labor -- 2 miners	$ 26.00
1 mucker	11.70
1 motorman	13.00
1 compressor man	11.70
Supervisor	17.00
Powder	9.90
Electric caps and wire	3.50
Power	10.12
Bits	9.30
Steel	3.00
2 quarts oil	.80
Pipe	2.10
Rail	3.23
Air hose	.55
	$ 121.90

Average 3-1/2 ft. per day
Cost per foot -- $ 34.83

Interdomestic, not foreign

MAYNARD SINTON
PRESIDENT

JAMES E. ANDERSON
MANAGER

HAL BOLINGER
SECRETARY

MONTANA MINING DEVELOPMENT CO.

P. O. Box 458

IDAHO SPRINGS, COLORADO

RE: DMA 2 70X

Actual cost of the following equipment is as follows:

Rental rate for company owned machinery

Compressor and trammer	$ 8 000.00
Ten cars	1 000.00
3 and 4 inch air lines	2 000.00
Air tools	800.00
Rail	2 000.00
	$ 13 800.00

Value $ 13,800.00 or $230.00 per month rental

Prevailing wages are as follows:

Miners -- $1.50 per hour	Time and 1/2 for all time over 40 hours
Muckers - 1.35 per hour	
Motormen - 1.50 per hour	
Mucking machine men -- $ 1.50 per hour	
Laborers -- $1.25 per hour	

Mine foremen and shift boses -- $ 350.00 per month

The subordination of interest (forms MF-202) will be forwarded as soon as they are executed.

MAYNARD SINTON
PRESIDENT

JAMES E. ANDERSON
MANAGER

HAL BOLINGER
SECRETARY

MONTANA MINING DEVELOPMENT CO.

P. O. Box 458

IDAHO SPRINGS, COLORADO

RE: DMA-270X

The Montana Mining Development Company has purchased and has on hand all the necessary machinery to install a zinc selective flotation circuit in the mill. This includes a new set of Morse Brothers float cells conditioner tank and reagent feeders for zinc separation.

Yours very truly,

MONTANA MINING DEVELOPMENT CO.

James E. Anderson

James E. Anderson:als

Manager

SEP 26 1951

DWA-270
Clear Creek County
Colorado

Mr. W. S. Dinger, Jr., Secretary
Montana Mining Development Company
Box 458
Idaho Springs, Colorado

Dear Mr. Dollinger:

We have not had a reply to our letter dated August [illegible], 1951 to you requesting certain information concerning your application for a Government loan DWA-270 and the return of the Landlord's Subordination Agreement Form [illegible].

You should give this immediate attention because final action on your application is held up awaiting information from you and the agreement forms.

Very truly yours,

T. P. Billings, Chief
Land-Mine Branch

TPBillings:ks
9/25/51

cc: Administrator
Deputy Administrator
DWA Docket File 270
Kets
McKnight
Billings

SEP 27

FILE COPY
SURNAME:

350

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

A. E. C.

McKnight
Hanson
Mentch
Johnson

AUG 30 1951
Re: DMA-270X

Mr. H. A. Bollinger, Jr., Secretary
Montana Mining Development Company
Box 458
Idaho Springs, Colorado

Dear Mr. Bollinger:

Your application for an exploration loan from the Government to finance half of the proposed project of $149,240 on the Lamartine mine holdings, has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration. We have had the report of a field study made to help in the appraisal of your project.

The Lead-Zinc Branch is prepared to recommend only a limited participation in your project as set forth in Mr. Sinton's letter of June 14. This will include

(1) 260 feet of drifting southwesterly on the Ben Harrison-Croesus drift, to connect with workings already cut on the vein northeast of the Lamartine shaft.

(2) 400 feet of diamond drilling (2 holes) into the hanging wall of the vein, one hole to be near the present southwest heading of the Ben Harrison-Croesus drift and the other near the Lamartine shaft on the 10th level.

(3) Part of the mining machinery requested by you.

These numbered items represent modifications of your proposals C, E, and B, respectively.

I regret that we do not consider your proposal D, which is 2500 feet of drifting in the Oneida-Stag tunnel, to be a good enough lead-zinc project to warrant $55,775 in Federal participation. The cost is too great for the tonnage of lead-zinc ore that can reasonably be expected from the exploration.

To finish the processing of this application, we will need certain additional information from you.

Your estimated cost per foot of drifting is $38.68. A breakdown of the items included in this cost is desired as it appears to be too high.

Statement of prevailing wage rates for your district is needed, including rate per eight hour shift for

Miners	Motormen	Laborers
Muckers	Mucking machine men	
Mine foremen and shift bosses (per month)		

Your proposed rental rates for company-owned equipment are excessive and the basis of them should be stated. The rates charged by commercial suppliers are not considered justifiable for equipment owned by the operator.

Before an exploration contract can be completed it will be necessary for you to obtain from the owners a subordination of interest in the property involved. For that purpose the necessary forms MF-202, are enclosed, six executed copies of which for both the Harrison-Croesus and Lamartine leases should be returned to Defense Minerals Administration, Production Expansion Division.

We would also like to receive from you a statement to the effect that a zinc recovery unit has been, or will shortly be added to your mill, in order to recover the zinc from your ore. We note from your first application that a set of flotation cells for recovery of zinc was on order for installation about January 1, 1951.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

Enclosures

FWHanson:ETMcKnight:emp
G 8-29-51
Copies to: J. H. East, Jr. Region IV (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
R. H. Mote
Reports and Records
Directors r. file 4214 GSA
Br. r. file 4214 GSA
Files

AUG 30 1951

a.e.c

Ref: DMA-270X

Mr. H. A. Bollinger, Jr., Secretary
Montana Mining Development Company
Box 450
Idaho Springs, Colorado

Dear Mr. Bollinger:

Your application for an exploration loan from the Government to finance half of the proposed project of $149,240 on the Lamartine mine holdings, has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration. We have had the report of a field study made to help in the appraisal of your project.

The Lead-Zinc Branch is prepared to recommend only a limited participation in your project as set forth in Mr. Dixon's letter of June 14. This will include

(1) 760 feet of drifting southwesterly on the Ben Harrison-Treasure drift, to connect with workings already out on the vein northeast of the Lamartine shaft.

(2) 400 feet of diamond drilling (2 holes) into the hanging wall of the vein, one hole to be near the present southwest heading of the Ben Harrison-Treasure drift and the other near the Lamartine shaft on the 10th level.

(3) Part of the mining machinery requested by you.

These numbered items represent modifications of your proposals C, E, and H, respectively.

I regret that we do not consider your proposal D, which is 2500 feet of drifting in the Weida-Bug tunnel, to be a good enough lead-zinc project to warrant $55,775 in Federal participation. The cost is too great for the tonnage of lead-zinc ore that can reasonably be expected from the exploration.

To finish the processing of this application, we will need certain additional information from you.

Your estimated cost per foot of drifting is $[illegible].[illegible]. A breakdown of the items included in this cost is desired as it appears to be too high.

Statement of prevailing wage rates for your district is needed, including rate per eight hour shift for

Miners Motormen Laborers
Tunkers Hoeking machine men
Mine foremen and shift bosses (per month)

Your proposed rental rates for company-owned equipment are excessive and the basis of them should be stated. The rates charged by commercial suppliers are not considered justifiable for equipment owned by the operator.

Before an exploration contract can be completed it will be necessary for you to obtain from the owners a subordination of interest in the property involved. For that purpose the necessary forms SF-102, are enclosed, six executed copies of which for both the Harrison-Crosson and Lamartine leases should be returned to Defense Minerals Administration, Production Expansion Division.

We would also like to receive from you a statement to the effect that a zinc recovery unit has been, or will shortly be added to your mill, in order to recover the zinc from your ore. We note from your first application that a set of flotation cells for recovery of zinc was on order for installation about January 1, 1951.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

Enclosures

FWHanson:EBeKnight:cmp
G 8-23-51
Copies to: J. H. Hast, Jr. Region IV (2)
Chief, Lead-Zinc Br.
E. B. Knight 4214 GSA
R. E. Cote
Reports and Records
Director r. file 4214 GSA
Br. r. file 4214 GSA
Files

McKnight
6/5/51
Johnson

DEPARTMENT OF THE INTERIOR
RECEIVED
AUG 31 1951
Defense Minerals Administration,
Production Expansion Division.

Defense Minerals Administration

Review of Application for Exploration Assistance

To: Production Expansion Division

Docket No. DMA-270

Commodity Lead-zinc

Total Amount $149,240 requested
$ 19,460 recommended

From: Director, Supply Division

Govt. Participation $9,730 recommended

1. Name and Address of Applicant Montana Mining and Development Company

Idaho Springs, Colorado

2. Location of Property Lamartine Group, Clear Creek County, Colorado

3. Mineral or metal Lead-zinc Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good Yes, for modified proposal; see 4 (e) below

b) Poor

c) None

d) Don't know—needs field examination

e) Is there an alternative and favorable project? Yes. see field team report and attached statement
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Lessee
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? Yes

Does the lease have sufficient time to run to cover a future productive period? Should be checked by counsel. See also field team report.

*question numbers are those of MF-103

4. (e) The exploration program recommended by the field team differs from the applicant's proposals. Also, suggestions by P. T. Allsman and W. M. Traver, Jr., U. S. Bureau of Mines, are at variance with each other and with the program recommended by the field team. The different proposals may be summarized as follows (refer to Fig. 3 in field team report in order to see these different proposals):

Applicant's proposed exploration

Program A	- Withdrawn	
Program B	- Purchase of new equipment	$10,250.00
Program C	- Extension of Ben Harrison-Croesus drift 500 feet to SW	19,340.00
Program D	- Driving 2,500 foot extension of Oneida-Stag tunnel	111,550.00
Program E	- Core drilling for possible parallel vein structures	8,100.00
	Total	$149,240.00

Exploration recommended by field team

1. Advance main level drift on Ben Harrison claim 260 feet to southwest or to possible connection with the Lamartine vein.....9,996.00

2. Rehabilitate raises from Lamartine tunnel above Morgan, Lanphier, and Robert stopes to permit 200 feet of exploratory drifts.....11,000.00

3. Prepare Lamartine mine workings for examination of reported lead-zinc ore bodies remaining in Imperial-Silver Queen area.....30,000.00

4. Core drilling for possible parallel vein structures.....30,000.00

5. Purchase of new equipment..... 9,478.00

Total.....$ 90,474.00

Recommendation of P. T. Allsman, U.S.B.M.

1. Concurs with field team on phases 1, 3, 4, and 5.

2. Would eliminate phase 2.

3. In place of phase 2 recommends Program D of applicant. Total cost..... $ 190,000.00

4. If applicant can't participate in $190,000 project, then Program D should be given priority.

Recommendation of W. M. Traver, Jr., U.S.B.M.

1. Concurs with field team on phases 1, 4, and 5.

2. Would eliminate phase 2 on grounds it is development and not exploration.

3. Believes phase 3 of field team will cost more than $30,000 and thinks chances are poor for finding much ore.

4. Favors dewatering Johnson stope and connecting it with other stopes below Lamartine tunnel level, followed by sampling of all faces exposed.

5. If sampling program successful it would justify ultimate extension of Oneida-Stag tunnel.

DISCUSSION OF PROPOSALS

The following considerations appear pertinent to the Lead-Zinc Branch in attempting to unravel this welter of conflicting proposals and recommendations.

The Oneida and Lamartine veins, which occur in gneissoid granite, biotite schist and pegmatite, have been worked chiefly for gold and silver. Total recorded production, 1905 to date, has been 155,340 tons of ore containing 0.71% recovered lead (1,105 tons), 0.34% recovered zinc (526 tons), 0.37 oz. per ton of gold (57,802 ounces) and 5.4 oz. per ton of silver (841,071 ounces). Most of this production came from

the block of ground lying northeast of the Lamartine-Ben Harrison property line, which is the portion of the vein chiefly concerned in the exploration proposal under consideration. The production prior to 1905 came mostly from the vein southwest of the Lamartine-Ben Harrison property line, and ran somewhat higher in lead, total 1,616 tons, nearly 5% of the ore shipped; zinc was not recovered in those days. Throughout the developed length of 9,000 feet, true lead or zinc ore as yet unmined is definitely known at two places, the most important of which is at the east end of the Ben Harrison-Croesus claim, but extending over a short way to the hortheast into the Falcon Extension claim. The other locality is a reported zinc occurrence above the 4th level of the Silver Queen, Imperial and Money Musk claims (see large map submitted by applicant) and is based partly on observations made prior to 1905 but also on reported sampling in 1939, the details of which are not available. This latter ore is now inaccessible.

The ore at the east end of the Ben Harrison-Croesus was mined by W. J. Roberts from August 1944 through January 1948, and 1,646 tons of hand sorted ore averaging 0.46 oz. gold, 6.8 oz. silver, 14.40% lead, 0.68% copper, and 11.46% zinc was shipped to custom mills. The discard from the hand sorting amounted to about 2,500 tons assaying 0.12oz. gold, 1.88 oz. silver, 3.18% lead, and perhaps a comparable per cent of zinc and was thrown on the dump; it has in the last year and a half been milled by the applicant. Roberts had a $20,000 loan from the R.F.C. to work this lead-zinc body and it has been repaid in full. The total recorded production from the Ben Harrison-Croesus claim, 1907-49, amounted to 5,230 tons of ore averaging 0.32 oz. gold, 5.4oz. silver, 8.3% (432tons) lead and 6.1% (321 tons) zinc, and this production has come largely from the lead-zinc stopes (Roberts and Lanphier) at the east end of the claim. The stope length along the Lamartine tunnel level is 360 feet to the property line, but the lead-zinc ore shoot undoubtedly extended across into the Falcon Extension claim, as shown by good assays made by both the field team and the RFC engineers. Ore hasn't been completely stoped at the tunnel level, but samples show that the unmined block contains ore. The highest stoping above the tunnel is 105 feet, though ore extends above this to at least 150 feet in a raise. Stoping below the tunnel level extends to a maximum of nearly 100 feet. The sulfide bearing vein is mostly 2-5 feet thick, with the smaller figure predominant.

The details of the preceding paragraph are given in order to give some indication of the size and grade of the best known lead-zinc shoot. The northeast end is indefinite because it passes into the Margan stope above the tunnel level and into the Johnston stope below the tunnel level. Production figures of lead and zinc from the Morgan stope are not available, but the Johnston stope (which farther northeast includes a large block above the tunnel level) has produced 100,000 tons of gold-silver ore, averaging only 0.34% lead and 0.15% zinc, and

was shut down in 1943 by Government directive L-208. Nevertheless, there are respectable lead-zinc assays (H19, H20, H22) reported from well in the Johnston stope.

There is undoubtedly lead-zinc ore above the Roberts and Lanphier stopes and probably above the Morgan stope. The extent below these stopes is not known because the workings are flooded. The applicant states that the Roberts stope quit at depth in high zinc ore because it was unprofitable (as of 1947-48). Southwest of the Roberts stope, the vein is unexplored.

The Lead-Zinc Branch recommends the following action on the various proposals and recommendations submitted:

Field team proposal No. 1 should be approved (except for slight lowering of cost as shown in Exhibit A). It is the only proposal on which there is unanimous agreement, and is essentially the C proposal of applicant, though applicant proposes a longer drift, just why is not evident, as it will connect with an old drift already driven on the vein. It seems that the chance of extending the lead-zinc shoot to the southwest should be tested.

Field team proposal No. 2 should not be approved. Both Allsman and Traver discard it as more development than exploration, and the applicant did not propose it. If applicant is really interested in mining lead-zinc ore it would seem that he would start on this block of indicated ore above the present stopes at the first opportunity. However, his letter of April 5 states that "all the readily accessible ore above the Lamartine tunnel has been mined and in order to mine ore above that level it was necessary to extend the Lamartine tunnel". Whether this upper block can be profitably stoped or not, we see little advantage of raising and drifting into this block in advance of stoping.

Field team proposal No. 3 should not be approved at present. The proposal was not presented by applicant. The block to be explored is 1800 feet southwest of the Lamartine No. 3 shaft. Field team report estimates it will cost $30,000 to rehabilitate the Lamartine workings to reach the ore and Traver's comment is to doubt that it can be accomplished for this. The reserves of zinc ore reported to occur on the 4th level of the Imperial-Silver Queen workings may not be of great magnitude. The vein is reported to assay 12-15 per cent zinc but whether this is mining width or the width of a vein that would have to be hand sorted is not known. In the early years of this century when this block of ground was being mined, zinc was penalized at the smelters, and as it contained low gold-silver values in comparison to lead, it was avoided in the mining. In a geologic setting where the average vein is narrow, the fact that a valuable gold-silver vein turns to zinc does not necessarily mean that the vein is minable as a zinc ore. At a later date, if development is such that this reported zinc ore can be explored for

a reasonable figure, it might be investigated.

Field team proposal No. 4 should be approved only after modification to cut the amount from $30,000 to $3,900. Applicant's proposal E is to spend $8,156 for diamond drilling into the walls, but specific locations and lengths of holes are not given. Considering that the geologic environment and productive history of the property are not promising for significant new discovery of lead-zinc ore, random drilling into the walls would appear to have little merit. On the other hand, drilling into the walls in the hope of finding parallel veins in the neighborhood of the known lead-zinc stopes and also in the ground where the Oneida and Lamartine veins join would be permissible. The drilling should be limited to the tunnel between the Lamartine shaft and the northeast end line of the Falcon Extension claim. The south side of this stretch has already been adequately explored by the Lamartine tunnel between points "A" and "C" (see field team map) and by a crosscut south of Ben Harrison shaft (shown on applicant's "Topographical Map" but not on the field team map). It is recommended that two holes, not to exceed 200 feet each in length, be driven into the north wall at approximately points "A" and "B", shown on field team map.

Field team proposal No. 5 should be cut to $4,265, in view of recommended curtailment in underground program as compared to applicant's proposal (see next paragraph).

Applicant's D proposal - drifting 2500 feet on the Oneida-Stag tunnel level - should not be approved, for the reason stated by field team (p. 20 of engineering report). The Oneida vein is for the most part not a lead-zinc vein, and the Oneida Stag tunnel would have to go 1680 feet before reaching the Ben Harrison-Croesus line where, probably for the first time, it would pass under lead-zinc stopes. However, the 340 tons of lead, and 150 tons of zinc obtained in 4 years' mining in the Johnston stope may have been concentrated near the Ben Harrison-Croesus line, which would extend the lead-zinc body somewhat to the northeast. The more zinky ground in the Roberts stope would be of doubtful value, as it could not be worked profitably in 1947-48 as a winze operation. The modest lead and zinc production of the Ben Harrison-Croesus is not believed to be important enough to justify the long expensive ($112,550) drift that it would take to reach the property on the lower level. Nor can an extension of the proposed drift under the Lamartine workings be expected to yield much lead or zinc in view of the statement in the U. S. Geological Survey Prof. Paper 63 (p. 318) that the 10th or Lamartine tunnel level was only very slightly mineralized in comparison to the higher levels.

The one remaining proposal to consider is the one by Traver - to dewater the Johnston stope below the Lamartine level and run a drift from its floor under the Roberts winze stopes. This has not been set up as to costs, but assuming that costs would not be excessive, the project would be acceptable. An alternative, would be to dewater and sample the smaller Roberts winze stope. As these projects have not been proposed by the applicant or field team, they will not be considered further.

Principles governing decisions of Lead-Zinc Branch are the following:

Although the geologic environment for lead and zinc is not favorable, there are occasional lead-zinc ore shoots, widely scattered. Chances of finding additional shoots of any significant base metal content are not worth making long and expensive explorations, but where past developments have shown up isolated ore shoots incidental to development for gold and silver, modest exploration for extensions of such shoots is acceptable.

The fact that the property produces its chief values in gold and silver is not held against the property, as witness the approval of many projects in San Juan County, Colorado. However, the lead and zinc in the subject property occurs only in isolated shoots so that it can never be expected to make a significant production in these metals. There has been no discrimination against lead during mining, for the lead is the chief carrier of gold and silver, yet the total production of the vein, 1905 to date, has been only 1,105 tons of lead.

In summary, Lead-Zinc Branch proposes approval of following as Exhibit "A" of an exploration contract:

Extend the Ben Harrison-Croesus drift along the vein southwesterly about 260 feet, and connect with the nearest workings of the Lamartine No. 3 shaft. Time allowance on a single-shift basis, two months.

Drive two diamond drill holes as indicated on field team map, one near point "A", one near point "B", each hole limited to 200 feet depth, and driven by a contract driller. The "B" hole can be driven concurrently with the drift. The "A" hole can be finished within a month after the completion of drifting, including the cleaning out of the approach to it.

Cost of the project

260 feet of drifting 6' x 8' cross-section at $35 per foot, including the cost of labor, supervision, engineering, accounting, supplies, power, and equipment, except as noted below.....	$ 9,100.00
400 feet of diamond drilling at $8.50 per foot, including cost of transportation of equipment, logging of holes, boxing of core and other costs not otherwise indicated.....	3,400.00
Allowance for cutting two drill stations.....	500.00

Equipment to be purchased by applicant -

1	Mine car loader	$3,292.00	with backhoe
1	Drifter rock drill, $3\frac{1}{2}$"	973.00	
			4,265.00

(Applicant's proposal to purchase a drill jumbo is not justifiable for this reduced program. The rental of such an item would be justifiable but is not provided for herein.)

Rental allowance for equipment owned by operator:

		Estimated Present Value	Rental Per Mo.	
1	315 cu. ft. compressor	$ 3,500	$ 60.00	
1	Storage battery locomotive with battery and charger	4,000	80.00	
10	Mine cars	1,500	45.00	
	Total rental per month		$185.00	

Rental for two months.....	$370.00
Compressor rental one additional month.....	60.00
Maximum rental allowance.....	$430.00
Cost of above items.....	$17,695.00
Allowance for contingencies.....	1,765.00
Total cost of project.....	$19,460.00
Government participation at 50%	$ 9,730.00

B. Gildersleeve
E. T. McKnight
F. W. Hanson

Re: DMA-270X

Mr. H. A. Bollinger, Jr., Secretary
Montana Mining Development Company
Box 458
Idaho Springs, Colorado

Dear Mr. Bollinger:

Your application for an exploration loan from the Government to finance half of the proposed project of $149,240 on the Lamartine mine holdings, has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration. We have had the report of a field study made to help in the appraisal of your project.

The Lead-Zinc Branch is prepared to recommend only a limited participation in your project as set forth in Mr. Sinton's letter of June 14. This will include

(1) 260 feet of drifting southwesterly on the Ben Harrison-Croesus drift, to connect with workings already cut on the vein northeast of the Lamartine shaft.

(2) 400 feet of diamond drilling (2 holes) into the hanging wall of the vein, one hole to be near the present southwest heading of the Ben Harrison-Croesus drift and the other near the Lamartine shaft on the 10th level.

(3) Part of the mining machinery requested by you.

These numbered items represent modifications of your proposals C, E, and B, respectively.

I regret that we do not consider your proposal D, which is 2500 feet of drifting in the Oneida-Stag tunnel, to be a good enough lead-zinc project to warrant $55,775 in Federal participation. The cost is too great for the tonnage of lead-zinc ore that can reasonably be expected from the exploration.

To finish the processing of this application, we will need certain additional information from you.

Your estimated cost per foot of drifting is $38.68. A breakdown of the items included in this cost is desired as it appears to be too high.

Statement of prevailing wage rates for your district is needed, including rate per eight hour shift for

Miners	Motormen	Laborers
Muckers	Mucking machine men	
Mine foremen and shift bosses (per month)		

Your proposed rental rates for company-owned equipment are excessive and the basis of them should be stated. The rates charged by commercial suppliers are not considered justifiable for equipment owned by the operator.

Before an exploration contract can be completed it will be necessary for you to obtain from the owners a subordination of interest in the property involved. For that purpose the necessary forms MF-202, are enclosed, six executed copies of which (for both the Harrison-Croesus and Lawsonite leases) should be returned to Defense Minerals Administration, Production Expansion Division.

We would also like to receive from you a statement to the effect that a zinc recovery unit has been, or will shortly be added to your mill, in order to recover the zinc from your ore. We note from your first application that a set of flotation cells for recovery of zinc was on order for installation about January 1, 1951.

Very truly yours,

Tom Lyon, Director
Supply Division

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed? No

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data?_____ If so, attach a draft.

e) Are the cost estimates reasonable? Drifting cost appears high

f) Should more information be requested from applicant? Yes - see copy of letter to applicant

g) Is a field examination necessary to complete Exhibit A?_____

11. Exhibit B (question 23-d)*

a) Is it applicable? No

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed?_____

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data?_____ If so, attach a draft. See field team report.

c) Are rents and charges reasonable? Excessive

d) Is a field check needed? Has been made; letter written to applicant

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed?_____

c) Is the schedule excessive for the work proposed?_____

d) Are the proposed wages and salaries reasonable? Wage rates appear below average

e) Is a field check needed? No; see letter to applicant

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation. See attached statement

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? _____

Reviewed by: B. Gildersleeve GS

E. T. McKnight GS

F. W. Hanson, DMA

Approved for Inn Fy M

Date 8-27-51

INT.-DUP. SEC., WASH., D.C. 99009

16. Recommendation for a modified program has been given in discussion of 4 (e), and reasons for non-acceptance of other proposals and recommendations are also given therein.

Applicant is reported to have on order a zinc circuit for his mill. It is suggested that applicant's intention to change mill flow sheet to include a zinc circuit be secured in writing prior to approval of the project. This has been requested in a letter to applicant.

6/5/51

Defense Minerals Administration 8-27-51

Review of Application for Exploration Assistance

To: Production Expansion Division

From: Director, Supply Division

Docket No. DMA-270

Commodity Lead-zinc

Total Amount $149,240 requested
$ 19,460 recommended

Govt. Participation $9,730 recommended

1. Name and Address of Applicant Montana Mining and Development Company

Idaho Springs, Colorado

2. Location of Property Lamartine Group, Clear Creek County, Colorado

3. Mineral or metal Lead-zinc Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good Yes, for modified proposal; see 4 (e) below

b) Poor

c) None

d) Don't know—needs field examination

e) Is there an alternative and favorable project? Yes. see field team report and attached statement
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Lessee
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? Yes

Does the lease have sufficient time to run to cover a future

productive period? Should be checked by counsel. See also field team report.

*question numbers are those of MF-103

4. (e) The exploration program recommended by the field team differs from the applicant's proposals. Also, suggestions by P. T. Allman and W. M. Traver, Jr., U. S. Bureau of Mines, are at variance with each other and with the program recommended by the field team. The different proposals may be summarized as follows (refer to Fig. 3 in field team report in order to see these different proposals):

Applicant's proposed exploration

Program A	-	Withdrawn	
Program B	-	Purchase of new equipment	$10,250.00
Program C	-	Extension of Ben Harrison-Croesus drift 500 feet to SW	19,340.00
Program D	-	Driving 2,500 foot extension of Oneida-Stag tunnel	111,550.00
Program E	-	Core drilling for possible parallel vein structures	8,100.00
		Total	$149,240.00

Exploration recommended by field team

1. Advance main level drift on Ben Harrison claim 260 feet to southwest or to possible connection with the Lamartine vein.....9,996.00

2. Rehabilitate raises from Lamartine tunnel above Morgan, Lanphier, and Robert stopes to permit 200 feet of exploratory drifts.....11,000.00

3. Prepare Lamartine mine workings for examination of reported lead-zinc ore bodies remaining in Imperial-Silver Queen area.....30,000.00

4. Core drilling for possible parallel vein structures.....30,000.00

5. Purchase of new equipment.....9,478.00

Total.....$ 90,474.00

Recommendation of P. T. Allsman, U.S.B.M.

1. Concurs with field team on phases 1, 3, 4, and 5.

2. Would eliminate phase 2.

3. In place of phase 2 recommends Program D of applicant. Total cost..... $ 190,000.00

4. If applicant can't participate in $190,000 project, then Program D should be given priority.

Recommendation of W. M. Traver, Jr., U.S.B.M.

1. Concurs with field team on phases 1, 4, and 5.

2. Would eliminate phase 2 on grounds it is development and not exploration.

3. Believes phase 3 of field team will cost more than $30,000 and thinks chances are poor for finding much ore.

4. Favors dewatering Johnson stope and connecting it with other stopes below Lamartine tunnel level, followed by sampling of all faces exposed.

5. If sampling program successful it would justify ultimate extension of Oneida-Stag tunnel.

DISCUSSION OF PROPOSALS

The following considerations appear pertinent to the Lead-Zinc Branch in attempting to unravel this welter of conflicting proposals and recommendations.

The Oneida and Lamartine veins, which occur in gneissoid granite, biotite schist and pegmatite, have been worked chiefly for gold and silver. Total recorded production, 1905 to date, has been 155,340 tons of ore containing 0.71% recovered lead (1,105 tons), 0.34% recovered zinc (526 tons), 0.37 oz. per ton of gold (57,802 ounces) and 5.4 oz. per ton of silver (841,071 ounces). Most of this production came from

the block of ground lying northeast of the Lamartine-Ben Harrison property line, which is the portion of the vein chiefly concerned in the exploration proposal under consideration. The production prior to 1905 came mostly from the vein southwest of the Lamartine-Ben Harrison property line, and ran somewhat higher in lead, total 1,616 tons, nearly 5% of the ore shipped; zinc was not recovered in those days. Throughout the developed length of 9,000 feet, true lead or zinc ore as yet unmined is definitely known at two places, the most important of which is at the east end of the Ben Harrison-Croesus claim, but extending over a short way to the northeast into the Falcon Extension claim. The other locality is a reported zinc occurrence above the 4th level of the Silver Queen, Imperial and Money Musk claims (see large map submitted by applicant) and is based partly on observations made prior to 1905 but also on reported sampling in 1939, the details of which are not available. This latter ore is now inaccessible.

The ore at the east end of the Ben Harrison-Croesus was mined by W. J. Roberts from August 1944 through January 1948, and 1,646 tons of hand sorted ore averaging 0.46 oz. gold, 6.8 oz. silver, 14.40% lead, 0.68% copper, and 11.46% zinc was shipped to custom mills. The discard from the hand sorting amounted to about 2,500 tons assaying 0.12oz. gold, 1.88 oz. silver, 3.18% lead, and perhaps a comparable per cent of zinc and was thrown on the dump; it has in the last year and a half been milled by the applicant. Roberts had a $20,000 loan from the R.F.C. to work this lead-zinc body and it has been repaid in full. The total recorded production from the Ben Harrison-Croesus claim, 1907-49, amounted to 5,230 tons of ore averaging 0.32 oz. gold, 5.4oz. silver, 8.3% (432tons) lead and 6.1% (321 tons) zinc, and this production has come largely from the lead-zinc stopes (Roberts and Lanphier) at the east end of the claim. The stope length along the Lamartine tunnel level is 360 feet to the property line, but the lead-zinc ore shoot undoubtedly extended across into the Falcon Extension claim, as shown by good assays made by both the field team and the RFC engineers. Ore hasn't been completely stoped at the tunnel level, but samples show that the unmined block contains ore. The highest stoping above the tunnel is 105 feet, though ore extends above this to at least 150 feet in a raise. Stoping below the tunnel level extends to a maximum of nearly 100 feet. The sulfide bearing vein is mostly 2-5 feet thick, with the smaller figure predominant.

The details of the preceding paragraph are given in order to give some indication of the size and grade of the best known lead-zinc shoot. The northeast end is indefinite because it passes into the Margan stope above the tunnel level and into the Johnston stope below the tunnel level. Production figures of lead and zinc from the Morgan stope are not available, but the Johnston stope (which farther northeast includes a large block above the tunnel level) has produced 100,000 tons of gold-silver ore, averaging only 0.34% lead and 0.15% zinc, and

was shut down in 1943 by Government directive L-208. Nevertheless, there are respectable lead-zinc assays (H19, H20, H22) reported from well in the Johnston stope.

There is undoubtedly lead-zinc ore above the Roberts and Lanphier stopes and probably above the Morgan stope. The extent below these stopes is not known because the workings are flooded. The applicant states that the Roberts stope quit at depth in high zinc ore because it was unprofitable (as of 1947-48). Southwest of the Roberts stope, the vein is unexplored.

The Lead-Zinc Branch recommends the following action on the various proposals and recommendations submitted:

Field team proposal No. 1 should be approved (except for slight lowering of cost as shown in Exhibit A). It is the only proposal on which there is unanimous agreement, and is essentially the C proposal of applicant, though applicant proposes a longer drift, just why is not evident, as it will connect with an old drift already driven on the vein. It seems that the chance of extending the lead-zinc shoot to the southwest should be tested.

Field team proposal No. 2 should not be approved. Both Allsman and Traver discard it as more development than exploration, and the applicant did not propose it. If applicant is really interested in mining lead-zinc ore it would seem that he would start on this block of indicated ore above the present stopes at the first opportunity. However, his letter of April 5 states that "all the readily accessible ore above the Lamartine tunnel has been mined and in order to mine ore above that level it was necessary to extend the Lamartine tunnel". Whether this upper block can be profitably stoped or not, we see little advantage of raising and drifting into this block in advance of stoping.

Field team proposal No. 3 should not be approved at present. The proposal was not presented by applicant. The block to be explored is 1800 feet southwest of the Lamartine No. 3 shaft. Field team report estimates it will cost $30,000 to rehabilitate the Lamartine workings to reach the ore and Traver's comment is to doubt that it can be accomplished for this. The reserves of zinc ore reported to occur on the 4th level of the Imperial-Silver Queen workings may not be of great magnitude. The vein is reported to assay 12-15 per cent zinc but whether this is mining width or the width of a vein that would have to be hand sorted is not known. In the early years of this century when this block of ground was being mined, zinc was penalized at the smelters, and as it contained low gold-silver values in comparison to lead, it was avoided in the mining. In a geologic setting where the average vein is narrow, the fact that a valuable gold-silver vein turns to zinc does not necessarily mean that the vein is minable as a zinc ore. At a later date, if development is such that this reported zinc ore can be explored for

a reasonable figure, it might be investigated.

Field team proposal No. 4 should be approved only after modification to cut the amount from $30,000 to $3,900. Applicant's proposal E is to spend $8,156 for diamond drilling into the walls, but specific locations and lengths of holes are not given. Considering that the geologic environment and productive history of the property are not promising for significant new discovery of lead-zinc ore, random drilling into the walls would appear to have little merit. On the other hand, drilling into the walls in the hope of finding parallel veins in the neighborhood of the known lead-zinc stopes and also in the ground where the Oneida and Lamartine veins join would be permissible. The drilling should be limited to the tunnel between the Lamartine shaft and the northeast end line of the Falcon Extension claim. The south side of this stretch has already been adequately explored by the Lamartine tunnel between points "A" and "C" (see field team map) and by a crosscut south of Ben Harrison shaft (shown on applicant's "Topographical Map" but not on the field team map). It is recommended that two holes, not to exceed 200 feet each in length, be driven into the north wall at approximately points "A" and "B", shown on field team map.

Field team proposal No. 5 should be cut to $4,265, in view of recommended curtailment in underground program as compared to applicant's proposal (see next paragraph).

Applicant's D proposal - drifting 2500 feet on the Oneida-Stag tunnel level - should not be approved, for the reason stated by field team (p. 20 of engineering report). The Oneida vein is for the most part not a lead-zinc vein, and the Oneida Stag tunnel would have to go 1680 feet before reaching the Ben Harrison-Croesus line where, probably for the first time, it would pass under lead-zinc stopes. However, the 340 tons of lead, and 150 tons of zinc obtained in 4 years' mining in the Johnston stope may have been concentrated near the Ben Harrison-Croesus line, which would extend the lead-zinc body somewhat to the northeast. The more zinky ground in the Roberts stope would be of doubtful value, as it could not be worked profitably in 1947-48 as a winze operation. The modest lead and zinc production of the Ben Harrison-Croesus is not believed to be important enough to justify the long expensive ($112,550) drift that it would take to reach the property on the lower level. Nor can an extension of the proposed drift under the Lamartine workings be expected to yield much lead or zinc in view of the statement in the U. S. Geological Survey Prof. Paper 63 (p. 318) that the 10th or Lamartine tunnel level was only very slightly mineralized in comparison to the higher levels.

The one remaining proposal to consider is the one by Traver - to dewater the Johnston stope below the Lamartine level and run a drift from its floor under the Roberts winze stopes. This has not been set up as to costs, but assuming that costs would not be excessive, the project would be acceptable. An alternative, would be to dewater and sample the smaller Roberts winze stope. As these projects have not been proposed by the applicant or field team, they will not be considered further.

Principles governing decisions of Lead-Zinc Branch are the following:

Although the geologic environment for lead and zinc is not favorable, there are occasional lead-zinc ore shoots, widely scattered. Chances of finding additional shoots of any significant base metal content are not worth making long and expensive explorations, but where past developments have shown up isolated ore shoots incidental to development for gold and silver, modest exploration for extensions of such shoots is acceptable.

The fact that the property produces its chief values in gold and silver is not held against the property, as witness the approval of many projects in San Juan County, Colorado. However, the lead and zinc in the subject property occurs only in isolated shoots so that it can never be expected to make a significant production in these metals. There has been no discrimination against lead during mining, for the lead is the chief carrier of gold and silver, yet the total production of the vein, 1905 to date, has been only 1,105 tons of lead.

In summary, Lead-Zinc Branch proposes approval of following as Exhibit "A" of an exploration contract:

Extend the Ben Harrison-Croesus drift along the vein southwesterly about 260 feet, and connect with the nearest workings of the Lamartine No. 3 shaft. Time allowance on a single-shift basis, two months.

Drive two diamond drill holes as indicated on field team map, one near point "A", one near point "B", each hole limited to 200 feet depth, and driven by a contract driller. The "B" hole can be driven concurrently with the drift. The "A" hole can be finished within a month after the completion of drifting, including the cleaning out of the approach to it.

Cost of the project

260 feet of drifting 6' x 8' cross-section at $35 per foot, including the cost of labor, supervision, engineering, accounting, supplies, power, and equipment, except as noted below.....	$ 9,100.00
400 feet of diamond drilling at $8.50 per foot, including cost of transportation of equipment, logging of holes, boxing of core and other costs not otherwise indicated.....	3,400.00
Allowance for cutting two drill stations.....	500.00

Equipment to be purchased by applicant -

1	Mine car loader	$3,292.00	
1	Drifter rock drill, 3½"	973.00	
			4,265.00

(Applicant's proposal to purchase a drill jumbo is not justifiable for this reduced program. The rental of such an item would be justifiable but is not provided for herein.)

Rental allowance for equipment owned by operator:

		Estimated Present Value	Rental Per Mo.
1	315 cu. ft. compressor	$ 3,500	$ 60.00
1	Storage battery locomotive with battery and charger	4,000	80.00 ?
10	Mine cars	1,500	45.00 ?
	Total rental per month		$185.00

Rental for two months.....	$370.00
Compressor rental one additional month.....	60.00
Maximum rental allowance.....	$430.00
Cost of above items.....	$17,695.00
Allowance for contingencies.....	1,765.00
Total cost of project.....	$19,460.00
Government participation at 50%	$ 9,730.00

B. Gildersleeve
E. T. McKnight
F. W. Hanson

7. Are subordination agreements necessary? Yes

a) MF-201? _____

b) MF-202 Yes

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Applicant states manpower locally available

b) Equipment and supplies Yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes

d) Water (question 13)* Yes

e) Power (question 13)* Yes

Is a field check needed on any of these points? See field team report

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Yes

Is a field check needed on this point? See field team report

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? Yes, see modified recommendation under 4 (a)

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? Yes - see Fig. 3 of field team report.

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed? No

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data?_____ If so, attach a draft.

e) Are the cost estimates reasonable? Drifting cost appears high

f) Should more information be requested from applicant? Yes - see copy of letter to applicant

g) Is a field examination necessary to complete Exhibit A?_____

11. Exhibit B (question 23-d)*

a) Is it applicable? No

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed?_____

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data?_____ If so, attach a draft. See field team report.

c) Are rents and charges reasonable? Excessive

d) Is a field check needed? Has been made; letter written to applicant

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed?_____

c) Is the schedule excessive for the work proposed?_____

d) Are the proposed wages and salaries reasonable? Wage rates appear below average

e) Is a field check needed? No; see letter to applicant

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation. See attached statement

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? _____

Reviewed by: B. Gildersleeve GS

E. T. McKnight GS

F. W. Hanson, DMA

Date 8-27-51

INT.-DUP. SEC., WASH., D.C. 99009

16. Recommendation for a modified program has been given in discussion of 4 (e), and reasons for non-acceptance of other proposals and recommendations are also given therein.

Applicant is reported to have on order a zinc circuit for his mill. It is suggested that applicant's intention to change mill flow sheet to include a zinc circuit he secured in writing prior to approval of the project. This has been requested in a letter to applicant.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

OFFICE OF
REGIONAL DIRECTOR

REGION IV

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 3 1951

August 2, 1951

Memorandum

To: Landon Strobel, Executive Secretary
Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: DMA 270, Montana Mining Development Company, Lamartine Group, Clear Creek County, Colorado

Herewith are original and two copies of the report on the above docket, together with the original brochure.

This information is sent to you for your consideration and use in negotiating a contract with the applicant.

P. T. Allsman, Alternate

A. H. Koschmann

Enclosures
One copy by Air Mail
Two copies by Regular Mail

AUG 6 1951

Mining Division
Region IV

August 2, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: DMA 270, Montana Mining Development Company, Lamartine Group, Clear Creek County, Colorado

I have reviewed the various reports, brochures and diverse opinions and proposals. I concur with the recommendations of the examiners except Item No. 2 in the Summary, Conclusions and Recommendations. It appears that the mining done previously in the Roberts and Langhley stopes under R.F.C. financing and sampling by R.F.C. engineers are sufficient to eliminate the need for this phase of the exploration. In place of this phase the writer recommends approval of the principal exploration proposed by the applicant described as Program B, comprising the extension of the Oneida-Stag tunnel 2500 feet to explore the zinc-lead ore shoots 300 feet below the ore previously mined under R.F.C. financing.

This would bring the total of recommended exploration to about $190,000, which may be more than the operator is willing to undertake. In the event the operator is unable to participate to this extent, the writer recommends that the 2500 feet of drifting to extend the Oneida-Stag tunnel should be given first priority.

P. T. Allsman

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 3 1951

ld

cc: DMA

Mining Division
Region IV

August 3, 1951

Memorandum

To: [illegible] Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Dam 270, Western Mining Development Company, Lawson Mine, Clear Creek County, Colorado

I have reviewed the various reports, procedures and alternate opinions and proposals. I concur with the recommendations of the enclosure except Item No. 2 in the summary, Conclusions and Recommendations. It appears that the mining done previously in the Roberts and Tregaller adjacent under B.P.O. financing and using line by B.P.O. workmen and sufficient to eliminate the need for this phase of the exploration. In place of this phase this writer recommends approval of the technical exploration proposed by the applicant described as Tregaller 3, constructing the extension of the tunnel along lines 2500 feet to explore the air-lead ore shoots 300 feet below the one previously mined under B.P.O. financing.

This would bring the total of recommended exploration to above $150,000, which may be more than the operator is willing to undertake. In the event the operator is unable to participate to this extent, the written recommendation that the 2500 foot of driving to extend the tunnel-driving tunnel should be given first priority.

F. T. Gallagher
Mining Engineer

DEPARTMENT OF THE INTERIOR
Bureau Mineral Administration
RECEIVED
AUG 3 1951

bc

cc: DMA

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

200 New Customhouse
Denver 2, Colorado

July 5, 1951

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 270--Lamartine Mine, Clear Creek County, Colorado

Enclosed are the original and 7 copies of the geological report, covering DMA Docket 270, prepared by D. L. Evans of the Geological Survey. Mr. Evans concludes that the geologic setting is favorable for the discovery of additional ore of commercial grade, and that an exploration loan is warranted.

I concur in his conclusions.

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

Enclosures (8)

Building 2-A
Denver Federal Center
July 11, 1951

Memorandum

To: Chief, Mining Division, Region IV

From: W. M. Traver, Jr.

Subject: DMA Docket 270, Report on the Montana Mining Development Company (Lamartine Group)

Please find enclosed the original and seven copies of Harrer's engineering report on the subject docket.

The four phases suggested by the examining team were summarized and inserted in the "Summary, Conclusions, and Recommendations" at the suggestion of A. H. Koschmann.

Few changes have been made on the original draft, but your attention is called to the fact that the report does not follow Defense Minerals Administration outlines in accordance with the Field Team's memorandum of April 18, 1951, starting with their item (8a) and continuing through item (11).

Figure 3, a plan and section of that portion of the Lamartine mine under consideration, is included only with the geological section of the report and is so referenced in the index. I see no reason for duplicating this figure in the engineering report as long as both would be identical. This procedure has been followed in several of the recent reports we have submitted.

Phase 2 of the project recommended by the examining team is to rehabilitate raises to make accessible stope faces that have already been sampled by a Reconstruction Finance Corporation engineer and were, in part, sampled by Harrer on the present examination. These samples indicated a reserve of minable ore estimated by the engineer at 8,000 tons and reported as inferred ore. I am inclined to consider this as indicated ore and the work suggested thereon as more definable as development than exploration.

Phase 3, to prepare the Lamartine mine workings at least possible expense for examination in order to check reports of unmined lead-zinc ore possibilities in the Imperial-Silver Queen area, is a substantial undertaking and I doubt if it can be accomplished with the $30,000.00 assigned for the work. It entails a considerable amount of mine rehabilitation and, in this case, whether it is done through the Lamartine No. 3 shaft working downward from the collar, or upward from the main Lamartine tunnel level, will be exceptionally costly. Resulting reserves, if defined, may not be of great magnitude, as all the evidence presented is hearsay.

The Lamartine mine was originally a gold-silver property. If additional lead-zinc reserves beyond those estimated are to be developed, it is indicated that they will be in the area below the Lamartine tunnel level underneath the Roberts and Johnson stopes, probably as an extension downward. Accordingly, I would consider a better exploration possibility might be unwatering either one or the other of these workings, preferably the Johnson stope as it reaches the greatest depth, connect them if they are not already connected, and thoroughly sample all exposed faces. This exploration program, if successful, would serve to justify the ultimate extension of the Oneida-Stag tunnel.

Other than the suggestions given above, I am in agreement with the examining team's proposals.

Enclosed also is the original brochure as received from your office.

W. M. Traver, Jr.

W. M. Traver, Jr.

enclosures

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-270, Montana Mining Development Company, Lamartine Group

Clear Creek County, Colorado

C. M. Harrer, Mining Engineer
U. S. Bureau of Mines

O. D. Evans, Geologist
U. S. Geological Survey

July 10, 1951

MONTANA MINING DEVELOPMENT COMPANY
LAMARTINE GROUP
CLEAR CREEK COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By C. M. Harrer
Mining Engineer
U. S. Bureau of Mines

and

O. D. Evans
Geologist
U. S. Beological Survey

LAMARTINE GROUP

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By C. M. Harrer and O. D. Evans

The Montana Mining Development Company property known as the Lamartine group, or mine, is in the Lamartine-Trail Creek Mining District, Clear Creek County, Colo.

The steeply dipping veins of the Lamartine mine are in pre-Cambrian Idaho Springs formation which includes gneissoid granite, biotite schist, and pegmatite. The Lamartine vein forms a diagonal link between the parallel Oneida and R. E. Lee veins. Near the junction of the Lamartine and Oneida veins the mineralization is strongest. The ore contains galena, sphalerite, gold and silver, some chalcopyrite and pyrite, and a quartz gangue. Gold ore with minor amounts of chalcopyrite was mined from the eastern part of the Oneida veins.

No measured or indicated ore reserves were calculable as pertinent development is inaccessible; inferred ore reserves are estimated at 8,000 tons with an expected assay of 0.2 ounce gold and 3.0 ounces silver per ton, 6.0 percent lead and 6.0 percent zinc, with minor amounts of copper.

The future of this property as a producer of lead-zinc is dependent on the developing of ore reserves at present only poorly definable.

An exploration program has possibilities of developing substantial reserves of low-grade lead-zinc ore.

The Montana Mining Development Company has introduced an original exploration program for $337,500.00 which was later reduced to an estimated $100,000.00. An amended program for $149,240.00 was filed June 14, 1951.

Exploration recommendations by the examining team are at variance with the proposed exploration program.

An expenditure of $90,474.00 is recommended by the examining team to carry on the following four-phase exploration program:

1. Advance the main level drift within the Ben Harrison claim lines 260 feet or to a possible connection with the Lamartine vein, this exploration to be limited to a distance considered geologically favorable by field representatives of Region IV. In the event it is discontinued, diamond drilling will be substituted to explore the area from the paralleling Lamartine tunnel, supplemented by short exploratory raises.

2. Rehabilitate raises from the main level to permit driving exploration drifts totalling 200 feet above the Morgan, Lanphier, and Roberts stopes, subject to changes in part or discontinuance entirely if such procedure is indicated.

3. Prepare the Lamartine mine workings for examination at least possible expense for investigation of reported lead-zinc ore bodies remaining in the Imperial-Silver Queen area.

4. Explore by transverse diamond drill holes for possible parallel vein structures corresponding to the Lamartine vein, the work to be closely supervised by Region IV engineers and geologists.

The first two phases will require approximately 40 days each, the third phase 60 days, and the fourth phase 90 days to complete, or a total of 230 days. If carried on concurrently, the four phases can be completed in about 90 days.

The proposed program is shown on figure 3.

Government participation will be on a 50 percent basis, or $45,237.00.

The Montana Mining Development Company has expressed willingness to participate in the proposed exploration program but is presently unaware of our recommendations.

It is suggested that the company's intention to change the mill flowsheet to include a zinc circuit be secured in writing prior to starting the project if it is approved.

LAMARTINE MINE

CLEAR CREEK COUNTY, COLORADO

DMA Docket 270

Geology and Ore Deposits

by O. D. Evans, Geologist

U. S. Geological Survey

Geology

LAMARTINE MINE
CLEAR CREEK COUNTY, COLORADO

GEOLOGY

The leased properties of the Montana Mining Development Company are in the Lamartine-Trail Creek District of the Georgetown quadrangle, near Idaho Springs, Colorado. The Lamartine and joining veins, which have been worked in the Lamartine Mine, are in the Idaho Springs formation of pre-Cambrian age. The vein walls are gneissoid granite, biotite schist, and pegmatite. The Lamartine vein is over 4,000 feet long and strikes east and dips vertically to steeply north. It forms a diagonal link between the Oneida vein to the east and the R. E. Lee Vein to the west. (See Figure 4) The Oneida and R. E. Lee veins strike northeast and dip vertically to steeply northwest. They have been drifted on for 3,800 and 2,500 feet respectively.

The richest ore shoots in this vein system occupied the field of intersecting minor veins which formed in the angle between the Oneida and Lamartine veins. (Spurr, Garry, and Ball, 1908) Mineralization extended west of this field of intersection for 3,000 feet. High grade silver, gold, lead, and zinc ore was mined from these ore shoots. The vein material contained galena, sphalerite and pyrite with quartz gangue. The zinc-bearing ore as a rule was poor in gold and silver. For this reason, and because zinc was then valueless, no effort was made to mine this type of ore. It is reported that considerable zinc ore still

remains on the Lamartine vein in the Silver Queen, Imperial, and Money Musk claims. Workings in this area are now inaccessible.

On the Oneida vein mineralization has been less intense. Some lead-zinc-silver-gold ore was mined from above and below the Lamartine Tunnel level on the western part of the vein. (See Figure 3) Mineralization here is similar to that on the Lamartine vein. To the east, the vein narrows and galena and sphalerite practically disappear. The values are mainly in gold, and a small amount of copper in the form of chalcopyrite.

The R. E. Lee vein is essentially a barren fracture.

ORE ESTIMATE

No ore has been estimated on the Lamartine vein because of the lack of accurate data. On the west part of the Oneida vein, above the Roberts and Lanphier stopes, a block of Inferred ore containing 8,000 tons with .20 Oz. Au per ton, 3.0 Oz. Ag per ton, 6.0% Pb and 6.0% Zn has been estimated.

CONCLUSIONS

Some zinc ore may remain on the Lamartine vein, but this can only be determined by making the workings accessible for examination.

Prospecting on the Oneida vein for lead-zinc ore should be confined to its western part. Here there is a possibility of developing ore above the two westernmost stopes. Furthermore, this vein on the Lamartine Tunnel level has not been followed westward to its junction with the Lamartine vein. There is a chance that this 260 feet of unexplored vein may contain some ore.

The Lamartine vein is the only vein known to form a diagonal link between the Oneida and R. E. Lee veins. Such structures often occur in pairs. Therefore, the ground both north and south of the Lamartine vein, between the Oneida and R. E. Lee veins, is worthy of examination.

REFERENCE

Spurr, J. E., Garry, G. H., and Ball, S. H., 1908, Geology of the Georgetown Quadrangle, U. S. G. S., Prof. Paper 63.

MONTANA MINING DEVELOPMENT COMPANY
LAMARTINE GROUP
CLEAR CREEK COUNTY, COLORADO

Engineering Report

By C. M. Harrer
Mining Engineer
U. S. Bureau of Mines

Engineering

MONTANA MINING DEVELOPMENT COMPANY
LAMARTINE GROUP
CLEAR CREEK COUNTY, COLORADO

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* See figure following Geology Report.

MONTANA MINING DEVELOPMENT COMPANY

ENGINEERING REPORT

By

C. M. Harrer
U. S. Bureau of Mines

INTRODUCTION

An examination of the mineral properties known as the Lamartine group was made by the author and O. D. Evans, of the U. S. Geological Survey, at the request of Montana Mining Development Company, of Bozeman, Montana, and Idaho Springs, Colorado, to determine the merit of a proposed mine exploration loan for $100,000.00 under the Defense Production Act of 1950 as DMA Docket 270.

J. E. Anderson, manager of Montana Mining Development Company, was contacted at Idaho Springs on May 17, 1951, and was most cooperative and helpful during the examination.

LOCATION, ACCESSIBILITY, AND PHYSICAL FEATURES

The property is 6 miles west of Idaho Springs in secs. 1 and 2, T. 4 S., R. 74 W., sec. 6, T. 4 S., R. 73 W., and sec. 31, T. 3 S., R. 73 W., 6th P. M., Trail Creek Mining District, Clear Creek County, Colo. (fig. 1). It is reached from U. S. Highway 6-40 at the west city limits of Idaho Springs over a steep, but well maintained, secondary road which crosses Clear Creek and parallels Trail Creek for a distance of 5.7 miles to the company office, mill, and the Lamartine tunnel portal at an altitude of about 9,592 feet. The property is readily accessible to industrial and supply facilities

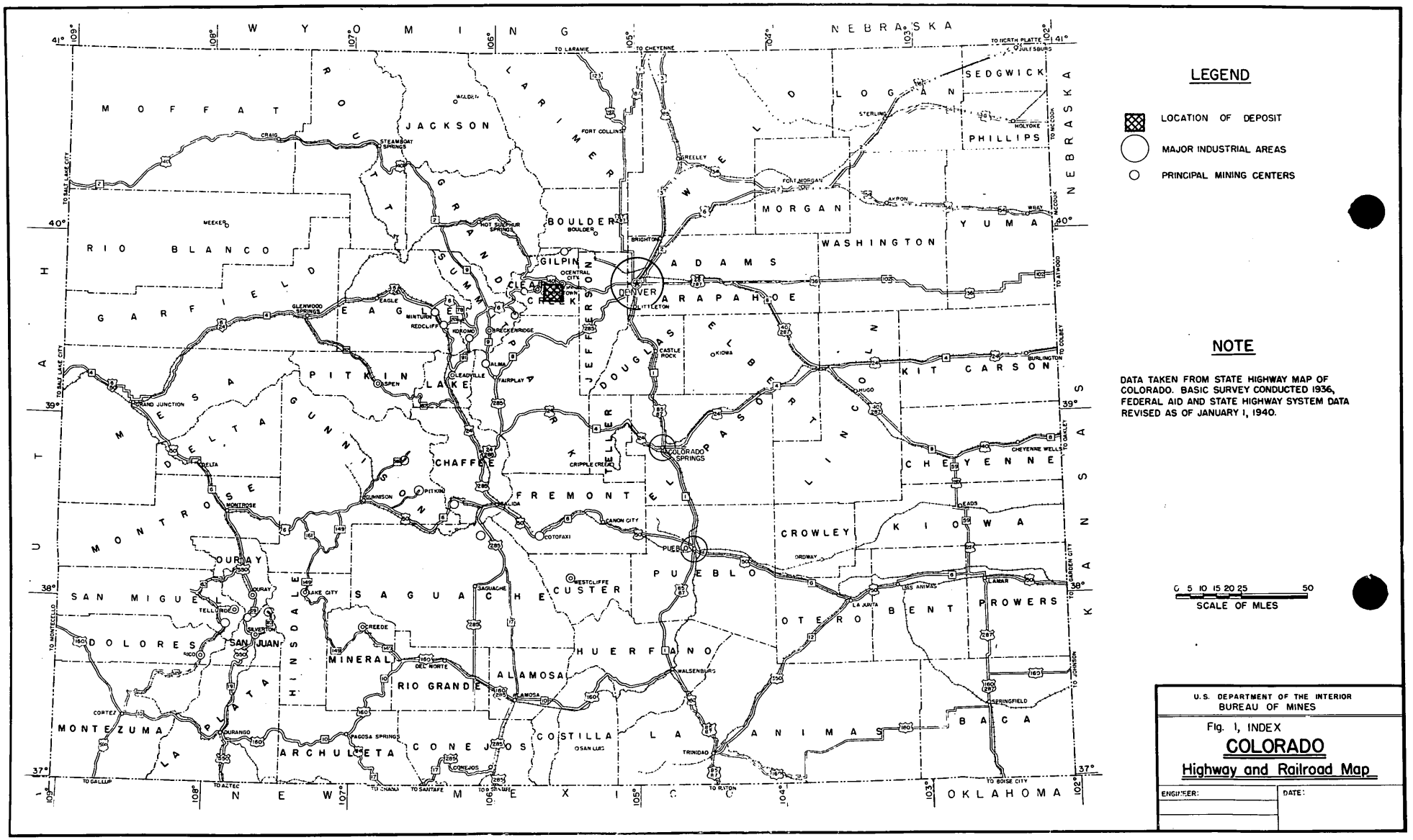


Fig. 1 - MONTANA MINE DEVELOPMENT CO. LAMARTINE MINE, IDAHO SPRINGS, COLO. (DMA-270)

through Idaho Springs. Lead concentrates are trucked to the American Smelting and Refining Company smelter at Leadville for $5.50 per ton. Zinc concentrates, when made, will be trucked to Golden for $3.25 per ton and shipped by freight to Amarillo, Texas, for $8.00 per ton.

Mine workings are between 9,140 and 10,500 feet altitude. The terrain is rough and mountainous and the steep slopes are well wooded with pine timber suitable for mining purposes. Ample water supply is available from mine drainage water through the long Lamartine tunnel and nearby Trail Creek.

Year around mining operations are readily maintained in spite of cold weather and heavy snows.

Operations are presently limited to milling dumps at the portal of the Lamartine tunnel. The manager, J. E. Anderson, and four men have been actively engaged in operating a 130-ton flotation mill on nearby dump rock since January 6, 1950. The company operates a small bunkhouse and mess hall at present and can readily accommodate a crew of over 12 men.

Labor rates are $1.40 11.20 per hour for miners, $1.25 10.00 per hour for underground labor, $1.25 10.00 per hour for mill men, and $1.00 8.00 per hour for mill helpers. Sufficient labor has been available locally to date.

HISTORY AND PRODUCTION

The Lamartine mine was located in 1867; the Ben Harrison and Croesus claims, in 1889. The total output in 1905, according to the U. S. Geological Survey, was 34,000 tons of ore averaging a recovered 1.16 ounces gold and 78.7 ounces silver per ton, and 4.8 percent lead.

During the period 1939 through 1943 A. D. Johnston, of Idaho Springs, Colo., leased the Lamartine mine and mined 100,548 tons of ore assaying 0.17 ounce gold and 0.28 ounce silver per ton, 0.004 percent copper, 0.34 percent lead, and 0.15 percent zinc, based on recovered metals. Three thousand six hundred and seventy-five tons of concentrates shipped by Johnston to the American Smelting and Refining Company smelter at Leadville during this period assayed 1.64 ounces gold and 4.07 ounces silver per ton, 7.0 percent lead, and 3.2 percent zinc.

Between October 1897 through October 1902, records in the possession of Lafayette Hanchett, former manager, identified 9,149 dry tons of ore from that portion of the Lamartine known as the Imperial-Silver Queen claims which assayed 0.79 ounce gold and 79 ounces silver per ton, 3.0 percent lead and 12.6 percent zinc. The average of 19 random lots of ore aggregating 371 tons from the above area assayed 3.45 ounces gold and 168 ounces of silver per ton, 9.0 percent lead and 20.0 percent zinc.

During the period August 1944 through January 1948, the Ben Harrison and Croesus claims were leased by the Harrison-Croesus Mining Company, of Idaho Springs, W. J. Roberts, president, and 1,646 tons of sorted crude ore were shipped to the Resurrection and Golden Cycle mills, assaying 0.46 ounce gold and 6.8 ounces silver per ton, 14.40 percent lead, 0.68 percent copper, and 11.46 percent zinc. Approximately 2,500 tons of dump rock which is the complement of the above assayed 0.12 ounce gold and 1.88 ounce silver per ton and 3.18 percent lead. The above operation was

conducted with the assistance of a Reconstruction Finance Corporation loan, No. N. D. 5275, which was completely repaid.

The past production of the Harrison-Croesus claims from 1902 to date, compiled from the records of the Economics Division, U. S. Bureau of Mines, Region IV, totalled 5,230 tons of ore assaying 0.32 ounce gold and 5.4 ounces silver per ton, 8.26 percent lead, 0.2 percent copper, and 6.14 percent zinc, on the basis of recovered metals.

In 1939, Lamartine Mines, Inc., under the direction of A. D. Johnston, erected a 60-ton gravity and flotation concentration mill. The mill operated profitably during 1939-43 on ores from the Falcon claim, predominantly gold and silver, and was consequently closed in 1943 by government directive L-208. Bureau of Mines production records of the Lamartine mine, including the Money Musk, Falcon, and Himrod claims, for the period of 1901 to date totals 131,050 tons assaying 0.37 ounce gold and 5.8 ounces silver per ton, 0.6 percent lead, 0.004 percent copper, and 0.2 percent zinc.

Production, from the same source as above, on the Oneida-Stag claims for the period 1901 to date totals 19,060 tons assaying 0.41 ounce gold and 3.0 ounces silver per ton, 0.4 percent lead, 0.31 percent copper, and 0.2 percent zinc, based on recovered metals.

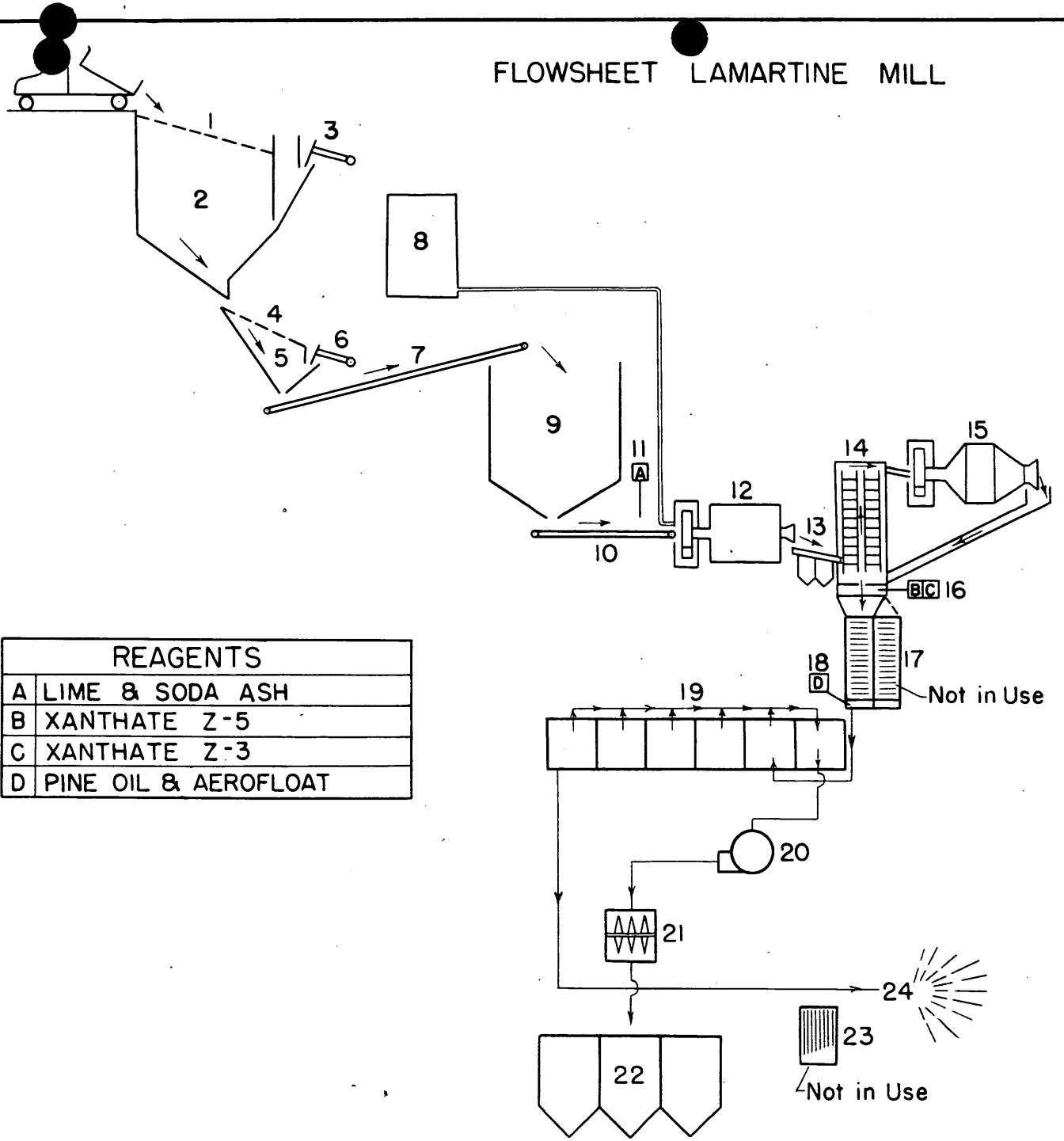
During the period 1944-48, operations were limited to the Ben Harrison-Croesus claims by the Harrison-Croesus Mining Company, who shipped sorted ores directly to the Resurrection mill, at Leadville, and the Golden Cycle mill, at Colorado Springs. They were denied use of the Lamartine milling facilities.

During 1949, Montana Mining Development Company, a corporation organized in November of the same year under the laws of Montana and qualified to operate as a foreign corporation in the state of Colorado, consolidated a group of 43 mining claims and mill sites known as the Lamartine group through various lease and option-to-purchase arrangements and are prepared to carry on integrated mining and milling operations. The company commenced operation of the original 60-ton mill on dumps adjacent to the Lamartine tunnel portal in January 1950. In October 1950, the mill capacity was increased to 130 tons per day by the addition of new equipment to the pattern shown in the accompanying flowsheet, figure 2. The company expects to install additional flotation equipment to recover a zinc concentrate as lead-zinc ore reserves are developed. At present work is limited to the milling of dumps. Concentration ratio is about 55 to 1, with costs of $2.25 per ton of crude mill feed.

From January 31, 1950, to February 21, 1951, 284 tons of concentrates were shipped to the American Smelting and Refining Company smelter, at Leadville, Colo., averaging 3.03 ounces gold and 81.2 ounces silver per ton, 12.32 percent lead, 0.55 percent copper, and 11.85 percent zinc.

OWNERSHIP AND EXTENT

Montana Mining Development Company property is covered by 43 mining claims and mill sites known as the Lamartine group and are listed in tables 1 to 5 of the appendix. Claims owned outright by purchase are listed in table 1. In addition, a flotation mill located on the Jim J. and B. Fitz claims was purchased from



EQUIPMENT	
1	3" GRIZZLY
2	100 T. COARSE ORE BIN
3	9"X15" JAW CRUSHER
4	1" GRIZZLY
5	TRANSFER BIN
6	UNIV. NO. 3 JAW CRUSHER
7	16" BELT CONVEYOR
8	20000 G. WATER TANK
9	200 T. FINE ORE BIN
10	16" BELT FEEDER
11	REAGENT FEEDER
12	5' X 5' BALL ROD MILL
13	12"X18" DUPLEX PULSAT. JIG
14	48" DUPLEX RAKE CLASS.
15	5'X22" HARDINGE BALL MILL
16	2-XANTHATE FEEDERS
17	2-2'X10' CORDUROY TABLES
18	REAGENT FEEDER
19	6 CELL "SUB A" FLOTATION
20	1½" WILFLEY SAND PUMP
21	48" EIMCO 3 DISK FILTER
22	3-20 T. CONC. BIN
23	WILFLEY TABLE
24	TAILS DUMP

REAGENTS	
A	LIME & SODA ASH
B	XANTHATE Z-5
C	XANTHATE Z-3
D	PINE OIL & AEROFLOAT

Fig. 2 - MONTANA MINE DEVELOPMENT CO. LAMARTINE MINE, IDAHO SPRINGS, COLO. (DMA-270)

Lamartine Mines, Inc., and modernized to treat 130 tons per day. Lease arrangements on the claims listed in table 2 require a payment of ten percent royalty on all ores extracted, based on net mill or smelter returns, which will apply towards the purchase price of $15,000.00.

Lease arrangements on the claims listed in table 3 require a payment of ten percent royalty on crude ore shipments with an average value of $15.00 per ton; fifteen percent royalty on ores valued at $15.00 to $25.00 per ton; twenty percent royalty on ores valued at $25.00 to $40.00 per ton; twenty-five percent royalty on ores valued at $40.00 to $50.00 per ton; and thirty-three and one-third percent royalty on ores valued at $50.00 or more per ton. All concentrates of milled ores are to be settled at ten percent of the net smelter returns. Taxes during the term of the agreement will be paid by Montana Mining Development Company.

The agreement for the claims listed in table 4 requires a royalty payment of ten percent of the net mill or smelter returns on the 13/14ths fraction of the Falcon claim and shall apply towards the purchase price.

The agreement for the claims listed in table 5 requires a royalty payment of ten percent of the net smelter returns on all ores mined and milled, to apply on the purchase price.

DESCRIPTION OF THE DEPOSITS

The property encloses a strong and well mineralized zone of fracturing known as the Oneida and Lamartine veins which has been developed by mining operations from east to west on the Oneida,

Falcon, Ben Harrison, Lamartine, Money Musk, Imperial, and Silver Queen claims over a strike length of 9,200 feet and through a vertical range of 1,200 feet. A system of linked and parallel veins appears associated with the apparently continuous main vein structure.

The ore under consideration occurs as a hard, complex mixture of galena, sphalerite, chalcopyrite, and pyrite with gold and silver, as lenticular bodies within the Oneida vein structure, in gneisses of the Idaho Springs formation. The vein is characterized by strong, hard, and steeply dipping walls with very little gouge or alteration, which lends itself well to the accepted methods of open stull or shrinkage stoping. Stopes examined showed clean, firm walls apparently unaffected by time and the elements as little evidence of caving due to weakened rock masses was observed. In several instances stopes were mined from the sill without support other than lagged stulls and a shallow safety cushion of rock. Very little rock was left in the mine as gobs. Stoping width averages four feet; vein width varies between 0.5 and 6.0 feet. The wall and structural conditions of these deposits will lend themselves well to a variety of cheap mining methods. Figure 3 is a plan map and section of that part of the mine under consideration.

On the Oneida, Stag, Lamartine, Falcon, Himrod, and Money Musk claims ore bodies were valued primarily for their gold and silver content, while combined lead-zinc was less than one percent and therefore negligible, as shown in the chapter on production.

The value of this property as a source of strategically important metal is presently limited to the Ben Harrison, Croesus, Imperial, and Silver Queen claims which are known to have produced substantial tonnages of lead-zinc ore.

SAMPLING

A total of 30 samples were cut on the Lamartine and Oneida-Stag levels and in stopes above the Lamartine tunnel to determine the quality of ore remnants and vein character. In addition, the location and assay values of 20 samples taken during 1943 by engineers of the Reconstruction Finance Corporation preliminary to the granting of their loan No. N. D. 5275 to the Harrison-Croesus Mining Company were evaluated. All 50 samples are shown on the plan and section, figure 3.

ORE RESERVES

There are no measurable ore reserves.

Indicated ore reserves were not calculable due to the inaccessibility of pertinent mine workings.

Eight thousand tons of inferred ore reserves were estimated to exist over the top of the Morgan, Lanphier, and Roberts stopes assaying 0.2 ounces gold and 3.0 ounces of silver per ton, 6.0 percent lead and 6.0 percent zinc. No further estimation of reserves was attempted due to the inaccessibility of promising locations.

An important factor in the development of substantial lead-zinc ore reserves on this property is the geologic investigation of mine workings presently inaccessible and on which no ore reserves can be estimated under present conditions of accessibility. The future of this property as a source of lead-zinc ore rests on the exploration of vein extensions in workings examined and in presently inaccessible workings.

PRESENT STATUS

Montana Mining Development Company is presently operating the flotation plant on material from a dump adjacent to the portal of the Lamartine tunnel which is also close to the mill. Mill capacity is about 130 tons per day at an approximate ratio of concentration of 55 to 1. In addition, the mine plant, compressed air line, and tracks in the Lamartine tunnel have been placed in operating condition. At present, offices, bunkhouse, shops, and snowsheds at the tunnel portal are in excellent operating condition. All the equipment listed in table 6 of the appendix is in usable condition. The mine is equipped with the necessary plant to conduct mining and milling operations.

The Lamartine tunnel is now open for a distance of 3,150 feet to the present face of the Harrison-Croesus drift, which has also been advanced about 50 feet through mineralized vein (fig. 3).

The Oneida-Stag tunnel, 350 feet below the Lamartine level, is accessible to its present face, 2,135 feet from the portal, but would require considerable rehabilitation for mining operations.

All stopes below the Lamartine level are filled with water or otherwise inaccessible.

Stopes above the Lamartine level are difficultly accessible and critical mine development on the Lamartine, Silver Queen, and Imperial claims is at present entirely inaccessible.

PROPOSED FINANCING

Montana Mining Development Company is willing to enter into an exploration agreement on the standard participating basis, currently 50 percent. The facilities and the equipment listed in

table 6 are offered on a rental basis as part of the company's participating share. As shown, rental of mine equipment not including the diamond drill will be $83.00 per day of 2 shifts. Rental of the company's new diamond drill will be on a basis of $16.00 per day of 2 shifts, not including bits or other expendable items.

EXPLORATION PROPOSAL, LAMARTINE GROUP

By Montana Mining Development Company, Idaho Springs, Colo.

The Montana Mining Development Company proposes to explore for and develop sufficient reserves of lead-zinc ore for continuous operation of the mill facilities and is prepared to augment the present lead concentrate flowsheet, figure 2, by the addition of an already purchased zinc flotation unit when zinc ore is available. Present low-grade dump operations have not encouraged this addition.

To implement this program, a revised four-fold exploration project is proposed, based on the revised docket designations contained in the applicant's letter of June 14, 1951, as well as some parts of the original docket.

Program B:

New equipment to facilitate exploration must be purchased, as listed in table 7 of the appendix, at a cost of $9,478.00 at current prices.

Program C:

Extend the Harrison-Croesus drift 500 feet westerly along the strike of the vein to prospect for mill ore and also to explore a possible lead-zinc ore shoot reportedly raking downwards and easterly through the Lamartine workings with raise exploration possibly being in ore to the fourth level, 390 feet above. It is hoped the proposed

raising may be in ore and self-financing. This would also serve the purpose of making the Lamartine workings accessible to investigation.

500 feet 8' x 6' drift at $38.68 per foot	$19,340.00
Completion time	55 days

Program D:

Advance the Oneida-Stag tunnel 2,500 feet westerly to a point near the Ben Harrison shaft, 350 feet below the Lamartine level, passing under the Jewell, Johnston, Lanphier, Morgan, and Roberts stopes and the development of program C.

2,500 feet of 8' x 6' drift at $38.80 per foot	$97,000.00
Repairing air lines, track, etc.	8,500.00
Reconditioning tunnel	6,050.00
Power line extension*	1,000.00
Total cost	$112,550.00
Completion time	270 days

*Not included in applicant's revised docket. Suggested as applicable here by engineering examiner.

Program E:

Undertake a diamond drilling program to search for ore extensions and parallel structures on the Oneida vein, estimated to take 100 days.

Rental of diamond drill, 100 days at $16.00 per day, 2 shifts	$1,600.00
Labor, 100 days	5,200.00
Social security	78.00
Workmen's Compensation	122.00
Unemployment insurance	156.00
Diamond costs	1,000.00
Total Cost	$8,156.00
Completion time	100 days

Recapitulation

Program	Time of Completion	Total Cost*	Amount of Government Participation
A**	out	none	none
B	60 days	$ 9,478.00	$ 4,739.00
C	55	19,340.00	9,670.00
D	270	112,550.00	56,275.00
E	100	8,156.00	4,078.00
Totals	485 days	$149,524.00	$74,762.00

*Total cost of project submitted by applicant as revised by examining team.

**Program A to finance property consolidations withdrawn by applicant.

All phases of the project could be carried out simultaneously if financial arrangements allow.

It is proposed that Montana Mining Development Company will offer the equipment listed in table 6 of the appendix at the rates shown, which is a total of $83.00 per day, working two 8-hour shifts. The diamond drill will rent at $8.00 per 8-hour shift, exclusive of bits.

APPROXIMATE COST ESTIMATES

The following estimates are very general and based on the existing inferred reserves which in themselves are only an approximation.

Inferred Reserves	Ounces/ton Au.	Ounces/ton Ag.	Percent Pb.	Percent Zn.
8,000 tons	0.2	3.0	6.0	6.0

Estimated Mill Recoveries

	Percent Au.	Percent Ag.	Percent Pb.	Percent Zn.
Heads	100.0	100.0	100.0	100.0
Tails	10.0	9.0	17.0	13.0
Lead concentrate	70.0	66.0	68.0	6.0
Zinc concentrate	20.0	25.0	15.0	81.0

Estimated ratio of concentration	12 to 1
Tons concentrate	667

The following tabulation shows the possible profit per ton of crude ore on a 17-cent lead and 18-cent zinc market:

	Per ton crude ore	
Gross smelter return lead and zinc concentrates		$28.88
Smelter base charges	$4.66	
Trucking to Leadville	.30	
Trucking to Golden	.12	
Freight to Amarillo	.30	5.38
Net smelter return		$23.50
Mining costs	$9.50	
Milling costs	4.50	
Royalties	2.50	
Repayment of loan (5 percent of net smelter returns)	1.18	17.68
Apparent profit		$ 5.82

Repayment of the exploration would be at 5 percent, or a maximum of $1.18 per ton of crude ore, in accordance with section 14 of Mineral Order 5. At this rate it would require 63,400 tons of ore of a grade comparable to the inferred reserve to repay the Government's 50 percent of the revised loan proposed by the applicant, or $74,762.00. Any change in grade would affect this figure proportionally.

Similarly, it would require 38,300 tons of crude ore of a grade comparable to estimated reserves to repay the Government's 50 percent of the exploration loan recommended by the examining team, or $45,237.00.

CONCLUSIONS

1. There are no reserves of readily minable ore exposed at this time in properties controlled by the Montana Mining Development Company and stopes, chutes, and manways in the Lamartine mine workings are in precarious condition. The future of this property as a producer of lead-zinc is dependent on the development of ore reserves at present only poorly definable. Other than those calculated, development of reserves is predicated on flexible exploration, under geologic control, under items 1 and 2 of the program recommended by the field examiners.

Evidence of lead-zinc ore possibilities in the Imperial-Silver Queen area of the Lamartine mine is based on a letter by a former manager, Lafayette Hanchett, which is quoted:

L. Hanchett
P. O. Box 720
Salt Lake City

September 11, 1942

Mr. A. D. Johnston,
Manager Lamartine Mines, Inc.
Idaho Springs, Colorado.

Dear Sir:

In response to yours of Sept. 5th asking for data pertaining to the IMPERIAL-SILVER QUEEN portion of the LAMARTINE MINE, I have gone over the records of the mine's production and find the following:--

Between Oct. 1897 and Oct. 1902 the records show 460 sales of separate ore shipments, identified as "Imperial" with a total production, viz:-

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds	Zinc Pounds
9,149.1	7276.28	722,081.88	557,889	2,308,703
	.7995	.700	.3050	1.2618

The "Imperial" ore had a high zinc content, upon which the smelters imposed a penalty charge of 50 cents per unit on all zinc in excess of 10 per cent; the result being that the zinc produced returned nothing to the miner, and in this instance, cost a penalty charge over $14,000.

In October, 1902, a body of ore was developed in "Lamartine" claim, having a very low zinc content, and consequently thereafter the "Imperial" ore was mixed with the "Lamartine" ore in order to avoid penalties by reducing the zinc content below 10 per cent, and the product was thereafter identified upon the records as "Lamartine" ore.

Of this mixed product, between Oct. 1902 and April 1908, the records show 635 sales of separate ore shipments identified as "Lamartine" ore, with total production, viz:-

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds
7,057.2	4,715.57	255,127	181,323
	.668 oz.	3.61 oz.	1.29%

No record of zinc production, as the "mix" kept under the 10 per cent limit.

As more than half of this tonnage was supplied from the "Imperial-Silver Queen" territory, (which fact is personally known to me) it is a conservative estimate to include 50 per cent of the total of this item as "Imperial" ore.

Such a division supplies the following for credit to the "Imperial" production.

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds
3528.9	2,357.78	127,563	90,660
	.668 oz.	3.61 oz	1.29%

The total production from "Imperial-Silver Queen" boundaries determined by adding to the identified items the 50 per cent estimate (as above) is:-

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds	Zinc Pounds
12,956.1	9,634.06	849,644.88	648,549	2,308,703 ?
	.743 oz	6.56 oz	2.50%	8.91%

As examples of the high zinc content of Imperial ores, I submit the following lots, taken at random from the ore record:

SMELTER SETTLEMENT ASSAYS

Lot #	Weight	Gold	Silver	Lead %	Zinc%
4697	13,646	3.31	454.9	18.	10.
4770	15,000	2.17	300.82	11.56	17.2
487	23,152	2.45	187.8	7.	16.6
859	30,403	3.88	250.77	12.35	17.2
1348	21,871	3.47	251.2	7.50	17.
7274	31,322	1.79	115.	5.6	20.5
1574	21,491	2.29	122.3	11.25	20.4
7452	22,507	2.04	119.7	8.	22.
38	19,866	.92	101.	6.	24.
70	24,271	3.48	186.02	12.1	20.24
5371	9,064	5.53	249.3	13.4	20.5
5023	14,655	8.01	285.	14.3	19.7
5340	27,810	8.95	178.5	8.7	18.
5293	4,248	.40	70.6	7.5	24.
5360	19,160	.47	50.3	4.5	25.
5370	2,160	.95	249.	9.9	24.
5224	8,594	.55	38.	9.8	29.
5254	30,046	4.07	154.5	9.4	26.3
5024	31,220	4.48	9.1	4.4	16.5

CONCLUSION

My active connection with the "LAMARTINE MINE" terminated in 1905; the operations thereafter were conducted by lessees.

I am without knowledge as to the extent of their activities, but it may be assumed that they mined all saleable smelting ore in sight. The mining practice then followed in this mine was to send all of the product to the smelters, and give scant attention to what is now classed as a milling ore. There is a large block of ground above Second Level, undeveloped, which justifies considerable exploration. There is exposed in a crosscut at the Second Level in Money Musk shaft a parallel vein of equal strength to the "Crown-Imperial" vein upon which the present workings exist. This vein should be developed from a series of crosscuts made from the 4th, 5th, and 6th levels and located at points opposite the mined out stopes.

I would confidently expect such exploration to disclose ore of the same class and grade heretofore produced from the "Imperial-Silver Queen" vein. No great expense would be incurred in this exploration work.

I have no hesitation in recommending further exploration of the "Imperial-Silver Queen" ground.

Yours truly,

(signed) Lafayette Hanchett

Since all pertinent mine development in the vicinity of the Lamartine shaft is presently inaccessible, actual exploration is dependent on making these workings accessible to investigation. This is item 3 of the recommended program.

2. Field evidence of the existence of commercial lead-zinc ore bodies in quantity below the Lamartine tunnel level is inconclusive although there is reason to believe that lead-zinc mineralization extends below the lowest workings of the Roberts and Johnston stopes and the Oneida-Stag level. Exploration from the Oneida-Stag level or between the Lamartine and Oneida-Stag levels should be dependent on the results of an examination of intra-level stopes and development presently under water. This refers to item 4 of the recommendations and program D of the company proposal.

3. Montana Mining Development Company is presently limited to the milling of mine dumps near the portal of the Lamartine tunnel. A modest profit is made by milling 130 tons per day at a concentration ratio of 55:1 and shipping a gold-silver-lead concentrate with included zinc. The company proposes to explore for and develop sufficient mill-grade lead-zinc ore reserves to insure capacity operation of the mill facilities (fig. 2). It is not particularly gold conscious and appears sincere in the intention to produce lead and zinc concentrates. Zinc circuit equipment has been ordered and will be installed when reserves of zinc are developed.

4. This property has possibilities of developing reserves of lead-zinc ore.

RECOMMENDATIONS

(1) Advance the main level drift in the Ben Harrison claim 260 feet to a possible connection with the Lamartine vein. If conditions prove geologically unfavorable to Defense Minerals Administration field representatives at any time during its progress, substitute diamond drill exploration of the remaining area from the paralleling Lamartine tunnel, augmented by short exploration raises. Exploration should be directed by Defense Minerals Administration or other competent authority and stopped when evidence proves geologically unfavorable.

Pertinent data:

260 feet of 7' x 6' drift at $38.68 per foot	$9,996.00
Completion time	40 days

(2) Condition necessary raises and drive 200 feet of segmented exploration drift over the top of the Morgan, Lanphier, and Roberts stopes.

Pertinent data:

200 feet of 7' x 6' drift at $40.00 per foot	$ 8,000.00
Reconditioning raises	3,000.00
Total cost	$11,000.00
Completion time	40 days

This phase of the program, like that of (1), should be made flexible and subject to change or cancellation in part as field evidence directs.

(3) Prepare the Lamartine mine workings for examination at least possible expense as deemed necessary by the examining team of Defense Minerals Administration to investigate the possibilities of reported lead-zinc ore bodies in the Imperial-Silver Queen area.

Since the condition of workings is unknown and the Lamartine tunnel is presently blocked here, $30,000.00 is recommended to be spent as field conditions suggest and under the flexible control of the examining team, subject to changes and cancellation in part as necessary. Completion time is roughly estimated at 60 days.

(4) A diamond drilling exploration program is recommended to explore for parallel vein structures similar to the Lamartine vein by transverse drilling as directed by Defense Minerals Administration or other competent authority. An expenditure of $30,000.00 is recommended spent as follows:

Approximately 3000 feet of core drill hole at $8.00 per foot to include rental of company drill and purchase of supplemental equipment such as rods, etc.	$24,000.00
Incidentals	6,000.00
Total cost	$30,000.00
Completion time	90 days

(5) An expenditure of $9,478.00 is recommended for new equipment as listed in table 7 of the appendix.

Recapitulation of Exploration Recommendations

Item	Days completion time	Total cost	Government participation 50 percent	Tons ore reserves required to repay loan*	Remarks
(1)	40	$ 9,996.00	$ 4,998.00	4,300	260 feet level drifting
(2)	40	11,000.00	5,500.00	4,700	200 feet stope drifting
(3)	60	30,000.00	15,000.00	12,700	Opening old Lamartine workings
(4)	90	30,000.00	15,000.00	12,700	Diamond drilling
(5)	60	9,478.00	4,739.00	4,000	To secure new machinery
Totals	290	$90,474.00	$45,237.00	38,400	

*Ore reserves used have the same value as inferred reserves estimated, i.e., 0.2 ounce gold and 3.0 ounces silver per ton, 6 percent lead and 6 percent zinc. Repayment at 5 percent of net smelter returns, or $1.18 per ton of crude ore.

Montana Mining Development Company's proposal to extend the Oneida-Stag tunnel 2,500 feet westerly to a point near the Ben Harrison shaft is not recommended as it would traverse a considerable distance through ground known to have extremely low lead and zinc values with a predominance of gold and silver.

APPENDIX

Table 1. - Mining claims owned by Montana Mining Development Company in the Trail Creek Mining District, Clear Creek County, Colo.

Name	Type	U. S. Survey Number	Fraction	Title
Money Musk	patented	6504	5/16	purchased
Denver City	patented	5695	all	tax title
Rose Millsite	unpatented	--	all	purchased
Joan Millsite	unpatented	--	all	purchased
Grace Millsite	unpatented	--	all	purchased
Mary Millsite	unpatented	--	all	purchased
Dora Millsite	unpatented	--	all	purchased
Betty Millsite	unpatented	--	all	purchased

Table 2. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Himrod Mines Company, October 27, 1949, under lease with option-to-purchase agreement at a cost of $15,000.00.

Name	Type	U. S. Survey Number	Fraction
Chloride Hill Lode	patented	9267	all
John L. Lode	patented	9267	all
Franklin Lode	patented	9267	all
Himrod Lode	patented	9263	all
Falcon Lode	patented	1198	1/14
Falcon Extension Lode	patented	8104	all
Lafayette Lode	patented	9263	all
Lamartine Lode	patented	629	all
Crown Lode	patented	5681	all
Amuletta Lode	patented	6387	all
Imperial Lode	patented	6141	all
Silver Queen Lode	patented	6762	all
Silas Hanchett Lode	patented	9953	all
B. Fitz Lode	patented	19288	all
Jim J. Lode	patented	19288	all
Fairview Lode	patented	6584	all
Crest Lode	patented	6584	all
Letout Lode	patented	6584	all
Highland Lassie Lode	patented	6584	all
Rose of Sharon Lode	patented	6584	all
Spruce Lode	patented	6584	all
Sunflower Lode	patented	6584	all
Money Musk Lode	patented	6504	11/16

Table 3. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Minnie Richards, Helen Varner, Lorraine Smith, and Ivan Ferrell of Denver, Colo., Marcella Foote of Chelan, Wash., and J. L. Dyke of Turlock, Calif., on December 9, 1950, under an "Agreement of Sale" for $25,000.00.

Name	Type	U. S. Survey Number	Fraction
Black Earth Lode	patented	417	all
Maximum Lode	patented	2262-A	all
Maximum Millsite	patented	2262-B	all
Rustler Lode	patented	2132-A	all
Rustler Millsite	patented	2132-B	all
Oneida Lode	patented	1558	all
Richmond Millsite	patented	17230	all
Old Stag Lode	patented	6117	all
Ontario Lode	patented	6117	all
Wilson Lode	patented	19944	all
Old Stag tunnel and tunnel site (on Maximum Millsite)			

Table 4. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Lamartine Mines, Inc., on October 28, 1949, under a "Lease and Option-to-Purchase Agreement" for $60,000.00.

Name	Type	U. S. Survey Number	Fraction
Falcon Lode	patented	1198	13/14

Table 5. - Mining claims in the Trail Creek Mining District, Clear Creek County, Colo., secured by Montana Mining Development Company from Katherine A. Clark and Charles D. Armstrong of Canon City, and Grace M. Robinson of Denver, Colo., on August 23, 1950, under a "Lease and Option-to-Purchase Agreement" for $50,000.00 plus 6 percent interest.

Name	Type	U. S. Survey Number	Fraction
Ben Harrison Lode	patented	6381	all
Croesus Lode	patented	6381	all

Table 6. - Mining equipment on Montana Mining Development Company property, at the Lamartine tunnel level, offered for rental.

Item		Rental value per 8 hours
1	Worthington Blue Brute 315 diesel-driven air compressor.	$14.00
1	Ingersoll-Rand Imperial Type 10 air compressor complete with Type 1, for K starting compensator. Electric drive.	10.00
1	1-1/2-ton Atlas trammer complete with battery charger	6.00
10	Ore cars	5.00
Air tools:		
1	CP jack hammer	
1	Thor jack hammer	
3	Old Gardner-Denver drifters, Model D-79	
3	Tugger hoists	
5	Gardner-Denver R-91 stopers	
2	Gardner-Denver 104 stopers	6.50
	Total rental of equipment, excluding diamond drill	$41.50
1	Chicago Pneumatic diamond drill X-1 (new) 500 feet of EX rod	8.00
	Total rental of equipment, including diamond drill	$49.50

Table 7. - New mining machinery to be purchased and used on Montana Mining Development Company exploration.

Item		Cost
1	Eimco-Finley mucking machine	$3,292.00
1	Chicago Penumatic Model CP60N drifter	973.00
1	Chicago Pneumatic drifter, Jumbo Model G600	4,013.00
6	Changes of drill steel*	200.00
	Anticipated price increase	1,000.00
	Total cost of new equipment	$9,478.00

*Added by examining team to applicant's estimate.

MAYNARD SINTON
PRESIDENT

JAMES E. ANDERSON
MANAGER

HAL BOLINGER
SECRETARY

MONTANA MINING DEVELOPMENT CO.

P. O. Box 458

IDAHO SPRINGS, COLORADO

June 14, 1951

U. S. Department of Interior
Defense Minerals Administration
Washington 25, D. C.

Attention: Tom Lyon, Director

Re: Docket DMA-270

Gentlemen:

Please find enclosed original and copy of amended application of project DMA-270, Montana Mining Development Co., Idaho Springs, Colorado.

We have sent a copy of this to J. H. East, Jr., Bureau of Mines in Denver, and a copy to Messrs. Travers and Harrer in the U. S. Bureau of Mines at Federal Service Center, Denver.

Yours very truly,

H. A. Bolinger, Jr.
H. A. Bolinger, Jr.
Secretary

HAB/rs

Enclosures

JUN 21 1951

MAYNARD SINTON
PRESIDENT

JAMES E. ANDERSON
MANAGER

HAL BOLINGER
SECRETARY

MONTANA MINING DEVELOPMENT CO.

P. O. Box 458

IDAHO SPRINGS, COLORADO

June 14, 1951

U. S. Department of Interior
Defense Minerals Administration
Washington 25, D. C.

Attention: Tom Lyon, Director

Re: Docket DMA-270

Gentlemen:

This letter is written in accordance with the instructions contained in your letter to H. A. Bolinger, Jr. dated April 20, 1951, in regard to the above application number, and suggestions which we received from the men in the United States Bureau of Mines in Denver with whom we talked, Messrs. Travers, Harrer, and Allsman.

check for F.T. Pat

The Montana Mining Development Co. submitted a loan application to your office in December of 1950 requesting an outright loan for $417,500. This loan was given a DMA docket number 270. The United States Bureau of Mines at Denver, Colorado, sent a group of engineers to our property and gave it a thorough examination in the latter part of May, 1951. Mike Harrer, working out of Mr. Travers' office in the United States Bureau of Mines Federal Service Center in Denver, is the person in charge of investigating this property.

It is our desire to change our original application as appears in Docket DMA-270 to a government participation exploration loan for the following reasons:

1. The indebtedness which we requested money to liquidate in program A of Docket DMA-270 is satisfactorily financed so that there is no reason to refinance it. Therefore we would like to withdraw all of Program A from our loan application. This program amounts to $155,000.

2. Since the time of our original application we have already purchased much of the machinery requested under Program B, and therefore there is no need for funds for these items. It is our desire to change Program B to read as follows:

1 Eimco Finnley Mucking Machine	$ 3,292.00
1 3½" Model CP60N Drifter	973.00
Power Line to Stag	1,000.00
1 Jumbo Drifter	4,013.00
	$ 9,278.00
Anticipated cost increase since price schedule under Docket DMA-270	972.00
Total for Program B	$10,250.00

Our original application under Docket DMA-270 requests $47,500 which we request to revise to the above amount of the sum of $10,250. This would decrease our application under Program B the amount of $36,250.

3. Since making the application contained in Docket DMA-270, we have extended the Ben Harrison-Croesus drift approximately fifty feet. At the present time the ore in the face of the Ben Harrison-Croesus drift is not quite good enough to warrant mining operations. It has steadily increased in lead values. We feel that the vein is strong enough and consistent enough and contains enough lead in its present face to warrant further exploration. This vein can be traced (and was worked out) from the portal of the Lamartine tunnel to its present face. There is then approximately 500 feet of virgin ground on the vein that has not been mined which is the desire of this company to explore. The vein was then again worked for approximately 5,000 feet and for many levels through the Lamartine shaft. The reason this 500 feet was not worked was that at the time the Lamartine tunnel was driven from the Lamartine shaft to the portal, the Ben Harrison-Croesus property belonged to another party. The Ben Harrison-Croesus people would not allow the Lamartine group to drive their drainage tunnel on the vein through their property, therefore, the Lamartine tunnel through the Ben Harrison-Croesus property is driven through Country rock. (See Maps, Docket DMA-270) During the last war a Mr. Roberts leased the Ben Harrison-Croesus property, worked it to within fifty feet of its present face. Mr. Roberts' smelter returns show he produced a substantial amount of lead and received government lead subsidy payments. He paid back a $20,000 Reconstruction Finance Corporation loan from its lead production. (Loan ND-5275)

In our loan application Docket DMA-270, Program C, we requested funds to explore and make available a zinc deposit on the fourth level of the old Lamartine workings. At that time our

method in mind to gain access to this deposit was up through the Lamartine shaft and back through the fourth level. It is now believed, however, that should we extend the Ben Harrison-Croesus drift for the remaining 500 feet that we would encounter this lead zinc ore shoot and could raise on the ore to the fourth level. Should this prove true, it would be a much cheaper means of gaining access to the above zinc ore since we would be raising on ore. At the present time our company has the Lamartine tunnel in good usable condition back to the Ben Harrison-Croesus face including track and air. The face is approximately 3,500 feet from the portal. Our company feels that driving this proposed 500 feet, starting at a point 3,500 feet from the portal will cost a minimum of $38.68 per foot of drift (see cost schedule Docket DMA-270 and Summary this letter), or total $19,340. By working two shifts per day we feel we can complete this program in approximately 55 working days. Our company is ready to start operations on this program at present.

4. It is still the desire of the Montana Mining Development Co. to drive the 2,500 feet of drift as requested in Program D, Docket DMA-270. To accomplish this it is still necessary to replace air line, track and general recondition the 3,000 feet of Oneida Stag tunnel. However, in the original application Docket DMA-270 had no figures for machinery rental since it was an outright loan request instead of a participating loan. In a participating loan it is necessary to figure all the costs and, therefore, $83.00 per day for machinery rental must be added for 270 days, or a total of $22,410. This will increase the request under Program D up to $111,550, with the core drill program taken out. The applicant feels that the core drill program should not be submitted with Program D as it is a separate program entirely. Therefore, the core drill program under Program D of Docket DMA-270 will now be Program E under our revised request.

5. Upon reconsideration of our original application, we feel that Program E of Docket DMA-270 has so many unknown factors as to its feasibility and since Program E will not even start work for a period of 520 days from the start of Program D, it is our desire to withdraw Program E entirely. There is a great possibility that by the completion of Program D our company will have necessary finances to carry on Program E without government assistance or will have proven it unfeasible. The applicant feels that the core drill program should still be considered as it appeared under Program D of Docket DMA-270 but has no actual connection with Program D, therefore it will be referred to hereafter as Program E.

SUMMARY

Program A

Program A as it appears in Docket DMA-270 is withdrawn from the loan.

Program B

Program B as it appears in Docket DMA-270 is revised to show a total of $10,250 to purchase machinery of which $5,125 is to be supplied by the applicant and $5,125 is requested from the government.

Program C

Program C as it appears on Docket DMA-270 is to be revised. Five hundred feet of drift at $38.68 per foot of drift (for cost of $38.68 see Program D) shows a total cost of program at $19,340. Allowance to applicant for machinery rental is $4,565 for the 55 days estimated time of completion. Applicant's cash outlay $5,105 to total $9,670 which is 50% of the program cost. The government is requested to expend 50% or $9,670.

Program D

Program D as it appears in Docket DMA-270, since it was an outright loan, had no figures for machinery rental. Therefore, on a participation loan where all the overall costs must be figured there is an increase cost of $83.00 per day for 270 days or a total increase to driving the drift of $22,410. This brings the cost of driving of the drift up to $96,723.15 or roughly $97,000. To this cost must be added the cost of replacing the Oneida track and airline, or total of $8,496. Also must be added the reconditioning of the Oneida Tunnel of $6,030.25 (See Docket DMA-270). Without the core drill program, Program D now has a total cost of

$97,000.00
8,500.00
6,050.00
$111,550.00

The applicant's 50% portion of the above cost of Program D is $55,775. Allowance for machinery rental to the applicant is $22,410 leaving a balance to be submitted by the applicant of $33,365. The government is requested to expend $55,775 on this program.

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The core drill program that was submitted under Program D, original application Docket DMA-270, is now Program E of our revised application.

Program E

Program E as it appears in Docket DMA-270 is withdrawn from the loan.

The revised Program E is the core drill program that was originally submitted as a part of Program D. The applicant feels that since there has been practically no cross-cutting throughout the entire previous mining of the mine, and since there has been no core drilling on this property, it would be a very sound investment to work a couple of shifts core drilling for about 100 days. This area is very highly mineralized with a great number of known veins running through the area, there have been two veins proven back in the Lamartine workings but no effort was made to see if there is a parallel vein running back in the Ben Harrison-Croesus, Falcon Extension, Falcon, Oneida Stag, or Old Stag claims.

In the original application Docket DMA-270, Program D core drill program, there was no allowance for machinery rental. This would increase the cost as per originally submitted by $16.00 per day or a total cost of the program of $8,100. The applicant's machinery rental credit would amount to $1,600, for 100 days of core drilling, leaving a balance of $2,450 to be expended by the applicant to total 50% of the program cost. The government is requested to expend $4,050 on this program.

REVISED APPLICATION

Program	Time of Completion	Total Cost	Amount of Government Participation
A	Out	$ None	$ None
B	60 days	10,250.00	5,125.00
C	55 days	19,340.00	9,670.00
D	270 days	111,550.00	55,775.00
E	100 days	8,100.00	4,050.00
		$149,240.00	$ 74,620.00

Nearly all of the questions asked on Form MF-103 are answered and contained in the original file and loan application Docket DMA-270. The following additional information and supplemental information is furnished in connection with this application.

1. Attached hereto, marked "Exhibit A", is a list of the equipment owned by the applicant available for use in connection with the exploration program and a list of the equipment and the rental value thereof to be paid as part of the cost of the exploration program.

2. The claims involved in connection with an exploration loan and the owners thereof are as follows:

(a) Exploration work would be done on and for the benefit of the Ben Harrison-Croesus Lode Mining Claims, Mineral Survey No. 6381, owned by Katherine A. Clark and Charles D. Armstrong owners of three-fourths interest, and Grace M. Robinson owner of one-fourth interest. The lease of this property is attached to original application and this lease is now in force and effect.

A waiver in favor of the government lien would have to be secured on this property.

For Program C of our application, this would be the only property involved as lessees of the Ben Harrison-Croesus claims have a right of ingress and egress through the Falcon Extension, Falcon and Oneida Stag claims through the Lamartine tunnel.

(b) Attached is a copy of the lease dated January 23, 1951, which is now in force and effect covering the Falcon Lode Mining Claim, U. S. Survey No. 1198. This lease grants a perpetual easement through the Falcon claim in the event the Oneida Stag tunnel is extended through the Falcon claim as it extends between the Oneida Stag claims and the Ben Harrison-Croesus claims.

It would not be necessary to secure any further agreement from the owners of the Falcon claim in order to guarantee ingress and egress to the Ben Harrison-Croesus claims through the Oneida Stag tunnel if extended through the Falcon property.

(c) The only other claims involved in connection with the exploration program through the Oneida Stag tunnel are the

Oneida Lode Mining Claim, U. S. Survey No. 1558, and Old Stag Lode Mining Claim, U. S. Survey No. 6117. The agreement to purchase dated December 9, 1950, from the owners of these two claims to the applicant is attached to the original application. This purchase agreement is in effect and the balance of the purchase price is being reduced by monthly payments and royalty payments from a dump which the applicant is milling on this property, and the balance of the purchase price will be paid before the due date.

3. There is attached hereto, marked "Exhibit B", a financial statement of the applicant as of June 1, 1951.

FINANCING BY APPLICANT

Applicant is successfully operating the mill located at the portal of the Lamartine tunnel from dumps located on the above-mentioned properties, and from these operations will have sufficient moneys to pay applicant's share of the cost of both exploration projects and purchase of necessary equipment.

TIME OF COMPLETION

Program C - 65 to 75 days

Program D - 270 days from commencement

EXPLORATION FOR LEAD AND ZINC

At the present time applicant is producing approximately 300 pounds of lead per day from milling dump at portal of Lamartine Tunnel.

****

This application is made for the purpose of (1) developing the lead and zinc ore indicated to be contained above the 500 feet of unexplored ground in Ben Harrison-Croesus mining claims extending for approximately 900 feet above the Lamartine Tunnel, by extending the Lamartine Tunnel 500 feet from its present face, and (2) for extending the Oneida Stag Tunnel under the Ben Harrison-Croesus mining claims to explore the lead and zinc deposits as disclosed in the Lamartine Tunnel and shafts extending down from it as they extend approximately 350 feet along the vein below their present accessibility through the Lamartine Tunnel.

The applicant requests that the government participate in these exploration loans to the extent of a total cost to the government of $74,620. The applicant is willing to, and is and will be in a position to, finance its fifty per cent of the cost of such programs.

This application is made by the duly authorized officers of the corporation.

MONTANA MINING DEVELOPMENT CO.

By Maynard Sinton President

Attest:

H A Bolinger Jr.
Secretary.

HAB/rs

ccs: Mr. J. H. East, Jr.
Bureau of Mines
224 New Customs House
Denver 2, Colorado
(Att'n: Mr. Allsman)

U. S. Bureau of Mines
U. S. Federal Service Center
Building 2-A
Denver, Colorado
(Att'n: Messrs. Travers & Harrer)

"EXHIBIT A"

Equipment to be rented in connection with the exploration loan

Program C and D

Air Compressors:		
Worthington 315	Rental value 8 hours	$14.00
Ingersold Rand	Rental value 8 hours	$10.00
Atlas Trammer	Rental value 8 hours	$ 6.00
10 Ore Cars	Rental value 8 hours	$ 5.00
Air Tools, Jack Hammer, Hose drifter, etc.	Rental value 8 hours	$ 6.50

* * * * * * * * * * *

Program E

Core Drill	Rental value 8 hours	$ 8.00

* * * * * * * * * * *

Other equipment to be used in connection with the exploration program not to be a charge against project

3500 feet of track, 3500 feet of air line, and 1 booster tank, now installed and in usable condition in Lamartine Tunnel.

Administration, cook, bunk buildings, completely equipped blacksmith shop and welding equipment.

Other property owned by applicant

Complete concentration mill capacity five tons per hour. Consisting of: mill building, one 5x5 Denver ball mill, one 5x22 Hardinge ball mill, one 48 inch door type classifier, one 6 cell set Denver Equipment Company flotation cells, one set Morse Brothers Equipment Company 6 flotation cells, one Eimco filter, two Universal Jaw Crushers, all complete with electric motors, pumps and in operating condition and being operated at the present time.

3 Dump trucks
1 Dodge four wheel drive army surplus ambulance

1 T. D. 14 Tractor with cable dozer
1 Allis Chalmers H. D. 5G tractor with shovel loader

LEASE AND OPTION

THIS INDENTURE, made this 23d day of January, A. D, 1951, between W. E. HUGINS, R. J. IRELAND, JR., and KATHARINE T. JOHNSTON, lessors, and MONTANA MINING DEVELOPMENT CO., a Montana corporation, lessee;

WITNESSETH, that in consideration of the payment of the royalties and the keeping and performance of the covenants and agreements by the said lessee hereinafter set forth, the said lessors hereby lease unto the said lessee an undivided 13/14 interest in and to the Falcon Lode Mining Claim, U. S. Survey No. 1198, lying and being in the Trail Creek Mining District in the County of Clear Creek and State of Colorado;

TO HAVE AND TO HOLD the same, with all the appurtenances, unto the said lessee from twelve o'clock noon of the 23d day of January, A. D. 1961, and so much longer thereafter as the lessee or its assigns shall continue to carry on and conduct mining operations in said mining district on the said Falcon Lode Mining Claim, or on mining claims adjoining the said Falcon Lode Mining Claim and connected with the mining claim herein leased by tunnels used in connection with mining operations on other mining claims in said district; or so much longer as lessee or its assigns shall operate a mill in said mining district; at and for a rental for the full term aforesaid of certain royalty payments as hereinafter set forth.

IT IS FURTHER AGREED that the lessee has secured a lease of the Oneida Mining Claim, Survey No. 1558, and that there is a developed tunnel on said mining claim, the elevation of which is approximately 300 feet lower than the lowest tunnel now used for ingress and egress to said Falcon Lode Mining Claim; and that said tunnel on said Oneida Mining Claim extends into and upon said Falcon Lode Mining Claim, and that

lessee agrees that it will extend said tunnel along the vein which the same is now following, over and across said Falcon Lode Mining Claim, and that it will commence mining operations on said Falcon Lode Mining Claim within one year from the date hereof, and will thereafter mine and mill at least 25 tons per day of all ore having a value of between $15.00 and $30.00 per ton; and if the value of said ore shall exceed $30.00 per ton, the lessee shall mine and mill at least 15 tons per day; and that said days shall mean 25 days in each calendar month; provided further that the production required above may be averaged in each quarter-annul period beginning January 23, 1952; and further provided that any such ore mined prior to January 23, 1952, may be used to meet the quota for any part of the period beginning January 23, 1952, and ending January 23, 1953.

As a part of the consideration for the lessee extending said tunnel, lessors covenant and agree and grant and convey to lessee a permanent easement and right-of-way to use said tunnel, in the event the same shall be developed, in connection with carrying on and conducting mining operations on all other mining claims which lessee may desire to gain access to by the use of said tunnel; it being expressly understood in this connection that in the event that lessee shall develop said tunnel over and across said Falcon Lode Mining Claim, lessee shall thereafter have a continual and perpetual right to use said tunnel for such purposes and in such manner as it shall desire, even though lessee's interest in the Falcon Lode Mining Claim under the terms of this lease shall have terminated and ended in other respects.

IT IS FURTHER AGREED that upon request of lessee, lessors will make, execute and deliver to lessee a deed conveying said permanent right-of-way for use of said tunnel to

the lessee.

IT IS UNDERSTOOD AND AGREED that lessee has acquired the aforementioned Oneida tunnel, and should this lease on the Falcon Lode Mining Claim be terminated, then and in that event it is agreed that the lessors shall have the perpetual right of the use of said Oneida tunnel for the purpose of mining ore, transporting the same to the portal, and for drainage of said Falcon Lode Mining Claim, together with the perpetual right to use any and all roads leading to the mouth of said tunnel and the right to build rail tracks from said tunnel to such points as may be desired, together with the right to build upon said surface ground of said Oneida Mining property and on the surface of ground covered by the aforementioned mill site location certificates, ore bins, compressor houses, and electric transformer stations; provided, however, that such operations in the tunnel and such drainage does not interfere in any way with the operations of the lessee, and the location and the use of said rights above ground shall be conducted in such a manner as is reasonable and agreeable to the second party and at all times under its jurisdiction.

Should operations cease hereunder by reason of any Government order, decree, regulation, or law, the effect of which cannot be reasonably overcome by lessee, or should operations cease hereunder by reason of strike, flood, unusually large cave-in, or any happening clearly an Act of God, then, and in any such event, this lease shall be extended for a time equal to the time such operations were so stopped plus three months, all other terms and conditions to remain unaffected.

In addition to the foregoing, the said lessee covenants and agrees as follows:

1. To well and sufficiently timber said mine in accordance with good mining practice and repair all old timbering whenever it may become necessary in the portion or portions of the said demised premises in which the lessee may from time to time be operating.

2. To permit said lessors, their agent or attorney, from time to time and at all reasonable times to enter upon and into all parts of said mine and mining premises for the purpose of examination and inspection.

3. Lessee shall have the right to assign this lease if it desires to do so; provided, however, in the event this lease is to be assigned to a corporation, lessee shall furnish lessors the necessary papers showing that said corporation is authorized to do business in the State of Colorado.

4. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by said lessee, or any person under it in any manner, by working within or upon the demised premises as the property of said lessors, with privilege to said lessee to work the same as part and parcel of said demised premises.

5. To keep at all times the tunnels and other workings, through which said lessee shall operate, thoroughly drained and cleared of loose rock and rubbish unless prevented by extraordinary mining casualty.

6. To post and at all times during the life of this agreement to keep posted in conspicuous places upon the demised premises notices stating in substance that said demised premises are being operated under lease and that neither the owner thereof nor any of said property shall or will be liable for any indebtedness incurred in the operation of said premises.

7. To comply with all the provisions of the Laws of

the State of Colorado pertaining to Workmens Compensation and Unemployment Insurance and to protect and save harmless said lessor for and on account of the premiums thereon and all accidents and damages covered by or related thereto and to comply with the Hours and Wages Laws and the provisions of the Social Security Act, and from time to time upon request to furnish lessors evidence that the above regulations are being complied with.

8. To pay to said lessors as royalty ten per cent (10%) of 13/14 of all ores mined from said Falcon Claim, said royalty payments to be based upon the net mill or smelter returns on all ores extracted from the said Falcon Claim; to deliver said ores with all convenient speed in lots as mined to some mill or regular ore buyer and leave with said mill or ore buyer a percentage of mill or smelter returns as aforesaid for delivery to the lessor. By net mill and smelter returns is meant the gross returns less the cost of hauling, transportation and treatment charges; provided, that should gold be delivered to the U. S. Mint, the Mint shall be authorized, empowered, and directed by lessee to pay any amounts due therefor directly to the United States National Bank of Denver, Colorado, for division by said bank between lessor and lessee.

9. After each shipment to render a statement to said lessors, accompanied by voucher showing the amount of ore taken from the property hereby demised and the yield thereof and also the cost of hauling, milling and transporting the same.

The royalty paid on all ore extracted from the said demised premises shall be credited to and applied upon the purchase price of said demised premises as set forth in the option to purchase included herein.

10. The lessors expressly agree, however, that

the lessee shall have thirty days (30) notice in writing addressed to it at Idaho Springs, Colorado, of any violation of the covenants of this agreement and an opportunity to remedy or correct the same within that time; provided, however, that any violation of the provisions contained in paragraphs numbered 6, 7 and 8, or any violation of the payments provided for in the option hereinafter set forth, will work an immediate forfeiture of this lease upon written notice addressed to said lessee as aforesaid.

11. And finally, that upon violation of any covenant or covenants hereinabove reserved, the term of this lease shall at the option of said lessors expire after notice to the said lessee, as provided in the preceding paragraph, and this lease and the said demised premises, with the appurtenances, shall become forfeit to the said lessors, and the said lessors, their agent or attorney, may thereupon enter upon said premises and dispossess all persons occupying the same with or without force and with or without process of law, or at the option of said lessors the said lessee and all persons found in occupation thereof may be proceeded against as guilty of unlawful detainer, and it is mutually understood and agreed that all machinery placed on the premises by said lessee shall be and remain the property of the lessee, provided, however, that all rail, tract, ties, pipe, buildings and any other improvement of a permanent nature placed upon the property by the said lessee shall become and remain the property of the lessors, except such rails, track, ties and pipe as may be placed in said extension of said tunnel now existing on said Oneida Claim, which improvements shall likewise remain and be the property of the lessee. All tools and machinery which have been placed upon said premises by the said lessee may be removed therefrom within thirty (30) days after

the termination of said lease, provided, however, that no property of the said lessee may be removed while the lessee is in any manner indebted or obligated to the lessors under the terms of this lease; provided, however, that this provisions shall not apply to non-payment of the purchase price provided for in the option.

12. Lessee expressly agrees and assumes to pay all taxes levied upon the above described property as ad valorem or production tax, whichever the case may be, in accordance with the laws of the State of Colorado from and after January 1, 1950.

OPTION TO PURCHASE

MINING CLAIM HEREIN LEASED

As part of the consideration for the foregoing lease, lessors hereby grant to lessee an option to purchase said interest of lessors in said Falcon Mining Claim, Survey No. 1198, for the sum of Sixty Thousand Dollars ($60,000.00) at any time during the term of this lease, it being expressly understood in this connection that all royalties paid hereunder shall apply to and be considered payments on said purchase price.

In the event that lessee shall pay said purchase price, lessors agree to convey all of their right, title, and interest in said mining claim to lessee.

It is expressly understood that in the event of termination of the foregoing lease, all rights of lessee to purchase said Falcon Mining Claim under the terms of this option shall immediately terminate and end.

Each and all of the clauses, covenants, and agreements hereinbefore contained in this entire agreement shall apply to and bind the heirs, executors, administrators and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto signed their names, executing this agreement in quadruplicate, the day and year first above written.

RUFUS J. IRELAND, JR.

by A. D. JOHNSTON
A. D. Johnston,
Attorney-in-fact

KATHARINE T. JOHNSTON,

by A. D. JOHNSTON
A. D. Johnston
Attorney-in-fact

W. E. HUGINS,

by A. D. JOHNSTON
A. D. Johnston,
Attorney-in-fact

MONTANA MINING DEVELOPMENT CO., a Montana Corporation,

by MAYNARD SINTON, President

Attest: H. A. BOLINGER, JR.
Secretary.

MONTANA MINING DEVELOPMENT COMPANY

BALANCE SHEET — EXHIBIT "C"

ASSETS:			
Bank		1,905.76	
Accounts Receivable		1,575.00	
Inventory - Concentrates		4,500.00	
Total Current Assets		7,520.76	
Fixed Assets:			
Mill & Mill Equipment	28,580.57		
Trucks & Tractors	20,734.80		
Mine Equipment	30,960.00		
Buildings & Equipment	25,000.00		
L	105,275.37		
Less Depreciation	7,376.86	97,898.51	
Real Estate:			
Himrod Claims	14,000.00		
Falcon Claims	4,705.08		
Oneida Stag Claim	26,000.00		
Ben Harrison Claim	18,477.41	63,182.49	
Deposit - Public Service Co.		900.00	
Treasury Stock		5,000.00	
LIABILITIES:			
Withholding Reserve			7.20
Notes Payable - Bank			4,000.00
Contracts & Mortgages Payable:			
Seitz Machinery	2,005.58		
Barnett Mfg. Co.	200.00		
Richards, etal	22,288.98		
Roberts	6,000.00		
Himrod Claim	11,500,00		
Fowler	18,000.00		
Sinton	37.750.00		
Gribble	14,500.00		112,244.56
CAPITAL STOCK:			58,250.00
TOTAL ASSETS & LIABILITIES:		$174,501.76	$174,501.76 -

MAYNARD SINTON
PRESIDENT

JAMES E. ANDERSON
MANAGER

HAL BOLINGER
SECRETARY

MONTANA MINING DEVELOPMENT CO.

P. O. Box 458

IDAHO SPRINGS, COLORADO

June 14, 1951

U. S. Department of Interior
Defense Minerals Administration
Washington 25, D. C.

Attention: Tom Lyon, Director

Re: Docket DMA-270

Gentlemen:

This letter is written in accordance with the instructions contained in your letter to H. A. Bolinger, Jr. dated April 20, 1951, in regard to the above application number, and suggestions which we received from the men in the United States Bureau of Mines in Denver with whom we talked, Messrs. Travers, Harrer, and Allsman.

The Montana Mining Development Co. submitted a loan application to your office in December of 1950 requesting an outright loan for $417,500. This loan was given a DMA docket number 270. The United States Bureau of Mines at Denver, Colorado, sent a group of engineers to our property and gave it a thorough examination in the latter part of May, 1951. Mike Harrer, working out of Mr. Travers' office in the United States Bureau of Mines Federal Service Center in Denver, is the person in charge of investigating this property.

It is our desire to change our original application as appears in Docket DMA-270 to a government participation exploration loan for the following reasons:

1. The indebtedness which we requested money to liquidate in program A of Docket DMA-270 is satisfactorily financed so that there is no reason to refinance it. Therefore we would like to withdraw all of Program A from our loan application. This program amounts to $155,000.

2. Since the time of our original application we have already purchased much of the machinery requested under Program B, and therefore there is no need for funds for these items. It is our desire to change Program B to read as follows:

1 Gimco Pinnley Bucking Machine	$ 3,297.00
1 3½" Model 5700 Drifter	973.00
Power Line to Stag	1,000.00
1 Jumbo Drifter	4,013.00
	$ 9,273.00
Anticipated cost increase since price schedule under Docket MM-270	972.00
Total for Program B	$10,250.00

Our original application under Docket MM-270 requests $47,500 which we request to revise to the above amount of the sum of $10,250. This would decrease our application under Program B the amount of $36,250.

3. Since filing the application contained in Docket MM-270, we have extended the Ben Harrison-Greene drift approximately fifty feet. At the present time the ore in the face of the Ben Harrison-Greene drift is not quite good enough to warrant mining operations. It has steadily increased in lead values. We feel that the vein is strong enough and consistent enough and contains enough lead in its present face to warrant further exploration. This vein can be traced (and was worked out) from the portal of the Lamartine tunnel to its present face. There is then approximately 500 feet of virgin ground on the vein that has not been mined which is the desire of this company to explore. The vein was then again worked for approximately 5,000 feet and for many levels through the Lamartine shaft. The reason this 500 feet was not worked was that at the time the Lamartine tunnel was driven from the Lamartine shaft to the portal, the Ben Harrison-Greene property belonged to another party. The Ben Harrison-Greene people would not allow the Lamartine group to drive their drainage tunnel on the vein through their property, therefore, the Lamartine tunnel through the Ben Harrison-Greene property is driven through Country rock. (See Maps, Docket MM-270) During the last war a Mr. Roberts leased the Ben Harrison-Greene property, worked it to within fifty feet of its present face. Mr. Roberts' smelter returns show he produced a substantial amount of lead and received government lead subsidy payments. He paid back a $20,000 Reconstruction Finance Corporation loan from its lead production. (Loan ID-5275)

In our loan application Docket MM-270, Program C, we requested funds to explore and make available a zinc deposit on the fourth level of the old Lamartine workings. At that time our

untial in mind to gain access to this deposit was up through the Lamartine shaft and back through the fourth level. It is our believed, however, that should we extend the Ben Harrison-Greenus drift for the remaining 500 feet that we would encounter this lead zinc ore shoot and could raise on the ore to the fourth level. Should this prove true, it would be a much cheaper means of gaining access to the above zinc ore since we would be raising on ore. At the present time our company has the Lamartine tunnel in good usable condition back to the Ben Harrison-Greenus face including track and air. The face is approximately 3,500 feet from the portal. Our company feels that driving this proposed 500 feet, starting at a point 3,500 feet from the portal will cost a minimum of $30.60 per foot of drift (see cost schedule Docket MM-270 and Summary this letter), or total $15,300. By working two shifts per day we feel we can complete this program in approximately 55 working days. Our company is ready to start operations on this program at present.

4. It is still the desire of the Montana Mining Development Co. to drive the 2,500 feet of drift as requested in Program D, Docket MM-270. To accomplish this it is still necessary to replace air line, track and general reconditioning the 3,000 feet of Oneida Stag tunnel. However, in the original application Docket MM-270 had no figures for machinery rental since it was an outright loan request instead of a participating loan. In a participating loan it is necessary to figure all the costs and, therefore, $83.00 per day for machinery rental must be added for 270 days, or a total of $22,410. This will increase the request under Program D up to $111,550, with the core drill program taken out. The applicant feels that the core drill program should not be submitted with Program D as it is a separate program entirely. Therefore, the core drill program under Program D of Docket MM-270 will now be Program E under our revised request.

5. Upon reconsideration of our original application, we feel that Program E of Docket MM-270 has so many unknown factors as to its feasibility and since Program E will not even start work for a period of 500 days from the start of Program D, it is our desire to withdraw Program E entirely. There is a great possibility that by the completion of Program D our company will have necessary finances to carry on Program E without government assistance or will have proven it unfeasible. The applicant feels that the core drill program should still be considered as it appeared under Program D of Docket MM-270 but has no actual connection with Program D, therefore it will be referred to hereafter as Program E.

S U M M A R Y

Program A

Program A as it appears in Docket MRA-270 is withdrawn from the loan.

Program B

Program B as it appears in Docket MRA-270 is revised to show a total of $10,250 to purchase machinery of which $5,125 is to be supplied by the applicant and $5,125 is requested from the government.

Program C

Program C as it appears on Docket MRA-270 is to be revised. Five hundred feet of drift at $38.60 per foot of drift (for cost of $37.60 see Program D) shows a total cost of program of $19,300. Allowance to applicant for machinery rental is $8,555 for the 55 days estimated time of completion. Applicant's cash outlay $5,105 to total $9,670 which is 50% of the program cost. The government is requested to expend 50% or $9,670.

Program D

Program D as it appears in Docket MRA-270, since it was an outright loan, had no figures for machinery rental. Therefore, on a participation loan where all the overall costs must be figured there is an increase cost of $83.00 per day for 270 days or a total increase to driving the drift of $22,410. This brings the cost of driving of the drift up to $96,783.15 or roughly $97,000. To this cost must be added the cost of replacing the Oneida track and airline, an total of $8,496. Also must be added the reconditioning of the Oneida Tunnel of $6,030.25 (See Docket MRA-270). Without the core drill program, Program D now has a total cost of

$97,000.00
8,500.00
6,050.00
$111,550.00

The applicant's 33% portion of the above cost of Program D is $37,775. Allowance for machinery rental to the applicant is $22,410 leaving a balance to be submitted by the applicant of $33,365. The government is requested to expend $55,775 on this program.

The core drill program that was submitted under Program D, original application Docket DMA-270, is now Program E of our revised application.

Program E

Program E as it appears in Docket DMA-270 is withdrawn from the loan.

The revised Program E is the core drill program that was originally submitted as a part of Program D. The applicant feels that since there has been practically no cross-cutting throughout the entire previous mining of the mine, and since there has been no core drilling on this property, it would be a very sound investment to work a couple of shifts core drilling for about 100 days. This area is very highly mineralized with a great number of known veins running through the area, there have been two veins proven back in the Lamartine workings but no effort was made to see if there is a parallel vein running back in the Sea Hampton-Crocus, Falcon Extension, Falcon, Golden Stag, or Old Stag claims.

In the original application Docket DMA-270, Program D core drill program, there was no allowance for machinery rental. This would increase the cost as per originally submitted by $16.00 per day or a total cost of the program of $7,100. The applicant's machinery rental credit could amount to $1,600. for 100 days of core drilling, leaving a balance of $2,500 to be expended by the applicant to total 50% of the program cost. The government is requested to expend $4,250 on this program.

SUMMARY OF PROGRAMS

Program	Time of Completion	Total Cost	Amount of Government Participation
A	Out	$ None	$ None
B	60 days	10,250.00	5,125.00
C	55 days	19,140.00	9,570.00
D	270 days	111,550.00	55,775.00
E	100 days	8,100.00	4,050.00
		$149,240.00	$ 74,620.00

Nearly all of the questions asked on Form DF-103 are answered and contained in the original file and loan application Docket DMA-270. The following additional information and supplemental information is furnished in connection with this application.

1. Attached hereto, marked "Exhibit A", is a list of the equipment owned by the applicant available for use in connection with the exploration program and a list of the equipment and the rental value thereof to be paid as part of the cost of the exploration program.

2. The claims involved in connection with an exploration loan and the owners thereof are as follows:

(a) Exploration work would be done on and for the benefit of the Don Harrison-Greene Lode Mining Claims, Mineral Survey No. 6311, owned by Katherine A. Clark and Charles B. Armstrong owners of three-fourths interest, and Grace E. Robinson owner of one-fourth interest. The lease of this property is attached to original application and this lease is now in force and effect.

A waiver in favor of the government lien would have to be secured on this property.

For Program C of our application, this would be the only property involved as lessees of the Don Harrison-Greene claims have a right of ingress and egress through the Falcon Extension, Falcon and Onida Stag claims through the Lamartine tunnel.

(b) Attached is a copy of the lease dated January 21, 1951, which is now in force and effect covering the Falcon Lode Mining Claim, U. S. Survey No. 1193. This lease grants a perpetual easement through the Falcon claim in the event the Onida Stag tunnel is extended through the Falcon claim as it extends between the Onida Stag claims and the Don Harrison-Greene claims.

It would not be necessary to secure any further agreement from the owners of the Falcon claim in order to guarantee ingress and egress to the Don Harrison-Greene claims through the Onida Stag tunnel if extended through the Falcon property.

(c) The only other claims involved in connection with the exploration program through the Onida Stag tunnel are the

Oneida Lode Mining Claim, U. S. Survey No. 1558, and Old Stag Lode Mining Claim, U. S. Survey No. 6117. The agreement to purchase dated December 3, 1950, from the owners of these two claims to the applicant is attached to the original application. This purchase agreement is in effect and the balance of the purchase price is being reduced by monthly payments and royalty payments from a dump which the applicant is milling on this property, and the balance of the purchase price will be paid before the due date.

3. There is attached hereto, marked "Exhibit D", a financial statement of the applicant as of June 1, 1951.

FINANCES OF APPLICANT

Applicant is successfully operating the mill located at the portal of the Lamartine tunnel from dumps located on the above-mentioned properties, and from these operations will have sufficient moneys to pay applicant's share of the cost of both exploration projects and purchase of necessary equipment.

TIME OF EXPLORATION

Program C - 65 to 75 days

Program D - 370 days from commencement

EXPLANATION FOR LEAD AND ZINC

At the present time applicant is producing approximately 300 pounds of lead per day from milling dump at portal of Lamartine Tunnel.

PROGRAMS

This application is made for the purpose of (1) developing the lead and zinc ore indicated to be contained above the 500 feet of unexplored ground in Don Harrison-Crocus mining claims extending for approximately 900 feet above the Lamartine Tunnel, by extending the Lamartine Tunnel 500 feet from its present face, and (2) for extending the Oneida Stag Tunnel under the Don Harrison-Crocus mining claims to explore the lead and zinc deposits as disclosed in the Lamartine Tunnel and shafts extending down from it as they extend approximately 350 feet along the vein below their present accessibility through the Lamartine Tunnel.

The applicant requests that the government participate in these exploration loans to the extent of a total cost to the government of $74,620. The applicant is willing to, and is and will be in a position to, finance its fifty per cent of the cost of such programs.

This application is made by the duly authorized officers of the corporation.

MAYNARD MINING DEVELOPMENT CO.

By Maynard Linton President

Attest:

H. A. Bolinger
Secretary.

HAB/bm

cc: Dr. J. H. Reed, Jr.
Bureau of Mines
224 Rio Grande House
Denver 2, Colorado
(Att'n: Mr. Allman)

U. S. Bureau of Mines
U. S. Federal Service Center
Building 2-A
Denver, Colorado
(Att'n: Messrs. Travers & Harper)

"EXHIBIT A"

Equipment to be rented in connection with the exploration loan

Program C and D

Air Compressors:		
Worthington 315	Rental value 8 hours	$14.00
Ingersold Rand	Rental value 8 hours	$10.00
Atlas Trammer	Rental value 8 hours	$ 6.00
10 Ore Cars	Rental value 8 hours	$ 5.00
Air Tools, Jack Hammer, Hoe drifter, etc.	Rental value 8 hours	$ 6.50

* * * * * * * * * * * *

Program E

Core Drill	Rental value 8 hours	$ 8.00

* * * * * * * * * * * *

Other equipment to be used in connection with the exploration program not to be a charge against project

3500 feet of track, 3500 feet of air line, and 1 booster tank, now installed and in usable condition in Lamartine Tunnel.

Administration, cook, bunk buildings, completely equipped blacksmith shop and welding equipment.

Other property owned by applicant

Complete concentration mill capacity five tons per hour. Consisting of: mill building, one 5x5 Denver ball mill, one 5x22 Hardinge ball mill, one 48 inch door type classifier, one 6 cell set Denver Equipment Company flotation cells, one set Morse Brothers Equipment Company 6 flotation cells, one Elmco filter, two Universal Jaw Crushers, all complete with electric motors, pumps and in operating condition and being operated at the present time.

3 Dump trucks
1 Dodge four wheel drive army surplus ambulance

1 T. D. 14 Tractor with cable dozer
1 Allis Chalmers H. D. 50 tractor with shovel loader

COPY

LEASE AND OPTION

THIS INDENTURE, made this 23d day of January, A. D. 1951, between W. E. HUGINS, S. J. IRELAND, JR., and KATHARINE T. JOHNSTON, lessors, and MONTANA MINING DEVELOPMENT CO., a Montana corporation, lessee;

WITNESSETH, that in consideration of the payment of the royalties and the keeping and performance of the covenants and agreements by the said lessee hereinafter set forth, the said lessors hereby lease unto the said lessee an undivided 13/14 interest in and to the Falcon Lode Mining Claim, U. S. Survey No. 1198, lying and being in the Trail Creek Mining District in the County of Clear Creek and State of Colorado;

TO HAVE AND TO HOLD the same, with all the appurtenances, unto the said lessee from twelve o'clock noon of the 23d day of January, A. D. 1951 and so much longer thereafter as the lessee or its assigns shall continue to carry on and conduct mining operations in said mining district on the said Falcon Lode Mining Claim, or on mining claims adjoining the said Falcon Lode Mining Claim and connected with the mining claim herein leased by tunnels used in connection with mining operations on other mining claims in said district; or so much longer as lessee or its assigns shall operate a mill in said mining district; at and for a rental for the full term aforesaid of certain royalty payments as hereinafter set forth.

IT IS FURTHER AGREED that the lessee has secured a lease of the Oneida Mining Claim, Survey No. 1558, and that there is a developed tunnel on said mining claim, the elevation of which is approximately 300 feet lower than the lowest tunnel now used for ingress and egress to said Falcon Lode Mining Claim; and that said tunnel on said Oneida Mining Claim extends into and upon said Falcon Lode Mining Claim, and that

lessee agrees that it will extend said tunnel along the vein which the same is now following, over and across said Falcon Lode Mining Claim, and that it will commence mining operations on said Falcon Lode Mining Claim within one year from the date hereof, and will thereafter mine and mill at least 25 tons per day of all ore having a value of between $15.00 and $30.00 per ton; and if the value of said ore shall exceed $30.00 per ton, the lessee shall mine and mill at least 15 tons per day; and that said days shall mean 25 days in each calendar month; provided further that the production required above may be averaged in each quarter-annul period beginning January 23, 1952; and further provided that any such ore mined prior to January 23, 1952, may be used to meet the quota for any part of the period beginning January 23, 1952, and ending January 23, 1953.

As a part of the consideration for the lessee extending said tunnel, lessors covenant and agree and grant and convey to lessee a permanent easement and right-of-way to use said tunnel, in the event the same shall be developed, in connection with carrying on and conducting mining operations on all other mining claims which lessee may desire to gain access to by the use of said tunnel; it being expressly understood in this connection that in the event that lessee shall develop said tunnel over and across said Falcon Lode Mining Claim, lessee shall thereafter have a continual and perpetual right to use said tunnel for such purposes and in such manner as it shall desire, even though lessee's interest in the Falcon Lode Mining Claim under the terms of this lease shall have terminated and ended in other respects.

IT IS FURTHER AGREED that upon request of lessee, lessors will make, execute and deliver to lessee a deed conveying said permanent right-of-way for use of said tunnel to

the lessee.

IT IS UNDERSTOOD AND AGREED that lessee has acquired the aforementioned Oneida tunnel, and should this lease on the Falcon Lode Mining Claim be terminated, then and in that event it is agreed that the lessors shall have the perpetual right of the use of said Oneida tunnel for the purpose of mining ore, transporting the same to the portal, and for drainage of said Falcon Lode Mining Claim, together with the perpetual right to use any and all roads leading to the mouth of said tunnel and the right to build rail tracks from said tunnel to such points as may be desired, together with the right to build upon said surface ground of said Oneida Mining property and on the surface of ground covered by the aforementioned mill site location certificates, ore bins, compressor houses, and electric transformer stations: provided, however, that such operations in the tunnel and such drainage does not interfere in any way with the operations of the lessee, and the location and the use of said rights above ground shall be conducted in such a manner as is reasonable and agreeable to the second party and at all times under its jurisdiction.

Should operations cease hereunder by reason of any Government order, decree, regulation, or law, the effect of which cannot be reasonably overcome by lessee, or should operations cease hereunder by reason of strike, flood, unusually large cave-in, or any happening clearly an Act of God, then, and in any such event, this lease shall be extended for a time equal to the time such operations were so stopped plus three months, all other terms and conditions to remain unaffected.

In addition to the foregoing, the said lessee covenants and agrees as follows:

1. To well and sufficiently timber said mine in accordance with good mining practice and repair all old timbering whenever it may become necessary in the portion or portions of the said demised premises in which the lessee may from time to time be operating.

2. To permit said lessors, their agent or attorney, from time to time and at all reasonable times to enter upon and into all parts of said mine and mining premises for the purpose of examination and inspection.

3. Lessee shall have the right to assign this lease if it desires to do so; provided, however, in the event this lease is to be assigned to a corporation, lessee shall furnish lessors the necessary papers showing that said corporation is authorized to do business in the State of Colorado.

4. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by said lessee, or any person under it in any manner, by working within or upon the demised premises as the property of said lessors, with privilege to said lessee to work the same as part and parcel of said demised premises.

5. To keep at all times the tunnels and other workings, through which said lessee shall operate, thoroughly drained and cleared of loose rock and rubbish unless prevented by extraordinary mining casualty.

6. To post and at all times during the life of this agreement to keep posted in conspicuous places upon the demised premises notices stating in substance that said demised premises are being operated under lease and that neither the owner thereof nor any of said property shall or will be liable for any indebtedness incurred in the operation of said premises.

7. To comply with all the provisions of the laws of

the State of Colorado pertaining to Workmens Compensation and Unemployment Insurance and to protect and save harmless said lessor for and on account of the premiums thereon and all accidents and damages covered by or related thereto and to comply with the Hours and Wages Laws and the provisions of the Social Security Act, and from time to time upon request to furnish lessors evidence that the above regulations are being complied with.

8. To pay to said lessors as royalty ten per cent (10%) of 13/14 of all ores mined from said Falcon Claim, said royalty payments to be based upon the net mill or smelter returns on all ores extracted from the said Falcon Claim; to deliver said ores with all convenient speed in lots as mined to some mill or regular ore buyer and leave with said mill or ore buyer a percentage of mill or smelter returns as aforesaid for delivery to the lessor. By net mill and smelter returns is meant the gross returns less the cost of hauling, transportation and treatment charges; provided, that should gold be delivered to the U. S. Mint, the Mint shall be authorized, empowered, and directed by lessee to pay any amounts due therefor directly to the United States National Bank of Denver, Colorado, for division by said bank between lessor and lessee.

9. After each shipment to render a statement to said lessors, accompanied by vouchers showing the amount of ore taken from the property hereby demised and the yield thereof and also the cost of hauling, milling and transporting the same.

The royalty paid on all ore extracted from the said demised premises shall be credited to and applied upon the purchase price of said demised premises as set forth in the option to purchase included herein.

10. The lessors expressly agree, however, that

the termination of said lease, provided, however, that no property of the said lessee may be removed while the lessee is in any manner indebted or obligated to the lessors under the terms of this lease; provided, however, that this provisions shall not apply to non-payment of the purchase price provided for in the option.

12. Lessee expressly agrees and assumes to pay all taxes levied upon the above described property as ad valorem or production tax, whichever the case may be, in accordance with the laws of the State of Colorado from and after January 1, 1950.

OPTION TO PURCHASE

MINING CLAIM HEREIN LEASED

As part of the consideration for the foregoing lease, lessors hereby grant to lessee an option to purchase said interest of lessors in said Falcon Mining Claim, Survey No. 1196, for the sum of Sixty Thousand Dollars ($60,000.00) at any time during the term of this lease, it being expressly understood in this connection that all royalties paid hereunder shall apply to and be considered payments on said purchase price.

In the event that lessee shall pay said purchase price, lessors agree to convey all of their right, title, and interest in said mining claim to lessee.

It is expressly understood that in the event of termination of the foregoing lease, all rights of lessee to purchase said Falcon Mining Claim under the terms of this option shall immediately terminate and end.

Each and all of the clauses, covenants, and agreements hereinbefore contained in this entire agreement shall apply to and bind the heirs, executors, administrators and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto signed their names, executing this agreement in quadruplicate, the day and year first above written.

CYRUS J. IRELAND, JR.

By A. D. JOHNSTON
A. D. Johnston,
Attorney-in-Fact

W. A. RUGINS,

By A. D. JOHNSTON
A. D. Johnston,
Attorney-in-Fact

MARGARINE T. JOHNSTON,

By A. D. JOHNSTON
A. D. Johnston
Attorney-in-Fact

MONTANA MINING DEVELOPMENT CO., a Montana Corporation,

By MAYNARD SIMPSON, President

Attest: R. A. SITTON, Jr.
Secretary.

MONTANA MINING DEVELOPMENT COMPANY

BALANCE SHEET

EXHIBIT "C"

ASSETS:			
Bank		1,905.76	
Accounts Receivable		1,575.00	
Inventory - Concentrates		4,500.00	
Total Current Assets		7,520.76	
Fixed Assets:			
Mill & Mill Equipment	28,580.57		
Trucks & Tractors	20,734.80		
Mine Equipment	30,960.00		
Buildings & Equipment	25,000.00		
L	105,275.37		
Less Depreciation	7,376.86	97,898.51	
Real Estate:			
Himrod Claims	14,000.00		
Falcon Claims	4,705.08		
Oneida Stag Claim	26,000.00		
Ben Harrison Claim	18,477.41	63,182.49	
Deposit - Public Service Co.		900.00	
Treasury Stock		5,000.00	
LIABILITIES:			
Withholding Reserve			7.20
Notes Payable - Bank			4,000.00
Contracts & Mortgages Payable:			
Seitz Machinery	2,005.58		
Barnett Mfg. Co.	200.00		
Richards, etal	22,288.98		
Roberts	6,000.00		
Himrod Claim	11,500.00		
Fowler	18,000.00		
Sinton	37,750.00		
Gribble	14,500.00		112,244.56
CAPITAL STOCK:			58,250.00
TOTAL ASSETS & LIABILITIES:		$174,501.76	$174,501.76

FILE COPY
SURNAME:

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

June 1, 1951

AIR MAIL

Mr. A. E. Weissenborn
South 157 Howard Street
Spokane, Washington

Dear Mr. Weissenborn :

In reply to your letter of May 24 the Montana Mining and Development Company is in Bozeman, Montana but the mines, Oneida Stag, Ben Harrison-Croesus, Himrod (Lamartine) are in Idaho Springs, Colorado, thus the application was forwarded to Region IV. This was not so stated in the Minutes of the Coordinating Committee.

Tom Lyon
Chairman

Lowell B. Moon

Bureau of Mines

Olaf N. Rove

Geological Survey

cc: ~~Files~~
Mr. Strobel
Mr. Lyon
Coordinating Committee

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Mr. Lyons
Mr. Moore

So. 157 Howard Street
Spokane 8, Washington

May 24, 1951

Mr. L. F. Strobel
Executive Secretary
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 29 1951
LANDON F. STROBEL
Executive Secretary

Dear Mr. Strobel:

According to the Proceedings of the Coordinating Committee, No. 56, the Montana Mining and Development Company docket DMA-270 is to be examined. We have received no information about this property. Please forward the docket airmail.

I would also appreciate having duplicate copies of the proceedings in the future.

Sincerely,

A. E. Weissenborn

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

Metric Division
Date Rec'd.
JUL 10 1951
BUREAU OF MINES
Denver, Colorado

Colorado Branch
Date Rec'd
MAY 9 1951
BUREAU OF MINES
Denver, Colorado

May 4, 1951

Memorandum

To: P. T. Allsman and A. H. Koschmann

From: DMA Field Team, Region IV

Subject: DMADocket 270, Montana Mining and Development Company

Please read the statement of Tom Lyon, Chairman of the Coordinating Committee, very carefully. You will note that his letter indicates that this may be a precious metal mine rather than a base metal mine.

Please make the necessary investigation and report. The report is being given to Mr. Allsman.

J. H. East, Jr.

A. H. Koschmann

Attachment
J[illegible]dinating Committee memo
[illegible]ning letter, April 5,
maps and loan application

FILE COPY
SURNAME:

McKnight
Ferres

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

April 20, 1951

Memorandum File Sent To

To: Executive Officer of Field Team, Region IV

From: Coordinating Committee, DMA

Subject: Application of Re: Docket DMA-270
Montana Mining and Development Company
F. V. Bolinger, Jr., Secretary
416 Commercial National Bank Building
Bozeman, Montana

Oneida Stag, Ben Harrison-Croesus, Himrod (=Lamartine) mines, Idaho Springs, Colorado.

Subject docket was originally a request for a large loan including $155,000 to pay off indebtedness, and was previously denied by the Lead-Zinc Branch; copies of memo giving reasons for denial have been previously sent to field team. Applicant has replied with a modification, decreasing the request for funds from $337,500 to $100,000, to cover the exploration phase of the original proposal; and has requested that reconsideration be given to the extent of permitting a bureau of mines representative to inspect the property.

The Lead-Zinc Branch believes that chances of finding worth while deposits of lead and zinc by exploration at lower levels on this vein are poor in comparison to what can be accomplished at many other deposits. This appraisal is based on published geologic description of the property, the record of past production, and the evidence submitted by the applicant. It is our conviction that ore present on the proposed new level, 450 feet below the Lamartine tunnel, will, on the average, be comparable to that shown by the previous production which is low grade ore from the base metal standpoint when the better base metal shoots are averaged with the leaner stretches which, however, carry workable gold and silver ore. If this appraisal is correct, the project would not justify an advance of public funds appropriated specifically for exploration for strategic minerals. However, there is an outside chance that some of the ore shoots, such as the one at the east end of the Ben Harrison-Croesus, might justify exploration for lead-zinc, and the application is being forwarded to the field team for its advice. It would probably require concurrence of field team to make convincing a final denial of this project anyway.

Not pointed out in previous memo if the fact that the Falcon claim on Lamartine level was evidently shut down in 1943 by the gold mine closing order. Also, the Bureau of Mines investigated Clear Creek County mines during the war with the idea of erecting a central mill to treat lead-zinc ore from a large number of mines, and at that time could see only 30 tons a day from the Harrison mine. The company did not take any steps to recover zinc until January, 1951. The application reports that "an additional set of flotation cells have been ordered for installation about January 1 to enable making a zinc concentrate". There is, however, a possibility that this is a ruse to avoid any possibility of being shut down again as a precious metal mine. Field team should determine if zinc is actually being recovered in worth-while amounts, which would probably be an indication as to whether zinc recovery would be made from any new ore found by the proposed exploration.

Tom Lyon
Chairman

Approved:
DMA Coordinating Committee

L. B. Moon
L. B. Moon

by Thayer for
Olaf H. Mote

ETMcKnight:emp g 4/20/51

Copies to: Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
L. B. Moon
R. H. Mote
L. F. Strobel
C. O. Mittendorf
Files

FILE COPY
SURNAME:

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

McKnight
Moore
Kerber
Thayer for Rove
Moore

April 20, 1951

Mr. H. A. Bolinger, Jr.
416 Commercial National Bank Building
Bozeman, Montana

Re: Docket 1[illegible]-270

Dear Mr. Bolinger:

This will acknowledge your letter of April 5 concerning reconsideration of a part of your request for a development loan on the consolidated group of properties belonging to your company in Clear Creek County. We note that your request has been lowered from $357,500 to $100,000 to cover 1500 feet of drifting at the lowest level.

As no zinc or lead reserves are blocked out and ready to mine, the only way that the Defense Minerals Administration could offer Government aid on this property would be through the exploration program recently announced, which requires that the applicant advance half of the funds needed for an exploration project. Funds advanced by the Government are considered a loan, to be repaid if the exploration is profitable but to be canceled if unsuccessful. The Lead-Zinc Branch recognizes that an exploration loan on your proposed project would stand a much better chance for repayment when the possibilities of gold and silver production from the explored ground are considered, but the law under which the Defense Minerals Administration is authorized to recommend exploration loans requires that the merits of a project be judged on the possibility of discovering strategic minerals.

However, we are forwarding your application to the field team, Mr. J. H. East, Jr., Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, with the request that your property be examined when they have an opportunity. Will you please notify Mr. East as to the willingness of your company to provide your share of the funds needed (½ of $100,000) to carry out the proposed exploration. Application forms and information concerning the exploration program are enclosed.

Because the field teams will be overloaded with many requests for examinations during the next few weeks, it may be some little time before an examination can be made of your property.

ETMcKnight:emp G 4/20/51
Copies to: J. H. East, Jr.
Region IV (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
R. H. Mote
L. B. Moon

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

L. F. Strobel
C. O. Mittendorf
Files

Herrer

Law Offices of
Bolinger & Horkan
416 Commercial Nat'l Bank Bldg.
Bozeman, Montana

H. A. Bolinger (1872-1950)
H. A. Bolinger, Jr.
George W. Horkan

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 10 1951
LANDON F. STROBEL
Executive Secretary

April 5, 1951

Re: DMA-270

Mining Division
Date Rec'd.
JUL 13 1951
BUREAU OF MINES
Denver, Colorado

U. S. Department of Interior
Defense Minerals Administration
Washington 25, D. C.

Attention: Tom Lyon, Director
Supply Division

Dear Sir:

Reference is made to your letter of March 7, 1951, to Maynard Sinton in regard to DMA-270, Montana Mining Development Co. loan.

The writer is the secretary and attorney of this corporation and familiar with its operations.

The purpose of this letter is in hopes of a reconsideration of this application to such an extent as will permit a representative of the Federal Bureau of Mines to inspect our property with the idea that his inspection will reveal sufficient lead and zinc reserves and prospects to warrant either a government production or development loan in a lessor amount and on a different basis than contained in the original application.

The reasons we feel that our application should receive further consideration are:

(1) The company is a successful operating company at this time, and if sufficient zinc and lead deposits are not developed or mined, the loan can be paid back from gold and silver values in the dump and mine, which at the same time will produce a limited amount of zinc and lead.

(2) Subsequent to making the application, the Lamartine Tunnel has been cleaned out and made available for inspection. Inspection of this tunnel for a distance of approximately 1100 feet discloses lead and zinc deposits at tunnel level and indicates that lead and zinc deposits extend deeper.

(3) Indications are that an extension of the Oneida Stag Tunnel for a distance of 1500 feet will place the tunnel under the lead and zinc deposits exposed 450 feet above in the Lamartine Tunnel.

APR 11 1951

(4) The amount of money needed can be greatly decreased from the application as submitted as a development loan, as money will only be required for reconditioning the Oneida Stag Tunnel which was heretofore cleaned out by us, and extending the 1500 feet, and money for the necessary equipment to do this work. The amount of money needed would not exceed $100,000.00.

In support of the foregoing reasons:

Since starting operation, this company increased the capacity of its mill from 55 tons per day to 130 tons per day, and on the last two shipments has made a profit of $6 to $10 an hour for the operation of the mill in milling the dump.

The reason for attempting to start mining at this time was the Korean war and our fear that we would be shut down because of lack of priority in not recovering the zinc or producing more lead, and to assist the war effort in producing zinc and lead.

Since submitting the application, our company has spent approximately $15,000.00 in reconditioning the Lamartine Tunnel, and we have commenced mining to extend the Lamartine Tunnel along the vein. After this tunnel was cleaned out, it disclosed that all of the readily accessible ore above the Lamartine Tunnel had been mined and that in order to mine ore above that level it was necessary to extend the Lamartine Tunnel.

As the lead and zinc as mined out above the Lamartine Tunnel is quite uniform for approximately 1100 feet extending toward the portal from where we are now mining, indications are that minable ore will be developed above this tunnel level in the next 900 feet of virgin ground as there is minable ore disclosed at the other end of this virgin deposit by the cross-cut from the Lamartine drainage tunnel.

If minable ore is discovered with our present resources with extending the Lamartine Tunnel, this company will be producing lead and zinc in substantial amounts without government assistance.

To properly develop this mine and have a large production of lead and zinc will require the extension of the Oneida Stag Tunnel, which will require a government loan for development.

I am enclosing a rough sketch which may help to clarify this letter.

I hope that your office can reconsider this at least to the extent of having a representative of the Bureau of Mines inspect this property and possibly assist us in preparing an application for such development loan as we feel an inspection of the mine will reveal to be practical, both from the government's standpoint and ours.

Yours very truly,

H. A. Bolinger, Jr.

H. A. Bolinger, Jr.

HAB/rs

Enclosure

FILE COPY
SURNAME:

McKnight
Herras
Moe

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

Mar. 7
~~February 19~~, 1951

In reply please refer
to DMA-270

Maynard Sinton, President
Montana Mining and Development Company
Box 747,
Bozeman, Montana

Dear Mr. Sinton:

Your application (DMA-270) for a government loan of $337,500, with commitment for $80,000 additional to expand zinc production on your property in Clear Creek County, Colorado, has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration.

Federal aid to expand productive capacity and supply of strategic and critical minerals, as provided in the Defense Production Act of 1950, is taking the following forms:

1. Purchase contracts made by the General Services Administration on projects certified by the Defense Minerals Administration.

2. Accelerated amortization of equipment allowed under the tax laws to operators having certificates of necessity issued by the National Security Resources Board.

3. Encouragement of exploration and development.

Projects to be approved by the Defense Minerals Administration for Federal aid must, in its judgment, show definite promise of yielding materials in amounts that will significantly improve the mineral supply position for national defense. The history of your property shows that the main production has been in gold and silver, but with some production of lead and zinc. The exploration program that you propose is not believed by the Lead-Zinc Branch to hold enough promise for discovery of a significant tonnage of new lead and zinc to justify the large expenditure of public funds that would be necessary to finance your program, including the preliminary consolidation and purchase of new machinery.

Dma 270

156

FILE COPY
SURNAME:

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

Moto
Herres
McKnight
Stroebel 3/22
Lyon

February 19, 1951

Memorandum L. F. Stroebel

To: Executive Secretary, DMA
Through Operating Committee and
Director, Supply Division

From: Lead-Zinc Branch DMA

Re: DMA-270

Subject: Application of
Montana Mining and Development Co.
Maynard Sinton, President
Box 747
Bozeman, Montana
Oneida Stag, Ben Harrison-Croesus, Himrod mines
Idaho Springs, Colorado

Commodity: Zinc, lead

Review of subject docket reveals following pertinent facts:

Production history of these mines has been chiefly in terms of gold and silver. Total recorded production, 1901 to date, of the vein covered by the group of mines in this application has been 155,340 tons of ore containing 1,105 tons of lead (0.71%), 526 tons of zinc (0.34%), 0.37 oz. gold and 5.4 oz. silver per ton. In the geologic description of the ore deposits of Clear Creek County, (U.S. Geological Survey, Professional Paper 63), this vein system was classed with the "auriferous pyritic" deposits rather than with the "lead-silver" deposits. These auriferous pyrite deposits may contain galena and blende in considerable amounts, and applicant's group of mines is described as containing abundant galena and blende in the vein matter. However, the veins are narrow (2 feet on Ben Harrison-Croesus) so that they are not good base metal deposits. Gold and silver are more abundant in the lead-bearing portions of the vein, hence in mining these have been favored over the zinc-bearing portions, which, besides being lower in gold and silver, have drawn a penalty for zinc at the smelter. Consequently, the more zinky parts of the vein have been left. These are the parts of the vein on which emphasis is placed in this application.

No proven tonnage of lead or zinc ore is claimed. On the 4th level of Himrod mine, applicant reports a high zinc portion of the vein which was sampled by a former operator in 1939, and reported to contain 12-15% zinc. Thickness of vein is not given. This section

Similar 270

856

of vein has been inaccessible since 1939. The estimated tonnage is 25,000 tons, but average grade is not known. Longitudinal section submitted by applicant shows stoping in this block identical with stoping shown on section in U.S.G.S. Professional Paper 63, published in 1908, hence the zinc has not been of enough interest to have been exploited, 1908 to date.

Another base metal block is at the east end of the Ben Harrison-Croesus mine. This was mined from 1943-1949, producing 3,728 tons of ore containing 277 tons (8%) of recoverable lead, 184 tons (5%) of recoverable zinc, and about 0.33 oz. gold and 5 oz. silver per ton. The richer lead-bearing parts of the vein were mined, but a more zinky section of ore, blocked out at the bottom of a winze could not be profitably mined at zinc prices prevailing during the period indicated.

In calculation of value of ore produced from this group of mines, applicant uses an average figure of 2% zinc for all the ore mined to date, most of this zinc having drawn a penalty at smelters. Applicant had on order, to be installed about January 1, 1951, an additional set of flotation cells, to enable making a zinc concentrate at his 130 ton mill which is currently ~~removing~~ recovering dump ore.

Applicant proposes to borrow, through DMA, $337,500 to be spent as follows:

"Finances necessary for consolidation" (this is indebtedness for claims, mill, equipment, personal loans, U.S. National Bank note, etc.), ...	$155,000
Purchase of new machinery	47,500
Mining zinc ore on the 4th level of Himrod mine and at east end of Ben Harrison-Croesus mine	35,000
Reconditioning low level drift and extending it 2500 ft. on vein	100,000
	$337,500

Applicant wants commitment for an additional $80,000 to extend the low level drift 2500 ft. still farther "if it looks feasible" after completing the first 2500 ft. of drifting.

Applicant estimates that required metal price for this

proposed operation is 16 cents per lb. for lead, 20 cents per lb. for zinc. (Considering that the anticipated lead and zinc ore, in reality, are little more than by-products of the gold and silver, the success of the operation would not appear to hinge on the zinc price).

Recommendation

It is recommended that no loan or purchase contract be negotiated at this time, but that if and when the zinc-bearing parts of the mine are made accessible, the application be referred to the field team to determine if negotiation of a purchase contract for zinc is justified.

The long low level exploratory drift of 2500 ft. on the vein is not justified as an exploratory measure, because the general character of ore mined here has not been base metal ore but gold-silver ore.

It is recommended that the attached letter be sent to the applicant.

OTTO HERRES, Chief
Lead-Zinc Branch, DMA

Approved:
DMA Operating Committee

Chairman

J. H. Hedges

Olaf N. Rove

ETMcKnight:emp
G-2/19/51
Copies to: Chief, Lead-Zinc Branch
Geological Survey - McKnight
J. H. Hedges
R. H. Mote
" copies to Executive Officer, Regional Field Team, Region II
Strobel
Mittendorf
Files

Chi[illegible] Lead-Zinc Br.

February 19, 1951

Memorandum

To: Executive Secretary, DMA
Through Operating Committee and
Director, Supply Division

From: Lead-Zinc Branch DMA Re: DMA-270

Subject: Application of Commodity: Zinc, lead
Montana Mining and Development Co.
Maynard Sinton, President
Box 747
Bozeman, Montana
Creede Stag, Ben Harrison-Croesus, Himrod mines
Idaho Springs, Colorado

Review of subject docket reveals following pertinent facts:

Production history of these mines has been chiefly in terms of gold and silver. Total recorded production, 1901 to date, of the vein covered by the group of mines in this application has been 155,340 tons of ore containing 1,109 tons of lead (0.71%), 526 tons of zinc (0.34%), 0.37 oz. gold and 9.4 oz. silver per ton. In the geologic description of the ore deposits of Clear Creek County, (U.S. Geological Survey, Professional Paper 63), this vein system was classed with the "auriferous pyritic" deposits rather than with the "lead-silver" deposits. These auriferous pyrite deposits may contain galena and blende in considerable amounts, and applicant's group of mines is described as containing abundant galena and blende in the vein matter. However, the veins are narrow (2 feet on the Harrison-Croesus) so that they are not good base metal deposits. Gold and silver are more abundant in the lead-bearing portions of the vein, hence in mining these have been favored over the zinc-bearing portions, which, besides being lower in gold and silver, have drawn a penalty for zinc at the smelter. Consequently, the more zinky parts of the vein have been left. These are the parts of the vein on which emphasis is placed in this application.

No proven tonnage of lead or zinc ore is claimed. In the 4th level of Himrod mine, applicant reports a high zinc portion of the vein which was sampled by a former operator in 1939, and reported to contain 12-15% zinc. Thickness of vein is not given. This section

proposed operation is 16 cents per lb. for lead, 20 cents per lb. for zinc. (Considering that the anticipated lead and zinc ore, in reality, are little more than by-products of the gold and silver, the success of the operation would not appear to hinge on the zinc price).

Recommendation

It is recommended that no loan or purchase contract be negotiated at this time, but that if and when the zinc-bearing parts of the mine are made accessible, the application be referred to the field team to determine if negotiation of a purchase contract for zinc is justified.

The long low level exploratory drift of 2500 ft. on the vein is not justified as an exploratory measure, because the general character of ore mined here has not been base metal ore but gold-silver ore.

It is recommended that the attached letter be sent to the applicant.

Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch, DMA

Approved:
DMA Operating Committee

_____
Chairman

_____
J. H. Hedges

_____
Olaf N. Rove

ETMcKnight:emp
G-2/19/51
Copies to: Chief, Lead-Zinc Branch
Geological Survey - McKnight
J. H. Hedges
R. H. Mote
" copies to Executive Officer, Regional Field Team, Region II
Strobel
Mittendorf
Files

Chief, Lead-Zinc Branch

Mar. 7
~~February~~ 19, 1951

In reply please refer
to DMA-270

Maynard Sinton, President
Montana Mining and Development Company
Box 747,
Bozeman, Montana

Dear Mr. Sinton:

Your application (DMA-270) for a government loan of $337,500, with commitment for $800,000 additional to expand zinc production on your property in Clear Creek County, Colorado, has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration.

Federal aid to expand productive capacity and supply of strategic and critical minerals, as provided in the Defense Production Act of 1950, is taking the following forms:

1. Purchase contracts made by the General Services Administration on projects certified by the Defense Minerals Administration.

2. Accelerated amortization of equipment allowed under the tax laws to operators having certificates of necessity issued by the National Security Resources Board.

3. Encouragement of exploration and development.

Projects to be approved by the Defense Minerals Administration for Federal aid must, in its judgment, show definite promise of yielding materials in amounts that will significantly improve the mineral supply position for national defense. The history of your property shows that the main production has been in gold and silver, but with some production of lead and zinc. The exploration program that you propose is not believed by the Lead-Zinc Branch to hold enough promise for discovery of a significant tonnage of new lead and zinc to justify the large expenditure of public funds that would be necessary to finance your program, including the preliminary consolidation and purchase of new machinery.

Your proposal for which you request a loan of $35,000 to mine zinc ore left by early operators in an ore shoot above the fourth level of the Himrod mine and also to mine additional zinc ore near the east end of the Croesus, may fit into the zinc program of Defense Minerals Administration. If these shoots can be opened up so that an estimate of reserves and mining feasibility can be made by Government engineers and geologists, it would be appropriate for you to apply for a purchase contract for zinc that would insure to you the present market price for three years. Application could be made under your present docket number DMA-270.

I wish to thank you for bringing your property to the attention of the Defense Minerals Administration.

Very truly yours,

Tom Lyon, Director
Supply Division

ETMcKnight:emp
G-3/7/51
Copies to: Chief, Lead-Zinc Br.
USGS - McKnight
L. B. Moon
R. H. Mote
Strobel
Mittendorf
2 copies ~~of~~ Executive Officer
Regional Field Team, Region II
Files

ittendorf

February 19, 1951

Memorandum

To: Executive Secretary, DMA
Through Operating Committee and
Director, Supply Division

From: Lead-Zinc Branch DMA Re: DMA-270

Subject: Application of Commodity: Zinc, lead
Montana Mining and Development Co.
Leonard Sinton, President
Box 747
Bozeman, Montana
Nevada Stag, Ben Harrison-Crocus, Himrod mines
Cripple Springs, Colorado

Review of subject docket reveals following pertinent facts:

Production history of these mines has been chiefly in terms of gold and silver. Total recorded production, 1901 to date, of the vein covered by the group of mines in this application has been 153,340 tons of ore containing 1,105 tons of lead (0.71%), 526 tons of zinc (0.34%), 0.37 oz. gold and 5.4 oz. silver per ton. In the geologic description of the ore deposits of Clear Creek County, (U.S. Geological Survey, Professional Paper 63), this vein system was classed with the "auriferous pyritic" deposits rather than with the "lead-silver" deposits. These auriferous pyrite deposits may contain galena and blende in considerable amounts, and applicant's group of mines is described as containing abundant galena and blende in the vein matter. However, the veins are narrow (2 feet on Ben Harrison-Crocus) so that they are not good base metal deposits. Gold and silver are more abundant in the lead-bearing portions of the vein, hence in mining these have been favored over the zinc-bearing portions, which, besides being lower in gold and silver, have drawn a penalty for zinc at the smelter. Consequently, the more zinky parts of the vein have been left. These are the parts of the vein on which emphasis is placed in this application.

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of vein has been inaccessible since 1939. The estimated tonnage is 25,000 tons, but average grade is not known. Longitudinal section submitted by applicant shows stoping in this block identical with stoping shown on section in U.S.G.S. Professional Paper 63, published in 1908, hence the mine has not been of enough interest to have been exploited, 1908 to date.

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In calculation of value of ore produced from this group of mines, applicant uses an average figure of 2% zinc for all the ore mined to date, most of this zinc having drawn a penalty at smelters. Applicant had on order, to be installed about January 1, 1951, an additional set of flotation cells, to enable making a zinc concentrate at his 130 ton mill which is currently ~~removing~~ running dump ore.

Applicant proposes to borrow, through DMA, $337,500 to be spent as follows:

"Balances necessary for consolidation" (this is indebtedness for claims, mill, equipment, personal loans, U.S. National Bank note, etc.), ...	$155,000
Purchase of new machinery	47,500
Mining zinc ore on the 4th level of Elmrod mine and at east end of Ben Harrison-Croesus mine	35,000
Reconditioning low level drift and extending it 2500 ft. on vein	100,000
	$337,500

Applicant wants commitment for an additional $80,000 to extend the low level drift 2500 ft. still farther "if it looks feasible" after completing the first 2500 ft. of drifting.

Applicant estimates that required metal price for this

proposed operation is 16 cents per lb. for lead, 20 cents per lb. for zinc. (Considering that the anticipated lead and zinc ore, in reality, are little more than by-products of the gold and silver, the success of the operation would not appear to hinge on the zinc price)

Recommendation

It is recommended that no loan or purchase contract be negotiated at this time, but that if and when the zinc-bearing parts of the mine are made accessible, the application be referred to the field team to determine if negotiation of a purchase contract for zinc is justified.

The long low level exploratory drift of 2500 ft. on the vein is not justified as an exploratory measure, because the general character of ore mined here has not been base metal ore but gold-silver ore.

It is recommended that the attached letter be sent to the applicant.

OTTO HARRER, Chief
Lead-Zinc Branch, DMA

Approved:
DMA Operating Committee

_____ Chairman

_____ J. H. Hedges

_____ Olaf N. Rove

ETMcKnight:emp
0-2/19/51
Copies to: Chief, Lead-Zinc Branch
Geological Survey - McKnight
J. H. Hedges
R. H. Lote
" copies to Executive Officer, Regional Field Team, Region II
Strobel
Mittendorf
Files

AGREEMENT OF EASEMENT, LEASE AND OPTION

EASEMENT

THIS AGREEMENT, Made and entered into this 23rd day of August, A.D., 1950, by and between Katherine A. Clark, of Canon City, Colorado, and Charles D. Armstrong, of Canon City, Colorado, parties of the first part, and Grace V. Robinson, of Denver, Colorado, party of the second part, and Montana Mining Development, Co., a Montana corporation duly authorized to do business in the State of Colorado with its principal place of business at Idaho Springs, Colorado, party of the third part.

W I T N E S S E T H :

That the parties of the first part are the owners of an undivided three-fourths (3/4) interest and the party of the second part is the owner of an undivided one-fourth (1/4) interest in the Ben Harrison and Croesus lode mining claims, U. S. Mineral Survey #6381, situate in Trail Creek Mining District, County of Clear Creek, State of Colorado; that the party of the third part is in possession of and is purchasing the patented mining claims adjacent to and adjoining said Ben Harrison and Croesus mining claims, and that third party is the assignee of W. . Hugins, Rufus J. Ireland, Jr., and Katharine T. Johnston and Mizrod Mines Company a corporation, of that certain disputed claim of said assignees against the parties of the first part and the party of the second part therein, as owners of said Ben Harrison and Croesus mining claims, in the sum of approximately Thirty-five Hundred Dollars ($3500.00), which it is claimed first parties and second party owe as part of the cost of cleaning out the Lamartine Tunnel .

That said Lamartine Tunnel is at this time in need of considerable repair, and is blocked by a cave-in which will

require a large expenditure of money before said tunnel will be serviceable or can be used for ingress to said Ben Harrison and Croesus mining claims.

That third party desires a perpetual easement and right to extend the Oneida Stag Tunnel through said Ben Harrison and Croesus mining claims, and the right to use the same for all purposes necessary in connection with mining on adjoining claims and claims lying to the north, south and west of said Ben Harrison and Croesus claims.

NOW, THEREFORE, in consideration of the party of the third part reconditioning and cleaning out said Lamartine Tunnel so as to have access to said Ben Harrison and Croesus mining claims as hereinafter provided, and in consideration of the party of the third part hereby and by these presents releasing said parties of the first part and said party of the second part from any liability which they may have to the party of the third part on said disputed claim for the cost of having heretofore cleaned out and repaired said Lamartine Tunnel, the parties of the first part and the party of the second part hereby give, grant, and convey to the party of the third part the perpetual right of way along and through the Ben Harrison and Croesus mining claims or any part thereof for the purpose of running or driving a drift or tunnel, which connects with and is substantially on the level of the Oneida Stag Tunnel, and the perpetual right of way through and along such tunnel when driven or constructed, with the right to maintain and operate the same for the purpose of working and mining any and all lodes, veins, mines and mining property beyond the boundaries of said Ben Harrison and Croesus mining claims, which the party of the third part may own, acquire or elect to work through the said tunnel when so constructed, and also the perpetual right to place and maintain in said tunnel,

single or double rails or tram tracks, turn tables, switches, air pipes, water pipes, conduits, electric light and power wires, lamps, telephone wires, and also the perpetual right to convey and conduct water through said tunnel from other mines which third party may operate, and also the perpetual right to transport and operate in and through said tunnel cars and trains for hauling of ore and supplies.

Together with all and singular such other and further rights in and to said tunnel or right of way herein granted as will enable the said party of the third part to work the mines now owned or which may be hereinafter acquired by lease, deed or otherwise, through the said tunnel in such manner as it shall deem expedient and proper.

This easement is given on the express agreement of the party of the third part to pay to the parties of the first part and the party of the second part a ten per cent (10%) royalty of the net smelter returns to be divided three-fourths (3/4) to the parties of the first part and one-fourth (1/4) to the party of the second part on all ores mined or recovered from said Ben Harrison and Croesus claims in connection with driving and constructing said tunnel. It is further agreed by the party of the third part that the parties of the first part and the party of the second part shall be entitled to and shall be paid a like percentage of any and all amounts received by third party as a bonus or premium payment for ores produced from the demised premises, or received by third party as a result of production from the demised premises.

TO HAVE AND TO HOLD said right and easements herein granted unto said party of the third part and its successors and assigns forever.

The parties of the first part and the party of the second part for themselves, their heirs, executors, administrators, and assigns, reserve the perpetual right to use said tunnel when the same is constructed for all purposes for which they may desire to use the same in connection with mining on said Ben Harrison and Croesus mining claims so long as the use of the same by them shall not substantially interfere with the use of said tunnel by third party. As part of the consideration for the foregoing easement the party of the third part for itself, its successors and assigns, in so far as it has any authority or right as lessee, with option to purchase, of the Falcon Lode Mining Claim, survey #1198, Falcon Extention Lode Mining Claim, survey #8104, Oneida Lode Mining Claim, survey #558 and Old Stag Mining Claim, survey #6117, hereby gives, grants and conveys to said parties of the first part and said party of the second part a perpetual easement in and through said Oneida Stag Tunnel as the same may hereafter be extended through said Falcon and said Falcon Extention mining claims for use by said parties of the first part and party of the second part, their heirs, executors, administrators and assigns, of said tunnel for any and all purposes which they may desire to use the same in connection with mining said Ben Harrison and Croesus mining claims so long as the use of said tunnel by said parties of the first part and the party of the second part shall not substantially interfere with the use of the same by third party.

This easement is given on the rights that third party now has in said claims and shall attach to any other rights or ownership which third party may acquire in said mining claims, and shall apply to and bind the successors and assigns of third party and accrue to and for the benefit of the heirs, executors, administrators and assigns of the parties of the first part and the party of the second part.

L E A S E

In consideration of the agreement of the party of the third part to clean out and recondition the Lamartine Mining Tunnel as hereinafter provided, and in consideration of the payments to be made by the party of the third part to the parties of the first part and party of the second part, the parties of the first part and party of the second part, hereby leases to the party of the third part the following described mining claims, situate in Trail Creek District, County of Clear Creek, State of Colorado, to-wit:

Ben Harrison and Croesus Lode
Mining Claims, survey #6381.

The term of this lease shall commence with the date hereof and shall continue as long as the party of the third part shall make the payments and perform the covenants and agreements herein contained to be kept and performed by third party or until third party shall become the owner of said mining claims in accordance with the option to purchase the same as herein provided.

As part of the consideration for this lease the party of the third part covenants and agrees that within sixty (60) days from the date hereof it will commence work in connection with cleaning out, redeveloping and reconditioning the Lamartine Mining Tunnel as the same extends through the Oneida and Falcon mining claims, and continue said work with due diligence until said tunnel is made usable for carrying on exploration or mining operations on the mining claims herein leased.

As further consideration for this lease, the party of the third part covenants and agrees that it will, as soon as possible, start core drilling or testing operations on the property demised hereunder, and that in connection therewith it

will conduct said core drilling operations in a matter reasonably calculated to produce the greatest possible amount of information, and in a manner, where feasible, which will result in blocking out such ore bodies as may be found to exist on the demised premises. It is further agreed that the party of the third part shall have the right to discontinue said testing operation upon the determination that no ore exists which may be mined economically.

That the party of the third part further covenants and agrees that if the said core drilling and testing operations shall disclose no minesable ore or no ore which can be mined at a profit, then the said party of the third part will deliver to the parties of the first and second part all maps, data sheets, drilling logs, or other documentary evidence of the results of said test.

The party of the third part further covenants and agrees that in the event testing and exploration of said mining claims shall disclose ore on said mining claims, which can be mined at a profit, that it will commence mining operations and removal of ore from said mining claims within six (6) months from the date of this agreement.

The party of the third part further covenants and agrees to pay to the parties of the first part and the party of the second part ten per cent (10%) of the net smelter returns of all ores mined or milled from said leased premises, said payments to be made directly by the smelter to which the same is sold and said royalty payment to be divided three-fourths (3/4) to first parties and one-fourth (1/4) to second party.

It is further agreed by the party of the third part that the parties of the first part and the party of the second

part shall be entitled to and shall be paid a like percentage of any and all amounts received by third party as a bonus or premium payment for ores produced from the demised premises, or received by third party as a result of production from the demised premises.

The party of the third part further covenants and agrees that the royalty payments to be paid to first parties and second party shall be in sufficient amounts to total a payment of Twenty-four Hundred Dollars ($2400.00) on or before one (1) year from the date of this agreement, or in the event that the same shall not equal the sum of Twenty-four Hundred Dollars ($2400.00) third party agrees to pay the difference between any royalties received by said parties and said sum of Twenty-four Hundred Dollars ($2400.00) to the parties of the first part and the party of the second part on one (1) year from the date of this agreement, and third party further agrees that during the term of this lease the royalties received by said parties shall equal the sum of Twenty-four Hundred Dollars ($2400.00) per year, or in the event that they shall not, the difference between said royalties and said sum of Twenty-four Hundred Dollars ($2400.00) shall be paid to said parties at the end of each year during the term of this lease.

It is [illegible] in connection with this lease that all mining operations carried on or conducted by third party shall be done in the usual workmanlike manner in accordance with the usual mining practices, and third party shall not permit any waste or damage to be done on said mining claims during the term of this lease, and will not remove from said premises any tracks, pipes or other equipment located on or about said premises during the term of this lease. Third

party also agrees to carry workmen's compensation and to comply with all laws of the State of Colorado in connection with carrying on and conducting mining operations on said premises, that third party further agrees that it will furnish to the parties of the first part and second part or their attorneys, suitable evidence in compliance with the terms of this paragraph.

Third party agrees to post and at all times during the life of this agreement to keep posted in conspicuous places upon said premises, notices stating in substance that said premises are being operated under agreement and that neither the owner thereof nor any of said property shall or will be liable for any indebtedness incurred in the operation of said premises. The third party further agrees that it will protect and save the parties of the first part and the party of the second part, harmless from any and all claims of any nature which may arise as a result of the operation of the demised premises by the party of the third part.

IT IS UNDERSTOOD AND AGREED between the parties hereto that in connection with this agreement that in the event that third party shall be prevented from carrying on and conducting said mining operations as herein agreed by reason of war or government regulations, that then the time of performance of any obligation to be kept and performed hereunder by the party of the third part shall be extended for a period of six (6) months from and after the termination of the cause which stopped and prevented the carrying on and conducting of mining operations. In the event that third party shall be prevented from carrying on and conducting mining operations by reason of strikes or other causes beyond the control of third party, the time of performing the covenants and agreements herein contained to be kept and performed by third party

shall be extended a reasonable length of time to allow third party to make up for the loss of time and operations occasioned by such act or acts beyond the control of third party.

In the event that third party shall fail to perform any of the covenants and agreements herein agreed to be kept, performed and paid by third party this lease may be terminated and ended, by first parties or second party notifying third party in writing by registered mail addressed to third party at the office of its attorney, H. A. Bolinger, Jr., in Bozeman, Montana, of such default, which notice shall set out the particulars in which third party is in default, and unless third party shall perform and comply with this agreement and do the acts necessary in which it is in default within thirty (30) days, this lease shall be fully terminated and ended, and third party shall have no further rights under the terms of this lease or in said premises other than the easement as herein before provided.

IT IS EXPRESSLY UNDERSTOOD that the terms of this lease shall apply to and bind the heirs, executors, administrators and assigns of the parties of the first part and the party of the second part, and the successors and assigns of the party of the third part.

O P T I O N

As part of the consideration for the foregoing lease the parties of the first part and the party of the second part hereby give and grant unto said party of the third part, an option to purchase said Ben Harrison and Croesus mining claims, Mineral Survey 7681 under the following terms and conditions:

O P T I O N "A"

For the sum of Thirty Thousand Dollars ($30,000.00), together with interest thereon at the rate of six per cent per annum from the date hereof, at any time during the term of the foregoing, provided however that this Option "A" is expressly conditioned upon the payment by the party of the third part to the parties of the first and second part, in the ratio of their interests in the demised premises, the sum of Six Thousand Dollars ($6,000.00) on or before four months from the date of this agreement. It is expressly understood by and between the parties hereto that all royalty payments or lease payments shall be applied to the payment of said purchase price, and only the unpaid portion of said purchase price shall bear interest.

O P T I O N "E"

As part of the consideration for the foregoing lease the parties of the first part and the party of the second part hereby give and grant unto said party of the third part, an option to purchase said Ben Harrison and Croesus mining claims. Mineral Survey No. 6301, for the sum of Fifty Thousand Dollars ($50,000.00), together with interest thereon at the rate of six percent per annum from the date hereof, at any time during the term of the foregoing lease, it being expressly understood, however, that all royalty payments or lease payments shall be applied to the payment of said purchase price, and only the unpaid portion of said purchase price shall bear interest.

GENERAL CONDITIONS

In the event that third party shall pay said purchase price, the parties of the first part and the party of the second part agree to deliver to third party and to furnish an abstract of title to said mining claims showing merchantable title

to said property to be owned by first parties and second party.

IT IS EXPRESSLY UNDERSTOOD however, that in the event of termination of the foregoing lease that all rights of third party to purchase said mining claims under the terms of this option shall immediately terminate and end.

The terms of this option shall apply to and bind the heirs, executors, administrators and assigns of the parties of the first part and the party of the second part, and the successors and assigns of the party of the third part.

IN WITNESS WHEREOF, the parties of the first part and the party of the second part have hereunto signed their names, executing this agreement in triplicate, and the party of the third part has caused these presents to be executed by its duly authorized officers and its corporate seal affixed hereto, the day and year first above written.

Katherine M. Armstrong
now known as Katherine A. Clark

Charles D. Armstrong
(Parties of the first part)

CHARLES [illegible]
(Party of the second part)

MONTANA MINING DEVELOPMENT CO.

by Maynard Linton
President.

Attest:

P. A. Lollingh, Jr.
Secretary.

([illegible])

(Party of the third Part)

STATE OF COLORADO)
) ss.
CITY AND COUNTY OF DENVER)

On this 23rd day of August, A.D., 1950, before me, D. W. Strickland, Jr., a Notary Public in and for said State personally appeared MAYNARD SENTER and H. A. [illegible], Jr., known to me to be the President and Secretary respectively of the MONTANA MINERS DEVELOPMENT CO., the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same; and also appeared KATHERINE A. CLARK, CHARLES L. AMMERMAN AND GLADYS L. [illegible], and acknowledged the foregoing instrument.

Witness my hand and official seal. My commission expires August [illegible], 1951.

D.W. STRICKLAND, JR.
Notary Public

ADDENDUM TO
AGREEMENT OF LEASE, [illegible]

THIS ADDENDUM is being executed to that certain Agreement of Easement, Lease and Option the day and year set forth therein, and in addition to the agreements of the parties set forth therein, IT IS HEREBY AGREED as follows:

1. That the parties of the first part and second part and their agents or representatives shall have the right at all reasonable times to enter upon the premises for the purpose of making such inspections as they may see fit, but not to interfere in any manner with the mining operations of the party of the third part.

2. That it is agreed that the party of the third part will not mix any ore from the claims described herein with ore from other claims, but that it will keep same in separate batches in order that a proper accounting therefor may be made.

3. It is further agreed that the party of the third part shall pay all property taxes levied on the demised premises or on any improvements made thereon by party of the third part, beginning with the taxes for 1950, due and payable in 1951.

IN WITNESS WHEREOF, the parties of the first part and party of the second part have hereunto signed their names, executing this agreement in triplicate, and the party of the third part has caused these presents to be executed by its duly authorized officers and its corporate seal affixed hereto the day and year first above written.

Katherine W. Armstrong
now known as Katherine W. Clark

Charles D. Armstong
Parties of the First Part

Grace M. Robinson
Party of the Second Part

MONTANA MINING DEVELOPMENT CO.

By Maynard Clinton
President

ATTEST:

E. A. Bollinger, Jr.
Secretary.

Party of the Third Part.

ADDENDUM TO
AGREEMENT OF EASEMENT, LEASE AND OPTION

THIS ADDENDUM is being executed to that certain Agreement of Easement, Lease and Option the day and year set forth therein, and in addition to the agreements of the parties set forth therein, IT IS FURTHER AGREED as follows:

1. That the parties of the first part and second part and their agents or representatives shall have the right at all reasonable times to enter upon the premises for the purpose of making such inspections as they may see fit, but not to interfere in any manner with the mining operations of the party of the third part.

2. That it is agreed that the party of the third part will not mix any ore from the claims described herein with ore from other claims, but that it will keep same in separate batches in order that a proper accounting therefor may be made.

3. It is further agreed that the party of the third part shall pay all property taxes levied on the demised premises or on any improvements made thereon by party of the third part, beginning with the taxes for 1950, due and payable in 1951.

IN WITNESS WHEREOF, the parties of the first part and party of the second part have hereunto signed their names, executing this agreement in triplicate, and the party of the third part has caused these presents to be executed by its duly authized officers and its corporate seal affixed hereto the day and year first above written.

Katherine M. Armstrong
now known as Katherine A. Clark

Charles D. Armstong
Parties of the First Part

Grace M. Robinson
Party of the Second Part

MONTANA MINING DEVELOPMENT CO.

By Maynard Sinton
President

ATTEST:

H. A. Bolinger, Jr.
Secretary.

Party of the Third Part.

EXPLORATION PROJECT CONTRACT
MONTANA MINING DEVELOPMENT CO.
DOCKET NO. DMEA-270X

EXHIBIT "A"

Statement of the Work

1. Extend the Ben Harrison - Croesus drift along the vein southwesterly about 260 feet, and connect with the nearest workings of the Lamartine No. 3 shaft.

2. Drive two diamond drill holes as indicated on the accompanying map, one near point "A", one near point "B", each hole limited to 200 feet depth and drilled by a contract driller. The "B" hole can be drilled concurrently with the drift. The "A" hole can be finished within a month after the completion of the drifting.

All drifting and diamond drilling is to be done on the Ben Harrison and Croesus Claims.

Changes in the location of drill hole may be authorized by the Government.

The proposed drifting and drill hole locations are shown on the accompanying map.

Summary of Estimated Costs

260 feet of drifting, 6' X 8' cross section at $35/ft.	$ 9,100.00
400 feet of diamond drilling by contract at not to exceed $8.50 per foot	3,400.00
Allowance for cutting two drill stations	500.00
Equipment to be purchased	973.00
Use of equipment furnished by Operator	525.00
Allowance for contingencies	502.00
Total Estimated Cost	$15,000.00

Details of Estimated Costs

Fixtures and Improvements

None

Operating Equipment

To be rented

None

To be purchased

1 Drifter rock drill, $3\frac{1}{2}$"	$ 973.00

To be furnished by Operator

	Estimated Present Value	Allowance for Use
1 - 315 cu. ft. compressor	$ 3,500.00	$ 60.00 per mo.
1 - Storage Battery locomotive with battery & charger	4,000.00	70.00 per mo.
10 - Mine cars	1,500.00	25.00 per mo.
		$155.00 per mo.
Allowance for use for 3 months		$465.00
Allowance for use of compressor only for one additional month		60.00
Total allowance for use for completion of project		$525.00

Labor and Supervision

Rates per day for six day week

2 miners @ $13/day each	$ 26.00
1 mucker	11.70
1 motorman	13.00
1 supervisor	17.00

Rehabilitation and Repairs

None

Footage cost for drifting includes all labor, supervision, engineering , accounting, sampling, assaying, bookkeeping, utilities, repairs, pipe, rail and supplies.

The diamond drilling is to be done by contract. The cost per foot of $8.50, includes cost of transportation of equipment, logging of holes, boxing of core and all costs to complete the specified amount of drilling.

To provide for possible under-estimations of these costs, an allowance for contingencies of $502.00 has been included in the total estimated cost for such additional expenses as are necessary to complete the project.

EXPLORATION PROJECT CONTRACT
MONTANA MINING DEVELOPMENT CO.
DOCKET NO. DMEA-270X

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2. Drive two diamond drill holes as indicated on the accompanying map, one near point "A", one near point "B", each hole limited to 200 feet depth and drilled by a contract driller. The "B" hole can be drilled concurrently with the drift. The "A" hole can be finished within a month after the completion of the drifting.

All drifting and diamond drilling is to be done on the Ben Harrison and Croesus Claims.

Changes in the location of drill hole may be authorized by the Government.

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Use of equipment furnished by Operator	525.00
Allowance for contingencies	502.00
Total Estimated Cost	$15,000.00

Details of Estimated Costs

Fixtures and Improvements

None

Operating Equipment

To be rented

None

To be purchased

1 Drifter rock drill, 3½"	$ 973.00

To be furnished by Operator

	Estimated Present Value	Allowance for Use
1 - 315 cu. ft. compressor	$ 3,500.00	$ 60.00 per mo.
1 - Storage Battery locomotive with battery & charger	4,000.00	70.00 per mo.
10 - Mine cars	1,500.00	25.00 per mo.
		$155.00 per mo.
Allowance for use for 3 months		$465.00
Allowance for use of compressor only for one additional month		60.00
Total allowance for use for completion of project		$525.00

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Details of Estimated Costs

Fixtures and Improvements

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Operating Equipment

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To be purchased

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To be furnished by Operator

	Estimated Present Value	Allowance for Use
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The diamond drilling is to be done by contract. The cost per foot of $8.50, includes cost of transportation of equipment, logging of holes, boxing of core and all costs to complete the specified amount of drilling.

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Operating Equipment

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None

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1 Drifter rock drill, 3½"	$ 973.00

To be furnished by Operator

	Estimated Present Value	Allowance for Use
1 - 315 cu. ft. compressor	$ 3,500.00	$ 60.00 per mo.
1 - Storage Battery locomotive with battery & charger	4,000.00	70.00 per mo.
10 - Mine cars	1,500.00	25.00 per mo.
		$155.00 per mo.
Allowance for use for 3 months		$465.00
Allowance for use of compressor only for one additional month		60.00
Total allowance for use for completion of project		$525.00

Labor and Supervision

Rates per day for six day week

2 miners @ $13/day each	$ 26.00
1 mucker	11.70
1 motorman	13.00
1 supervisor	17.00

Rehabilitation and Repairs

None

Footage cost for drifting includes all labor, supervision, engineering , accounting, sampling, assaying, bookkeeping, utilities, repairs, pipe, rail and supplies.

The diamond drilling is to be done by contract. The cost per foot of $8.50, includes cost of transportation of equipment, logging of holes, boxing of core and all costs to complete the specified amount of drilling.

To provide for possible under-estimations of these costs, an allowance for contingencies of $502.00 has been included in the total estimated cost for such additional expenses as are necessary to complete the project.

EXPLORATION PROJECT CONTRACT
MONTANA MINING DEVELOPMENT CO.
DOCKET NO. DMEA-270X

EXHIBIT "A"

Statement of the Work

1. Extend the Ben Harrison - Croesus drift along the vein southwesterly about 260 feet, and connect with the nearest workings of the Lamartine No. 3 shaft.

2. Drive two diamond drill holes as indicated on the accompanying map, one near point "A", one near point "B", each hole limited to 200 feet depth and drilled by a contract driller. The "B" hole can be drilled concurrently with the drift. The "A" hole can be finished within a month after the completion of the drifting.

All drifting and diamond drilling is to be done on the Ben Harrison and Croesus Claims.

Changes in the location of drill hole may be authorized by the Government.

The proposed drifting and drill hole locations are shown on the accompanying map.

Summary of Estimated Costs

260 feet of drifting, 6' X 8' cross section at $35/ft.	$ 9,100.00
400 feet of diamond drilling by contract at not to exceed $8.50 per foot	3,400.00
Allowance for cutting two drill stations	500.00
Equipment to be purchased	973.00
Use of equipment furnished by Operator	525.00
Allowance for contingencies	502.00
Total Estimated Cost	$15,000.00

Details of Estimated Costs

Fixtures and Improvements

None

Operating Equipment

To be rented

None

To be purchased

1 Drifter rock drill, 3½"	$ 973.00

To be furnished by Operator

	Estimated Present Value	Allowance for Use
1 - 315 cu. ft. compressor	$ 3,500.00	$ 60.00 per mo.
1 - Storage Battery locomotive with battery & charger	4,000.00	70.00 per mo.
10 - Mine cars	1,500.00	25.00 per mo.
		$155.00 per mo.
Allowance for use for 3 months		$465.00
Allowance for use of compressor only for one additional month		60.00
Total allowance for use for completion of project		$525.00

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Footage cost for drifting includes all labor, supervision, engineering , accounting, sampling, assaying, bookkeeping, utilities, repairs, pipe, rail and supplies.

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Use of equipment furnished by Operator	525.00
Allowance for contingencies	502.00
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Details of Estimated Costs

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None

Operating Equipment

To be rented

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1 Drifter rock drill, 3½" $ 973.00

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	Estimated Present Value	Allowance for Use
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		$155.00 per mo.
Allowance for use for 3 months		$465.00
Allowance for use of compressor only for one additional month		60.00
Total allowance for use for completion of project		$525.00

Labor and Supervision

Rates per day for six day week

2 miners @ $13/day each	$ 26.00
Timber man 1 mucker	11.70
1 motorman	13.00
1 supervisor	17.00

Rehabilitation and Repairs

None

Footage cost for drifting includes all labor, supervision, engineering , accounting, sampling, assaying, bookkeeping, utilities, repairs, pipe, rail and supplies.

The diamond drilling is to be done by contract. The cost per foot of $8.50, includes cost of transportation of equipment, logging of holes, boxing of core and all costs to complete the specified amount of drilling.

To provide for possible under-estimations of these costs, an allowance for contingencies of $502.00 has been included in the total estimated cost for such additional expenses as are necessary to complete the project.

DMU-270

REPORT OF JAMES E. ANDERSON, GENERAL MANAGER

Personal Investigation and Observation of Mine

I have been in active charge of the work of the Montana Mining Development Company at Idaho Springs, Colorado, since November of 1949. I have been engaged in the mining business for more than fifteen years. Part of the time I have been associated with my brothers under the name of Anderson Brothers Mining Contractors. We built and installed flotation mills and carried on mining operations near Neihart, Montana. I have also been connected with mining and milling in gold, silver, lead, copper, sulphur, coal, and gypsum mines. I have been interested for many years in locating a good mining property and have investigated and looked over many mining properties in Montana, Wyoming, Colorado, New Mexico, and Arizona. I am one of the principle stockholders in the Montana Mining Development Company and have been taking an active part in the management and its operations. I am of the opinion that since all the adverse interests which heretofore owned these properties have been eliminated through the Montana Mining Development Company's acquiring all of these properties, that this mining property, together with the mill, constitutes one of the most practical and feasible mining operations that I have ever investigated or been connected with.

Under my direction we cleared the Onieda Stag tunnel so that an inspection could be made. My observation of this tunnel and the work that has been done in it and its value to the other properties is as follows.

The Onieda Stag tunnel consists of a drift through country rock for approximately 800 feet to a point where it intersects the Onieda vein which extends on through the Falcon, Ben Harrison, and into the Lamartine claims. Considerable mining was carried on at the Onieda Stag claim up to 1916 and most of the ore above this tunnel was stoped out. This is true the entire length of the Onieda Stag claim to where it intersects with the Falcon claim. At this point, I understand that the owners of the Onieda Stag claim were forced to cease mining as a result of a controversy over the end line. However, the tunnel extends approximately 55 feet into the Falcon claim. A wide vein of ore is disclosed in the back and at the breast on the Falcon claim.

There is a winze extending below this tunnel which is inaccessible at this time, and we understand that there is a vein of lead and zinc sulphide ore in this winze at the 100 foot level. The Onieda Stag tunnel is valuable and necessary for working the Falcon, Ben Harrison, Lamartine, and other veins lying to the west which will be developed by extending this tunnel. The extension of this tunnel for 2500 feet will make accessible the ore above at what is commonly called the Morgan stope. The Morgan stope is on a large vein of lead and zinc sulphide ore. This was stoped out above the tenth level for a height of approximately 205 feet to the compromise line of the Ben Harrison claim and a winze was sunk below the tenth level to a depth of approximately 90 feet; an extension of another 2500 feet would put the Onieda tunnel under the sulphide ores of the Lamartine, Money Musk, and Imperial claims.

Prior to the purchase of these properties by the Montana Mining Development Company, the Lamartine tunnel had been deserted for a little over a year, causing an occasional cave-in. Under my supervision we have a crew of men opening the Lamartine tunnel, and at the present time are removing a cave-in midway between the Morgan stope and the Lamartine #3 shaft. (Refer to map.) In my examination of the upper levels of the Falcon claim adjoining the Morgan stope and the Ben Harrison claim, I am of the opinion considerable lead and zinc ore can be mined above this division line and that actual production from this body of ore can be commenced within a period of 150 days through the extension of a drift on the eighth level of the Falcon claim. (Refer to map.) The Morgan stope is on a large vein of lead and zinc sulphide ore which was stoped out from the tenth level for a height of approximately 205 feet up to the Ben Harrison compromise line and in a winze below the tenth level to a depth of approximately 90 feet. This compromise line was the result of a disagreement and a high raise was driven to determine the apex of the vein. (Refer to map.)

There is a block of ore with a high zinc content in the old workings of the Lamartine above the fourth level west of the Lamartine shaft which can be reached by reconditioning the Lamartine shaft ~~at~~ and the fourth level west of the shaft to the Silver Queen claim. This should make accessible a minimum of 25,000 tons of good zinc ore and possibly three times that amount can be developed.

It is my opinion that the feasible mining operation of these properties must be carried on for the most part through the Onieda Stag tunnel. There is no doubt in my mind that the ore continues down to at least the fourteenth

level and possibly much farther for the following reasons:

1. Freeland mine, which adjoins this property, mined a good grade of ore through a tunnel 2000 feet lower than the Lamartine tunnel.

2. There is a good grade of ore at the present breast of the Onieda Stag tunnel.

3. There is good ore at the bottom of the Falcon shaft which is approximately the twelfth level.

4. There is a high grade of lead and zinc sulphide ore in the bottom of the Ben Harrison Creoses winze which is approximately at the eleventh level.

I am of the opinion that by extending the Onieda Stag tunnel along the vein, sufficient ore bodies of lead and zinc will be exposed to enable the mill to operate at 130-ton a day capacity for many years. It also appears to me an almost certainty that as the necessary repair work is done in the upper levels of the Lamartine shaft to permit the mining of the lead and zinc ore on the Ben Harrison Creoses claims and the Lamartine group of claims that a large production of zinc can be developed in approximately four month's time.

In my examination of the workings which have been accessible I have found very few cross cuts and no core drill operation.

It seems to me that it would be a good mining practice to start a program of core drilling to determine if there are any parallel veins lying on either side of the one that exists in the Lamartine and Onieda tunnel.

We are at the present time operating a 130-ton floatation mill located on the Jim J and John L claims, and have been running the dump ore piled at the portal of the Lamaratine tunnel.

These heads have been running approximately $3.80 per ton. We have been making a concentration of approximately $150.00 per ton net smelter ~~rate~~ returns. (Refer American Smelting and Refining Company, Leadville, Colorado.) This represents a concentration ratio of approximately 80 to 1 and making a recovery of approximately 93%. Our operations show a net profit of between $2,000.00 and $2,500.00 per month on our milling operations.

James E. Anderson

James E. Anderson, General Manager
Montana Mining Development Company

References of past mining experience:

Robert Robi
c/o U. S. Bureau of Mines
Spokane, Washington

Walter Lehman
Lewistown, Montana

Donald Hoetvaum
Helena, Montana

Atlas Powder Company
2500 Allison
Denver, Colorado
Attn: Mr. Mullins

Farmers State Bank
Worland, Wyoming
Attn: Mr. Lloyd Herin

George McCorison
Chicago Pneumatic Tool Co.
Denver, Colorado

Seitz Machinery Company
Billings, Montana
Attn: Melvin Seitz

Manhattan State Bank
Attn: Leonard Moritz, Vice Pres.

Ideal Cement Company
Hanover, Montana
Attn: Mr. Grettincourt

CROESUS AND BEN HARRISON

S. A. Ionides
Consulting Engineer
511 Cooper Building
Denver, Colo.

Mining
Chemical

April 2, 1940

Miss K. M. Armstrong
783 Lafayette Street
Denver, Colo

Dear Miss Armstrong,

In compliance with your request, I examined the Lamartine Tunnel workings of the Croesus-Ben Harrison Claims on March 14th to 16th, 1940 and herewith transmit to you my report on them.

Very truly yours,

S. A. IONIDES
Registered Engineer

SAI/B

R E P O R T

ON THE

CROESUS & BEN HARRISON LODE CLAIMS
SITUATED ON
TRAIL CREEK, CLEAR CREEK COUNTY, COLO.
BY
S. A. IONIDES
CONSULTING ENGINEER
DENVER, COLORADO

Location:

These claims are near the head waters of Trail Creek and adjoin the Lamartine Mine. Access to their lower workings is through the Lamartine Tunnel, the portal of which is some four miles by road and 2,000 feet above U. S. Highway 40 near Idaho Springs, Colorado.

Area:

This property consists of two claims, the Croesus and the Ben Harrison - Survey Number 6381 and with a combined area of about ten acres.

Titles:

The claims were located in 1889 and their abstract shows that they have had a lengthy history. The examination of title falls into the province of an attorney, so the titles were not examined for validity.

Development:

There is reported to be a shaft on the Ben Harrison claim with three levels driven from it. The timbers in this shaft are said to be in poor condition and the heavy snow on the hillside prevented an examination of these upper workings at the time of my visit, March 14 to 16, 1940 inclusive.

The request was made to the officials of the Lamartine Company for permission to enter the workings through their shaft, but they claimed that their ladders were in bad order and that the manway was bulkheaded at the fifth level, so the request was refused and the only workings that could be examined at this time were those accessible through the Lamartine Tunnel.

The Lamartine Tunnel enters the Croesus Claim about 2,500 feet from its portal and 300 feet southwest of the northeast corner of the claim at which point a crosscut starts and goes through the Croesus and Ben Harrison claims into the Lamartine. The northern fork of the tunnel is a drift about 420 feet long on the Croesus vein above which there are several stopes.

At a point 200 feet northeast of the southwest corner of the Ben Harrison claim there is a crosscut to the Ben Harrison lode from which there is one drift 170 feet long and a branch 120 feet long. There are two raises, one at the junction with the crosscut about thirty feet high and one near the fork reported to be eighty feet high.

Output:

Mr. George Callaway showed me a large number of settlement sheets from which it appeared that during the early nineties 125 tons of ore were sold to the Chamberlain Ore Sampler and there was also a tabulation showing that during the years 1910 to 1915 680 tons were sold for which was received $22,725, an average of $33.40 per ton. There were many other sheets and these represent only part of the shipments.

Geology:

The Croesus vein has a northeast-southwest strike and dips to the northwest at an angle of 82° 30' which amounts to 13 feet per hundred off the vertical. It contains gold, silver and lead and is about two feet wide where sampled. Stopes more than five feet wide were seen in places. The Ben Harrison vein, likewise, has a northeast-southwest strike and appears to dip slightly to the northwest but there was no place at which this dip could be measured. Its mineral content consists of gold and silver with a very meager showing of base metals. While these two veins have very hearly the same strike and may have similar dips, their mineral contents differ quite appreciably and the most interesting point now to be determined is whether they are the same vein or two different veins. The latter view looks the more plausible and I hope that crosscutting will reveal that there are two veins nearly parallel to each other and separated by a distance of 30 to 40 feet. If this is the case, it will materially enhance the value of the mine.

The vein in the Ben Harrison can be traced from the southwest end to where the drifts fork and is there seen to enter the wall right in the middle of the fork.

Agreements Between Croesus - Ben Harrison and the Lamartine Mines:

There are two such agreements in existence, one dated August 21, 1894, which gives the Lamartine Company the privilege of extending its tunnel through those two claims "for the purpose of working and draining said Lamartine and other mines through said level." It gives a perpetual right-of-way to the Lamartine along the tunnel with the privilege of installing equipment and the right to convey water, but the Croesus Company reserves the perpetual right to work and mine by crosscut, winzes and up-raises the Ben Harrison and Croesus lodes to the extent of their boundary lines only as long as it does not interfere with the operation of traffic, which traffic is to be under the supervision of the Lamartine Company who are to charge the Croesus ore at a pro-rata share based on the number of car loads hauled.

The second deed dated October 9, 1912, provides that the northern side line of the Croesus lode mining claim shall be the boundary between the said Croesus and the Falcon extension irrespective of the location of the outcrop or apex of the vein in the following words:

> "First: That the north side line of the said Croesus lode mining claim extended downward vertically shall be the dividing line between said Croesus and said Falcon Extension lode mining claims, and all ore hereafter mined West of the East end line of said Croesus lode mining claim, south of said north side line of said Croesus lode mining claim, and within the exterior boundaries of either of said lode mining claims, shall be the property of the parties of the first part; and all ores hereafter mined North of said north side line of said Croesus lode mining claim, and within the exterior boundary lines of either of said claims, shall be the property of the party of the second part, regardless of the location of the apex of any of the veins within the surface boundaries of either of said above mentioned and described lode mining claims, and that this agreement as to said division or compromise line shall be considered and be a covenant and agreement running with each of the said lode mining claims, hereinabove mentioned and described."

The effect of this vertical boundary agreement is shown in the accompanying blue print which I have drawn to illustrate and make clear as far as possible the view taken by Mr. A. D. Johnston, secretary-treasurer and manager-superintendent of the Lamartine mine and their chief engineer, Mr. Robinson.

The accompanying blue print is but a sketch, as I was not able to see the outcrop owing to the snow and had to work on the basis of what could be seen in the tunnel level and the explanations given to me. From these it appears that the outcrop crosses near the northeast corner of the Croesus and at that point the Falcon would own the whole of the vein. Going southwest the outcrop gets further and further into the Croesus and the vein would get deeper and deeper before it entered the Falcon territory.

The logical plan for development of the vein below the tunnel level would be to start an incline at an angle of 30°, more or less, near the north side line and parallel to it and all the ore above this incline would belong to the Croesus and all below it to the Falcon extension.

In this connection I should mention that there is a narrow strip of land between the two claims toward their western end and it might be a good plan for this to be filed on presently.

Each of the parties gives the other perpetual rights-of-way through all openings contiguous to the vertical side line.

The Lamartine Company gives to the Croesus Company "a perpetual right to handle and move ore and to dump waste and rock upon the surface of any mining claim it may own and be using for dumping purposes" near the mouth of its tunnel.

The expression "to handle and move ore" unquestionably gives to the Croesus Company the right to move their ore through the tunnel and onto the dump or into bins, but it is questionable if the phrase could be strained beyond that so as to include "milling".

Estimated Costs:

As the vein is narrow, averaging close to two feet in width, mining cannot be done on the cheap "shrinkage system" in which only ore is broken and only enough drawn so that there is room for the miners to work comfortably while standing on the broken ore. The minimum width for shrinking a stope is three feet so the dilution by wall rock would be excessive and mining by stripping or breaking the ore separately and filling with waste must be resorted to.

The following are my estimates:

Mining and delivering ore to mouth of tunnel	Per Ton	$4.00
Milling	" "	2.00
Metallurgical loss 10%, $1.90 or say	" "	2.00
Freight to Leadville and Treatment (Basis of ratio of concentration 8 into 1)	" "	2.00
Overhead	" "	1.00
TOTAL	Per Ton	$11.00

These estimates are based on the mine being already equipped and with a mill built in the locality. Any other system, such as hauling the ore to Idaho Springs for milling, will necessarily result in higher costs.

Included in the mining costs are the costs of developing an equal amount of ore to replace the ore stoped out. This cost will come close to $1.25 per ton.

Assays:

Twenty-two samples were taken on the Croesus vein and eight on the Ben Harrison. They are tabulated on the following page.

A S S A Y S
B Y
WILFLEY & BRIBACH
MARCH 20, 1940

SAMPLES FROM
S. A. IONIDES

Gold @ $31.81 per ounce
Silver @ $ 0.65 per ounce
Lead @ $ 0.035 per pound

SAMPLE NO.	INCHES	OUNCES PER TON GOLD	OUNCES PER TON SILVER	LEAD PERCENT	$
C - 1	33	0.08	8.3	6.7	12.62
2	72	0.08	0.9	2.8	5.08
3	32	0.05	0.2	4.5	4.87
4	64	0.01	0.2	1.0	1.15
5	22	0.10	1.3	6.7	8.71
6	35	0.64	3.6	16.3	34.06
7	12	0.04	trace	1.9	2.60
8	18	0.12	34.3	4.8	29.47
9	28	0.57	12.4	8.3	32.00
10	20	0.29	1.9	3.9	13.18
11	32	0.11	5.7	1.1	7.97
12	22	0.11	5.1	1.7	8.00
13	14	7.20	15.2	1.1	239.68
14	22	1.03	4.0	4.5	38.51
15	21	0.08	2.7	2.0	5.69
16	30	0.18	40.0	11.3	39.63
17	30	2.62	23.0	51.8	136.55
18	12	0.16	8.6	7.0	15.58
19	20	trace	0.6	0.5	0.74
20	23	0.17	trace	0.3	5.61
21	46	0.80	3.2	6.5	32.08
22	64	0.27	1.5	5.8	13.42
B - 23	22	0.01	0.6		0.71
24	36	2.46	1.8		79.42
25	13	0.29	1.1		9.93
26	32	0.43	0.8		14.20
27	43	0.57	0.4		18.39
28	24	0.56	0.8		18.33
29	17	0.05	0.4		1.85
30	24	1.45	1.4		47.03

WILFLEY & BRIBACH

By S/ O. N. BRIBACH

Ore Reserves:

From the fact that there was only one level and some stopes in which the ore could be sampled it is not possible to give any definite figures for one "blocked out". "Blocked out ore" requires at least two levels and there should be connections between them.

The existence of the stopes and the assay of the samples as shown on the accompanying assay section and map do "reasonably indicate" a certain tonnage of ore which, according to the rules of the Reconstruction Finance Corporation when receiving applications for loans, are limited at 25 feet beyond the openings. This is called "reasonably indicated" ore.

Beyond that, an estimate of "probable" ore can be made and for this purpose I am assuming that there is only one vein and that the Croesus and Ben Harrison drifts, if extended, will meet and have allowed for "probable" ore a height of 50 feet, 25 feet above and 25 feet below the level.

The ore designated as "possible" is the full extent of the vein within the limits of the two claims. The vein in all probability extends far deeper, but beyond the limits of the Croesus claim it belongs to the Falcon Extension. Ore averaging close to 1 ounce in gold has been mined in the Freeland Mine in the same district on the tunnel level, which is started about 70 feet above Clear Creek and 2,000 feet below the Lamartine Tunnel.

The vein and its ore content are unusually persistent, but where sampled pinches and low grade spots do occur. The extent of them was measured on the tunnel level and found to be 15% both for the Croesus and the Ben Harrison vein, so a deduction of 15% has been made on all the "probable" and "possible" tonnage.

There are three blocks of "reasonably indicated" ore - "A" above and below the southwest drift on the Ben Harrison; "B" below the northeast drift on the Croesus between samples 5 and 19; and "C", the stope near samples 8 to 11;

	LENGTH	WIDTH	DEPTH HEIGHT	TONS	VALUE GROSS $	PER TON NET $	$
A	100'	28.7"	50'	840	17.10	6.10	5,124
B	110'	22.4"	25'	460	22.10	11.10	5,106
C	40'	24.5"	25'	165	19.85	8.85	1,460
				1,465	19.00	8.00	11,690
			Probable Ore				
	480' - 4000 x 85%	24"	50'	3,400		8.00	27,200
					4,865	8.00	38,900

Possible Ore

Above 960' 24"	500	80,000			
Tunnel 80,000 x 85%		68,000			
Less:					
Duplication	2,300				
Already stoped, not known but assumed to be less than	10,000	12,300			
			55,700	8.00	445,600
Below 960' 24"	420	67,200			
Tunnel 67,200 x 85%		57,100			
Less Duplications		2,700			
			56,400	8.00	451,200
			116,965	8.00	935,700

The above table must be read with care and due attention to the meanings of the words "probable" and "possible". They indicate the likelihood of the potentialities and must not be interpreted to infer that the quantities and values of ore are necessarily to be found.

More "reasonably indicated" and "probable" ore must be proved before a mill is installed. A general principle may be laid down that a mill must not be installed until such time as there is good assurance that the cost of installation will be much more than paid for. Another general rule, which I use, is that a three-year ore supply is required before the installation of a mill is considered, or say 25,000 tons of ore reserves for a 25 - ton per day mill.

As the vein or veins are only two feet wide, the cost of development will be about $1.25 a ton. The normal cost of the drifting and raising required to prove an additional 20,000 tons of ore would according to these figures be $25,000. Fortunately, this mine is located in a region where custom mills are available and it would be quite logical to ship the ore from development to one or other of the custom mills in the district, which would materially help to reimburse the cost of development while proving the contents of the mine.

A development loan from the Reconstruction Finance Corporation could be secured, I believe, for doing the development work if you wish to adopt this course. This would be a Class "B" loan limited to $20,000.

Mill:

As stated above, it is too soon to give serious consideration to the construction of a mill but it might be well to secure a suitable location for the mill and the requisite tailings pond. There appears to be a very suitable site for a tailings pond just below the Oneida-Stagg Tunnel and I recommend inquiries being made as to the terms for securing its use.

Power:

This is readily available from the Public Service Company of Colorado whose power lines are connected to the Lamartine mine. The primary voltage is 11,000. Current can also be bought at 440 volts.

Timber:

There is a little on the property but the probabilities are that most of it must be bought in either Idaho Springs or Boulder. The Lamartine Company has four timber claims but is buying its timber from the outside to an appreciable extent.

Water:

The water in the Lamartine Tunnel originates beyond the Ben Harrison Claim and the agreements provide that the tunnel may be used for the transportation of water through the Ben Harrison and Croesus claims so I doubt very much if you would have any claim to that water until discharged from the Lamartine mill, at which point you could arrange to secure it for use in your own mill.

Program For Development:

The capital cost for equipment will depend very largely on what arrangements can be made with the Lamartine Mine for you to use their facilities, for instance - if suitable arrangements can be made to buy compressed air from them there will be no need for you to install your own compressor. However, I have taken the worst possible case and assume that none of their facilities will be available for you and also that they will do their hauling through the tunnel to suit their own convenience rather than yours and under the contract they have supervision of the hauling. In other cases, I have known where this one feature has raised the cost very materially as men were forced to be idle through lack of cars; extra cars will minimize this.

The required equipment, compressor, drills, etc., would probably cost close to $10,000 by the time that they are installed and at least a further six or seven thousand dollars should be provided. Twenty-five thousand dollars would do all the development work essential for justifying the installation of a mill, as there should be returns from the ore removed in drifting and raising.

The first thing to be done is to connect the levels on the Croesus and the Ben Harrison claims and before starting this a survey should be made to determine the relative elevations of these two levels so that they will come together when connected and even if the veins were not identical they should be connected somewhere with a crosscut.

Valuation:

The tabulation of the ore reserves gives an estimate of the results that should and may accrue from working this property after it has been fully equipped. The discount of 15% in the tonnage of the possible ore was deducted, as explained above, on the basis of the relative lengths of the ore zones and pinched areas in the main levels of the Croesus and the Ben Harrison. But even with this deduction and any further general allowance that may be made for the hazard of the long distance view, there is plenty of room for further profit.

The above is all based on the above theory that the Croesus vein and the Ben Harrison vein are one and the same and if the contemplated work proves that they are separate and distinct, there is a chance that the tonnage of possible ore and the resulting profit may be practically doubled. The determination of this point must be in the future.

From each and every estimate of the apparent profit must be deducted the cost of installing the equipment needed to realize it and also a discount factor for the length of time taken for the realization. Here though, we are dealing with a high grade ore which, from the samples taken, will realize about $19 a ton when sold to a smelter and yield a profit of close to $8 a ton, so no extensive change due to a time factor will be required to amortize the capital investment and the purchase price. The net profit from the reasonably indicated and probable ore will not pay for both the development and construction of the mill without giving credit for the proceeds of the sale of ore that must be extracted during development. With an average width of two feet, one ton of ore should be recovered per foot driven and this amount might well pay for the cost of driving. In any case, it is sound policy to establish ample ore reserves before the construction of a mill is undertaken.

The profit in the mine lies in the "possible" ore. The classification of this ore should be improved as rapidly as possible, as with this improvement, the value of the mine will be enhanced accordingly. As it stands, the potentiality is a profit of $935,000 and this is the figure, the future receipt of which has to be valued. Setting the present value of this potentiality at 10%, a price of $93,500 on the two claims would be in order, if spread over a period, so that part could be earned out of the mine and the balance definitely demonstrated by underground development work.

Respectfully submitted,

March 29, 1940

S. A. IONIDES

Registered Engineer

443 Lafayette Street
Denver, Colorado
Nov. 5, 1938

Messrs Edward D. Nicholson & Charles Boettcher II
Denver
Colorado

Gentlemen:

In compliance with your instructions to make a brief investigation of conditions at the Oneida and Ben Harrison Mines, situated on Trail Creek in Clear Creek County, and to determine whether they offered developed ore reserves that could be marketed at once, I visited the properties October 28, and November 1, accompanied by Mr. Harry W. Robinson of Denver and Mr. Albert Trembath of Idaho Springs.

My findings are:

1. The Oneida mine does not contain, in my opinion, immediately accessible ore that can be mined and milled at local custom mills, from which any sure or satisfactory profit can be won. It offers exploration possibilities on low grade ore faces that might lead to better values than now exposed, and the exposed ore would in part pay for the work done in it. Before entering into any exploration program it would be advisable to make the upper levels accessible for further examination so that the entire situation can be weighed in the light of a more comprehensive investigation.

2. The Ben Harrison is in much the same condition as the Oneida, except that conditions appear to offer more definite assurances of successful development with a limited expenditure.

3. Both properties contain large unexplored vein areas adjacent to highly productive areas, and when considered as development propositions much can be said for them. They are part of a vein system that has been opened for a length of 9,000' of which some 4,800' has been productive. Operating conditions are favorable and work can be started in either or both with very low preparatory expense.

4. Within the restrictions set by your instructions all I can recommend is that an expenditure of $2,000 is well justified on the Ben Harrison to determine the local possibilities at the heading marked by Harrison Sample #1 on the map.

.....

The properties occupy the easterly end of a vein system that is most famous for having made the Lamartine mine towards its western end. From east to west the vein system

has been opened by shaft and tunnel on the Oneida, Falcon, Ben Harrison, Lamartine, Money Musk, Imperial, and Silver Queen claims along a length of about 9,200' and to depths of 1,000' below the surface. Ownership is divided into: the Oneida Group of Claims, owning the Stagg Tunnel, Oneida Tunnel, and the Portal and first 900' of the long Lamartine Tunnel; the Ben Harrison and Croesus Group that owns a segment of the vein stystem between the Falcon and Lamartine claims; and the Lamartine Group owning the other claims. The Lamartine Tunnel right is shared by the Oneida and the Lamartine ownerships; the Ben Harrison Group has no use of the tunnel except as such use may be permitted by either the Lamartine or the Oneida.

PROPERTY The Oneida Group of 9 patented claims is held by Harry W. Robinson, Albert Trembath, Lew Davidson and George A. Bewly under a mining lease with option to purchase that runs for 3 years; price $50,000 on which $1,000 has been paid; royalty 10% on net smelter value up to $15 and 15% on higher values; royalty applies on purchase price.

The Ben Harrison and Croesus Group of 2 claims is owned by Harry W. Robinson, C. D. Armstrong and Kathryn Armstrong; Robinson owning an undivided half interest and the Armstrongs a half interest.

The Oneida Group

The Oneida claim of the Oneida Group contains practically all the mine workings on it. It was opened by the Oneida Tunnel on the Oneida-Ben Harrison-Lamartine vein 150' under the Lamartine Tunnel level, and again by the Stagg Tunnel some 400' under the Lamartine Tunnel level. (See map) The Oneida Tunnel was not accessible during my visit and my examination was limited to the Stagg Tunnel level and the Lamartine Tunnel level.

The Lamartine Tunnel portal is on the Oneida claim and the first 900 feet of the tunnel is also owned by the Oneida, subject however to an easement granted to the Lamartine. A few unmapped stopes are present above the tunnel level that are inaccessible. The vein shows in the tunnel but is reported to be low-grade.

The Stagg Tunnel starts on Trail Creek as a cross-cut tunnel for some 800' according to a map of the claims but for 1400' according to Trembath. It turns westerly on the Mendick claim and vein for 300' and then more directly west when it encounters the Oneida vein on which it continues for some 1200'.

The accompanying section map shows the part of the tunnel on the Oneida vein and the approximate areas stoped.

The Oneida vein is part of the Lamartine vein system. While apparently there is one continuous vein throughout the workings of all these properties, the presence of associated veins in places indicates a complex vein system of linked and parallel fractures. In the Lamartine workings two approximately parallel fissures have been mined, the Crown vein and the Lamartine vein, and occasionally a third is known. In some parts the Crown vein was stoped over large areas with no openings to the Lamartine, in others both veins were opened and stoped. The existence of similar parallel fissuring on the Ben Harrison, Falcon and Oneida claims is indicated by limited showings in a few widely separated cross-cuts. Further crosscutting is advisable.

In general the veins occupying the fissures are narrow, ranging from a foot to four feet in width with a general average of about 2½' where stoped. The gangue is ground up wall rock and some vein quartz. Mineralization occurred in more than one stage, introducing pyrite, sparse chalcopyrite, galena and sphalerite along with vein quartz. Gold and silver accompanied the pyrite and chalcopyrite principally, but high grade values are also found associated with galena and sphalerite.

The values mined during the main exploitation of the properties along the vein system were fairly high grade, being reported to have ranged from one half to four ounces gold with important amounts of silver. The probable general average was around three quarters of an ounce gold and five to ten ounces silver. Large profits are reported for both Lamartine and Oneida operations.

The old workings on the Oneida between the Lamartine Tunnel level and the Stagg Tunnel level are probably open and can be made accessible by repair of ladders. The ground is firm and stands well. The stopes were worked as open stopes from stulls and the timbering observed in the Stagg Tunnel is firm and undecayed; renailing of ladders and replacing some sprags and stulls should be all that is needed. The Stagg Tunnel has been cleaned out, airline installed, rails repaired, and is ready for work.

The vein was stoped in two blocks above the Stagg level, that aggregate some 700' in length, out of about 1200' of vein that is opened -- an excellent development ratio. The only ore showings that are left appear to be at the face and at a few points between the stopes. These places were sampled.

At the face the drift extends some 75' beyond the west end of the last stope. The stope shows widths of 2' to 3½'. At the face the vein has pinched to 8". Between the stope and the face the vein shows pyrite and a little galena in a hard silicous vuggy vein filling. Trembath proposed opening a stope along this section, stating his sampling indicated mill-grade ore on widths of 2' that could

be mined, hauled to a local custom mill, milled and marketed at a profit that would permit them to extend the exploration work into new ground. I took four samples of the vein along in this section that gave the following:

			Gold Ounces	Silver Ounces
No. 1.	Oneida	Footwall side of vein 26" wide, 60' east of face	Gold 0.20	Silver 6.6
2.	"	Hangingwall side of vein 28" wide same place as #1	0.04	0.8
3.	"	Iron and lead streak 6" wide where vein had pinched to narrow seam, 4' east of face	0.45	3.6
4.	"	Vein at face 8" wide	0.22	0.2

While these results are not conclusive I believe they indicate Trembath's proposal is probably not justified unless the west wall of the stope was sampled above the drift and returned more encouraging results. A little stating up and a few stulls would permit the stope being sampled for a considerable height.

With narrow vein widths of 2' and less for the actual ore, it will be necessary to allow for at least 30% dilution in mining and possibly more so that at least $15 ore will be needed to afford a reasonable profit margin that will also meet the cost of future exploration and development.

These values and the general conditions, however, do justify some limited exploration work, both ahead and by a raise. Recovery of part of the cost can probably be counted upon by shipping the better material to a local mill, but the work should not be expected to pay its own way.

Samples at other points as shown on the map were all disappointing despite a good looking vein, well mineralized with pyrite and some galena. They ran as follows:

No. 5.	Oneida	Vein 25" wide 70' west of crosscut	0.06	0.8
6.	"	Vein 23" wide 60' west of Xcut	0.04	0.4
7.	"	Vein 30" wide 48' west of Xcut	0.06	0.4

8.	"	Vein 30" wide 30' east of Xcut	0.05	0.6
9.	"	Vein 37" wide 210' east of Xcut	0.11	0.9

The extensive stoping on the Oneida level, 250' above this section, apparently was on an oreshoot that did not extend much below the level to judge by the lack of stoping on the sub-level between the tunnels; that is, if the available maps truly display conditions. If any work is done, it would be advisable to gain access to these upper levels to examine them, since a large block of ground some 400' long by 250' high appears to be only partly explored although surrounded on three sides by stoped regions.

The Oneida appears to be a good prospect and worth careful consideration. An examination of the upper levels and sampling the west end of the stope might indicate a more desirable point of attack than now appears in the Stagg Tunnel. In general it would be well to discount any prospective return from milling development rock, although, whenever possible this should be done. Regular stoping operations should not be commenced until sufficient ore has been put in sight to justify making a firm tonnage contract with one of the district's mills and rigging up for economical extraction and transportation of the rock -- or considering equipping the property with its own plant. Sporadic stoping and custom milling of small tonnages of marginal ore or even ore of fair grade will not benefit the situation; it will only dissipate both the operator's and mine's resources.

The Stagg Tunnel is ready for operation, a 7-drill compressor has been installed at the portal in a good building. Power lines reach the portal and need only to be connected up for work to start. The cost of setting transformers and making connections together with a power deposit of $450 is set at $845. Preliminary expense connecting air-lines and in miscellaneous items should not exceed $500 so that work can start for less than $1500, so far as the mine is concerned. The operation of setting up equipment and cleaning out the tunnel has an indebtedness of about $3,000 against it in the form of $2700 on equipment (paid $1000) and $150 in tunnel labor. The equipment purchased includes a lot of mill equipment of small immediate importance.

Ben Harrison & Croesus Claims

When the Lamartine Tunnel reached Ben Harrison ground it was turned off the vein and carried past the Harrison until once more on Lamartine property at the west end of the Harrison & Croesus. Later a drift was driven on the vein to the west from where the tunnel left it, opening it for a length of 450' on the Ben Harrison. Stopes were

opened on the Falcon for a length of about 350' and for about 400' on the Ben Harrison, along an ore shoot some 800' long. These stopes were carried up for heights of about 150'. On the Falcon the stopes apparently stopped short of a horizontal compromise property line 205' above the tunnel that had been adopted in connection with boundary line disputes. See map. This situation suggests that the top of the ore shoot may not have been reached on the Falcon and that an investigation of the region might show the possibility of the ore extending up into Ben Harrison ground.

The ore shoot extended below the tunnel level and was opened by two winzes, one 100' deep with about 300' of drifting, and the other 20 feet deep. Trembath states he worked on these winzes and that they contained 16" to 18" of good shipping ore carrying heavy galena and sphalerite and that the entire vein width was about 2½ to 3 feet wide. He does not recall the ore value, except that it was shipped. No stopes were opened as the water flow proved troublesome. A cross cut in the deeper winze opened another vein 20' from the main one according to Trembath, that also showed a good shipping streak.

The amount of water flowing in the tunnel during my various visits to it should not prove too much to handle with modern electrical pumping equipment or with an air pump, particularly as the actual tunnel flow can be ditched or flumed past the winze openings. A small air pump and some shooting up of the floor in a few places for careful sampling would determine something about the reported values.

The stopes above the tunnel on both claims produced, according to report, rather rich ore -- one to two ounces gold on widths of 1' to 2'. At the west face of the Ben Harrison drift the drift extends some 60' west of the stope and the drift back has been cut out to permit stoping to start so that it looks as though the last operators intending opening the stope on to the west. The vein shows stringers of rich galena an inch to six inches wide in vein widths of 2' to 4'. There appears to be an excellent prospect for extending the orebody to the west.

A sample of one of the main galena seams that ranged from 5" to 8" wide assayed:-

No. 1. Ben Harrison. 8" galena seam Gold 0.42 oz. Silver 5.0 oz. Sample was estimated to run at least 15% lead.

The seams are too scattered and irregular to break the full vein width for ore at the tunnel level. The west end of the stope above the tunnel, however, appears to carry a better concentration of sulphide seams and may well be ore. Timbering up for some sampling would be advisable. It cannot be reached at present.

Trembath states the east end of the Lamartine 3rd level opened an excellent shoot of ore that was followed onto the Ben Harrison under the Ben Harrison shaft, and that the shoot raked downward to the east towards the west end of the Ben Harrison drift on the tunnel level. The maps available do not show this stope. He thinks this shoot can be opened somewhat above the tunnel level at the present face or a little west of it. Whether this is the situation or not, the ground appears to be an excellent prospect either for an extension of the shoot stoped to the east or for the discovery of the beginnings of another one.

After sampling the end of the stope and securing confirmation of the values at the tunnel, I would suggest you arrange to drive ahead 50 feet and then raise. This work should quickly and cheaply determine sufficient about the possibilities for a decision as to future work. Present indications are that even this limited amount of work might open ore that could be handled at a profit almost from the start.

The Lamartine is being operated by the Rudolph Brothers of Denver and it should be possible to arrange for an air connection to their line where it passes the mouth of the Harrison drift. Some mining equipment and 450' of airline are all that will be needed. The equipment can be rented on a partial purchase plan during the speculative part of the undertaking. An expenditure of up to $2,000 should complete the suggested preliminary exploration. If it works out satisfactorily then the other prospective possibilities can be looked into.

CONCLUSIONS

Both properties and the Lamartine have large unexplored vein areas, in fissure veins of proved persistence both laterally and in depth. They have been operated profitably in the past from extensive orebodies that did not outcrop and that seemed to have definite bottoms, judging particularly by conditions in the Lamartine. Under these circumstances large unexplored vein areas may well contain ore bodies of considerable size. Any major consideration of the properties should be prepared to consider them as one operating unit and not as separate properties.

The Oneida and the Ben Harrison are both prospects as far as having any definite tonnages of ore in sight that can be mined profitably. They offer good development possibilities; then Ben Harrison in particular offering a relatively inexpensive speculation. Both deserve further study, looking to a possible comprehensive exploration program, but such a program is considerably beyond the scope of your present intentions as I understand them. However, I do recommend you spend up to $2,000 on the suggested work on the Ben Harrison for I believe it stands a good chance of disclosing ore values that can be mined profitably and that may lead to a broader attack on the properties.

Yours very truly,

JAY P. WOOD

$ 3,359,667.95
878,207.76
$ 4,237,875.71

Please note that these records cover only from 1902 to 1949. Records were not available at the U. S. Bureau of Mines beyond this date. However, in United States Geological Survey Professional Paper 63 the following record was found. Claims located in 1867; production 1888 to 1890: $616,000.00. Type and quantity of ore not given. Production from 1890 to August 1905 shows total pounds 67,946,019 containing 39,291.81 oz. of Gold, 2,677,470.19 oz. of Silver and 3,232,020 lbs. of Lead. Under present prices, this is equivalent to $ 1,375,213.35 in Gold, $ 2,409,723.71 in Silver, $ 549,443.40 in Lead. Please note that there was no payment for Zinc or Copper which we are positive again existed. Assuming that a minimum amount of zinc would be 2% of the total or 1,358,920.38 pounds or $ 231,016.46. However, in Exhibit , a letter from Past Manager L. Hanchett, he quotes his records from 1897 to 1902 as having knowingly produced 2,308,703 pounds of zinc. Therefore, we feel that in the period from 1890 to 1905 that a minimum of 3,500,000 pounds of zinc were produced worth at present prices $ 525,000.00. This would give us an estimated total production between the years of 1890 to 1905 of $ 4,859,380.46. Combined with the figures of the Bureau of Mines shows a total production $9,097,256.17. It is acknowledged, however, that there is a duplication in figures by the records of the U. S. Bureau of Mines and the U.S.G.S. between the years of 1901 and 1905. Also please note that there was no record of copper until 1905. The Montana Mining Development Company

has been milling the dump ore at the portal of the 10th level Lamartine tunnel for the past year and have sold approximately $ 33,000.00 worth of concentrate increasing the production figure to $9,130,256.17 of which the zinc was not figured in the last figure. The Montana Mining Development Company has definitely proven the existence (Bal. after one year operation) of one dump pile of ore coming from these workings of a minimum of 100,000 tons worth the minimum of $4.00 per ton or a value of $ 400,000.00. Also there exists a dump at the collar of the Lamartine shaft of a minimum of 200,000 tons worth a minimum of $5.50 or a total of $ 1,100,000.00.

U. S. Bureau Figures	$ 3,359,667.95
Assumed Zinc Lost	878,207.76
U. S. G. S. to 1890	616,000.00
U. S. G. S. 1890 to 1905	4,334,380.46
Hanchett Records of Zinc	525,000.00
Montana Mining Dump Returns	33,000.00
Estimated Oneida Dump	400,000.00
Estimated Lamartine Dump	1,100,000.00
	$11,246,256.17

Let us assume that the duplication in records involves $ 2,500,000.00. It then leaves a balance production of $ 8,746,256.17. I think we can conservatively estimate that the workings now in possession of the Montana Mining Development Company have a past production record of $ 8,500,000.00 in the first ten levels which we feel justifies the development of the next four levels.

Total Gold	$ 2,023,106.05
Total Silver	756,963.90
Total Copper	25,220.69
Total Lead	375,661.07
	178,716.24
	$ 3,359,667.95

The records compiled by the U. S. Bureau of Mines shows only the zinc which was separated and sold since 1901. By examination of the records of the American Smelting and Refining Company, it was found that there was a dockage for zinc in practically all shipments. The dockage was seldom under ten per cent on concentrate and never under two per cent on crude ore. The Montana Mining Development Company has been milling the dump ore from the above operation and has found the dump will run two per cent in zinc without sorting. It is known that of the 155,340 tons reported that a large percentage was concentrate. However, since it is not known what per cent was concentrate, we will use the total tonnage for figuring on the basis of crude ore only.

Total Tonnage 155,340 Tons

We will assume that two per cent of the above tonnage was zinc lost by smelting.

Zinc Lost 3,108.60 Tons

or 6,217,200 pounds at 17¢ per pound is:

$ 1,056,924	Total Zinc
178,716.24	Total Zinc Saved
$ 878,207.76	Zinc Lost Since 1901

MINE: Lamartine (Includes Honey Buck, Falcon and Hingrod) Page 2

Year	Ore Milled Tons	Gross Gold Ounces	Gross Silver Ounces	Gross Copper Pounds	Gross Lead Pounds	Gross Zinc Pounds
1937	300	47.25	208	310	7,704	3,292
1938	---	---	---	--	---	---
1939	11,200	3,714.52	2,677	240	64,885	31,075
1940	25,855	4,702.23	9,578	3,164	242,592	92,000
1941	29,508	4,456.14	5,199	1,050	104,247	--
1942	26,064	3,343.52	4,054	2,201	140,347	65,606
1943	7,921	894.71	6,740	2,605	62,025	--
1944-1949	--	--	--	--	--	--
	131,050	48,332.68	755,472	9,816	1,292,153	399,291

DMB-270

Compiled from records of the
Economics Division, U.S. Bureau of Mines,
Region IV

PAST PRODUCTION RECORDS

Clear Creek County, Colorado, Trail Creek District

MINE: Ben Harrison and Croesus

Year	Ore Milled Tons	Gross Gold Ounces	Gross Silver Ounces	Gross Copper Pounds	Gross Lead Pounds	Gross Zinc Pounds
1902-1906	—	—	—	—	—	—
1907	2	3.97	6	—	—	—
1908	60	77.81	605	236	4,125	—
1909	3	3.84	7	—	—	—
1910	—	—	—	—	—	—
1911	123	27.12	703	417	34,974	17,638
1912	910	123.17	3,967	1,496	166,292	157,613
1913	290	70.82	1,652	—	61,990	61,455
1914	106	115.13	1,939	—	38,616	33,682
1915	—	—	—	—	—	—
1916	8	6.41	101	—	4,669	3,769
1917-1942	—	—	—	—	—	—
1943	994	121.39	910	1,408	47,547	35,973
1944	249	62.00	1,118	2,656	69,116	51,696
1945	588	266.00	2,734	3,686	142,210	86,989
1946	614	403.00	2,674	5,792	145,753	129,351
1947	793	243.00	7,723	3,413	111,657	63,897
1948	389	135.00	3,598	1,067	33,622	—
1949	101	9.00	330	209	3,401	—
	5,230	1,667.66	28,067	20380	863,972	642,063

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Compiled from records of the Economics Division, U.S. Bureau of Mines, Region IV

PAST PRODUCTION RECORDS

Clear Creek County, Colorad, Trail Creek District

MINE: Oneida-Stagg

Year	Ore Milled Tons	Gross Gold Ounces	Gross Silver Ounces	Gross Copper Pounds	Gross Lead Pounds	Gross Zinc Pounds
1901-1904	--	--	--	--	--	--
1905	393	140.31	239	331	1,041	--
1906	1,000	2,000.00	29,851	995	3,123	--
1907	641	301.47	668	2,720	---	--
1908	284	131.65	404	4,204	---	--
1909	--	--	--	--	---	--
1910	1,542	1,264.71	3,589	30,268	1,920	--
1911	1,907	1,542.31	9,457	48,360	32,881	8,797
1912	1,168	528.19	2,748	17,570	11,418	--
1913	286	53.67	530	930	59	--
1914	1,086	182.24	1,249	351	--	--
1915	10,058	1,530.97	8,065	11,030	--	--
1916	405	89.87	394	640	--	--
1917-1936	--	--	---	---	--	--
1937	250	26.80	283	487	731	1,121
1938	--	---	--	--	--	--
1939	40	10.50	55	275	2,473	--
1940-1949	--	---	--	--	--	--
	19,060	7,802.69	57,532	118,161	53,646	9,918

NOTE: Figures for 1905 through 1908 cover production of Old Stagg, Bride, Ontario, and Oneida mines, all reported together.

Figures for 1910 and subsequent years cover production of Oneida-Stagg, Maximum and Rustler mines.

L. HANCHETT
P.O. Box 720
Salt Lake City

September 11, 1942.

Mr. A. D. Johnston,
Manager Lamartine Mines, Inc.
Idaho Springs, Colorado

Dear Sir:

In response to yours of Sept. 5th asking for data pertaining to the IMPERIAL-SILVER QUEEN portion of the LAMARTINE MINE, I have gone over the records of the mine's production, and find the following:--

Between Oct. 1897 and Oct. 1902 the records show 460 sales of separate ore shipments, identified as "Imperial" with a total production, viz:-

Tons Dry Wt.	Gold Ounces.	Silver Ounces	Lead Pounds	Zinc Pounds
9,149.1	7,276.28	722,081.88	557,889	2,308,703

The "Imperial" ore had a high zinc content, upon which the smelters imposed a penalty charge of 50 cents per unit on all zinc in excess of 10 per cent; the result being that the zinc produced returned nothing to the miner, and in this instance, cost a penalty charge over $14,000.

In October, 1902, a body of ore was developed in "Lamartine" claim, having a very low zinc content, and consequently thereafter the "Imperial" ore was mixed with the "Lamartine" ore, in order to avoid penalties by reducing the zinc content below 10 per cent, and the product was thereafter identified upon the records as "Lamartine" ore.

Of this mixed product, between Oct. 1902 and April, 1908, the records show 635 sales of separate ore shipments identified as "Lamartine" ore, with total production, viz:-

Tons Dry Wt.	Gold Ounces.	Silver Ounces	Lead Pounds
7,057.2	4,715.57	255,127.	181,323.

No record of zinc production, as the "mix" kept under the 10 per cent limit.

As more than half of this tonnage was supplied from the "Imperial-Silver Queen" territory, (which fact is personally known to me) it is a conservative estimate to include 50 per cent of the [illegible] his item as "Imperial" ore.

Such a division supplies the following for credit to the [illegible] production.

2. A.D.J.

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds
3,528.9	2,357.78	127,563.	90,660.

The total production from "Imperial-Silver-Queen" boundaries determined by adding to the identified items, the 50% estimate (as above) is:--

Tons Dry Wt.	Gold Ounces	Silver Ounces	Lead Pounds	Zinc Pounds
12,956.1	9,634.06	849,644.88	648,549	2,308,703 ?

As examples of the high zinc content of Imperial ores, I submit the following lots, taken at random from the Ore Record.

SMELTER SETTLEMENT ASSAYS.

Lot #	Weight	Gold	Silver	Lead %	Zinc %
4697	13,646	3.31	454.9	18.	10.
4770	15,000	2.17	300.82	11.56	17.2
487	23,152	2.45	187.8	7.	16.6
859	30,403	3.88	250.77	12.35	17.2
1348	21,871	3.47	251.2	7.50	17.
7274	31,322	1.79	115.	5.6	20.5
1574	21,491	2.29	122.3	11.25	20.4
7452	22,507	2.04	119.7	8.	22.
38	19,866	.92	101.	6.	24.
70	24,271	3.48	186.02	12.1	20.24
5371	9,064	5.53	249.3	13.4	20.5
5023	14,655	8.01	285.	14.3	19.7
5340	27,810	8.95	178.5	8.7	18.
5293	4,248	.40	70.6	7.5	24.
5360	19,160	.47	50.3	4.5	25.
5370	2,160	.95	249.	9.9	24.
5224	8,594	.55	38.	9.8	29.
5254	30,046	4.07	154.5	9.4	26.3
5024	31,220	4.48	9.1	4.4	16.5

CONCLUSION.

My active connection with the "LAMARTINE MINE" terminated in 1905; the operations thereafter were conducted by lessees.

I am without knowledge as to the extent of their activities, but it may be assumed that they mined all saleable smelting ore in sight. The mining practice then followed in this mine was to send all of the product to the smelters, and give scant attention to what is now classed as a milling ore. There is a large block of ground above Second Level, undeveloped, which justifies considerable exploration. There is exposed in a crosscut at the Second Level in Money Musk shaft, a parallel vein of equal strength to the "Crown-Imperial" vein upon which the present workings exist. This vein should be developed from a series of cross-cuts made from the 4th, 5th, and 6th levels, and located at points opposite the mined out stopes.

I would confidently expect such exploration to disclose ore of the same class and grade heretofore produced from the "Imperial-Silver-Queen" vein. No great expense would be incurred in this exploration work.

I have no hesitation in recommending further exploration of the"Imperial-Silver-Queen" ground.

Yours truly,

/s/ Lafayette Hanchett

DMD-270

SYNOPSIS OF TITLE HELD

BY

MONTANA MINING DEVELOPMENT COMPANY

TO

MINING CLAIMS AND PROPERTY

1. Exhibit No. 1:

Oneida Stag Property. Agreement dated December 9, 1950, between heirs of Charles W. Dyke, who died in 1936; namely, Minnie Richards and J. L. Dyke, each being the owner of an undivided one-third interest, and Helen Varner, Lorraine Smith, Ivan Ferrell, and Marcella Foote, each the owner of an undivided one-twelfth interest to Montana Mining Development Company.

Property:

Black Earth Mineral Survey #417, Maximum Mineral Survey #2262-A, Maximum Milling Site, Mineral Survey #2262-B, Rustler Mineral Survey #2132-A, Rustler Mill Site Mineral Survey #2132-B, Oneida Mineral Survey #1558, Richmond Mill Site #17230, Old Stag Mineral Survey #6117, Ontario Mineral Survey #6117, Wilson Mineral Survey #19944, Old Stag Tunnel and Tunnel Site.

Price:

$25,000.00

Payments Made:

$2,991.73; balance payable $200.00 per month, plus 10% royalty until January 1, 1952, when balance, less payments and royalty payments, is due.

This property has been owned by the heirs of Charles W. Dyke since 1936. Abstract to be furnished upon payment of balance of purchase price.

2. Exhibit No. 2:

Agreement for purchase of mill and 13/14 interest in Falcon lode mining claim, U. S. Survey #1198, dated October 28, 1949, between W. E. Hugins, Rufus J. Ireland, Jr., Katharine T. Johnston, the stockholders and successors

in interest of Lamartine Mines, Inc., upon dissolution, to Maynard Sinton, and assigned by Exhibit No. 2-a by Maynard Sinton to Montana Mining Development Company, which assignment is dated December 1, 1949, and the following unpatented mining claims, used for tailings pond, certificates recorded in Clear Creek County, Colorado, as follows:

Rose Mill-Site Location, Certificate duly recorded in Book 227, Page 379;

Joan Mill-Site Location, Certificate duly recorded in Book 227, Page 378;

Grace Mill-Site Location, Certificate duly recorded in Book 227, Page 377;

Mary Mill-Site Location, Certificate duly recorded in Book 227, Page 378;

Dora Mill-Site Location, Certificate duly recorded in Book 227, Page 377;

Betty Mill-Site Location, Certificate duly recorded in Book 227, Page 376.

Purchase Price of Mill:

$22,000.00

Amount Paid:

$6,500.00; balance, $15,500.00, due January 15, 1951. (If loan not granted by that date, this amount will be refinanced).

Property described as follows:

All its mining machinery and equipment, generally consisting of Transformers, Transformer Station, Electric Power wires, poles, cross-arms and insulators, railroad rails and railroad ties, Ore Cars and extra Ore Car Wheels, Mucking Plates, Skips, Air Hoists, Power Hoists, Swinging Circular Saws, Water and Air Pumps and blowers, Drill Presses, Rock Drills, jack-hammers and drifters, Shells, columns, Saddles, Water Tanks, Air-Line Oilers, Blacksmithing Equipment and tools, Electric Cap-Lamps and Motor-Generator for same, Electric fans, Automatic Coal Stokers, Steam Boilers, Steam Radiators, Wall Heaters, Air, Water and Oil Hoses, Jack-bars, Picks, Single Jacks, Double Jacks, Crow-bars, Safety Baskets, Drill Steel, Rubber-covered Electric Cable, Boarding House Equipment, Office

Equipment, Pipe, Valves, Pipe Fittings and any and all other machinery and equipment now belonging to it and now located and being on or near the John L. Lode Mining Claim, U. S. Survey No. 9267 and/or the B. Fitz and Jim J. Mining Claims, U. S. Survey No. 19288, in Trail Creek Mining District, Clear Creek County, Colorado, together with all its ore milling machinery and equipment, generally consisting of all buildings, Ore Crushers, Conveyor belts and frames, Ore Feeders, Ball Mill, Jigs, Classifyer, Flotation Cells, Concentrate Filter, Wifley Table, Arastres, Gold Pans, Monkey-stove Water Heater and Tank, and any and all other necessary appliances and appurtenances now located and being on the B. Fitz and Jim J. Mining Claims, U. S. Survey No. 19288, in Trail Creek Mining District, Clear Creek County and State of Colorado.

Price for 13/14 interest Falcon Mining Claim, $60,000.00, at any time during term of lease, which requires mining with reasonable diligence and payment of 10% royalty, which applies on purchase price.

3. Exhibit No. 3:

Lease and option of Ben Harrison-Croesus mining claims, agreement dated August 23, 1950, from owners, Katherine A. Clark, Charles D. Armstrong, and Grace M. Robinson, to Montana Mining Development Company of Ben Harrison-Croesus mining claims, U. S. Mineral Survey #6381, requires mining to commence on claim within six months from August 23, 1950, and to continue with reasonable diligence. Ten percent royalty to be paid. In absence of mining, lease may be held by paying $2,400.00 per year rental.

Payments:

Ten percent royalty to be paid to apply on purchase price under option to purchase for $50,000.00.

These owners have held this claim for many years and are obligated to furnish good title and abstract upon full payment of purchase price under option.

4. Exhibit No. 4:

Himrod Mines. Agreement dated October 27, 1949, Himrod Mines Company, a Colorado corporation, to Maynard Sinton, leasing the following described property:

The Chloride Hill Lode Mining Claim and the John L. Mining Claim, U. S. Survey Lot No. 9267; the Franklin Lode Mining Claim, U. S. Survey Lot No. 9267; the Himrod Lode Mining Claim, U. S. Survey Lot No. 9263; an undivided One-fourteenth (1/14) interest in and to the Falcon Lode Mining Claim, U. S. Survey Lot No. 1198; the Falcon Extension Lode Mining Claim, U. S. Survey Lot No. 8104; the Lafayette Lode Mining Claim, U. S. Survey Lot No. 9263; the Lamartine Lode Mining Claim, U. S. Survey Lot No. 629; the Crown Lode Mining Claim, U. S. Survey Lot No. 5681; the Amuletta Lode Mining Claim, U. S. Survey Lot No. 6387; the Imperial Lode Mining Claim, U. S. Survey Lot No. 6141; the Silver Queen Lode Mining Claim, U. S. Survey Lot No. 6762; the Silas Hanchett Lode Mining Claim, U. S. Survey Lot No. 9953; the B. Fitz and Jim J. Lode Mining Claims, U. S. Survey Lot No. 19288; and the Fairview, Crest, Letout, Highland Lassie, Rose of Sharon, Spruce and Sunflower Lode Mining Claims, U. S. Survey Lot No. 6584; and an undivided Eleven-sixteenths (11/16) interest of Money Musk Lode Mining Claim, U. S. Survey Lot No. 6504;

Together with all tunnels, shafts, drifts, rights of way, dumps, improvements and appurtenances of every name and nature whatsoever, together with the right of said Lessee to work and operate through what is commonly known as the Lamartine Tunnel in said demised premises, any and all other properties acquired by said Lessee, his heirs and assigns, by purchase, lease, option, or otherwise, and to transport ore, waste, timbers, supplies and other materials through said Lamartine Tunnel and through any drift or lateral driven therefrom.

It is the express intention of the Lessor herein to grant, demise and let unto the said Lessee all mines and mining properties owned by the said Lessor that are situate in Clear Creek County, Colorado.

This agreement was assigned by Maynard Sinton to Montana Mining Development Company, Exhibit No. 4-a, dated December 5, 1949. Agreement gives lease on ten percent (10%) royalty basis with option to purchase for $15,000.00. $2,500.00 was heretofore paid; $7,500.00 will be due January 5, 1951, but owners have agreed to accept payment of $1,000.00 January 5, 1951, and $6,000.00 July 1, 1951, and balance of purchase price in the sum of $5,000.00

January 5, 1952. Abstract available showing title on this property to have been owned by the Himrod Family and Himrod Corporation for more than 50 years.

Verification of Title:

Obtaining and examining abstracts of title covering all of these properties will take considerable time. If loan is obtained for purchase of Himrod claims and Oneida Stag claims, which seems advisable, sellers are obligated to furnish good title and abstracts before receiving full payment.

For the purpose of this loan, a study by the attorney of the lessors and sellers, as disclosed by the agreements attached hereto, and a search of the record owners of Clear Creek County will disclose that all of these properties have been owned by the present owners for many years. An inquiry will disclose that there are no pending disputes concerning the title to any of this property.

Montana Mining Development Company has, as its attorney, H. A. Bolinger, who has secured the attached leases and secured the available information concerning the titles from records and from the claims of the owners, and it is his opinion that Montana Mining Development Company will receive free, clear and unencumbered titles to all of these properties upon compliance of the attached agreements and that there are no other parties except the owners as shown by said agreements who have any claim or interest in said properties.

Recording and Escrows:

Exhibit No. 1 will be recorded within the next two weeks. Exhibit No. 2 is not recorded but will be acknowledged so it can be recorded upon full payment of the purchase price of the mill. Exhibit No. 2-a, assignment of Exhibit No. 2, is recorded. Exhibit No. 3 is recorded. Exhibit No. 4 is not recorded, but the deed to be delivered pursuant to the agreement is placed in escrow in First State Bank, Idaho Springs, Colorado. Exhibit No. 4-a is in escrow with Exhibit No. 4.

LEASE AND OPTION

THIS AGREEMENT made and entered into this 27th day of October, A. D. 1949, by and between the HIMROD MINES COMPANY of Colorado, a corporation, hereinafter called Lessor, and MAYNARD SINTON of the County of Clear Creek and State of Colorado, hereinafter called the Lessee, WITNESSETH:

That the said Lessor, for and in consideration of the royalty, covenants and agreements hereinafter reserved and by the Lessee to be kept and performed, doth grant, demise and let unto the said Lessee all of the following described mines and mining properties situate, lying and being in the Trail Creek Mining District, County of Clear Creek and State of Colorado, to-wit:

> The Chloride Hill Lode Mining Claim and the John L. Mining Claim, U. S. Survey Lot No. 9267; the Franklin Lode Mining Claim, U. S. Survey Lot No. 9267; the Himrod Lode Mining Claim, U. S. Survey Lot No. 9263; an undivided One-fourteenth (1/14th) interest in and to the Falcon Lode Mining Claim, U. S. Survey Lot No. 1198; the Falcon Extension Lode Mining Claim, U. S. Survey Lot No. 8104; the Lafayette Lode Mining Claim, U. S. Survey Lot No. 9263; the Lamartine Lode Mining Claim, U. S. Survey Lot No. 629; the Crown Lode Mining Claim, U. S. Survey Lot No. 5681; the Amuletta Lode Mining Claim, U. S. Survey Lot No. 6387; the Imperial Lode Mining Claim, U. S. Survey Lot No. 6141; the Silver Queen Lode Mining Claim, U. S. Survey Lot No. 6762; the Silas Hanchett Lode Mining Claim, U. S. Survey Lot No. 9953; the B. Fitz and Jim J. Lode Mining Claims, U. S. Survey Lot No. 19288; and the Fairview, Crest, Lenout, Highland Lassie, Rose of Sharon, Spruce and Sunflower Lode Mining Claims, U. S. Survey Lot No. 6584; Und. 11/16th of Money Musk Lode Mining Claim, U. S. Survey Lot No. 6504;
> TOGETHER with all tunnels, shafts, drifts, rights of way, dumps, improvements and appurtenances of every name and nature whatsoever, together with the right of said Lessee to work and operate through what is commonly known as the Lamartine Tunnel in said demised premises, any and all other properties acquired by said Lessee, his heirs and assigns, by purchase, lease, option, or otherwise, and to transport ore, waste, timbers, supplies and other materials through said Lamartine Tunnel and through any drift or lateral driven therefrom.

> It is the express intention of the Lessor herein to grant, demise and let unto the said Lessee all mines and mining properties owned by the said Lessor that are situate in Clear Creek County, Colorado.

TO HAVE AND TO HOLD the above described premises for the purpose of mining unto the said Lessee for, during and until

noon of the 6th day of January, A. D. 1952, unless sooner forfeited or determined through the violation of any covenant hereinafter against the said Lessee reserved, or by reason of the failure of the said Lessee to make any of the payments on the purchase price of said demised premises on or before the date on which by the terms of the option to purchase, included herein, the same are to be paid.

And in connection with said demise the said Lessee covenants and agrees with the said Lessor as follows, to-wit:

1. To well and sufficiently timber said mines in accordance with good mining practice and repair all old timbering whenever it may become necessary in the portion or portions of the said demised premises in which the lessee may from time to time be operating.

2. To permit said Lessor, his agent or attorney, from time to time and at all reasonable times to enter upon and into all parts of said mines and mining premises for the purpose of examination and inspection.

3. Lessee shall have the right to assign this lease if he desires to do so; provided, however, in the event this lease is to be assigned to a corporation Lessee shall furnish Lessor the necessary papers showing that said corporation is authorized to do business in the State of Colorado, and said Lessee shall not allow any person not in privity with the parties hereto to take or hold possession of said premises, or any part thereof, under any pretense whatever.

4. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by said Lessee, or any person under him in any manner, by working within or upon the demised premises as the property of said Lessor, with privilege to said Lessee to work the same as part

and parcel of said demised premises.

5. To keep at all times the tunnels and other workings, through which said Lessee shall operate, thoroughly drained and clear of loose rock and rubbish unless prevented by extraordinary mining casualty.

6. To post and at all times during the life of this agreement to keep posted in conspicuous places upon the demised premises notices stating in substance that said demised premises are being operated under lease and that neither the owner thereof nor any of said property shall or will be liable for any indebtedness incurred in the operation of said premises.

7. To comply with all the provisions of the Laws of the State of Colorado pertaining to Workmens Compensation and unemployment insurance and to protect and save harmless said Lessor for or on account of the premiums thereon and all accidents and damages covered by or related thereto and to comply with the Hours and Wages Laws and the provisions of the Social Security Act and from time to time upon request to furnish Lessor evidence that the above regulations are being complied with.

8. To pay to said Lessor as royalty ten percent (10%) on all ores mined, said royalty payments to be based upon the net mill or smelter returns on all ores extracted from the property hereby demised, to deliver said ores with all convenient speed in lots as mined to some mill or regular ore buyer and leave with said mill or ore buyer a percentage of mill or smelter returns as aforesaid for delivery to the Lessor. By net mill and smelter returns is meant the gross returns less the cost of hauling, transportation and treatment charges.

9. After each shipment to render a statement to said Lessor, accompanied by voucher showing the amount of ore taken

from the property hereby demised and the yield thereof and also the cost of hauling, milling and transporting the same.

The royalty paid on all ore extracted from the said demised premises shall be credited to and applied upon the purchase price of said demised premises as set forth in the option to purchase included herein.

10. To deliver to said Lessor quiet and peaceable possession of said demised premises in good order and condition with all drifts, tunnels and other passages used by Lessee in his operation thoroughly drained and cleared of loose rock and rubbish ready for immediate continued working (accident not arising from negligence alone excusing), without demand or further notice on said 6th day of January, 1952, at noon, or at any time previous upon the surrender of this agreement on proper demand after forfeiture. The Lessor expressly agrees, however, that the Lessee shall have thirty days notice in writing addressed to him at Idaho Springs, Colorado, of any violation of the covenants of this agreement and an opportunity to remedy or correct the same within that time; provided, however, that any violation of the provisions contained in paragraphs 6, 7 and 8, or any violation of the payments provided for in the option hereinafter set forth, will work an immediate forfeiture of this lease upon written notice addressed to said Lessee as aforesaid.

11. And finally that upon violation of any covenant or covenants hereinabove reserved, or on failure of said Lessee to make any payments on the purchase price of said demised premises on or before the date on which by the terms of the option to purchase, included herein, are to be paid, the term of this lease shall at the option of said Lessor expire after notice to the said Lessee, as provided in the preceding paragraph and this lease and the said demised premises, with the appurtenances, shall become forfeit to the said Lessor, and the said Lessor,

his agent or attorney, may thereupon enter upon said premises and dispossess all persons occupying the same with or without force and with or without process of law, or at the option of said Lessor the said Lessee and all persons found in occupation thereof may be proceeded against as guilty of unlawful detainer and it is mutually understood and agreed that all machinery placed on the premises by said Lessee shall be and remain the property of the Lessee, provided, however, that all rail, track, ties, pipe, buildings, and any other improvement of a permanent nature placed upon the property by the said Lessee shall become and remain the property of the Lessor. All tools and machinery which have been placed upon said premises by the said Lessee may be removed therefrom within thirty (30) days after the termination of said lease, provided, however, that no property of the said Lessee may be removed while the Lessee is in any manner indebted or obligated to the Lessor under the terms of this lease; provided; however, that this provision shall not apply for any non-payment of the purchase price provided for in the option.

12. Lessee expressly agrees and assumes to pay all taxes levied upon the above described property as ad valorem or production tax, whichever the case may be, in accordance with the laws of the State of Colorado from and after January 1, 1950.

13. It is mutually agreed by and between Lessor and Lessee that all timber on the above described premises may be removed therefrom by Lessee for the purpose of conducting mining operations in and upon the demised premises only and such timber shall not be removed for any other purpose whatsoever.

THE OPTION

In consideration of the acceptance of the foregoing lease and the expenditures to be made thereunder and the well and faithful keeping of the covenants thereof, said Lessee shall have the right to purchase said demised premises for the sum of

Fifteen Thousand ($15,000.00) Dollars, payable in the manner following, to-wit:

The sum of Five Hundred ($500.00) Dollars, payable upon the signing of this agreement, the receipt whereof is hereby confessed and acknowledged by Lessor;

The sum of Fifteen Hundred ($1500.00) Dollars on or before the 15th day of December, 1949, provided, however, that this payment shall not be due until an abstract of title to the above described property, certified to date, showing merchantable title as hereinafter limited, has been furnished to Lessee at least fifteen (15) days prior to said date;

The sum of Five Hundred ($500.00) Dollars on or before January 5, 1950;

The sum of Seven Thousand, Five Hundred ($7,500.00) Dollars on or before January 5, 1951;

The sum of Five Thousand ($5,000.00) Dollars on or before January 5, 1952, with the right to pay the entire balance or any portion thereof due on said property at any time prior to said date.

IT IS EXPRESSLY UNDERSTOOD AND AGREED that the royalty provided in the foregoing lease and option and paid to the Lessor shall apply on the payment due on said property next ensuing after the payment of said royalty.

IT IS FURTHER MUTUALLY UNDERSTOOD AND AGREED that Lessor will, at the time of the payment of the sum of One Thousand Five Hundred ($1,500.00) Dollars as aforesaid, execute, to Lessee and his assigns, a good and sufficient quit claim mining deed, with all taxes paid in full, including taxes for the year 1949, subject, however, to the lease from said Lessor to Lamartine Mines, Inc., a Colorado Corporation, dated June 23, 1944, or any exceptions thereof; any and all agreements heretofore made concerning the use of the tunnel on said premises; any rights of way for roads, ditches, flumes or pipe lines; and any agreements made by Lessor or its predecessors in title concerning rights to the use or occupation of said property; to the property described in this lease and option and place said Deed in Escrow in the First State Bank, Idaho Springs, Colorado, with instructions to deliver said Deed to

Lessee, or his assigns, upon written notification by Lessor or its assigns that the purchase price of said property has been paid in full, with the further provision that in the event this lease and option shall be cancelled for non-payment or otherwise said escrow agreement shall be null and void and of no further force and effect.

IT IS FURTHER UNDERSTOOD AND AGREED that if said Lessee shall fail, neglect or refuse to make any of the payments hereinabove provided for on or before the dates specified for the payment thereof the above and foregoing lease shall immediately cease and determine and the possession of the said demised premises shall be delivered and turned over to the said Lessor, its agent or attorney, unaffected or unencumbered either by the foregoing lease or by this option, and the forfeiture, surrender or determination of the above and foregoing lease for any cause shall render this option void, and any payment or payments then remaining due on the purchase price of said demised premises may not thereafter be tendered and any and all payments made on account of said purchase price, either by way of royalty or by payments under the option, shall be retained by the Lessor as liquidated damages.

Upon the completion of the purchase of said above described property pursuant to the terms of this option, all royalty provided for in the foregoing lease shall thereupon immediately cease and determine.

Each and every clause and covenant of this agreement shall extend to and be binding upon the heirs, executors, administrators and assigns of the parties hereto.

IT IS FURTHER UNDERSTOOD AND AGREED that the Lessor will, and does, hereby assign to Lessee, without any warranty whatsoever, that certain unsettled claim, if any, which Lessor may have against

the owners and lessees of the Ben Harrison and Creosus Lode Mining claims, U. S. Survey No. 6381, for labor and material required in the cleaning, opening, timbering and track-laying in and about the Lamartine Tunnel, agreeable to that certain contract dated August 21, 1894, recorded September 11, 1894, in Book 114 at page 312 of the records of Clear Creek County, Colorado, with full authority to sue, settle, compromise or adjust said claim as may seem just and prudent and at such times and places as Lessee may determine, provided, however, that in the event any damages as aforesaid are so recovered the amount thereof shall be paid to Lessor to apply on the purchase price of said demised premises.

IN WITNESS WHEREOF, the Lessor has caused its corporate name to be hereunto affixed by the hand of its President, attested by its Secretary under the seal thereof, and the Lessee has hereunto set his hand and seal the day and year first above written.

THE HIMROD MINES COMPANY,

By /s/ Vincent J. Himrod (SEAL)
Its President.

ATTEST:

/s/ Clement R. Harkethal
Secretary

Lessor.

/s/ Maynard Sinton (SEAL)
Lessee.

ASSIGNMENT OF LEASE AND OPTION

KNOW ALL MEN BY THESE PRESENTS that I, MAYNARD SINTON, of Bozeman, Montana, the party of the first part for and in consideration of the sum of One Dollar ($1.00) and other valuable consideration in hand paid to me by MONTANA MINING DEVELOPMENT CO., a corporation, organized and existing under and by virtue of the laws of the State of Montana, the party of the second part, the receipt whereof is hereby acknowledged do by these presents sell, transfer, assign, and set over unto the party of the second part that certain lease and option to buy the following described mines and mining properties situate, lying and being in the Trail Creek Mining District, County of Clear Creek and State of Colorado, to-wit:

> The Chloride Hill Lode Mining Claim, U.S. Survey Lot No. 9267; the Franklin Lode Mining Claim, U.S. Survey Lot No. 9267; the Nimrod Lode Mining Claim, U.S. Survey Lot No. 9263; an undivided one-fourteenth (1/14) interest in and to the Falcon Lode Mining Claim, U.S. Survey Lot No. 1198; the Falcon Extension Lode Mining Claim, U.S. Survey Lot No. 8104; the Lafayette Lode Mining Claim, U.S. Survey Lot No. 9263; the Lamartine Lode Mining Claim, U.S. Survey Lot No. 629; the Crown Lode Mining Claim, U.S. Survey Lot No. 5681; the Amuletta Lode Mining Claim, U.S. Survey Lot No. 6387; the Imperial Lode Mining Claim, U.S. Survey Lot No. 6141; the Silver Queen Lode Mining Claim, U.S. Survey Lot No. 6762; the Silas Hanchett Lode Mining Claim, U.S. Survey Lot No. 9953; the B. Fitz and Jim J. Lode Mining Claims, U.S. Survey Lot No. 19288; and the Fairview, Crest, Letout, Highland Lassie, Rose of Sharon, Spruce and Sunflower Lode Mining Claims, U.S. Survey Lot No. 6584; the Monarch Lode Mining Claim, U.S. Survey Lot No. 9267; the John L. Lode Mining Claim, U.S. Survey Lot No. 9267; and the Money Musk Lode Mining Claim, U.S. Survey Lot No. 6504.
>
> TOGETHER with all tunnels, shafts, drifts, rights of way, dumps, improvements and appurtenances of every name and nature whatsoever, together with the right of said

> Lessee to work and operate through what is commonly known as the Lamartine Tunnel in said demised premises, any and all other properties acquired by said Lessee, his heirs and assigns, by purchase, lease, option, or otherwise, and to transport ore, waste, timbers, supplies, and other materials through said Lamartine Tunnel and through any drift or lateral driven therefrom.

which said contract was made and executed by HIMROD MINES COMPANY to me, which contract bears date the 27th day of October, 1949, to have and to hold the same unto said party of the second part, its successors and assigns, subject nevertheless, to the covenants, conditions, and payments therein mentioned and I hereby fully authorize and empower the said party of the second part upon its performance of said covenants and conditions to demand and receive of the said HIMROD MINES COMPANY the Deed covenanted to be given to me in said contract in the same manner and to all intents and purposes as I, myself, might or could do were these presents not executed.

Maynard Linton

Maynard Linton

ACKNOWLEDGMENT

THE STATE OF MONTANA)
: ss.
The County of Gallatin)

On this fifth day of December, A. D., 1949, before me, H.A. BOLINGER, JR, a notary public in and for said State, personally appeared MAYNARD LINTON of Bozeman, Montana, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF I hereunto set my hand and affix My Notarial Seal at my office in Bozeman, Montana, the day and year first above written.

(Notarial Seal)

H.A. Bolinger, Jr.
Notary Public for State of Montana
Residing at Bozeman, Montana
My Commission Expires Jan.14, 1950

AROLENE B. FOWLER AGREEMENT

The Montana Mining Development Company entered into a Financial Contract with Arolene B. Fowler, of Denver, Colorado, on October 11, 1950. The purpose of this contract was to obtain finances for mining and zinc floats.

It is the desire of the Montana Mining Development Company to terminate this contract as it will be a saving to the company of $4,500 under the contract penalty clause. Also, the terms of this contract would greatly interfer with the Schedule of Repayment of this loan. (See Contract)

A G R E E M E N T

THIS AGREEMENT, Made and entered into this 11th day of October, A.D., 1950, by and between MONTANA MINING DEVELOPMENT CO., a corporation, with its principal place of business at Bozeman, Montana, the party of the first part, and AROLENE B. FOWLER of Englewood, Colorado, the party of the second part,

W I T N E S S E T H :

That the party of the first part is engaged in carrying on mining and milling operations in Clear Creek County near Idaho Springs, Colorado, and in connection with the operation of a flotation mill does not have the necessary equipment to recover the zinc from the ore being processed through said mill, and that the party of the first part desires to obtain a loan from second party for the purpose of installing necessary equipment for recovering zinc from the ore processed through the mill at an estimated cost of approximately Eight Thousand Dollars ($8,000), and in addition thereto desires to borrow money from second party for the purpose of carrying on mining operations on properties owned and leased by first party at a cost of approximately Ten Thousand Dollars ($10,000); and

That in consideration of second party loaning said moneys to first party, first party is willing to pay to second party a bonus of Forty-five Hundred Dollars ($4,500) in the event that said sum of Eighteen Thousand Dollars ($18,000) together with said bonus of Forty-five Hundred Dollars ($4,500) is repaid to second party within six (6) months from the date hereof, and that first party is willing to pay to second party a bonus of Nine Thousand Dollars ($9,000) in addition to repaying said sum of Eighteen Thousand Dollars ($18,000) in the event that said Eighteen Thousand Dollars ($18,000) together with said

bonus of Forty-five Hundred Dollars ($4,500) is not paid to second party within six (6) months from date hereof, and that it is agreed that all payments to be made to second party shall be made from the net receipts received from the sale of zinc concentrates recovered from mining and milling operations.

NOW, THEREFORE, IT IS MUTUALLY AGREED between the parties here to as follows:

(1) That the party of the second part, in connection with the execution of this agreement, has loaned to first party the sum of Eighteen Thousand Dollars ($18,000), the receipt whereof is hereby acknowledged by first party.

(2) That in consideration of second party loaning to first party said moneys, first party agrees that in the event said sum of Eighteen Thousand Dollars ($18,000) is repaid to second party within a period of six (6) months from the date hereof, then in that event first party shall pay to second party an additional sum of Forty-five Hundred Dollars ($4,500), or a total sum of Twenty-two Thousand Five Hundred Dollars ($22,500) on or before six (6) months from the date hereof, and that in the event said sum of Twenty-two Thousand Five Hundred Dollars ($22,500) is not paid to second party on or before six (6) months from the date hereof, then in that event first party agrees to pay to second party said sum of Eighteen Thousand Dollars ($18,000) together with an additional sum of Nine Thousand Dollars ($9,000), or a total payment of Twenty-seven Thousand Dollars ($27,000);

(3) IT IS UNDERSTOOD AND AGREED that said moneys owing to second party by first party shall be paid by first party paying all net returns from the sale of zinc produced

by first party after paying trucking, smelting, charges in connection with processing or transporti zinc after the zinc concentrates are removed from the operated by first party. IT IS FURTHER AGREED that in the event the returns from said zinc concentrates shall not be sufficient to make the payments to second party as herein provided on or before five (5) years from date, that then in that event first party shall pay to second party all of the unpaid balance owing to second party as herein provided within five (5) years from the date hereof.

IT IS ALSO AGREED that in the event first party shall secure a large loan or government loan sufficient to pay up or discharge most of the obligations now owing by first party, that then in that event first party shall have a right to pay said sum of Twenty-two Thousand Five Hundred Dollars ($22,500) to second party from the proceeds of such loan.

IN WITNESS WHEREOF, the party of the first part has caused these presents to be executed by its duly authorized officers and its corporate seal to be affixed hereto, and the party of the second part has signed her name, executing this agreement in duplicate, the day and year first above written.

MONTANA MINING DEVELOPMENT CO.

By /s/ Maynard Sinton
President

(Party of the First Part)

ATTEST:

/s/ H. O. Bolinger, Jr.
Secretary

/s/ Arolene B. Fowler
(Party of the Second Part)

AGREEMENT OF SALE

THIS AGREEMENT, Made and entered into this 9th day of December, A. D. 1950, by and between MINNIE RICHARDS, HELEN VARNER, LORRAINE SMITH, and IVAN FERRELL, all of Denver, Colorado, MARCELLA FOOTE of Chelan, Washington, and J. L. DYKE of Turlock, California, the parties of the first part, and the MONTANA MINING DEVELOPMENT CO., a corporation organized and existing under and by virtue of the laws of the State of Colorado, the party of the second part,

W I T N E S S E T H :

That the parties of the first part entered into a lease and option agreement, dated the 10th day of November, 1949, with Maynard Sinton of Manhattan, Montana, which lease and option was recorded in Book 235 at Page 510 of the records in the office of the County Clerk and Recorder of Clear Creek County, Colorado, on the 12th day of December, 1949;

That said Maynard Sinton assigned his interest in said lease and option to said Montana Mining Development Co. by assignment dated the 5th day of December, 1949, and recorded on the 30th day of December, 1949, in Book 235 at Page 513 of the records in the office of the County Clerk and Recorder of Clear Creek County, Colorado;

That as part of the consideration for the executing of this agreement, it is agreed that said previous agreement dated November 10th, 1949, is fully terminated, cancelled and ended, and that each of the parties hereto fully and completely releases the other party to this agreement of and from any and all rights and liabilities under said agreement as executed to Maynard Sinton and assigned to the party of the second part.

That said parties of the first part, in consideration of the covenants and agreements on the part of the party of the second part hereinafter contained, agree to sell and convey unto said party of the second part, and said party of the second part agrees to buy the following described mining and mill site claims, situate in Clear Creek County, State of Colorado, to-wit:

> Black Earth Mineral Survey #417, Maximum Mineral Survey #2262-A, Maximum Milling Site, Mineral Survey #2262-B, Rustler Mineral Survey #2132-A, Rustler Mill Site Mineral Survey #2132-B, Oneida Mineral Survey #1558, Richmond Mill Site #17230, Old Stag Mineral Survey #6117, Ontario Mineral Survey #6117, Wilson Mineral Survey #19944, Old Stag Tunnel and Tunnel Site.
>
> Together with the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and subject to any existing easements or rights-of-way over and across the same.

for the sum of Twenty-five Thousand Dollars ($25,000.00), payable as follows: Two Thousand Nine Hundred Ninety-one and Seventy-three One-hundredths Dollars ($2,991.73) heretofore paid by second party to first parties, the receipt of which is hereby acknowledged by first parties, and the balance in the sum of Twenty-two Thousand Eight and Twenty-seven One-hundredths Dollars ($22,008.27) as follows: Two Hundred Dollars ($200.00) on or before the first day of February, 1951, and Two Hundred Dollars ($200.00) on or before the first day of each month thereafter until and including the first day of December, 1951, and all of the unpaid balance on or before the first day of January, 1952, and upon second party receiving from first parties a warranty deed conveying said patented mining claims

and a quitclaim deed conveying Old Stag Tunnel and Tunnel Site to second party, together with an abstract of title showing merchantable title to said patented mining claims to be owned by first parties. It is understood that said abstract of title shall not cover the Old Stag Tunnel or Tunnel Site.

IT IS EXPRESSLY UNDERSTOOD in connection with the payments to be made hereunder that second party shall have a right to carry on mining operations on said mining claims during the term of this agreement, and that second party shall pay to first parties ten percent (10%) of the net smelter returns received from the sale of concentrates from milled ore recovered from said mining claims and the following percentages of the net smelter returns on crude ore sold from said premises, to-wit:

Ten percent (10%) of ore shipments of the average value of Fifteen Dollars ($15.00) per ton. Fifteen percent (15%) of ores having the average value of Fifteen Dollars ($15.00) to Twenty-five Dollars ($25.00) per ton. Twenty percent (20%) of ores having the value of Twenty-five Dollars ($25.00) to Forty Dollars ($40.00) per ton. Twenty-five percent (25%) of ores having a value of Forty Dollars ($40.00) to Fifty Dollars ($50.00) per ton. Thirty-three and one-third percent (33 1/3%) of ores having a value of over Fifty Dollars ($50.00) per ton.

which said payment shall be made directly by the smelter to first parties, and that all payments made by second party for ores recovered from said property shall be credited on as part payment of the final payment due under the terms of this agreement and shall be deducted from the payment to be made

thereafter, that is to say, that all payments received by first parties on ore sold from said premises between the date hereof and January 1, 1952, shall be applied to and deducted from the last payment of said purchase price.

IT IS UNDERSTOOD that the 1949 taxes on the property herein agreed to be sold are now delinquent, and that second party agrees to pay and discharge said taxes within thirty (30) days from the date hereof, and that second party agrees to pay the taxes for the years 1950 and 1951 and subsequent thereto as the same shall become due and payable.

IT IS UNDERSTOOD in connection with the payment of said payments that same shall be made to Minnie Richards as the agent of all of first parties.

IT IS FURTHER UNDERSTOOD in connection with this agreement that all mining operations carried on or conducted by second party shall be done in the usual workmanlike manner in accordance with the usual mining practices, and second party shall not suffer or permit any waste or damage to be done on said mining claims during the term of this agreement, and will not remove from said premises any tracks, pipes or other equipment located on or about said premises during the term of this agreement. Second party also agrees to carry workmen's compensation and to comply with all laws of the State of Colorado in connection with carrying on and conducting mining operations on said premises.

Time is the essence of this agreement and in the event that second party shall fail to make the payments for ore recovered from said premises as herein provided or the other payments herein provided to be made at the time and in

the manner as herein provided, then in that event first parties shall be entitled to immediate possession of all of said property herein agreed to be sold, and shall be entitled to retain all payments made under this agreement as liquidated damages and as the reasonable rental value of said property and as part of the consideration for entering into this agreement, and first parties shall thereafter be released from all obligations to convey said property to second party, and second party shall be released from any further obligation to buy said property or to make the payments as herein provided, other than that second party shall be liable for any payments herein provided to be made from minerals recovered from said premises, if any such payments have not been made to first parties as herein provided, and second party agrees to pay first parties a reasonable attorney's fee in the event that first parties shall be put to any legal expense in connection with recovery of possession of said premises in the event of such default. In the event that second party shall default in paying the balance due hereunder second party shall have thirty (30) days after such default to remove from said premises any improvements, machines or equipment placed thereon by second party.

IT IS EXPRESSLY UNDERSTOOD in connection with this agreement that in the event second party shall be prevented from carrying on mining operations on said property herein agreed to be sold, for a period of longer than sixty (60) days by reason of war or government regulations, that the time for making the payments as herein provided shall be extended for a period of six (6) months after the termination of the cause

which prevented second party from carrying on operations. Also, that in the event that second party is prevented from carrying on operations by reason of strikes or unusual circumstances beyond the control of second party for a period of sixty (60) days duration that then in that event the time of making the payments as herein provided shall be extended for a period of sixty (60) days after the termination of such circumstances.

Second party agrees to post and at all times during the life of this agreement to keep posted in conspicuous places upon said premises notices stating in substance that said premises are being operated under agreement and that neither the owner thereof nor any of said property shall or will be liable for any indebtedness incurred in the operation of said premises.

IT IS UNDERSTOOD that second party is attempting to secure an R. F. C. or other government loan for the purpose of extending the Oneida Stag Tunnel as it exists through the property herein agreed to be sold, for the purpose of mining lead and zinc ore on the properties adjoining the property herein agreed to be sold, and that second party will attempt in connection with obtaining said loan to borrow moneys for the purpose of paying first parties the balance of the purchase price herein agreed to be paid, and that in the event second party is able to and can borrow moneys from the United States Government for this purpose, that second party shall immediately pay to first parties the balance of the purchase price herein agreed to be paid upon first parties furnishing the deeds and abstracts as herein provided.

This agreement shall apply to and bind the heirs, executors, administrators and assigns of the parties of the first part, and the successors and assigns of the party of the second part.

IN WITNESS WHEREOF, the parties of the first part have hereunto signed their names, and the party of the second part has caused its corporate name to be subscribed and its corporate seal to be affixed by its duly authorized officers, the day and year in this instrument first above written.

/s/ Minnie Richards

/s/ Ivan Ferrell

/s/ Helen Varner

/s/ Lorraine Smith

/s/ J. L. Dyke
Parties of the First Part.

MONTANA MINING DEVELOPMENT CO.

Attest:

By /s/ Maynard Sinton
President.

/s/ H. A. Bolinger, Jr.
Secretary.

Party of the Second Part.

STATE OF COLORADO)
: ss.
County of Denver)

On this 11th day of December, A. D., 1950, before me, Kay Carlson, a Notary Public in and for said County, personally appeared MINNIE RICHARDS, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affix my Notarial Seal, at my office in Denver, Colorado, the day and year first above written.

(SEAL) -/s/ Kay Carlson
My commission expires
August 31, 1954

STATE OF COLORADO)
: ss.
City & County of Denver)

I, Ruth S. Waters, a Notary Public in and for the said Denver County, in the State aforesaid, do hereby certify that IVAN FERRELL, HELEN VARNER and LORRAINE SMITH, who are personally known to me to be the persons whose names are subscribed to the annexed instrument of writing, appeared before me this day in person, and acknowledged that they signed, sealed and delivered the said instrument of writing as their free and voluntary act and deed, for the uses and purposes therein set forth.

Given under my hand and notarial seal, this 12th day of December, A. D. 1950.

My commission expires Sept. 23, 1951.

(SEAL) /s/ Ruth S. Waters
Notary Public.

STATE OF WASHINGTON)
: ss.
COUNTY OF CHELAN)

On this _____ day of December, A. D., 1950, before me, _____, a Notary Public in and for said County, personally appeared MARCELLA FOOTE, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that she executed the same.

IN WITNESS WHEREOF, I hereunto set my hand and affix my Notarial Seal, at my office in Chelan, Washington, the day and year first above written.

_____

STATE OF CALIFORNIA)
: ss.
County of Stanislaus)

On this 9th day of December, A. D., 1950, before me, Nellie E. Stahl, a Notary Public in and for said County, personally appeared J. L. DYKE, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I hereunto set my hand and affix my Notarial Seal, at my office in Turlock, California, the day and year first above written.

(SEAL)

/s/ Nellie E. Stahl
Com. Expires 3/10/51

STATE OF MONTANA)
: ss.
County of Gallatin)

On this _____ day of December, A. D., 1950, before me, _____, a Notary Public in and for said State, personally appeared MAYNARD SINTON, known to me to be the President of the MONTANA MINING DEVELOPMENT CO., the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I hereunto set my hand and affix my Notarial Seal, at my office in Bozeman, Montana, the day and year first above written.

_____
Notary Public for the State of Montana
Residing at Bozeman, Montana
My Commission Expires:

THERMOPOLIS PROPERTIES

The Montana Mining Development Co. entered into a machinery and warehouse purchase contract on the 13th day of November 1950 with George C. Sinton who was doing business as the Soil Sulphaid Distributing Co. of Thermopolis, Wyoming. (See Contract).

It is not the intention of the Montana Mining Development Co. to operate the properties at Thermopolis, Wyoming but to sell the warehouses, sacking machine, tow motor, hammer mill, and other machinery to a Thermopolis concern. This sale is being negotiated at present and should be completed by June 1st, 1951. The machinery which is suitable to our operation will be moved to Idaho Springs, Colorado. All monies received from the sale of the Thermopolis equipment will be turned in to liquidate this loan.

It is the desire of the Montana Mining Development Co. to terminate the contract with George C. Sinton as the terms of said contract would interfere with the schedule of repayment of this loan.

AGREEMENT

THIS AGREEMENT, made and entered into this 13th day of November, 1950, by and between GEORGE C. SINTON, of Manhattan, Montana, the party of the first part and MONTANA MINING DEVELOPMENT COMPANY, a corporation, organized and existing under the laws of the State of Montana, with its principal place of business at Bozeman, Montana, the party of the second part,

W I T N E S S E T H:

WHEREAS, the party of the first part is the sole owner of the property of The Soil Sulphate Distributing Company of Thermopolis, Wyoming, an uncorporated company, has sold and agreed to convey to the said party of the second part and the party of the second part has purchased from the party of the first part for the price and under the terms and conditions hereinafter set out, the personal property hereinafter described;

NOW, THEREFORE, it is agreed by and between the parties hereto as follows:

The party of the first part hereby sells and agrees to convey to the party of the second part all of the property of the said The Soil Sulphate Distributing Company which is situated at Thermopolis, in the State of Wyoming, and is described as follows:

> All of the warehouses situated on the side track of the Burlington Railroad belonging to the party of the first part, at Thermopolis, Wyoming;
>
> Also the machinery which is described as follows: 1 small motor, o wagon drill, 3 motor trucks, 1 caterpillar tractor, 1 power shovel, 1 compressor, 1 carryall, 1 hammer mill, engines, crusher, bagging machine, rolls, screen, tow motor, legs and vibrator, and any and all accessories and tools belonging to the party of the first part with said personal property.

The above description and said sale are intended to cover and include all of the property of the party of the first part which he has had in connection with his operations of The Soil Sulphate Distributing Company at Thermopolis, Wyoming, whether the same is particularly described above or not.

The party of the second part hereby purchases the said property of and from the party of the first part, and agrees to pay to the party of the first part as the purchase price therefor 10,000 shares of the capitol stock of the party of the second part and $50,000 in cash, which latter sum is to be paid out of the zinc production from the mine owned by the party of the second part and in this connection it is understood that there is a prior lien on said zinc to A. B. Fowler of Denver, Colorado, for $27,000 which will have priority of payment.

It is understood and agreed that the property hereinabove described is subject to a prior loan from and lien to the Reconstruction Finance Corporation and the party of the first part shall make all payments of principal and interest to the said Reconstruction Finance Corporation until said loan has been paid in full, and the payments of said $50,000 to the party of the first part to come out of the zinc production when such zinc production begins coming in shall be paid by the party of the first part to the said Reconstruction Finance Corporation to liquidate said loan.

It is agreed that the party of the second part shall have the possession of the said personal property above described upon the signing of this agreement, and shall continue in possession thereof during the life of this agreement; and that all insurance upon said personal property shall be transferred to the party of the second part without further costs.

It is agreed that time shall be of the essence of this agreement and of the payments, covenants and promises herein contained; and that if the party of the second part shall fail to make the payments and keep the covenants herein contained or any thereof, the party of the first part may at his option and after thirty days notice to the party of the second part of his intentions to do so, terminate the agreement, in which event the party of the first part shall be entitled immediately to retake the said personal property and retain the same and all payments of principal and interest previously made to the party of the second part and shall keep the 10,000 shares of corporate stock above mentioned, and the party of the second part shall not have or retain any right, title or interest, claim or demand, either at law or in equity thereto.

IN WITNESS WHEREOF, the parties thereto have executed this agreement the day and year first above written, the party of the second part having caused the same to be executed in its corporate name and under its corporate seal, by its Officers who are thereunto duly authorised.

/s/ George C. Sinton
Party of the First Part

MONTANA MINING DEVELOPMENT COMPANY

By:

/s/ Maynard Sinton
President.

ATTEST:

/s/ H. A. Bolinger, Jr.
Secretary.

Its Directors
Party of the Second Part

DMW-270

EQUIPMENT LIST COVERING

GEORGE C. SINTON CONTRACT

SITUATED AT THERMOPOLIS, WYOMING

100 Feet Air Hose

1 Towmotor, 1 Ton

1 St. Regis Sacking Machine with Belt Type Packer

1 Syntron Vibrator

1 100 x 100 Steel Quonset Type Warehouse
Cement Floor Track Level

1 60 x 40 Steel Quonset Type Warehouse
Cement Floor Track Level

1 Wooden Warehouse 40 x 70 Track Level, Wooden Floor with
90 Ton Capacity Bin

1 Belt Conveyor, 30' x 24"

1 10" Bucket Elevator 80' high

1 10" Bucket Elevator 30' high

1 25 H.P. Electric Motor, GE

Any and all shovels, tools, wheel barrows, sacks, office equipment formerly owned by George C. Sinton D/B/A as the Soil Sulphoid Distributing Company.

1 Half yard P & H Shovel

1 HD 10 Allis Chalmers with Cable Dozer and Two Drum Winch

1 12 Yard Garwood Carryall

1 1946 1½ Ton Chev Dump Truck

1 1947 2 Ton Chev Dump Truck (moved to Idaho Springs)

1 1948 2 Ton Chev Dump Truck

1 Worthington Blue Brute 315 Air Compressor with Diesel

1 Worthington Wagon Drill with Rods and Bits

1 Set Diamond Roller Bearing Rolls

1 Day Pulverizer 12 x 18

1 Telesmith 3 Deck Vibrating Screen

1 150 H.P. GMC Diesel Engine

1 100 H.P. Buda Diesel Engine

1 Universal 18 x 36 Jaw Crusher

1 Chicago Pnuematic Jack Hammer

1 Thor Jack Hammer

2 Ingersoll Jack Hammers

1 Chicago Pnuematic Demolition Tool

DMW-270

A G R E E M E N T

This agreement made and entered into this sixteenth day of December 1950 by and between JAMES E. ANDERSON of Idaho Springs, party of the first part, and MONTANA MINING DEVELOPMENT COMPANY, INC., party of the second part

W I T N E S S E T H:

That the party of the first part agrees to sell and the party of the second part agrees to purchase the following described personal property situate on the property of Montana Mining Development Company near Idaho Springs, Colorado, to-wit:

One T D Tractractor with a hydraulic dozer for the sum of Five Thousand Two Hundred Dollars ($5,200.00) payable as follows, to-wit:

Six hundred dollars ($600.00) upon execution of this agreement and the sum of Four Thousand Six Hundred Dollars ($4,600.00) on or before February 15, 1951.

It is understood that title to said property shall remain in the seller until fully paid, and that upon full payment this agreement shall constitute a bill of sale for said equipment.

IN WITNESS WHEREOF the party of the first part has hereunto signed his name and the party of the second part has caused these presents to be executed by its duly authorized officers the day herein first above written.

MONTANA MINING DEVELOPMENT COMPANY

_____
President

ATTEST:

_____
Secretary

Complete 130 Ton Floatation Mill

1	Allis Chalmers Primary Crusher with		25H GE motor
1	Cedar Rapids Secondary Crusher with		25H GE motor
1	50 ft. Conveyor		5H geared motor
1	Adjustable Stoker Feeder		1½H Allis Chalmers motor
1	5 x 5 Denver Ball Mill		75H GE motor
1	12 x 18 Duplex Mineral Jig		3H motor
1	8 x 12 Mineral Jig		1½H motor
1	48" Duplex Rake Classifer		5H motor
1	5' x 22" Hardinge Ball Mill		50 HP motor
1	Bank of Morse Bros. float Size 36 x 36 6 cell	3	5HP motor
3	Denver 32 x 32 Special Floats	3	5HP motor
1	Eimco		
	3 Disc 48 inch Filter Complete with Vacuum Equipment		
1	1½" Wilfley Sand Pump		3 HP motor
1	Concentration Table		3 HP motor
1	Sample Crusher		1 HP motor
1	Boiler Complete with Stoker and Forced Draft Radiator for Heating Mill		

Complete Floatation Mill Consisting Of

1	100 T Ore Bin	
1	200 T Ore Bin	
1	Primary Crusher	HP motor
1	Secondary Crusher	HP motor
1	4 by Ball Mill	HP motor
1	Hardinge Ball Mill	HP motor
2	Jigs	
1	Classifier	
6	Denver Equipment Co. Floatation Cells	
6	Morse Bros. Co. Floatation Cells	
1	Filter	
1	Shake Table	

Mill building with ore bins, one 100 ton ore bin, one 200 ton crushed ore bin, cement foundation and floors. Metal roof and ship lap siding, painted and in good repair, includes storage space for 60 tons of concentrate.

Power served by Public Service of Colorado. Current 440-220.

Transformers and all wiring from transformers to motors owned by Montana Mining Development Co.

1	1½ Ton Atlas Trammer Complete with Battery Charger
1	Complete Ingersol Rand Compressor Imperial Type 10 with 1 Starting Compensator Complete Type 1, Form K
3	Ingersol Rand Jackhammers (Numbers worn off)
3	Gardner Denver Liners Model D79
2	Ingersol Rand Air Sump Pumps 2½ inch
	Miscellaneous Steel 2 - 4' round steel 6 - 5' round steel 1 - 6' round steel 1 - 8' round steel 1 -10' round steel 8 - pieces of 8'½" pipe
3	Tugger Hoists
1	Mine Hoist
7,000 ft.	Double Track in the mine
1	Complete Blacksmith Shop
	Miscellaneous Hose Water Tanks
6,000 ft.	3" and 4" Air Line in the mine
30	Ore Cars
3	Timber Cars
5	Denver Gardner Stopers Model R91
2	Denver Gardner Stopers Model 104
1	15 HP 2 inch Centrifugal Pump
1	3 HP 1 inch Centrifugal Pump
3	Air Receivers
1	K6 International Dump Truck Model 1946
1	4 x 4 Dolley
1	Complete Chicago Pneumatic Core Drill
1	T D 14 International Tractor with Dozer
1	H D 5 Allis Chalmers Loader

DMA-270

AGREEMENT

THIS AGREEMENT, Made and entered into this 28th day of October, 1949, by and between W. E. HUGINS, of Denver, Colorado, RUFUS J. IRELAND, JR., of Denver, Colorado, KATHARINE T. JOHNSTON, of Idaho Springs, Colorado, parties of the first part, and MAYNARD SINTON, of Bozeman, Montana, party of the second part, WITNESSETH:

That the parties of the first part are the owners as successors in interest of Lamartine Mines, Inc., of the following described real and personal property and leases of real property, situate in Trial Creek Mining District in the County of Clear Creek, State of Colorado, to-wit:

> All its mining machinery and equipment, generally consisting of Transformers, Transformer Station, Electric Power wires, poles cross-arms and insulators, railroad rails and railroad ties, Ore Cars and extra Ore Car Wheels. Mucking Plates, Skips, Air Hoists, Power Hoists, Swinging Circular Saws, Water and Air Pumps and blowers, Drill Presses, Rock Drills, jack-hammers and drifters, Shells, columns, Saddles, Water Tanks, Air-Line Oilers, Blacksmithing Equipment and tools, Electric Cap-Lamps and Motor-Generator for same, Electric Fans, Automatic Coal Stokers, Steam Boilers, Steam Radiators, Wall Heaters, Air, Water and Oil Hoses, Jack-bars, Picks, Single Jacks, Double Jacks, Crow-bars, Safety Baskets, Drill Steel, Rubber-covered Electric Cable, Boarding House Equipment, Office Equipment, Pipe, Valves, Pipe Fittings and any and all other machinery and equipment now belonging to it and now located and being on or near the John L. Lode Mining Claim U. S. Survey No. 9267 and/or the B. Fitz and Jim J. Mining Claims U. S. Survey No. 19288, in Trail Creek Mining District, Clear Creek County, Colorado, together with all its ore milling machinery and equipment, generally consisting of all buildings, Ore Crushers, Conveyor belts and frames, Ore Feeders, Ball Mill, Jigs, Classifyer, Flotation Cells, Concentrate Filter, Wifley Table, Arastres, Gold Pans, Monkey-stove Water Heater and Tank, and any and all other necessary appliances and appurtenances now located and being on the B. Fitz and Jim J. Mining Claims, U. S. Survey No. 19288, in Trail Creek Mining District, Clear Creek County and State of Colorado,

an undivided 13/14 interest in and to the Falcon Lode Mining Claim, U.S. Survey, Lot No. 1198, and the following described

unpatented mining claims, situate in Trail Creek Mining District, Clear Creek County, Colorado, to-wit:

Rose	Mill-Site	Location	Cer.	duly	recorded	in	Book	227,	Page	379
Joan	"	"	"	"	"	"	"	227,	"	378
Grace	"	"	"	"	"	"	"	227,	"	377
Mary	"	"	"	"	"	"	"	227,	"	378
Dora	"	"	"	"	"	"	"	227,	"	377
Betty	"	"	"	"	"	"	"	227,	"	376,

together with all tenements, and appurtenances belonging to said mining claims and all easements and rights-of-way and water rights heretofore used and enjoyed in connection with said mining claims and subject to all existing easements and rights-of-way over and across said mining claims.

Also, that certain lease agreement of the 23rd of June, 1944, between The Himrod Mines Company, Lessor and this company as Lessee, and duly recorded in the office of the County Clerk and Recorder, of Clear Creek County, Colorado, September 16, 1949, in Book No. 235, at Page No. 481, Filing No. 95351, and the rights contained therein.

Also, that certain unsettled claim of this company against the owners and lessees of the Ben Harrison, and the Croesus Mining lode claims, U. S. Survey No. 6381, for labor and material required in the expense of cleaning and opening, timbering and track lying in and about the Lamartine Tunnel, agreeable to that certain contract between William H. Armstrong, John D. Armstrong, Chas. M. Clinton, Trustee for John D. Armstrong and the German National Bank of Denver, first parties and Fred E. Himrod and Amulette H. Hudson, second parties, dated August 21, 1894, and recorded in the Recorder's Office of Clear Creek County, Colorado, September 11, 1894, Book No. 114, at Page No. 312, and/or any amounts necessary to repair damages done in said tunnel in recent years and presently to be done, with full authority to sue, settle, compromise or adjust as may seem just and prudent, and at such times or places as this its assignee may determine.

That in consideration of One Dollar ($1.00) and other valuable consideration in hand paid to first parties, receipt whereof is hereby acknowledged, first parties hereby agree that second party shall be entitled to immediate possession of all of said personal property and said mining claims and that second party may enter upon said premises and particularly the mill situate on the B. Fitz and Jim J. mining claims No. 19288 for the purpose of reconditioning the milling machinery and placing the same in operating condition, it being understood in this connection that all work done by second party in connection with said mill shall be done in a good, workmanlike manner and without damage to the same, and that no major changes in said mill shall be made without first obtaining the written consent of the first parties.

It is understood and agreed in this connection that all improvements made in said mill and all repairs made to the equipment therein, including the balls placed in the ball mill, shall become the property of the first parties upon being placed in said mill, and in the event that second party shall not purchase said mill as hereinafter provided, and first parties shall be entitled to regain possession of the same, that such repairs and equipment for said ball mill shall be left on said premises and become the property of the first parties, it being expressly understood in this connection that any major items of machinery in the way of new and different equipment placed in said mill by second party shall be retained by second party in the event that possession of said mill is released to first parties and that second party shall have a period of thirty (30) days in which to remove the same after delivering up possession of said mill to first parties.

OPTION

In consideration of the reconditioning of the property as above set forth, first parties hereby give and grant

to second party the right to purchase all of the hereinbefore described personal property and first parties' interest in said lease, dated June 23, 1944, between Himrod Company, Lessor, and Lamartine Mines, Inc., and the interest of first parties in the hereinbefore described claim against the owners and lessees of the Ben Harrison and Croesus Mining Lode claims, U. S. Survey No. 6381, and said unpatented mill site claims, for the purchase price of Twenty-two Thousand Dollars ($22,000.00), payable as follows, to-wit:

Second party shall pay to first parties the sum of Fifty Cents (50¢) per ton for all ore milled in said mill, said payment shall be owing to first parties as of the first of the month following the month in which said ore has been milled and shall be paid to first parties between the first and fifteenth of said following month, it being understood in this connection, however, that the minimum payment to be paid per month to first parties by second party shall be the sum of Five Hundred Dollars ($500.00), and that in the event that less than one thousand (1,000) tons of ore shall have been milled during the preceeding month, second party shall, nevertheless, pay to first parties the sum of Five Hundred Dollars ($500.00) on the first day of the following month.

In connection with this, it is further understood and agreed that said payment of Fifty Cents (50¢) per ton, with said minimum payment of Five Hundred Dollars ($500.00) per month, shall commence as of the first day of December, 1949, and shall be paid between said first day of December and the fifteenth day of December, 1949, and shall continue and be paid monthly thereafter up to and including payments for the month of December, 1950, and that second party shall pay the full purchase price of Twenty-two Thousand Dollars ($22,000.00) on or before January 15, 1951, it being understood and agreed in this connection that all payments made for ore milled in said mill or as said

minimum monthly payments, shall apply to and be part payment on said purchase price, and that only the balance owing of said sum of Twenty-two Thousand Dollars ($22,000.00), after deducting all of said payments, shall be owing by second party to first parties on January 15, 1951.

It is also understood in connection with said monthly payments that all payments made by second party as minimum monthly payments shall be applied to and considered as a payment in that amount on the payments that become due and owing on the basis of Fifty Cents (50¢) per ton for all ore milled.

It is expressly understood that the second party shall be entitled to remain in possession of all of said property herein agreed to be sold to second party from and after the date of this agreement so long as second party shall comply with the terms hereof and make the payments as herein provided to be made by second party, but that in the event that second party shall default in making said payment of Five Hundred Dollars ($500.00) on or before December 15, 1949, and a like payment of not less than Five Hundred Dollars ($500.00) on or before the fifteenth day of each month thereafter, or shall fail to pay the payments in addition thereto of Fifty Cents (50¢) per ton in the event that said payment of Fifty Cents (50¢) per ton shall exceed said payment minimum, then in that event first parties shall be entitled to immediate possession of all of said property herein agreed to be sold, and in that event second party agrees to deliver up peaceable and quiet possession of the same to first parties, and second party shall thereafter have no further interest in any of said property owned by first parties herein agreed to be sold and leased to second party, and first parties shall retain all amounts received hereunder as liquidated damages.

In connection with the operation of said mill, second party agrees to comply with all laws of the State of Colorado

regarding Workmen's Compensation, Unemployment Insurance, Social Security and Hour and Wage laws, and not to in any way encumber or suffer or permit any lien or encumbrances to attach to said property, and to save first parties harmless from any and all liability on account of or in connection with the operation and use of said mill and said property.

Second party also agrees to pay and discharge all taxes levied and assessed against said property subsequent to December 31, 1949.

First parties agree that upon receiving full payment of the purchase price of Twenty-two Thousand Dollars ($22,000.00) as hereinbefore provided, to make, execute and deliver to second party a bill of sale conveying all of said personal property to second party free and clear of all encumbrances and to make, execute and deliver to second party an assignment of said lease dated June 23, 1944, between the Himrod Mines Company, Lessor, and Lamartine Mines, Inc., and an assignment of said claim against the owners and lessees of said mining claim, designated by U. S. Survey No. 6381, and to deliver deed conveying all right, title and interest of first parties in and to the aforementioned Mill Site unpatented claims.

This option shall be binding upon the heirs, executors, administrators and assigns of the parties hereto.

In connection with the use and operation of said mill and the option of second party to purchase the same, as hereinabove provided, the parties of the first part, for and in consideration of the royalty, covenants and agreements hereinafter reserved and by the lessee to be kept and performed, doth grant, demise and let unto the said lessee on all of the following described mines and mining properties situate, lying and being in the Trail Creek Mining District, County of CLEAR CREEK AND STATE OF COLORADO, to-wit: First parties undivided 13/14 interest in and to the Falcon Lode Mining Claim, U. S. Survey No. 1198.

TO HAVE AND TO HOLD, the above described premises during the term of the hereinbefore contained option on said mill, it being expressly understood in this connection that in the event second party shall default in making the payments hereinbefore provided to be made in connection with his option to purchase said mill, and that first parties shall be entitled to recover possession of said mill, that then in that event this lease of said Falcon Lode Mining Claim shall likewise terminate and end, and first parties shall be entitled to immediate possession of the same.

It is further understood and agreed that in the event second party shall comply with the terms of said option and shall purchase said mill, that then in that event the term of this lease on said Falcon Lode Mining Claim shall continue for a period of ten (10) years from and after January 1, 1951, and so much longer thereafter as second party or his assigns shall continue to carry on and conduct mining operations in said mining district on the said Falcon Lode Mining Claim or on mining claims adjoining the said Falcon Lode Mining Claim and connected with the mining claims herein leased by tunnels used in connection with mining operations on other mining claims in said district, and so much longer as second party or his assigns shall operate a mill in said mining district.

In connection with the lease of said Falcon Lode Mining Claims, it is understood between the parties hereto that second party is attempting to secure a lease of or ownership of the Oneida Mining Claim, Survey No. 1558, and that there is a developed tunnel on said mining claim, the elevation of which is approximately 300 feet lower than the lowest tunnel now used for ingress and egress to said Falcon Mining Claim, Survey No. 1198, and that said tunnel on said Oneida Mining Claim now extends into and upon said Falcon Mining Claim, and that second party agrees that in the event he can secure control of said Oneida Mining Claim, that

then in that event he will extend said tunnel along the vein which the same is now following over and across said Falcon Mining Claim, and that he will commence mining operations on said Falcon Mining Claim within one (1) year and will thereafter mine all ores in said Falcon Mining Claim on said vein above said tunnel, which can be mined and milled at a profit, with reasonable diligence and dispatch.

As part of the consideration for second party extending said tunnel, the parties of the first part hereby covenant and agree and grant and convey to second party a permanent easement and right-of-way to use said tunnel in the event the same shall be developed in connection with carrying on and conducting mining operations on all other mining claims which second party may desire to gain access to by the use of said tunnel, it being expressly understood in this connection that in the event that second party shall develop said tunnel over and across said Falcon Claim, that second party shall thereafter have a continual and perpetual right to use said tunnel for such purposes and in such manner as he shall desire, even though second party's interest in the Falcon Claim under the terms of this lease shall have terminated and ended in other respects. It is agreed in this connection that in the event second party shall purchase said mill, as hereinbefore provided, and shall develop said tunnel across said claim, that then in that event, upon request of the second party, first parties will make, execute and deliver to second party a deed conveying said permanent right-of-way for use of said tunnel to second party.

Should second party acquire the aforementioned Oneida Tunnel and further should said lease on the Falcon Mining Claim be terminated, then and in that event it is agreed between the parties hereto that the first parties shall have the perpetual right of the use of said Oneida Tunnel when and after it has

been acquired by the said second party, for the purpose of mining ore, transporting the same to the portal, and for drainage of said Falcon Lode, together with the perpetual right to use any and all roads leading to the mouth of said tunnel and the right to build rail tracks from said tunnel to such points as may be desired; together with the right to build upon said surface ground of said Oneida mining property and on the surface of ground covered by aforementioned Mill Site location certificates, ore bins, compressor houses and electric transformer stations.

Provided, however, that such operations in the tunnel and such drainage do not interfere in any way with the operations of the party of the second part, and the location and the use of said rights above ground shall be conducted in such a manner as will be agreeable to the second party, and at all times under his jurisdiction.

In addition to the right of first parties to terminate and end this lease in the event that second party shall default in purchase of said mill as hereinbefore provided, first parties shall likewise have a right to terminate and end this lease in the event that second party shall not comply with the provisions as herein contained to be kept and performed by him in regard to the mining and developing of ore on said Falcon Claim, and in addition thereto second party covenants and agrees as follows:

1. To well and sufficiently timber said mines in accordance with good mining practice and repair all old timbering whenever it may become necessary in the portion or portions of the said demised premises in which the lessee may from time to time be operating.

2. To permit said lessor, his agent or attorney, from time to time and at all reasonable times to enter upon and into all parts of said mines and mining premises for the

purpose of examination and inspection.

3. Lessee shall have the right to assign this lease if he desires to do so; provided, however, in the event this lease is to be assigned to a corporation, lessee shall furnish lessor the necessary papers showing that said corporation is authorized to do business in the State of Colorado.

4. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by said lessee, or any person under him in any manner, by working within or upon the demised premises as the property of said lessor, with privilege to said lessee to work the same as part and parcel of said demised premises.

5. To keep at all times the tunnels and other workings, through which said lessee shall operate, thoroughly draining and clearing of loose rock and rubbish unless prevented by extraordinary mining casualty.

6. To post and at all times during the life of this agreement to keep posted in conspicuous places upon the demised premises notices stating in substance that said demised premises are being operated under lease and that neither the owner thereof nor any of said property shall or will be liable for any indebtedness incurred in the operation of said premises.

7. To comply with all the provisions of the Laws of the State of Colorado pertaining to Workmens Compensation and Unemployment Insurance and to protect and save harmless said lessor for and on account of the premiums thereon and all accidents and damages covered by or related thereto and to comply with the Hours and Wages Laws and the provisions of the Social Security Act, and from time to time upon request to furnish lessor evidence that the above regulations are being complied with.

8. To pay to said lessor as royalty ten per cent (10%) of 13/14 of all ores mined, from said Falcon claim, said royalty payments to be based

and dispossess all persons occupying the same with or without force and with or without process of law, or at the option of said lessor the said lessee and all persons found in occupation thereof may be proceeded against as guilty of unlawful detainer, and it is mutually understood and agreed that all machinery placed on the premises by said lessee shall be and remain the property of the lessee, provided, however, that all rail, track, ties, pipe, buildings and any other improvement of a permanent nature placed upon the property by the said lessee shall become and remain the property of the lessor, except such rails, track, ties and pipe as may be placed in said extension of said tunnel now existing on said Oneida Claim, which improvements shall likewise remain and be the property of the second party. All tools and machinery which have been placed upon said premises by the said lessee may be removed therefrom within thirty (30) days after the termination of said lease, provided, however, that no property of the said lessee may be removed while the lessee is in any manner indebted or obligated to the lessor under the terms of this lease; provided, however, that this provisions shall not apply to non-payment of the purchase price provided for in the option.

12. Lessee expressly agrees and assumes to pay all taxes levied upon the above-described property as ad valorem or production tax, whichever the case may be, in accordance with the laws of the State of Colorado from and after January 1, 1950.

OPTION TO PURCHASE

MINING CLAIMS HEREIN LEASED

As part of the consideration for the foregoing lease, parties of the first part hereby grant to second party an option to purchase said interest of first parties in said Falcon Mining Claim, Survey No. 1198, for the sum of Sixty Thousand Dollars ($60,000.00) at any time during the term of this lease,

it being expressly understood in this connection that all royalties paid hereunder shall apply to and be considered payments on said purchase price.

In the event that second party shall pay said purchase price, first parties agree to convey all of their right, title and interest in said mining claim to second party.

It is expressly understood that in the event of termination of the foregoing lease that all rights of second party to purchase said Falcon Mining Claim under the terms of this option shall immediately terminate and end.

Each and all of the clauses, covenants and agreements hereinbefore contained in this entire agreement shall apply to and bind the heirs, executors, administrators and assigns of the parties hereto.

It is understood in connection with the foregoing agreement that the term "lessee" refers to the party of the second part, and the term "lessor" as herein used refers to parties of the first part.

IN WITNESS WHEREOF, the parties hereto have hereunto signed their names, executing this agreement in quadruplicate, the day and year first above written.

/s/ RUFUS J. IRELAND, JR.
Rufus J. Ireland, Jr.

/s/ By A. D. JOHNSTON,
A. D. Johnston,
Attorney-in-fact

/s/ KATHARINE T. JOHNSTON
Katharine T. Johnston

/s/ By A. D. JOHNSTON
A. D. Johnston,
Attorney-in-fact

/s/ W. E. HUGINS
W. E. Hugins
Parties of the First Part.

/s/ MAYNARD SINTON
Maynard Sinton
Party of the Second Part.

ASSIGNMENT OF AGREEMENT

KNOW ALL MEN BY THESE PRESENTS, that I, MAYNARD SINTON of Bozeman, Montana, the party of the first part for and in consideration of the sum of One Dollar ($1.00) and other valuable consideration in hand paid to me by MONTANA MINING DEVELOPMENT CO., a corporation, organized and existing under and by virtue of the laws of the State of Montana, the party of the second part, the receipt whereof is hereby acknowledged do by these presents sell, transfer, assign, and set over unto the party of the second part that certain lease and option to buy the following described property situate in Trail Creek Mining District, County of Clear Creek, State of Colorado, to-wit:

All its mining machinery and equipment, generally consisting of Transformers, Transformer Station, Electric Power wires, poles cross-arms and insulators, railroad rails and railroad ties, Ore Cars and extra Ore Car Wheels. Mucking Plates, Skips, Air Hoists, Power Hoists, Swinging Circular Saws, Water and Air Pumps and blowers, Drill Presses, Rock Drills, jack-hammers and drifters, Shells, columns, Saddles, Water Tanks, Air-Line Oilers, Blacksmithing Equipment and tools, Electric Cap-Lamps and Motor-Generator for same, Electric Fans, Automatic Coal Stokers, Steam Boilers, Steam Radiators, Wall Heaters, Air, Water and Oil Hoses, Jack-bars, Picks, Single Jacks, Double Jacks, Crow-bars, Safety Baskets, Drill Steel, Rubber-covered Electric Cable, Boarding House Equipment, Office Equipment, Pipe, Valves, Pipe fittings and any and all other machinery and equipment now belonging to it and now located and being on or near the John L. Lode Mining Claim U. S. Survey No. 9267 and/or the B. Fitz and Jim J. Mining Claims U. S. Survey No. 19288, in Trail Creek Mining District, Clear Creek County, Colorado, together with all its ore milling machinery and equipment, generally consisting of all buildings, Ore Crushers, Conveyor belts and frames, Ore Feeders, Ball Mill, Jigs, Classifyers, Flotation Cells, Concentrate Filter, Wifley Table, Arastres, Gold Pans, Monkey-stove Water Heater and Tank, and any and all other necessary appliances and appurtenances now located and being on the B. Fitz and Jim J. Mining Claims, U. S. Survey No. 19288, in Trail Creek Mining District, Clear Creek County and State of Colorado;

An undivided 13/14 interest in and to the Falcon Lode Mining Claim, U. S. Survey, Lot No. 1198, and the following described unpatented mining claims, situate in

Trail Creek Mining District, Clear Creek County, Colorado, to-wit:

Rose	Mill-Site	Location	Cer.	duly	recorded	in	Book	227,	Page	379
Joan	"	"	"	"	"	"	"	227,	"	378
Grace	"	"	"	"	"	"	"	227,	"	377
Mary	"	"	"	"	"	"	"	227,	"	378
Dora	"	"	"	"	"	"	"	227,	"	377
Betty	"	"	"	"	"	"	"	227,	"	376

Together with all tenements and appurtenances belonging to said mining claims and all easements and rights-of-way and water rights heretofore used and enjoyed in connection with said mining claims and subject to all existing easements and rights-of-way over and across said mining claims.

Also, that certain lease agreement of the 23rd day of June, 1944, between The Himrod Mines Company, Lessor and this company as Lessee, and duly recorded in the office of the County Clerk and Recorder, of Clear Creek County, Colorado, September 16, 1949, in Book No. 235, at Page No. 481, Filing No. 95351, and the rights contained therein.

Also, that certain unsettled claim of this company against the owners and lessees of the Ben Harrison, and the Croesus Mining lode claims, U. S. Survey No. 6381, for labor and material required in the expense of cleaning and opening, timbering and track lying in and about the Lamartine Tunnel, agreeable to that certain contract between William H. Armstrong, John D. Armstrong, Chas. M. Clinton, Trustee for John D. Armstrong and the German National Bank of Denver, first parties and Fred E. Himrod and Amulette H. Hudson, second parties, dated August 21, 1894, and recorded in the Recorder's Office of Clear Creek County, Colorado, September 11, 1894, Book No. 114, at Page No. 312, and/or

any amounts necessary to repair damages done in said tunnel in recent years and presently to be done, with full authority to sue, settle, compromise or adjust as may seem just and prudent, and at such times or places as this its assignee may determine.

which said contract was made and executed by W. E. HUGINS, RUFUS J. IRELAND, JR., and KATHARINE JOHNSTON to me, which contract bears date the 28th day of October, 1949, to have and to hold the same unto said party of the second part, its successors and assigns, subject nevertheless, to the covenants, conditions, and payments therein mentioned and I hereby fully authorize and empower the said party of the second part upon its performance of said covenants and conditions to demand and receive of the said W. E. HUGINS, RUFUS J. IRELAND, JR., and KATHARINE JOHNSTON the Bill of Sale, Assignment of Leases, Assignment of Claim, and Deed covenanted to be given to me in said contract in the same manner and to all intents and purposes as I, myself, might or could do were these presents not executed.

MAYNARD SINTON

A C K N O W L E D G M E N T

STATE OF MONTANA)
: ss.
County of Gallatin)

On this fifth day of December, A. D., 1949, before me, H. A. BOLINGER, JR., a notary public, in and for said State, personally appeared MAYNARD SINTON of Bozeman, Montana, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF I hereunto set my hand and affix My Notarial Seal at my office in Bozeman, Montana, the day and year first above written.

(Notarial Seal)

H. A. BOLINGER, JR.
Notary Public for State of Montana.
Residing at Bozeman, Montana
My Commission Expires Jan. 14th, 1950

DMA-270

M I N I N G

L O A N A P P L I C A T I O N

For

Montana Mining Development Company

(A Montana Corporation
Authorized To Operate in Colorado)

Covering Operating At

Idaho Springs, Colorado

and

Thermopolis, Wyoming

Colorado Address

Box 458
Idaho Springs
Colorado

Montana Address

Box 747
Bozeman
Montana

TOTAL FINANCES

REQUESTED UNDER THIS LOAN

Program A	Completion 15 Days	$ 155,000.00
Program B	Completion 60 Days	47,500.00
Program C	Completion 90 Days	35,000.00
Program D	Completion 270 Days	100,000.00
Total Application for loan		$ 337,500.00

With an advance clause covering Program E if it looks feasible after the completion of Program D.

Program E	Completion 520 Days	$ 80,000.00

PROGRAM A

FINANCES NECESSARY FOR CONSOLIDATION

Purchase Contract, George C. Sinton Machinery	$ 50,000.00
Release Zinc Agreement, A. Fowler Zinc Floats, etc.	22,500.00
Purchase Contract, Anderson T D 14	4,600.00
Mill Purchase Contract, Johnson Mill	15,500.00
Purchase Contract, Seitz H D 5 Allis Chalmers	3,700.00
Moving Thermopolis Machinery	2,500.00
Purchase Contract Barnett Ball Mill	1,110.00
Purchase Contract, Oneida Stag Claims	22,000.00
Purchase Contract, Himrod Claims	12,500.00
Purchase Contract, Roberts Mach. and Claims	7,500.00
Payment U. S. National Bank Note	3,000.00
Payment Personal Loan from George C. Sinton	1,550.00
Payment Maynard Sinton Personal Loan	2,500.00
Payment H. A. Bolinger for legal service	2,000.00
Payment James Anderson Personal Loan	1,500.00
Estimated Interest Due	2,540.00
Total	$ 155,000.00

PROGRAM B

FINANCES TO PURCHASE NEW MACHINERY

1	Chicago 19, 11 x 12 Air Compressor	$ 15,592.55
1	Eimco Finnley Mucking Machine	3,292.00
1	Atlas Trammer	5,191.70
1	Model 28" Symons Crusher	8,175.50
1	Double Drum H.M.E. Slusher	1,859.00
1	Zinc Concentrate Bin	913.00
1	Forced Draft Radiator	218.00
1	3½" Model CP60N Drifter	973.00
1	Mineral J'8	884.00
1	Track Storm Shed	425.00
1	Drag Line Boom	1,627.00
6	Portable Mine Telephones	285.00
12,000 Feet	Telephone Wire	240.00
Power Line to Stag		1,000.00
1	Jumbo Drifter	4,013.00
		$ 44,688.75
Allowance for anticipated increase in Cost of Machinery		2,811.25
		$ 47,500.00

PROGRAM C

FINANCES NECESSARY FOR

MINING LAMARTINE 4TH LEVEL

ZINC AND MAKING AVAILABLE ORE

ABOVE COMPROMISE LINE IN MORGAN STOPE

Total Cost $ 35,000.00

Lamartine Property

In some instances past operations were stopped because the zinc content increased to such a point that the dockage decreased the value of the ore below the "High Grade" minimum. Such is the case on the fourth level from the Lamartine shaft. There is a body of ore left containing twelve to fifteen per cent zinc. This ore has not been examined by the present operators due to its inaccessibility. Its presence, however, was confirmed by Mr. Hanchett, who was the Manager in Charge of the Lamartine operations during this period. Mr. A. D. Johnston, recent past Manager and Lessee of the Lamartine properties, confirmed that he had this body of ore sampled in 1939 and the ore averaged twelve to fifteen per cent zinc. However, due to the low market value for zinc at that time, it was too small an operating margin to warrant operation. The workings have become inaccessible since 1939.

Our company feels that under present market prices it would be practical mining to open the Lamartine Tunnel to the Lamartine Shaft, repair the shaft, clean out and recondition the fourth level and mine out the zinc ore. It is practically impossible to closely estimate the cost of reconditioning these old workings because their present state of repair is unknown.

However, through the information possible to obtain from miners, past operators, etc., acquainted with these workings, concerning type of workings installed, last state of repair, type of rock encountered when driving drifts, and our ability to recondition, we are certain that with a capital investment of Thirty-Five Thousand Dollars ($35,000.00), we can be mining zinc on a large scale in not to exceed six months. Availability of materials should not affect this operation as the entire expenditure will be labor and timber which are both at our disposal.

Sufficient cars, trammers, air compressor, etc., to complete this operation are owned by the company.

Morgan Stope and Drift to Ben Harrison Creoses Property

The Lamartine Tunnel is open to the raise to the 8th level (see map). With a small amount of repair this raise can be put into useable condition to the 8th level. It is not known how much can be recovered from the ore taken from the anticipated drift on the 8th level West. However, it is believed that this ore should nearly pay for the cost of tunnel.

We feel that the $35,000 appropriation will cover both of the above mentioned operations.

PROGRAM D

DRIVING DRIFT

LOWER LEVEL

2,500

Repairing 3,000 Feet Oneida Drift

5,500 Feet Total

General Recondition Present Oneida Tunnel	$ 6,030.25
Trackage, Ties, Bolts, Plates, Spikes	2,669.00
Portland Drilling Bits	706.20
Air Line	4,404.00
Air Hose	537.10
Labor	56,445.00
Power Consumption	4,377.50
Powder, Caps, Fuse, etc.	5,174.35
Replacing 3,000 Feet of Oneida Track	3,210.00
Replacing Oneida Air Line	5,286.00
Total Cost	$ 88,839.40

Completing 5,500 Feet

Time to Complete: 270 Days

Allowance for Estimation error, lost days, unforeseen difficulties, etc.	$ 4,660.60
Core Drill Program (See Anderson Report and Cost Schedule)	6,500.00
TOTAL	$ 100,000.00

PROGRAM E

EXTENSION OF LOWER TUNNEL 2,500 FEET

OR A TOTAL OF 8,000 FEET FROM PORTAL

Trackage, Ties, Bolts, Plates, Spikes	$ 2,669.00
Drilling Bits	706.20
Air Line	4,404.00
Labor	56,445.00
Power	4,377.50
Powder, Caps, Fuses, etc.	5,174.35
TOTAL COST OF PROGRAM E	$73,776.05

Completion of Program E will take 520 days from the start of Program D.

Please note that actual cost figures were the same for Program E as Program D. However it is realized that in Program E the work is 2,500 ft. farther back in the drift which decreases efficiency and adds to expense.

Allowance for estimation error	$ 6,223.95
FINAL COST OF PROGRAM E	$80,000.00

SCHEDULE OF

COSTS

AS OF DECEMBER 15, 1950

AIR COMPRESSOR

1 19 11 x 12 1005 Actual Cu. Ft. Delivery Horisontal Slow Speed Chicago Pneumatic OCE, 440 volt, 125 h.p. Syncranous Motor

Compressor	$ 9,328.00
Motor	3,318.70
Exciter	705.10
Control Panel	1,200.10
Filter	106.05
	$14,657.95
Shipping Weight 19,500 @ 2.28 per cwt.	
Freight From Penna to Denver	444.60
Freight From Denver to Mine	165.00
Installation, Forms, Piping, etc.	325.00
TOTAL	$15,592.55

MUCKING MACHINE

1 EIMCO Finnley Loader	$ 2,965.00
Freight to Denver	300.00
Freight to Mine	27.00
TOTAL	$ 3,292.00

Available EIMCO Company, Salt Lake City

1	Model 28" Symons Intercone Crusher,	
	V-Belt Drive	$ 6,942.00
	Motor	661.00
	Starter	215.00
	Freight to Denver	300.00
		$ 8,118.00
	Trucking	57.50
		$ 8,175.50
	Available Morse Bros. Machine Company	
1	Double Drum Slusher, H. M. E. Gardner Denver	
	Air Operated, 13 h.p.	
	F. O. B. Denver	$ 1,839.00
	Trucking to Mine	20.00
	TOTAL	$ 1,859.00
	Available Gunderson-Taylor Equipment Company	
1	Zinc Concentrate Bin	
	Cement and Lumber.	$ 561.00
	Labor	352.00
	TOTAL	$ 913.00
1	Forced Draft Furnace Radiator	$ 218.00
	Available Barnett Machinery Company, Denver	
1	3-1/2" Drifter, Model CP60N	
	Chicago Pneumatic	$ 973.00
	Available Gunderson-Taylor Equipment Company	

1	Denver Equipment Mineral Jig, 12 x 18	
	Duplex, Left Hand	$ 875.00
	Freight to Mine	9.00
	TOTAL	$ 884.00
	Available Denver Equipment Company	
1	Track Storm Shed	
	Labor	$ 150.00
	Material	275.00
	TOTAL	$ 425.00
1	Atlas 1-1/2 Ton Trammer	
	Trammer	$ 4,258.70
	Battery Charger	898.00
		$ 5,156.70
	Freight to Mine	35.00
	TOTAL	$ 5,191.70
	Available Philpott Machine Company, Denver	
1	Drag Line Boom, Cable, etc.	
	For PH 1/2 yd. Shovel (Installed)	$ 1,627.00
	Available Barnett Machinery Company	
6	Portable Mine Telephones @ 47.50	$ 285.00
18,000	Feet Telephone Line @ 2¢ per foot	360.00
		$ 645.00
	Available Barnett Machinery Company, Denver	

TRACK

Morse Bros. Equipment Co., Denver

20 Pound Rail 3 Ft. Single Track Weighs 20 Pounds

Track	$ 147.50 per ton
Plates	.65 per pair
Bolts	14.75 per 100 lbs.
Spikes	12.65 per 100 lbs.
Ties	Covered in Mine Labor

Rail, Plates, Bolts, Spikes Figures $1.01 per Foot Plus Freight to Mine

2,500	Feet Cost	$ 2,525.00 144.00	plus 16½ Freight $144.00
	TOTAL	$2,669.00	
3,000	Feet Onieda Track	$3,030.00	
	Freight	180.00	
	TOTAL	$3,210.00	

PORTLAND THROW AWAY

SIDE HOLE BITS

Each Bit Will Do 21 Feet of Drilling.

There is 66 Feet of Drilling in Each Five Feet of Drift.

There is 1,320 Feet of Drilling in Each 100 Feet of Drift.

Bit Consumption is 62.86 Bits Per 100 Feet.

Bits Cost Average $34.15 per 100 Bits.

Freight 1.79 per 100 Bits from Penna. to Denver.

2,500 Feet of Drift Will Use 1571.5 Bits

@ Cost	$ 536.67
Freight	169.53
	$ 706.20

Availability 10 Days

AIRLINE

American Pipe and Supply and Morse Bros. Machinery Small Amount Available. Big Orders on 12 Weeks Delivery.

5" Standard Black Pipe $1.74 per ft.

2,500	Ft. Costs	$ 4,350.00	3,000	Ft.Costs	$ 5,220.00
	Freight to Mine	54.00		Freight	66.00
		$ 4,404.00			$ 5,286.00

AIR HOSE

400	Ft. Type 18 HB 1" Uncoupled Air Hose	
	@ $91.80 per 100 ft.	$ 367.20
200	Ft. Type 18 HB ½" Water Hose	
	@ $ 59.70 per 100 ft.	119.40
Le Hi	Hose Couplings	
	5 Female, Each $ 2.91	14.55
	5 Male, Each $3.19	15.95
	Freight to Mine	20.00

POWER LINE

$ 1,000.00 This estimate was given by Public Service Company of Colorado

Line and Poles Available.

We own the Transformer.

BLASTING SUPPLIES

Powder

45% DuPont Jellx, DuPont Powder Company, Denver

$17.25 per 100 lbs. 20,000 lb. lots

To drive a 6' x 8' drift it takes 10 lbs. per foot.

For 2,500 ft. it takes 25,000 lbs. or $4,312.50.

Caps

DuPont No. 6 Blasting Cap

In Lots 5,000 cost $ 17.50 per 1,000.

In 2,500 ft. of drift would use 33,000 or $467.50.

Fuse

Cost $11.95 per 1,000 ft. in 3,000 ft. spools.

66 ft. of fuse to drive 5 feet tunnel.

2,500 ft. costs $394.35.

POWER CONSUMPTION

Power Consumption for 150 H.P. Motor on Compressor will cost $17.51 per day.

250 days power will cost $4,377.50.

GENERAL REPAIR

Oneida Stag Tunnel

Labor 6 Men, 30 Shifts	$ 2,560.00
Timber	670.00
Compressor House	840.25
Ore Bin	1,460.00
	$ 5,530.25
Hook Elect. Chg. for Compressor	500.00
	$ 6,030.25

LABOR COSTS

For driving drift from face Oneida Tunnel west, using 2 shifts per day labor figured for 16 hour day, 6 days plus overtime 6th day.

No. Men	Classification	Wage Per Hr.	Cost per day
2	Trammers	$ 1.25	$ 21.67
2	Miners	1.50	26.00
2	Miner Helpers	1.15	20.28
2	Mucking Machine Operators	1.35	23.40

No. Men	Classification	Wage Per Hr.	Cost per day
2	Laborers	$ 1.15	$ 20.28
2	Track Men	1.15	20.28
1	Timber Man	1.50	13.00
2	Maintenance Men	1.25	21.67
1	Time Keeper	(250.00 per mo.)	9.62
1	Mine Foreman	1.65	14.30
1	Mine Superintendent		20.84

TOTAL LABOR PER DAY	$211.34
Social Security	3.17
Workmans Compensation	4.93
Unemployment Insurance	6.34
TOTAL LABOR COST PER DAY	$225.78

Figuring an average of 10 feet of drift per day of labor it will take 250 working days to complete 2,500 feet of drift @ a cost per day of $225.78.

2,500 ft. of Drift Cost $56,445.00.

CORE DRILL PROGRAM COSTS

The Core Drilling equipment is owned by the company. (Chicago Pnuematic, new).

Labor 2 men per shift or total 4 men.

Labor @ $1.50 per hour for 5 days and overtime for 6th is $13.00 per day for 4 men.

Total Labor	$ 52.00 per day
Social Security	.78
Workmens Compensation	1.22
Unemployment Insurance	1.56
	$ 55.56
Estimated Cost of Diamond Bits per day	10.00
	$ 65.56

99 days core drilling would amount to $6,500.00.

APPLICATION FOR MINERAL PRODUCTION LOAN

UNDER DEFENSE PRODUCTION ACT

I

A. Name of Applicant:

Montana Mining Development Company, a corporation organized in November, 1949, under the laws of the State of Montana and qualified as a foreign corporation to do business in the State of Colorado.

Principal Place of Business:

Idaho Springs, Colorado

Officers:

President:	Maynard Sinton Manhattan, Montana
Vice-President:	John B. Greenleaf Billings, Montana
Treasurer:	James E. Anderson Idaho Springs, Colorado
Secretary:	H. A. Bolinger Box 747 Bozeman, Montana
General Manager:	James E. Anderson Idaho Springs, Colorado

B. Names of Mines Operated:

Oneida Stag
Ben Harrison-Croesus
Himrod

These mines consist of 34 patented mining claims, commonly known as the Lamartine Group, situate on Trail Creek approximately five miles from Idaho Springs, Colorado, in Clear Creek County, Colorado.

C. History:

1. General Discription:

Generally, this mining property consists of two tunnels, the longest of which extends from its portal on the Oneida Stag claims for a distance of approximately two miles through the Falcon, Falcon Extension, Ben Harrison-Croesus,

Lamartine, Money Musk, and Silver Queen claims. This tunnel is approximately 1,000 feet below the discovery shaft of the Lamartine claim, which shaft extends to and connects with this tunnel, which is commonly known as the Lamartine Tunnel.

The second tunnel, known as the Oneida Stag Tunnel, is approximately 400 feet along the vein below the Lamartine Tunnel. The Oneida Stag Tunnel has its portal on the Oneida Stag claims and is 3,000 feet in length and extends through the Oneida Stag claim and approximately 75 feet into the Falcon claim.

Extensive mining and several million dollars in ore has been removed above these tunnels in past years. In the past, each of these groups of claims, that is, the Oneida Stag Mine, the Ben Harrison-Croesus Mine, and the Himrod Mine, have been owned, controlled, and operated by different interests; and the owners have been antagonistic to each other and unwilling to cooperate with each other, which prevented a systematic development of all of the claims as a unit.

Montana Mining Development Company has satisfactory leases, contracts to purchase, and options to purchase all of these mines and interests.

2. Previous Operators:

a. Oneida Stag Mine

Production records show sales of minerals from this mine between 1905 and 1939. Ownership of this mine was acquired by Charles W. Dyke prior to his death in 1936.

Under leases from the heirs of Charles W. Dyke, this mine had a small production during the years 1937 to 1939. All other work on this mine was done prior to 1916.

Most of the high-grade ore in this mine was stoped out above the Oneida Stag Tunnel and above the Lamartine Tunnel, but low-grade ore and some high-grade ore is available for mining at this time in this mine.

A winze was sunk to a depth of approximately 200 feet below the Oneida Stag Tunnel and some mining done of sulphide, lead and zinc ores through this winze. This is now filled with water and has not been explored by present operators.

b. Falcon Mining Claim

This claim, during early workings of these mines, was owned by adverse interests to the owners of the Himrod mines, who did most of the work in this region, but ownership of it was acquired by the corporation, Lamartine Mines,

Inc., which had a lease on all of the claims owned by the Himrod mines during the years 1939 to 1943, when operations were carried on on the Falcon and Falcon Extension mining claims by Lamartine Mines, Inc., under the management of A. D. Johnson of Idaho Springs, Colorado. Production records attached hereto, marked Exhibit _____, of the Lamartine mines include the Falcon and Falcon Extension mining claims, and the production shown in the years 1939 to 1943 was practically all produced from the Falcon and Falcon Extension mining claims.

c. Lamartine Mines, also known as Himrod Mines

Professional Papers 63, entitled "Georgetown Quadrangle", published in 1908, U. S. Government Printing Office, by Joshua E. Spurr and George H. Garrey, on pages 314 to 319, contains maps, pictures, and history of the Lamartine mines, commencing in 1867, from which the following is quoted:

> "The Lamartine mine (Pl. LXIII) was located in 1867. The original discovery was made by Peter Cooper, John J. Bougher, and Peter Chavanne, who were searching for a gold mine. As the surface indications of this lode were not favorable, one of these men sold a fourth interest for $25, another for $250, and Chavanne sold out for $5. The property was acquired by Peter Himrod, of New York City, who in 1887 let a contract for sinking a shaft in the vein. This shaft encountered the Lamartine ore body at a depth of about 100 feet, in May, 1888, one month after the death of Mr. Himrod. Fred E. Himrod, his son, gave a lease on a small block of ground to Messrs. Armstrong, Burns, Williams, and Hanchett, who produced $616,000 from it in sixteen months. At the expiration of this lease, vigorous development work was carried on by the owner, under the direction of Silas Hanchett.
>
> "The following statement of the production of the mine was taken from the record books by the courtesy of the present owners: Total production to August, 1905, ore, net weight, dried, 67,946,019 pounds, yielding 39,291.81 ounces of gold, 2,677,470.79 ounces of silver, and 3,232,020 pounds of lead, having a total actual value of $2,361,039.15. No copper appears in the returns.
>
> "The underground workings of the mine have a total extent of 12 miles, included in

which is a drainage tunnel 8,000 feet long (Pl. LXIV). From 1894 to 1904 the mine was under the management of Lafayette Hanchett."

Lafayette Hanchett, President of the Board of Directors of Utah Power and Light Company, who resides in Salt Lake City, was in charge of these mining operations from 1894 to 1904. Record of production of this mine prior to 1900 is not available as a public record. Effort is being made to secure the original mine records of production prior to this date from Vincent J. Himrod, President of Himrod Mines Company. Letter from Lafayette Hanchett, who compiled reports of zinc production from two of the claims worked, is attached hereto as Exhibit _____.

Generally, production from Lamartine, Money Musk, Imperial, and Silver Queen claims was carried on through the Lamartine shaft rather than through the Lamartine Tunnel, which was constructed primarily for drainage and not completed until 19__. The operations of this mine, as carried on, required the hoisting of the ore and pumping water through the Lamartine shaft by wood-fed steam boilers; the ore had to be hauled 80 miles to Leadville by wagon team; no payment was received for zinc and penalties were added on account of zinc. According to Lafayette Hanchett, the heavy zinc ore was left in the mine where possible and it is the information of the present owners from Lafayette Hanchett and others that a large body of zinc ore is available for mining above the third level of the Lamartine claim upon reconditioning some tunnels and the Lamartine shaft. Present operators estimate that at an expense not to exceed $35,000. The zinc ore reported to be blocked out on the Lamartine claim can be made accessible for mining at this time and actual mining commenced within a period of 90 days from the date of commencing work for this purpose.

Present operators are also making application for a loan for funds to extend the Oneida Stag Tunnel 5,000 feet along the vein for the purpose of mining the zinc and lead ore that is probably contained between the level of the Lamartine Tunnel and the level of the Oneida Stag Tunnel when extended through these claims.

d. <u>Ben Harrison-Croesus Claims</u>

The Ben Harrison-Croesus owners granted to the owners of the Lamartine claims a right to extend the Lamartine Tunnel as a drainage tunnel through the Ben Harrison-Croesus property, but this tunnel was not extended along the vein as it extends between the Falcon Extension mining claim and the Lamartine mining claim. Some mining has been done and a drift extended along the vein through the Ben Harrison-Croesus claims, but as there is no tunnel extending through the Ben Harrison claim on the level of the

Lamartine Tunnel, this claim does contain approximately 900 feet of virgin ground above the Lamartine Tunnel. Production records attached hereto show production from this mine at various times, but the most extensive production was carried on between the years 1943 and 1949.

This operation was carried on by the Harrison-Croesus Mining Company, a Colorado corporation. A production loan was made to this corporation by the Reconstruction Finance Corporation under Loan No. National Defense 5275. This loan was repaid, and the operations carried on were profitable to the operators. Wilford J. Roberts, Idaho Springs, Colorado, was in charge of these operations. He reports that a winze was sunk approximately 80 feet following a vein of very high galena ore and that this intersected a deposit of zinc ore which could not be profitably mined by him and that he blocked out a body of zinc ore by tunnels and the shaft on three sides consisting of approximately _____ tons; that a shaft on the winze and the tunnels extending therefrom indicate an extension of this body of zinc ore to contain considerably greater tonnage than was actually blocked out by him.

As shown by the maps attached hereto, a compromise boundary line was made as a result of a dispute between the owners of the Falcon mining claim and the Ben Harrison-Croesus mining claim, under which agreement the owners of the Falcon mining claim were granted the right to mine ore above the tenth level, being the level of the Lamartine Tunnel, a distance of approximately 205 feet and extending into the end line of the Ben Harrison-Croesus claim approximately 350 feet. In connection with this dispute, a raise was made to the surface for the purpose of determining the apex of the vein as is shown by the map.

The ground made available to the operators of the Falcon claim as a result of this compromise was practically stoped out above Lamartine Tunnel and below the compromise line of 205 feet above the tunnel. Because of adverse ownership of these two claims, the owners of the Ben Harrison-Croesus claim have been unable to mine above this compromise line although there is a known body of ore lying above this line as disclosed by the workings below and the upraise to the surface.

Lafayette Hanchett, who was in charge of the Lamartine mines at the time of this dispute and at the time of the construction of this upraise, reports that he has knowledge of considerable ore in the Ben Harrison-Croesus claim above this compromise line. The present operators have been informed that this block of ore received considerable consideration in the granting of the R. F. C. loan above referred to to the Harrison-Croesus Mining Company, but that because of hostilities between

that company and the Lamartine Mines, Inc., who controlled the Falcon claim, the Harrison-Croesus Mining Company was unable to mine this ore and it is available at this time for mining. This can be mined by the present operators, who have control of both claims.

e. Lamartine Mines, Inc.

In 1939, Lamartine Mines, Inc., under the direction and management of A. D. Johnson, Idaho Springs, Colorado, constructed an efficient, well-equipped flotation mill on the John L. lode mining claim, U. S. Survey No. 9267, and B. Fitz and Jim J. mining claims, U. S. Survey No. 19288, owned by Himrod Mines, Inc., near the portal of the Lamartine Tunnel. Successful mining operations were carried on by this company from 1939 to 1943 which resulted in considerable profit to the operating company.

It is the information of the applicant that operations were suspended in 1943 by Lamartine Mines, Inc., for the reason that the value of the ore being mined and milled from the Falcon claim was greater in gold and silver than in lead and zinc, and that since the operators of Lamartine Mines, Inc., could not secure a lease of the lead and zinc deposits known to exist in the Ben Harrison-Croesus claims, which were at that time leased to the Harrison-Croesus Mining Company, the Lamartine Mines, Inc., were forced to suspend operations.

About the time Lamartine Mines, Inc., suspended operations, the Harrison-Croesus Mining Company commenced operations approximately 600 feet further in on the Lamartine Tunnel and continued to carry on operations until 1949 as an essential war industry under the above referred to production loan for the purpose of mining lead and zinc ore. The Harrison-Croesus Mining Company carried on their operations without the benefit of the flotation mill at the portal of this tunnel and the result high-graded most of the ore or had to haul it to Idaho Springs to commercial mills for concentrating.

3. Operations of Present Company:

Montana Mining Development Company, in October, 1949, entered into a contract to purchase all of the Lamartine (Himrod) claims and entered into an agreement with Lamartine Mines, Inc., as dissolved and distributed to the stockholders, Katharine T. Johnson, W. E. Hugins, and Rufus J. Ireland, Jr., the lease of the Lamartine claims held by Lamartine Mines, Inc., the Falcon mining claim, and the flotation mill and all other rights of Lamartine Mines, Inc.

In August, 1950, Montana Mining Development Company secured a lease and option to purchase from the owners of the Ben Harrison-Croesus mining claims; and on

December 9, 1950, secured a new and supplemental lease and option to purchase the Oneida Stag mining properties and is at this time in control under leases and options to purchase all of the mining claims and equipment heretofore used and at the present time existing on these claims without any conflict as to ownership or rights with any adverse interests.

In January, 1950, Montana Mining Development Company commenced operation of the flotation mill, running the dump from the Lamartine Tunnel, and has received net Smelter returns, after paying all expenses, of approximately $33,000. In October, 1950, an additional ball mill was installed in the mill which increased the capacity of the mill from 60 tons per day to approximately 120 tons per day. The milling of this dump was a marginal operation until the capacity was increased; and at the present time, operations are being carried on at a small profit. An additional set of flotation cells have been ordered for installation about January 1 to enable making a zinc concentrate. At this time a portion of the zinc is being recovered with the lead, gold, and silver concentrate, but no payment is received and smelting penalties are charged because of the presence of zinc in this concentrate.

Montana Mining Development Company rebuilt the portal and cleaned the Oneida Stag Tunnel, which can be readily reconditioned for actual mining operations by installation of a heavier track, new airline, and some timbering repair.

Montana Mining Development Company is just completing cleaning out several cave-ins in the Lamartine Tunnel, which make the Ben Harrison-Croesus claims available for exploration and mining.

4. <u>Reasons for Loan</u>:

a. To enable the company to concentrate on producing lead and zinc in the near future rather than to carry on a gradual development of the mine through mining and milling of the gold and silver deposits contained in the mine as was heretofore anticipated and planned.

b. To complete a systematic development of the mine by extension of the Oneida Stag Tunnel to enable mining available zinc and lead deposits through stopes without the necessity of sinking shafts and hoisting the ore and pumping the water.

II.

A. Past Production. (See past production records attached.)

B. Present Rate of Production. Approximately 130 tons per day milled from the Lamartine dump, making a concentrate of approximately 3500 pounds worth an average value of $150 a ton. This operation is on a three-shift, 24-hour-a-day basis, with a total of three shifts, five men.

C. History of Property. (Covered in I C.)

III.

Proposed Work. (See Program A, Program B, Program C, Program D and Program E herewith attached.)

A. Maps.

1. Topographical, herewith attached.

2. Map of claims and locations herewith attached.

3. Map of present workings and proposed workings herewith attached.

B. List of major equipment and other facilities available. 1. Complete 130 ton floatation mill equipped with supplementary zinc extration floatation process. (See attached list of Idaho Springs equipment.)

2. Mining Equipment. (See attached list of Mining Equipment.

3. Other Equipment. (See attached schedule, Thermopolis Equipment.)

C. List of major new equipment and facilities required. (Program B .)

D. Present Average Number of Employees by classification, and so forth. The present average number of

employees is 11. There are 3 mill men, 1 trucker, 1 cat operator, 2 crusher operators, 2 miners, 1 trammer and 1 general manager.

E. List of estimated additional employees required for proposed work. (See Program C, D and E.) This labor is available.

F. We own our own mill, which is located on the John L. and Jim J. Millsite claims at the portal of the Lamertine tunnel. Ore taken from the Oneida stag tunnel will be transported by truck ~~one~~ Three-fourth of a mile to the mill. Sufficient trucks are owned at the present time by the company. 0.7 mi. +

G. When proposed work is completed, our rate of production will be 130 tons of millable ore per day.

H. Estimated time required to complete work for which loan is requested. (See application.)

I. Accessibility of Mine. The mine is located approximately four and a half miles southwest of Idaho Springs up the Trail Creek Road, which is a graded road in good condition, kept open by the County at all times. When necessary, the County will plow the road every day.

J. Estimated price of metals required. Sixteen cents per pound for lead, 20 cents per pound for zinc.

IV.

A. Estimate of Ore Reserves. Since some of the workings of this mine are inaccessible at this time, and since the ore which we intend to develop is not definitely known as to grade, but assumed, it is impossible to give exact tonnage of ore reserves; however, the estimated ore between

United stag and Lamartine tunnels figures 5,400,000 cubic feet. We assume that 1,051,200 cubic feet have already been mined through the shafts and winze indicated on the map, which leaves an approximation of 5,248,600 cubic feet, equivalent to 438,233 tons, with an estimated value of $15 per ton; however, this ore will have a mining cost of $6.23 per ton, a milling cost of $2.38 per ton, with a metallurgic loss of 75 cents per ton, a cost of trucking and smelting of approximately $1 per ton, which totals $10.36 per ton for mining, milling and processing. This would leave a net profit of $4.64 per ton, or a total profit on the above operation of $2,033,401.12. In the Ionides Engineering Report on the Ben Harrison Croesus property (herewith attached), from the Lamartine drift-up he gives ore reserves worth a net profit of $935,000. Please note that above figures were computed on gold at $31.81 per ounce, silver at 65 cents per ounce and lead at 3-1/2 cents per pound, and he did not show any recovery of zinc, which, in past production shows runs very high. This is a block of ore above the fourth level west of the Lamartine shaft of approximately 25,000 tons, which has a reported value of from 12 to 15 percent zinc, which will show a minimum of $500,000 net profit. These above known bodies of ore show a net profit of approximately $3,468,401. There is, in addition, probability that additional veins may be located through the core drill program, and also that the average value of the ore will exceed the conservative figures which we have placed on it.

V.

Engineer's Reports. (See S. A. Ionides, Registered Engineer, report attached. Jay P. Wood, Registered Engineer, report herewith attached. Mr. Lafayette Hanchett. Past

Manager of Lamartine Mines, Inc. report herewith attached. James E. Anderson, Manager of Montana Mining Development Company report herewith attached.)

VI.

Experience of Mine Management. (See report of James E. Anderson for mining experience reference.)

VII.

Montana Mining Development Company. The Montana Mining Development Company is a corporation incorporated under the laws of the State of Montana with stock of 150,000 shares at $1 per share, or a total of $150,000. At the present time there has been issued 90,500 shares, leaving a balance of treasury stock unissued of 59,500 shares at $1 per share.

VIII.

We consulted the United States National Bank on the feasibility of getting a bank loan for this development work. They, in turn, referred us to the U. S. Bureau of Mines to apply for this loan under the Defense Production Act.

IX.

Since the existence of the Montana Mining Development Company, it has been working on a program of ore and property development, and has shown a small profit up to this time. Therefore, it would be necessary to make a workable agreement with the U. S. Bureau of Internal Revenue in regard to excess profits tax in relationship to present and future profits.

X.

It is the desire of the Montana Mining Development Company, since this loan is considered a defense program and since this program is based on the present price of metals, to amortize this ~~loan~~ Tunnel off in a period of not to exceed three years.

With the past production record of these properties showing a minimum of $8,500,000, and with the expenditure of this requested loan, we would produce a minimum of $3,468,401 net profit, worth of ore, which would be many times that amount of dollars worth of lead and zinc. With this in mind, I sincerely feel that the spending of $337,500, with an advance clause for $80,000, is absolutely feasible and justifiable.

MONTANA MINING DEVELOPMENT COMPANY

By Maynard Linton
President