DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 127/X

DO NOT DETACH THIS SLIP

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

This document has been recorded as

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

Routing Slip

To:	Copper Branch	Date	5/28/51
To:	Lyon	Date	8/15/51
To:	Reports & Records	Date	8/21/51
To:	Lead Zinc Br.	Date	8/22/51
To:	Code 350 36	Date	
To:	Supply Division	Date	OCT 1 2 1951
To:	Reports and Records	Date	OCT 1 6 1951
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

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

OCT 1 6 1951

Memorandum

Re: DMA-1271
Old Soldier Group
Socorro County, New Mexico
Copper, lead, zinc
Exploration loan, $52,943

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of exploration loan

A. E. R.

The subject docket was transferred to the Lead-Zinc Branch at the recommendation of the Copper Branch. They have recommended a denial based on the lack of copper mineralization on the property.

In addition, to the application material, we have reviewed an examination report on the Old Soldier mine by W. D. McMillan, U.S. Bureau of Mines, 1950. The mineralization occurs as galena and cerrusite in a sheared zone of rhyolite porphyry. It was reported the best ore occurred along the footwall of a fault contact with andesite porphyry. McMillan examined the underground workings and sampled what he considered to be representative ore. The assays on these samples ranged from 2% to 0.1% lead, with an average of less than 1%. He concluded that an enriched zone at depth was very unlikely and further consideration of the property by the Bureau could not be justified. We concur with the Copper Branch in recommending that this application for an exploration loan should be denied.

Returned herewith are:

1 memo of recommendation from CU Branch

2 Forms MF-103

T. P. Billings, Chief
Lead-Zinc Branch

Approved:

Director, Supply Division

FILE COPY
SURNAME:

350

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

Newcomb (ETM)
McKnight
Bishop
Billings

OCT 17 1951

Re: DMA-1271

Q & C -

Mr. Frank L. Maher
Metals Limited
Box 117
Socorro, New Mexico

Dear Mr. Maher:

Your application for an exploration loan on the Old Soldier Group, Socorro, County, New Mexico, has been reviewed by the Defense Minerals Administration. We have a U. S. Bureau of Mines' report available to us pertaining to an underground examination made on your property. From this information, we conclude that no significant copper, zinc, or lead mineralization occurs on your property. The assays of samples taken by the Bureau engineer indicate that the tenor of your ore is too low for profitable mining. I regret that we must deny your application for an exploration loan.

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

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

ELNewcomb:emp
G 10-11-51
Copies to: J. H. East, Jr. Region IV (2)
Chief, Lead-Zinc Branch
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. file
DMA docket files

Reports and Records

FILE COPY
SURNAME: 350

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

Newcomb (ETNe)
McKnight
Bishop
Billings

OCT 16 1951

Re: DMA-1271
Old Soldier Group
Socorro County, New Mexico
Copper, lead, zinc
Exploration loan, $52,943

Memorandum

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of exploration loan

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1 memo of recommendation from CU Branch

2 Forms MF-103

R&R

T. P. Billings, Chief
Lead-Zinc Branch

Approved:

Tom Lyon

Director, Supply Division

ELNewcomb:emp G 10-11-51

Copies to: J. H. East, Jr. Region IV (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA

Administrators r. file
DMA docket files

310

FILE COPY
SURNAME:

Bowen
Gibson

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

AUG 22 1951

Mr. Frank L. Maher
Metals Limited
Box 117
Socorro, New Mexico

Re: Docket DMA 1271X

Dear Mr. Maher:

From the information submitted with your application for exploration aid it is evident that the copper content of the deposit does not justify consideration as a copper project. The smelter returns show that the dominant minerals apparently are lead and zinc.

Therefore, from this evidence we are forwarding your file to the Lead, Zinc Branch of the Defense Minerals Administration for their consideration.

Very truly yours,

BJ 8/22

Tom Lyon

Tom Lyon, Director
Supply Division

RVWaugh:pk
8/16/51

Copy to: Administrator's Reading File
Reports and Records Branch
Executive Officer, Region IV
Copper Branch
Files-DMA Docket
C. H. Johnson
D. MacLaren

AUG 2[illegible]

FILE COPY
SURNAME:

RVWaugh
JHuss

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

AUG 22 1951

MEMORANDUM

To: Administrative Management Division

From: Chief, Copper Branch

Through: Director, Supply Division

Subject: Exploration Aid Application for Copper, Lead and Zinc Commodity-Copper DMA Docket 1271X

From the material submitted with the application it is evident that the dominant minerals are lead-zinc. The small copper content does not justify consideration as a copper exploration project.

DMA Field Team, Region VIII with the assistance of reports on hand recommended denial as a copper project.

It is recommended therefore that this application be transferred to the Lead-Zinc Branch for their consideration.

A letter has been written to the applicant notifying him of this transfer.

Transmitted herewith for your disposal is the entire file consisting of the following:

2 Forms MF-103 with agreements, answers sheets, reports, and smelter returns attached.
2 Defense Minerals Administration Review of application for Exploration assistance.
1 Carbon copy of letter from Mr. L. F. Strobel to Mr. Frank Maher, dated June 1, 1951.
1 Memo from Mr. McHenry Mosier to Mr. J. B. Gowen dated June 20, 1951 with an attached Analysis of Docket DMA-1271X

J. B. Gowen BJ 8/22

J. B. Gowen, Chief
Copper Branch

Approved:

Tom Lyon

Director, Supply Division

C. H. Johnson
Files-DMA Docket

RVWaugh:ez 8/16/51
Copy to: Reports and Records Branch
Executive Officer, Region IV
Copper Branch
~~C. H. Johnson~~ Mac Green

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

a. E. C -

AUG 22 1951

MEMORANDUM

To: Administrative Management Division

From: Chief, Copper Branch

Through: Director, Supply Division

Metals Limited

Subject: Exploration Aid Application for Copper, Lead and Zinc
Commodity-Copper DMA Docket 1271X

From the material submitted with the application it is evident that the dominant minerals are lead-zinc. The small copper content does not justify consideration as a copper exploration project.

DMA Field Team, Region VIII with the assistance of reports on hand recommended denial as a copper project.

It is recommended therefore that this application be transferred to the Lead-Zinc Branch for their consideration.

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1 Memo from Mr. McHenry Mosier to Mr. J. B. Gowen dated June 20, 1951 with an attached Analysis of Docket DMA-1271X

J. B. Gowen

J. B. Gowen, Chief
Copper Branch

Approved:

Tom Lyon

Director, Supply Division

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

June 20, 1951

Memorandum

To: J. B. Gowen, Chief
Copper Branch, Supply Division

From: Executive Officer
Field Team, Region VIII

Attached is Docket DMA-1271X which was sent to College Park for review. It is recommended that assistance be denied for exploration. As the principal minerals are actually lead and zinc, it is suggested that the lead-zinc commodity specialist may also wish to confirm this conclusion.

An analysis of the docket is on the attached page.

McHenry Mosier

McHenry Mosier

Attachments

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA-1271X

Commodity Copper-lead-zinc

Total Amount $52,943

Govt. Participation $26,471.50

1. Name and Address of Applicant Frank L. Maher (Metals Limited)
Box 117, Socorro, New Mexico

2. Location of Property Mill Canyon Mining District,
Socorro County, New Mexico

3. Mineral or metal yes 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

b) Poor X

c) None

d) Don't know --- needs field examination

e) Is there an alternative and favorable project? no
(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? not lessee

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

*Question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? No

b) MF-202 No

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

a) Available manpower Yes

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

c) Accessibility (question 12) Yes

d) Water (question 13) Very limited — 11 g.p.m. min. — all sources

e) Power (question 13) Yes

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) No

Is a field check needed on this point? No

10. Exhibit A. (questions 21 and 22)

a) Is the project adequately described? No

If not, are there sufficient data given so that you can describe the project? No If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? No

c) Is the proposed work "exploration" under the definition of Section 8, MD-5? Yes

If not, what part of it is?

Is this part a worthwhile exploration project? _____

d) Are the cost estimates detailed? not correctly

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? No

f) Should more information be requested from applicant? No

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? No If so, attach a draft.

c) Is a field check needed? No

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

a) Is it applicable? yes

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? No.

d) Is a field check needed? No

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

a) Are there sufficient data? No

b) Is the schedule adequate for the work proposed? Not enough data

c) Is the schedule excessive for the work proposed? " " "

d) Are the proposed wages and salaries reasonable? yes except for time element

e) Is a field check needed? No

14. Exhibit E (question 23-c)

a) Is it applicable? yes

b) Sufficient data? NO

c) Reasonable?

d) Field check needed? NO

15. In your judgment, can the proposed work be done in the proposed time? yes

(All exploration must be completed within two years.)

16. If field examination is not needed, attach your recommendation.
We recommend rejection in respect to copper. *

17. ~~If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing questions?~~

* This deposit also contains lead and zinc. We also recommend rejection of the application for lead and zinc exploration subject to the approval of the lead-zinc representative of DMA. Our recommendation for rejection is based in part on a War Minerals Rept. (1950) by MacMillan, Bureau of Mines Engineer, Denver Office.

Reviewed by: HR Cornwall

H H Burmester

Date 6/19/51

ANALYSIS OF DOCKET DMA-1271X

Although this application includes copper, the principal minerals represented are actually lead and zinc.

There are no maps or assay plans and from what little information is available it seems likely that the ore occurs in small localized areas.

Smelter returns of probably best ore show a concentrate of 10.9 percent lead and ore containing 3.6 percent lead.

There are 4 zinc assays shown averaging about $2\frac{1}{4}$ percent zinc. These assays and one small smelter shipment are the only evidence of zinc.

The geology is very sketchy.

No statement is made regarding number, location or length of proposed diamond drill holes.

No statement is made for necessity of miners and muckers. A superintendent and a hoist operator are carried on salary for 24 months but Project is supposed to be complete in 12 months.

Provision is made on cost sheet for purchase of used diamond drill but not for wages of operators.

Rental of equipment on property is listed at $12,000 but only one jackhammer, a 105 c.f.p.m. compressor and a small hoist are applicable to project. Apparently the applicant may believe a pilot test mill he has would be used on Project and is possibly charging rent for this, but he does not so state.

The accompanying engineering reports are very general and of little assistance to this review.

Mr. MacMillan of the Denver office of U.S.B.M. visited the property twice in 1950, but the reviewer can find no publication resulting from these visits.

It is recommended that this application be rejected in regard to copper and sent to Mr. Otto Herres of the Washington Office for review on lead and zinc. If he concurs we recommend that this application be rejected in its entirety.

(signed) H. L. Burmeister
H. R. Cornwall

College Park
June 19, 1951

P.S. Reports furnished by Mr. Weaver were most helpful.

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA-1271X

Commodity Copper-lead-zinc

Total Amount $52,943

Govt. Participation $26,471.50

1. Name and Address of Applicant Frank L. Maher (Metals Limited) Box 117, Socorro, New Mexico

2. Location of Property Mill Canyon Mining District, Socorro County, New Mexico

3. Mineral or metal yes 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

b) Poor X

c) None

d) Don't know --- needs field examination

e) Is there an alternative and favorable project? no
(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? not lessee

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

*Question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? No

b) MF-202 No

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

a) Available manpower Yes

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

c) Accessibility (question 12) Yes

d) Water (question 13) Very limited — 11 g.p.m. min. — all sources

e) Power (question 13) Yes

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) No

Is a field check needed on this point? No

10. Exhibit A. (questions 21 and 22)

a) Is the project adequately described? No

If not, are there sufficient data given so that you can describe the project? No If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? No

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? not correctly

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? No

f) Should more information be requested from applicant? No

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? No If so, attach a draft.

c) Is a field check needed? No

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

a) Is it applicable? yes

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? No

d) Is a field check needed? No

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

a) Are there sufficient data? No

b) Is the schedule adequate for the work proposed? Not enough data

c) Is the schedule excessive for the work proposed? " " "

d) Are the proposed wages and salaries reasonable? Yes except for time element

e) Is a field check needed? No

14. Exhibit E (question 23-e)

a) Is it applicable? yes

b) Sufficient data? No

c) Reasonable?

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? yes

(All exploration must be completed within two years.)

16. If field examination is not needed, attach your recommendation.
We recommend rejection in respect to copper. *

17. If ~~field examination is needed~~, do you have any special instructions for the field ~~team not indicated by your answers to the~~ foregoing ~~questions?~~

* This deposit also contains lead and zinc. We also recommend rejection of the application for lead and zinc exploration subject to the approval of the lead-zinc representative of DMA. Our recommendation for rejection is based in part on a War Minerals Rept. (1950) by MacMillan, Bureau of Mines Engineer, Denver Office.

Reviewed by:

BR Cornwall

H. L. Bannister

Date 6/19/51

FILE COPY
SURNAME:

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

June 1, 1951

Mr. Frank L. Maher
Metals Limited
Box 117
Socorro, New Mexico

Subject: DMA-1271X
Re: Exploration Loan
Old Soldier Mine

My dear Mr. Maher:

Receipt is acknowledged of your application and attachments of May 11, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1271X and was referred to Mr. J. B. Gowen, Chief, Copper Branch on May 28, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1271X.

Sincerely yours,

LANDON F. STROBEL
Landon F. Strobel
Executive Secretary

LFSTROBEL:js
cc: Strobel-2
√Files
Gowen
Lyon

DMA 1271

258

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. 1271 X

Date received 5-28-51

Participation

Frank L. Maher
Metals Limited
Box # 117
Socorro, New Mexico

Name and address of applicant

Date May 11, 1951

FILL IN THIS BLOCK

Date of application May 11, 1951

Estimated cost $52,943.00

Mineral or metal Copper, Lead, & Zinc.

Percentage of Government participation 50%

Location of mine Sec. 31, T3S. R3W., NMPM
Sec. 25 T3S. R4W., NMPM
Sec. 36 T3S. R4W., NMPM
In Mill Canyon Mining District of Socorro County New Mexico on the west slopes of the Magdalena Range.

Date of filing MF-100

DMA Docket Number, if available 1271 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? A Limited Partnership (See sheet #1)

*2. If a partnership, state names and addresses of partners. See sheet 1 item #2 of supplement

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not incorporated

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. See item #4 on attached sheets of supplement.

*5. Are you the owner or the lessee of the property? Owner & Operator.

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. None.

7. If lessee, attach a copy of the lease and state if it is in good standing. No leases concerning property.

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. See attached form to comply with requirement from partners.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. See supplement

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? Yes. In money, time, equipment and materials. $26,472./

*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. Lode Claims in Secc 25,36,&31 as mentioned.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. Same

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. See item 11 attached sheet

*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. See item 12 attached sheets.

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

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. See item14 attached sheets.

15. State in detail how the ore could be shipped and how and where milled. See item 15 attached sheets

*16. History: See attached sheets item 16 and sub paragraphs of same.

(*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	All operations have been carried on for pilot testing the area only, only shipments by applicant are identified in form of smelter returns.,results of such tests.			
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.) See item 18 of attached sheets

(*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. See item 19 attached sheets.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted Copper, Lead & ZINC

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

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. See item 22 on attached sheets.

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. See attached

(*b*) Supervisors, by numbers and positions, with salaries of each. sheets and items 23 & sub

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings. classifications.

(*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. See attached sheet item 24.

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.

Metals Limited
(Name of company)

By Frank L Mahr
(Signature of authorized official)

May 11, 1951
(Date)

Owner & Operator.
(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

AGREEMENT.

This agreement being a part of an application for a loan to aid in an Exploration Project, pursuant to Mineral Order 25 under the Defense & Production Act of 1950, is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, we AGREE to subordinate all our interests to the interest of the United States Government in the property to be explored by the use of the funds obtained and in any equipment that may be purchased by such funds. In this we bind ourselves and our heirs, executors and administrators firmly by these presents.

Signed on this 17 th day of May 1951

Co-locator Ora L Maher

Co-locator Frank L Maher
of the MS Metals Mining Claims
&
Owner-Operator of Metals Limited
a Mine Development Firm.

Subscribed and sworn before me on this 17 th day of May 1951.

My Commission expires 12-31-52

Julius Fransioli, Co Clk
By Salomon Lopez, Deputy

A G R E E M E N T

This Agreement being a part of an Application for a loan to aid in an Exploration Project, pursuant to Mineral Order #5 under the Defense and Production Act of 1950, is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, W E AGREE to subordinate all our interests to the interest of the United States Government in the property to be explored by the use of the funds obtained and in any equipment that may be purchased by such funds. In this WE bind ourselves and our heirs, executors and administrators firmly by these presents.

Signed on this 7 th day of May, 1951 A.D.

Co-Locator Gale E. Hart

Co-Locator Rue B. Hart
of the H. M. METALS MINING CLAIMS

Subscribed and sworn before me on this 7 th day of May 1951 A.D.

GERALD R. STEINER, Notary Public
In and for El Paso County, Texas
My commission expires June 1, 1951

Notary Public
El Paso County
El Paso, Texas

Item 8. Exploration Project, Frank L. Maher, Socorro, New Mexico.

CURRENT FINANCIAL STATEMENT.

Frank L. Maher
Box #117
Socorro, New Mexico
Business. Plumbing & Mining (At present wage earner)

To Defense Minerals Adm
Dept. of the Interior.

For the purpose of obtaining an aid in exploration of mineral properties I hereby submit the following statement of condition as of May 17, 1951 and it is all respects true and correct at this time.

ASSETS		LIABILITIES	
Cash	$ 328.00	Notes to Banks.	$3400.00
Accts Receivable.....	880.00	Other Notes	2500.00
Rent	228.00	Interest	354.00
Machinery.....	10770.00	Taxes due	310.00
Equipment furniture etc....	1200.00	Current debts	000.00
Land in Hot Springs, N.M.	32000.00	Inst.Accts.	000.00
Store & city property	20000000		
Totals	$ 65,406.00		$ 6404.00

At present time I am a permanent employee of the New Mexico School of Mines at a monthly salary rate of $278.50.
At present time I am also a Deputy State Plumbing Inspector on part time basis with average income of around $25.00 .

The above represents a statement of the affairs of Mr. & Mrs Frank L. Maher. of Metals Limited & Consumers Service & Supply a family partnership.

Frank L Maher

ITEM #4 (a) & (b) a[illegible]ed information of persone[illegible]

General over all supervision and planning of exploration project will be in charge of Seymour Thurmond Jr. who is a graduate in geology from the Socorro School of Mines, has been employed by various mining companies both here in the United States and also in South America. Mr. Thurmond is a New Mexico State licensed engineer and has exception ability in the field of geology and general exploration of mining ptoperties. He is also well qualified in assaying having served in that capacity for various mining companies.

General over all maintenance, installations, transfer of equipment about the project, operation of machinery, power, water and earth removal as well as automotive equipment will under the direct supervision, operation and maintenance of Mr. Frank L. Maher who has many years experience in these and associated fields.

Experienced labor skilled in diamond drilling is available in the area.

Experienced miners and underground laborers are exceptionally plentiful in this area.

There is a sufficiency of all classes of required personel in the area.

Exploration Project, Frank L. Maher, Socorro, New Mexico.

Sheet #1 Exploratio[illegible] Project; Frank L. Maher S[illegible]orro, New Mexico.

Item #1. Applicant is a Limited Partnership in that liability does not extend into the private personal affairs of the Partners Gale M. Hart of 1510 North Mesa El Paso Texas and Mrs. Rue B. Hart of 1510 North Mesa El Paso who are husband and wife they being inactive partners.
The active partners are Frank L. Maher of Socorro, N.M. and Mrs Ora Maher also of Socorro, New Mexico who are husband and wife. Liability extends into the private affairs of Mr. & Mrs Maher.
All partners are a family group by marriage with Mrs. Maher and Mrs Hart being sisters by blood relationship.

Item #2. Frank L. Maher Box # 117 Socorro, New Mexico
Ora L. Maher Box # 117 Socorro, New Mexico
Gale M. Hart, 1510 North Mesa, El Paso, Texas
Rue B. Hart, 1510 North Mesa, El Paso, Texas.

Item #4. The Applicant (a) Frank L. Maher and also (b) the person who will manage the project has been employed at the American Metals Mine of Tererro, N.M. for 5 years during its operation. He also was Chief Electrician of La India Mine in Nicaragua, C.A. Master Mechanic of La India Mine in Nicaragua, C.A. for 8 years 8 months. Construction and power plant for Empire Metals of New Mexico. and has been a State licensed Plumbing & Heating Contractor, is at Present State Plumbing Inspector and also employed at the New Mexico Institute of Mining & Technology in Socorro, N.M.
For the past three years he has been pilot testing the mineralized area under application for a loan.

Item #5. Applicant is the owner and operator of the property in application for loan.

Item#6. Property has no liens against it.and owes no current debts.

Item #11 Properties were first located in 1880 as Good Hope then As the Old Soldier Group consisting of Old Soldier #s1,2, 3,4;Golden Lela #'s 1 &2; Great Western #'s 1 &2. and Lucky Star. Present name HM Metals Group.
Property in Group also was formerly Wheel of Fortune, and Blue Hill Claims..
Property also in Group was formerly Iron Cap Vein which is now part of HM Metals Group.

Item #12 The property under application is in the Mill Canyon area of the Magdalena Mountains which on the west slope of the mountain at an app. altitude of 9,000 ft. it is by highway 6½ miles south on highway New Mexico number 107 from Magdalena, N.M. then 4 miles on forest service road to canyon bed of Mill Canyon thence 3 miles to mine site. The road is usually in good gondition and passable the entire year. There is a railroad shipping point at the town of Magdalena, N.M. app 14 miles away all down grade with no grade excessive. Except for a short period following rains the canyon bed road is kept in fair condition.It can be traveled by car.

Item #13. The supply of water is a year round source with plenty of indication that quantity man be increased with a small amount of development, which, with natural storage facilities may be reused. The flow by weir measurement has a minimum of 11 gals. a minute from all sources combined. this is constant. the year round.

Item #13. Power. At the present writing poles have been installed at a point 4 miles distant for REA and we are scheduled to have REA power for mining operations. This line is new construction with all funds appropiated and applicant has signed up as member and is guaranteed power when it is needed.
At the present time all power is Gasoline Engine applicant having at present time 86 connected HP in Gas Engines The cost of Gasoline used in the Pilot Testing Operations averaged in the amount of $93.00 plus or minus per month. Under REA Power it is given as an approximate figure at 3.5¢ per KW.

Item #14. Applicant has on the property in first class operative condition 1 105 CFM Compressor. 1 Thor heavy duty jackhammer complete with hose, steel, bits, etc. pipe, 1 hoist 5500 lb capacity double drum. c/w engine. Crusher, 15T Mill, Concentrating table, Flotation cell 1½ T truck, Assay Laboratory completely equipped. mine cars etc. and in general many supplies and tools. Welding equipment .

Item #15. The ore can be shipped to Magdalena by truck 14 miles from there by railroad to the smelter of the A.S.& R Co. at El Paso which is app. 210 miles distant.

The ore can also be milled on the premises as there are sufficient water for the operation of a mill should one be constructed.

The ore xan also be shipped to Deming New Mexico where the A.S.& R Co. has a concentrating mill for concentrating low grade ores for their smelter in El Paso, Texas..

The most logical method is to concentrate the ore on the premises and then ship the concentrates to the smelter which by this methed there is the added benefit of selective concentration of the copper, lead, zinc and marketing each as its distinctive concentrate, this permits payment to be received for each metal. whereas under general ore conditions there are penalties covering various metals which are in ores of certain classes.

Item #16. The history of the ground to be explored by the applicant must first be seperated into three sections namely: Copper Section which was formerly known as the Wheel of Fortune Group and originally consisted of 12 mining claims which are more accurately described and located as in Drawing # 16 supplement 1 Wheel of Fortune Group.
A brief history has been written by F.A.Jones in his New Mexico Mines & Minerals of 1904 also by Gordon C.H. in U.S.Geological Survey paper 68. New Mexico Mines &

Item #16 Continued Sub section (a)

Minerals. A slight mention is made in Bulletin #8 The Ore Deposits of Socorro County, New Mexico by Samual G. Lasky which is a New Mexico School of Mines publication. (see pages 44 to 46 inclusive)
This property was formerly owned and operated by August Riviere from 1891 to 1935. at which time he died.
A great deal of mining work was carried on but very little shipping was done this was due to the fact that transportation only permitted the shipping of the higher grade ore as all shipping was by ore wagon and teams to the railroad.
U.S.Geological Survey paper #200 shows that 25 tons were shipped in 1908 this was from what was Wheel of Fortune # 1 with copper at 8288 lbs.
1916 & 1917 showed two small shipments and 1918 showed another shipment this was the last from the Wheel of Fortune. There has been a great deal of tunnel work but at outcrops on the surface where copper assay or considerable value is shown no attempt has been made to explore it size.
General information as to the lack of progress in the Wheel of Fortune group shows that transportation played the first important difficulty and second the general ideas of the owner played second in importance.
Listed in attached supplement #16 e Wheel of Fortune are informations of present additional findings which tend to show the favorable conditions indicated for further exploration.

Item #16 (a) The Lead Section formerly known as the Old Soldier Group or the Old Soldier Vein. This Group originally consisted or 9 mining claims known as the Old Soldier 1,2,3,4, Golden Lela 1,2,Great Western 1,2, and the Lucky Star. A brief history has also been written by F.A.Jones, Lindgrin, Lasky and several others. Reports have been made by J.D.Quigley, Paul Moore of Magdalena N.M. and William Kemp. Investigations have been made by Paul Moore and also by Applicant (Frank L. Maher) .
The general History is the Claim generally known as the Old Soldier #1 was first located in 1880 as the Good Hope by a Civil War veteran, it is from this that it derived the name generally as the Old Soldier, this was sold to Mrs. Ada A.Wolf in 1909 and it was then named the Ada A. Mining Claim. and it and the rest of the group remained the property of Mike Wolf and Ada A Wolf from that time until applicant acquired them. This Group is Know known as the HM Metals Group. The applicant lived with Mr. & Mrs Wolf from 1931 until 1937. a great deal of the time was spent in and upon the claims. and such details a are related came from authoritive sources. and personal investigations.
The most notworthy shipment was made in 1909 which was 48 tons of ore which returned 19,258 lbs of lead. This was from the Old Soldier #1 claim. Several other shipments were made by lessors but have been lost in the records this was due in most cases by shipping under other claim names. The last shipment of ore was from the dump and as this was left over from high grading its value has not

Item #16 (a) Cont. (Old Soldier Group)
been found out. A bit of information is mentioned in Bulleting # 8 of the New Mexico School of Mines by Lasky on page 46 under heading Old Soldier Vein.
The difficulties involved with this property are similar to that of the Wheel of Fortune in that transportation made it impossible to ship any of the enormous quantity of low grade ore on the property.
The general attitude of the former owner was that it was more profitable to sell mine stock than develop the mine, even though the company Old Soldier Mining & Milling Company was never incorporated, or had right to sell stock.
I received this information by mail shortly before the death of the former owner Mr. Wolf.
The origin l layout of the Old Soldier group is more shown in Drawing #16 supplement #2. Titled Old Soldier Group.
Copies of Reports which are true copies the originals which have been lost down through the years are listed in Item 16 (b) under Old Soldier Reports and Examinations.

Item #16 (a) The groups known formerly as the Blue Hill Group and the Iron Cap Group have very little former history however present assays show considerable possibility these are listed on HMMetals Assay Map merely as Assay Report Numbers.

ITEM #16 (b) All listed in (a) and (c) of Item 16 attached sheets.

Item (c) No former reports on the Wheel of Fortune Group are available and only hearsay is known.
Under applicnts assaying investigation. On Wheel of Fortune #7 (Wheel of Fortune #7 corresponds in part to HM Metals #1 Annex)Assay Report of the New Mexico Bureau of Mines shows Sample #1 Copper .43% Lead1.51% Zinc 10.01%this Is the first time that zinc has shown up in the Mill Canyon Area.
Dr, Gerald Green Professor of Metalurgy at the Socorro School of Mines carried on an investigation of leaching concerning a quantity of low grade copper which had an assay value of App. 5.56 % and although it was not possible for him to complete his examination he stated that the body of ore was of commercial possibility and economically possible to concentrate either by leaching or flotation.
New Mexico Bureau of Mines assay report certificates #5931,5938 are from unopened outcropings.

OLD SOLDIER REPORTS & INVESTIGATIONS.

The property had been examined by many geologists in times past but their reports have been lost down through time however some of which have been copied are as follows;
Report of Old Soldier Mine near Magdalena, N.M. for Mr. Mike Wolf and the Borderline Finance Co. of El Paso Texas.
By. J.D.Quigley
PROPERTY OF THE MINE:
The property is in the Mill Canyon of the Magdalena Mining District of Socorro County, New Mexico,about 12 miles south of the town of Magdalena, an active place of about 3500

Item (c) Cont. Copy Quigley Report on Old Soldier.

population.There is a daily train service connecting with the town of Socorro, New Mexico and the main line of the Santo Fe system. A Good road is maintained between the two towns. The present owner is Mr. Mike Wolf of Hot Springs N.M.

TOPOGRAPHY:

This mine group consists of nine mine claims and is located along the middle of the upper reaches of the Magdalena Mining District in Mill Canyon at an elevation of App. 9200 ft; It extends along the strike of the vein in a northerly and southerly direction for a total distance of 4500 feet. The property is easily reached over an excellent road which rises to a gradual grade to within four miles of the present development.At this point the grade increases somewhat and passes into and over some of the lower spurs of the range into Mill Canyon and follows the course of the canyon bed to the mine. At no place is the grade prohibitive and at a very small cost it could be greatly improved. There is an abundance of timber on the property, mostly yellow pine and spruce which are ideal for mining service.

GEOLOGY:

The formations exposed are both sedimentary and intrusive rock;including limestone metamorphosed and porphry, ~~rhyletite~~ rhyolite and diabase. A porphritic outcrop is noticable throughout the entire length of the property along which the vein filling occurs. To the East of and paralleling this dike are found at different intervals, volcanic eruptions which have been ejected through the lithosphere;these disturbances seem th have been purely local and at no place are there any indications of a general flow.Stalagmatic evidence encountered on the surface below some of these eruptions indicate that these rents were healed by ascending waters carrying limestone solutions (Calcium Magnesium Carbonate). It is worthy to note here that the physical conditions obtained are the most reassuring and there is every reason to expect that as depth is reached, ore running well into shipping grade. The basic or alkaline rocks in close proximity to the eruptive and acid rocks as well as the metamorphic condition of the whole scheme including the highly oxidised and intensely leached vein filling indicate that success of the enterprise will be assured as depth is reached.

DEVELOPMENT

The development consists of a few drifts,crosscuts and an inclined shaft a total of about 1500 feet. The shaft has been put down on an angle of about 70 degrees and is intersected by a cross run in from a point farther down the canyon. At this place a blacksmith shop, small compressor and camp buildings are located.

At the bottom of the shaft which is 265 feet below this tunnel level, crosscuts have been driven east and west for a total distance of 70 feet, showing the vein filling almost the entire distance.

The development as a whole has not been placed where the greatest benefit to the property might have been obtained.This may have been due to a condition.

Sheet #6 has been omitted by reason of mis numbering of sheets.

Item #16 (c) Cont.

COPY OF PRELIMINARY REPORT OF OLD SOLDIER MINE, MAGDALENA, NEW MEXICO.
By PAUL B. MOORE M.E.

LOCATION:

The Old Soldier Mine owned by the Old Soldier Mining Milling and Development Co. is located near the head of Mill Canyon on the west slope of the Magdalena Mountains in Socorro County, New Mexico about 12 miles south of the town of Magdalena, which is the terminus of the Sante Fe R.R. Socorro Magdalena branch line.

DESCRIPTION:

This property consists of nine mining claims known as the Old Soldier Claims 1,2,3,4; Great Western Claims 1, and 2; Golden Lela Claims 1, and 2 and the Lucky Star. All location papers being filed in the office of the County Recorder of Socorro New Mexico, U.S.A.

ORE BODY:

The most promising feature about this property is a vein some 80 feet wide, of a coarsely crystalline black calc-spar running a distance of over one mile nearly due north and south and easily traced on the surface for over that distance. The calc-spar occured on a rhyolite andesite contact. The rhyolite being to the west and forming the hanging wall, with the andesite being to the east and forming the footwall of the vein, which dips west about 10 degrees from the vertical.

The ore consists of oxidized lead, carrying galena with silver copper and some gold occurs on the footwall of the calc-spar vein as a replacement of the andesite and is from six to thirteen feet wide with an average of eight feet.

FINDINGS:

In 1915 I sampled this, taking 24 samples above the tunnel level with the following results;

LEAD	AVERAGE	12.41	Per cent
Copper	"	.23	" "
Silver	"	2.3	Oz. per T.
Gold	"	.07	" " "

In 1917 a test run of this ore was made in the Black Cloud Mining Company Mill at Magdalena, N.M. with the following;

HEADS CRUDE ORE	11.95 %	LEAD	Concentrates	49.70 %
" " "	2.14 oz	SILVER	"	9.00 Oz/T.
" " "	.36 oz	Gold	"	1.52 " T

In July 1923 I took 34 Samples from this property above the fault line, as follows;

Average width sampled	5.9 feet
" Lead content	11.4 %
" Silver "	2.32 Oz. per T.
" Gold "	.033 Oz per T.
" Copper "	.233 %
" of mill run of two groups of samples:	
Lead	11.92 %
Silver	2.32 Oz per T.
Copper	.28 %
Gold	.0353 Oz. per T.

Item #16 (c) Cont. Report Paul B. Moore on Old Soldier.

Findings Cont.

While the average of the vein as sampled is shown as 5.9 feet I estimate the actual width as 8 feet but samples were not taken the full width in many places as they were taken from a ladder on the foot wall. Based on an eight foot width, I estimate 4500 Tons of ore of the grade shown, opened on two and three sides available for milling but not including the last three samples which represent the ore on the dump
(N.B. by Mr. Maher. these samples and results have become lost.)

This vein is opened by a shaft to a depth of 500 feet with three crosscut tunnels. The main tunnel is 285 feet in length and opens the vein at 135 feet below the outcrop. At a depth of 225 feet a a north south fault dipping to the east cuts the vein.

Below the fault the work is not in the vein. At the last time samples were taken it was impossible to get below the fault, due caving. The vein has been opened at several points by short drifts.

RESUME;

There is an unlimited supply of good timber for all purposes on the property, there are also several good springs near the property that I believe with development will produce sufficient water for a mill. A good road passable for automobiles runs from the mine to Magdalena.

This property has been examined by several noted geologists and mining experts. Both J.D. Quigley and William Kemp submitted reports.

I have been familiar with this property for the past ten years and am of the opinion that it offers a very favorable opportunity of extensive development for a commercial successful mine and is worthy of extensive prospecting and development.

A great deal of work done by the owners has not been properly placed and is of no value for operating purposes.

Signed; Paul B. Moore
Mining Engineer

Magdalena, New Mexico
May 15, 1926.

Except for one small shipment in 1935 the property has had no activity from 1926 until 1937 at which time applicant spent 8 months living on and prospecting the entire area of the Old Soldier and the Wheel of Fortune, Iron Cap, Blue Hill and others of the area. During this period Applicant found a great deal of float which was not traced to its source because of heavy over-burden. It was during this time that the applicant became convinced that the development of the area would depend upon the results obtained from a pilot testing plant. Lack of finances stopped the examination.

In 1948 the area was located again under the name of H.M. Metals and prospecting and pilot testing was again started under limited financial conditions. A 15 Ton Mill was set up and a 15 Ton Concentrating gravity table was also put into operation and other machinery was moved into the area.
The first pilot test in quantity was of about 40 tons of low grade ores which were trucked to the mill in 2 ton lots and mill run made in 10 ton quantity units. Loss of assaying on the spot information caused poor results however a later check showed that tailing

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Oct. 4, [redacted]49

No. 5690 ~~6043~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. FRANK L. MAHER

Address BOX Y

MAGDALENA, NEW MEXICO

CHARGES	
5 Lead @ 1.25	$6.25
LESS 10 %	.62
TOTAL	$5.63

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2791	# 1 - Table				4.45			
2792	# 2 - Mill				4.09			
2793	# 3 - Table				2.78			
2794	# 4 - Table (Broken concentrate)				37.26			
2795	# 5 - Table				3.34			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. MATHISZESKI (signed)

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. June 1[illegible] 1949 No 5524 ~~6403~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 1

Magdalena, New Mexico

CHARGES	
2 lead @ 1.25	$ 2.50
LESS %	
TOTAL	$2.50

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2426	#1 - Table product				2.78			
2427	#2 - " "				2.56			
	Lead mainly present as carbonate with some							
	sulphide (galena)							

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT (signed) R. A. Matuszeski

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. May [illegible], 1949

No. 5513 ~~6053~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Makes

Address Box 1

Magdalena, New Mexico

CHARGES

5 Gold + Silver @ $1.50	$ 7.50	
5 Lead @ $1.25	6.25	
5 Copper @ $1.25	6.25	
LESS 10 %	2.00	$20.00
TOTAL	$18.00	

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2317	Sample #1 - Table Product	Trace	0.78	0.11	7.23			
2318	" #2 - " "	Trace	0.54	0.22	5.56			
2319	" #3 - " "	0.02	1.66	0.22	16.68			
2320	" #4 - " "	0.02	0.84	0.16	6.12			
2321	" #5 - " "	Trace	0.50	0.50	1.17			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT R. G. Matuszeski

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

Item #16 (c) Applicants examination of area. Cont.

loss was 3 % lead, Middlings from table were 7 % lead, and the final concentrate produced was 13 Tons which was shipped to the smelter and the returns shown by the smelter of the AS&R at El Paso Texas gave the following results Gold .02 Oz per T.; Silver 1.6 Oz. per T., Lead 10.9 % Copper .17 % Zinc 3.% this is the first time that Zinc has showed up in Old Soldier ore.

This first pilot test was made special to find out what recovery was possible with no thought of trying to get a close a recovery or make the pilot test pay. Yet with the conditions and the extremely high smelting costs and penalties a net return showed a considerable profit in the test. The returns of ore settlement are covered in Smelter lot # 2831 of 9/20/49.

A series of small tests were made on ores of the area with very favorable results these were isolated units and no special records were kept due to the fact that the distance and time to obtain assay reports was so great, that visual examination of the quantity and apparent class of the concentrate was all that Applicant was interested in.

A complete assay lab for wet assaying was set up to prepare for the next pilot test which was to be run from the Old Soldier Vein with all visible high grade ore removed from the test.

This test consisted of mining 60 tons of the general ore of the vein using the full width and checking the results obtained.

Checking on lead only the results were Heads 4.85 % Tailing loss 2.75 % and Concentrate assay on three assays were Newmexico School of Mines 33.86 % Coffeyville, Kansas 35.3 % our own 34.6 % AS&R Smelter showed 29.8 % at which 7281 lbs were shipped.

Beyond any reasonable opinion the AS&R Assay was in error. This is because the entire 7281 lbs was split down on a Jones splitter to samples of 2 lbs per 100 lbs. these in turn to 8 2 lb samples which were sent to the three assay points.

The Concentrates from this test showed the following. Lead 29.8 % Silver 4.7 Oz per T. Copper .15 % Gold .04 Oz per T. and Zinc. 2.5 %

The New Mexico Bureau of Mines assay shows zinc in the concentrates at 5 %.

On the basis of zinc showing up in the pilot test a prospecting period was taken with the aid of a mineralight. The results of this prospecting produced a find as shown in New Mexico Bureau of Mines assay certificate #5938 which brought out a 10,01 % zinc which was on the northern extension of the Old Soldier Vein which was on the Wheel of Fortune #7. as shown in the assay map submitted as part of the information of this application.

This also resulted in a closer sampling of the main working of the Old Soldier Vein in which the entire width of the vein was sampled to a 6" width across the vein the results being shown by New Mexico Bureau of Mines Certificate #5941 which shows Zinc in considerable quantity.

A quantity of Copper ore was taken to Professor Gerald Green of the New Mexico School of Mines to determine the feasibility of a copper leaching project; His comments on the findings were that it was definitely shown that it could be a profitable operation.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Jan. 17 [redacted] 1951

No. 5931 ~~6087~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank Maher

Address Box 117

Socorro, New Mexico

CHARGES	
Gold and silver	$1.50
Copper & Lead @ 1.25 ea.	2.50
LESS %	
TOTAL	$4.00

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4200	Quartz with iron oxide and some showing of malachite	Trace	1.54	1.47	1.09			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. Matuszeski (signed)

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Feb. 7, 1951 No. ~~6077~~ 5938

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank Maher

Address Box 117

Socorro, New Mexico

CHARGES	
3 copper, 3 lead, 3 zinc @1.25	$ 11.25
3 gold and silver @ 1.50	4.50
	15.75
LESS 10 %	1.57
TOTAL	$14.18

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4247	Sample No. 1	Trace	0.42	0.43	1.51	10.01		
4248	" " 2 (Combination)	None	0.16	0.22	1.43	1.42		
4249	" " 3	None	0.12	0.13	1.62	1.01		

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. Matusizsk (signed)

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

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Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Feb. [illegible], 1951

5941

No. ~~XXXXXX~~ 6113

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 117

Socorro, New Mexico

CHARGES	
5 lead @ 1.25 ea	$ 6.25
5 zinc @ 1.25 ea	6.25
5 copper @ 1.25 ea	6.25
5 gold & silver @ 1.50	7.50
	26.25
LESS 10 %	2.65
TOTAL	23.63

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4254	#1 - East 4 feet	None	0.52	0.36	3.16	2.48		
4255	#2 - West 3 feet	Trace	0.88	0.21	8.42	2.96		
4256	#3 - East center 6 feet	None	0.36	0.43	2.11	1.97		
4257	#4 - West center 4½ feet	Trace	0.64	0.31	4.21	2.98		
4258	#5 - West 4" streak (highgrade)	Trace	2.96	0.33	61.05	0.98		

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT (signed) R. A. Matuszeski

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

Item #16 (c) Applicants examination of area. Cont.

A quantity of ore from the Old Soldier vein was also given to Professor Gerald Greene to make a study of the flotation possibility of the ore, at this writing (May9, 1951) it has not been completo he however informed the Applicant that selective flotation is showing up extremely favorable high percentage recovery, with very little difficulty.

Two visits were made to the area by Mr MacMillan of the Denver Office U.S.Bureau of Mines, information as to the final report on his examination are not known. These visits were made in 1950.

Attached hereto are copies as supplied of assays of the area, some of importance have been sent to others and not returned and owing to the lack of knowledge of the file number it is not possible to ontain duplicates at this time.

Item # 17 Production.

The property and area has been under pilot testing only to determine to possibility of known ore bodies and also the possibility of new unfound ore bodies, the results of our findings convince us that there is a huge ore reserve in this area.

Item #18. (a) The ore bodies are covered in section Item 16 in reports submitted by others.

Item #18 (b) Attached hereto are maps of the area giving a general idea. of assay information.

Item #18 (c) Applicant has no way of giving a close figure , but based upon the length of vein traceable over the surface and the width as shown by report and observation under ground Applicant can honestly state that all indications are that there is a hugem ore body of milling grade ore which will average 4½ to 5% Lead with Zinc from 3% to 8% and copper ranging from .11 to 6 % which will be found in the area by further exploration which deposits are as yet uncovered.

Item 19. The property is at a standstill at present due to lack of funds for either further exploration or development of known ore bodies Applicant had to stop the project to obtain steady employment to procure more finances to continue wrok at a later date. He is at present employed at the New Mexico School of Mines (now known as New Mexico Institute of Mining & Technology) Applicant has also an application in for a development loan to obtain a 100 T per day minimum capacity mill to operate the known ore bodies to permit the exploration of supposed ore bodies and also to prove the extent of known ore bodies. The mill is planned for selective flotation & Gravity for copper, lead, & Zinc.

Professor Crawford of Chemistry of the New Mexico School of Mines has run a spectrograph and informs me that in the concentrates of the last pilot test there is considerable evidence of rare earth elements showing in the concentrates.

Sheet # 11. Explora[illegible]on Project . FRank L. Mah[illegible] Socorro, New Mexico.

EXPLORATION: Item #20.

The minerals and metals will be minerals of Lead, Zinc, Copper Tungsten, Cadmium, and Manganese.

The type of deposits are Lode only in this area

Item #21

General conditions of the area show that the exploration should consist of the minimum of cost that will produce the maximum of result and benefit will be to use a combination of labor in general mining and also diamond drilling. This will consist of.

1 st. Start diamond drilling on north extensionof the Old Soldier vein where 10.01 % zinc is shown, at this point there is plenty of water and an assay laboratory . While this is being done;

2 nd. Run cuts into the calcite vein along the southern extension of the Old Soldier vein at intervals of 500 feet. and prepare diamond drilling stations.

3 rd. clear out the unfinished tunnel whose face is in hard rock which was headed for the downward extension of the Suprite vein as prospected for by August Riviere and set up a diamond drilling station to explor for the known vein and also for others that are indicated on the surface 700 feet above.

4 th. Abandon the present Old Soldier shaft for a new shaft south of present workings. general indications are that water level below the oxidized zone of the Old Soldier vein will be reached at a less footage depth.

This plan is based upon the fact that general tunneling is about 18 to 19 dollars a foot as against a maximum of $6.00 a foot for depth up to 800 feet. which I believe is sufficient to prove the area. 18 such holes are planned, to cover the entire area.

To complete the entire project I believe would require the full two years, but I believe that it would be on a pay as you go at the end of the first year

Item #22. As made a part of this application attached hereto are assay reports and map with assay findings noted on same. The only geological information that I have knowledge of is the Bureau of Mines information by S.G.Lasky, F.A.Jones and such reports as are listed in Item (c) by Paul B. Moore, J.D.Quigley, William Kemp, and such recent information that might have placed on record with the Denver Office U.S. Bureau of Mines. Of these reports I have no knowledge as to their contents.

Item 23 (a) Miners 2 @ $12.25 ea per 8 hr. shift 180 shifts $4,590.

Muckers3 @ 6.90 " " 8 " " 1170 " 8,073.

(Muckers to be used for other labor also)

1 General maintenance combination man & Machine operator for truck hoist compressor and other surface machines $16.00 ea 8 hr. shift 730 shifts $11,680

(b) 1 Supervisor to act as assayer, surveyor and general Engineer $350.00 per month 24 months 8,400

(c) Renovating maintenance App $400

(d) Additional conveniences necessary fro crew $600.

(e) Diamond drill equipt. & accessories (used) $4,000.

(f) No rental of equipt. is planned.

(g) $1.00 per hr per Machine but not to exceed cost. $12,000.

Item #23 Cont.

(g) Cont. The equipment to be devoted to the project is everything on the property that is necessary to perform the required work to complete the project including any other item that the applicant owns.

(h) Operating supplies, fuel, explosives chemicals, etc $3200.
small tools, drill bits, steel pipe etc

(i) All items have been accounted in estimates given in fore-going subsections of Item #23.

Item #24. End of 1 st month Money used and expected results:
Labor $2201.// Equipment leased & bought, $5,440.//
Operating supplies. $2,250. Expected 30 day results.
Order placed for diamond drilling equipment.
Camp constructed for crew.
#1 diamond drilling station set up.
3 exploration cuts completed on south extension of vein.
Main 650' tunnel repaired as much as possible for preparation of #2 Diamond drilling station to locate copper ore body
If diamond drill equipment obtained in first week I estimate 900 feet complete by end of first month.
Six vein intersections points of the area uncovered
All machinery placed in first class operative condition to prevent any form of delay on project.
Note: All members of crew shall be able to fill in, in any capacity that is required.

End of 2nd month.
Labor $2201.// Equipment leased $1680.// Oper. Supplies. $430./
8 Exploration Cuts on south extension completed.
1200 feet diamond drilling completed
Upper water spring storage project completed for storage of water for diamond drilling. (At this point it is impossible to transport water by truck.
Uncover three vein intersections, and prepare diamond drill stations

---

End of 3rd month.
Labor $2201....Equipment lease $1680.// Operating Supplies
Possibility of necessity of mine timber $800.//
Tunnel to copper deposit complete repaired and placed in operation. Tunnel ore shoots sampled and pilot tested.
Diamond drill station prepared at face of tunnel.
(Note. In making the notation of Diamond Drill station prepared it is meant that everything is placed in readiness for a drilling operation such as installing water, air ventilation and other necessities.)
North extension exploration cut commenced and progressed as far as possible.
1000 feet of diamond drilling completed.

End of 4 month.
Labor $2201.... Equipment lease $1680 Operating supplies and necessities. $1400.//
150 feet of shafting or drifting
1000 feet diamond drilling completed.
All sampling and assaying to be kept up to date.

Item #24 Cont.

End of 5th month.
Labor $2201 Equipment leased $1680. Operating Supplies and necessities. based on mine timbering possibitity $1700.//
150 feet of mining or shafting. mining to be either drifting winze.
1000 feet diamond drilling.
Water project to prevent water freezing during winter months which would stop drilling operations of diamond drill or cause a lowering of footage planned. Completed.
All sampling and assaying to be kept up to date.

End of 6th month.
By the end of this month Applicant expects to have several ore bodies of note worthy size and value either blocked out by drill information or opened up by drifting.
Expenditures will be for the month $2201 for labor $1680 for equipment leased and App. $1300.// operating supplies and necessities.
It is expected that mine timbering will be an important figure in the rise of exploration costs at this stage of the project.

End of 7th month.
Expenditures for the month will be in the close approximates of Labor $2201. For machiner $1680.// Supplies & Necessities. $1200.//
150 feet minimum of mining or shafting or open cut operations.
1000 feet of diamond drilling completed.
It is expected that mine rails will play an important part in the rise of exploration costs commencing at this time. however the general over plan has in mind the completeion of one portion of the project that will enable us to recover app. 1300 feet of light mine rail which would have to be removed in favor of a heavier rail when mining operation commence for production purposes. These rails are not taken into the considerations in the exploration project costs. Only that portion of labor that is used in the removal of the lighter minen rails to transfer them to other places of use.

End of 8th month.
Labor expenditure $2201.// Machinery leased $1680.//
Supplies & Necessities for operation. $1200.//
It is expected that by the end of this month that all general exploration as related to a mining nature such as open cuts, drift, crosscuts, and shafts will have been completed.
The program as laid out is such that in bad weather work may be done underground in the preparation for diamond drilling stations in close proximity to water supply to avoid loss of time by freezing weather. In the warmer weather outside work of the nature of open cuts, and surface diamond drilling will be carried on. The labor expenditure as listed covers two shifts per day, and it is planned to carry on the work which is at the fartherest distances from the base camp, while the days are long. The balance of the project will consist of completeing the exploration drilling.
For this month 150 plus on excavation footage and 1000 feet of diamond drilling.

Item 24 Cont.

End of 9th month. 10 th month, 11 th month and 12 th month.

The months will be used primarily all for exploration drilling which in the event of conditions beyond out control that might extend the time of the operations it is estimated that this period of time will complete the project.
Labor for each of these months will be in the Approximate of $1275. // Operational costs in approximate of $500.//

Applicant feels extremely confident that the entire project will be completed in 1 year this is due to the fact that a planned crew of personel that is extremely flexible in varied abilities and experience is available;which item alone cuts the general explorations costs by at least 40%. Applicant has also at his request students of the Socorro, School of Mines if necessary, for surveying, or other engineering work. These students will also do common labor if necessary.
However in the event that after operation is started, that there should be some change ordered in the project Applicant wishes to have the benefit of the two full years alloted time.

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. 1271 X

Date received 5-28-51

Participation

Frank L. Maher
Metals Limited
Box #117
Socorro, New Mexico.

Name and address of applicant

Date May 11, 1951

FILL IN THIS BLOCK

Date of application May 11, 1951

Estimated cost $52,943.00

Mineral or metal Copper, Lead, Zinc.

Percentage of Government participation 50%

Location of mine Sec.31,T3S.R3W.,NMPM Sec. 25T3S.R4W.,NMPM ~~Sec. 36T3SR4W.,NMPM~~ In Mill Canyon Mining District of Socorro County New Mexico on the west slopes of the Magdalena Range.

Date of filing MF-100

DMA Docket Number, if available 1271 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? A Limited Partnership (See Sheet #1

*2. If a partnership, state names and addresses of partners. See sheet 1 item #2 of supplement

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not incorporated.

*4. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project. See item #4 on attached sheets of supplements

*5. Are you the owner or the lessee of the property? Owner & Operator

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. None.

7. If lessee, attach a copy of the lease and state if it is in good standing. No leases concerning the property

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. See attached form to comply with requirement from partners.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. See supplement

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? Yes. In money, time, equipment and materials $26472.00

*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. Lode Claims in Secs 25,36 & 31 as mentioned.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. Same.

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. See item 11 attached sheet

*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. See item 12 attached sheets.

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

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

15. State in detail how the ore could be shipped and how and where milled. See item 15 attached sheets.

*16. History: See attached sheets item 16 and sub paragraphs of same.

(*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	All operations have been carried on for pilot testing the			
(2) Milling	area only, only shipments by applicant are identified in			
(3) Shipped or sold	form of smelter returns, the results of such tests.			

*18. Ore or mineral reserves: (If property is or has been operating.) See item 18 of attached sheets.

(*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.

See item 19 attached sheets.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? Copper, Lead + ZINC

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

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.

See item 22 on attached sheets.

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. See attached

(*b*) Supervisors, by numbers and positions, with salaries of each. sheets and items 23 and

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings. sub classifications.

(*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. See attached sheet item 24.

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.

Metals Limited
(Name of company)

By Frank L Maher
(Signature of authorized official)

May 11, 1951
(Date)

Owner & Operator.
(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

AGREEMENT.

This Agreement being a part of an application for a loan to aid in an Exploration Project, pursuant to Mineral Order #5 under the Defense & Production Act of 1950, is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, WE AGREE to subordinate all our interests to the interest of the United States Government in the property to be explored by the use of the funds obtained and in any equipment that may be purchased by such funds. In this WE bind ourselves and our heirs, executors and administrators firmly by these presents.

Signed on this 17 th day of May 1951

Co-Locator Ora L Maher

Co-Locator Frank L Maher
of the HM Metals Mining Claims
&
Owner-Operator of Metals Limited
a Mine Development Firm.

Subscribed and sworn before me on this 17 th day of May 1951.

My Commission expires 12-31-52

Julius Fraissinet. Co Clk.
By Salomon Lopez, Deputy.

A G R E E M E N T

This Agreement being a part of an Application for a loan to aid in an Exploration Project, pursuant to Mineral Order #5 under the Defense and Production Act of 1950, is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, W E AGREE to aubordinate all our interests to the interest of the United States Government in the property to be explored by the use of the funds obtained and in any equipment that may be purchased by such funds. In this WE bind ourselves and our heirs, executors and administrators firmly by these presents.

Signed on this 7 th day of May, 1951 A.D.

Co-Locator Dale M. Hart

Co-Locator Rue B. Hart
of the H. M. METALS MINING CLAIMS

Subscribed and sworn before me on this 7 th day of May 1951 A.D.

Notary Public
El Paso County
El Paso, Texas

GERALD R. STEINER, Notary Public
In and for El Paso County, Texas
My commission expires June 1, 1954

Item 8. Exploration Project, Frank L. Maher, Socorro, New Mexico.

CURRENT FINANCIAL STATEMENT.

Frank L. Maher
Box #117
Socorro, New Mexico
Business. Plumbing & Mining (At present wage earner)

To Defense Minerals Adm
Dept. of the Interior.

For the purpose of obtaining an aid in exploration of mineral properties I hereby submit the following statement of condition as of May 17, 1951 and it is all respects true and correct at this time.

ASSETS		LIABILITIES	
Cash	$ 328.00	Notes to Banks.	$3400.00
Accts Receivable.....	880.00	Other Notes	2500.00
Rent	228.00	Interest	354.00
Machinery.....	10770.00	Taxes due	210.00
Equipment furniture etc....	1200.00	Current debts	000.00
Land in Hot Springs, N.M.	32000.00	Inst.Accts.	000.00
Store & city property	20000000		
Totals	$ 65,406.00		$ 6404.00

At present time I am a permanent employee of the New Mexico School of Mines at a monthly salary rate of $278.50.
At present time I am also a Deputy State Plumbing Inspector on part time basis with average income of around $25.00 .

The above represents a statement of the affairs of Mr. & Mrs Frank L. Maher. of Metals Limited & Consumers Service & Supply a family partnership.

Frank L Maher

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ITEM #4 (a) & (b) a[illegible]d information of personel[illegible]

General over all supervision and planning of exploration project will be in charge of Seymour Thurmond Jr. who is a graduate in geology from the Socorro School of Mines, has been employed by various mining companies both here in the United States and also in South America. Mr. Thurmond is a New Mexico State licensed engineer and has exception ability in the field of geology and general exploration of mining ptoperties. He is also well qualified in assaying having served in that capacity for various mining companies.

General over all maintenance,installations,transfer of equipment about the project, operation of machinery, power,water and earth removal as well as automotive equipment will under the direct supervision,operation and maintenance of Mr. Frank L. Maher who has many years experience in these and associated fields.

Experienced labor skilled in diamond drilling is available in the area.

Experienced miners and underground laborers are exceptionally plentiful in this area.

There is a sufficiency of all classes of required personel in the area.

Exploration Project, Frank L. Maher, Socorro, New Mexico.

Sheet #1 Exploration Project; Frank L. Maher Socorro, New Mexico.

Item #1. Applicant is a Limited Partnership in that liability does not extend into the private personal affairs of the Partners Gale M. Hart of 1510 North Mesa El Paso Texas and Mrs. Rue B. Hart of 1510 North Mesa El Paso who are husband and wife they being inactive partners.
The active partners are Frank L. Maher of Socorro, N.M. and Mrs Ora Maher also of Socorro, New Mexico who are husband and wife. Liability extends into the private affairs of Mr. & Mrs Maher.
All partners are a family group by marriage with Mrs. Maher and Mrs Hart being sisters by blood relationship.

Item #2. Frank L. Maher Box # 117 Socorro, New Mexico
Ora L. Maher Box # 117 Socorro, New Mexico
Gale M. Hart, 1510 North Mesa, El Paso, Texas
Rue B. Hart, 1510 North Mesa, El Paso, Texas.

Item #4. The Applicant (a) Frank L. Maher and also (b) the person who will manage the project has been employed at the American Metals Mine of Tererro, N.M. for 5 years during its operation. He also was Chief Electrician of La India Mine in Nicaragua, C.A. Master Mechanic of La India Mine in Nicaragua, C.A. for 3 years 8 months. Construction and power plant for Empire Metals of New Mexico. and has been a State licensed Plumbing & Heating Contractor, is at Present State Plumbing Inspector and also employed at the New Mexico Institute of Mining & Technology in Socorro, N.M.
For the past three years he has been pilot testing the mineralized area under application for a loan.

Item #5. Applicant is the owner and operator of the property in application for loan.

Item#6. Property has no liens against it.and owes no current debts.

Item #11 Properties were first located in 1880 as Good Hope then As the Old Soldier Group consisting of Old Soldier #s1,2, 3,4;Golden Lela #'s 1 &2; Great Western #'s 1 &2. and Lucky Star. Present name HM Metals Group.
Property in Group also was formerly Wheel of Fortune, and Blue Hill Claims..
Property also in Group was formerly Iron Cap Vein which is now part of HM Metals Group.

Item #12 The property under application is in the Mill Canyon area of the Magdalena Mountains which on the west slope of the mountain at an app. altitude of 9,000 ft. it is by highway 6½ miles south on highway New Mexico number 107 from Magdalena, N.M. then 4 miles on forest service road to canyon bed of Mill Canyon thence 3 miles to mine site. The road is usually in good gondition and passable the entire year. There is a railroad shipping point at the town of Magdalena, N.M. app 14 miles away all down grade with no grade excessive. Except for a short period following rains the canyon bed road is kept in fair condition.It can be traveled by car.

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MAY 24 1971
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Item #13. The supply of water is a year round source with plenty of indication that quantity man be increased with a small amount of development, which,with natural storage facilities may be reused. The flow by weir measurement has a minimum of 11 gals. a minute from all sources combined. this is constant. the year round.

Item #13. Power. At the present writing poles have been installed at a point 4 miles distant for REA and we are scheduled to have REA power for mining operations. This line is new construction with all funds appropiated and applicant has signed up as member and is guaranteed power when it is needed.
At the present time all power is Gasoline Engine applicant having at present time 86 connected HP in Gas Engines The cost of Gasoline used in the Pilot Testing Operations averaged in the amount of $93.00 plus or minus per month. Under REA Power it is given as an approximate figure at 3.5¢ per KW.

Item #14. Applicant has on the property in first class operative condition 1 105 CFM Compressor. 1 Thor heavy duty jackhammer complete with hose,steel,bits,etc. pipe, 1 hoist 3500 lb capacity double drum. c/w engine. Crusher, 15T Mill, Concentrating table, Flotation cell 1½ T truck, Assay Laboratory completely equipped. mine cars etc. and in general many supplies and tools. Welding equipment .

Item #15. The ore can be shipped to Magdalena by truck 14 miles from there by railroad to the smelter of the A.S.& R Co. at El Paso which is app. 210 miles distant.

The ore can also be milled on the premises as there are sufficient water for the operation of a mill should one be constructed.

The ore can also be shipped to Deming New Mexico where the A.S.& R Co. has a concentrating mill for concentrating low grade ores for their smelter in El Paso, Texas..

The most logical method is to concentrate the ore on the premises and then ship the concentrates to the smelter which by this methed there is the added benefit of selective concentration of the copper,lead, zinc and marketing each as its distinctive concentrate, this permits payment to be received for each metal. whereas under general ore conditions there are penalties covering various metals which are in ores of certain classes.

Item #16. The history of the ground to be explored by the applicant must first be seperated into three sections namely: Copper Section which was formerly known as the Wheel of Fortune Group and originally consisted of 12 mining claims which are more accurately described and located as in Drawing # 16 supplement 1 Wheel of Fortune Group.
A brief history has been written by F.A.Jones in his New Mexico Mines & Minerals of 1904 also by Gordon C.H. in U.S.Geological Survey paper 68. New Mexico Mines &

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COMM. & RECORDS

Item #16 Continued Sub section (a)

Minerals. A slight mention is made in Bulletin #8 The Ore Deposits of Socorro County, New Mexico by Samuel G. Lasky which is a New Mexico School of Mines publication. (see pages 44 to 46 inclusive)
This property was formerly owned and operated by August Riviere from 1891 to 1935. at which time he died.
A great deal of mining work was carried on but very little shipping was done this was due to the fact that transportation only permitted the shipping of the higher grade ore as all shipping was by ore wagon and teams to the railroad.
U.S.Geological Survey paper #200 shows that 25 tons were shipped in 1908 this was from what was Wheel of Fortune # 1 with copper at 3288 lbs.
1916 & 1917 showed two small shipments and 1918 showed another shipment this was the last from the Wheel of Fortune. There has been a great deal of tunnel work but at outcrops on the surface where copper assay or considerable value is shown no attempt has been made to explore it size.
General information as to the lack of progress in the Wheel of Fortune group shows that transportation played the first important difficulty and second the general ideas of the owner played second in importance.
Listed in attached supplement #16 e Wheel of Fortune are informations of present additional findings which tend to show the favorable conditions indicated for further exploration.

Item #16 (a) The Lead Section formerly known as the Old Soldier Group or the Old Soldier Vein. This Group originally consisted or 9 mining claims known as the Old Soldier 1,2,3,4, Golden Lela 1,2,Great Western 1,2, and the Lucky Star. A brief history has also been written by F.A.Jones, Lindgrin, Lasky and several others. Reports have been made by J.D.Quigley, Paul Moore of Magdalena N.M. and William Kemp. Investigations have been made by Paul Moore and also by Applicant (Frank L. Maher) .
The general History is the Claim generally known as the Old Soldier #1 was first located in 1880 as the Good Hope by a Civil War veteran, it is from this that it derived the name generally as the Old Soldier, this was sold to Mrs. Ada A.Wolf in 1909 and it was then named the Ada A. Mining Claim. and it and the rest of the group remained the property of Mike Wolf and Ada A Wolf from that time until applicant acquired them. This Group is ~~know~~ known as the HM Metals Group. The applicant lived with Mr. & Mrs Wolf from 1931 until 1937. a great deal of the time was spent in and upon the claims. and such details a are related came from authoritive sources. and personal investigations.
The most notworthy shipment was made in 1909 which was 48 tons of ore which returned 19,258 lbs of lead. This was from the Old Soldier #1 claim. Several other shipments were made by lessors but have been lost in the records this was due in most cases by shipping under other claim names. The last shipment of ore was from the dump and as this was left over from high grading its value has not

DEPARTMENT OF THE ARMY
HQ USAEC
FORT GEORGE G. MEADE, MD 20755

Item #16 (a) Cont. (Old Soldier Group)
been found out. A bit of information is mentioned in Bulleting # 8 of the New Mexico School of Mines by Lasky on page 46 under heading Old Soldier Vein.
The difficulties involved with this property are similar to that of the Wheel of Fortune in that transportation made it impossible to ship any of the enormous quantity of low grade ore on the property.
The general attitude of the former owner was that it was more profitable to sell mine stock than develop the mine, even though the company Old Soldier Mining & Milling Company was never incorporated. or had right to sell stock.
I received this information by mail shortly before the death of the former owner Mr. Wolf.
The original layout of the Old Soldier group is more shown in Drawing #16 supplement #2. Titled Old Soldier Group.
Copies of Reports which are true copies the originals which have been lost down through the years are listed in Item 16 (b) under Old Soldier Reports and Examinations.

Item #16 (a) The groups known formerly as the Blue Hill Group and the Iron Cap Group have very little former history however present assays show considerable possibility these are listed on HMMetals Assay Map merely as Assay Report Numbers.

ITEM #16 (b) All listed in (a) and (c) of Item 16 attached sheets.

Item (c) No former reports on the Wheel of Fortune Group are available and only hearsay is known.
Under applicnts assaying investigation. On Wheel of Fortune #7 (Wheel of Fortune #7 corresponds in part to HM Metals #1 Annex)Assay Report of the New Mexico Bureau of Mines shows Sample #1 Copper .43% Lead1.51% Zinc 10.01%this Is the first time that zinc has shown up in the Mill Canyon Area.
Dr, Gerald Green Professor of Metalurgy at the Socorro School of Mines carried on an investigation of leaching concerning a quantity of low grade copper which had an assay value of App. 5.56 % and although it was not possible for him to complete his examination he stated that the body of ore was of commercial possibility and economically possible to concentrate either by leaching or floatation.
New Mexico Bureau of Mines assay report certificates #5931,5938 are from unopened outcropings.

OLD SOLDIER REPORTS & INVESTIGATIONS.

The property had been examined by many geologists in times past but their reports have been lost down through time however some of which have been copied are as follows:
Report of Old Soldier Mine near Magdalena, N.M. for Mr. Mike Wolf and the Borderline Finance Co. of El Paso Texas.
By. J.D.Quigley
PROPERTY OF THE MINE:
The property is in the Mill Canyon of the Magdalena Mining District of Socorro County, New Mexico,about 12 miles south of the town of Magdalena, an active place of about 3500

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CORRES. & RECORDS

Item (c) Cont. Copy Quigley Report on Old Soldier.

population.There is a daily train service connecting with the town of Socorro, New Mexico and the main line of the Sante Fe system. A Good road is maintained between the two towns. The present owner is Mr. Mike Wolf of Hot Springs N.M.

TOPOGRAPHY:

This mine group consists of nine mine claims and is located along the middle of the upper reaches of the Magdalena Mining District in Mill Canyon at an elevation of App. 9200 ft; It extends along the strike of the vein in a northerly and southerly direction for a total distance of 4500 feet. The property is easily reached over an excellent road which rises to a gradual grade to within four miles of the present development.At this point the grade increases somewhat and passes into and over some of the lower spurs of the range into Mill Canyon and follows the course of the canyon bed to the mine. At no place is the grade prohibitive and at a very small cost it could be greatly improved. There is an abundance of timber on the property, mostly yellow pine and spruce which are ideal for mining service.

GEOLOGY:

The formations exposed are both sedimentary and intrusive rock;including limestone metamorphosed and porphry, ~~rhyletite~~ rhyolite and diabase. A porphritic outcrop is noticable throughout the entire length of the property along which the vein filling occurs. To the East of and paralleling this dike are found at different intervals, volcanic eruptions which have been ejected through the lithosphere;these disturbances seem th have been purely local and at no place are there any indications of a general flow.Stalagmatic evidence encountered on the surface below some of these eruptions indicate that these rents were healed by ascending waters carrying limestone solutions (Calcium Magnesium Carbonate). It is worthy to note here that the physical conditions obtained are the most reassuring and there is every reason to expect that as depth is reached, ore running well into shipping grade. The basic or alkaline rocks in close proximity to the eruptive and acid rocks as well as the metamorphic condition of the whole scheme including the highly oxidized and intensely leached vein filling indicate that success of the enterprise will be assured as depth is reached.

DEVELOPMENT

The development consists of a few drifts,crosscuts and an inclined shaft a total of about 1500 feet. The shaft has been put down on an angle of about 70 degrees and is intersected by a cross run in from a point farther down the canyon. At this place a blacksmith shop, small compressor and camp buildings are located.

At the bottom of the shaft which is 265 feet below this tunnel level, crosscuts have been driven east and west for a total distance of 70 feet, showing the vein filling almost the entire distance.

The development as a whole has not been placed where the greatest benefit to the property might have been obtained.This may have been due to a condition.

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CONTRACT RECORDS

Sheet #6 has been omitted by reason of mis numbering of sheets.

Item #16 (c) Cont.

COPY OF PRELIMINARY REPORT OF OLD SOLDIER MINE, MAGDALENA, NEW MEXICO.
By PAUL B. MOORE M.E.

LOCATION:

The Old Soldier Mine owned by the Old Soldier Mining Milling and Development Co. is located near the head of Mill Canyon on the west slope of the Magdalena Mountains in Socorro County, New Mexico about 12 miles south of the town of Magdalena, which is the terminus of the Sante Fe R.R. Socorro Magdalena branch line.

DESCRIPTION:

This property consists of nine mining claims known as the Old Soldier Claims 1,2,3,4; Great Western Claims 1, and 2; Golden Lela Claims 1, and 2 and the Lucky Star. All location papers being filed in the office of the County Recorder of Socorro New Mexico, U.S.A.

ORE BODY:

The most promising feature about this property is a vein some 80 feet wide, of a coarsely crystalline black calc-spar running a distance of over one mile nearly due north and south and easily traced on the surface for over that distance. The calc-spar occured on a rhyolite andesite contact. The rhyolite being to the west and forming the hanging wall, with the andesite being to the east and forming the footwall of the vein, which dips west about 10 degrees from the vertical.

The ore consists of oxidized lead, carrying galena with silver copper and some gold occurs on the footwall of the calc-spar vein as a replacement of the andesite and is from six to thirteen feet wide with an average of eight feet.

FINDINGS:

In 1915 I sampled this, taking 24 samples above the tunnel level with the following results;

LEAD	AVERAGE	12.41	Per cent
Copper	"	.23	" "
Silver	"	2.3	Oz. per T.
Gold	"	.07	" " "

In 1917 a test run of this ore was made in the Black Cloud Mining Company Mill at Magdalena, N.M. with the following;

HEADS	CRUDE ORE	11.95 %	LEAD	Concentrates	49.70 %
"	" "	2.14 oz	SILVER	"	9.00 Oz/T.
"	" "	.36 oz	Gold	"	1.52 " T

In July 1923 I took 34 Samples from this property above the fault line, as follows:

Average width sampled	5.9 feet
" Lead content	11.4 %
" Silver "	2.32 Oz. per T.
" Gold "	.033 Oz per T.
" Copper "	.233 %
" of mill run of two groups of samples:	
Lead	11.92 %
Silver	2.32 Oz per T.
Copper	.28 %
Gold	.0353 Oz. per T.

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Item #16 (c) Cont. Report Paul B.Moore on Old Soldier.

Findings Cont.

While the average of the vein as sampled is shown as 5.9 feet I estimate the actual width as 8 feet but samples were not taken the full width in many places as they were taken froma a ladder on the foot wall. Based on an eight foot width, I estimate 4500 Tons of ore of the grade shown, opened on two and three sides available for milling but not including the last three samples which represent the ore on the dump
(N.B. by Mr. Maher. these samples and results have become lost.)

This vein is opened by a shaft to a depth of 500 feet with three crosscut tunnels. The main tunnel is 285 feet in length and opens the vein at 135 feet below the outcrop. At a depth of 225 feet a a north south fault dipping to the east cuts the vein.

Below the fault the work is not in the vein. At the last time samples were taken it was impossible to get below the fault, due caving. The vein has been opened at several points by short drifts.

RESUME:

There is an unlimited supply of good timber for all purposes on the property, there are also several good springs near the property that I believe with development will produce sufficient water for a mill. A good road passable for automobiles runs from the mine to Magdalena.

This property has been examined by several noted geologists and mining experts. Both J.D.Quigley and William Kemp submitted reports.

I have been familiar with this property for the past ten years and am of the opinion that it offers a very favorable opportunity of extensive development for a commercial successful mine and is worthy of extensive prospecting and development.

A great deal of work done by the owners has not been properly placed and is of no value for operating purposes.

Signed; Paul B. Moore
Mining Engineer

Magdalena, New Mexico
May 15, 1926.

Except for one small shipment in 1935 the property has had no activity from 1926 until 1937 at which time applicant spent 8 months living on and prospecting the entire area of the Old Soldier and the Wheel of Fortune, Iron Cap, Blue Hill and others of the area. During this period Applicant found a great deal of float which was not traced to its source because of heavy over-burden. It was during this time that the applicant became convinced that the development of the area would depend upon the results obtained from a pilot testing plant. Lack of finances stopped the examination.

In 1948 the area was located again under the name of H.M.Metals and prospecting and pilot testing was again started under limited financial conditions. A 15 Ton Mill was set up and a 15 Ton Concentrating gravity table was also put into operation and other machinery was moved into the area.
The first pilot test in quantity was of about 40 tons of low grade ores which were trucked to the mill in 2 ton lots and mill run made in 10 ton quantity units. Loss of assaying on the spot information caused poor results however a later check showed that tailing

DEFENSE ELECTRIC POWER
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CORRESPONDENCE RECORDS

Form 2A 50M 10-48 Cairns

AMERICAN SMELTING AND REFINING COMPANY
EL PASO SMELTING WORKS

ORE SETTLEMENT

EL PASO, TEXAS, 9-20-49
SMELTER LOT 2831
SHIPPER'S LOT
CLASSIFICATION Concts.
NAME OF MINE

BOUGHT OF a/c H. M. Metals Co.
ADDRESS Hot Springs National Bank, Hot Springs, N.M.
SHIPPING POINT Magdalena, N.M.

CAR No.	CAR INITIAL	WEIGHT IN AVOIRDUPOIS POUNDS: GROSS	SACKS No.	SACKS WEIGHT	NET WEIGHT	Moisture %	DRY WEIGHT
4 Trucks					5960	4.3	5704
					8240	3.9	7919
					7140	4.0	6854
					6240	8.5	5710
					27580		26187

N. Y. METAL QUOTATIONS

Settlement Date 9-9-49
B/L Date ~~Truck Shipment~~

Silver	90.0	Cts. per oz.
F'gn Silver	73.188	
Lead	$ 15.125	Per 100 lbs.
E. & M. J. Copper		Cts. per lb.

PREMIUM METAL CONTENT

Lead _____ lbs.
Copper _____ lbs.

PAYMENTS FOR METALS

ELEMENTS	ASSAY PER TON 2000 LBS.		DEDUCTED	NET ASSAY	EQUIVALENT IN LBS.	PER CENT PAID FOR	NET PAID FOR		RATE	VALUE: AMOUNT PER TON	VALUE: AMOUNT TOTAL
Gold	.02	oz.	No	Pay				oz.			
Silver	1.6	oz.	1.0	.6			.6	oz.	.885	.53	
Lead	10.9	%	1.5	9.4	188	90	169.2	lbs.	.13125	22.21	
Copper	.17	%	No	Pay				lbs.			
TOTAL PAYMENTS FOR METALS											22.74

DEDUCTIONS

	DEBITS	CREDITS	
BASE CHARGE: F. O. B. El Paso, for Metal Payments, not exceeding $_____ per ton	9.50		
_____% of $_____ excess over $_____ per ton			
Handling Sacks			
~~Copper~~ Pb Deficiency 30.0 - 9.4 = 20.6 @ .10	2.06		
Bullion Freight Tax 169.2 @ .00032	.05		

ANALYSIS			DEDUCTION	NET		RATE
Insoluble		%			%	@ Cts.
Silica		%			%	@ Cts.
Iron		%			%	@ Cts.
Mn		%			%	@ Cts.
Lime		%			%	@ Cts.
Zinc	3.0	%			%	@ Cts.
Sulphur		%			%	@ Cts.
Alumina		%			%	@ Cts.
As		%			%	@ Cts.
Sb		%			%	@ Cts.
Bi		%			%	@ Cts.

	DEBITS	CREDITS
TOTAL DEDUCTIONS	11.61	11.61
NET VALUE PER TON		11.13

			DEBITS	CREDITS
Total Value on 13.0935	Dry Tons @ 11.13	Per Ton		145.73
Less Freight on 13.79	Wet Tons @	Per Ton		
	Hauling Charge			
	Switching			
	Umpires			
Amount withheld pending receipt of Silver Affidavit			1.31	
Royalty				
	BALANCE DUE SHIPPER		144.42	
Valuation for freight per wet ton $ 10.57			145.73	145.73

Made by _____ Checked _____ Correct _____ Approved _____

Form 2A 50M 10-48 Cairns

AMERICAN SMELTING AND REFINING COMPANY
EL PASO SMELTING WORKS

ORE SETTLEMENT

EL PASO, TEXAS, 12-19-49
SMELTER LOT 3777
SHIPPER'S LOT
CLASSIFICATION Cts.
NAME OF MINE

BOUGHT OF H. M. Metals
ADDRESS c/o Hot Springs National Bank, Hot Springs, N.M.
SHIPPING POINT

CAR		WEIGHT IN AVOIRDUPOIS POUNDS					
No.	INITIAL	GROSS	SACKS No.	SACKS WEIGHT	NET WEIGHT	Moisture %	DRY WEIGHT
Truck					7340	0.8	7281

N. Y. METAL QUOTATIONS

Settlement Date 12-8-49
B/L Date Truck Shipment

Silver	90.0	Cts. per oz.
F'gn Silver	73.25	
Lead	$ 12.00	Per 100 lbs.
E. & M. J. Copper		Cts. per lb.

PREMIUM METAL CONTENT

Lead _____ lbs.
Copper _____ lbs.

PAYMENTS FOR METALS

ELEMENTS	ASSAY PER TON 2000 LBS.		DEDUCTED	NET ASSAY	EQUIVALENT IN LBS.	PER CENT PAID FOR	NET PAID FOR		RATE	VALUE AMOUNT PER TON	VALUE AMOUNT TOTAL
Gold	.04	oz.					.04	oz.	32.3185	1.29	
Silver	4.7	oz.	1.0	3.7			3.7	oz.	.885	3.27	
Lead	29.8	%	1.5	28.3	566	90	509.4	lbs.	.10	50.94	
Copper	.15	%	No	Pay				lbs.			
									TOTAL PAYMENTS FOR METALS		55.50

DEDUCTIONS

	DEBITS	CREDITS
BASE CHARGE: F. O. B. El Paso, for Metal Payments, not exceeding $_____ per ton	9.50	
_____% of $_____ excess over $_____ per ton		
Handling Sacks		
Copper Deficiency 30.0 - 28.3 - 1.7 @ .10	.17	
Bullion Freight Tax 509.4 @ .00032	.16	

ANALYSIS			DEDUCTION	NET		RATE	
Insoluble		%			%	@	Cts.
Silica		%			%	@	Cts.
Iron		%			%	@	Cts.
Zn		%			%	@	Cts.
Lime		%			%	@	Cts.
Zinc	2.5	%			%	@	Cts.
Sulphur		%			%	@	Cts.
Alumina		%			%	@	Cts.
		%			%	@	Cts.
		%			%	@	Cts.
		%			%	@	Cts.
				TOTAL DEDUCTIONS		9.83	9.83
				NET VALUE PER TON			45.67

		DEBITS	CREDITS
Value on 3.6405	Dry Tons @ 45.67 Per Ton		166.26
Freight on 3.67	Wet Tons @ Per Ton		
	Hauling Charge		
	Switching		
	Umpires		
	Sampling	7.00	
held pending receipt of Silver Affidavit			
	BALANCE DUE SHIPPER	159.26	
wet ton $_____		166.26	166.26

Checked _____ Correct _____ Approved _____

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. May 20, 1949 No. 5513 ~~6054~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 1

Magdalena, New Mexico

CHARGES		
5 Gold + Silver @ $1.50	$ 7.50	
5 Lead @ $1.25	6.25	
5 Copper @ $1.25	6.25	
		$20.00
LESS 10 %	2.00	
TOTAL	$18.00	

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2317	Samples #1 - Table Product	Trace	0.78	0.11	7.23			
2318	" #2 - " "	Trace	0.54	0.22	5.56			
2319	" #3 - " "	0.02	1.66	0.22	16.68			
2320	" #4 - " "	0.02	0.84	0.16	6.12			
2321	" #5 - " "	Trace	0.50	0.50	1.67			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT R. A. Matusoski ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Oct. 4, 1949 No 5690 ~~6074~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. FRANK L. MAHER

Address BOX Y

MAGDALENA, NEW MEXICO

CHARGES	
5 Lead @ 1.25	$6.25
LESS 10 %	.62
TOTAL	$5.63

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2791	# 1 - Table				4.45			
2792	# 2 - Mill				4.09			
2793	# 3 - Table				2.78			
2794	# 4 - Table (Broken concentrate)				37.26			
2795	# 5 - Table				3.34			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. MATUSZESKI (signed)
ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. June 14, [redacted]49

N° 5524 ~~6106~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 1

Magdalena, New Mexico

CHARGES	
2 lead @ 1.25	$ 2.50
LESS %	
TOTAL	$2.50

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2426	#1 - Table product				2.78			
2427	#2 - " "				2.56			
	Lead mainly present as carbonate with some							
	sulphide (galena)							

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

(signed) R. A. Matuszeski

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

Item #16 (c) Applicants examination of area. Cont.

loss was 3 % lead, Middlings from table were 7 % lead, and the final concentrate produced was 13 Tons which was shipped to the smelter and the returns shown by the smelter of the AS&R at El Paso Texas gave the following results Gold .02 Oz per T.; Silver 1.6 Oz. per T,, Lead 10.9 % Copper .17 % Zinc 3.% this is the first time that Zinc has showed up in Old Soldier ore.

This first pilot test was made special to find out what recovery was possible with no thought of trying to get a close a recovery or make the pilot test pay. Yet with the conditions and the extremely high smelting costs and penalties a net return showed a considerable profit in the test. The returns of ore settlement are covered in Smelter lot # 2831 of 9/20/49.

A series of small tests were made on ores of the area with very favorable results these were isolated units and no special records were kept due to the fact that the distance and time to obtain assay reports was so great, that visual examination of the quantity and apparent class of the concentrate was all that Applicant was interested in.

A complete assay lab for wet assaying was set up to prepare for the next pilot test which was to be run from the Old Soldier Vein with all visible high grade ore removed from the test.

This test consisted of mining 60 tons of the general ore of the vein using the full width and checking the results obtained.

Checking on lead only the results were Heads 4.85 % Tailing loss 2.75 % and Concentrate assay on three assays were Newmexico School of Mines 33.86 % Coffeyville, Kansas 35.3 % our own 34.6 % AS&R Smelter showed 29.8 % at which 7281 lbs were shipped.

Beyond any reasonable opinion the AS&R Assay was in error. This is because the entire 7281 lbs was split down on a Jones splitter to samples of 2 lbs per 100 lbs. these in turn to 8 2 lb samples which were sent to the three assay points.

The Concentrates from this test showed the following. Lead 29.8 % Silver 4.7 Oz per T. Copper .15 % Gold .04 Oz per T. and Zinc. 2.5 %

The New Mexico Bureau of Mines assay shows zinc in the concent rates at 5 %.

On the basis of zinc showing up in the pilot test a prospecting period was taken with the aid of a mineralight. The results of this prospecting produced a find as shown in New Mexico Bureau of Mines assay certificate #5938 which brought out a 10,01 % zinc which was on the northern extension of the Old Soldier Vein which was on the Wheel of Fortune #7. as shown in the assay map submitted as part of the information of this application.

This also resulted in a closer sampling of the main working of the Old Soldier Vein in which the entire width of the vein was campled to a 6" width across the vein the results being shown by New Mexico Bureau of Mines Sertificate #5941 which shows Zinc in considerable quantity.

A quantity of Copper ore was taken to Professor Gerald Green of the New Mexico School of Mines to determine the feasability of a copper leaching project; His comments on the findings were that it was definitely shown that it could be a profitable operation.

DEFENSE ELECTRONICS
MAY 24 2 51 PM '91
RECORDS

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Feb. 1[illegible] 1951

5941

No. ~~XXXXXX~~ 6144

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 117

Socorro, New Mexico

CHARGES	
5 lead @ 1.25 ea	$6.25
5 zinc @ 1.25 ea	6.25
5 copper @ 1.25 ea	6.25
5 gold & silver @ 1.50	7.50
	26.25
LESS 10 %	2.65
TOTAL	23.63

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4254	#1 - East 4 feet	None	0.52	0.36	3.16	2.48		
4255	#2 - West 3 feet	Trace	0.88	0.21	8.42	2.96		
4256	#3 - East center 6 feet	None	0.36	0.43	2.11	1.97		
4257	#4 - West center 4½ feet	Trace	0.64	0.31	4.21	2.98		
4258	#5 - West 4" streak (highgrade)	Trace	2.96	0.33	61.05	0.98		

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT (signed) R. A. Matuszeski

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE		
ASSAY CHARGES PAID	AMOUNT $	
	DATE	
	CASH RECEIPT NO.	
ASSAYER'S FEE PAID		
CHEMIST'S FEE PAID		

Socorro, N. M. Feb. 7, 1951 No 5938 ~~6078~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank Maher

Address Box 117

Socorro, New Mexico

CHARGES	
3 copper, 3 lead, 3 zinc @1.25	$ 11.25
3 gold and silver @ 1.50	4.50
	15.75
LESS 10 %	1.57
TOTAL	$14.18

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4247	Sample No. 1	Trace	0.42	0.43	1.51	10.01		
4248	" " 2 (Combination)	None	0.16	0.22	1.43	1.42		
4249	" " 3	None	0.12	0.13	1.62	1.01		

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. MATUSZESKI (signed)
ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

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Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Jan. 1[redacted]1951 No. 5931 ~~6088~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank Maher

Address Box 117

Socorro, New Mexico

CHARGES	
Gold and silver	$1.50
Copper & Lead @ 1.25 ea.	2.50
LESS %	
TOTAL	$4.00

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4200	Quartz with iron oxide and some showing	Trace	1.54	1.47	1.09			
	of malachite							

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. Matuszeski (signed)

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

Item #16 (c) Applicants examination of area. Cont.

A quantity of ore from the Old Soldier vein was also given to Professor Gerald Greene to make a study of the flotation possibility of the ore. at this writing (May9, 1951) it has not been complete he however informed the Applicant that selective flotation is showing up extremely favorable high percentage recovery, with very little difficulty.

Two visits were made to the area by Mr MacMillan of the Denver Office U.S.Bureau of Mines, information as to the final report on his examination are not known. These visits were made in 1950.

Attached hereto are copies as supplied of assays of the area, some of importance have been sent to others and not returned and owing to the lack of knowledge of the file number it is not possible to ontain duplicates at this time.

Item # 17 Production.

The property and area has been under pilot testing only to determine to possibility of known ore bodies and also the possibility of new unfound ore bodies, the results of our findings convince us that there is a huge ore reserve in this area.

Item #18. (a) The ore bodies are covered in section Item 16 in reports submitted by others.

Item #18 (b) Attached hereto are maps of the area giving a general idea. of assay information.

Item #18 (c) Applicant has no way of giving a close figure , but based upon the length of vein traceable over the surface and the width as shown by report and observation under ground Applicant can honestly state that all indications are that there is a hugen ore body of milling grade ore which will average 4½ to 5% Lead with Zinc from 3% to 8% and copper ranging from .11 to 6 % which will be found in the area by further exploration which deposits are as yet uncovered.

Item 19. The property is at a standstill at present due to lack of funds for either further exploration or development of known ore bodies Applicant had to stop the project to obtain steady employment to procure more finances to continue wrok at a later date. He is at present employed at the New Mexico School of Mines (now known as New Mexico Institute of Mining & Technology) Applicant has also an application in for a development loan to obtain a 100 T per day minimum capacity mill to operate the known ore bodies to permit the exploration of supposed ore bodies and also to prove the extent of known ore bodies. The mill is planned for selective flotation & Gravity for copper, lead, & Zinc.

Professor Crawford of Chemistry of the New Mexico School of Mines has run a spectrograph and informs me that in the concentrates of the last pilot test there is considerable evidence of rare earth elements showing in the concentrates.

DEFENSE ELECTRONICS
MAR 24 2 51 PM '71
DOWNGRADED

Sheet # 11. Explora[illegible]on Project . FRank L. Mah[illegible] Socorro, New Mexico.

EXPLORATION: Item #20.

The minerals and metals will be minerals of Lead, Zinc, Copper Tungsten, Cadmium, and Manganese.

The type of deposits are Lode only in this area

Item #21

General conditions of the area show that the exploration should consist of the minimum of cost that will produce the maximum of result and benefit will be to use a combination of labor in general mining and also diamond drilling. This will consist of.

1 st. Start diamond drilling on north extensionof the Old Soldier vein where 10.01 % zinc is shown, at this point there is plenty of water and an assay laboratory . While this is being done:

2 nd. Run cuts into the calcite vein along the southern extension of the Old Soldier vein at intervals of 300 feet. and prepare diamond drilling stations.

3 rd. clear out the unfinished tunnel whose face is in hard rock which was headed for the downward extension of the Suprite vein as prospected for by August Riviere and set up a diamond drilling station to explor for the known vein and also for others that are indicated on the surface 700 feet above.

4 th. Abandon the present Old Soldier shaft for a new shaft south of present workings. general indications are that water level below the oxidized zone of the Old Soldier vein will be reached at a less footage depth.

This plan is based upon the fact that general tunneling is about 18 to 19 dollars a foot as against a maximum of $6.00 a foot for depth up to 800 feet. which I believe is sufficient to prove the area. 18 such holes are planned, to cover the entire area.

To complete the entire project I believe would require the full two years, but I believe that it would be on a pay as you go at the end of the first year

Item #22. As made a part of this application attached hereto are assay reports and map with assay findings noted on same. The only geological information that I have knowledge of is the Bureau of Mines information by S.G.Lasky, F.A.Jones and such reports as are listed in Item (c) by Paul B. Moore, J.D.Quigley, William Kemp, and such recent information that might have placed on record with the Denver Office U.S. Bureau of Mines. Of these reports I have no knowledge as to their contents.

Item 23 (a) Miners 2 @ $12.25 ea per 8 hr. shift 180 shifts $4,590.

Muckers3 @ 6.90 " " 8 " " 1170 " 8,073.

(Muckers to be used for other labor also)

1 General maintenance combination man & Machine operator for truck hoist compressor and other surface machines $16.00 ea 8 hr. shift 730 shifts $11,680

(b) 1 Supervisor to act as assayer, surveyor and general Engineer $350.00 per month 24 months 8,400

(c) Renovating maintenance App $400

(d) Additional conveniences necessary fro crew $600.

(e) Diamond drill equipt. & accessories (used) $4,000.

(f) No rental of equipt. is planned.

(g) $1.00 per hr per Machine but not to exceed cost. $12,000.

DEFENSE ELECTRIC LABOR
ASSN.
Mar 24 8 51 PM '91
CONTR. PITTSBURGH

Item #23 Cont.

(g) Cont. The equipment to be devoted to the project is everything on the property that is necessary tomperform the required work to complete the project including any other item that the applicant owns.

(h) Operating supplies,fuel, explosives chemicals, etc $3200.
small tools,drill bits,steel pipe etc

(i) All items have been accounted in estimates given in fore-going subsections of Item #23.

Item #24. End of 1 st month Money used and expected results:
Labor $2201.// Equipment leased & bought,$5,440.//
Operating supplies.$2,250. Expected 30 day results.
Order placed for diamond drilling equipment.
Camp constructed for crew.
#1 diamond drilling station set up.
3 exploration cuts completed on south extension of vein.
Main 650'tunnel repaired as much as possible for preparation of #2 Diamond drilling station to locate copper ore body
If diamond drill equipment obtained in first week I estimate 900 feet complete by end of first month.
Six vein intersections points of the area uncovered
All machinery placed in first class operative condition to prevent any form of delay on project.
Note: All members of crew shall be able to fill in ,in any capacity that is required.

End of 2nd month.
Labor$2201.// Equipment leased $1680.// Oper.Supplies.$430./
8 Exploration Cuts on south extension completed.
1200 feet diamond drilling completed
Upper water spring storage project completed for storage of water for diamond drilling. (At this point it is impossible to transport water by truck.
Uncover three vein intersectipns . and prepare diamond drill stations

---

End of 3rd month.
Labor $2201....Equipment lease $1680.// Operating Supplies
Possibility of necessity of mine timber $800.//
Tunnel to copper deposit complete repaired and placed in operation. Tunnel ore shoots sampled and pilot tested.
Diamond drill station prepared at face of tunnel.
(Note. In making the notation of Diamond Drill station prepared it is meant that everything is placed in readiness for a drilling operation ,such as installing water, air ventilation and other necessities.)
North extension exploration cut commenced and progressed as far as possible.
1000 feet of diamond drilling completed.

End of 4 month.
Labor $2201.... Equipment lease $1680 Operating supplies and necessities.$1400.//
150 feet of shafting or drifting
1000 feet diamond drilling completed.
All sampling and assaying to be kept up to date.

DEFENSE ELECTRONICS
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COMMUNICATIONS

Item #24 Cont.

End of 5th month.
Labor $2201 Equipment leased $1680. Operating Supplies and necessities.based on mine timbering possibitity $1700.//
150 feet of mining or shafting.mining to be either drifting winze.
1000 feet diamond drilling.
Water project to prevent water freezing during winter months which would stop drilling operations of diamond drill or cause a lowering of footage planned.Completed.
All sampling and assaying to be kept up to date.

End of 6th month.
By the end of this month Applicant expects to have several ore bodies of note worthy size and value either blocked out by drill information or opened up by drifting.
Expenditures will be for the month $2201 for labor$1680 for equipment leased and App. $1300.// operating supplies and necessities.
It is expected that mine timbering will be an important figure in the rise of exploration costs at this stage of the project.

End of 7th month.
Expenditures for the month will be in the close approximates of
Labor $2201. For machiner$1680.// Supplies & Necessities $1200.//
150 feet minimum of mining or shafting or open cut operations.
1000 feet of diamond drilling completed.
It is expeeted that mine rails will play an important part in the rise of exploration costs commencing at this time. however the general over plan has in mind the completeion of one portion of the project that will enable us to recover app. 1300 feet of light mine rail which would have to be removed in favor of a heavier rail when mining operation commence for production purposes.These rails are not taken into the considerations in the exploration project costs.Only that portion of labor that is used in the removal of the lighter minen rails to transfer them to other places of use.

End of 8th month,
Labor expenditure $2201,// Machinery leased $1680.//
Supplies & Necessities for operation. $1200.//
It is expected that by the end of this month that all general exploration as related to a mining nature such as open cuts, drift, crosscuts,and shafts will have been completed.
The program as laid out is such that in bad weather work may be done underground in the preparation for diamond drilling stations in close proximity to water supply to avoid loss of time by freezing weather.In the warmer weather outside work of the nature of open cuts, and surface diamond drilling will be carried on. The labor expenditure as listed covers two shifts per day, and it is planned to carry on the work which is at the fartherest distances from the base camp, while the days are long. The balance of the project will consist of completeing the exploration drilling.
For this month 150 plus on excavation footage and 1000 feet of diamond drilling.

SECURITY INFORMATION
U. S. ATO O 62 [illegible]
[illegible]
AMERICAN EMBASSY, [illegible]

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. 1271 X

Date received 5-28-51

Participation

Frank L. Maher
~~Metals Limited~~
Box #117
Socorro, New Mexico.

Name and address of applicant

Date May 11, 1951

FILL IN THIS BLOCK

Date of application May 11, 1951

Estimated cost $52,943.00

Mineral or metal Copper, Lead, Zinc.

Percentage of Government participation 50%

Location of mine Sec.31,T3S.R3W.,NMPM
Sec.25,T3S.R4W.,NMPM
Sec 36,T3S.R4W.,NMPM

In Mill Canyon Mining District of Socorro County New Mexico on the west slopes of the Magdalena Range.

Date of filing MF-100

DMA Docket Number, if available 1271 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? A Limited Partnership

*2. If a partnership, state names and addresses of partners. See sheet #1 item 2 of supplement.

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not incorporated.

*4. Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who will manage the project. See item #4 on attached sheets of supplements.

*5. Are you the owner or the lessee of the property? Owner & Operators

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. None.

7. If lessee, attach a copy of the lease and state if it is in good standing. No leases concerning property

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. See attached form to comply with requirements from partners.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. See supplement.

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? Yes. In money, time, equipment and materials $26,472.00

*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. Lode Claims in Sec.s 2536&31 as mentioned.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. same.

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. See item 11 of attached sheet.

*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. See item #12 attached sheets.

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

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

15. State in detail how the ore could be shipped and how and where milled. See item 15 attached sheets.

*16. History: See attach ed sheets item 16 and sub paragraphs of same.

(*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	All operations have been carried on for pilot testing			
(2) Milling	the area only only shipments by applicant are identified			
(3) Shipped or sold	in form of smelter returns results of such tests.			

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly. See item 18m of attached sheets.

(*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.
See item #19 attac ed sheets.

THE EXPLORATION

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

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

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.
See item 22 on attached sheets.

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. See attached
(*b*) Supervisors, by numbers and positions, with salaries of each. sheets and items 23 &
(*c*) Cost of necessary repairs to existing facilities, structures, and buildings. sub classifications
(*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. See attached sheet item #24.

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.

Metals Limited
(Name of company)

By Frank L. Maher
(Signature of authorized official)

May 11, 1951
(Date)

Owner & Operator.
(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

AGREEMENT.

This Agreement being a part of an application for a loan to aid in an Exploration Project, pursuant to Mineral Order #5 under the Defense & Production Act of 1950, is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, WE AGREE to subordinate all our interests to the interest of the United States Government in the property to be explored by the use of the funds obtained and in any equipment that may be purchased by such funds. In this WE bind ourselves and our heirs, executors and administrators firmly by these presents.

Signed on this 17 th day of May 1951

Co-Locator Ora L Maher

Co-Locator Frank L Maher
of the HM Metals Mining Claims
&
Owner-Operator of Metals Limited
a Mine Development Firm.

Subscribed and sworn before me on this 17 th day of May 1951.

My Commission expires 12-31-52

Julius Fraissinet, Co. clk.
By Salomon Lopez, Deputy

A G R E E M E N T

This Agreement being a part of an Application for a loan to aid in an Exploration Project, pursuant to Mineral Order #5 under the Defense and Production Act of 1950, is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, W E AGREE to subordinate all our interests to the interest of the United States Government in the property to be explored by the use of the funds obtained and in any equipment that may be purchased by such funds. In this WE bind ourselves and our heirs, executors and administrators firmly by these presents.

Signed on this 7 th day of May, 1951 A.D.

Co-Locator Dale E. Hart

Co-Locator Rae B. Hart
of the H. M. METALS MINING CLAIMS

Subscribed and sworn before me on this 7 th day of May 1951 A.D.

GERALD R. STEINER, Notary Public
In and for El Paso County, Texas
My commission expires June 1, 1951

Notary Public
El Paso County
El Paso, Texas

Item 6. Exploration Project, Frank L. Maher, Socorro, New Mexico.

CURRENT FINANCIAL STATEMENT.

Frank L. Maher
Box #117
Socorro, New Mexico
Business. Plumbing & Mining (At present wage earner)

To Defense Minerals Adm
Dept. of the Interior.

For the purpose of obtaining an aid in exploration of mineral properties I hereby submit the following statement of condition as of May 17, 1951 and it is all respects true and correct as this time.

ASSETS		LIABILITIES	
Cash	$ 328.00	Notes to Banks.	$3400.00
Accts Receivable.....	880.00	Other Notes	1500.00
Rent	128.00	Interest	354.00
Machinery.....	10770.00	Taxes due	210.00
Equipment furniture etc....	1200.00	Current debts	000.00
Land in Hot Springs, N.M.	35000.00	Inst.Accts.	000.00
Store & city property	20,000.00		
Totals	$ 65,408.00		$ 6464.00

At present time I am a permanent employee of the New Mexico School of Mines at a monthly salary rate of $278.50.
At present time I am also a Deputy State Plumbing Inspector on part time basis with average income of around $25.00 .

The above represents a statement of the affairs of Mr. & Mrs Frank L. Maher, of Metals Limited & Consumers Service & Supply a family partnership.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. May 2[redacted] 1949 No. 5513 ~~6058~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 1

Magdalena, New Mexico

CHARGES

5 Gold & Silver @ $1.50	$ 7.50
5 Lead @ $1.25	6.25
5 Copper @ $1.25	6.25
	$20.00
LESS 10 %	2.00
TOTAL	$18.00

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2317	Sample #1- Table Product	Trace	0.28	0.11	7.23			
2318	" #2- " "	Trace	0.54	0.22	5.56			
2319	" #3- " "	0.02	1.66	0.22	16.68			
2320	" #4- " "	0.02	0.84	0.16	6.12			
2321	" #5- " "	Trace	0.50	0.11	1.67			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT R. A. Matuszeski ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Oct. 4, [illegible]9

No. 5690 ~~6072~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. FRANK L. MAHER

Address BOX Y

MAGDALENA, NEW MEXICO

CHARGES	
5 Lead @ 1.25	$6.25
LESS 10 %	.62
TOTAL	$5.63

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2791	# 1 - Table				4.45			
2792	# 2 - Mill				4.09			
2793	# 3 - Table				2.78			
2794	# 4 - Table (Broken concentrate)				37.26			
2795	# 5 - Table				3.34			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. MATUSZESKI (signed)

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

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Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. ..... No. 5524 ~~6404~~

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 1

Magdalena, New Mexico

CHARGES	
2 lead @ 1.25	$ 2.50
LESS %	
TOTAL	$2.50

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
2426	#1 - Table product				2.78			
2427	#2 - " "				2.56			
	Lead mainly present as carbonate with some							
	sulphide (galena)							

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT (signed) R. A. Matuszeski

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

Item #4 (a) & (b) added information of personnel

General over all supervision and planning of exploration project will be in charge of Seymour Thurmond Jr. who is a graduate in geology from the Socorro School of Mines, has been employed by various mining companies both here in the United States and also in South America. Mr. Thurmond is a New Mexico State licensed engineer and has exception ability in the field of geology and general exploration of mining properties. He is also well qualified in assaying having served in that capacity for various mining companies.

General over all maintenance, installations, transfer of equipment about the project, operation of machinery, power, water and earth removal as well as automotive equipment will under the direct supervision, operation and maintenance of Mr. Frank L. Maior who has many years experience in these and associated fields.

Experienced labor skilled in diamond drilling is available in the area.

Experienced miners and underground laborers are exceptionally plentiful in this area.

There is a sufficiency of all classes of requires personnel in the area.

Exploration Project, Frank L. Maior, Socorro, New Mexico.

Sheet #1 Exploration Project; Frank L. Maher Socorro, New Mexico.

Item #1. Applicant is a Limited Partnership in that liability does not extend into the private personal affairs of the Partners Gale M. Hart of 1510 North Mesa El Paso Texas and Mrs. Rue B. Hart of 1510 North Mesa El Paso who are husband and wife they being inactive partners.
The active partners are Frank L. Maher of Socorro, N.M. and Mrs Ora Maher also of Socorro, New Mexico who are husband and wife. Liability extends into the private affairs of Mr. & Mrs Maher.
All partners are a family group by marriage with Mrs. Maher and Mrs Hart being sisters by blood relationship.

Item #2. Frank L. Maher Box # 117 Socorro, New Mexico
Ora L. Maher Box # 117 Socorro, New Mexico
Gale M. Hart, 1510 North Mesa, El Paso, Texas
Rue B. Hart, 1510 North Mesa, El Paso, Texas.

Item #4. The Applicant (a) Frank L. Maher and also (b) the person who will manage the project has been employed at the American Metals Mine of Torerro, N.M. for 5 years during its operation. He also was Chief Electrician of La India Mine in Nicaragua, C.A. Master Mechanic of La India Mine in Nicaragua, C.A. for 8 years 8 months. Construction and power plant for Empire Metals of New Mexico, and has been a State licensed Plumbing & Heating Contractor, is at Present State Plumbing Inspector and also employed at the New Mexico Institute of Mining & Technology in Socorro, N.M.
For the past three years he has been pilot testing the mineralized area under application for a loan.

Item #5. Applicant is the owner and operator of the property in application for loan.

Item#6. Property has no liens against it.and owes no current debts.

Item #11 Properties were first located in 1880 as Good Hope then As the Old Soldier Group consisting of Old Soldier #s1,2, 3,4;Golden Lola #'s 1 &2; Great Western #'s 1 &2. and Lucky Star. Present name Hi Metals Group.
Property in Group also was formerly Wheel of Fortune, and Blue Hill Claims..
Property also in Group was formerly Iron Cap Vein which is now part of Hi Metals Group.

Item #12 The property under application is in the Mill Canyon area of the Magdalena Mountains which on the west slope of the mountain at an app. altitude of 8,000 ft. it is by highway 6½ miles South on highway New Mexico number 107 from Magdalena, N.M. then 4 miles on forest service road to canyon bed of Mill Canyon thence 3 miles to mine site. The road is usually in good condition and passable the entire year. There is a railroad shipping point at the town of Magdalena, N.M. app 14 miles away all down grade with no grade excessive. Except for a short period following rains the canyon bed road is kept in fair condition.It can be traveled by car.

Item #13. The supply of water is a year round source with plenty of indication that quantity can be increased with a small amount of development, which, with natural storage facilities may be reused. The flow by water measurement has a minimum of 11 gals. a minute from all sources combined. this is constant. the year round.

Item #13. Power. At the present writing poles have been installed at a point 4 miles distant for REA and we are scheduled to have REA power for mining operations. This line is new construction with all funds appropriated and applicant has signed up as member and is guaranteed power when it is needed.
At the present time all power is Gasoline Engine applicant having at present time 86 connected HP in Gas Engines The cost of Gasoline used in the Pilot Testing Operations averaged in the amount of $95.00 plus or minus per month. Under REA Power it is given as an approximate figure at 3.5¢ per KW.

Item #14. Applicant has on the property in first class operative condition 1 105 CFM Compressor. 1 Thor heavy duty jackhammer complete with hose, steel, bits, etc. pipe, 1 hoist 3500 lb capacity double drum. c/w engine. Crusher, 15T Mill, Concentrating table, Flotation cell 1½ T truck, Assay Laboratory completely equipped. mine cars etc. and in general many supplies and tools. Welding equipment .

Item #15. The ore can be shipped to Magdalena by truck 14 miles from there by railroad to the smelter of the A.S.& R Co. at El Paso which is app. 310 miles distant.

The ore can also be milled on the premises as there are sufficient water for the operation of a mill should one be constructed.

The ore can also be shipped to Deming New Mexico where the A.S.& R Co. has a concentrating mill for concentrating low grade ores for their smelter in El Paso, Texas..

The most logical method is to concentrate the ore on the premises and then ship the concentrates to the smelter which by this method there is the added benefit of selective concentration of the copper, lead, zinc and marketing each as its distinctive concentrate, this permits payment to be received for each metal. whereas under general ore conditions there are penalties covering various metals which are in ores of certain classes.

Item #16. The history of the ground to be explored by the applicant must first be separated into three sections namely: Copper Section which was formerly known as the Wheel of Fortune Group and originally consisted of 12 mining claims which are more accurately described and located as in Drawing # 16 supplement 1 Wheel of Fortune Group.
A brief history has been written by F.A.Jones in his New Mexico Mines & Minerals of 1904 also by Gordon C.H. in U.S.Geological Survey paper 68. New Mexico Mines &

Item #16 Continued Sub section (a)

Minerals. A slight mention is made in Bulletin #8 The Ore Deposits of Socorro County, New Mexico by Samuel G. Lasky which is a New Mexico School of Mines publication. (see pages 44 to 46 inclusive)
This property was formerly owned and operated by August Riviere from 1891 to 1935. at which time he died.
A great deal of mining work was carried on but very little shipping was done this was due to the fact that transportation only permitted the shipping of the higher grade ore as all shipping was by ore wagon and teams to the railroad.
U.S.Geological Survey paper #200 shows that 25 tons were shipped in 1908 this was from what was Wheel of Fortune # 1 with copper at 2280 lbs.
1916 & 1917 showed two small shipments and 1918 showed another shipment this was the last from the Wheel of Fortune. There has been a great deal of tunnel work but at outcrops on the surface where copper assay or considerable value is shown no attempt has been made to explore it size.
General information as to the lack of progress in the Wheel of Fortune group shows that transportation played the first important difficulty and second the general ideas of the owner played second in importance.
Listed in attached supplement #16 e Wheel of Fortune are informations of present additional findings which tend to show the favorable conditions indicated for further exploration.

Item #16 (a) The Lead Section formerly known as the Old Soldier Group or the Old Soldier Vein. This Group originally consisted or 9 mining claims known as the Old Soldier 1,2,3,4, Golden Rola 1,2,Great Western 1,2, and the Lucky Star. A brief history has also been written by F.A.Jones, Lindgrin, Lasky and several others. Reports have been made by J.D.Quigley, Paul Moore of Magdalena N.M. and William Kemp. Investigations have been made by Paul Moore and also by Applicant (Frank L. Maher) .
The general History is the Claim generally known as the Old Soldier #1 was first located in 1880 as the Good Hope by a Civil War veteran, it is from this that it derived the name generally as the Old Soldier, this was sold to Mrs. Ada A.Wolf in 1909 and it was then named the Ada A. Mining Claim, and it and the rest of the group remained the property of Mike Wolf and Ada A Wolf from that time until applicant acquired them. This Group is now known as the MM Metals Group. The applicant lived with Mr. & Mrs Wolf from 1931 until 1937. a great deal of the time was spent in and upon the claims, and such details as are related came from authoritive sources. and personal investigations.
The most notworthy shipment was made in 1909 which was 48 tons of ore which returned 19,258 lbs of lead. This was from the Old Soldier #1 claim. Several other shipments were made by lessors but have been lost in the records this was due in most cases by shipping under other claim names. The last shipment of ore was from the dump and as this was left over from high grading its value has not

Item #16 (a) Cont. (Old Soldier Group)
been found out. A bit of information is mentioned in Bulletin # 8 of the New Mexico School of Mines by Lasky on page 46 under heading Old Soldier Vein.
The difficulties involved with this property are similar to that of the Shool of Fortune in that transportation made it impossible to ship any of the enormous quantity of low grade ore on the property.
The general attitude of the former owner was that it was more profitable to sell mine stock than develop the mine, even though the company Old Soldier Mining & Milling Company was never incorporated, or had right to sell stock.
I received this information by mail shortly before the death of the former owner Mr. Wolf.
The origin & layout of the Old Soldier group is more shown in Drawing #16 supplement #8, titled Old Soldier Group.
Copies of reports which are true copies the originals which have been lost down through the years are listed in Item 16 (b) under Old Soldier Reports and Investigations.

Item #16 (a) The groups known formerly as the Mine Hill Group and the Iron Cap Group have very little former history however present assays show considerable possibility these are listed on Metallic Assay Map merely as Assay Report Numbers.

Item #16 (b) All listed in (a) and (c) of Item 16 attached sheets.

Item (c) No former reports on the Shool of Fortune Group are available and only hearsay is known.
Under applicants assaying investigation. On Shool of Fortune #7 (Shool of Fortune #7 corresponds in part to Mr. Metallic #1 Amos) Assay Report of the New Mexico Bureau of Mines shows sample #1 Copper .43% Lead 1.31% Zinc 10.0% this is the first time that zinc has shown up in the Mill Canyon Area.
Dr. Gerald Grown Professor of Metalurgy at the Socorro School of Mines carried on an investigation of leaching concerning a quantity of low grade ore, of which had an assay value of Ag. 0.10 % and although it was not possible for him to complete his combination to stated that the body of ore was of commercial possibility and economically possible to concentrate either by leaching or flotation.
New Mexico Bureau of Mines assay report certificates #0051, 5930 are from unknown outcroppings.

OLD SOLDIER REPORTS & INVESTIGATIONS.

The property had been examined by many geologists in times past but their reports have been lost down through time however some of which have been copied are as follows:
Report of Old Soldier Mine near Magdalena, N.M. for Mr. Mike Wolf and the Borderline Finance Co. of El Paso Texas.
By. J.D.Quigley
PROPERTY OF THE MINE:
The property is in the Mill Canyon of the Magdalena Mining District of Socorro County, New Mexico, about 12 miles south of the town of Magdalena, an active place of about 5000

Item (c) Cont. Copy Quigley Report on Old Soldier.

population. There is a daily train service connecting with the town of Socorro, New Mexico and the main line of the Santa Fe system. A Good road is maintained between the two towns. The present owner is Mr. Mike Wolf of Hot Springs N.M.

TOPOGRAPHY:

This mine group consists of nine mine claims and is located along the middle of the upper reaches of the Magdalena Mining District in Mill Canyon at an elevation of Appr. 9500 ft; It extends along the strike of the vein in a northerly and southerly direction for a total distance of 4500 feet. The property is easily reached over an excellent road which rises to a gradual grade to within four miles of the present development. At this point the grade increases somewhat and passes into and over some of the lower spurs of the range into Mill Canyon and follows the course of the canyon bed to the mine. At no place is the grade prohibitive and at a very small cost it could be greatly improved. There is an abundance of timber on the property, mostly yellow pine and spruce which are ideal for mining service.

GEOLOGY:

The formations exposed are both sedimentary and intrusive rock; including limestone metamorphosed and porphyry, ~~shylistite~~ rhyolite and diabase. A porphyritic outcrop is noticeable throughout the entire length of the property along which the vein filling occurs. To the East of and paralleling this dike are found at different intervals, volcanic eruptions which have been ejected through the lithosphere; these disturbances seem th have been purely local and at no place are there any indications of a general flow. Stalagmatic evidence encountered on the surface below some of these eruptions indicate that these vents were healed by ascending waters carrying limestone solutions (Calcium Magnesium Carbonate). It is worthy to note here that the physical conditions obtained are the most re-assuring and there is every reason to expect that as depth is reached, ore running well into shipping grade. The basic or alkaline rocks in close proximity to the eruptive and acid rocks as well as the metamorphic condition of the whole zone including the highly oxidized and intensely leached vein filling indicate that success of the enterprise will be assured as depth is reached.

DEVELOPMENT

The development consists of a few drifts, cross-cuts and an inclined shaft a total of about 1500 feet. The shaft has been put down on an angle of about 75 degrees and is intersected by a cross run in from a point farther down the canyon. At this place a blacksmith shop, small ore pocket and camp buildings are located.

At the bottom of the shaft which is 300 feet below this tunnel level, crosscuts have been driven east and west for a total distance of 70 feet, showing the vein filling almost the entire distance.

The development as a whole has not been placed where the greatest benefit to the property might have been obtained. This may have been due to a condition.

Sheet 46 has been omitted by reason of his numbering of sheets.

Item 16 (c) Cont.

COPY OF PRELIMINARY REPORT OF OLD SOLDIER MINE, MAGDALENA, NEW MEXICO.
By PAUL B. MOORE M.E.

LOCATION:

The Old Soldier Mine owned by the Old Soldier Mining Milling and Development Co. is located near the head of Mill Canyon on the west slope of the Magdalena Mountains in Socorro County, New Mexico about 18 miles south of the town of Magdalena, which is the terminus of the Santa Fe R.R. Socorro Magdalena branch line.

DESCRIPTION:

This property consists of nine mining claims known as the Old Soldier Claims 1,2,3,4;Great Western Claims 1,and 2; Golden Gold Claims 1,and 2 and the Lucky Star. All location papers being filed in the office of the County Recorder of Socorro New Mexico, U.S.A.

ORE BODY:

The most promising feature about this property is a vein some 20 feet wide, of a coarsely crystalline black calc-spar running a distance of over one mile nearly due north and south and easily traced on the surface for over that distance. The calc-spar occurs on a rhyolite andesite contact. The rhyolite being to the west and forming the hanging wall,with the andesite being to the east and forming the footwall of the vein,which dips west about 10 degrees from the vertical.

The ore consists of oxidized lead,carrying gold with silver copper and some gold occurs on the footwall of the calc-spar vein as a replacement of the andesite and is from six to thirteen feet wide with an average of eight feet.

FINDINGS:

In 1915 I sampled this,taking 24 samples above the tunnel level with the following results;

LEAD	AVERAGE	11.41 per cent
Copper	"	.03 " "
Silver	"	2.3 Oz.per T.
Gold	"	.07 " " "

In 1917 a test run of this ore was made in the Black Cloud Mining Company Mill at Magdalena, N.M. with the following;

LEAD	CHAR. ORE	11.35 %	LEAD	Concentrates	40.70 %
"	"	"	2.14 Oz	SILVER	"	9.00 Oz. T.
"	"	"	.06 Oz	Gold	"	1.52 " T

In July 1923 I took 34 Samples from this property above the fault line, as follows;

Average width sampled	6.9 feet
" Lead content	11.4 %
" Silver "	2.13 Oz.per T.
" Gold "	.025 Oz per T.
" Copper "	.120 %
" of mill run of two groups of samples:	
Lead	11.0 %
Silver	2.2 Oz per T.
Copper	.10 %
Gold	.0255 Oz. per T.

Sheet #8. Explor[redacted]Project, Frank L. Fahe[redacted]ero, New Mexico.

Item #16 (c) cont. Report Paul B.Moore on Old Soldier.

Findings Cont.

While the average of the vein as sampled is shown as 3.9 feet I estimate the actual width as 8 feet but samples were not taken the full width in many places as they were taken from a ledge on the foot wall. Based on an eight foot width, I estimate 4000 tons of ore of the grade shown,opened on two and three sides available for milling but not including the last three samples which represent the ore on the dump
(N.B. by Cr. Editor. these samples and results have become lost.)

This vein is opened by a shaft to a depth of 300 feet with three crosscut tunnels. The main tunnel is 165 feet in length and opens the vein at 135 feet below the outcrop. At a depth of 180 feet a a north south fault dipping to the east cuts the vein.

Below the fault the work is not in the vein. At the last time samples were taken it was impossible to get below the fault,due caving.The vein has been opened at several points by short drifts.

SUMMARY:

There is an unlimited supply of good timber for all purposes on the property, there are also several good springs near the property that I believe with development will produce sufficient water for a mill. A good road passable for automobiles runs from the mine to Magdalena.

This property has been examined by several noted geologists and mining experts. Both J.D.Quigley and William Keep submitted reports.

I have been familiar with this property for the past ten years and am of the opinion that it offers a very favorable opportunity of extensive development for a commercial successful mine and is worthy of extensive prospecting and development.

A great deal of work done by the owners has not been properly placed and is of no value for operating purposes.

Signed; Paul B. Moore
Mining Engineer

Magdalena, New Mexico
May 15, 1936.

Except for one small shipment in 1933 the property has had no activity from 1930 until 1937 at which time applicant spent 8 months living on and prospecting the entire area of the old Soldier and the Wheel of Fortune, Iron Cap, Blue Hill and others of the area. During this period Applicant found a great deal of float which was not traced to its source because of heavy over-burden. It was during this time that the applicant became convinced that the development of the area would depend upon the results obtained from a pilot testing plant.Lack of finances stopped the examination.

In 1940 the area was located again under the name of H.M.Hotels and prospecting and pilot testing was again started under limited financial conditions. A 15 Ton Mill was set up and a 15 Ton Concentrating gravity table was also put into operation and other machinery was moved into the area.
The first pilot test in quantity was of about 40 tons of low grade ores which were trucked to the mill in 2 ton lots and mill run made in 10 ton quantity units. Loss of assaying on the spot information caused poor results however a later check showed that milling

Item 16 (c) Applicants examination of ores. Cont.

loss was 3 % lead, middlings from table were 7 % lead, and the final concentrate produced was 1 ton which was shipped to the smelter and the returns shown by the smelter on the ASER of 21 Pure Tons gave the following results Gold .03 oz per T., Silver 1.0 oz. per T., Lead 10.9 % Copper .17 % Zinc 3.% this is the first time that Zinc has showed up in the Soldier ore.

This first pilot test was made special to find out what recovery was possible with no thought of trying to get a close recovery or make the pilot test pay. Yet with the conditions the extremely high milling costs and penalized a not return showed a considerable profit in the test. The returns of ore concentrate are covered in smelter lot # 3001 of 3/30/40.

A series of small tests were made on ores of the area with very favorable results these were isolated units and no special records were kept due to the fact that the distance and time to obtain assay reports was so great, that visual examination of the quantity and apparent class of the concentrates was all that Applicant was interested in.

A complete assay lab for wet assaying was set up to prepare for the next pilot test which was to be run from the Old Soldier Vein with all visible high grade ore removed from the test.

This test consisted of mining 60 tons of the general ore of the vein using the full width and checking the results obtained.

Checking on lead only the results were Heads 6.05 % Tailing loss 2.75 % and Concentrate assay on three assays were Normalico School of Mines 38.00 % Cerrillos, Mines 38.0 % our own 34.6 % ASER Smelter showed 20.8 % at which 7.01 lbs were shipped.

Beyond any reasonable opinion the ASER Assay was in error. This is because the entire 7.01 lbs was split down on a Jones splitter to samples of 2 lbs per 100 lbs. thus in turn to 8 x 1 lb samples which were sent to the three assay points.

The Concentrates from this test showed the following. Lead 38.8 % Silver 6.7 Oz per T. Copper .15 % Gold .04 Oz per T. and Zinc. 2.5 %

The New Mexico Bureau of Mines assay shows also in the concentrates at 5 %.

On the basis of zinc showing up in the pilot test a prospecting period was taken with the aid of a diamond drill. The results of this prospecting produced a find as shown in New Mexico Bureau of Mines assay certificate #5030 which brought out a 10.01 % zinc which was on the northern extension of the Old Soldier Vein which was on the Wheel of Fortune #7. as shown in the assay map submitted as part of the information of this application.

This also resulted in a closer sampling of the main working of the Old Soldier Vein in which the entire width of the vein was sampled to a 6" width across the vein the results being shown by New Mexico Bureau of Mines Certificate #5041 which shows Zinc in considerable quantity.

A quantity of Copper ore was taken to Professor Gordis Green of the New Mexico School of Mines to determine the feasibility of a copper leaching project, his comments on the findings were that it was definitely shown that it could be a profitable operation.

FOR OFFICE USE		
ASSAY CHARGES PAID	AMOUNT $	
	DATE	
	CASH RECEIPT NO.	
ASSAYER'S FEE PAID		
CHEMIST'S FEE PAID		

Socorro, N. M. Jan. 17, 1951 No. ~~6086~~ 5931

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank Maher

Address Box 117

Socorro, New Mexico

CHARGES	
Gold and silver	$1.50
Copper & Lead @ 1.25 ea.	2.50
LESS %	
TOTAL	$4.00

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4200	Quartz with iron oxide and some showing of malachite	Trace	1.54	1.47	1.09			

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

R. A. Matuszeski (signed)
ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

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Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
ASSAY CHARGES PAID	AMOUNT $
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ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. Feb. 1, 1951 No. ~~6076~~ 5938

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank Faher

Address Box 117

Socorro, New Mexico

CHARGES

3 copper, 3 lead, 3 zinc @ 1.25	$ 11.25
3 gold and silver @ 1.50	4.50
	15.75
LESS 10 %	1.57
TOTAL	$14.18

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4247	Sample No. 1	Trace	0.42	0.43	1.51	10.01		
4248	" " 2 (Combination)	None	0.16	0.22	1.43	1.42		
4249	" " 3	None	0.12	0.13	1.62	1.01		

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT

E. A. MATHESZEKT (signed)
ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

FOR OFFICE USE	
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	DATE
	CASH RECEIPT NO.
ASSAYER'S FEE PAID	
CHEMIST'S FEE PAID	

Socorro, N. M. ..... Nº ~~6142~~ 6112

STATE BUREAU OF MINES AND MINERAL RESOURCES

DIVISION OF NEW MEXICO SCHOOL OF MINES

ASSAY CERTIFICATE

Assay made for

Mr. Frank L. Maher

Address Box 117

Socorro, New Mexico

CHARGES	
5 lead @ 1.25 ea	$6.25
5 zinc @ 1.25 ea	6.25
5 copper @ 1.25 ea	6.25
5 gold & silver @ 1.50	7.50
	26.25
LESS 10 %	2.62
TOTAL	23.63

No.	DESCRIPTION AND REMARKS	GOLD OZ. PER TON	SILVER OZ. PER TON	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT		
4254	#1 - East 4 feet	None	0.52	0.36	3.16	2.48		
4255	#2 - West 3 feet	Trace	0.88	0.21	8.42	2.96		
4256	#3 - East center 6 feet	None	0.36	0.43	2.11	1.97		
4257	#4 - West center 4½ feet	Trace	0.64	0.31	4.21	2.98		
4258	#5 - West 4" streak (highgrade)	Trace	2.96	0.33	61.05	0.98		

NOTE: THE GROSS VALUE PER TON ON ANY SAMPLES ASSAYED WILL BE SUPPLIED ON REQUEST

CERTIFIED CORRECT (signed) R. A. Matuszeski

ASSAYER

CHEMIST

(OVER)

SAMPLING SUGGESTION

The Bureau is constantly receiving picked specimens weighing less than one pound. The reports on these specimens are often not representative of the bodies from which they came. A small specimen of lead ore may assay 50 percent lead, whereas the pile from which it was selected may run only 2 percent lead.

Try to obtain a representative or average sample weighing at least 5 pounds.

Item #16 (c) Applicants examination of ores. Cont.

A quantity of ore from the old Soldier vein was also given to Professor Gerald Greene to make a study of the flotation possibility of the ore, at this writing (May, 1951) it has not been complete he however informed the Applicant that selective flotation is coming up extremely favorable high percentage recovery, with very little difficulty.

Two visits were made to the area by Mr McMillan of the Denver Office U.S.Bureau of Mines, information as to the final reports on his examination are not known. These visits were made in 1950.

A sached hereto are copies as supplied of assays of the area, some of importance have been sent to others and not returned all being to the lack of knowledge of the file number it is not possible to obtain duplicates at this time.

Item # 17 Production.

The property and area has been under pilot testing only to determine to possibility of known ore bodies and also the possibility of new unfound ore bodies, the results of our findings convince us that there is a large ore reserve in this area.

Item #18. (a) The ore bodies are covered in section Item 16 in reports submitted by others.

Item #18 (b) Asached hereto are maps of the area giving a general idea. of assay information.

Item #18 (c) Applicant has no way of giving a close figure , but based upon the length of vein traceable over the surface and the width as shown by report and observation under ground Applicant can honestly state that all indications are that there is a large ore body of milling grade ore which will average 4% to 5% lead with Zinc from 4% to 6% and copper varying from .1% to 0.5% which will be found in the area by further exploration which deposits are as yet uncovered.

Item 19. The property is at a standstill at present due to lack of funds for either further exploration or development of known ore bodies Applicant had to stop the project to obtain steady employment to procure more finances to continue work at a later date. He is at present employed at the New Mexico School of Mines (now known as New Mexico Institute of Mining & Technology) Applicant has also an application in for a development loan to obtain a 100 T per day minimum capacity mill to operate the known ore bodies to permit the exploration of suspected ore bodies and also to prove the extent of known ore bodies. The mill is planned for selective flotation & Gravity for copper, lead, & zinc.

Professor Greaton of Chemistry of the New Mexico School of Mines has run a spectrograph and informed us that in the concentrates of the last pilot test there is considerable evidence of rare earth elements showing in the concentrates.

Sheet # 11. Ex[redacted]on Project . Frank L. [redacted], Socorro, New Mexico.

INFORMATION: Item #10.

The minerals and metals will be minerals of lead, zinc, copper tungsten, cadmium, and manganese.

The type of deposits are found only in this area

Item #11

General conditions of the area show that the exploration should consist of the minimum of cost that will produce the maximum of result and benefit will be to use a combination of labor in general mining and also diamond drilling. This will consist of.

1 st. Start diamond drilling on north extension of the Old Soldier vein where 10.01 % zinc is shown, at this point there is plenty of water and an assay laboratory . While this is being done:

2 nd. Run cuts into the calcite vein along the southern extension of the Old Soldier vein at intervals of 300 feet. and propose diamond drilling stations.

3 rd. clear out the unfinished tunnel whose face is in hard rock which was headed for the downward extension of the Cupsite vein as prospected for by August Rivlere and set up a diamond drilling station to explore for the known vein and also for others that are indicated on the surface 700 feet above.

4 th. Abandon the present Old Soldier shaft for a new shaft south of present workings, general indications are that water level below the oxidized zone of the old Soldier vein will be reached at a less footage depth.

This plan is based upon the fact that general tunneling is about 16 to 18 dollars a foot as against a minimum of $6.00 a foot for depth up to 800 feet, which I believe is sufficient to prove the area. 18 such holes are planned, to cover the entire area.

To complete the entire project I believe would require the full two years, but I believe that it would be on a pay as you go at the end of the first year

Item #12. As made a part of this application attached hereto are assay reports and map with assay findings noted on same. The only geological formation that I have knowledge of is the Bureau of Mines information by S.G.Lasky, F.A.Jones and such reports as are listed in Item (c) by Paul D. Moore, J.D.Quigley, William Kemp, and such recent information that might have placed on record with the Denver Office U.S. Bureau of Mines. Of these reports I have no knowledge as to their contents.

Item #3 (a) Miners 2 @ $1.25 an per 8 hr. shift 100 shifts $4,500.//
Muckers 3 @ 0.83 " " 8 " " 1270 " 8,675.
(Muckers to be used for other labor also)
1 General maintenance combination man & machine operator for truck hoist compressor and other surface machines
$16.00 an 8 hr. shift 700 shifts $11,000
(b) 1 Supervisor to act as assayer, surveyor and general engineer $300.00 per month 20 months 6,000
(c) Renovating maintenance Apx. 1000
(d) Additional conveniences necessary for crew 600.
(e) Diamond drill equipt. & accessories (used) $4,000.
(f) No rental of equipt. is planned.
(g) $1.00 per hr per Machine but not to exceed cost. $12,000.

Item #23 Cont.

(g) Cont. The equipment to be devoted to the project is everything on the property that is necessary to perform the required work to complete the project including any other item that the applicant owns.

(h) Operating supplies, fuel, explosives, candle, etc $6550. cable tools, drill bits, steel, pipe etc

(i) All items have been accounted in estimates given in foro-going subsections of Item #23.

Item #24. End of 1st month Money used and expected results:
Labor $2201.// Equipment leased & bought, $5,420.//
Operating supplies. $2,800. Expected 30 day results.
Order placed for diamond drilling equipment.
Camp constructed for crew.
#1 diamond drilling station set up.
3 exploration cuts completed on south extension of vein.
Main 600' tunnel repaired as much as possible for preparation of #3 Diamond drilling station to locate copper ore body
If diamond drill equipment obtained in first week I estimate 900 feet complete by end of first month.
Six vein intersections points of the area uncovered
All machinery placed in first class operative condition to prevent any form of delay on project.
Note: All members of crew should be able to fill in, in any capacity that is required.

End of 2nd month.
Labor $2201.// Equipment leased $1000.// Oper. Supplies. $400./
6 Exploration Cuts on south extension completed.
1200 feet diamond drilling completed
Upper water spring storage project completed for storage of water for diamond drilling. (At this point it is impossible to transport water by truck.
Uncover three vein intersections . and prepare diamond drill stations

---

2nd of 3rd month.
Labor $2201....Equipment lease $1680.// Operating Supplies
Possibility of necessity of mine timber $800.//
Tunnel to copper deposit complete repaired and placed in operation. Tunnel ore sheets sampled and pilot tested.
Diamond drill station prepared at face of tunnel.
(Note. In making the station of Diamond Drill station prepared it is meant that everything is placed in readiness for a drilling operation such as installing water, air ventilation and other necessities.)
North extension exploration cut commenced and progressed as far as possible.
1020 feet of diamond drilling completed.

End of 4 month.
Labor $2201.... Equipment lease $1600 Operating supplies and necessities. $1400.//
150 feet of shafting or drifting
1000 feet diamond drilling completed.
All sampling and assaying to be kept up to date.

Sheet # 13, Exploration Project. Frank L. [redacted], Socorro, New Mexico.

Item #24 Cont.

End of 5th month.
Labor $2.01 Equipment leased $1660. Operating Supplies and necessities. based on mine timbering possibility $2700.//
150 feet of mining or shafting. Aiming to be either drifting winze.
1000 feet diamond drilling.
Labor project to prevent water freezing during winter months which would stop drilling operations of diamond drill or cause a lowering of footage planned. Completed.
All sampling and assaying to be kept up to date.

End of 6th month.
By the end of this month Applicant expects to have several ore bodies of note worthy size and value either blocked out by drill information or opened up by drifting.
Expenditures will be for the month $2.01 for labor $1680 for equipment leased and App. $1800.// operating supplies and necessities.
It is expected that a no timbering will be an important figure in the size of exploration costs at this stage of the project.

End of 7th month.
Expenditures for the month will be in the close approximates of Labor $2.01. For machinery $1680.// Supplies & Necessities. $1800.//
150 feet minimum of mining or shafting or open cut operations.
1000 feet of diamond drilling completed.
It is expected that mine rolls will play an important part in the size of exploration costs commencing at this time. however the general over plan has in mind the completion of one portion of the project that will enable us to recover app. 1200 feet of light mine roll which would have to be removed in favor of a heavier roll when mining operation commence for production purposes. These rolls are not taken into the considerations in the exploration project costs. Only that portion of labor that is used in the removal of the lighter mine rolls to transfer them to other places of use.

End of 8th month.
Labor expenditure $2.01.// Machinery leased $1660.//
Supplies & Necessities for operation. $1800.//
It is expected that by the end of this month that all general exploration as related to a mining nature such as open cuts, drift, c osscuts, and shafts will have been completed.
The program as laid out is such that in bad weather work may be done underground in the preparation for diamond drilling stations in close proximity to water supply to avoid loss of time by freezing weather. In the warmer weather outside work of the nature of open cuts, and surface diamond drilling will be carried on. The labor expenditure as listed covers two shifts per day, and it is planned to carry on the work which is at the furthest distance from the base camp, while the days are long. The balance of the project will consist of completing the exploration drilling.
For this month 150 plus on excavation footage and 1000 foot of diamond drilling.

Item 24 cont.

End of 9th month, 10 th month, 11 th month and 12 th month.

The months will be used primarily all for exploration drilling which in the event of conditions beyond our control that might extend the time of the operations it is calculated that this period of time will come into the project. Labor for each of these months will be in the approximate of $1175. // Operational costs in approximate of $500.//

Applicant feels extremely confident that the entire project will be completed in 1 year this is due to the fact that a planned crew of personnel that is extremely flexible in varied abilities and experience is available; which item alone cuts the general exploration costs by at least 40%. Applicant has also at his request students of the Socorro, School of Mines if necessary, for surveying, or other engineering work. These students will also do so non labor if necessary.
However in the event that after operation is started, that there should be some change arises in the project Applicant wishes to have the benefit of the two full years allotted time.

DEPARTMENT OF THE INTERIOR
Science Advisory Administration
DENVER
MAY 28 1981
Lincoln F. Spencer
Executive Secretary

Socorro, New Mexico

May 19, 1951

DMA 1271 X

To Office of Defense Minerals Administration
Dept. of the Interior.

Gentlemen:

In submitting this application for the loan of a sum in the amount of $125,000.00 for the purpose of producing minerals and metals and the development of ore deposits of the minerals of metals of Lead, Copper, Zinc with possibilities of Manganese and minerals of the Rare Earth Group I do so with the knowledge that the sum will be repaid in its entirety when the property to be produced from is in production.

In the development of the property and its exploration to date and in the pilot testing of this property to convince us that it warranted and was worthy of a milling project of a minimum of 100 tons of ores processed per day, we had the aid of many experts in their respective fields of geology, metallurgy, chemistry who assisted us without charge and who expect no payments on any returns that may come from the results of their assistance. Some of them devoted long hours of their personal hours to work out the metallurgy of the complex ore deposit of oxide minerals so that an exceptionally high recovery would be made in the ore processing plant under consideration in the project.

It is on the basis of all this assistance that I know that the loan if granted will be repaid and that a hitherto little known about ore deposit will be developed. This ore deposit and area under development although extensive is of economic value only when the ores are concentrated in the area and the concentrates shipped. However in the mining of the ores of the lower value of the deposit, there will be encountered ores of exceptionally high grade and of shipping worth that may be shipped direct. These times however with the lack of definite knowledge as to the extensiveness of them are not worthy of trying to produce a shipping production deposit only, because the amount of capital required would be excessive as compared with the time in a production of shipping grade ore that would repay the loan.

The sum mentioned and applied for ($125,000.//) is based upon the knowledge and experience of the applicant in being able to obtain used machinery at low cost and develop such machinery to its utmost capacity. In arriving at that amount and the feasibility of the project based upon that amount and the possibility of that amount completing the project successfully, the applicant has the facts from leading mining & milling machinery suppliers of the area (Denver) that such sum will do the job and that such machinery as is necessary is available and does not draw from new steel or iron reserves of the national program of defense.

The experience of the applicant as maintenance mechanic and electrician master mechanic and chief electrician in the employ of mining & milling companies in the United States and foreign countries and his exceptionally high percentage of operating hours of operation of production machinery assures that the maximum hours of production will be attained to assure the success of the project.

Applicants knowledge and association with the area involved in the development dates back to 1931 when he first was employed by the former owners of the Old Soldier Group who were a Mr. & Mrs Mike Wolf formerly of Hot Springs New Mexico(Both are now dead) these people made the first notable shipment of ore in 1909 which is listed in Professional Paper #200 of the US Geological Survey in cooperation with the New Mexico Bureau of Mines.It is from these former owners and others who are still alive that done a great deal of the work of the area that the general worth of the area as a whole was first thought about as to its possibility.

In 1937 the applicant resided onthe property for a constant period of eight months making a close study of the entire area as to the extensiveness of the veins as informed of by the various persons of knowledge and finding this to be true he had many assays made during that time (which have been lost down through the years) and found that ore of immediate shipping grade was not immediately available, but that an enourmous deposit of an ore of milling grade was in the area and that such deposit was supported by the sufficience of water inthe area and the assays proved that ores of shipping grade were available to add to the value of the low grade deposit.

At that time it was impossible to interest any person in trying to promote the possibility of the area by installing a pilot plant so applicant put the matter aside until such time as there would be a possibility of proving the area by such means. It being the idea that if a general run of ore was concentrated and the concentrate shipped with no regards to the losses of the pilot mill in metal value lost in the test and that such test proved profitable on the small pilot scale of the project that the development of the area on a larger milling scale would be assured success.

After many years this program has been completed and as shown by item #5941 of assay certificate which was the general value of the ore as taken and represents the general block of ore.Then item #5513 assay certificate which represents the actual milling conditions at the time of milling a block of the ore of the same section and noting that a metal loss of one mineral was about 8.75 percent of the metals under test and then taking item #3777 which is a smelter return statement which shows the value of the overall operation. Finally taken into such consideration the fact that the test was tried under the most expensive conditions conditions with no thought of economy of operation I believe that the only available conclusion that can be reached is that if given a chance the property will prove that it was worthy of development.

The applicants reached the point that further immediate tests of another nature were impossible by reason of lack of finances and as there was no advantage of borrowing money on the basis of giving up 51% control in the property which might result in decisions of those holding the majority of control in forcing that it be shut down and thereby allowing the property to cease. The Applicants returned to work with the hopes that finances might be available either by saving from wages or the sale of property and that again a chance would be made possible to put the property into production under smaller capacities. Which of course would lessen the chance of the development of the entire area as a whole.

The general lack of development of this area was caused by the fact that in the days of its operation mining was done by hand methods, transportation was by wagons. The owners were very much against the government giving advice based on geology as to the best points of developments, economical operation was not possible to ship ore directly from the mines to the smelter. Finally the general trend was to mine for gold & silver.

In submitting maps of the area one is submitted which shows the layout of the claims as they were laid out by the old original owners.
The layout of the group that was known as the Wheel of Fortune Group was surveyed by F.A. Jones in 1905 he was a prominent mining engineer and professor of mining in his day. he did not tie his survey to any U.S. Land Office Survey but to what is known in the survey as Bearing Trees some of these are still standing with their identification carved on them. These trees were tied into the U.S. General Land Survey monuments as placed in 1940.
The group known as the Old Soldier Group were tied into the U.S. Land Markers from old original monuments that are still standing which were pointed out to the applicant by the original owner and many of them had the original location papers in them still intact.
The purpose of supplying these maps is to acquaint the U.S. Dept of the Interior as to the original location of the the claims as know by the names of Wheel of Fortune and Old Soldier, because such names have come up many times in past reports.
The map supplied as the HM Metals Group which is the name now used for the area is to show the area under exploration, development and production as it is concerned in the application for the Defense Production Loan.

The project of the applicant has not been one to make a quick development and sell the property but is one to make the property p oduce the minerals and metals that are there, it is with this basic idea that the time and money expended to this point has been made, and it is with the same basic idea that this loan is applied for, and although applicants assets are not in sufficiency to the amount of the loan requested he is willing to put up all that is available for he feels secure that the opportunity will prove that the project will pay itself out in a short time.

Trusting that the foregoing letter will give some information of value concerning the project and be of assistance in the matter concerning the application for the loan and that the project will stand any investigation that is required of it I remain

Respectfully yours

Frank L. Maher

Frank L. Maher
Metals Limited
Socorro, New Mexico
Box # 117

AGREEMENT.

This agreement being a part of an application for a loan to develop a Mining & Milling Project under Section 302 of the Defense and Production Act of 1950 is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, WE AGREE to subordinate all our interests to the interests of the United States Government in the property to be developed by the funds obtained and in any improvements that may be purchased by such funds. In this we bind ourselves and our heirs, executors and administrators.

Signed on this 17th day of May 1951 A.D.

Co-Locator Ora L Maher

Co-Locator Frank L Maher
Of the MM Metals Mining Claims
&
Owner Operator of Metals Limited
a Mine Development Firm.

Subscribed and sworn before me this 17th day of May 1951.

My Commission expires 12-31-52

Julius Fraissinet, Co. Clk.
By Salomon, Lopez, Deputy

A G R E E M E N T

This agreement being a part of an application for a loan to develope a Mining and Milling Project under Section #302 of the Defense and Production Act of 1950 is made with the United States Government and the Defense Minerals Administration of the Department of the Interior; in which, WE AGREE to subordinate all our interests to the interests of the United States Government, in the property to be developed by the funds obtained and in any improvements that may be purchased by such funds. In this we bind ourselves and our heirs, executors and administrators.

Signed on this 7 th day of May, 1951 A. D.

Co-Locator Gale W. Hart

Co-Locator Rue B. Hart

Of the H. H. METALS MINING CLAIMS

Subscribed and sworn before me on this 7 th day of May, 1951 A.D.

GERALD R. STEINER, Notary Public
In and for El Paso County, Texas
My commission expires June 1, 1951

Notary Public
El Paso County
El Paso, Texas

United States
Department of the Interior
Geological Survey
Washington 25, D. C.

March 14, 1950

Mr. & Mrs. Frank L. Maher
Box Y,
Magdalena, New Mexico

Dear Mr. & Mrs. Maher:

The eighteen samples referred to in your letter have been inspected by our mineralogists, whose findings are as follows:

1. Quartz.
2. Quartz.
3. Sand with same magnetite, iron-oxide.
4. Sand or crushed rock, with no visible ore minerals.
5. Quartz, similar to 16 below.
6. Drusy quartz.
7. Porous, somewhat iron-stained quartz.
8. A variety of volcanic rock.
9. Drusy quartz.
10. Quartz, calcite, green chloritic rock, with a little pyrite, iron sulfide.
11. Essentially quartz.
12. An aggregate of quartz and porphyritic volcanic rock. A little pyrite is present.
13. Mainly quartz, with a little calcite.
14. Mainly quartz, with a little barite, barium sulfate, and calcite.
15. Friable sandstone loosely cemented by greenish iron-bearing clay.
16. Quartz; the gray color of much of it may be caused by very finely divided pyrite inclusions.
17. Iron stained drusy quartz.
18. Slag or clinker. None of the original minerals, whatever they may have been, remain.

The "Item Enclosed in Letter Mounted on Celluloid" was not found in the letter.

Summarizing the notes on all of these samples, nothing of any special value was noted. If the other 110 specimens you mention are of the same sort, little encouragement as to the economic possibilities of the locality can be given.

It might be to your advantage to become familiar with the commoner ore minerals, if you intend to do much prospecting. Suites

of such can be bought at small cost from mineral dealers. It is also possible that the New Mexico Bureau of Mines and Mineral Resources, Socorro, New Mexico, may have data on file concerning the mineral possibilities of the region in which you are interested.

Sincerely yours,

/s/

K. J. Murata
Acting Chief, Investigations Section
Geochemistry & Petrology Branch

KJM/ldb
cc: Division Files
Branch Files

#336519

C O P Y

Mill Canyon
Magdalena Mountains

March 4, 1950

U. S. Geological Survey
Washington, D. C.

Attention Chief Geologist:

Dear Sir:

I am sending you a group of ore formations and also an item inclosed in this letter. To appreciate our need I will have to give you an explanation of what we are trying to do and the handicap we are under in trying to do it.

To begin with we are trying to develop an area without the help of sufficient finances or the help on any geological assistance of any sort, therefore as you see we are trying to do it the hard way.

When I speak of we I mean Mrs. Maher and myself as we are the only two that live in the area. The Area I mention is what is known as the Mill Canyon Mining District of the County of Socorro, State of New Mexico.

Geological investigation of the past have been only casual and of the nature "In Passing" or "While Hunting"

We have on the ground a small pilot mill and a laboratory however at the present time no furnace for fusion or fire assaying.

Unfortunately I am not a Geologist or Mining Engeneer so must used this method of learning the formations of the area.

An item that will be of great help to me is to learn the names of the predominate rocks, bein fillings and minerals that are in them I do not care to know the value or quantity of each but if is at all possible I would like to know thenames of all the minerals andthe type or name of the rock that they are in.

I will give a small bit of information concerning the items as numbered at this time will call to your attention that upon complete examination the material may be destroyed and not returned as I have a duplicate set here for my benefit to understand your identification remarks I an also use them to further my study of the area geologically.

Upon completion of the information of the samples I will try to convey to you just what we are trying to do.

The complete number of material I will need indentified will be about 110 pieces. From this I will be able to obtain the rest of information from books on geology.

The following are the materials sent each is labeled with lable and corresponds to an identical piece that I have here.

[illegible] Jayson
[illegible] Rockefeller

March 4, 1950

U. S. Geological Survey
Washington, D. C.

Attention Chief Geologist:

Dear Sir:

I am sending you a group of old formations and also my [illegible] in this letter. The specimens are real I will have to give you an explanation of what we are trying to do and the handicap we are under in trying to do it.

In beginning we are trying to develop an area showing the help of equipment furnished by the help on any geological suggestions of any sort, therefore as you see we are trying to do it the hard way.

When I speak of [illegible] labor and mechanical means are the only two [illegible] area. The area I mention in mind is known as the Mid Dungan Mining District of the County of Socorro, State of New Mexico.

Geological investigation of the lost have been only casual and of the nature [illegible]

We have on the ground a small mill and a laboratory however no [illegible] equipment for chemical or fire assaying.

Unfortunately I am not a geologist or mining engineer so much [illegible] method of keeping the formations of the area.

In time that will be of great help to me in the to learn the [illegible] of the rocks, [illegible] and [illegible] and in turn to do not care to know the value or [illegible] but if he do all [illegible] I would like to know the amount of all the minerals [illegible] or [illegible] that they are.

I will give a [illegible] of information concerning the [illegible] as the time will [illegible] that upon [illegible] the [illegible] may be destroyed and not recovered as I have a [illegible] [illegible] to answer your [illegible] reason I [illegible] the [illegible] by [illegible] of the area geologically.

Upon receipt when of the information of the samples I will try to [illegible] you that what we are trying to do.

The correspondence of [illegible] I will send Individual will be about the phone. From time I will be able to obtain the [illegible] [illegible] geologist.

The [illegible] are the [illegible] with [illegible] and [illegible] to the [illegible] which I have here.

ITEM INCLOSED IN LETTER MOUNTED ON CELLULOID

This metal was obtained in about the size of a BB shot in the results of a placer test in a new area which to the present is not known for placer. The bit of metal was reduced in size by an application of hydrochloric acid. In the placer test there was a great deal of small bits of the metal similar. Vial Sample #3 is the concentrates of the same placer test. Please tell me what the metal is.

SAMPLE #1 Give name of minerals and name of formation etc.
This material taken from place. 9500 ft. altitude

SAMPLE #2 Give name of minerals and name of rock formation.
This material taken from place. 9500 ft altitude

SAMPLE #3 Give name of all minerals and metals showing with any other information 7500 ft altitude. at lower end of San Augustine Plains.
This material is concentrated from about 1 cu.ft. placer.

SAMPLE #4 Give name of all minerals or metals possible.
This material is part of a table product in pilot mill operation

SAMPLE #5 & 6 Identify minerals and rock.
This is a plentiful formation of the area

SAMPLE #7 Identify monerals and rock.
This material in at about 9000 ft.

SAMPLE #8 Identify and give any other information that will be of benefit.
This material was apparently mined in the area apparently after the Civil War as it is in the vicinity of old ruins where there are evidences of having been a massacre of soldiers because of the many pieces of shoulder ornaments found in the area no working of any time since that time are in evidence.

SAMPLE #18 If possible tell nature of rock or ore smelted.
This is also from the same massacre point and evidence of crude smelter and parts of old bellows used for air have been obtained. In 1937 I found a 1864 five cent piece at this place.

SAMPLE #9 Identify and give any other information of benefit.
This material taken at 9500 ft.

SAMPLE #10 This material also taken as about 9,000 ft from tunnel

SAMPLE #11 & 12 Please give names of all minerals and type of rock taken from place at about 9000 ft.

SAMPLE #13. Identify mineralsand formation.
This material isof a vein traceable fro about 6,00 feet in length in a N 20W S20E direction and is approximately 80 feet plus wide and is almost perpendicular.

[illegible] [illegible] [illegible]

This model was abandoned in favor of a [illegible] in the vicinity of a [illegible] [illegible] for placer. [illegible] of which was [illegible] to the [illegible] [illegible] of [illegible] [illegible]. In the placer test there was a great deal of small bits of the metal [illegible]. With [illegible] is the [illegible] of the same placer [illegible]. [illegible] [illegible] [illegible].

[illegible] Five [illegible] of [illegible] and [illegible] of [illegible] etc.
This material taken from placer. [illegible] ft. altitude

[illegible] Five [illegible] of [illegible] [illegible] of rock formation.
This material taken from placer. [illegible] ft altitude

[illegible] Five [illegible] of all [illegible] and [illegible] [illegible]
[illegible] over [illegible] [illegible] [illegible] ft. altitude. [illegible] lower [illegible]
[illegible] [illegible] [illegible].
This material is [illegible] [illegible] [illegible] placer.

[illegible] Five [illegible] of all [illegible] or [illegible] possible.
This material is part of a [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible] [illegible].
This is a [illegible] formation of the [illegible]

[illegible] [illegible] [illegible] [illegible] [illegible].
This material is at about [illegible] ft.

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

This [illegible] was [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

SAMPLE #14 SAME AS #13

SAMPLE 15. Identify. This material came from our home place at Hot Springs, N. M.

SAMPLE #16 Identify and tell any other information possible. This material taken at about 9400 ft.

SAMPLE #17 Identify minerals and nature of formation. This material taken for another point of the vein mentioned above

SAMPLE #18 mentioned before.

Hoping that you will find it possible to give us the information which we need about this group sent in I will try and explain what we are doing.

We have a pilot mill here and to prospect the area we plan on it paying our expenses and at the same developing the area with it. the area is divided up apparently into three groups of ore bearing sections and they seem to be seperated by two canyons. To the north from a given point seems to be all copper, to the south lead with very little silver and a small amount of zinc. To the east gold and silver..

Our reason of this development is that we have a great deal of faith in the area and realized that something will have to be shown up before a company of any merit will ever take notice of and as we are unable financially to employ a geologist to make any other that the average of a 2 hour examination as seems to have been the case in this area we must open up what looks favorable then make a run with the mill and try to find out what minerals are in the ore. Then with the aid of an assay map and our Laboratory we may be able to show something that a Mining Engineer will pass on as favorable for a large company.

We have heard the U. S. Bureau of Mines has Diamond Drilling and Explorations of favorable areas under consideration but we do not know where to get the information concerning this or whether or not it is true, and such being the case if you feel that it would be possible for us to get the rest of the formation identified by sending in portions of them to your bureau or any other US Station without causing them too much inconcenience we can assure you that it would be of the greatest benefit.

Thanking you for the help we remain

Respectfully yours,
/s/ Frank L. Maher
Mr. & Mrs. Frank L. Maher
Box Y
Magdalena, N. M.