FILE COPY
SURNAME:

500

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

OCT 30 1952

Mr. G. P. Williams, President
Baltimore-Camas Mining Company, Inc.
601 Eastman Building
Boise, Idaho

Re: Docket No. DMA-1245X (Lead-Zinc)
Baltimore-Camas Mining Company, Inc.
Ida Harlan Mine
Blaine County, Idaho

Dear Mr. Williams:

On May 1, 1952, Mr. D. E. Moulds, Chief of the Base Metals Division of this Administration, wrote you requesting information on when you would submit the Landlord's Subordination Agreements that were sent you as requested in your letter of January 22, 1952, or to advise him of your intentions as to the proposed exploration project.

As we have received no answer to that letter, we assume that you are no longer interested in the exploration work proposed in the application, and therefore the docket will be closed and removed from the active file.

If in the future you wish to apply for Government aid for an exploration project in the Ida Harlan mine, we shall be pleased to reconsider your application.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

HFKeller/bjl (written 10/30/52)

10-30-52

Copy to: Docket
Admr. R.File
Op. Committee
H. F. Keller (2)
Mr. Bishop
Mr. McKnight
Region II (2)
Chron.

FILE COPY
SURNAME:

Moulds

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

MAY 1 1952

Mr. G. P. Williams, Pres.
Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Re: Docket No. DMEA 1245
Ida Harlan Mine

Dear Mr. Williams:

Under date of January 28, 1952 we sent, at your request, six copies of the Landlord's Subordination Agreement which were to be returned along with the Assignment of the Mining Agreement previously requested.

We will appreciate your reply as to when this material and information will be forwarded or your intentions as to the proposed exploratory work on the Ida Harlan.

Sincerely yours,

D. E. Moulds (mef)

S.N. 5-1-52

D. E. Moulds, Chief
Base Metals Division
Defense Minerals Exploration
Administration

DEMoulds/meh
5/1/52
cc to: Docket File Copy
Adm. R. File
Mr. Moulds
Region II (2)

FILE COPY
SURNAME:

Moulds

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

JAN 28 1952

Mr. G. P. Williams, Pres.
Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Re: Docket No. 1245X
Ida Harlan Mine

Dear Mr. Williams:

Enclosed are six copies of the Landlord's Subordination Agreements which you requested in your letter of January 22, 1952. We will appreciate your executing these documents as soon as possible and forwarding them to this office along with the assignment of the mining agreement.

We will also appreciate any information relative to the work and costs necessary to properly review your project with the delayed starting in mind.

Sincerely yours,

D. E. Moulds meh cc 1-28-52

D. E. Moulds, Acting Chief
Base Metals Division
Defense Minerals Exploration
Administration

Enclosures-6

DEMoulds/meh
1/28/52
cc to: Adm. R. File
Docket File Copy
Mr. Moulds
Mr. Bishop
Mr. McKnight

BALTIMORE CAMAS MINES, Inc.

601 Eastman Building

BOISE, IDAHO

22 January 1952

D. E. Moulds, Acting Chief
Base Metals Division
Defense Minerals Administration
Washington, D. C.

Refer: Docket 1245X, Ida Harlan Mine

Dear Sir:

Relative to your recent inquiry relative to the above Docket I wish to state that we are definitely desirous of completing the processing of a contract for the requested exploration loan.

In conjunction with this we will require six copies (blanks) of Landlord's Subordination Agreeements and as soon as these are received we will execute these documents and forward them to your office along with the assignment of the mining agreement as you have requested.

Weather conditions have been such as to prohibit the undertaking of any work on this project this winter and such conditions will in all probability continue for several months yet, hence we have been slow to submit the material.

Thank you for your letter.

Sincerely yours,

G. P. Williams, Pres.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 2[illegible] 1952

FILE COPY
500
SURNAME:

Moulds
Mullendorf

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

DEPARTMENT OF THE INTERIOR
RECEIVED
JAN 15 1952
Defense Minerals Administration,
Production Expansion Division.

Mr. G. P. Williams
Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Re: Docket 1245X
Ida Harlan Mine

Dear Mr. Williams:

A review of the Defense Minerals Administration files indicates that on August 14, 1951 you were requested to furnish assignment of mining agreement to Baltimore Camas Mines, Inc. and Landlord's Subordination Agreements, relative to the Ida Harlan project. Processing of a contract has been held up, pending receipt of this material.

In order that we may determine the status of your application, we will appreciate receipt at your earliest convenience, of the requested information or your request to withdraw the application in the event that you do not desire the exploration assistance under the requirements of M.O.-5, a copy of which is enclosed for your information.

Sincerely yours,

Signed S.N. 1-15-52

D. E. Moulds, Acting Chief
Base Metals Division
Defense Minerals Exploration
Administration.

Enclosure - 1
DEMoulds/hmj
cc to: Adm. R. File
Docket File Copy
Mr. Moulds
Mr. Bishop
Mr. McKnight
Region II (2)

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

August 20, 1951

Memorandum

To: Director, Production Expansion Division

From: General Counsel

Subject: Baltimore-Camas Mining Company, Inc. exploration contract -- Docket No. DMA-1245X

The contract in the captioned case is approved as to legal form and sufficiency subject to:

1. The itemization of labor costs as called for in Paragraph 8.

2. The attachment of appropriate subordination agreement from the property owners and if the prospective operator's interest is not derived directly from the owners, subordination agreements from any intermediate parties who may retain potential interests in the property.

3. Proper signature on behalf of the Company.

4. Dating as of the day of delivery and insertion of the contract date in the subordination agreements.

Your file is returned herewith.

John G. Liebert

John G. Liebert, Acting for
J. L. Hofflund, General Counsel

Attachment

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

August 20, 1951

Memorandum

To: Director, Production Expansion Division

From: General Counsel

Subject: Baltimore-Camas Mining Company, Inc. exploration contract -- Docket No. DMA-1245X

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1. The itemization of labor costs as called for in Paragraph 8.

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3. Proper signature on behalf of the Company.

4. Dating as of the day of delivery and insertion of the contract date in the subordination agreements.

Your file is returned herewith.

John G. Liebert, Acting for
J. L. Hoffiund, General Counsel

Attachment

MF
(June 1951)

Docket No. DMA 1245X
Commodity Lead-Zinc

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Baltimore-Camas Mining Company, Inc.
601 Eastman Building
Boise, Idaho

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 Idaho, County of Blaine described as follows: [3] Baltimore Lode and Mill Site MS260, Victoria Lode MS261, Minnie May Lode MS262 and Ida Harlan Lode MS263 all within Section 14 and Section 23 T4N.,R18E

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

~~(a) That he is the owner in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances, as to 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 Sixty 60 days from the date of this contract shall commence work on a project of exploration for [5] lead-zinc ores; 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] Twelve (12) 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 prop*[illegible]. All facilities, buildings, fixtures, equipme[illegible] 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 $46,505.00, which is 50 percent of the agreed estimated total cost of this project, $93,010.00.

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.

THE UNITED STATES OF AMERICA

Baltimore-Camas Mining Company, Inc.
(Operator)

By _____

By _____
Director, Production Expansion Division
Defense Minerals Administration

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

EXHIBIT A
Exploration Project

The exploration program to consist of rehabilitation of the present adit on the Ida Harlan lode from portal to vein; sinking of a 500 foot inclined shaft from the tunnel level on the vein and additional exploration comprising 1000 feet of drift and 300 feet of crosscut to be driven from the incline shaft.

Estimated costs of the project are as follows:

(1) Construction of two buildings			
Labor	$1,872.00		
Materials	2,400.00		
Total	$4,272.00		$4,272.00
(2) Rehabilitation			
Labor on drift		$234.00	
Road repair		400.00	
Total		$634.00	$634.00
(3) Cutting station & sinking shaft 500 feet.			
Labor		$27,151.00	
Supplies		9,200.00	
Power		3,180.00	
Supervision		7,525.00	
Total		$47,056.00	$47,056.00
(4) Drift and Crosscut 1300 feet			
Labor		$11,680.00	
Supplies		5,025.00	
Power		1,590.00	
Supervision		3,225.00	
Total		$21,520.00	$21,520.00
(5) Equipment to be purchased			$7,660.00
(6) Equipment furnished by company			2,500.00
(7) Assaying and transportation expense			1,700.00
(8) Payroll taxes and compensation			5,168.00
(9) Power installation			2,500.00
Grand Total			$93,010.00

(1) The construction cost of a 14 x 24 dry and framing shed and 14 x 20 compressor house and tool shed is allowable to the maximum of $4,272.00 for labor and materials.

(5) Equipment to be purchased for use on the project is listed as follows:

Electric hoist and 35 h.p. motor	$2,000.00
Hoist cable, 600 feet of 5/8 inch	250.00
Switch panel, grids, etc. for hoist	600.00
Pumps, electric sinkers complete	2,500.00
Sheave and bearings	100.00
Pipe, 600 feet of 3 inch	250.00
Rail, 3500 feet of 20 pound	1,960.00
Total	$7,660.00

The purchase of the above equipment is allowable as required for the project to the maximum shown above.

(6) The following equipment is to be furnished by the company for use on the project:

315 cu. ft. compressor with electric motor
2 Jackhammers
2 Drifters
1 Stoper
1 Skilsan
1 Mucking machine

Allowable cost to the project for the use of each of the above described items of equipment shall be the rate of depreciation calculated on replacement cost over a sixty month period. Such cost shall be allowed only for those months such equipment items are actually used and to a maximum of $2,500.00 for the project.

(9) Installation cost of power lines and transformer stations by the Idaho Power Company shall be allowable to a maximum of $2,500.00 for this project.

MF-200
(June 1951)

Docket No. DMA 1245X
Commodity Lead-Zinc

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Baltimore-Camas Mining Company, Inc.
601 Eastman Building
Boise, Idaho

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 Idaho, County of Blaine described as follows: [3] Baltimore Lode and Mill Site MS260, Victoria Lode MS261, Minnie May Lode MS262 and Ida Harlan Lode MS263 all within Section 14 and Section 23 T4N.,R18E

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

~~(a) That he is the owner, in possession and entitled to possession, and that the property is subject only to the encumbrances, if any, and to the rights of others as shown in the abstract of title or title opinion, copies of which are attached hereto.~~

(*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 Sixty 60 days from the date of this contract shall commence work on a project of exploration for [5] lead-zinc ores; 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] Twelve (12) 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.

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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.

THE UNITED STATES OF AMERICA

Baltimore-Camas Mining Company, Inc.
(Operator)

By _____

By _____
Director, Production Expansion Division
Defense Minerals Administration

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

EXHIBIT A
Exploration Project

The exploration program to consist of rehabilitation of the present adit on the Ida Harlan lode from portal to vein; sinking of a 500 foot inclined shaft from the tunnel level on the vein and additional exploration comprising 1000 feet of drift and 300 feet of crosscut to be driven from the incline shaft.

Estimated costs of the project are as follows:

(1) Construction of two buildings			
Labor	$1,872.00		
Materials	2,400.00		
Total	$4,272.00		$4,272.00
(2) Rehabilitation			
Labor on drift		$234.00	
Road repair		400.00	
Total		$634.00	$634.00
(3) Cutting station & sinking shaft 500 feet.			
Labor		$27,151.00	
Supplies		9,200.00	
Power		3,180.00	
Supervision		7,525.00	
Total		$47,056.00	$47,056.00
(4) Drift and Crosscut 1300 feet			
Labor		$11,680.00	
Supplies		5,025.00	
Power		1,590.00	
Supervision		3,225.00	
Total		$21,520.00	$21,520.00
(5) Equipment to be purchased			$7,660.00
(6) Equipment furnished by company			2,500.00
(7) Assaying and transportation expense			1,700.00
(8) Payroll taxes and compensation			5,168.00
(9) Power installation			2,500.00
Grand Total			$93,010.00

(1) The construction cost of a 14 x 24 dry and framing shed and 14 x 20 compressor house and tool shed is allowable to the maximum of $4,272.00 for labor and materials.

(5) Equipment to be purchased for use on the project is listed as follows:

Electric hoist and 35 h.p. motor	$2,000.00
Hoist cable, 600 feet of 5/8 inch	250.00
Switch panel, grids, etc. for hoist	600.00
Pumps, electric sinkers complete	2,500.00
Sheave and bearings	100.00
Pipe, 600 feet of 3 inch	250.00
Rail, 3500 feet of 20 pound	1,960.00
Total	$7,660.00

The purchase of the above equipment is allowable as required for the project to the maximum shown above.

(6) The following equipment is to be furnished by the company for use on the project:

315 cu. ft. compressor with electric motor
2 Jackhammers
2 Drifters
1 Stoper
1 Skilsan
1 Mucking machine

Allowable cost to the project for the use of each of the above described items of equipment shall be the rate of depreciation calculated on replacement cost over a sixty month period. Such cost shall be allowed only for those months such equipment items are actually used and to a maximum of $2,500.00 for the project.

(9) Installation cost of power lines and transformer stations by the Idaho Power Company shall be allowable to a maximum of $2,500.00 for this project.

MF-200
(June 1951)

Docket No. DMA 1245X
Commodity Lead-Zinc

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Baltimore-Camas Mining Company, Inc.
601 Eastman Building
Boise, Idaho

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 Idaho, County of Blaine described as follows: [3] Baltimore Lode and Mill Site MS260, Victoria Lode MS261, Minnie May Lode MS262 and Ida Harlan Lode MS263 all within Section 14 and Section 23 T4N.,R18E

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 Sixty 60 days from the date of this contract shall commence work on a project of exploration for [5] lead-zinc ores; 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] Twelve (12) 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 $46,505.00, which is 50 percent of the agreed estimated total cost of this project, $93,010.00.

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.

Baltimore-Camas Mining Company, Inc.
(Operator)

By

THE UNITED STATES OF AMERICA

By
Director, Production Expansion Division
Defense Minerals Administration

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

EXHIBIT A
Exploration Project

The exploration program to consist of rehabilitation of the present adit on the Ida Marlan lode from portal to vein; sinking of a 500 foot inclined shaft from the tunnel level on the vein and additional exploration comprising 1000 feet of drift and 300 feet of crosscut to be driven from the incline shaft.

Estimated costs of the project are as follows:

(1) Construction of two buildings			
Labor	$1,872.00		
Materials	2,400.00		
Total	$4,272.00		$4,272.00
(2) Rehabilitation			
Labor on drift		$234.00	
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Total		$634.00	$634.00
(3) Cutting station & sinking shaft 500 feet.			
Labor		$27,151.00	
Supplies		9,200.00	
Power		3,180.00	
Supervision		7,525.00	
Total		$47,056.00	$47,056.00
(4) Drift and Crosscut 1300 feet			
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Grand Total			$93,010.00

(1) The construction cost of a 14 x 24 dry and framing shed and 14 x 20 compressor house and tool shed is allowable to the maximum of $4,272.00 for labor and materials.

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Total	$7,660.00

The purchase of the above equipment is allowable as required for the project to the maximum shown above.

(6) The following equipment is to be furnished by the company for use on the project:

315 cu. ft. compressor with electric motor
2 Jackhammers
2 Drifters
1 Stoper
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1 Mucking machine

Allowable cost to the project for the use of each of the above described items of equipment shall be the rate of depreciation calculated on replacement cost over a sixty month period. Such cost shall be allowed only for those months such equipment items are actually used and to a maximum of $2,500.00 for the project.

(9) Installation cost of power lines and transformer stations by the Idaho Power Company shall be allowable to a maximum of $2,500.00 for this project.

Docket No. DMA 1245X
Commodity Lead-Zinc

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Baltimore-Texas Mining Company, Inc.
601 Eastman Building
Boise, Idaho

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 Idaho, County of Blaine described as follows: [3] Baltimore Lode and Mill Site MS260, Victoria Lode MS261, Minnie May Lode MS262 and Ida Marlen Lode MS263 all within Section 14 and Section 23 T4N.,R18E

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 Sixty 60 days from the date of this contract shall commence work on a project of exploration for [5] lead-zinc ores; 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] Twelve (12) 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.

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[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.

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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.

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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.

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Executed in sextuplicate the day and year first above written.

Baltimore-Texas Mining Company, Inc.
(Operator)

By

THE UNITED STATES OF AMERICA

By
Director, Production Expansion Division
Defense Minerals Administration

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

EXHIBIT A
Exploration Project

The exploration program to consist of rehabilitation of the present adit on the Ida Harlan lode from portal to vein; sinking of a 500 foot inclined shaft from the tunnel level on the vein and additional exploration comprising 1000 feet of drift and 300 feet of crosscut to be driven from the incline shaft.

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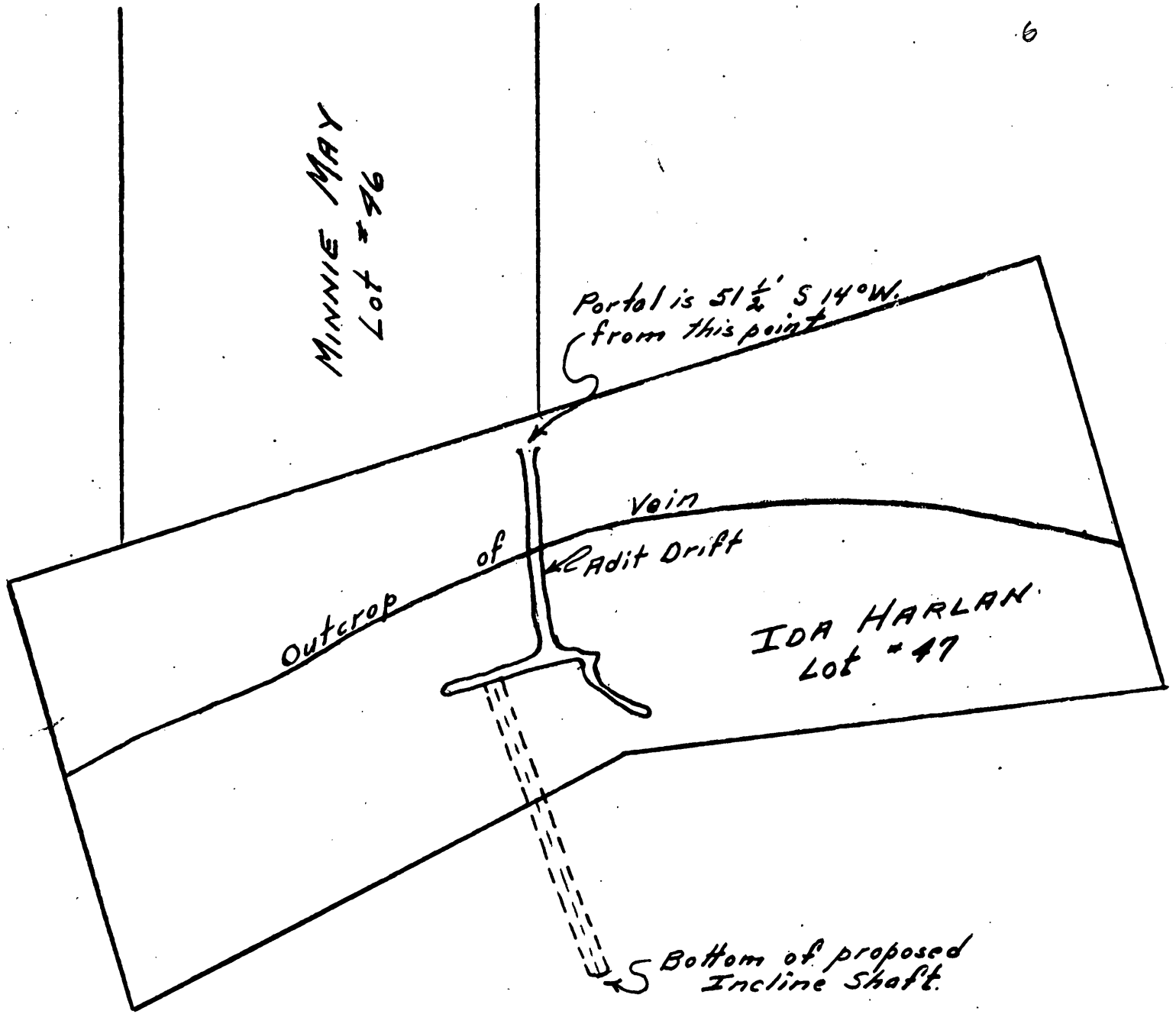

Docket No DMA
1245-X

IDA HARLAN
Lode Claim
Lot 47 MS. 263

MF-200
(June 1951)

Docket No. DMA 1245
Commodity Lead-Zinc

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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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 Sixty 60 days from the date of this contract shall commence work on a project of exploration for [5] lead-zinc ores; 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] twelve (12) 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 $46,505.00, which is 50 percent of the agreed estimated total cost of this project, $93,010.00.

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.

Baltimore-Texas Mining Company, Inc.
(Operator)

By

THE UNITED STATES OF AMERICA

By
Director, Production Expansion Division
Defense Minerals Administration

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

EXHIBIT A
Exploration Project

The exploration program to consist of rehabilitation of the present adit on the Ida Harlan lode from portal to vein; sinking of a 500 foot inclined shaft from the tunnel level on the vein and additional exploration comprising 1000 feet of drift and 300 feet of crosscut to be driven from the incline shaft.

Estimated costs of the project are as follows:

(1) Construction of two buildings			
Labor	$1,872.00		
Materials	2,400.00		
Total	$4,272.00		$4,272.00
(2) Rehabilitation			
Labor on drift		$234.00	
Road repair		400.00	
Total		$634.00	$634.00
(3) Cutting station & sinking shaft 500 feet.			
Labor		$27,151.00	
Supplies		9,200.00	
Power		3,180.00	
Supervision		7,525.00	
Total		$47,056.00	$47,056.00
(4) Drift and Crosscut 1300 feet			
Labor		$11,680.00	
Supplies		5,025.00	
Power		1,590.00	
Supervision		3,225.00	
Total		$21,520.00	$21,520.00
(5) Equipment to be purchased			$7,660.00
(6) Equipment furnished by company			2,500.00
(7) Assaying and transportation expense			1,700.00
(8) Payroll taxes and compensation			5,168.00
(9) Power installation			2,500.00
Grand Total			$93,010.00

(1) The construction cost of a 14 x 24 dry and framing shed and 14 x 20 compressor house and tool shed is allowable to the maximum of $4,272.00 for labor and materials.

(5) Equipment to be purchased for use on the project is listed as follows:

Electric hoist and 35 h.p. motor	$2,000.00
Hoist cable, 600 feet of 5/8 inch	250.00
Switch panel, grids, etc. for hoist	600.00
Pumps, electric sinkers complete	2,500.00
Sheave and bearings	100.00
Pipe, 600 feet of 3 inch	250.00
Rail, 3500 feet of 20 pound	1,960.00
Total	$7,660.00

The purchase of the above equipment is allowable as required for the project to the maximum shown above.

(6) The following equipment is to be furnished by the company for use on the project:

315 cu. ft. compressor with electric motor
2 Jackhammers
2 Drifters
1 Stoper
1 Skilsan
1 Mucking machine

Allowable cost to the project for the use of each of the above described items of equipment shall be the rate of depreciation calculated on replacement cost over a sixty month period. Such cost shall be allowed only for those months such equipment items are actually used and to a maximum of $2,500.00 for the project.

(9) Installation cost of power lines and transformer stations by the Idaho Power Company shall be allowable to a maximum of $2,500.00 for this project.

MF-200
(June 1951)

Docket No. DMA 1245X
Commodity Lead-Zinc

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Baltimore-Idaho Mining Company, Inc.
601 Eastman Building
Boise, Idaho

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 Idaho, County of Blaine described as follows: [3] Baltimore Lode M.S. 2611 Lot 260, Victoria Lode M.S. 261, Minnie Kay Lode M.S. 262 and the Harlan Lode M.S. 263 all within Section 14 and Section 23 T4N., R18E.

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 Sixty 60 days from the date of this contract shall commence work on a project of exploration for [5] Lead-Zinc Ores; 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] Twelve (12) 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.

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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.

Baltimore-Texas Mining Company, Inc.

(Operator)

By

THE UNITED STATES OF AMERICA

By Director, Production Expansion Division
Defense Minerals Administration

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

EXHIBIT A
Exploration Project

The exploration program to consist of rehabilitation of the present adit on the Ida Harlan lode from portal to vein; sinking of a 500 foot inclined shaft from the tunnel level on the vein and additional exploration comprising 1000 feet of drift and 300 feet of crosscut to be driven from the incline shaft.

Estimated costs of the project are as follows:

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Labor	$1,872.00		
Materials	2,400.00		
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(2) Rehabilitation			
Labor on drift		$234.00	
Road repair		400.00	
Total		$634.00	$634.00
(3) Cutting station & sinking shaft 500 feet.			
Labor		$27,151.00	
Supplies		9,200.00	
Power		3,180.00	
Supervision		7,525.00	
Total		$47,056.00	$47,056.00
(4) Drift and Crosscut 1300 feet			
Labor		$11,680.00	
Supplies		5,025.00	
Power		1,590.00	
Supervision		3,225.00	
Total		$21,520.00	$21,520.00
(5) Equipment to be purchased			$7,660.00
(6) Equipment furnished by company			2,500.00
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(8) Payroll taxes and compensation			5,168.00
(9) Power installation			2,500.00
Grand Total			$93,010.00

(1) The construction cost of a 14 x 24 dry and framing shed and 14 x 20 compressor house and tool shed is allowable to the maximum of $4,272.00 for labor and materials.

(5) Equipment to be purchased for use on the project is listed as follows:

Electric hoist and 35 h.p. motor	$2,000.00
Hoist cable, 600 feet of 5/8 inch	250.00
Switch panel, grids, etc. for hoist	600.00
Pumps, electric sinkers complete	2,500.00
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Pipe, 600 feet of 3 inch	250.00
Rail, 3500 feet of 20 pound	1,960.00
Total	$7,660.00

The purchase of the above equipment is allowable as required for the project to the maximum shown above.

(6) The following equipment is to be furnished by the company for use on the project:

315 cu. ft. compressor with electric motor
2 Jackhammers
2 Drifters
1 Stoper
1 Skilsan
1 Mucking machine

Allowable cost to the project for the use of each of the above described items of equipment shall be the rate of depreciation calculated on replacement cost over a sixty month period. Such cost shall be allowed only for those months such equipment items are actually used and to a maximum of $2,500.00 for the project.

(9) Installation cost of power lines and transformer stations by the Idaho Power Company shall be allowable to a maximum of $2,500.00 for this project.

No. 83637

ASSIGNMENT OF MINING AGREEMENTS.

G. P. WILLIAMS ET UX TO BALTIMORE TRUST, ET AL.

We, G. P. WILLIAMS and MURIEL L. E. WILLIAMS, his wife, of Boise, Idaho, do hereby assign, transfer, set over and deliver unto Baltimore Trust and V. C. Belknap and G. P. Williams as Trustees thereof all of our right, title and interest in and to:

(a) That certain written mining agreement made and entered into on the 24th day of June, 1941, by and between A. W. Ensign of Hailey, Idaho, acting receiver of the Baltimore and Victoria Mining Company, a defunct Utah corporation, as party of the first part, and the said G. P. Williams as the party of the second part, covering an option and lease of the mining claims therein described, to-wit: Baltimore Lode and Mill-site, Victoria Lode, Minnie May Lode and Ida Harland Lode, all patented claims, and

(b) That certain written option made and entered into July 2, 1941, by and between Charles Rathke and Hilda Rathke, his wife, of Hailey, Idaho, and Mrs. Annie Kelley, a widow, of Hailey, Idaho as parties of the first part, and said G. P. Williams of Boise, Idaho, as party of the second part, covering an option and lease of the mining claims therein described, to-wit: Baltimore Extension, Baltimore Extension No. 1 and Baltimore Extension No. 2.

The consideration of this assignment and transfer is the issuance to the said G. P. Williams of Eighty (80) units, fully paid and non-assessable of the said Baltimore Trust.

We warrant and guarantee that both of the said mining agreements are in good standing, and all the terms thereof fulfilled as required as of this date.

This assignment is binding upon ourselves, our heirs, executors, administrators and assigns.

WITNESS our hands and seals this 8th day of July, 1941.

G. P. Williams

Muriel L. E. Williams

STATE OF IDAHO,)
) SS.
COUNTY OF ADA,)

On this 8th day of July, 1941, before me, Walter G. Bell, a Notary Public in and for said State, personally appeared G. P. WILLIAMS and MURIEL L. E. WILLIAMS,

his wife, known to me to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(SEAL)

Walter G. Bell
Notary Public for Idaho
Residing at Boise, Idaho

Baltimore Trust, the hereinabove named assignee, hereby assents to all of the terms of the written agreement assigned under paragraph (a) of this assignment.

BALTIMORE TRUST

By V. C. Belknap
G. P. Williams
Trustees.

Filed for record at the request of G. P. Williams at 2:50 o'clock P. M., November 18, 1941.

B. P. Thamm, Ex-Officio Recorder.

STATE OF IDAHO,)
) SS.
COUNTY OF BLAINE,)

I, GEORGE F. McCOY, Ex-Officio Recorder in and for said County and State, do hereby certify that the foregoing is a full, true and correct copy of that certain ASSIGNMENT OF MINING AGREEMENTS of record in my office, in Book 149 of AGREEMENTS AND CONTRACTS, Page 24, Records of Blaine County, State of Idaho.

Witness my hand and official seal this 27 day of June, 1951.

George F. McCoy, Ex-Officio Recorder,
By Esther Buhler, Deputy.

No. 83635

MINING AGREEMENT

A. W. ENSIGN, RECEIVER TO G. P. WILLIAMS

PARTIES: THIS AGREEMENT, made and entered into this 24 day of June, 1941, by and between A. W. Ensign, of Hailey, Idaho, acting in his capacity as the duly and lawfully appointed and acting receiver of the Baltimore and Victoria Mining Company, a defunct Utah corporation, as the party of the first part and hereinafter called Owner, and G. P. WILLIAMS, of Boise, Idaho, as party of the second part and hereinafter called Purchaser,

WITNESSETH:

PROPERTY: WHEREAS, the Owner represents that he is the duly and regularly appointed, qualified and acting receiver of the Baltimore and Victoria Mining Company, a defunct Utah Corporation, and such receiver is the owner and in possession of the following described patented lode mining claims, situate in the Warm Springs Mining District, in Blaine County, State of Idaho, to-wit:

Baltimore Lode and Mill-site, Survey No. 7, A & B
Lot No. 43. A 17.44 acres
Lot No. 43 B 3.07 "
Mineral Survey No. 260. Section 14, T. 4 N., R. 18 E.

Victoria Lode Survey No. 8 19.28 acres
Mineral Survey No. 261. Lot No. 44, Section 14, T. 4 N., Range 18 E.

Minnie May Lode Survey No. 10 18.81 acres
Mineral Survey No. 262. Lot No. 46, Sections 14 & 23, T. 4 N., R. 18 E.

Ida Harland Lode Survey No. 11 18.17 acres
Mineral Survey No. 263 Lot No. 47
Section 23, T. 4 N., R. 18 E.

WHEREAS, the Owner desires to lease the said mining claims to the Purchaser, with an option to purchase the same, and the Purchaser desires to lease and option the said property;

NOW THEREFORE, in consideration of the sum of One Dollar ($1.00), in hand paid to the Owner by the Purchaser, the receipt of which is hereby acknowledged, and in consideration of these premises, IT IS HEREBY AGREED AND UNDERSTOOD between the parties hereto, as follows:

1.

LEASE: The Owner hereby demises and leases unto the Purchaser all of the said mining claims, with full right during the life of this agreement to be in sole and exclusive possession thereof, and with sole and exclusive right to prospect, mine and extract

from said property the gold, silver, lead and other mineral contents thereof, and to place machinery, equipment, tools and rails thereon at the Purchaser's sole discretion.

II.

TERM: This agreement shall continue in full force and effect so long as the Purchaser performs the covenants and agreements herein contained and by him to be kept and performed.

III.

ROYALTY: The Purchaser agrees to pay to the Owner royalties on all ores extracted and removed from said property, as follows: When the value is $20.00 per ton or less, ten per cent (10%); when the value is $20.01 to $40.00 per ton, fifteen per cent (15%); when the value is $40.01 or over, twenty per cent (20%), said royalty payments to be based upon net mill or smelter returns, which shall mean the gross returns less transportation, treatment, assaying and sampling charges. And it is expressly understood that a lien is created on all ores or metals marketed hereunder for the payment of the said royalty, and the same shall be deducted by the smelter or ore buyer and paid to the escrow holder, the First Security Bank of Idaho, Hailey, Idaho, for credit to the Owner on the lease and purchase price as hereinafter set forth.

IV.

SHIFTS REQUIRED; The purchaser further covenants and agrees to enter upon said premises within seventy-five (75) days from date hereof, to work the same in a good miner-like fashion and in a manner necessary and proper to good and economical mining so as to take out the greatest amount of ore possible with due regard to the safety, development and preservation of said premises and the profitable mining of ore therefrom, and, after entering upon said premises, to perform a minimum of sixty (60) shifts of work upon the hereinabove described property per calendar month, it being understood that one shift of work shall constitute the labor of one employee for eight hours of time; provided, however, that should federal, state or local labor regulations limit one shift of work to a shorter period of time, such shorter period of time shall constitute a shift; provided further, that the Purchaser has the right to put in more than sixty shifts per month during the summer season, said shifts to be applied on the winter months when it is impossible to work the mine, and said Purchaser shall have the right to make up said shifts lost during the winter months during the following summer.

V.

PURCHASE PRICE: As a specific and inseparable portion of this agreement, and dependent upon the lease provisions hereof and not independent thereof, the Owner agrees to sell said mining property to the Purchaser for the sum of SEVENTY-FIVE THOUSAND DOLLARS ($75,000.00), payable, however, out of the royalty payments hereinbefore set forth. The Purchaser reserves the right of making such further and additional payments as at any time he may desire, the same to be credited upon the said purchase price.

VI.

DEED IN ESCROW ABSTRACT: The Owner agrees to make, execute and deliver a good and sufficient mining deed to the said mining claims in the name of the Purchaser, and to deposit the same, together with a copy of this agreement, with the First Security Bank of Idaho, Hailey, Idaho; provided further, that the Owner agrees, after the Purchaser has paid five thousand dollars ($5,000.00) on the hereinabove described property, to prepare and deliver to the Purchaser a complete and up-to-date abstract, showing clear and merchantable title to said property in the Owner. Objections to said title must be made in writing within thirty (30) days after the receipt of the said abstract of title or it will be considered conclusively that the title is good and merchantable.

It is agreed that no agreements, liens or encumbrances of any type or kind shall be placed upon the said property, during the life of this agreement, by the Owner. DELIVERY OF DEED: After deposit of the said deed in escrow, payments hereunder shall be made to the said bank to the credit of the Owner, and upon full payment of the purchase price of $75,000.00, the said deed shall be delivered, upon the request of the Purchaser or of his assignee, to the Purchaser. The said bank, as escrow holder, shall be free from any responsibility, excepting only as specifically provided for hereunder, and its costs of escrow shall be paid by the Owner, excepting only the initial payment which shall be paid equally by the parties hereto.

VII.

MINERLIKE WORK - INSPECTION: The Purchaser agrees, in his mining operations, to conduct the same in a good and minerlike manner, and the Owner shall have the right, to be exercised at all reasonable times and in a reasonable manner so as to not interfere with the Purchaser's mining operatings, to go upon said claims for the purpose of inspecting the workings thereof.

VIII.

POSTING NOTICES; The Purchaser agrees that in his possession, occupancy and work upon said property, he will comply with the laws of the State of Idaho with reference to posting notices on said mineral land, and these notices shall expressly state that the said property is being worked solely by the Purchaser and not on the credit or responsibility in any way of the Owner, and that he is to be solely responsible for all wages, supplies, materials, or debts of any kind whatsoever created by him by reason of his possession, work, or occupancy of said mining claims, and the Purchaser further agrees to comply with all of the laws of the State of Idaho and of the United States of America with reference to filing of notices of occupancy and the employment of labor, the payment of insurance premiums, workmen's compensation, and other obligations to those employed upon said property by the said Purchaser. Purchaser further covenants and agrees to assume all responsibility for personal injury or death of himself of any of his employees in or upon the property herein leased, no matter what the cause thereof may be and to indemnify and save the lessor harmless from any and all claims and from all suits and judgments for such injuries or death.

IX.

NO LIENS ALLOWABLE: The Purchaser further agrees to hold the Owner free and harmless from any and all claims for wages, materials, and supplies, insurance, premiums, or payments which may be due under the laws of the United States or of the State of Idaho, or for any other claims incurred by the Purchaser in his possession, occupancy and working of said mining claims, and said Purchaser further agrees that he will not suffer any liens of any kind or character to accrue against the said property or the rights of the Owner therein. The Owner, himself, also reserves the right to post and maintain notices that he will not be responsible for wages, supplies, equipment or other expenses incurred by Purchaser in his mining operations.

X.

REMOVAL OF EQUIPMENT All mining equipment, machinery, tools, supplies, excepting installed rails, car tracks, air pipes and permanent buildings, which may be installed or placed upon the said property by the Purchaser, shall be and remain his property, and he shall be entitled to remove the same from said property at any time during the life of this agreement, and also to remove the same within a reasonable time after the expiration of this agreement for any cause.

XI.

TERMINATION BY OWNER: Notwithstanding any provision to the contrary herein,

the Owner shall have the right to cancel this agreement upon the failure of the Purchaser to pay royalties or to comply with any of the conditions, provisions or covenants hereof, but this right may not be exercised until after thirty (30) days' written notice to the Purchaser, at Boise, Idaho, or to the address which shall be supplied to the escrow holder by any assignee hereunder, specifying the defaults or failures, and the Purchaser shall have said thirty (30) day period in which to remedy any such defaults or failures, and if he does not do so then this agreement shall be automatically cancelled and terminated, and each party freed from any liability or obligation hereunder, excepting that the Purchaser shall be responsible for unapid royalties on sales of minerals hereunder. Time is of the essence of this agreement.

XII.

TAXES: The purchaser agrees to pay, before delinquency, all taxes that may be levied against said mining equipment and property during the period of this agreement, including tax levies of 1941 and subsequent years, and also agrees to pay all taxes, state or federal, which may become due on account of his mining operations or his occupancy of the said property. In carrying on his mining operations, the Purchaser agrees to comply with the requirements and provisions of the laws of the State of Idaho.

XIII.

SURRENDER OF POSSESSION UPON TERMINATION: It is understood and agreed that the Purchaser shall not be obligated to make any payments whatsoever, excepting only the royalties to be paid out of the values mined, or to make performances hereunder, for this is not a purchase and sale agreement, nor a contract of purchase, nor a buy and sell agreement, but if the Purchaser fails to perform the conditions of this agreement strictly according to the terms hereof, then all the rights of the Purchaser hereunder shall, at the option of the Owner and upon notice as hereinbefore provided, terminate, and upon termination of this agreement for any cause hereunder the Purchaser agrees to immediately and peaceably surrender possession of the said mining property to the Owner, and all payments which have been made by the Purchaser shall, in such event, be forfeited to the Owner and shall be considered solely as rental and lease payments to the time of the forfeiture.

XIV.

ASSIGNMENT: This agreement is assignable by either party, in whole or in part, but in the event of an assignment, the assignee shall take subject to all of the terms hereof, provided that said Purchaser shall have thirty (30) days within which to notify said

Owner, at Hailey, Idaho, of said assignment, said notice to be accompanied by a duplicate of the assignment and assent in writing by the assignee to all the terms hereof, and no assignment shall be recognized and be considered valid until the provisions hereinabove stated are complied with.

XV.

COURT APPROVAL

It is expressly understood that the Owner shall immediately secure the written consent and approval of his entry into this agreement by the court which appointed him as receiver of the Baltimore and Victoria Mining Company, which approval shall be endorsed upon the said agreement.

XVI.

It is expressly agreed that no modifications of this agreement shall be of any force or effect unless made in writing and signed by the parties hereto.

XVII.

This agreement is made and entered into in duplicate on the day and date first above written, and shall be binding upon the heirs, executors, representatives, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals in duplicate, the day and date first above written.

A. W. Ensign (SEAL)
Receiver of the Baltimore and Victoria
Mining Company, a defunct Utah corporation
Party of the First Part OWNER

G. P. Williams (SEAL)
Party of the second Part PURCHASER

STATE OF IDAHO)
(SS.
COUNTY OF BLAINE)

On this 24 day of June, 1941, before me, Gibson Condie, a Notary Public in and for said County and State, personally appeared A. W. ENSIGN, as receiver of the Baltimore and Victoria Mining Company, a defunct Utah corporation, known to me to be the person whose name is subscribed to the within and attached instrument, and acknowledged to me that he executed the same as such receiver.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(SEAL)

Gibson Condie
Notary Public for Idaho
Residing at Hailey, Idaho.

STATE OF IDAHO,)
(SS.
COUNTY OF BLAINE,)

On this 24th day of June, 1941, before me, Gibson Condie, a Notary Public in and for said County and State, personally appeared G. P. WILLIAMS, known to me to be the person whose name is subscribed to the within and attached instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(SEAL)

Gibson Condie
Notary Public for Idaho
Residing at Hailey, Idaho.

The action of the receiver, A. W. Ensign, in entering into the foregoing Mining Agreement is hereby approved.

Dated June 24th, 1941.

D.H. Sutphen
District Judge

Filed for record at the request of G. P. Williams at 2:40 o'clock P.M. Nov. 18, 1941.

B. P. Thamm, Ex-Officio Recorder.

STATE OF IDAHO)
) ss.
COUNTY OF BLAINE,)

I, GEORGE F. McCOY, Ex-Officio Recorder in and for said County and State, do hereby certify that the foregoing is a full, true and correct copy of that certain instrument of record in my office in Book 149 of Agreements and Contracts, Page 18, Records of Blaine County, State of Idaho.

Witness my hand and official seal this 27 day of June, 1951.

George F. McCoy
Ex-Officio Recorder

By Irene E. Price, Deputy

FILE COPY
SURNAME:

Guthrie
Hoff
Liebert

140

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

August 20, 1951

Q.E.C.

Memorandum

To: Director, Production Expansion Division

From: General Counsel

Subject: Baltimore-Camas Mining Company, Inc. exploration contract -- Docket No. DMA-1245X

The contract in the captioned case is approved as to legal form and sufficiency subject to:

1. The itemization of labor costs as called for in Paragraph 8.

2. The attachment of appropriate subordination agreement from the property owners and if the prospective operator's interest is not derived directly from the owners, subordination agreements from any intermediate parties who may retain potential interests in the property.

3. Proper signature on behalf of the Company.

4. Dating as of the day of delivery and insertion of the contract date in the subordination agreements.

Your file is returned herewith.

J. L. Hofflund

John G. Liebert, Acting for
J. L. Hofflund, General Counsel

Attachment

RRGuthrie/ema
Copy to: R. R. Guthrie
J. L. Hofflund
Reports & Record Unit
Chron.

dma 1245X

BALTIMORE CAMAS MINES, Inc.

601 Eastman Building

BOISE, IDAHO

June 28, 1951

Otto Herres
Chief, Lead Zinc Branch
Defense Minerals Administration
Washington 25, D. C.

Dear Mr. Herres:

I have requested my engineers to supply the additional information relative to the Ida Harlan Mine Loan Application, which Mr. Billings discussed in our telephone conversation of June 26. Mr. Bida and Mr. Anderson, both mining engineers, have rechecked the IDA HARLAN present and proposed development locations and their statement and map covering all material in question is submitted with this enclosure, and I believe, will serve to clarify the material previously submitted.

The Baltimore Camas Mines, Inc., is a consolidation of the Baltimore Silver Lead Mines, Inc., and the Camas Mining Corporation. My Accountants are working on this consolidation and will have the financial statements prepared in a few days. As soon as this audit report is completed, I will send it to you under separate cover. The financial statement, of course, will apply to the several projects of company holdings, but, as previously stated, the IDA HARLAN will be operated as an individual project and a complete and separate accounting will be kept of all costs and receipts directly relative to the IDA HARLAN.

As I stated in our recent conversation, we intend to begin surface stripping operations on the IDA HARLAN very shortly and hope we may have your approval to allow the cost of this exploration as part of this company's participation in the overall program.

I hope the information here submitted may serve to complete and expedite approval of our project, since we are most optimistic that the IDA HARLAN may be developed into an important producer, and hope to get under way at the earliest possible instance.

Thank you for your attention to our material, and we will co-operate in any way to clear up any further questions that may arise.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 5 1951
LANDON F. STROBEL
Executive Secretary

Sincerely,

G. P. Williams, by:

G. P. Williams

A. E. Pierpont

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 1245 X

Date received 5-21-51

Participation

Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Name and address of applicant

Date May 12, 1951

FILL IN THIS BLOCK

Date of application May 12, 1951

Estimated cost $100,502.00

Mineral or metal Lead and Zinc

Percentage of Government participation 50%

Location of mine Warm Springs Creek District

Bailey, Idaho

Date of filing MF-100

DMA Docket Number, if available dma 1245 X

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64067-1

THE PROPERTY

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

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

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

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

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

THE EXPLORATION

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

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

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

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

Baltimore Camas Mines, Inc.
(Name of company)

By J. W. Williams
(Signature of authorized official)

May 12, 1951
(Date)

Pres
(Title)

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

*Same as footnote on page 1.

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

1. Applicant is a corporation.

2. Unnecessary

3. The Officers of the corporation are:

President--G. P. Williams, Boise, Idaho
Vice President--C. E. Carver, M. D., East Washington St., Pasedena, Cal.
Secretary--E. P. McDonald, Boise, Idaho
Treasurer--E. P. McDonald, Boise, Idaho

Directors;

G. P. Williams, Boise, Idaho
C. E. Carver, Pasedena, Cal.
Winton Gray, Sun Valley, Idaho
D. G. Taylor, Rexburg, Idaho
E. P. McDonald, Boise, Idaho

Five largest shareholders are:

G. P. Williams, Boise, Idaho
C. E. Carver, M. D., Pasedena, Cal.
C. V. Peckham, Caldwell, Idaho
D. G. Taylor, Rexburg, Idaho
B. A. Stunz, Boise, Idaho

4. The applicant, Baltimore-Camas Mining Company, is a new corporation resulting from a merger of the Camas Mining Company and the Baltimore Silver Lead Mines, Inc., two Idaho corporations. The merged corporations have been in existence for approximately seven years, and both corporations have been active in the actual development and mining of their respective holdings during that period. In addition, both corporations have engaged in actual milling operations and own a modern 100 ton flotation flotation mill.

(b) The President of the corporation, G. P. Williams will have the overall responsibility; the actual mining and development work will be under Loren Smith, an experienced mine operator for over twenty years standing. Sam Bida, a graduate mining engineer with twelve years of actual engineering in the mining field will assist in directing the operation.

5. Lessee

6. There are no liens, claims, or encumbrances against the property.

7. Copy of lease is attached and it is herby certified that the same is in good standing. There are no claimants, lienors, or holders of any encumbrances which will require subordination to the interest of the United States Government.

8. A current financial statement will be submitted in the near future. At this time the recent merger of the two corporations entails considerable work in preparing the requested financial statement. The statement now is in the process of preparation and will be submitted as soon as possible.

9. Applicant is prepared to match the government's contribution to the project.

THE PROPERTY

10. (a) This exploration project will be confined solely to the IDA HARLAN claim of the Baltimore group in the Warm Springs Creek Mining District of Blaine County, Ida.

(b) IDA HARLAN claim - Lot 47, Survey No. 11 (1883), 18.17 acres in NW¼, Sec. 23, T4N, R18E, Alturas (now Blaine) County, Ida.

11. IDA HARLAN LODE as originally located.

12. Property is located 14½ miles N. of Hailey, Ida. and is reached by Hailey & Ketchum surfaced highway to Elkhorn Gulch then by 4 miles unsurfaced road up Independence Gulch. Hailey is the logical railroad shipping point and supply center and year around accessibility can be attained although snow-ploughing will be necessary during winter months.

13. Very little water available on property although a sufficient underground supply can be developed for drilling. Springs supply sufficient water for domestic use.

Electric power will be installed through Idaho Power Co. and an estimate of installation and monthly power costs is detailed in item 23.

14. There is only one 10 x 10 shack and property.

15. High grade will be shipped directly by rail to Salt Lake smelters. Mill grade ore will be treated at the Camas Mill 27 miles distant. The Camas has a 100 ton capacity mill and flotation platn and is under the operation of Baltimore-Camas Mines, Inc. as is the IDA HARLAN. Concentrates will be shipped by rail to Salt Lake smelters.

16. (a) A tunnel was driven in 1880 and abandoned after cross-cutting vein. Then in 1947 the Baltimore people drifted 145 ft. SW and 170 SE on vein and drove 2 short raises. (Ref. Pamphlet 90, Ida. Bureau of Mines and Geology). Exploration has not yet disclosed commercial ore.

(b) The same vein that traverses the entire length of the IDA HARLAN has provided substantial, profitable production on both the Independence claim adjoining on the east end and, reportedly, the Chicago adjoining on the west end line. There is a probability that no downward extension of both the Independence and Chicago sections of this vein are ports of the now productive Trimmph Mine workings. The Triumph production (figures from Pamphlet 90) was 700 to $800,000.00, net smelter, per year for the period from 1936-48.

(c) See included engineering report by Bida & Anderson (May, 1951)

17. Not applicable.

Baltimore Camas Mines, Inc.
601 Eastman Bldg.

REQUIREMENTS AND COSTS

(A) Drift & X-Cut Rehabilitation	Employees	Time	Rate	Sub-Total	Total
Miners	3	6 days	13.00/day	234.00	
Station					
Miners	7	36 days (2 shifts)	13.00/day	3,276.00	
Shaft Sinking					
Miners (Shaft Men)	6)		14.50/shift)		
Trammers	3)		13.00/ ")		
Hoistmen	3)	125 days	13.00/ ")	23,875.00	
Framer	1)	(3 shifts)	13.00/ ")		
Utility (day)	1)		13.00/ ")		
Outside Crew					
Equip., install & rough carpentry (1st 8 weeks only)	3	1 shift (48 days)	13.00/shift	1,872.00	
		To Complete Sinking		$29,257.00	
Drifting & X-Cutting					
Miners	4)		14.00/shift)		
Muckers	4)	2 Shifts -	13.00/ ")	11,680.00	
Trammers	2)	2 Headings	13.00/ ")		
Hoistment	2)	73 Days	13.00/ ")	Overall	$40,937.00
		Add 10% of Total for Compensation			4,093.00
				TOTAL	$45,030.00

Note: Sinking and drifting operations are not presently contemplated to run simultaneously but if later developments during sinking indicate advisability of changing this schedule some slight alterations in the labor setup can be then made.

(B)					
Superintendent	1)	6 Mos. Sinking	525.00/mo.)	Sinking	7,525.00
Engineer (Part Time	1)	3 Mos. Drifting	300.00/mo .)	Dr. & X-Cut	3,225.00
Accountant	1)	& X-Cut	250.00/mo.)		10,750.00
		Add 10% of Total for Compensation			1,075.00
				TOTAL	$11,825.00

(C) None

(D)	Building - 14 x 24 - Combination Dry room & framing shed Building - 14 x 20 - Compressor House & tool shop (Note: Labor for bldg. included in (A))	Materials	2,400.00

(E)	Electric hoist & 35 HP Motor (2nd Hand)	2,000.00	
	Hoist cable 5/8" 600'	250.00	
	Switch panel, grids, etc.	600.00	
	Electric welder	400.00	
	Pumps (electric sinkers) with Motors (2)	2,500.00	
	Sheave & brngs	100.00	
	Pipe - 600' - 3"	250.00	
	Rail for incline - 1000' - 20#	560.00	
	Rail for drifts & X-cuts 2500' - 20#	1,400.00	8,060.00

(F) None

(G)	IR Model 75, 315 cu. Ft. Compressor	(10 Mos.)	Rental	Val.	225.00 Mo.
	75 HP AC Motor	"	"	"	225.00 Mo.
	Skill Saw	"	"	"	25.00 Mo.
	2 Thor Jack Hammers 1 Thor Stoper 2 Cleveland Deifters	"			150.00 Mo.
					6,250.00
	1 Muck Skip - ½ Ton 1 Vent Fan (Blower) Acetylene Torches 1 Receiver 3'x9' 2 Pressure Tanks 3 Mine cars 500' Tract	No Rental			
	Sullavan Mucking Machine (4 Mos. Only)				250.00 Mo. 1,000.00
				Total	$7,250.00

(H) Sinking

Explosives	2,860.00	
Hoses, fittings, bolts, small tools, etc.	400.00	
Hand tools (picks, shovels, axes, etc.)	400.00	
Lubricants & Machinery upkeep $150.00 Mo.	1,050.00	
Timber (8 x 8, 6 x 8, logging) @ $70.00 M	3,990.00	
Steel and bits	500.00	
		9,200.00

Drifting & Xpcutting

Explosives @ 2.50 per ft.	3,250.00	
Timber 5000 ft. 8 x 8, logging	350.00	
Steel bits 75¢ ft.	975.00	
Lubricants and machinery upkeep $150.00 mo.	450.00	
		3,955.00
		$13,155.00

(I) Transportation (Employees at mine) @ $150.00 Mo.	1,500.00	
Bulldozing (Road repair & leveling)	400.00	
Assaying	200.00	
* Power (Initial installation) by Idaho Power Co.	4,200.00	
Power (electric) 9 Mos. @ $530.00/mo.	4,770.00	
		$11,070.00

Note: Power installation and monthly costs are estimated based on consulation with Idaho Power Co. representatives. Installation charge is paid back to operator over a 5 year period by application of 1/4 the monthly power bill and if operation ceases in one year or less $2,500.00 of the original installation charge is retained by Idaho Power. Montly charge is based on peak load requirements and KW hours used and will be approx 1¢ per KWH.

18. Has not been operating -- see engineers report for description of deposit, maps, and estimates.

19. The vein on the IDA HARLAN was not sufficiently explored either laterally or vertically to determine the location or extent of potential ore bodies. The west drift definitely indicates increasing iron mineralization but the east drift appears to have left the main vein structure (see map) donducive to mineralization. Also the downward extension of the vein (refer to figs. 17-18, Triumph, Pamphlet 90) should contact the more favorable limestone beds at a greater depth. This latter fact (relative to type of host rock traversed by ascending mineral solutions) is the most important geologic factor is locating the commercial ore bodies of the Hailey district.

THE EXPLORATION

20. Exploration will be conducted for commercial lead-zinc ore bodies of fissure and replacement type.

21. A 500 foot inclined shaft will be sunk on the IDA HARLAN lode from the level of the present SW drift as indicated on the geologic map.

Ninety days will be allowed to obtain and install equipment, cut station and otherwise prepare for actual sinking. Sinking will proceed with 3 shift operation and an estimated daily advance of 4' should be maintained.

Additional exploration, comprising 1000 ft. of drift and 300 feet of cross-cuts will be carried out from the exploration shaft and will be launched from the point of adjudged most geologically favorable by study and evaluation of results of the sinking operation. Such drifting and cross-cutting can be most economically accomplished on a two shift, two heading basis and will require 3 months time to complete, thus bringing the total time for the entire exploratory project ot 10 months.

22. See engineering report and maps --

The productive Trimmph (lead-zinc) mine is actively operating adjoining propsperties and this claim is located in the midst of the productive area. Further, because of the surface showings this was one of the first claims to be located in this area (see patent records). More recent geologic study proves that the IDA HARLAN LODE lies in the more limey members of the Milligan formation which has served as host rock for the better commercial ore bodies of the district.

Month	Progress	Cost
First	Purchase New equipment Commence building and equipment installation Provide for power installation Rehabilitate drift and cross-out Start work on shaft station	$22792.00
Second	Complete building and equipment installation Complete work on shaft station	5110.00
Third	Sink shaft 100 feet	9602.00
Fourth	Sink shaft 100 feet	9202.00
Fifth	Sink shaft 100 feet	9202.00
Sixth	Sink shaft 100 feet	9202.00
Seventh	Sink shaft 100 feet--completes sinking to 500 feet	9202.00
Eighth	Begin drifting, drift 434 feet	8730.00
Ninth	Drift and cross-out 433 feet	8730.00
Tenth	Drift and cross-out 433 feet--completes project	8730.00
	Total estimated cost	100,502.00

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

ENGINEERING REPORT

on

IDA HARLAN PROJECT

for

Baltimore Camas Mines, Inc.

by

S. L. Bida

&

D. E. Anderson

May

1951

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

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MINE

The property concerned in this report is the IDA HARLAN claim of the BALTIMORE group. The Baltimore Gemas Mines, Inc. holds the property under a bond-lease agreement (from the owners, the receivers of the defunct Baltimore-Victoria Co.). This lease is in good standing and, under terms of this agreement, the purchase price of $75,000.00 will be retired entirely through royalty from the net proceeds of production.

The IDA HARLAN claim is patenated as Lot 47, under Survey No. 11 of 1883 and comprises 18.7 acres in the Warm Springs Creek Mining District of Blaine County, Idaho.

LOCATION

The IDA HARLAN is located 14 miles North of Hailey, Idaho in the Warm Springs Creek Mining District of Blaine County.

The district is active and is, and has been for many years, a substantial producer of lead, zinc, and silver.

COMMERCIAL ASPECTS

The claim is traversed by at least one vein which has produced substantially on the property adjoining immediately to the east and there has reportedly been considerable production from this same vein on the property immediately to the west. Both these adjoining properties, namely, the Independence and the Chicago, are owned by the Hailey-Triumph Mining Co., the districts largest producer to date.

The IDA HARLAN section of this vein has the same general characteristics as in the Independence. The vein as exposed is a strong fissure with quartz fill rangeing up to 12 feet in width. The quartz has been mineralized particularly in the wider more fractured sections as indicated in the SW drift. The host rock enveloping this fissure is the same general formation which has produced commercial ore bodies in the adjacent area. The SW end of the present drift represents the most favorable section of the vein yet exposed because of the excessive width of quartz and increasing iron mineralization. Further, it is to be expected that downward extension of exploration on the IDA HARLAN will encounter more favorable (increased lime) members of the formation which are more conducive to commercial metal deposition than those encountered on the present level. This assumption is substantiated by the fact that the better ore bodies on the Independence lay on lower levels and by the fact that the vein on its downward extension cuts different members of the Milligan formation which dips more steeply than the vein itself.

Also, it must be borne in mind that the exploration thus far covered only a fractional part of the total amount of vein length encompassed by the claim and that on only one level.

ORE DEPOSITS

General

The veins of the IDA HARLAN are of the same type which traverse productive properties immediately to the east, west and south and lie in a similar formation.

These veins are fissure type and have produced ore bodies of both fissure fill and replacements in favorable horizons, along sections of these veins.

The fissures were originally formed by low angle reverse faulting and mineralization followed the more permeable sectors of the planes of weakness. The larger ore bodies appear to have been formed in the more limey members of the Milligan formation which has been the most productive Lead-Zinc host rock of the area.

Tenor

Since the exposed vein section does not appear to be of a commercial grade only two samples were taken relative to this report and these were taken from an oxidized portion of the vein. The results of these assays are tabulated on the accompanying geologic map. A sample taken by Idaho Bureau of Mines Engineers across the vein below the west raise (Pamphlet 90, Idaho Bureau of Mines and Geology, P. 58) gave 3% Zinc, 1.5% lead, and 3 oz. silver per ton. Footage was not given but is assumed to have been about 5 feet. An interesting fact brought to light by this return shows the ratio of silver to lead in this section to correspond very closely to that of the Independence Mine (refer G.S.B. 814, Geology and Ore deposits of Wood River Region, Idaho, p. 178).

HISTORY AND PRODUCTION

The original discovery was probably made in the late 1870's or early 1880's and the present cross-cut was driven 280' during the 1880's. This early cross-cut was driven to the vein, then abandonded. The property lay inactive until 1947 when it was acquired by the Baltimore people and drifts were extended 145 feet SW and 170 SE along the vein.

There has been no production.

DEVELOPMENT

The IDA HARLAN has, to date, been opened up only by a 280 foot cross-cut and 315 feet of exploratory drift, plus three short raises. No backs of any consequence can be attained from this level on any ore shoots that might be encountered. A few surface trenches outline the course of the vein along the length of the claim.

The exact position of the portal of the cross-cut with respect to the claim boundaries was not established in this investigation since the original survey corners were not observed, but it is assumed according to the position of the vein as shown in Plate 21 of G.S.B. 814 that the outcrop follows somewhat south of the center line of the claim.

GEOLOGY AND MINERALIZATION

General District Geology and Mineralization

The general regional geology has been quite thoroughly studied and reported upon in such publications as have been previously referred to and only a few of the facts considered to be of paramount importance in determining commercial possibilities will be discussed here.

The important formation of the region are the overlying Wood River and Milligan sedimentary beds which serve as host rock to most of the important ore deposits and the underlying granitic rocks of Upper Cretaceous and later geologic ages from which the

minerals derived. Dykes, both andesitic and dacitic, were intruded during early tertiary age. Mineralization followed some time after these dyke intrusions. These outlying granitic masses, such as represented here, are in all probability related to the Idaho Batholith and the mineralization deriving from them is hence of a similar type and age to other mineral districts around or about the edges of the batholith. Parts of this particular area, however, are deeply overlain by sedimentary and metamorphic rocks of greater geologic age, which in some cases have provided a most favorable host rock for mineral concentration with resultant important ore deposits. Insome cases the granitic rocks underly rocks of Silurian, Ordovician and Algonquin age in addition to the Wood River and Milligan formations, but little or no exploration has been extended into these formations.

The intruding granitic masses brought about stresses which set up crustal disturbances in the older rock formations and in the Triumph area, in particular, resulted in thrust fault movements, which fault planes later provided channels for the ascending mineral solutions. Another factor resulting from the granitic intrusives was the magmatic separtion effected by the cooling igneous mass with resultant filling of some of the channels with dykes and quartz which also, in some cases, provided zones of weakness that later channeled the mineralization. The metallic minerals, representing a still further magmatic separation, then followed the channels previously formed by First, the faulting, dyke fills, and quartzing, and later recurrent movement with resultant fracturing, and deposited in the fractures as a fill and in adjacent replaceable limestone members. Still further recurrent faulting along some of these weak zones has brecciated the ore by movement along the strike of the veins and some normal faulting across the structure has caused some offsetting of veins and ore shoots.

The mineralization is Mesothermal in type and the ore shoots are almost wholly composed of primary minerals with but little secondary enrichment in evidence. The ore minerals are usually argentiferous, galena, abundant sphalerite, lesser amounts of tetrahedrite, and minor, variable amounts of chalcopyrite, pyrite, and arsenopyrite. Gangue minerals consist of quartz, partially replaced wallrock and siderite. More than one period of mineralization is represented in the veins of the district. The probable general order of introduction of minerals into the veins has been, first, quartz, followed by pyrite, then sphalerite, galena, tetrahedrite, polybasite and chalcopyrite in that order.

Geology and Mineralization of IDA HARLAN

The IDA HARLAN workings are located in the rocks of the Milligan formation of Mississippian Age. The footwall area of the exposed formation is made up of the limey, argillaceous shales and limestone members while hanging wallarea, where exposed, shows a more quartzitic argillite of the same formation. (See accompanying geologic map.)

The veins were formed by a severe thrust action originating from a southerly direction. This low angle thrust movement resulted in considerable displacement with the lower beds moved upward to the north and such upward movement in turn caused local irregularities in strike of the fault plane. Harder members of the upward moving beds coming in contact with softer members of the block below the fault plane caused excessive brecciation in such areas and thus formed potentially wide permeable zones for later ore deposition.

The mineralization observed in the IDA HARLAN occurred in two well developed fissures some 150 feet apart on the present level but probably related at depth. The main (southermost vein) has been most explored and exposes a massive quartz body over a length of 180 feet and widths vary from 3 to 12 feet. The quartz has pinched in its

eastward extension but the west drift body appears to be widening and iron mineralization is increasing. The ore genisis of this vein is typical of the district in general but conforms most closely with that of Federal workings of the Independence Mine. Quartz was the first mineral deposited, then was rebroken and pyrite, sphalerite, galena, tetrahedrite and accessory minerals were deposited locally in these fractures. No replacement ore bodies are exposed in present works but such limestone replacement type deposits may be expected at such local areas where the fissure intersects more favorable horizons of limestone host rock.

Wall rocks, show some pyritization, silicification, and graphitization. Locally graphitization is much in evidence and is no doubt resultant from intense hypothermal alteration of the carbonaceous argillites.

The vein, as exposed, has a general east-west strike and dips flatly (up to 36°) to the south. An average width of over 6 feet is maintained along 180 ft. of the strike length opened up.

The foregoing geological and mineralogical factors observed in the IDA HARLAN follow very closely the pattern that has resulted in formation of large, productive ore bodies in other properties in the vicinity.

GENERAL PHYSICAL FEATURES

Topography

The area is high and mountainous representing a recent erosion surface with the mountains rising abruptly and steeply from flat valley floors.

Hydrography

Independence Gulch, an intermittent stream composed of springs, flows past the property. The Independence property, located just above the IDA HARLAN, once operated a mill (probably 50 ton) from water developed from these springs and underground sources.

Water for underground work can be developed in the mine workings and a domestic supply is available from survace springs.

Climate, Altitude and Accessibility

Climate is generally moderate with severe seasons from January through April when heavy snowfall may be expected.

Average altitude of the region is from 6000 to 7500 feet. The IDA HARLAN portal is at 7100 ft. elevation.

Ketchum, Idaho, eight miles distant is the nearest town while Hailey, 14½ miles distant is the supply center and railhead. The IDA HARLAN is reached from Hailey by traveling 10½ miles of surfaced highway to Elkhorn Gulch, then 4 miles of unsurfaced county road up Elkhorn and Independence Gulch. Year around access could be maintained although snow plowing will be necessitated during winter months.

Timber

No timber is available on the property but some sawed timber can be obtained from a small local sawmill at a cost of $65.00 M.

Sage, scattered brush and grasses comprise the only vegetation of the property.

EQUIPMENT AND LABOR

Buildings

No useable buildings are now on the property. The 10 x 10 shack remaining could hardly be rendered serviceable and at least two new buildings must be constructed, probably one to serve as combination change room and framing shed, the other as combination shop and compressor house to serve the immediate housing needs for any extensive operation.

Machinery

No machinery remains on the property and the only serviceable equipment is a few hundred feet of track and pipe in the cross-cut and drifts.

A considerable portion of the machinery requisite for an exploratory and development operation at the IDA HARLAN is, however, available from other properties of the Baltimore-Camas Mines, Inc. Such items include compressor, electric motor, pneumatic drills, skill saw, mine cars, vent fan, mucking machine, receiver, pressure tanks, and some pipe and track. This equipment was given a cursory inspection and appears for the most part to be serviceable.

Machinery that will have to be procured from outside sources includes electric hoist and motor with accessory control board, etc., cable, electric sinker pumps, additional pipe and track, an electric welder, and such expendable supplies as are requisite to a mining operation.

Power

Since no power unit is now on the property the most feasible and economical source of required power is electrification by Idaho Power Co. This entails installation of a little over 2 miles of transmission line and rough estimates by Idaho Power representatives indicate the cost of this installation to be in the neighborhood of $4,200.00. This amount is, however, refundable to the mine operator through the medium of reduced power rates over a 5 year period. Power rates as computed on basis of expected requirements will probably be slightly less than one cent per kilowatt hour.

Labor

Some local labor is available and usually additional help can be procured from the Boise area. However, here as elsewhere, the mine labor situation is problematical and must be viewed well in advance if a constant manpower supply is to be maintained.

Mill

No milling facillities are available at the property but the operators, the Baltimore-Camas Mines, Inc., own and operate the Camas Mill some 25 miles from the Ida HARLAN and this plant will be utilized for treatment of ore mined from this property. The Camas plant is a 100 ton capacity mill and flotation plant constructed in 1950 and is at present under the supervision of a competent and accredited metallurgist. Cost of treatment at this plant is estimated at $3.00 per ton and haulage from mine to mill would require an additional $2.00 per ton.

CONSLUSIONS AND RECOMMENDATIONS

A thorough study and evaluation of the physical and geological facts acquired through personal observation of the property as well as reference to such authorative publications as G.S.B. 814 and Idaho Bureau of Mines Pamphlet 90 has allowed us to set forth the salient facts regarding the IDA HARLAN. A review of this material as presented in the foregoing pages makes self-evident these conclusions:

(1) The location of the property both with respect to formation and geographical position places it in the known productive area.

(2) The specific geological and mineralogical features of the IDA HARLAN vein and wall rocks closely parallel the conditions of other veins and extensions of the same vein that have attained substantial production of lead, zinc, silver in the immediate vicinity.

(3) Only a minor portion of either the lateral or vertical extent of the IDA HARLAN vein area has been explored.

(4) An exploratory program which would have a very definite prospect of disclosing an important commercial lead-zinc ore body or bodies can be carried out with no unusual operational problems and at a cost which can by no means be considered prohibitive under present economic conditions.

Before briefly summarizing the material facts relating to the conclusions enumeraged above, it must be emphasized that the known geologic features of the adjacent productive area were used as a yardstick to evaluate the possibilities of the IDA HARLAN. The considerable size of the vein, the mineral type observed, and the makeup of the wallrocks definitely lend credence to the probability that commercial ore is to be expected along some unexplored portion of the vein.

While no commercial ore has yet been disclosed it must be reinterated that only a relatively minor portion of the potential productive vein area of this property has been opened up. The present level shows some evidence of approaching an ore shoot in the face of the west drift but the most feasible course appears to consist of following the downward extension of the vein as it cuts the Milligan formation at a slight angle on the dip and thus enhance the possibilities of coming into an ore shoot by the probability of encountering members of the wallrock which have a more limey makeup, hence are more favorable for replacement and metal deposition. The characteristics observable from sections thus far exposed in the IDA HARLAN point to the probability of a fissure type deposition in the wide quartz sections but the more nebulous possibility of encountering a replacement ore body in a favorable limestone horizon cannot be overlooked. Also, such physical factors as local flattenting of the vein and change of strike must be regarded as favorable for ore deposition.

Hence, we believe the exploration program now being contemplated constitutes an entirely justifiable expenditure. This program allows for the sinking of a 500 foot incline winze from the SW drift on the present level. This inze will serve to explore the downard course of the vein through different, more southerly, beds of the Milligan formation than those now exposed and thus afford the opportunity to contact the formation most favoable for ore deposition. Additional exploratory work in this program provides for 1000 feet of drifting off the most favorable level or levels of this incline and further for 300 feet of cross-cutting to explore the walls of these drifts for possible replacement ore bodies. It should be understood that these projected estimates of footage to be explored must of needs be subject to revision as the geological evidence is further exposed by progress of the sinking or drifting. The overall cost of

This program will be slightly in excess of $100,000.00 which expenditure appears reasonably well in line with the average cost of such projects. Manpower and material requirements may constitute some temporary problems although the latter should give little trouble in view of the fact that a sizeable part of the equipment can be produced by the operator himself. A further inducement to pursue this project lies in the fact that any bodies of mill grade ore that may be encountered can be treated at the Camas Mill and flotation plant and would not necessitate erection of an additional plant. The successful fulfillment of the exploration in a reasonable time will necessitate competent supervision and engineering advice and will demand the maximum utilization of mechanization to overbalance the critical labor situation.

Thus, in view of the previously stated favorable conditions for commercial ore bodies, and because of the present urgent demand and ready market for the metals here sought, we recommend that the projected exploration program be carried out as expeditiously as possible.

S. L. Bide

S. L. Bide, E. M.

D. E. Anderson

D. E. Anderson, E.M.

dmw 12:44X

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. 157 Howard Street
Spokane 1, Washington

May 16, 1951

Memorandum

To: Lead-Zinc Committee, Defense Minerals Administration, Washington 25, D. C.

From: Field Team, Region II

Subject: Application for exploration loan by Baltimore Cassia Mines, Inc. Blaine County, Idaho.

Enclosed herewith is an application for an exploration loan submitted by Baltimore Cassia Mines, Inc. The applicant proposes an exploration program, the total cost of which is to be $10,502. The program calls for sinking a 500-foot inclined shaft on the vein from the present adit level, and for 1,000 feet of drifting and 300 feet of crosscutting to be driven from the shaft. The total exploration program is to be completed in ten months time.

The Ida Marion was not examined by the DMA Examination Team, but was previously mapped by Thor Hillsgaard of the Idaho Bureau of Mines and Geology now a member of the Geological Survey attached to the Spokane office. Hillsgaard describes the vein as a strong quartz-filled structure that reaches a thickness of 18 feet in the west drift face. A sample taken near the west face went 1.5 percent lead, 5 percent zinc, and 3 ounces in silver per ton (See Idaho Bureau of Mines & Geology Pamphlet 70, dated October 1950). In the adjoining Independence claim to the east, the same structure was productive and was extensively mined by the Independence mine. (See "Op. cit." p. 214). In the Independence mine, barren quartz-filled portions of the vein similar to the Ida Marion are reported to have occurred. The vein in the Independence claim often changed in strike and dip and was not found on the No. 10 level or in the underlying lower tunnel. Apparently, the vein was either faulted out in these levels or was not mineralized and was not recognized as the intersection. Whether or not the vein would be similarly affected in the Ida Marion claim could be determined only by exploration. In any event, a 500-foot inclined shaft from the Ida Marion adit should not reach the level at which the vein was lost and could conceivably develop substantial ore bodies.

Mr. [illegible], who has drawn up the accompanying application, and who will have charge of the exploration work, is a reputable mining engineer. We would [illegible] generally favor the proposed exploration program.

The Ida Marlan vein is a strong structure that warrants further exploration. The vein was productive in the adjacent claim to the east and there is every reason to believe that it will be productive in the Ida Marlan area. The Field Team recommends that this exploration application be accepted.

By Field Team, Region II

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

W. E. Volin, Associate Officer
(U. S. Bureau of Mines)

cc: U.S.B.M. Albany
U.S.B.M.

Enclosures

DEPARTMENT OF THE INTERIOR
Geological Survey Library
MAY 21 1951
Denver Branch

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 21 1951
LANDON F. STROBEL
Executive Secretary

BALTIMORE CAMAS MINES, Inc.

601 Eastman Building

BOISE, IDAHO

June 28, 1951

DMA 1245X

Otto Herres
Chief, Lead Zinc Branch
Defense Minerals Administration
Washington 25, D. C.

Dear Mr. Herres:

I have requested my engineers to supply the additional information relative to the Ida Harlan Mine Loan Application, which Mr. Billings discussed in our telephone conversation of June 26. Mr. Bida and Mr. Anderson, both mining engineers, have rechecked the IDA HARLAN present and proposed development locations and their statement and map covering all material in question is submitted with this enclosure, and I believe, will serve to clarify the material previously submitted.

The Baltimore Camas Mines, Inc., is a consolidation of the Baltimore Silver Lead Mines, Inc., and the Camas Mining Corporation. My Accountants are working on this consolidation and will have the financial statements prepared in a few days. As soon as this audit report is completed, I will send it to you under separate cover. The financial statement, of course, will apply to the several projects of company holdings, but, as previously stated, the IDA HARLAN will be operated as an individual project and a complete and separate accounting will be kept of all costs and receipts directly relative to the IDA HARLAN.

As I stated in our recent conversation, we intend to begin surface stripping operations on the IDA HARLAN very shortly and hope we may have your approval to allow the cost of this exploration as part of this company's participation in the overall program.

I hope the information here submitted may serve to complete and expedite approval of our project, since we are most optimistic that the IDA HARLAN may be developed into an important producer, and hope to get under way at the earliest possible instance.

Thank you for your attention to our material, and we will co-operate in any way to clear up any further questions that may arise.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 5 1951
LANDON F. STROBEL
Executive Secretary

Sincerely,

G. P. Williams, By
A. E. Pierpont

G. P. Williams

BALTIMORE CAMAS MINES, Inc.

601 Eastman Building

BOISE, IDAHO

June 28, 1951

Otto Herres
Chief, Lead Zinc Branch
Defense Minerals Administration
Washington 25, D. C.

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DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 5 1951
LANDON F. STROBEL
Executive Secretary

Sincerely,

G. P. Williams, by:

G. P. Williams

A. E. Pierpont

BOISE INTERNATIONAL MINING SERVICE

631 Idaho First Nat'l Bank Bldg. Phone 522

Boise, Idaho.
June 29, 1951.

From: D. E. Anderson
Mining Engineer
631 1st Nat'l Bank Bldg.
Boise, Idaho

To: (Action) G. P. Williams, Pres.
Baltimore Camas Mines, Inc.
Boise, Idaho.

(Information) Mr. Otto Herres
Chief, Lead Zinc Branch
Defense Minerals Administration
Washington 25, D. C.

Subject: Ida Harlan Mine Loan Application - Supplementary information.

1. We have completed a recheck of the position of the Ida Harlan vein outcrop and underground workings with results as shown on the enclosed patent survey plat upon which I have drawn the required features, giving location of present workings, approximate path of vein outcrop over claim length (overburden on part of outcrop renders exact position obscure), and site of proposed development.

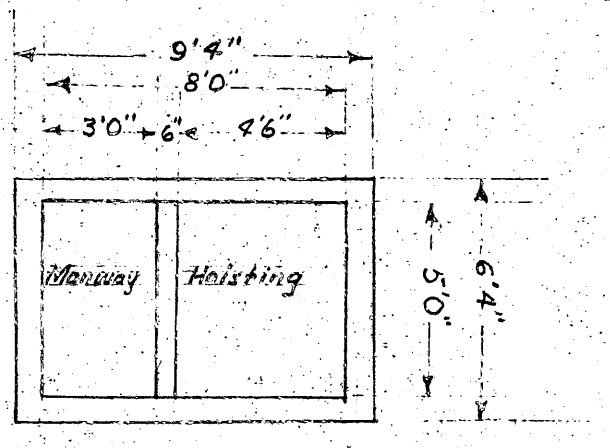
We were able to locate the N. E. corner of the Chicago Claim (Survey 2309) where it is coincident with the N. sideline near the N. W. corner of the Ida Harlan (Index 263) and the S. E. corner of the Minnie Mae, which is coincident with the N. sideline of IDA HARLAN and from this later point located the Portal of the Ida Harlan crosscut as shown. Thus our survey shows conclusively that the entire underground workings of the Ida Harlan lie well within the claim boundaries as does the surface outcrop at all points presently exposed.

It should be noted that a check of the Patent Survey Plats in the Land Office in Boise shows that there is some overlap of the Little Giant and Harper Fraction with the Ida Harlan. This overlap occurs at the S. E. corner of the Ida Harlan and will in no way interfere with the proposed development. A check of the survey notes and records available in the Land Office shows the IDA HARLAN patent to be far prior to that of the overlapping claims and no conflicts are on record. Hence, it appears that the Ida Harlan boundaries stand as shown on the Plat. However, it would be well to write to the Bureau of Land Management in Washington, D. C. for photostatic copies of the existing Ida Harlan patent which will show original location dates, etc., both to preclude any possible question of overlapping boundaries and to re-establish the true claim corners, some of which have been obliterated.

Our calculations show that the proposed incline winze (34° on dip

of vein) will leave the south sideline of the IDA HARLAN at an incline distance of about 220 feet below the proposed collar. Should subsequent exploration show the apex of the vein to leave the south sideline of the IDA HARLAN short of the east end line, a survey can be made to determine the exact distance a drift can be legally extended eastward along the vein off the winze. The bulldozer stripping now planned will allow a more exact determination of the position of the vein outcrop in this S. E. sector of the claim, but as previously stated, the area involved in the proposed sinking and most of the proposed drifting is without question well within the ground embraced by the claim boundaries and the projected apex priveleges.

2. The proposed winze will be dimensioned as shown in the sketch below. Winze will follow dip of the vein which, where now exposed, is 34'.



3. Scale on "Underground Geology Map" is 1" = 20'.

4. The water problem anticipated in the sinking of the IDA HARLAN winze appears to offer no unusual difficulty and the $2500.00 cost estimate made for pumps and motors was calculated to handle any possible contingency now foreseeable. However, I might state that in all probability an electric sinker pump complete with motor, starting equipment, etc., capable of lifting a 300 ft. vertical distance with a delivery of 100 gal./min. can handle the water satisfactorily and such can be installed at a cost of $826.50 (Intermountain Equipment Co.).

Respectfully,

D. E. Anderson

D. E. Anderson

of valve will leave the north stability of the [illegible] at an height dif-
ference of about [illegible] feet below the proposed valve. Should subsequent
experiments show the need of the valve to leave the north stability of the
[illegible] short of the east end line, a survey can be made to determine
the exact distance a fill can be legally extended eastward along the valve
off the shore. The bulkhead stipulation now planned will allow a more ac-
cut determination of the position of the north shoreline in this [illegible], section
of the state, but as previously stated, the area involved in the proposed
filling and most of the proposed filling is actually reclamation well within
the ground embraced by the state boundaries and the proposed open prime-
lages.

2. The proposed views will be diagrammed as shown in the sketch
below. Plans will follow dip of the very option, where now exposed, in [illegible].

3. Media on "underground battery cage" in [illegible].

4. The water problem mentioned in the minutes of the [illegible]
[illegible] plans appears to offer no general difficulty as the [illegible] cost
estimate made for pumps and motors not calculated to handle any possible
overflowing you [illegible]. However, I might note that in all probability
an electric motor pump overlate with motor, electrical equipment, etc., cap-
able of lifting a 300 ft. vertical distance with a delivery of 100 gal./min.
can handle the water satisfactorily and such can be installed at a cost of
$[illegible].00 (Underwriters Laboratories Co.).

Respectfully,

[illegible]

[illegible]

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

June 26, 1951

Airmail

Re: Docket DMA-1245X
Ida Harlan Claim
Lot 47

Baltimore Camas Mines, Incorporated
601 Eastman Building
Boise, Idaho

Gentlemen:

In order to expedite the processing of your application for Government assistance for your proposed exploration project pursuant to mineral order No. 5, under Defense Production Act of 1950, it is necessary that you provide additional information to Mr. Herres, Chief, Lead-Zinc Branch, Defense Minerals Administration, Washington 25, D.C., as follows:

Question 1. Please send a map showing the boundaries of the Ida Harlan lode claim with the location of the proposed 500 foot inclined shaft and the location of the proposed 1000 feet of drift and 300 feet of crosscuts from such inclined shaft, all on plan to scale and indicate the scale.

Question 2. Give dimensions of inclined shaft with number of compartments.

Question 3. On the claim map accompanying your application, titled, "Triumph Challenger and Baltimore Trust Groups", it appears that the mining claims adjoining your Ida Harlan claim on the east, west and south, are not owned by your company. Is this correct? Yes

Question 4. The map accompanying your application showing underground geology and Brunton Survey by S. L. Bide and D. E. Anderson of the adit tunnel and drift therefrom appears to be drawn to scale but no scale is given. Please give the scale and show the position of the portal of such adit on map requested in Question 1 of this letter.

These questions were put to Mr. G. P. Williams President of the company by telephone 6-26-51.
D. Delonge

Question 5. It is noted from your application that sinking pumps are required. Based on the experience of the district especially the near-by mining operation, please give your best estimate of the volume of water expected to be developed, in the sinking operation and whether or not it is likely to seriously interfere with such sinking. Not seriously

Yours very truly,

Otto Herres, Chief
Lead-Zinc Branch

Lease & option A W Ensign receiver of
Baltimore & Victoria Mining Company
to G. P. Williams. Recorded Nov 18, 1941
Assignment of Mining Agreements
G P Williams & Wife - Baltimore Jones
and V C. Belknap and G. P. Williams Trustee

Regular Assignment to Baltimore Claims
Mines Inc.
Regular Landlords subordination.

Buildings

4

Buildings
1 14x24 Combination dry & forming shed
1 14x20 Compressor house & tool shed
Materials $2400
Labor 1872

Mine rehabilitation Labor $234.00
Shaft station " " 3276.00

Sinking
Labor $29257.00
Supplies 9200.00

Brought for McNaughton
Hebres
Moto 6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. 1245X

To: Director, Production Expansion Division

Commodity Lead-zinc

From: Director, Supply Division

Total Amount $100,502

Govt. Participation 50% - $50,502

1. Name and Address of Applicant Baltimore Camas Mines, Inc., 601 Eastman Building, Boise, Idaho

2. Location of Property Warm Springs Creek, District, Hailey, Idaho Ida Harlan claim, Lot 47, Survey No. 11 (1883), 18.17 acres in NW 1/4, Sec. 23, T. 4 N., R. 18 E., Alturas County, Idaho

3. Mineral or metal Lead-zinc Is it listed in Section 9 of MO-5?

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 See attached statement

b) Poor

c) None

d) Don't know—needs field examination

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? Said to be, but is not with docket.

Does the lease have sufficient time to run to cover a future productive period?

*question numbers are those of MF-103

Docket DMA-1245X

Applicant: Baltimore Camas Mining Company

Property: Ida Harlan Claim, Idaho

4. (a) The country rock is the Milligan formation of Mississippian age which serves as host rock to a number of other important ore deposits of this region. It consists of limy argillaceous shales and limestones as well as more siliceous members. The rocks are cut by a comparatively flat-dipping thrust fault which has shattered members of the Milligan formation. At the level of the present workings the vein is in comparatively siliceous rock but may cut more limy members at depth; it carries principally quartz but some lead and zinc occurs at the west drift face. At favorable configurations of the vein, ore bodies occur at depth both east and west of this area. Proposed exploration at lower levels may conceivably develop ore bodies inasmuch as the geologic environment seems good.

7. Are subordination agreements necessary? _____

a) MF-201? _____

b) MF-202 _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes. (Location in active mining district and nearby other communities)

b) Equipment and supplies Yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes - by railroad with 10 miles of surfaced and 4 miles of unsurfaced connecting roads.

d) Water (question 13)* Yes

e) Power (question 13)* Yes - Idaho Power Co.

Is a field check needed on any of these points? No

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? No

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? Yes

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? No sketch of proposed workings, but good map of present workings is attached. Site of new shaft not shown.

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? Yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? Yes If so, attach a draft. See attached

e) Are the cost estimates reasonable? Yes

f) Should more information be requested from applicant? Yes. Telephoned to applicant 6/26/51. Submitted questions. See attached

g) Is a field examination necessary to complete Exhibit A? No

11. Exhibit B (question 23-d)*

a) Is it applicable? Yes

b) If so, are sufficient data furnished? Yes If so, attach a draft. See draft 10 (d)

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data? Yes If so, attach a draft. See draft 10 (d)

c) Are rents and charges reasonable? Yes. Low items balances high items

d) Is a field check needed? No

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed? Yes

c) Is the schedule excessive for the work proposed? No

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? No

		Estimated Cost	Cost per Foot
10. (d)	Inclined shaft sinking 500 feet		
	Direct Labor.....	$ 23,875.00	
	Indirect Labor.....	1,872.00	
		$ 25,747.00	
	Plus 10% for compensation....	2,574.70	
		$ 28,321.70	
	$ 28,321.70 ÷ 500 = ...		$56.64
	Rehabilitation adit-drift station		
	Rehabilitation job - labor...	234.00	
	Shaft station labor.....	3,276.00	
		3,510.00	
	Plus 10% for compensation....	351.00	
		$ 3,861.00	
	$ 3,861.00 ÷ 500 ft.....		$ 7.72
*			
	Supervision engineering and office	7,525.00	
	Plus 10% for compensation.....	752.50	
		$ 8,277.50	
	$ 8,277.50 ÷ 500 ft. = ...		16.56
	Supplies -		
	Explosives.....	$2860.00 ÷ 500 ft.=	5.72
	Timber.....	3990.00 ÷ 500 ft.=	7.98
	Miscellaneous.....	2350.00 ÷ 500 ft.=	4.70
	Power (used) 7 months at $530/month	3710.00 ÷ 500 ft.=	7.42
	Total cost (including preparatory work).....	53370.00 ÷ 500 ft.=	106.74
*	Preparatory work.....		7.72
	Power (initial installation) by Idaho Power Co.).....		99.02
	7/9 of $4200	3766.67	
	Time estimated 7 months to complete shaft, using 3 shifts per day		
	Extraordinary) Transportation, road Expense) repair, assaying, 7 mos.-	1470.00	

10. (d) (Contd)

Drifting and Crosscutting - total 1300 feet
Time 3 months:

	Estimated Cost	Cost Per Foot
Direct labor.....$	11,680.00	
Plus 10% for compensation.....	1,168.00	
	12,848.00	
$ 12,848.00 : 1300 ft.		9.88
Supervision, engineering and office...	3,225.00	
Plus 10% for compensation.....	322.50	
$	3,547.50	
$ 3,547.50 : 1300 ft. =.....		2.73
Supplies:		
Explosives,.....	3,250.00	
divided by 1300 ft.=		2.50
Timber.....	350.00	
Divided by 1300 ft.=		0.27
Miscellaneous.....	1,425.00	
divided by 1300 ft.=		1.10
Power (used) 2 mos. at $520/month.....	1,060.00	
divided by 1300 ft.=		0.82
Total..... $	22,480.50	
divided by 1300 ft.=		17.293
Power (initial installation) by Idaho Power Co. 2/9 of $4200.....	933.33	

Time estimated approximately 2 months to complete drift and crosscut, using 2 headings on 2 shifts per day.

Extraordinary - 2 months (transportation road repair, assaying)
Expense - 3 months 630.00

10. (d) (Contd.)

Summarized, as on page 2 of Procedural Instruction 5 A.

	Rehabilitation, adit, crosscut and drift, plus 10% compensation.....	$ 257.40
	Rehabilitation and repair of buildings.....	-
	Construction of Buildings (materials).....	2,400.00
	500 feet of inclined shaft at $99.02/foot.....	49,509.00
	1000 " " drifting at $17.293/foot.....	17,293.00
	300 " " crosscutting at $17.293/foot.....	5,187.00
	Shaft station plus 10% compensation.....	3,603.60
	Equipment cost.....	8,060.00
G	Rental value.....	7,250.00
	Power (initial installation) by Idaho Power Co..	4,200.00
	Extraordinary expense (transportation, road repair, assaying).....	2,100.00
	Total.....	$ 99,860.00

T. P. Billings, DMA

14. Exhibit E (question 23-c)*

a) Is it applicable? Yes

b) Sufficient data? Yes

c) Reasonable? Yes

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? Yes. By sinking on 3 shifts and drifting in two headings on 2 shifts as proposed by applicant.
(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

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: A. J. Bodenlos GS

T. P. Billings DMA

Date 6-27-51

Approved
Sam Lyon

97692

Recommendation

16. The approval of this project is subject to the examination of the facts which relate to the right of the applicant to follow his vein down dip beyond the south side line of his Ida Harlan lode claim underneath the surface of mining property not owned by the applicant.

Based upon the information and maps submitted in the application it appears that part of the proposed inclined shaft and proposed drifting and crosscutting, in order to explore, at the proposed depth, the vein in its dip from its apex shown on the Ida Harlan claim, will cross the south side line of said claim and underneath the surface of a neighboring property. In view of this possibility I called the applicant at Boise Idaho and talked with Mr. G. P. Williams, president of the applicant company. I discussed the additional information required which in part he was able to answer and he agreed to submit answers to the questions covering the additional information required.

To the question, as to the possibility of some of the project being done underneath the surface of a neighboring property, he replied that it was entirely possible and claimed the right to perform such work and the ownership of the ore so disclosed on the Ida Harlan vein or any vein which had its apex on the Ida Harlan claim within the projected end lines. Mr. Williams claims it is well established in the district for the owner of an apex of a vein to claim certain of the ore on such vein dipping out of the side lines of the lode claim holding the apex of the vein. This assumption of the applicant is predicated upon the Federal law which provides for an owner of the apex of a vein to exercise certain extra-lateral rights.

This becomes a legal problem in the event the additional information with maps show that such a condition as described above relating to this project does exist.

T. P. Billings, DMA

16. It is recommended that the exploration assistance requested in this application be granted on the basis of geologic indications. Field team Region II concurs: "The Ida Harlan vein is a strong structure that warrants further exploration. The vein was productive in the adjacent claim to the east and there is every reason to believe that it will be productive in the Ida Harlan area. The field team recommends that this exploration application be accepted.

A. J. Bodenlos - GS

Brochure Horses Photo 6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

To: Director, Production Expansion Division

From: Director, Supply Division

Docket No. 1245X

Commodity Lead-zinc

Total Amount $100,502

Govt. Participation 50%

1. Name and Address of Applicant Baltimore Camas Mines, Inc., 601 Eastman Building, Boise, Idaho

2. Location of Property Warm Springs Creek, District, Hailey, Idaho Ida Harlan claim, Lot 47, Survey No. 11 (1883), 18.17 acres in NW 1/4, Sec. 23, T. 4 N., R. 18 E., Alturas County, Idaho

3. Mineral or metal Lead-zinc Is it listed in Section 9 of MO-5?

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 See attached statement

b) Poor

c) None

d) Don't know—needs field examination

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? Said to be, but is not with docket.

Does the lease have sufficient time to run to cover a future productive period?

*question numbers are those of MF-103

Docket IDA-1245X

Applicant: Baltimore Camas Mining Company

Property: Ida Harlan Claim, Idaho

4. (a) The country rock is the Milligan formation of Mississippian age which serves as host rock to a number of other important ore deposits of this region. It consists of limy argillaceous shales and limestones as well as more siliceous members. The rocks are cut by a comparatively flat-dipping thrust fault which has shattered members of the Milligan formation. At the level of the present workings the vein is in comparatively siliceous rock but may cut more limy members at depth; it carries principally quartz but some lead and zinc occurs at the west drift face. At favorable configurations of the vein, ore bodies occur at depth both east and west of this area. Proposed exploration at lower levels may conceivably develop ore bodies inasmuch as the geologic environment seems good.

7. Are subordination agreements necessary? _____

a) MF-201? _____

b) MF-202 _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes. (Location in active mining district and nearby other communities)

b) Equipment and supplies Yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes - by railroad with 10 miles of surfaced and 4 miles of unsurfaced connecting roads.

d) Water (question 13)* Yes

e) Power (question 13)* Yes - Idaho Power Co.

Is a field check needed on any of these points? No

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? No

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? Yes

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? No sketch of proposed workings, but good map of present workings is attached. Site of new shaft not shown.

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? Yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? Yes If so, attach a draft. See attached

e) Are the cost estimates reasonable? Yes

f) Should more information be requested from applicant? Yes. Telephoned to applicant 6/26/51. Submitted questions. See attached

g) Is a field examination necessary to complete Exhibit A? No

11. Exhibit B (question 23-d)*

a) Is it applicable? Yes

b) If so, are sufficient data furnished? Yes If so, attach a draft. See draft 10 (d)

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data? Yes If so, attach a draft. See draft 10 (d)

c) Are rents and charges reasonable? Yes. Low items balences high items

d) Is a field check needed? No

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed? Yes

c) Is the schedule excessive for the work proposed? No

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? No

	Estimated Cost	Cost per Foot
10. (d) Inclined shaft sinking 500 feet		
Direct Labor.....	$ 23,875.00	
Indirect Labor.....	1,872.00	
	$ 25,747.00	
Plus 10% for compensation....	2,574.70	
	$ 28,321.70	
$ 28,321.70 ÷ 500 = ...		$56.64
Rehabilitation adit-drift station		
Rehabilitation job - labor...	234.00	
Shaft station labor.....	3,276.00	
	3,510.00	
Plus 10% for compensation....	351.00	
	$ 3,861.00	
$ 3,861.00 ÷ 500 ft.....		$ 7.72
Supervision engineering and office	7,525.00	
Plus 10% for compensation.....	752.50	
	$ 8,277.50	
$ 8,277.50 ÷ 500 ft. = ...		16.56

Supplies -			
Explosives.....	$2860.00	: 500 ft.=	5.72
Timber.....	3990.00	: 500 ft.=	7.98
Miscellaneous.....	2350.00	: 500 ft.=	4.70
Power (used) 7 months at $530/month	3710.00	: 500 ft.=	7.42
Total cost (including preparatory work).....	53370.00	: 500 ft.=	106.74
Preparatory work.....			7.72
Power (initial installation) by Idaho Power Co.).....			99.02
7/9 of $4200	3766.67		

Time estimated 7 months to complete shaft, using 3 shifts per day

Extraordinary) Transportation, road
Expense) repair, assaying, 7 mos.- 1470.00

10. (d) (Contd)

Drifting and Crosscutting - total 1300 feet
Time 3 months:

	Estimated Cost	Cost Per Foot
Direct labor.....$	11,680.00	
Plus 10% for compensation.....	1,168.00	
	12,848.00	
$ 12,848.00 : 1300 ft.		9.88
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Plus 10% for compensation.....	322.50	
$	3,547.50	
$ 3,547.50 : 1300 ft. =.....		2.73
Supplies:		
Explosives,.....	3,250.00	
divided by 1300 ft.=		2.50
Timber.....	350.00	
Divided by 1300 ft.=		0.27
Miscellaneous.....	1,425.00	
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Power (used) 2 mos. at $520/month.....	1,060.00	
divided by 1300 ft.=		0.82
Total..... $	22,480.50	
divided by 1300 ft.=		17.293
Power (initial installation) by Idaho Power Co. 2/9 of $4200.....	933.33	

Time estimated approximately 2 months to complete drift and crosscut, using 2 headings on 2 shifts per day.

Extraordinary - 2 months (transportation road repair, assaying) Expense - 3 months 630.00

10. (d) (Contd.)

Summarized, as on page 2 of Procedural Instruction 5 A.

Rehabilitation, adit, crosscut and drift, plus 10% compensation	$ 257.40
Rehabilitation and repair of buildings	-
Construction of Buildings (materials)	2,400.00
500 feet of inclined shaft at $[illegible].02/foot	49,509.00
1000 " " drifting at $17.293/foot	17,293.00
300 " " crosscutting at $17.293/foot	5,187.00
Shaft station plus 10% compensation	3,603.60
Equipment cost	5,060.00
Rental value	7,250.00
Power (initial installation) by Idaho Power Co.	4,200.00
Extraordinary expense (transportation, road repair, assaying)	2,100.00
Total	$ 99,860.00

T. P. Billings, DMA

14. Exhibit E (question 23-c)*

a) Is it applicable? Yes

b) Sufficient data? Yes

c) Reasonable? Yes

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? Yes. ~~By sinking on 3 shifts and drifting in two headings on 2 shifts~~ as proposed by applicant.
(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

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: A. J. Bodenlos GS

T. P. Billings DMA

Date 6-27-51

97692

Recommendation

16. The approval of this project is subject to the examination of the facts which relate to the right of the applicant to follow his vein down dip beyond the south side line of his Ida Harlan lode claim underneath the surface of mining property not owned by the applicant.

Based upon the information and maps submitted in the application it appears that part of the proposed inclined shaft and proposed drifting and crosscutting, in order to explore, at the proposed depth, the vein in its dip from its apex shown on the Ida Harlan claim, will cross the south side line of said claim and underneath the surface of a neighboring property. In view of this possibility I called the applicant at Boise Idaho and talked with Mr. G. P. Williams, president of the applicant company. I discussed the additional information required which in part he was able to answer and he agreed to submit answers to the questions covering the additional information required.

To the question, as to the possibility of some of the project being done underneath the surface of a neighboring property, he replied that it was entirely possible and claimed the right to perform such work and the ownership of the ore so disclosed on the Ida Harlan vein or any vein which had its apex on the Ida Harlan claim within the projected end lines. Mr. Williams claims it is well established in the district for the owner of an apex of a vein to claim certain of the ore on such vein dipping out of the side lines of the lode claim holding the apex of the vein. This assumption of the applicant is predicated upon the Federal law which provides for an owner of the apex of a vein to exercise certain extra-lateral rights.

This becomes a legal problem in the event the additional information with maps show that such a condition as described above relating to this project does exist.

T. P. Billings, DMA

16. It is recommended that the exploration assistance requested in this application be granted on the basis of geologic indications. Field team Region II [illegible] The Ida Harlan vein is a strong structure [illegible] further exploration. The vein was productive in the adjacent claim to the east and there is every reason to believe that it will be productive in the Ida Harlan area. The field team recommends that this exploration application be accepted.

A. J. Bodenlos - GS

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 1245X

Date received 5-21-51

Participation

Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Name and address of applicant

Date May 12, 1951

FILL IN THIS BLOCK

Date of application May 12, 1951

Estimated cost $100,502.00

Mineral or metal Lead and Zinc

Percentage of Government participation 50%

Location of mine Warm Springs Creek District
Hailey, Idaho

Date of filing MF-100

DMA Docket Number, if available dma 1245X

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64067-1

THE PROPERTY

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

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

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

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

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

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

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

CERTIFICATION

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

Baltimore Camas Mines, Inc.
(Name of company)

By G. P. Williams
(Signature of authorized official)

May 12, 1951
(Date)

Pres
(Title)

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

*Same as footnote on page 1.

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

1. Applicant is a corporation.

2. Unnecessary

3. The Officers of the corporation are:

President--G. P. Williams, Boise, Idaho
Vice President--C. E. Carver, M. D., East Washington St., Pasedena, Cal.
Secretary--E. P. McDonald, Boise, Idaho
Treasurer--E. P. McDonald, Boise, Idaho

Directors;

G. P. Williams, Boise, Idaho
C. E. Carver, Pasedena, Cal.
Winton Gray, Sun Valley, Idaho
D. G. Taylor, Rexburg, Idaho
E. P. McDonald, Boise, Idaho

Five largest shareholders are:

G. P. Williams, Boise, Idaho
C. E. Carver, M. D., Pasedena, Cal.
C. V. Peckham, Caldwell, Idaho
D. G. Taylor, Rexburg, Idaho
B. A. Stunz, Boise, Idaho

4. The applicant, Baltimore-Camas Mining Company, is a new corporation resulting from a merger of the Camas Mining Company and the Baltimore Silver Lead Mines, Inc., two Idaho corporations. The merged corporations have been in existence for approximately seven years, and both corporations have been active in the actual development and mining of their respective holdings during that period. In addition, both corporations have engaged in actual milling operations and own a modern 100 ton flotation flotation mill.

(b) The President of the corporation, G. P. Williams will have the overall responsibility; the actual mining and development work will be under Loren Smith, an experienced mine operator for over twenty years standing. Sam Bida, a graduate mining engineer with twelve years of actual engineering in the mining field will assist in directing the operation.

5. Lessee

6. There are no liens, claims, or encumbrances against the property.

7. Copy of lease is attached and it is herby certified that the same is in good standing. There are no claimants, lienors, or holders of any encumbrances which will require subordination to the interest of the United States Government.

8. A current financial statement will be submitted in the near future. At this time the recent merger of the two corporations entails considerable work in preparing the requested financial statement. The statement ~~new in~~ is now in the process of preparation and will be submitted as soon as possible.

9. Applicant is prepared to match the government's contribution to the project.

THE PROPERTY

10. (a) This exploration project will be confined solely to the IDA HARLAN claim of the Baltimore group in the Warm Springs Creek Mining District of Blaine County, Ida.

(b) IDA HARLAN claim - Lot 47, Survey No. 11 (1883), 18.17 acres in NW$\frac{1}{4}$, Sec. 23, T4N, R18E, Alturas (now Blaine) County, Ida.

11. IDA HARLAN LODE as originally located.

12. Property is located 14$\frac{1}{2}$ miles N. of Hailey, Ida. and is reached by Hailey & Ketchum surfaced highway to Elkhorn Gulch then by 4 miles unsurfaced road up Independence Gulch. Hailey is the logical railroad shipping point and supply center and year around accessibility can be attained although snow-ploughing will be necessary during winter months.

13. Very little water available on property although a sufficient underground supply can be developed for drilling. Springs supply sufficient water for domestic use.

Electric power will be installed through Idaho Power Co. and an estimate of installation and monthly power costs is detailed in item 23.

14. There is only one 10 x 10 shack and property.

15. High grade will be shipped directly by rail to Salt Lake smelters. Mill grade ore will be treated at the Camas Mill 27 miles distant. The Camas has a 100 ton capacity mill and flotation platn and is under the operation of Baltimore-Camas Mines, Inc. as is the IDA HARLAN. Concentrates will be shipped by rail to Salt Lake smelters.

16. (a) A tunnel was driven in 1880 and abandoned after cross-cutting vein. Then in 1947 the Baltimore people drifted 145 ft. SW and 170 SE on vein and drove 2 short raises. (Ref. Pamphlet 90, Ida. Bureau of Mines and Geology). Exploration has not yet disclosed commercial ore.

(b) The same vein that traverses the entire length of the IDA HARLAN has provided substantial, profitable production on both the Independence claim adjoining on the east end and, reportedly, the Chicago adjoining on the west end line. There is a probability that no downward extension of both the Independence and Chicago sections of this vein are ports of the now productive Trimmph Mine workings. The Triumph production (figures from Pamphlet 90) was 700 to $800,000.00, net smelter, per year for the period from 1936-48.

(c) See included engineering report by Bida & Anderson (May, 1951)

17. Not applicable.

Baltimore Camas Mines, Inc.
601 Eastman Bldg., Boise, Idaho

(H) Sinking

Explosives	2,860.00	
Hoses, fittings, bolts, small tools, etc.	400.00	
Hand tools (picks, shovels, axes, etc.)	400.00	
Lubricants & Machinery upkeep $150.00 Mo.	1,050.00	
Timber (8 x 8, 6 x 8, logging) @ $70.00 M	3,990.00	
Steel and bits	500.00	
		9,200.00

Drifting & Xecutting

Explosives @ 2.50 per ft.	3,250.00	
Timber 5000 ft. 8 x 8, logging	350.00	
Steel bits 75¢ ft.	975.00	
Lubricants and machinery upkeep $150.00 mo.	450.00	
		3,955.00
		$13,155.00

(I) Transportation (Employees at mine) @ $150.00 Mo.	1,500.00	
Bulldozing (Road repair & leveling)	400.00	
Assaying	200.00	
* Power (Initial installation) by Idaho Power Co.	4,200.00	
Power (electric) 9 Mos. @ $530.00/mo.	4,770.00	
		$11,070.00

Note: Power installation and monthly costs are estimated based on consulation with Idaho Power Co. representatives. Installation charge is paid back to operator over a 5 year period by application of 1/4 the monthly power bill and if operation ceases in one year or less $2,500.00 of the original installation charge is retained by Idaho Power. Montly charge is based on peak load requirements and KW hours used and will be approx 1¢ per KWH.

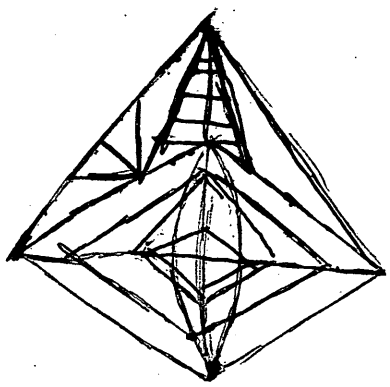
(C) None

(D) Building - 14 x 24 - Combination Dry room & framing shed)
Building - 14 x 20 - Compressor House & tool shop) Materials 2,400.00
(Note: Labor for bldg. included in (A))

(E)	Electric hoist & 35 HP Motor (2nd Hand)	2,000.00	
	Hoist cable 5/8" 600'	250.00	
	Switch panel, grids, etc.	600.00	
	Electric welder	400.00	
	Pumps (electric sinkers) with Motors (2)	2,500.00	
	Sheave & brngs	100.00	
	Pipe - 600' - 3"	250.00	
	Rail for incline - 1000' - 20#	560.00	
	Rail for drifts & X-cuts 2500' - 20#	1,400.00	8,060.00

(F) None

(G)	IR Model 75, 315 cu. Ft. Compressor	(10 Mos.)	Rental	Val.	225.00 Mo.	
	75 HP AC Motor	"	"	"	225.00 Mo.	
	Skill Saw	"	"	"	25.00 Mo.	
	2 Thor Jack Hammers)					
	1 Thor Stoper)	"			150.00 Mo.	
	2 Cleveland Deifters)					6,250.00
	1 Muck Skip - ½ Ton)					
	1 Vent Fan (Blower))					
	Acetylene Torches)					
	1 Receiver 3'x9')	No Rental				
	2 Pressure Tanks)					
	3 Mine cars)					
	500' Tract)					
	Sullavan Mucking Machine	(4 Mos. Only)			250.00 Mo.	1,000.00
				Total		$7,250.00



REQUIREMENTS AND COSTS

(A) Drift & X-Cut Rehabilitation	Employees	Time	Rate	Sub-Total	Total
Miners	3	6 days	13.00/day	234.00	
Station					
Miners	7	36 days (2 shifts)	13.00/day	3,276.00	
Shaft Sinking					
Miners (Shaft Men)	6)		14.50/shift)		
Trammers	3)		13.00/ ")		
Hoistmen	3)	125 days	13.00/ ")	23,875.00	
Framer	1)	(3 shifts)	13.00/ ")		
Utility (day)	1)		13.00/ ")		
Outside Crew					
Equip., install & rough carpentry (1st 8 weeks only)	3	1 shift (48 days)	13.00/shift	1,872.00	
		To Complete Sinking		$29,257.00	
Drifting & X-Cutting					
Miners	4)		14.00/shift)		
Luckers	4)	2 Shifts -	13.00/ ")		
Trammers	2)	2 Headings	13.00/ ")	11,680.00	
Hoistment	2)	73 Days	13.00/ ")		
				Overall	$40,937.00
		Add 10% of Total for Compensation			4,093.00
				TOTAL	$45,030.00

Note: Sinking and drifting operations are not presently contemplated to run simultaneously but if later developments during sinking indicate adviaability of changing this schedule some slight alterations in the labor setup can be then made.

(B)					
Superintendent	1)	7 Mos. Sinking	525.00/mo.)	Sinking	7,525.00
Engineer (Part Time	1)	3 Mos. Drifting	300.00/mo .)	Dr. & X-Cut	3,225.00
Accountant	1)	& X-Cut	250.00/mo.)		10,750.00
		Add 10% of Total for Compensation			1,075.00
				TOTAL	$11,825.00

18. Has not been operating -- see engineers report for description of deposit, maps, and estimates.

19. The vein on the IDA HARLAN was not sufficiently explored either laterally or vertically to determine the location or extent of potential ore bodies. The west drift definitely indicates increasing iron mineralization but the east drift appears to have left the main vein structure (see map) conducive to mineralization. Also the downward extension of the vein (refer to figs. 17-18, Triumph, Pamphlet 90) should contact the more favorable limestone beds at a greater depth. This latter fact (relative to type of host rock traversed by ascending mineral solutions) is the most important geologic factor is locating the commercial ore bodies of the Hailey district.

THE EXPLORATION

20. Exploration will be conducted for commercial lead-zinc ore bodies of fissure and replacement type.

21. A 500 foot inclined shaft will be sunk on the IDA HARLAN lode from the level of the present SW drift as indicated on the geologic map.

Ninety days will be allowed to obtain and install equipment, cut station and otherwise prepare for actual sinking. Sinking will proceed with 3 shift operation and an estimated daily advance of 4' should be maintained.

Additional exploration, comprising 1000 ft. of drift and 300 feet of cross-cuts will be carried out from the exploration shaft and will be launched from the point of adjudged most geologically favorable by study and evaluation of results of the sinking operation. Such drifting and cross-cutting can be most economically accomplished on a two shift, two heading basis and will require 3 months time to complete, thus bringing the total time for the entire exploratory project ot 10 months.

22. See engineering report and maps --

The productive Trimmph (lead-zinc) mine is actively operating adjoining propeoperties and this claim is located in the midst of the productive area. Further, because of the surface showings this was one of the first claims to be located in this area (see patent records). More recent geologic study proves that the IDA HARLAN LODE lies in the more limey members of the Milligan formation which has served as host rock for the better commercial ore bodies of the district.

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Month	Progress	Cost
First	Purchase New equipment. Commence building and equipment installation Provide for power installation Rehabilitate drift and cross-cut Start work on shaft station	$22792.00
Second	Complete building and equipment installation Complete work on shaft station	5110.00
Third	Sink shaft 100 feet	9602.00
Fourth	Sink shaft 100 feet	9202.00
Fifth	Sink shaft 100 feet	9202.00
Sixth	Sink shaft 100 feet	9202.00
Seventh	Sink shaft 100 feet--completes sinking to 500 feet	9202.00
Eighth	Begin drifting, drift 434 feet	8730.00
Ninth	Drift and cross-cut 433 feet	8730.00
Tenth	Drift and cross-cut 433 feet--completes project	8730.00
	Total estimated cost	100,502.00

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

ENGINEERING REPORT

on

IDA HARLAN PROJECT

for

Baltimore Camas Mines, Inc.

by

S. L. Bida

&

D. E. Anderson

May

1951

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

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MINE

The property concerned in this report is the IDA HARLAN claim of the BALTIMORE group. The Baltimore Camas Mines, Inc. holds the property under a bond-lease agreement (from the owners, the receivers of the defunct Baltimore-Victoria Co.). This lease is in good standing and, under terms of this agreement, the purchase price of $75,000.00 will be retired entirely through royalty from the net proceeds of production.

The IDA HARLAN claim is patented as Lot 47, under Survey No. 11 of 1883 and comprises 18.7 acres in the Warm Springs Creek Mining District of Blaine County, Idaho.

LOCATION

The IDA HARLAN is located 14 miles North of Hailey, Idaho in the Warm Springs Creek Mining District of Blaine County.

The district is active and is, and has been for many years, a substantial producer of lead, zinc, and silver.

COMMERCIAL ASPECTS

The claim is traversed by at least one vein which has produced substantially on the property adjoining immediately to the east and there has reportedly been considerable production from this same vein on the property immediately to the west. Both these adjoining properties, namely, the Independence and the Chicago, are owned by the Hailey-Triumph Mining Co., the districts largest producer to date.

The IDA HARLAN section of this vein has the same general characteristics as in the Independence. The vein as exposed is a strong fissure with quartz fill rangeing up to 12 feet in width. The quartz has been mineralized particularly in the wider more fractured sections as indicated in the SW drift. The host rock enveloping this fissure is the same general formation which has produced commercial ore bodies in the adjacent area. The SW end of the present drift represents the most favorable section of the vein yet exposed because of the excessive width of quartz and increasing iron mineralization. Further, it is to be expected that downward extension of exploration on the IDA HARLAN will encounter more favorable (increased lime) members of the formation which are more conducive to commercial metal deposition than those encountered on the present level. This assumption is substantiated by the fact that the better ore bodies on the Independence lay on lower levels and by the fact that the vein on its downward extension cuts different members of the Milligan formation which dips more steeply than the vein itself.

Also, it must be borne in mind that the exploration thus far covered only a fractional part of the total amount of vein length encompassed by the claim and that on only one level.

ORE DEPOSITS

General

The veins of the IDA HARLAN are of the same type which traverse productive properties immediately to the east, west and south and lie in a similar formation.

These veins are fissure type and have produced ore bodies of both fissure fill and replacements in favorable horizons, along sections of these veins.

The fissures were originally formed by low angle reverse faulting and mineralization followed the more permeable sectors of the planes of weakness. The larger ore bodies appear to have been formed in the more limey members of the Milligan formation which has been the most productive Lead-Zinc host rock of the area.

Tenor

Since the exposed vein section does not appear to be of a commercial grade only two samples were taken relative to this report and these were taken from an exidised portion of the vein. The results of these assays are tabulated on the accompanying geologic map. A sample taken by Idaho Bureau of Mines Engineers across the vein below the west raise (Pamphlet 90, Idaho Bureau of Mines and Geology, P. 58) gave 8% Zinc, 1.5% lead, and 3 oz. silver per ton. Footage was not given but is assumed to have been about 5 feet. An interesting fact brought to light by this return shows the ratio of silver to load in this section to correspond very closely to that of the Independence Mine (refer G.S.B. 814, Geology and Ore deposits of Wood River Region, Idaho, p. 178).

HISTORY AND PRODUCTION

The original discovery was probably made in the late 1870's or early 1880's and the present cross-cut was driven 280' during the 1880's. This early cross-cut was driven to the vein, then abandonedd. The property lay inactive until 1947 when it was acquired by the Baltimore people and drifts were extended 145 feet SW and 170 SE along the vein.

There has been no production.

DEVELOPMENT

The IDA HARLAN has, to date, been opened up only by a 280 foot cross-cut and 315 feet of exploratory drift, plus three short raises. No backs of any consequence can be attained from this level on any ore shoots that might be encountered. A few surface trenches outline the course of the vein along the length of the claim.

The exact position of the portal of the cross-cut with respect to the claim boundaries was not established in this investigation since the original survey corners were not observed, but it is assumed according to the position of the vein as shown in Plate 21 of G.S.B. 834 that the outcrop follows somewhat south of the center line of the claim.

GEOLOGY AND MINERALIZATION

General District Geology and Mineralization

The general reginnal geology has been quite thoroughly studied and reported upon in such publications as have been previously referred to and only a few of the facts considered to be of paramount importance in determining commercial possibilities will be discussed here.

The important formation of the region are the overlying Wood River and Milligan sedimentary beds which serve as host rock to most of the important ore deposits and the underlying granitic rocks of Upper Cretaceous and later geologic ages from which the

minerals derived. Dykes, both andesitic and dacitic, were intruded during early tertiary age. Mineralization followed some time after these dyke intrusions. These outlying granitic masses, such as represented here, are in all probability related to the Idaho Batholith and the mineralization deriving from them is hence of a similar type and age to other mineral districts around or about the edges of the batholith. Parts of this particular area, however, are deeply overlain by sedimentary and metamorphic rocks of greater geologic age, which in some cases have provided a most favorable host rock for mineral concentration with resultant important ore deposits. Insome cases the granitic rocks underly rocks of Silurian, Ordovician and Algonquin age in addition to the Wood River and Milligan formations, but little or no exploration has been extended into these formations.

The intruding granitic masses brought about stresses which set up crustal disturbances in the older rock formations and in the Triumph area, in particular, resulted in thrust fault movements, which fault planes later provided channels for the ascending mineral solutions. Another factor resulting from the granitic intrusives was the magmatic separtion effected by the cooling igneous mass with resultant filling of some of the channels with dykes and quartz which also, in some cases, provided zones of weakness that later channeled the mineralization. The metallic minerals, representing a still further magmatic separation, then followed the channels previously formed by First, the faulting, dyke fills, and quartzing, and later recurrent movement with resultant fracturing, and deposited in the fractures as a fill and in adjacent replaceable limestone members. Still further recurrent faulting along some of these weak zones has brecciated the ore by movement along the strike of the veins and some normal faulting across the structure has caused some offsetting of veins and ore shoots.

The mineralization is Mesothermal in type and the ore shoots are almost wholly composed of primary minerals with but little secondary enrichment in evidence. The ore minerals are usually argentiferous, galena, abundant sphalerite, lesser amounts of tetrahedrite, and minor, variable amounts of chalcopyrite, pyrite, and arsenopyrite. Gangue minerals consist of quartz, partially replaced wallrock and siderite. More than one period of mineralization is represented in the veins of the district. The probable general order of introduction of minerals into the veins has been, first, quartz, followed by pyrite, then sphalerite, galena, tetrahedrite, polybasite and chalcopyrite in that order.

Geology and Mineralization of IDA HARLAN

The IDA HARLAN workings are located in the rocks of the Milligan formation of Mississippian Age. The footwall area of the exposed formation is made up of the limey, argillaceous shales and limestone members while hanging wallarea, where exposed, shows a more quartzitic argillite of the same formation. (See accompanying geologic map.)

The veins were formed by a severe thrust action originating from a southerly direction. This low angle thrust movement resulted in considerable displacement with the lower beds moved upward to the north and such upward movement in turn caused local irregularities in strike of the fault plane. Harder members of the upward moving beds coming in contact with softer members of the block below the fault plane caused excessive brecciation in such areas and thus formed potentially wide permeable zones for later ore deposition.

The mineralization observed in the IDA HARLAN occurred in two well developed fissures some 150 feet apart on the present level but probably related at depth. The main (southermost vein) has been most explored and exposes a massive quartz body over a length of 180 feet and widths vary from 3 to 12 feet. The quartz has pinched in its

eastward extension but the west drift body appears to be widening and iron mineralization is increasing. The ore genisis of this vein is typical of the district in general but conforms most closely with that of Federal workings of the Independence Mine. Quartz was the first mineral deposited, then was rebroken and pyrite, sphalerite, galena, tetrahedrite and accessory minerals were deposited locally in these fractures. No replacement ore bodies are exposed in present works but such limestone replacement type deposits may be expected at such local areas where the fissure intersects more favorable horizons of limestone host rock.

Wall rocks, show some pyritization, silicification, and graphitization. Locally graphitization is much in evidence and is no doubt resultant from intense hypothermal alteration of the carbonaceous argillites.

The vein, as exposed, has a general east-west strike and dips flatly (up to 36°) to the south. An average width of over 6 feet is maintained along 180 ft. of the strike length opened up.

The foregoing geological and mineralogical factors observed in the IDA HARLAN follow very closely the pattern that has resulted in formation of large, productive ore bodies in other properties in the vicinity.

GENERAL PHYSICAL FEATURES

Topography

The area is high and mountainous representing a recent erosion surface with the mountains rising abruptly and steeply from flat valley floors.

Hydrography

Independence Gulch, an intermittent stream composed of springs, flows past the property. The Independence property, located just above the IDA HARLAN, once operated a mill (probably 50 ton) from water developed from these springs and underground sources.

Water for underground work can be developed in the mine workings and a domestic supply is available from survace springs.

Climate, Altitude and Accessibility

Climate is generally moderate with severe seasons from January through April when heavy snowfall may be expected.

Average altitude of the region is from 6000 to 7500 feet. The IDA HARLAN portal is at 7100 ft. elevation.

Ketchum, Idaho, eight miles distant is the nearest town while Hailey, 14½ miles distant is the supply center and railhead. The IDA HARLAN is reached from Hailey by traveling 10½ miles of surfaced highway to Elkhorn Gulch, then 4 miles of unsurfaced county road up Elkhorn and Independence Gulch. Year around access could be maintained although snow plowing will be necessitated during winter months.

Timber

No timber is available on the property but some sawed timber can be obtained from a small local sawmill at a cost of $65.00 M.

Sage, scattered brush and grasses comprise the only vegetation of the property.

EQUIPMENT AND LABOR

Buildings

No useable buildings are now on the property. The 10 x 10 shack remaining could hardly be rendered serviceable and at least two new buildings must be constructed, probably one to serve as combination change room and framing shed, the other as combination shop and compressor house to serve the immediate housing needs for any extensive operation.

Machinery

No machinery remains on the property and the only serviceable equipment is a few hundred feet of track and pipe in the cross-cut and drifts.

A considerable portion of the machinery requisite for an exploratory and development operation at the IDA HARLAN is, however, available from other properties of the Baltimore-Camas Mines, Inc. Such items include compressor, electric motor, pneumatic drills, skill saw, mine cars, vent fan, mucking machine, receiver, pressure tanks, and some pipe and track. This equipment was given a cursory inspection and appears for the most part to be serviceable.

Machinery that will have to be procured from outside sources includes electric hoist and motor with accessory control board, etc., cable, electric sinker pumps, additional pipe and track, an electric welder, and such expendable supplies as are requisite to a mining operation.

Power

Since no power unit is now on the property the most feasible and economical source of required power is electrification by Idaho Power Co. This entails installation of a little over 2 miles of transmission line and rough estimates by Idaho Power representatives indicate the cost of this installation to be in the neighborhood of $4,200.00. This amount is, however, refundable to the mine operator through the medium of reduced power rates over a 5 year period. Power rates as computed on basis of expected requirements will probably be slightly less than one cent per kilowatt hour.

Labor

Some local labor is available and usually additional help can be procured from the Boise area. However, here as elsewhere, the mine labor situation is problematical and must be viewed well in advance if a constant manpower supply is to be maintained.

Mill

No milling facillities are available at the property but the operators, the Baltimore-Camas Mines, Inc., own and operate the Camas Mill some 25 miles from the Ida HARLAN and this plant will be utilized for treatment of ore mined from this property. The Camas plant is a 100 ton capacity mill and flotation plant constructed in 1950 and is at present under the supervision of a competent and accredited metallurgist. Cost of treatment at this plant is estimated at $3.00 per ton and haulage from mine to mill would require an additional $2.00 per ton.

CONSLUSIONS AND RECOMMENDATIONS

A thorough study and evaluation of the physical and geological facts acquired through personal observation of the property as well as reference to such authorative publications as G.S.B. 814 and Idaho Bureau of Mines Pamphlet 90 has allowed us to set forth the salient facts regarding the IDA HARLAN. A review of this material as presented in the foregoing pages makes self-evident these conclusions:

(1) The location of the property both with respect to formation and geographical position places it in the known productive area.

(2) The specific geological and mineralogical features of the IDA HARLAN vein and wall rocks closely parallel the conditions of other veins and extensions of the same vein that have attained substantial production of lead, zinc, silver in the immediate vicinity.

(3) Only a minor portion of either the lateral or vertical extent of the IDA HARLAN vein area has been explored.

(4) An exploratory program which would have a very definite prospect of disclosing an important commercial lead-zinc ore body or bodies can be carried out with no unusual operational problems and at a cost which can by no means be considered prohibitive under present economic conditions.

Before briefly summarizing the material facts relating to the conclusions enumarated above, it must be emphasized that the known geologic features of the adjacent productive area were used as a yardstick to evaluate the possibilities of the IDA HARLAN. The considerable size of the vein, the mineral type observed, and the makeup of the wallrocks definitely lend credence to the probability that commercial ore is to be expected along some unexplored portion of the vein.

While no commercial ore has yet been disclosed it must be reinterated that only a relatively minor portion of the potential productive vein area of this property has been opened up. The present level shows some evidence of approaching an ore shoot in the face of the west drift but the most feasible course appears to consist of following the downward extension of the vein as it cuts the Milligan formation at a slight angle on the dip and thus enhance the possibilities of coming into an ore shoot by the probability of encountering members of the wallrock which have a more limey makeup, hence are more favorable for replacement and metal deposition. The characteristics observable from sections thus far exposed in the IDA HARLAN point to the probability of a fissure type deposition in the wide quartz sections but the more nebulous possibility of encountering a replacement ore body in a favorable limestone horizon cannot be overlooked. Also, such physical factors as local flattenting of the vein and change of strike must be regarded as favorable for ore deposition.

Hence, we believe the exploration program now being contemplated constitutes an entirely justifiable expenditure. This program allows for the sinking of a 500 foot incline winze from the SW drift on the present level. This inze will serve to explore the downard course of the vein through different, more southerly, beds of the Milligan formation than those now exposed and thus afford the opportunity to contact the formation most favoable for ore deposition. Additional exploratory work in this program provides for 1000 feet of drifting off the most favorable level or levels of this incline and further for 300 feet of cross-cutting to explore the walls of these drifts for possible replacement ore bodies. It should be understood that these projected estimates of footage to be explored must of needs be subject to revision as the geological evidence is further exposed by progress of the sinking or drifting. The overall cost of

This program will be slightly in excess of $100,000.00 which expenditure appears reasonably well in line with the average cost of such projects. Manpower and material requirements may constitute some temporary problems although the latter should give little trouble in view of the fact that a sizeable part of the equipment can be produced by the operator himself. A further inducement to pursue this project lies in the fact that any bodies of mill grade ore that may be encountered can be treated at the Camas Mill and flotation plant and would not necessitate erection of an additional plant. The successful fulfillment of the exploration in a reasonable time will necessitate competent supervision and engineering advice and will demand the maximum utilization of mechanization to overbalance the critical labor situation.

Thus, in view of the previously stated favorable conditions for commercial ore bodies, and because of the present urgent demand and ready market for the metals here sought, we recommend that the projected exploration program be carried out as expeditiously as possible.

S. L. Bide

S. L. Bide, E. M.

D. E. Anderson, E.M.

Form MF-103
(April 1951)

U[redacted] DEPARTMENT OF THE INTER[redacted]R
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 12145X

Date received 5-21-51

Participation

Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Name and address of applicant

Date May 12, 1951

FILL IN THIS BLOCK

Date of application May 12, 1951

Estimated cost $100,502.00

Mineral or metal Lead and Zinc

Percentage of Government participation 50%

Location of mine Warm Springs Creek District
Hailey, Idaho

Date of filing MF-100

DMA Docket Number, if available dma 12145X

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64067-1

THE PROPERTY

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

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

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

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

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

THE EXPLORATION

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

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

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

Baltimore Camas Mines, Inc.
(Name of company)

By G P Williams
(Signature of authorized official)

May 12, 1951
(Date)

President
(Title)

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

*Same as footnote on page 1.

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

1. Applicant is a corporation.

2. Unnecessary

3. The Officers of the corporation are:

President--G. P. Williams, Boise, Idaho
Vice President--C. E. Carver, M. D., East Washington St., Pasedena, Cal.
Secretary--E. P. McDonald, Boise, Idaho
Treasurer--E. P. McDonald, Boise, Idaho

Directors;

G. P. Williams, Boise, Idaho
C. E. Carver, Pasedena, Cal.
Winton Gray, Sun Valley, Idaho
D. G. Taylor, Rexburg, Idaho
E. P. McDonald, Boise, Idaho

Five largest shareholders are:

G. P. Williams, Boise, Idaho
C. E. Carver, M. D., Pasedena, Cal.
C. V. Peckham, Caldwell, Idaho
D. G. Taylor, Rexburg, Idaho
B. A. Stums, Boise, Idaho

4. The applicant, Baltimore-Camas Mining Company, is a new corporation resulting from a merger of the Camas Mining Company and the Baltimore Silver Lead Mines, Inc., two Idaho corporations. The merged corporations have been in existence for approximately seven years, and both corporations have been active in the actual development and mining of their respective holdings during that period. In addition, both corporations have engaged in actual milling operations and own a modern 200 ton flotation flotation mill.

(b) The President of the corporation, G. P. Williams will have the overall responsibility; the actual mining and development work will be under Loren Smith, an experienced mine operator for over twenty years standing. Sam Bida, a graduate mining engineer with twelve years of actual engineering in the mining field will assist in directing the operation.

5. Lessee

6. There are no liens, claims, or encumbrances against the property.

7. Copy of lease is attached and it is herby certified that the same is in good standing. There are no claimants, lienors, or holders of any encumbrances which will require subordination to the interest of the United States Government.

8. A current financial statement will be submitted in the near future. At this time the recent merger of the two corporations entails considerable work in preparing the requested financial statement. The statement ~~now is~~ is now in the process of preparation and will be submitted as soon as possible.

9. Applicant is prepared to match the government's contribution to the project.

THE PROPERTY

10. (a) This exploration project will be confined solely to the IDA HARLAN claim of the Baltimore group in the Warm Springs Creek Mining District of Blaine County, Ida.

(b) IDA HARLAN claim - Lot 47, Survey No. 11 (1883), 18.17 acres in NW¼, Sec. 23, T4N, R18E, Alturas (now Blaine) County, Ida.

11. IDA HARLAN LODE as originally located.

12. Property is located 14½ miles N. of Hailey, Ida. and is reached by Hailey & Ketchum surfaced highway to Elkhorn Gulch then by 4 miles unsurfaced road up Independence Gulch. Hailey is the logical railroad shipping point and supply center and year around accessibility can be attained although snow-ploughing will be necessary during winter months.

13. Very little water available on property although a sufficient underground supply can be developed for drilling. Springs supply sufficient water for domestic use.

Electric power will be installed through Idaho Power Co. and an estimate of installation and monthly power costs is detailed in item 23.

14. There is only one 10 x 10 shack and property.

15. High grade will be shipped directly by rail to Salt Lake smelters. Mill grade ore will be treated at the Camas Mill 27 miles distant. The Camas has a 100 ton capacity mill and flotation platn and is under the operation of Baltimore-Camas Mines, Inc. as is the IDA HARLAN. Concentrates will be shipped by rail to Salt Lake smelters.

16. (a) A tunnel was driven in 1880 and abandoned after cross-cutting vein. Then in 1947 the Baltimore people drifted 145 ft. SW and 170 SE on vein and drove 2 short raises. (Ref. Pamphlet 90, Ida. Bureau of Mines and Geology). Exploration has not yet disclosed commercial ore.

(b) The same vein that traverses the entire length of the IDA HARLAN has provided substantial, profitable production on both the Independence claim adjoining on the east end and, reportedly, the Chicago adjoining on the west end line. There is a probability that no downward extension of both the Independence and Chicago sections of this vein are ports of the now productive Trimmph Mine workings. The Triumph production (figures from Pamphlet 90) was 700 to $800,000.00, net smelter, per year for the period from 1936-48.

(c) See included engineering report by Bida & Anderson (May, 1951)

17. Not applicable.

REQUIREMENTS AND COSTS

(A) Drift & X-Cut Rehabilitation	Employees	Time	Rate	Sub-Total	Total
Miners	3	6 days	13.00/day	234.00	
Station					
Miners	7	36 days (2 shifts)	13.00/day	3,276.00	
Shaft Sinking					
Miners (Shaft Men)	6)		14.50/shift)		
Trammers	3)		13.00/ ")		
Hoistmen	3)	125 days	13.00/ ")	23,875.00	
Framer	1)	(3 shifts)	13.00/ ")		
Utility (day)	1)		13.00/ ")		
Outside Crew					
Equip., install & rough carpentry (1st 8 weeks only)	3	1 shift (48 days)	13.00/shift	1,872.00	
		To Complete Sinking		$29,257.00	
Drifting & X-Cutting					
Miners	4)		14.00/shift)		
Muckers	4)	2 Shifts -	13.00/ ")	11,680.00	
Trammers	2)	2 Headings	13.00/ ")		
Hoistment	2)	73 Days	13.00/ ")		
				Overall	$40,937.00
		Add 10% of Total for Compensation			4,093.00
				TOTAL	$45,030.00

Note: Sinking and drifting operations are not presently contemplated to run simultaneously but if later developments during sinking indicate advisability of changing this schedule some slight alterations in the labor setup can be then made.

(B)					
Superintendent	1)	6 Mos. Sinking	525.00/mo.)	Sinking	7,525.00
Engineer (Part Time	1)	3 Mos. Drafting	300.00/mo .)	Dr. & X-Cut	3,225.00
Accountant	1)	& X-Cut	250.00/mo.)		10,750.00
		Add 10% of Total for Compensation			1,075.00
				TOTAL	$11,825.00

(C) None

(D) Building - 14 x 24 - Combination Dry room & framing shed)
Building - 14 x 20 - Compressor House & tool shop) Materials + 2,400.00
(Note: Labor for bldg. included in (A))

(E)	Electric hoist & 35 HP Motor (2nd Hand)	2,000.00	
	Hoist cable 5/8" 600'	250.00	
	Switch panel, grids, etc.	600.00	
	Electric welder	400.00	
	Pumps (electric sinkers) with Motors (2)	2,500.00	
	Sheave & brngs	100.00	
	Pipe - 600' - 3"	250.00	
	Rail for incline - 1000' - 20#	560.00	
	Rail for drifts & X-cuts 2500' - 20#	1,400.00	+ 8,060.00

(F) None

(G)	IR Model 75, 315 cu. Ft. Compressor	(10 Mos.)	Rental Val.	225.00 Mo.	
	75 HP AC Motor	"	" "	225.00 Mo.	
	Skill Saw	"	" "	25.00 Mo.	
	2 Thor Jack Hammers)				
	1 Thor Stoper)	"		150.00 Mo.	
	2 Cleveland Deifters)				6,250.00
	1 Muck Skip - ½ Ton)				
	1 Vent Fan (Blower))				
	Acetylene Torches)				
	1 Receiver 3'x9')	No Rental			
	2 Pressure Tanks)				
	3 Mine cars)				
	500' Tract)				
	Sullivan Mucking Machine (4 Mos. Only)			250.00 Mo.	1,000.00

Total + $7,250.00

(H) Sinking

Explosives	2,860.00	
Hoses, fittings, bolts, small tools, etc.	400.00	
Hand tools (picks, shovels, axes, etc.)	400.00	
Lubricants & Machinery upkeep $150.00 Mo.	1,050.00	
Timber (8 x 8, 6 x 8, & logging) @ $70.00 M	3,990.00	
Steel and bits	500.00	
		9,200.00

Drifting & Xpcutting

Explosives @ 2.50 per ft.	3,250.00	
Timber 5000 ft. 8 x 8, & logging	350.00	
Steel bits 75¢ ft.	975.00	
Lubricants and machinery upkeep $150.00 mo.	450.00	
		3,955.00
		~~$13,155.00~~

(I)

Transportation (Employees at mine) @ $150.00 Mo.	1,500.00	
Bulldozing (Road repair & leveling)	400.00	
Assaying	200.00	
* Power (Initial installation) by Idaho Power Co.	4,200.00	
Power (electric) 9 Mos. @ $530.00/mo.	4,770.00	
		$11,070.00

Note: Power installation and monthly costs are estimated based on consulation with Idaho Power Co. representatives. Installation charge is paid back to operator over a 5 year period by application of 1/4 the monthly power bill and if operation ceases in one year or less $2,500.00 of the original installation charge is retained by Idaho Power. Montly charge is based on peak load requirements and KW hours used and will be approx 1¢ per KWH.

18. Has not been operating -- see engineers report for description of deposit, maps, and estimates.

19. The vein on the IDA HARLAN was not sufficiently explored either laterally or vertically to determine the location or extent of potential ore bodies. The west drift definitely indicates increasing iron mineralization but the east drift appears to have left the main vein structure (see map) donducive to mineralization. Also the downward extension of the vein (refer to figs. 17-18, Triumph, Pamphlet 90) should contact the more favorable limestone beds at a greater depth. This latter fact (relative to type of host rock traversed by ascending mineral solutions) is the most important geologic factor is locating the commercial ore bodies of the Hailey district.

THE EXPLORATION

20. Exploration will be conducted for commercial lead-zinc ore bodies of fissure and replacement type.

21. A 500 foot inclined shaft will be sunk on the IDA HARLAN lode from the level of the present SW drift as indicated on the geologic map.

Ninety days will be allowed to obtain and install equipment, cut station and otherwise prepare for actual sinking. Sinking will proceed with 3 shift operation and an estimated daily advance of 4' should be maintained.

Additional exploration, comprising 1000 ft. of drift and 300 feet of cross-cuts will be carried out from the exploration shaft and will be launched from the point of adjudged most geologically favorable by study and evaluation of results of the sinking operation. Such drifting and cross-cutting can be most economically accomplished on a two shift, two heading basis and will require 3 months time to complete, thus bringing the total time for the entire exploratory project ot 10 months.

22. See engineering report and maps --

The productive Triumph (lead-zinc) mine is actively operating adjoining propsperties and this claim is located in the midst of the productive area. Further, because of the surface showings this was one of the first claims to be located in this area (see patent records). More recent geologic study proves that the IDA HARLAN LODE lies in the more limey members of the Milligan formation which has served as host rock for the better commercial ore bodies of the district.

24.

Month	Progress	Cost
First	Purchase New equipment Commence building and equipment installation Provide for power installation Rehabilitate drift and cross-cut Start work on shaft station	$22792.00
Second	Complete building and equipment installation Complete work on shaft station	5110.00
Third	Sink shaft 100 feet	9602.00
Fourth	Sink shaft 100 feet	9202.00
Fifth	Sink shaft 100 feet	9202.00
Sixth	Sink shaft 100 feet	9202.00
Seventh	Sink shaft 100 feet--completes sinking to 560 feet	9202.00
Eighth	Begin drifting, drift 434 feet	8730.00
Ninth	Drift and cross-cut 433 feet	8730.00
Tenth	Drift and cross-cut 433 feet--completes project	8730.00
	Total estimated cost	100,502.00

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

ENGINEERING REPORT

on

IDA HARLAN PROJECT

for

Baltimore Camas Mines, Inc.

by

S. L. Bida

&

D. E. Anderson

May

1951

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

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MINE

The property concerned in this report is the IDA HARLAN claim of the BALTIMORE group. The Baltimore Camas Mines, Inc. holds the property under a bond-lease agreement (from the owners, the receivers of the defunct Baltimore-Victoria Co.). This lease is in good standing and, under terms of this agreement, the purchase price of $75,000.00 will be retired entirely through royalty from the net proceeds of production.

The IDA HARLAN claim is pateneted as Lot 47, under Survey No. 11 of 1883 and comprises 18.7 acres in the Warm Springs Creek Mining District of Blaine County, Idaho.

LOCATION

The IDA HARLAN is located 14 miles North of Hailey, Idaho in the Warm Springs Creek Mining District of Blaine County.

The district is active and is, and has been for many years, a substantial producer of lead, zinc, and silver.

COMMERCIAL ASPECTS

The claim is traversed by at least one vein which has produced substantially on the property adjoining immediately to the east and there has reportedly been considerable production from this same vein on the property immediately to the west. Both these adjoining properties, namely, the Independence and the Chicago, are owned by the Hailey-Triumph Mining Co., the districts largest producer to date.

The IDA HARLAN section of this vein has the same general characteristics as in the Independence. The vein as exposed is a strong fissure with quartz fill rangeing up to 12 feet in width. The quartz has been mineralized particularly in the wider more fractured sections as indicated in the SW drift. The host rock enveloping this fissure is the same general formation which has produced commercial ore bodies in the adjacent area. The SW end of the present drift represents the most favorable section of the vein yet exposed because of the excessive width of quartz and increasing iron mineralization. Further, it is to be expected that downward extension of exploration on the IDA HARLAN will encounter more favorable (increased lime) members of the formation which are more conducive to commercial metal deposition than those encountered on the present level. This assumption is substantiated by the fact that the better ore bodies on the Independence lay on lower levels and by the fact that the vein on its downward extension cuts different members of the Milligan formation which dips more steeply than the vein itself.

Also, it must be borne in mind that the exploration thus far covered only a fractional part of the total amount of vein length encompassed by the claim and that on only one level.

ORE DEPOSITS

General

The veins of the IDA HARLAN are of the same type which traverse productive properties immediately to the east, west and south and lie in a similar formation.

These veins are fissure type and have produced ore bodies of both fissure fill and replacements in favorable horizons, along sections of these veins.

The fissures were originally formed by low angle reverse faulting and mineralization followed the more permeable sectors of the planes of weakness. The larger ore bodies appear to have been formed in the more limey members of the Milligan formation which has been the most productive Lead-Zinc host rock of the area.

Tener

Since the exposed vein section does not appear to be of a commercial grade only two samples were taken relative to this report and these were taken from an oxidized portion of the vein. The results of these assays are tabulated on the accompanying geologic map. A sample taken by Idaho Bureau of Mines Engineers across the vein below the west raise (Pamphlet 90, Idaho Bureau of Mines and Geology, P. 58) gave 3% Zinc, 1.5% lead, and 3 oz. silver per ton. Footage was not given but is assumed to have been about 5 feet. An interesting fact brought to light by this return shows the ratio of silver to lead in this section to correspond very closely to that of the Independence Mine (refer G.S.B. 814, Geology and Ore deposits of Wood River Region, Idaho, p. 178).

HISTORY AND PRODUCTION

The original discovery was probably made in the late 1870's or early 1880's and the present cross-cut was driven 280' during the 1880's. This early cross-cut was driven to the vein, then abandonedd. The property lay inactive until 1947 when it was acquired by the Baltimore people and drifts were extended 145 feet SW and 170 SE along the vein.

There has been no production.

DEVELOPMENT

The IDA HARLAN has, to date, been opened up only by a 280 foot cross-cut and 315 feet of exploratory drift, plus three short raises. No backs of any consequence can be attained from this level on any ore shoots that might be encountered. A few surface trenches outline the course of the vein along the length of the claim.

The exact position of the portal of the cross-cut with respect to the claim boundaries was not established in this investigation since the original survey corners were not observed, but it is assumed according to the position of the vein as shown in Plate 21 of G.S.B. 814 that the outcrop follows somewhat south of the center line of the claim.

GEOLOGY AND MINERALIZATION

General District Geology and Mineralization

The general reginnal geology has been quite thoroughly studied and reported upon in such publications as have been previously referred to and only a few of the facts considered to be of paramount importance in determining commercial possibilities will be discussed here.

The important formation of the region are the overlying Wood River and Milligan sedimentary beds which serve as host rock to most of the important ore deposits and the underlying granitic rocks of Upper Cretaceous and later geologic ages from which the

minerals derived. Dykes, both andesitic and dacitic, were intruded during early tertiary age. Mineralization followed some time after these dyke intrusions. These outlying granitic masses, such as represented here, are in all probability related to the Idaho Batholith and the mineralization deriving from them is hence of a similar type and age to other mineral districts around or about the edges of the batholith. Parts of this particular area, however, are deeply overlain by sedimentary and metamorphic rocks of greater geologic age, which in some cases have provided a most favorable host rock for mineral concentration with resultant important ore deposits. Insome cases the granitic rocks underly rocks of Silurian, Ordovician and Algonquin age in addition to the Wood River and Milligan formations, but little or no exploration has been extended into these formations.

The intruding granitic masses brought about stresses which set up crustal disturbances in the older rock formations and in the Triumph area, in particular, resulted in thrust fault movements, which fault planes later provided channels for the ascending mineral solutions. Another factor resulting from the granitic intrusives was the magmatic separtion effected by the cooling igneous mass with resultant filling of some of the channels with dykes and quartz which also, in some cases, provided zones of weakness that later channeled the mineralization. The metallic minerals, representing a still further magmatic separation, then followed the channels previously formed by First, the faulting, dyke fills, and quartzing, and later recurrent movement with resultant fracturing, and deposited in the fractures as a fill and in adjacent replaceable limestone members. Still further recurrent faulting along some of these weak zones has brecciated the ore by movement along the strike of the veins and some normal faulting across the structure has caused some offsetting of veins and ore shoots.

The mineralization is Mesothermal in type and the ore shoots are almost wholly composed of primary minerals with but little secondary enrichment in evidence. The ore minerals are usually argentiferous, galena, abundant sphalerite, lesser amounts of tetrahedrite, and minor, variable amounts of chalcopyrite, pyrite, and arsenopyrite. Gangue minerals consist of quartz, partially replaced wallrock and siderite. More than one period of mineralization is represented in the veins of the district. The probable general order of introduction of minerals into the veins has been, first, quartz, followed by pyrite, then sphalerite, galena, tetrahedrite, polybasite and chalcopyrite in that order.

Geology and Mineralization of IDA HARLAN

The IDA HARLAN workings are located in the rocks of the Milligan formation of Mississippian Age. The footwall area of the exposed formation is made up of the limey, argillaceous shales and limestone members while hanging wallarea, where exposed, shows a more quartzitic argillite of the same formation. (See accompanying geologic map.)

The veins were formed by a severe thrust action originating from a southerly direction. This low angle thrust movement resulted in considerable displacement with the lower beds moved upward to the north and such upward movement in turn caused local irregularities in strike of the fault plane. Harder members of the upward moving beds coming in contact with softer members of the block below the fault plane caused excessive brecciation in such areas and thus formed potentially wide permeable zones for later ore deposition.

The mineralization observed in the IDA HARLAN occurred in two well developed fissures some 150 feet apart on the present level but probably related at depth. The main (southermost vein) has been most explored and exposes a massive quartz body over a length of 180 feet and widths vary from 3 to 12 feet. The quartz has pinched in its

eastward extension but the west drift body appears to be widening and iron mineralization is increasing. The ore genisis of this vein is typical of the district in general but conforms most closely with that of Federal workings of the Independence Mine. Quartz was the first mineral deposited, then was rebroken and pyrite, sphalerite, galena, tetrahedrite and accessory minerals were deposited locally in these fractures. No replacement ore bodies are exposed in present works but such limestone replacement type deposits may be expected at such local areas where the fissure intersects more favorable horizons of limestone host rock.

Wall rocks, show some pyritization, silicification, and graphitization. Locally graphitization is much in evidence and is no doubt resultant from intense hypothermal alteration of the carbonaceous argillites.

The vein, as exposed, has a general east-west strike and dips flatly (up to 36°) to the south. An average width of over 6 feet is maintained along 180 ft. of the strike length opened up.

The foregoing geological and mineralogical factors observed in the IDA HARLAN follow very closely the pattern that has resulted in formation of large, productive ore bodies in other properties in the vicinity.

GENERAL PHYSICAL FEATURES

Topography

The area is high and mountainous representing a recent erosion surface with the mountains rising abruptly and steeply from flat valley floors.

Hydrography

Independence Gulch, an intermittent stream composed of springs, flows past the property. The Independence property, located just above the IDA HARLAN, once operated a mill (probably 50 ton) from water developed from these springs and underground sources.

Water for underground work can be developed in the mine workings and a domestic supply is available from survace springs.

Climate, Altitude and Accessibility

Climate is generally moderate with severe seasons from January through April when heavy snowfall may be expected.

Average altitude of the region is from 6000 to 7500 feet. The IDA HARLAN portal is at 7100 ft. elevation.

Ketchum, Idaho, eight miles distant is the nearest town while Hailey, 14½ miles distant is the supply center and railhead. The IDA HARLAN is reached from Hailey by traveling 10½ miles of surfaced highway to Elkhorn Gulch, then 4 miles of unsurfaced county road up Elkhorn and Independence Gulch. Year around access could be maintained although snow plowing will be necessitated during winter months.

Timber

No timber is available on the property but some sawed timber can be obtained from a small local sawmill at a cost of $65.00 M.

Sage, scattered brush and grasses comprise the only vegetation of the property.

EQUIPMENT AND LABOR

Buildings

No useable buildings are now on the property. The 10 x 10 shack remaining could hardly be rendered serviceable and at least two new buildings must be constructed, probably one to serve as combination change room and framing shed, the other as combination shop and compressor house to serve the immediate housing needs for any extensive operation.

Machinery

No machinery remains on the property and the only serviceable equipment is a few hundred feet of track and pipe in the cross-cut and drifts.

A considerable portion of the machinery requisite for an exploratory and development operation at the IDA HARLAN is, however, available from other properties of the Baltimore-Camas Mines, Inc. Such items include compressor, electric motor, pneumatic drills, skill saw, mine cars, vent fan, mucking machine, receiver, pressure tanks, and some pipe and track. This equipment was given a cursory inspection and appears for the most part to be serviceable.

Machinery that will have to be procured from outside sources includes electric hoist and motor with accessory control board, etc., cable, electric sinker pumps, additional pipe and track, an electric welder, and such expendable supplies as are requisite to a mining operation.

Power

Since no power unit is now on the property the most feasible and economical source of required power is electrification by Idaho Power Co. This entails installation of a little over 2 miles of transmission line and rough estimates by Idaho Power representatives indicate the cost of this installation to be in the neighborhood of $4,200.00. This amount is, however, refundable to the mine operator through the medium of reduced power rates over a 5 year period. Power rates as computed on basis of expected requirements will probably be slightly less than one cent per kilowatt hour.

Labor

Some local labor is available and usually additional help can be procured from the Boise area. However, here as elsewhere, the mine labor situation is problematical and must be viewed well in advance if a constant manpower supply is to be maintained.

Mill

No milling facillities are available at the property but the operators, the Baltimore-Camas Mines, Inc., own and operate the Camas Mill some 25 miles from the Ida HARLAN and this plant will be utilized for treatment of ore mined from this property. The Camas plant is a 100 ton capacity mill and flotation plant constructed in 1950 and is at present under the supervision of a competent and accredited metallurgist. Cost of treatment at this plant is estimated at $3.00 per ton and haulage from mine to mill would require an additional $2.00 per ton.

CONSLUSIONS AND RECOMMENDATIONS

A thorough study and evaluation of the physical and geological facts acquired through personal observation of the property as well as reference to such authorative publications as G.S.B. 814 and Idaho Bureau of Mines Pamphlet 90 has allowed us to set forth the salient facts regarding the IDA HARLAN. A review of this material as presented in the foregoing pages makes self-evident these conclusions:

(1) The location of the property both with respect to formation and geographical position places it in the known productive area.

(2) The specific geological and mineralogical features of the IDA HARLAN vein and wall rocks closely parallel the conditions of other veins and extensions of the same vein that have attained substantial production of lead, zinc, silver in the immediate vicinity.

(3) Only a minor portion of either the lateral or vertical extent of the IDA HARLAN vein area has been explored.

(4) An exploratory program which would have a very definite prospect of disclosing an important commercial lead-zinc ore body or bodies can be carried out with no unusual operational problems and at a cost which can by no means be considered prohibitive under present economic conditions.

Before briefly summarizing the material facts relating to the conclusions enumerated above, it must be emphasized that the known geologic features of the adjacent productive area were used as a yardstick to evaluate the possibilities of the IDA HARLAN. The considerable size of the vein, the mineral type observed, and the makeup of the wallrocks definitely lend credence to the probability that commercial ore is to be expected along some unexplored portion of the vein.

While no commercial ore has yet been disclosed it must be reinterated that only a relatively minor portion of the potential productive vein area of this property has been opened up. The present level shows some evidence of approaching an ore shoot in the face of the west drift but the most feasible course appears to consist of following the downward extension of the vein as it cuts the Milligan formation at a slight angle on the dip and thus enhance the possibilities of coming into an ore shoot by the probability of encountering members of the wallrock which have a more limey makeup, hence are more favorable for replacement and metal deposition. The characteristics observable from sections thus far exposed in the IDA HARLAN point to the probability of a fissure type deposition in the wide quartz sections but the more nebulous possibility of encountering a replacement ore body in a favorable limestone horizon cannot be overlooked. Also, such physical factors as local flattenting of the vein and change of strike must be regarded as favorable for ore deposition.

Hence, we believe the exploration program now being contemplated constitutes an entirely justifiable expenditure. This program allows for the sinking of a 500 foot incline winze from the SW drift on the present level. This inze will serve to explore the downard course of the vein through different, more southerly, beds of the Milligan formation than those now exposed and thus afford the opportunity to contact the formation most favoable for ore deposition. Additional exploratory work in this program provides for 1000 feet of drifting off the most favorable level or levels of this incline and further for 300 feet of cross-cutting to explore the walls of these drifts for possible replacement ore bodies. It should be understood that these projected estimates of footage to be explored must of needs be subject to revision as the geological evidence is further exposed by progress of the sinking or drifting. The overall cost of

This program will be slightly in excess of $100,000.00 which expenditure appears reasonably well in line with the average cost of such projects. Manpower and material requirements may constitute some temporary problems although the latter should give little trouble in view of the fact that a sizeable part of the equipment can be produced by the operator himself. A further inducement to pursue this project lies in the fact that any bodies of mill grade ore that may be encountered can be treated at the Camas Mill and flotation plant and would not necessitate erection of an additional plant. The successful fulfillment of the exploration in a reasonable time will necessitate competent supervision and engineering advice and will demand the maximum utilization of mechanization to overbalance the critical labor situation.

Thus, in view of the previously stated favorable conditions for commercial ore bodies, and because of the present urgent demand and ready market for the metals here sought, we recommend that the projected exploration program be carried out as expeditiously as possible.

S. L. Bide, E. M.

D. E. Anderson, E.M.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 12 4 5 X

Date received 5-21-51

Participation

Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Name and address of applicant

Date May 12, 1951

FILL IN THIS BLOCK

Date of application May 12, 1951

Estimated cost $100,502.00

Mineral or metal Lead and Zinc

Percentage of Government participation 50%

Location of mine Warm Springs Creek District

Hailey, Idaho

Date of filing MF-100

DMA Docket Number, if available dma 12 4 5 X

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64067-1

7

THE PROPERTY

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

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

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

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

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

THE EXPLORATION

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

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

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

Baltimore Camas Mines, Inc.
(Name of company)

By G. W. Williams
(Signature of authorized official)

May 12, 1951
(Date)

Pres.
(Title)

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

*Same as footnote on page 1.

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

1. Applicant is a corporation.

2. Unnecessary

3. The Officers of the corporation are:

President--G. P. Williams, Boise, Idaho
Vice President--C. E. Carver, M. D., East Washington St., Pasedena, Cal.
Secretary--E. P. McDonald, Boise, Idaho
Treasurer--E. P. McDonald, Boise, Idaho

Directors;

G. P. Williams, Boise, Idaho
C. E. Carver, Pasedena, Cal.
Winton Gray, Sun Valley, Idaho
D. G. Taylor, Rexburg, Idaho
E. P. McDonald, Boise, Idaho

Five largest shareholders are:

G. P. Williams, Boise, Idaho
C. E. Carver, M. D., Pasedena, Cal.
C. V. Peckham, Caldwell, Idaho
D. G. Taylor, Rexburg, Idaho
B. A. Stunz, Boise, Idaho

4. The applicant, Baltimore-Camas Mining Company, is a new corporation resulting from a merger of the Camas Mining Company and the Baltimore Silver Lead Mines, Inc., two Idaho corporations. The merged corporations have been in existence for approximately seven years, and both corporations have been active in the actual development and mining of their respective holdings during that period. In addition, both corporations have engaged in actual milling operations and own a modern 100 ton flotation flotation mill.

(b) The President of the corporation, G. P. Williams will have the overall responsibility; the actual mining and development work will be under Loren Smith, an experienced mine operator for over twenty years standing. Sam Bida, a graduate mining engineer with twelve years of actual engineering in the mining field will assist in directing the operation.

5. Lessee

6. There are no liens, claims, or encumbrances against the property.

7. Copy of lease is attached and it is herby certified that the same is in good standing. There are no claimants, lienors, or holders of any encumbrances which will require subordination to the interest of the United States Government.

8. A current financial statement will be submitted in the near future. At this time the recent merger of the two corporations entails considerable work in preparing the requested financial statement. The statement ~~new in~~ is now in the process of preparation and will be submitted as soon as possible.

9. Applicant is prepared to match the government's contribution to the project.

THE PROPERTY

10. (a) This exploration project will be confined solely to the IDA HARLAN claim of the Baltimore group in the Warm Springs Creek Mining District of Blaine County, Ida.

(b) IDA HARLAN claim - Lot 47, Survey No. 11 (1883), 18.17 acres in NW¼, Sec. 23, T4N, R18E, Alturas (now Blaine) County, Ida.

11. IDA HARLAN LODE as originally located.

12. Property is located 14½ miles N. of Hailey, Ida. and is reached by Hailey & Ketchum surfaced highway to Elkhorn Gulch then by 4 miles unsurfaced road up Independence Gulch. Hailey is the logical railroad shipping point and supply center and year around accessibility can be attained although snow-ploughing will be necessary during winter months.

13. Very little water available on property although a sufficient underground supply can be developed for drilling. Springs supply sufficient water for domestic use.

Electric power will be installed through Idaho Power Co. and an estimate of installation and monthly power costs is detailed in item 23.

14. There is only one 10 x 10 shack and property.

15. High grade will be shipped directly by rail to Salt Lake smelters. Mill grade ore will be treated at the Camas Mill 27 miles distant. The Camas has a 100 ton capacity mill and flotation platn and is under the operation of Baltimore-Camas Mines, Inc. as is the IDA HARLAN. Concentrates will be shipped by rail to Salt Lake smelters.

16. (a) A tunnel was driven in 1880 and abandoned after cross-cutting vein. Then in 1947 the Baltimore people drifted 145 ft. SW and 170 SE on vein and drove 2 short raises. (Ref. Pamphlet 90, Ida. Bureau of Mines and Geology). Exploration has not yet disclosed commercial ore.

(b) The same vein that traverses the entire length of the IDA HARLAN has provided substantial, profitable production on both the Independence claim adjoining on the east end and, reportedly, the Chicago adjoining on the west end line. There is a probability that no downward extension of both the Independence and Chicago sections of this vein are ports of the now productive Trimmph Mine workings. The Triumph production (figures from Pamphlet 90) was 700 to $800,000.00, net smelter, per year for the period from 1936-48.

(c) See included engineering report by Bida & Anderson (May, 1951)

17. Not applicable.

Baltimore Camas Mines, Inc.
601 Eastman Bldg., Boise, Idaho

18. Has not been operating -- see engineers report for description of deposit, maps, and estimates.

19. The vein on the IDA HARLAN was not sufficiently explored either laterally or vertically to determine the location or extent of potential ore bodies. The west drift definitely indicates increasing iron mineralization but the east drift appears to have left the main vein structure (see map) conducive to mineralization. Also the downward extension of the vein (refer to figs. 17-18, Triumph, Pamphlet 90) should contact the more favorable limestone beds at a greater depth. This latter fact (relative to type of host rock traversed by ascending mineral solutions) is the most important geologic factor is locating the commercial ore bodies of the Hailey district.

THE EXPLORATION

20. Exploration will be conducted for commercial lead-zinc ore bodies of fissure and replacement type.

21. A 500 foot inclined shaft will be sunk on the IDA HARLAN lode from the level of the present SW drift as indicated on the geologic map.

Ninety days will be allowed to obtain and install equipment, cut station and otherwise prepare for actual sinking, Sinking will proceed with 3 shift operation and an estimated daily advance of 4' should be maintained.

Additional exploration, comprising 1000 ft. of drift and 500 feet of cross-cuts will be carried out from the exploration shaft and will be launched from the point of adjudged most geologically favorable by study and evaluation of results of the sinking operation. Such drifting and cross-cutting can be most economically accomplished on a two shift, two heading basis and will require 3 months time to complete, thus bringing the total time for the entire exploratory project ot 10 months.

22. See engineering report and maps --

The productive Trimmph (lead-zinc) mine is actively operating adjoining propesperties and this claim is located in the midst of the productive area. Further, because of the surface showings this was one of the first claims to be located in this area (see patent records). More recent geologic study proves that the IDA HARLAN LODE lies in the more limey members of the Milligan formation which has served as host rock for the better commercial ore bodies of the district.

REQUIREMENTS AND COSTS

(A) Drift & X-Cut Rehabilitation	Employees	Time	Rate	Sub-Total	Total
Miners	3	6 days	13.00/day	234.00	
Station					
Miners	7	36 days (2 shifts)	13.00/day	3,276.00	
Shaft Sinking					
Miners (Shaft Men)	6)		14.50/shift)		
Trammers	3)		13.00/ ")		
Hoistmen	3)	125 days	13.00/ ")	23,875.00	
Framer	1)	(3 shifts)	13.00/ ")		
Utility (day)	1)		13.00/ ")		
Outside Crew					
Equip., install & rough carpentry (1st 8 weeks only)	3	1 shift (48 days)	13.00/shift	1,872.00	
		To Complete Sinking		$29,257.00	
Drifting & X-Cutting					
Miners	4)		14.00/shift)		
Muckers	4)	2 Shifts -	13.00/ ")	11,680.00	
Trammers	2)	2 Headings	13.00/ ")		
Hoistment	2)	73 Days	13.00/ ")	Overall	$40,937.00
		Add 10% of Total for Compensation			4,093.00
				TOTAL	$45,030.00

Note: Sinking and drifting operations are not presently contemplated to run simultaneously but if later developments during sinking indicate advisability of changing this schedule some slight alterations in the labor setup can be then made.

(B)					
Superintendent	1)	6 Mos. Sinking	525.00/mo.)	Sinking	7,525.00
Engineer (Part Time	1)	3 Mos. Drafting	300.00/mo .)	Dr. & X-Cut	3,225.00
Accountant	1)	& X-Cut	250.00/mo.)		10,750.00
		Add 10% of Total for Compensation			1,075.00
				TOTAL	$11,825.00

(C) None

(D) Building - 14 x 24 - Combination Dry room & framing shed)
Building - 14 x 20 - Compressor House & tool shop) Materials 2,400.00
(Note: Labor for bldg. included in (A))

(E)	Electric hoist & 35 HP Motor (2nd Hand)	2,000.00	
	Hoist cable 5/8" 600'	250.00	
	Switch panel, grids, etc.	600.00	
	Electric welder	400.00	
	Pumps (electric sinkers) with Motors (2)	2,500.00	
	Sheave & brngs	100.00	
	Pipe - 600' - 3"	250.00	
	Rail for incline - 1000' - 20#	560.00	
	Rail for drifts & X-cuts 2500' - 20#	1,400.00	8,060.00

(F) None

(G)	IR Model 75, 315 cu. Ft. Compressor	(10 Mos.)	Rental Val.	225.00 Mo.	
	75 HP AC Motor	"	" "	225.00 Mo.	
	Skill Saw	"	" "	25.00 Mo.	
	2 Thor Jack Hammers)				
	1 Thor Stoper)	"		150.00 Mo.	
	2 Cleveland Deifters)				6,250.00
	1 Muck Skip - ½ Ton)				
	1 Vent Fan (Blower))				
	Acetylene Torches)				
	1 Receiver 3'x9')	No Rental			
	2 Pressure Tanks)				
	3 Mine cars)				
	500' Tract)				
	Sullivan Mucking Machine	(4 Mos. Only)		250.00 Mo.	1,000.00
			Total		$7,250.00

(H) Sinking

Explosives	2,860.00	
Hoses, fittings, bolts, small tools, etc.	400.00	
Hand tools (picks, shovels, axes, etc.)	400.00	
Lubricants & Machinery upkeep $150.00 Mo.	1,050.00	
Timber (8 x 8, 6 x 8, logging) @ $70.00 M	3,990.00	
Steel and bits	500.00	
		9,200.00

Drifting & Xcutting

Explosives @ 2.50 per ft.	3,250.00	
Timber 5000 ft. 8 x 8, logging	350.00	
Steel bits 75¢ ft.	975.00	
Lubricants and machinery upkeep $150.00 mo.	450.00	
		5,025
		~~3,955.00~~
		$13,155.00

(I) Transportation (Employees at mine) @ $150.00 Mo.	1,500.00	
Bulldozing (Road repair & leveling)	400.00	
Assaying	200.00	
* Power (Initial installation) by Idaho Power Co.	4,200.00	
Power (electric) 9 Mos. @ $530.00/mo.	4,770.00	
		$11,070.00

Note: Power installation and monthly costs are estimated based on consulation with Idaho Power Co. representatives. Installation charge is paid back to operator over a 5 year period by application of 1/4 the monthly power bill and if operation ceases in one year or less $2,500.00 of the original installation charge is retained by Idaho Power. Montly charge is based on peak load requirements and KW hours used and will be approx 1¢ per KWH.

j

24.

Month	Progress	Cost
First	Purchase New equipment Commence building and equipment installation Provide for power installation Rehabilitate drift and cross-cut Start work on shaft station	$22792.00
Second	Complete building and equipment installation Complete work on shaft station	5110.00
Third	Sink shaft 100 feet	9602.00
Fourth	Sink shaft 100 feet	9202.00
Fifth	Sink shaft 100 feet	9202.00
Sixth	Sink shaft 100 feet	9202.00
Seventh	Sink shaft 100 feet--completes sinking to 560 feet	9202.00
Eighth	Begin drifting, drift 434 feet	8730.00
Ninth	Drift and cross-cut 433 feet	8730.00
Tenth	Drift and cross-cut 433 feet--completes project	8730.00
	Total estimated cost	100,502.00

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

ENGINEERING REPORT

on

IDA HARLAN PROJECT

for

Baltimore Camas Mines, Inc.

by

S. L. Bida

&

D. E. Anderson

May

1951

Baltimore Camas Mines, Inc.
601 Eastman Bldg.
Boise, Idaho

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MINE

The property concerned in this report is the IDA HARLAN claim of the BALTIMORE group. The Baltimore Camas Mines, Inc. holds the property under a bond-lease agreement (from the owners, the receivers of the defunct Baltimore-Victoria Co.). This lease is in good standing and, under terms of this agreement, the purchase price of $75,000.00 will be retired entirely through royalty from the net proceeds of production.

The IDA HARLAN claim is patenoted as Lot 47, under Survey No. 11 of 1885 and comprises 18.7 acres in the Warm Springs Creek Mining District of Blaine County, Idaho.

LOCATION

The IDA HARLAN is located 14 miles North of Hailey, Idaho in the Warm Springs Creek Mining District of Blaine County.

The district is active and is, and has been for many years, a substantial producer of lead, zinc, and silver.

COMMERCIAL ASPECTS

The claim is traversed by at least one vein which has produced substantially on the property adjoining immediately to the east and there has reportedly been considerable production from this same vein on the property immediately to the west. Both these adjoining properties, namely, the Independence and the Chicago, are owned by the Hailey-Triumph Mining Co., the districts largest producer to date.

The IDA HARLAN section of this vein has the same general characteristics as in the Independence. The vein as exposed is a strong fissure with quartz fill rangeing up to 12 feet in width. The quartz has been mineralized particularly in the wider more fractured sections as indicated in the SW drift. The host rock enveloping this fissure is the same general formation which has produced commercial ore bodies in the adjacent area. The SW end of the present drift represents the most favorable section of the vein yet exposed because of the excessive width of quartz and increasing iron mineralization. Further, it is to be expected that downward extension of exploration on the IDA HARLAN will encounter more favorable (increased lime) members of the formation which are more conducive to commercial metal deposition than those encountered on the present level. This assumption is substantiated by the fact that the better ore bodies on the Independence lay on lower levels and by the fact that the vein on its downward extension cuts different members of the Milligan formation which dips more steeply than the vein itself.

Also, it must be borne in mind that the exploration thus far covered only a fractional part of the total amount of vein length encompassed by the claim and that on only one level.

ORE DEPOSITS

General

The veins of the IDA HARLAN are of the same type which traverse productive properties immediately to the east, west and south and lie in a similar formation.

These veins are fissure type and have produced ore bodies of both fissure fill and replacements in favorable horizons, along sections of these veins.

The fissures were originally formed by low angle reverse faulting and mineralization followed the more permeable sectors of the planes of weakness. The larger ore bodies appear to have been formed in the more limey members of the Milligan formation which has been the most productive Lead-Zinc host rock of the area.

Tenor

Since the exposed vein section does not appear to be of a commercial grade only two samples were taken relative to this report and these were taken from an oxidized portion of the vein. The results of these assays are tabulated on the accompanying geologic map. A sample taken by Idaho Bureau of Mines Engineers across the vein below the west raise (Pamphlet 90, Idaho Bureau of Mines and Geology, P. 58) gave 3% Zinc, 1.5% lead, and 3 oz. silver per ton. Footage was not given but is assumed to have been about 5 feet. An interesting fact brought to light by this return shows the ratio of silver to lead in this section to correspond very closely to that of the Independence Mine (refer G.S.B. 814, Geology and Ore deposits of Wood River Region, Idaho, p. 178).

HISTORY AND PRODUCTION

The original discovery was probably made in the late 1870's or early 1880's and the present cross-cut was driven 280' during the 1880's. This early cross-cut was driven to the vein, then abandonedd. The property lay inactive until 1947 when it was acquired by the Baltimore people and drifts were extended 145 feet SW and 170 SE along the vein.

There has been no production.

DEVELOPMENT

The IDA HARLAN has, to date, been opened up only by a 280 foot cross-cut and 315 feet of exploratory drift, plus three short raises. No backs of any consequence can be attained from this level on any ore shoots that might be encountered. A few surface trenches outline the course of the vein along the length of the claim.

The exact position of the portal of the cross-cut with respect to the claim boundaries was not established in this investigation since the original survey corners were not observed, but it is assumed according to the position of the vein as shown in Plate 21 of G.S.B. 814 that the outcrop follows somewhat south of the center line of the claim.

GEOLOGY AND MINERALIZATION

General District Geology and Mineralization

The general reginnal geology has been quite thoroughly studied and reported upon in such publications as have been previously referred to and only a few of the facts considered to be of paramount importance in determining commercial possibilities will be discussed here.

The important formation of the region are the overlying Wood River and Milligan sedimentary beds which serve as host rock to most of the important ore deposits and the underlying granitic rocks of Upper Cretaceous and later geologic ages from which the

minerals derived. Dykes, both andesitic and dacitic, were intruded during early tertiary age. Mineralization followed some time after these dyke intrusions. These outlying granitic masses, such as represented here, are in all probability related to the Idaho Batholith and the mineralization deriving from them is hence of a similar type and age to other mineral districts around or about the edges of the batholith. Parts of this particular area, however, are deeply overlain by sedimentary and metamorphic rocks of greater geologic age, which in some cases have provided a most favorable host rock for mineral concentration with resultant important ore deposits. Insome cases the granitic rocks underly rocks of Silurian, Ordovician and Algonquin age in addition to the Wood River and Milligan formations, but little or no exploration has been extended into these formations.

The intruding granitic masses brought about stresses which set up crustal disturbances in the older rock formations and in the Triumph area, in particular, resulted in thrust fault movements, which fault planes later provided channels for the ascending mineral solutions. Another factor resulting from the granitic intrusives was the magmatic separtion effected by the cooling igneous mass with resultant filling of some of the channels with dykes and quartz which also, in some cases, provided zones of weakness that later channeled the mineralization. The metallic minerals, representing a still further magmatic separation, then followed the channels previously formed by First, the faulting, dyke fills, and quartzing, and later recurrent movement with resultant fracturing, and deposited in the fractures as a fill and in adjacent replaceable limestone members. Still further recurrent faulting along some of these weak zones has brecciated the ore by movement along the strike of the veins and some normal faulting across the structure has caused some offsetting of veins and ore shoots.

The mineralization is Mesothermal in type and the ore shoots are almost wholly composed of primary minerals with but little secondary enrichment in evidence. The ore minerals are usually argentiferous, galena, abundant sphalerite, lesser amounts of tetrahedrite, and minor, variable amounts of chalcopyrite, pyrite, and arsenopyrite. Gangue minerals consist of quartz, partially replaced wallrock and siderite. More than one period of mineralization is represented in the veins of the district. The probable general order of introduction of minerals into the veins has been, first, quartz, followed by pyrite, then sphalerite, galena, tetrahedrite, polybasite and chalcopyrite in that order.

Geology and Mineralization of IDA HARLAN

The IDA HARLAN workings are located in the rocks of the Milligan formation of Mississippian Age. The footwall area of the exposed formation is made up of the limey, argillaceous shales and limestone members while hanging wallarea, where exposed, shows a more quartzitic argillite of the same formation. (See accompanying geologic map.)

The veins were formed by a severe thrust action originating from a southerly direction. This low angle thrust movement resulted in considerable displacement with the lower beds moved upward to the north and such upward movement in turn caused local irregularities in strike of the fault plane. Harder members of the upward moving beds coming in contact with softer members of the block below the fault plane caused excessive brecciation in such areas and thus formed potentially wide permeable zones for later ore deposition.

The mineralization observed in the IDA HARLAN occurred in two well developed fissures some 150 feet apart on the present level but probably related at depth. The main (southermost vein) has been most explored and exposes a massive quartz body over a length of 180 feet and widths vary from 3 to 12 feet. The quartz has pinched in its

eastward extension but the west drift body appears to be widening and iron mineralization is increasing. The ore genisis of this vein is typical of the district in general but conforms most closely with that of Federal workings of the Independence Mine. Quartz was the first mineral deposited, then was rebroken and pyrite, sphalerite, galena, tetrahedrite and accessory minerals were deposited locally in these fractures. No replacement ore bodies are exposed in present works but such limestone replacement type deposits may be expected at such local areas where the fissure intersects more favorable horizons of limestone host rock.

Wall rocks, show some pyritization, silicification, and graphitization. Locally graphitization is much in evidence and is no doubt resultant from intense hypothermal alteration of the carbonaceous argillites.

The vein, as exposed, has a general east-west strike and dips flatly (up to 36°) to the south. An average width of over 6 feet is maintained along 180 ft. of the strike length opened up.

The foregoing geological and mineralogical factors observed in the IDA HARLAN follow very closely the pattern that has resulted in formation of large, productive ore bodies in other properties in the vicinity.

GENERAL PHYSICAL FEATURES

Topography

The area is high and mountainous representing a recent erosion surface with the mountains rising abruptly and steeply from flat valley floors.

Hydrography

Independence Gulch, an intermittent stream composed of springs, flows past the property. The Independence property, located just above the IDA HARLAN, once operated a mill (probably 50 ton) from water developed from these springs and underground sources.

Water for underground work can be developed in the mine workings and a domestic supply is available from survace springs.

Climate, Altitude and Accessibility

Climate is generally moderate with severe seasons from January through April when heavy snowfall may be expected.

Average altitude of the region is from 6000 to 7500 feet. The IDA HARLAN portal is at 7100 ft. elevation.

Ketchum, Idaho, eight miles distant is the nearest town while Hailey, 14½ miles distant is the supply center and railhead. The IDA HARLAN is reached from Hailey by traveling 10½ miles of surfaced highway to Elkhorn Gulch, then 4 miles of unsurfaced county road up Elkhorn and Independence Gulch. Year around access could be maintained although snow plowing will be necessitated during winter months.

Timber

No timber is available on the property but some sawed timber can be obtained from a small local sawmill at a cost of $65.00 M.

Sage, scattered brush and grasses comprise the only vegetation of the property.

EQUIPMENT AND LABOR

Buildings

No useable buildings are now on the property. The 10 x 10 shack remaining could hardly be rendered serviceable and at least two new buildings must be constructed, probably one to serve as combination change room and framing shed, the other as combination shop and compressor house to serve the immediate housing needs for any extensive operation.

Machinery

No machinery remains on the property and the only serviceable equipment is a few hundred feet of track and pipe in the cross-cut and drifts.

A considerable portion of the machinery requisite for an exploratory and development operation at the IDA HARLAN is, however, available from other properties of the Baltimore-Camas Mines, Inc. Such items include compressor, electric motor, pneumatic drills, skill saw, mine cars, vent fan, mucking machine, receiver, pressure tanks, and some pipe and track. This equipment was given a cursory inspection and appears for the most part to be serviceable.

Machinery that will have to be procured from outside sources includes electric hoist and motor with accessory control board, etc., cable, electric sinker pumps, additional pipe and track, an electric welder, and such expendable supplies as are requisite to a mining operation.

Power

Since no power unit is now on the property the most feasible and economical source of required power is electrification by Idaho Power Co. This entails installation of a little over 2 miles of transmission line and rough estimates by Idaho Power representatives indicate the cost of this installation to be in the neighborhood of $4,200.00. This amount is, however, refundable to the mine operator through the medium of reduced power rates over a 5 year period. Power rates as computed on basis of expected requirements will probably be slightly less than one cent per kilowatt hour.

Labor

Some local labor is available and usually additional help can be procured from the Boise area. However, here as elsewhere, the mine labor situation is problematical and must be viewed well in advance if a constant manpower supply is to be maintained.

Mill

No milling facillities are available at the property but the operators, the Baltimore-Camas Mines, Inc., own and operate the Camas Mill some 25 miles from the Ida HARLAN and this plant will be utilized for treatment of ore mined from this property. The Camas plant is a 100 ton capacity mill and flotation plant constructed in 1950 and is at present under the supervision of a competent and accredited metallurgist. Cost of treatment at this plant is estimated at $3.00 per ton and haulage from mine to mill would require an additional $2.00 per ton.

CONSLUSIONS AND RECOMMENDATIONS

A thorough study and evaluation of the physical and geological facts acquired through personal observation of the property as well as reference to such authorative publications as G.S.B. 814 and Idaho Bureau of Mines Pamphlet 90 has allowed us to set forth the salient facts regarding the IDA HARLAN. A review of this material as presented in the foregoing pages makes self-evident these conclusions:

(1) The location of the property both with respect to formation and geographical position places it in the known productive area.

(2) The specific geological and mineralogical features of the IDA HARLAN vein and wall rocks closely parallel the conditions of other veins and extensions of the same vein that have attained substantial production of lead, zinc, silver in the immediate vicinity.

(3) Only a minor portion of either the lateral or vertical extent of the IDA HARLAN vein area has been explored.

(4) An exploratory program which would have a very definite prospect of disclosing an important commercial lead-zinc ore body or bodies can be carried out with no unusual operational problems and at a cost which can by no means be considered prohibitive under present economic conditions.

Before briefly summarizing the material facts relating to the conclusions enumerated above, it must be emphasized that the known geologic features of the adjacent productive area were used as a yardstick to evaluate the possibilities of the IDA HARLAN. The considerable size of the vein, the mineral type observed, and the makeup of the wallrocks definitely lend credence to the probability that commercial ore is to be expected along some unexplored portion of the vein.

While no commercial ore has yet been disclosed it must be reinterated that only a relatively minor portion of the potential productive vein area of this property has been opened up. The present level shows some evidence of approaching an ore shoot in the face of the west drift but the most feasible course appears to consist of following the downward extension of the vein as it cuts the Milligan formation at a slight angle on the dip and thus enhance the possibilities of coming into an ore shoot by the probability of encountering members of the wallrock which have a more limey makeup, hence are more favorable for replacement and metal deposition. The characteristics observable from sections thus far exposed in the IDA HARLAN point to the probability of a fissure type deposition in the wide quartz sections but the more nebulous possibility of encountering a replacement ore body in a favorable limestone horizon cannot be overlooked. Also, such physical factors as local flattenting of the vein and change of strike must be regarded as favorable for ore deposition.

Hence, we believe the exploration program now being contemplated constitutes an entirely justifiable expenditure. This program allows for the sinking of a 500 foot incline winze from the SW drift on the present level. This inze will serve to explore the downard course of the vein through different, more southerly, beds of the Milligan formation than those now exposed and thus afford the opportunity to contact the formation most favoable for ore deposition. Additional exploratory work in this program provides for 1000 feet of drifting off the most favorable level or levels of this incline and further for 300 feet of cross-cutting to explore the walls of these drifts for possible replacement ore bodies. It should be understood that these projected estimates of footage to be explored must of needs be subject to revision as the geological evidence is further exposed by progress of the sinking or drifting. The overall cost of

This program will be slightly in excess of $100,000.00 which expenditure appears reasonably well in line with the average cost of such projects. Manpower and material requirements may constitute some temporary problems although the latter should give little trouble in view of the fact that a sizeable part of the equipment can be produced by the operator himself. A further inducement to pursue this project lies in the fact that any bodies of mill grade ore that may be encountered can be treated at the Camas Mill and flotation plant and would not necessitate erection of an additional plant. The successful fulfillment of the exploration in a reasonable time will necessitate competent supervision and engineering advice and will demand the maximum utilization of mechanisation to overbalance the critical labor situation.

Thus, in view of the previously stated favorable conditions for commercial ore bodies, and because of the present urgent demand and ready market for the metals here sought, we recommend that the projected exploration program be carried out as expeditiously as possible.

S. L. Bide, E. M.

D. E. Anderson, E.M.

FILE COPY
SURNAME:

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

May 28, 1951

Mr. G. P. Williams
President
Baltimore Camas Mines, Inc.
601 Eastman Building
Boise, Idaho

Subject: DMA-1245X
Re: Exploration Loan
Ida Harlan Mine

My dear Mr. Williams:

Receipt is acknowledged of your application and attachments of May 12, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1245X and was referred to Mr. Otto Herres, Chief, Lead-Zinc Branch on May 25, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1245X.

Sincerely yours,

LANDON F. STROBEL jhs

Landon F. Strobel
Executive Secretary

LFSTROBEL:jhs
cc: Strobel-2
✓Files
Herres
Lyon

dma 12 45X

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

So. 157 Howard Street
Spokane 8, Washington

May 16, 1951

Mr. L. F. Strobel
Executive Secretary
Defense Minerals Administration
Department of Interior
Washington 25, D. C.

Dear Mr. Strobel:

Enclosed herewith are four copies of an exploration loan application submitted by the Baltimore Camas Mines, Inc. The property to be explored is the Ida Harlan patented claim, one of the Baltimore Trust claims, Warm Springs Mining district, Blaine County, Idaho. Also attached is a memo from the Field Team concerning the property.

Very truly yours,

A. E. Weissenborn

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

Enclosures

cc: U.S.B.M.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 21 1951
LANDON F. STROBEL
Executive Secretary

dma 12458

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

So. 157 Howard Street
Spokane 8, Washington

May 16, 1951

Memorandum

To: Lead-Zinc Committee, Defense Minerals Administration, Washington 25, D. C.

From: Field Team, Region II

Subject: Application for exploration loan by Baltimore Camas Mines, Inc. Blaine County, Idaho.

Enclosed herewith is an application for an exploration loan submitted by Baltimore Camas Mines, Inc. The applicant proposes an exploration program, the total cost of which is to be $100,502. The program calls for sinking a 500-foot inclined shaft on the vein from the present adit level, and for 1,000 feet of drifting and 300 feet of crosscutting to be driven from the shaft. The total exploration program is to be completed in ten months time.

The Ida Harlan was not examined by the DMA Examination Team, but was previously mapped by Thor Kiilsgaard of the Idaho Bureau of Mines and Geology now a member of the Geological Survey attached to the Spokane office. Kiilsgaard describes the vein as a strong quartz-filled structure that reaches a thickness of 12 feet in the west drift face. A sample taken near the west face went 1.5 percent lead, 3 percent zinc, and 3 ounces in silver per ton (See Idaho Bureau of Mines & Geology Pamphlet 90, dated October 1950). In the adjoining Independence claim to the east, the same structure was productive and was extensively mined by the Independence mine. (See U.S.G.S. Bull. 814). In the Independence mine, barren quartz-filled portions of the vein similar to the Ida Harlan are reported to have occurred. The vein in the Independence claim often changed in strike and dip and was not found on the No. 10 level nor in the underlying Plummer tunnel. Apparently, the vein was either faulted out in these levels or was not mineralized and was not recognized at the intersection. Whether or not the vein would be similarly affected in the Ida Harlan claim could be determined only by exploration. In any event, a 500-foot inclined shaft from the Ida Harlan adit should not reach the level at which the vein was lost and could conceivably develop substantial ore bodies.

Mr. Sam Bida, who has drawn up the accompanying application, and who will have charge of the exploration work, is a reputable mining engineer. He could quite capably direct the proposed exploration program.

The Ida Harlan vein is a strong structure that warrants further exploration. The vein was productive in the adjacent claim to the east and there is every reason to believe that it will be productive in the Ida Harlan area. The Field Team recommends that this exploration application be accepted.

By Field Team, Region II

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

M. E. Volin, Associate Officer
(U. S. Bureau of Mines)

cc: U.S.B.M. Albany
U.S.B.M.

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 21 1951
LANDON F. STROBEL
Executive Secretary