DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1767X

DO NOT DETACH THIS SLIP

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

This document has been recorded as

Exploration Loan

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

Routing Slip

To:	Supply Division	Date	SEP 14 1951
To:	Reports and Records	Date	SEP 17 1951
To:		Date	
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

DMA Form 2

DEFENSE MINERALS ADMINISTRATION
Status Change Notice

DMA Docket No. 1767-X

To: Reports and Records Branch

From: Sherman Mining Co.

LEAD ZINC BRANCH

Date: JUL 6 1951

The following action has been taken this date on the above Controlled Document.

Forwarded to

Type of request changed to:

Denied ☐ Withdrawn ☐

Approved in amount of $

Other action, specify:

On hand - to be denied; Field to send rept. ✓

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

SEP 27 1951

Memorandum

Re: DMA-1767X
C. C. Sherman
Sherman Mining Co.
Okanogan County, Washington
Exploration loan $100,000
Lead, zinc

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of exploration loan

The applicant has requested an exploration loan of $100,000 (Government participation, 50%) for the purchase of mining machinery and equipment and for sinking 150 feet of shaft and an unestimated number of feet of drifting at the Sherman Mining Company property in Okanogan County, Washington.

The property was examined by the Field Team, Region II, and their report carries a recommendation that the loan be denied. The base metal mineralization occurs as sulfide fissure-fillings at a contact of a porphyritic acid dike and granodiorite. The report points out that there is a moderate exposure of ore in one shallow shaft, but the evidence of ore is negligible along the strike of the vein.

In addition to the unfavorable geologic conditions at the property, the applicant has stated to the field team that he is, at present, unable to supply the required 50% of the project cost.

In view of the foregoing, the Lead-Zinc Branch concurs with the field team's recommendation that the application be denied.

Returned herewith are:

1 copy of field team report
3 copies of Form MF-103 and attachments
3 " " " MF-100 " "

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.

SEP 17 1951

Campbell (ETRA)
McKnight
Billings

Re: DMA-1767X
C. C. Sherman
Sherman Mining Co.
Okanogan County, Washington
Exploration loan $100,000
Lead, zinc

Memorandum

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of exploration loan

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3 " " " MF-100 " "

9/17

T. P. Billings, Chief
Lead-Zinc Branch

Approved:
Tom Lyon
Director, Supply Division

ABCampbell:emp
G 9-13-51

Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. Bishop

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

FILE COPY
SURNAME: 350

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

Campbell (ETM)
McKnight
Bishop
Billings

SEP 17 1951 RE: DMA-1767X

Mr. Theodore H. Holm, Secretary
Sherman Mining Company
Omak, Washington

Dear Mr. Holm:

Your application (DMA-1767X) for an exploration loan of $100,000 has been reviewed again by the Defense Minerals Administration after a report of an examination of your property was received from our field staff.

From this report, we conclude that the base metal mineralization on your property is limited to a narrow zone along the contacts between the porphyry dikes and granodiorite, and that the mineralization is erratic along the strike of the vein. In view of the fact that there are no geologic indication that the exploration work which you propose would find a significant tonnage of strategic minerals, the Defense Minerals Administration does not consider that the expenditure of public funds which you request is warranted. I regret, therefore, that your application must be ~~declined.~~ denied

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

Very truly yours,

Tom Lyon 9-17

Tom Lyon, Director
Supply Division

ABCampbell:emp
G 9-13-51
Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Branch
E. T. McKnight 4204 GSA
O. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. file
DMA docket files

FILE COPY
SURNAME:

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

July 2, 1951

~~Mr. Theodore H. Hohn~~
Secretary
Omak, Washington

Subject: ~~DMA-1767X~~
Re: Exploration Loan -
Ground Hog, Horse Shoe, Brook,
Lizzy Bell, Standard, Vilica,
Sundown, Black Jack, Sunshine,
Sunshine #1, Ext. #2, Red head
#2, 3, 4, 5

My dear Mr. Hohn:

Receipt is acknowledged of your application and attachments of May 15, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1767X and referred to Mr. Otto Herres, Chief, Lead-Zinc Branch on June 29, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1767X.

Sincerely yours,

LANDON F. STROBEL

jc

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
File
Herres
Lyon

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

So. 157 Howard Street
Spokane 4, Washington

June 26, 1951

Memorandum

To: Otto Herres, Chairman
Lead-Zinc Branch
Defense Minerals Administration
Department of Interior
Washington 25, D. C.

From: Field Team, Region II

Subject: Sherman Mining Company
Okanogan County, Washington

The Field Team recommends that the application for exploration contract by the Sherman Mining Company, Okanogan County, Washington, be denied. The denial is based on the following two reasons:

1. It is the opinion of the Examination Team that there is not sufficient chance of finding enough ore on the Standard Group of claims to justify Government participation in the exploration proposal submitted by the applicant.

2. From conversations with the applicant, it was learned that the company is not, at the present time, financially able to match the money requested from the Government. However, the President of the company assured the Examination Team that if the loan were granted, sufficient capital could be obtained through stock sales.

By Field Team, Region II

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

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

cc: U.S. Bur. Mines
Spokane, Wash.

dma-1767x

UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN---SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

DMA- --Sherman Mining Company

Okanogan County, Washington

R. N. Roby, Mining Engineer
U. S. Bureau of Mines

E. A. Youngberg, Geologist
U. S. Geological Survey

June 20, 1951

June 20, 1951

EXAMINATION TEAM REPORT

Sherman Mining Company

DMA Docket No. Okanogan County, Wash.

R. N. Roby USBM
E. A. Youngberg USGS

RECOMMENDATIONS

It is the opinion of the examining team that there is not sufficient chance of finding enough ore on the Standard group of claims to justify the Government to participate in the exploration proposal submitted by the applicant. There is a moderate exposure of ore in the Standard shaft, but the evidence of ore is negligible on the surface along the strike of the same vein. Other mine workings on the property in which ore is reported are inaccessible. There does not appear to be sufficient evidence of ore mineralization at the dike-granodiorite contact above these reported ore bodies to reopen the old workings.

APPLICANT

The applicant is the Sherman Mining Co., Omak, Wash. The officers of this company are C. C. Sherman, Omak, Wash., president, W. E. Sherman, Tacoma, Wash., vice-president, and Theo. H. Holm, Tacoma, Wash., secretary.

LOCATION

The property of the Sherman Mining Co. is 3-1/2 miles west of Omak, Okanogan County, Wash. Altitudes at the property range from 1,700 to 1,900 feet above sea level. Omak is a small agricultural community on the Wenatchee-Oroville branch of the Great Northern railroad and on U. S. Highway 97.

OWNERSHIP

The following property, consisting of unpatented mining claims, is held by right of location by the Sherman Mining Co.:

Brook
Lizzy Bell
Standard
Vilica
Sundown
Black Jack
Sunshine
Sunshine No. 1
Sunshine Extension No. 2
Red Head
Red Head No. 2 - No. 5
Ground Hog Horseshoe

These claims are in secs. 20 and 29, T. 34 N., R. 26 W., Okanogan County, Wash.

HISTORY AND PAST PRODUCTION

The principal claims of the group have been held by the Sherman family for many years. Development work has consisted of the sinking of a few shallow shafts, the excavation of a few trenches, and the driving of one short adit.

No ore has been produced from the property.

DESCRIPTION OF PROPOSAL

The applicant proposes to sink a 150-foot shaft on the Standard claim and to drift on the ore from the bottom of the shaft.

No definite plan was presented for exploring the remainder of the property.

TECHNICAL FEASIBILITY

Geologic Setting and Description of Mine Workings

The rock exposures in the area are primarily granodiorites of the Colville batholith and overlying lenticular bodies of glacial till. Numerous porphyritic acid dikes crop out in the area. These dikes trend northwesterly, dip 25°-40° to the west, and range in width from a few feet to more than a hundred feet.

Mineralized areas observed are associated with footwall and hanging wall contacts between these dikes and the granodiorites. In the accessible mine workings mineralization had been most intense on the footwall side of the dikes.

Faulting along both strike and dip of the contacts appears to have been the primary structural control for mineralization. Some post-mineral faulting also has occurred.

The primary minerals in the veins are quartz, pyrite, sphalerite, and galena. The sulfides occur chiefly as fissure-fillings at the dike-granodiorite contacts. Viewed with the hand lens, the quartz appears as a porous mass of outward growing needle-like crystals. Openings between these crystals are filled with pyrite, sphalerite, and galena.

The vein walls have been intensely altered. This alteration consists mainly of sericitization and kaolinization of the feldspars in the dikes and granodiorite. Stripping on the Red Head claim has exposed a dike about 50 feet wide. This dike has been altered and bleached over its entire width. Some silification and pyritization of the dike also is evident.

A vertical shaft 13 feet deep on the Standard claim intersects a vein striking N. 40°-45° W. and dipping 26°-28° S. This vein, as exposed in the ribs of the bottom of the shaft, is at the contact of the footwall of an acid porphyritic dike with granodiorite. The vein consists in section of a 4-inch to 6-inch gouge, succeeded by 2 feet of quartz, pyrite, sphalerite, and galena. Under this structure is 2-1/2 feet of altered and mineralized granodiorite. A small fracture containing some gouge appears to have limited the footwall mineralization.

The winze from the bottom of the shaft has been sunk down the dip of the vein in a southerly direction for 90 feet. This winze is caved about 15 feet from the bottom of the shaft. The sulfide portion of the vein is cut off by a post-mineral fault 8 feet below the shaft bottom. The vein from this point to the cave is filled with crushed and altered granodiorite.

Little pertinent information concerning the lateral extent of this ore shoot could be gained from surface inspection of the outcrop area because of the overlying glacial till to the east and

the lack of exposures to the west. The absence of prospect openings along the strike of the vein to the west suggests the absence of any important amounts of ore in this direction. The extent of the sulfide ore down the dip is unknown. The 90-foot winze off the bottom of the shaft, according to Mr. Sherman, does not continue in ore its full length. This indicates either the ore shoot does not extend to this depth or that it rakes to the west away from the winze. Indications are that this ore shoot is small. The lack of other exposures of sphalerite-galena ore on this vein or other veins inspected suggest that commercial quantities of ore are not likely to be found by further exploration.

Ore Reserves

No ore reserves are evident. The Standard shaft was the only accessible mine opening in which ore in place could be seen. The vein in this opening was sampled by James J. Hill in 1936 (copy of Hill's report attached to application). A weighted average of three samples taken across a 5-foot vein width is as follows:

Gold.....	0.04	oz. per ton
Silver.....	5.8	oz. per ton
Lead.....	1.7	percent
Zinc.....	7.6	percent

The foregoing assay values, originally reported in dollars, have been computed on the basis of 1936 metal prices.

Additional samples taken in the area by Hill are as follows:

Name of claim	Ounces per ton Gold	Silver	Percent Lead	Zinc
	Computed on the basis of 1936 metal prices			
Standard, 6-inch	0.01	0.0	0.6	6.1
Standard, 2-1/2 foot	.04	6.3	.8	7.0
Standard, 2 foot	.04	6.6	3.2	8.8
Dump	.02	4.0	1.2	4.9
Lizzie Bell cut	.05	1.5	0.1	4.1
Brook Claim cut	.01	3.6	0.3	2.3
Brook Claim cut shaft	.08	17.9	3.6	22.0
Leased Land Gulch	.00	0.4	0.3	2.5
Sherman No. 3 lode	.00	2.4	-	3.0
Sherman No. 3 lode	.03	1.1	0.5	6.7

COMPETENCE OF APPLICANT

From conversations with the applicant, it was learned that the company is not able financially at the present time to match the money requested from the Government.

The company president assured the field team that if the loan were granted, sufficient capital could be obtained through stock sales.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 1767X

Date received 6-29-51

Participation

SHERMAN MINING CO
Omak, Wash

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Name and address of applicant

Date May 15-1951

FILL IN THIS BLOCK

Date of application May 15 1951

Estimated cost $ 100,000

Mineral or metal Metal

Percentage of Government participation 50%

Location of mine Okanogan County, Omak, Wash

Sec. 20&29 Twp. 34N Range 26 E.W.N.

Date of filing MF-100 May 15 1951

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64067-1

THE PROPERTY

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

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

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

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

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

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

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

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

CERTIFICATION

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

Sherman Mining Co. (Name of company) By Theo H. Hohn (Signature of authorized official)

May 15 - 1951 (Date) Secty (Title)

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

*Same as footnote on page 1.

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

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. dma 17697X

Date received 6-29-51

Sherman Miming Co

Omak Wash

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Name and address of applicant

Date May 15 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124–A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - [x] Owner.
   - [ ] Lessee.
   - [ ] Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*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.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
O.O.Sherman Omak Wn	President	None	$7000.00	1000.000	none	2500	none
W.E.Sherman Tacoma Wn	Vice Pres.	None	10.000	1000,000	none	none	none
Theo.H.Hohn Tacoma Wash	Sec.T	None	15,000	5,184	92	2000	nOne
Charley Palmer Omak	Stock Holder	none		10,000	none		
Jess Palmer Omak	Stock Holder	None		10,000			
Gargett Brothers Bellingham Wash	Stock Holder			10,000			
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
	5000,000	155,184	1.00 per		None
Preferred stock	$	$	$		
*Indicate period covered.	100,000	192	1.00 per		none

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

16—63792-1

Refere to Engineers Report

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

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.

Sherman Mining Co
(Name of company)

By Theo H Hahn
(Signature of authorized official)

May 15 - 1951
(Date)

Secty
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1207 N. Division
Spokane, Wash.

May 17, 1951

MEMORANDUM

To : A. E. Weissenborn

From : Glenn C. Reed

Subject: Transmittal of exploration application, Standard Mine, Omak, Wash., C. C. Sherman, operator.

The subject application is forwarded herewith for appropriate action. The property is being examined this day by Roby and a G. S. delegate. You will note that the statement in reply to question 22, MF-103, is not particularly informative. However, I expect Roby to be adequately informed in the field on this point.

Glenn C. Reed

Enclosure

Glenn C. Reed

W. B. HANCOCK

Consulting Mining Engineer & Geologist

A.R.S.M.; London.

Telegraph Codes
Moreing & Neal
Bedford McNeil.

James J. Hill Hotel
Omak, Washington
September 10, 1936

PRELIMINARY REPORT

On the

SHERMAN BROS. MINING PROPERTY

Okanogan County, Washington

LOCATION:- This mining property is located in Section 20; Township 34 N. Range 34 N. of Willamette Meridian, and consists of 5 mineral lode claims held by location and compliance with the United States mining laws and the mining laws of the State of Washington, comprising 105 acres, and mineral rights on 120 acres on a 10 per cent royalty basis on the net returns from all ore taken out during a period of two years. Also a State mineral lease on 40 acres on a 4 percent royalty basis on all ore taken out during a period of two years from Sept. 10, 1935. Both these leases are renewable at will.

ACCESSIBILITY & TRANSPORTATION:- This property is situated 3 miles from Omak, Okanogan County, State of Washington, and is approached over good automobile roads in a northwesterly direction.

Omak, at an elevation of 880 feet above sea level, and with a population of about 6,000 for the town and contributary district, is on a Branch Line of the Great Northern Railway running from the Main Transcontinental Line at Wenatchee 90 miles south from Omak, to Oroville 40 miles north of Omak where it connects with the Princeton Branch of the Great Northern Ry. which follows up the Similkameen River to Princeton, British Columbia, Canada.

Omak is well supplied with merchandise stores of all descriptions, and is the outfitting and supply point for a large surrounding territory.

TOPOGRAPHY:-

The area in which this property is situated is on the western border of the Okanogan Valley and Okanogan Mountains, and presents a fairly rugged mountainous topography. The relief has been sculptured during the Glacial Period by the present-day drainage system. The ice-sheets left near the margins of the Okanogan Valley large morainal hills of glacial debris. The stream valleys vary from 800 to 1,500 feet in elevation, and the crests of the surrounding hills have an average elevation of 3,000 to 4,000 feet. The first mountain chain to the westward attains a maximum elevation of 8,000 feet, while further westward across the Methow Valley the eastern flank of the rugged Cascade Range of Mountains forms a striking contrast with the more moderate topography of the Okanogan Highlands.

GEOLOGY:-

The ore deposits of this area are derived from an extensive granitic intrusion which is directly related to the Similkameen batholith so well exposed farther northward near the town of Nighthawk, where it crosses the International Boundary and is prominent in British Columbia.

Evidence has not yet been found to definitely fix the age of this intrusion, but it is evidently older than the Miocene Lake-bed formation near Oroville, and the physiographic evidence has caused most investigators to assign the intrusion to late Mesiozoic.

The intrusion exhibits various phases but is essentially a biotite granite which is composed chiefly of quartz, feldspar, biotite, and minor amounts of hornblende.

Several younger intrusive dikes of granodiorite-porphyry cut

the granite on this property and are well exposed in several places. The older rocks of the area are made up of a series of slates, schists, quartzite, and limestone which are metamorphic equivalents of the sedimentary series of Palcozoic age.

Practically all of the productive mines in the district and further north to the International Boundary, are found to be directly related to the Similkameen intrusive batholith, and the ore deposits were no doubt introduced as a part of the batholith. During the extended cooling of the magma from a liquid state, the constituents tended to segregate within the magma, and during the closing stages of crystalization were forced up in a mixed molten and gaseous state to fill fissures which had been developed in the outer crust of the batholith.

The adjustments and contractions as the magma cooled down, caused the development of well-defined and continuous fissures which conform roughly parallel to the plane of contact with the other schistose rocks.

As the outer crust of the intrusive magma crystalized, residual silica segregated and was injected into the fissures. This siliceous segregation was but weakly mineralized with sulphides, but further adjustments in the contracting and cooling magma fractured the quartz filling, and these latter fractures were cemented with sulphides of lead, silver and zinc.

The ore minerals are gold, galena, pyrite, silver-bearing tetrahedrite, and sphalerite, all of which occur as primary sulphides. Oxidation is unimportant and extensive downward enrichment cannot be expected as the deposits have suffered severe glacial planing so that the present-day croppings represent deep-seated portions of the veins.

The deposits on this property occupy narrow shear zones between the granite and porphyry rocks. Replacement and alteration of the wall rocks by the ore-bearing solutions are plainly in evidence in places. The porphyry hanging wall is for a thickness of 6 to 8

inches altered to a soft sericite and talc as the chief constituents. Development has not yet proceeded far enough to determine the width of these zones of which there are three so far discovered on this property apparently parallel to each other, and in the neighbourhood of 800 feet apart, and approximately 50 feet in width in which the mineral veins are situated on the granite foot-wall side.

CONTINUITY OF VEINS;-

Judging from analogy with the vein system on Ruby Hill in the Conconully mining district (the nearest producing mines to this property), the mineral veins on the Sherman property may be expected to extend a thousand feet below the outcrops, but the development has not yet been prosecuted through a sufficient vertical range in either district to permit an intelligent prediction as to the depth to which minable ore-shoots will extend. The Last Chance mine workings on Ruby Hill are approximately 1,200 feet lower in elevation than the Arlington, yet they show excellent ore in their deepest workings. It is unsafe to attempt definite predictions on the basis of datum horizons from surrounding mines, yet this offers evidence in favor of a much deeper extension of the Arlington ore-shoot, and there is no opposing evidence to suggest an early disappearance of the Last Chance ore-shoots below the present workings. The Arlington vein has been explored for 700 feet in length, and 540 feet in depth, with an average width of from 4 to 5 feet and the Last Chance vein for a length of 650 feet, and to a depth of 300 feet with an average width of 12 feet.

These veins exhibit a series of step faults which shift segments of the vein latterally 4 to 15 feet, and similar faults may be expected on the Sherman property. These faults are small normal faults and no serious displacements may be looked for.

DEVELOPMENT:-

Considering the long period of time this property has been in the hands of the Sherman family, a very limited amount of

development has been accomplished. Lack of capital and inability to get the right kind of persons interested in its value and potential possibilities have greatly handicapped the owners in pursuing a vigorous system of exploration and development, and it is only within the last two years that active work by the Sherman Bros. has been followed up and an attempt made to open up some of the orebodies long since discovered by their late father, E. C. Sherman, the original owner and locator.

STANDARD CLAIM:-

On this claim an ill-advised incline shaft has been sunk to a depth of 100 feet. This incline is at angle of about 20 degrees from the horizontal which is about the same dip as the vein and as the gulch in which it is situated, and as it follows down the west side of this gulch only a few feet above its bed it fails to gain depth and consequently the face of the incline is but a very few feet below the surface contour. The lower 50 feet of the incline is filled with water and could not be examined, but a sample of the ore on the dump last taken from the face assayed Gold $0.70; Silver $3.07; Lead $1.10; Zinc $4.67. Total Value Per Ton $9.54.

Near the top of this incline and 15 feet below the collar, a drive following the vein westerly has been made for a distance of 10 feet. The vein here shows a width of 5 feet with a porphyry hanging wall and granite foot wall. A 6-inch of sericite and talc next the hanging wall assays Gold $0.35; Silver $ a trace; Lead $0.56; Zinc $5.85. TOTAL VALUE PER TON$6.76. The next 2½ feet of the vein gives Gold $1.40; Silver $4.89; Lead $0.75; Zinc $6.72. TOTAL VALUE PER TON $13.76. From the next 2 feet of ore on the footwall we get Gold $1.40; Silver $5.06; Zinc $8.45; Lead $2.94. TOTAL VALUE PER TON $17.85.

BROOK CLAIM:-

The bulch referred to above on the Standard Claim

continues down to the Brook Claim, and in it on this claim 2 shafts were sunk some years ago by the late E. C. Sherman. One of these shafts on the west side is down to a depth of 25 feet, and the one nearly opposite on the east bank to a depth of 40 feet. Both of these shafts are now filled with water to the colars so could not be examined. They are on the same dike and vein as the incline is on the Standard Claim, and show the vein here to be from 4 to 5 feet wide with dip nearly vertical. A general sample taken across the dump which came from the shafts gives the following assays:- Gold $2.80; Silver $13.90; Lead $3.31; Zinc $21.12. TOTAL VALUE PER TON $41.13.

LIZZIE BELL CLAIM:-

This claim adjoins the Standard Claim, and at a point near the road shows a quartz claim cutting across the granite which has been explored by an opencut 20 feet long and about 20 feet deep, but the sides of the cut have sloughed off and filled up the lower part. A general sample taken across the dump which came from this cut gives Gold $1.75; Silver $1.16; Lead $0.09; Zinc $3.94. TOTAL VALUE PER TON $6.94.

BROOK CLAIM:-

On the east end of this claim, north westerly of the dwelling-house one large and several smaller opencuts have been made on a quartz vein which promises to open into a fair body of milling ore with further development. A sample taken from these cuts gives Gold $0.35; Silver $2.76; Lead $0.28; Zinc $2.21; TOTAL VALUE PER TON $5.60.

LEASED LAND, SCHOOL SECTION 16.

At the mouth of the gulch emptying on to Pogue Flat, a vein of quartz 5 feet in width is exposed in the granite running diagonally across the gulch, No work has yet been done on this vein other than that performed by nature in the way of the stream water and melting snow washing away the detritus and

soil covering. Evidently owing to the oxidized state of the vein filling, the values too to some extent have been carried away from this exposure as a sample taken across the vein shows only Gold a trace; Silver $0.31; Lead $0.28; Zinc $2.40. TOTAL VALUE PER TON $2.99.

SHERMAN LODE NO. 3:-

Opposite to the road on the Flat and at the foot of the hill, a quarry has been worked to get road material, and near the top of this quarry a vein of quartz has been opened up by an opencut preparatory to starting a tunnel, which shows the vein dipping into the hill. A sample of the vein at this point shows Gold a trace; Silver $1.84; Lead $0.05; Zinc $2.88. TOTAL VALUE PER TON $4.77.

About 200 feet up the hill another opencut has been made on this same vein which shows a width of 1 inch at the mouth of the cut and widens out to 14 inches at the face in a distance of 10 feet. A sample across the vein at the face gives Gold $1.05; Silver $0.83; Lead $0.46; Zinc $6.43. TOTAL VALUE PER TON $8.77.

COPY OF ASSAYERS CERTIFICATE

Name of Claim	Gold Value	Silver Value	Lead	Zinc	Total Value
Standard, 6 in.	$0.35	$Trace	$0.56	$5.85	$6.76
" 2½ feet	1.40	4.89	0.75	6.72	13.76
" 2 "	1.40	5.08	2.94	8.45	17.85
" Dump	0.70	3.07	1.10	4.67	9.54
Lizzie Bell, Cut	1.75	1.16	0.09	3.94	6.94
Brook Claim "	0.35	2.76	0.28	2.21	5.60
" " Shafts	2.80	13.90	3.31	21.12	41.13
Leased Land, Gulch	Trace	0.31	0.28	2.40	2.99
Sherman No. 3 Lode	Trace	1.84	0.05	2.88	4.77
" " "	1.05	0.83	0.46	6.43	8.77

Gold @ $35.00
Silver @ 0.775
Lead @ 0.4.6¢
Zinc @ 0.4.8¢

Portland, Oregon
Sept. 10, 1936

Signed John F. Beede
Assayer

RECOMMENDATIONS:-

Seeing that but little depth on the vein can be obtained owing to its flat dip in the incline workings on the Standard Claim, I would strongly advise that all of the equipment be removed from that point and installed on the Brook Claim, and All work for the time being concentrated in sinking the 40 foot shaft down to a depth of at least 100 feet, when drifts on the vein in both directions can be driven and stopes opened up with a view of getting out such a supply of ore as would justify the installation of a 50-ton crushing and concentrating plant, and by the shipments of the concentrates provide funds to carry on active development work.

In the meantime, before snow falls, the services of an experienced engineer should be engaged to go over the property and make a carefully conducted and exhaustive axamination with a view of tracing out the extension of all the veins so far discovered, and the possible finding of new ore bodies of economic value. A thorough study of the geological conditions and trend of the vein system is very essential before large and remunerative operations cam be paid out systematically.

At the same time I would advise that a survey of the 5 mineral claims be made, the corners of each claim properly marked and staked, amended locations made if found necessary, and United States Patent applied for.

CONCLUSION:-

The foregoing report covers an examination of the Sherman mining property made during the last week in August.

This property has received some development, and to some extent has been equipped. The work has been extended to a point where properly directed permanent operations could have been started but financial requirements have held them back.

This matter of financial requirements resolves itself to a

question of policy. It is possible, with the present conditions and equipment, to restart operations and in a comparatively short time after the shaft is down to the 100 foot level, have an output of 50 tons of ore per day, which, after the installation of a concentrating plant, would bring in a revenue sufficient to cover expenses, allow possibly for further development, and still leave a profit. Or it may be decided to continue development on an increased scale with the idea in view of uncovering a greater tonnage of ore, and later on build a mill of larger capacity which would yield a very much greater proportionate return. Or also, it may be decided to undertake something along the lines of both ideas. In the writer's opinion, the property justifies the latter being given careful consideration.

In summerizing the situation it may be suggested that while it will be profitable to operate a 50-ton mill on the basis outlined, in as much as further development will probably uncover increased volumes of ore, it would be proper to have in view the building of a larger mill which would permit the extraction of the lower-grade ore also. Having this general plan in mind the capital necessary to carry the enterprise through successfully would probably not exceed the sum of $30,000, which amount, if the values in the ore hold out as at present, should be returned annually in profits. Therefore, considering the general conditions on the whole proposition as above outlined, it is cincluded that, with a very reasonable amount of capital to start with, coupled with good and conservative management, this property will pay a good profit over and above its operating costs.

I am assured and believe that the title is clear, taxes paid, and no attachments against it, but have made no search of the records.

There is here the making of a large tonnage producer with good profits, in fact, I believe the making of a great mine. I heartily

endorse it for I believe that it will prove to be a steady and profitable producer for many years to come.

Respectfully submitted,

(Sgd) W. S. HANCOCK, M. E.

PRESENT MINING EQUIPMENT

1 Ingersoll-Rand Air Compressor, 2 Cylinder single stage, P. P. Imperial, 51709, Type 14, 8x8 in. complete with receiver and mounted on wheels.

1. Sullivan Drill Sharpner, complete with dollies, dies, etc.

1. Ingersoll-Rand Jackhammer, Class0.

3. Gardner-Denver Jackhammers.

1. Column and Arm.

1. Cradle.

400 Ft. 1 inch Rubber Air Hose, complete with couplings and spares.

1. Ton of Drill Steel, 7/8, inch, in various lengths.

1. Gasoline 3 geared Hoist with 18 inch x 8 inch drum.

1. Steel car, end dump, 2.6½ in. gauge.

1. Air driven forge.

1. Hand driven forge 14 inch Buffalo Blower.

1. Anvil and complete set of Blacksmith tools.

Pipe fittings, pipe wrenches, stiltons, and a large quantity of Picks, Shovels, Hammers and other mining tools.

FORM FM 103

1 - Corporation

3 - President - C.C.Sherman Rt 1 Box 243 Omak Wash.
Vice President. W.E.Sherman 702 Darthmouth Tacoma Wash
Sect,T Theo.H.John 1807 So 25 Tacoma Wash.
Stock Holder Charley Palmer Omak Wash
Stock Holder Jess Palmer Omak Wash
Stock Holder Gargett Brothers Bellingham Wash

4 - C.C.Sherman & W.E.Sherman life time expierence in all phases ofmining industries

5 - Owner

6 None

8 - assests $ 600,000 Capilaziation Stock, Liability $ 9,475.00

9 - $ 50,000

10 - All Mining Claims owned and held by the Sherman Mining Co are as follows, Brook, Lizzy Bell, Standard,Vilica,Sundown,Black Jack, Sunshine, Sunshine No1 , Sunshine Extension No 2, Red Head, Red Head No 2, Red Head No 3 Red Head no 4,Red Head No 5, Ground Hog, Horse Shoe, above Claims are located in Sec.20 and 29 Township 34 N. Range 26 E.W.M. and recorded in County Auditors Office Okanogan, Wash.

11 - Present Owners Sherman Mining Co

12 - This Mining property is located 3½ Miles in a Westerly direction from Omak,Wash Hard surface Road to Mine, Rail Road At Omak, Wash

13 - Answered on form FM 100

14 - Answered on form FM 100

15 - Be Milled at Mill 3 Miles from Omak Wash,Consentrates to be shipped by rail road from Omak Wash to Bunker Hill And Sullivan,Kelleg Ida.

16 - Refurre to Engineers Report
17 - " " " " " " " "
18 - " " " " " " " "
19 - " " " " " " " "
20 - " " " " " " " "

21 - According to our agrement with Mr. Overbildings, we intend to furnish him for for Milling purposes, 25 tons or more per day, to accomplish this we intend to start working in the shaft on the standard Claim, sink to 150 ft On the Ore and then drift both ways on the Ledge, so that we will be taking Ore out and developing the property at the same time , One Year after loan is granted

22 - Referre To Engineers Report

23 - 2 Miners @ 1.87½ per Hr,4 Muckers @ 1.50 Hr.,1 Compressor Man @ 1.87½ Hr 1 Blacksmith @ 2.00 Hr , 1 Truck Driver @ 1.90 Hr. 1 Timber man @ 2.25 Book keeper @ 1.85, 2 Supervisors, foreman for each shift @ 2.50
C - $ 1000.00
D - 3000.00
E - 3000.00
F - None
G - 2250.00 per Month
H - 800.00
I - 10.00

24 - One Year - - 12 Months

FORM M.F 100

1 A, Gold, Silver, Lead, Zinc, Copper
B, None
2 Sherman Mining Co Inc
A. 200 Ft shaft work, several open cuts showing ledges
Arrangements maden to custom Mill our Ore, which is a 7 mile haul
100 ft shaft, and 50 ft drift on copper property
D. Pumping problems surface water only
50 ton capacity in 90 days
3,A 5½ miles to Omak Washington Rail Road
B, Ruby Mining District
C, Township 34 N Range 26 E.W.N.
D Okanogan County Washington
4, Part time operated by owners
5 No Production 90 Days
6 C.G.Sherman and W.E. Sherman life time expierence in all phases of mining
7 Referre to Engineers report, accompied with this form
since date of this report considerable developement work has ben done.
in the past two years, with Bull Dozer striping ground, and uncover Ledges

13 5½ Miles Hard Surface Road to Mining property

14 Amply supply of water by stream sufficient at all season,s of the year
for Milling and Mining

15 Gaseline , Diesel, Electricity
Electricity furnished by P.U.D. Mimium P.U.D. rate
20 Gallon Diesel Fuel a day , 50 Gal Gasoline per day

16 Owners self employed, doing developement work in spare time

17 210 Ingersol Rand air Compressor, Sullivan air ~~xxx~~ Diamond Drill
and 500 ft rod, International dump Truck K6, Sullivan Drill Sharpner,
Gas Water Pump, one ton Drill Steel, 1000 Drill Points , Track and
Mining Cart, Blacksmith Eqt, Electric and Acetyline Welding Eqt,
D.4 Catapillar Bull Dozer, Air Hose, Pipe and Etc.
4 Jack Hammers ,Colum and arm cradle, 16x40 Bunk House, 26x ~~24~~ 48 repair
shop, 16x 24 Compressor House 16x 22 compressor House, all buildings
and equiptment in useable condition
18 Fininciel conditions constricted our work to a minium

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. dma 1967X

Date received 6-29-51

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Sherman Mining Co

Omak Wash

Name and address of applicant

Date May 15 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).
   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   ☒ Owner.
   ☐ Lessee.
   ☐ Contractor.
5. Number of years in production _____
   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*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.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
O.C.Sherman Omak Wn	President	None	$7000.00	1000.000	none	2500	none
W.E.Sherman Tacoma Wn	Vice Pres.	None	10.000	1000,000	none	none	none
Theo.H.Hohn Tacoma Wash	Sec,T	None	15,000	5,184	92	2000	nOne
Charley Palmer Omak	Stock Holder	none		10,000	none		
Jess Palmer Omak	Stock Holder	None		10,000			
Gargett Brothers Bellingham Wash	Stock Holder			10,000			
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$ 5000,000	$ 135,184	$ 1.00 per		None
Preferred stock	$ 100,000	$ 192	$ 1.00 per		none

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves. Refer to Engineers Report

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium, or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

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.

Sherman Mining Co
(Name of company)

By Theo H Hohn
(Signature of authorized official)

May 15 - 1951
(Date)

Secty
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 1767 X

Date received 6-29-51

Participation

SHERMAN MINING CO
Omak, Wash

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Name and address of applicant

Date May 15 1951

FILL IN THIS BLOCK

Date of application May 15 1951

Estimated cost $ 100,000

Mineral or metal Metal

Percentage of Government participation 50%

Location of mine Okanogan County, Omak, Wash

Sec. 20&29 Twp. 34N Range 26 E.W.M.

Date of filing MF-100 May 15 1951

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

10—64067-1

THE PROPERTY

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

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

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

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

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

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

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

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

CERTIFICATION

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

Sherman Mining Co (Name of company) By Theo H Hahn (Signature of authorized official)

May 15 - 1951 (Date) Secty (Title)

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

*Same as footnote on page 1.

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

FORM FM 103

1 - Corporation

3 - President - C.C.Sherman Rt 1 Box 243 Omak Wash.
Vice President. W.E.Sherman 702 Darthmouth Tacoma Wash
Sect,Z Theo.H.Rohn 1807 So 25 Tacoma Wash.
Stock Holder Charley Palmer Omak Wash
Stock Holder Jess Palmer Omak Wash
Stock Holder Gargett Brothers Bellingham Wash

4 - C.C.Sherman & W.E.Sherman life time expierence in all phases efmining industries

5 - Owner

6 None

8 - assests $ 600,000 Capilaziation Stock, Liability $ 9,475.00

9 - $ 50,000

10 - All Mining Claims owned and held by the Sherman Mining Co are as follows, Brock, Lizzy Bell, Standard,Vilica,Sundown,Black Jack, Sunshine, Sunshine No1 , Sunshine Extension No 2, Red Head, Red Head No 2, Red Head No 3 Red Head no 4,Red Head No 5, Ground Hog, Horse Shoe, above Claims are located in Sec.20 and 29 Township 34 N. Range 26 E.W.M. and recorded in County Auditors Office Okanogan, Wash.

11 - Present Owners Sherman Mining Co

12 - This Mining property is located 5½ Miles in a Westerly direction from Omak,Wash Hard surface Road to Mine, Rail Road At Omak, Wash

13 - Answered on form FM 100

14 - Answered on form FM 100

15 - Be Milled at Mill 5 Miles from Omak Wash,Consentrates to be shipped by rail read from Omak Wash to Bunker Hill And Sullivan,Kellog Ida.

16 - Refarre to Engineers Report
17 - " " " " " " " "
18 - " " " " " " " "
19 - " " " " " " " "
20 - " " " " " " " "

21 - According to our agrement with Mr. Overbildings, we intend to furnish him for for Milling purposes, 25 tons or more per day, to accomplish this we intend to start working in the shaft on the standard Claim, sink to 150 ft On the Ore and then drift both ways on the Ledge, so that we will be taking Ore out and developing the property at the same time , One Year after loan is granted

22 - Referre To Engineers Report

23 - 2 Miners @ 1.87½ per Hr,4 Muckers @ 1.50 Hr.,1 Compressor Man @ 1.87½ Hr 1 Blacksmith @ 2.00 Hr , 1 Truck Driver @ 1.90 Hr. 1 Timber man @ 2.25 Book keeper @ 1.85, 2 Supervisors, foreman for each shift @ 2.50

C - $ 1000.00
D - 3000.00
E - 3000.00
F - None
G - 2250.00 per Month
H - 800.00
I - 10.00

24 - One Year - - 12 Months

FORM M.F 100

1 A, Gold, Silver, Lead, Zinc, Copper
B, None
2 Sherman Mining Co Inc
A. 200 Ft shaft work, several open cuts showing ledges
Arrangements maden to custom Mill our Ore, which is a 7 mile haul
100 ft shaft, and 50 ft drift on copper property
D. Pumping problems surface water only
50 ton capacity in 90 days
3,A 5½ miles to Omak Washington Rail Road
B, Ruby Mining District
C, Township 34 N Range 26 E.W.N.
D Okanogan County Washington
4, Part time operated by owners
5 No Production 90 Days
6 O.C.Sherman and W.E. Sherman life time expierence in all phases of mining
7 Referre to Engineers report, accompied with this form
since date of this report considerable developement work has ben done.
in the past two years, with Bull Dozer striping ground, and uncover Ledges

13 5½ Miles Hard Surface Road to Mining property

14 Amply supply of water by stream sufficient at all season,s of the year
for Milling and Mining

15 Gasoline , Diesel, Electricity
Electricity furnished by P,U.D. Minium P.U.D. rate
20 Gallon Diesel Fuel a day , 50 Gal Gasoline per day

16 Owners self employed, doing developement work in spare time

17 210 Ingersol Rand air Compressor, Sullivan air ~~int~~ Diamond Drill
and 500 ft rod, International dump Truck K6, Sullivan Drill Sharpner
Gas Water Pump, one ton Drill Steel, 1000 Drill Points , Track and
Mining Cart, Blacksmith Eqt, Electric and Acetyline Welding Eqt,
D.4 Catapillar Bull Dozer, Air Hose, Pipe and Etc.
4 Jack Hammers ,Colum and arm cradle, 16x40 Bunk House, 26x ~~24~~ 48 repair
shop, 16x 24 Compressor House 16x 22 compressor House, all buildings
and equiptment in useable condition
18 Fininoial conditions constricted our work to a minium

W. B. HANCOCK

Consulting Mining Engineer & Geologist

A.R.S.M.; London.

Telegraph Codes
Moreing & Neal
Bedford McNeil.

James J. Hill Hotel
Omak, Washington
September 10, 1936

PRELIMINARY REPORT

On the

SHERMAN BROS. MINING PROPERTY

Okanogan County, Washington

LOCATION:* This mining property is located in Section 20; Township 34 N. Range 34 N. of Willamette Meridian, and consists of 5 mineral lode claims held by location and compliance with the United States mining laws and the mining laws of the State of Washington, comprising 103 acres, and mineral rights on 120 acres on a 10 per cent royalty basis on the net returns from all ore taken out during a period of two years. Also a State mineral lease on 40 acres on a 4 percent royalty basis on all ore taken out during a period of two years from Sept. 10, 1935. Both these leases are reneoable at will.

ACCESSIBILITY & TRANSPORTATION:* This property is situated 3 miles from Omak, Okanogan County, State of Washington, and is approached over good automobile roads in a northwesterly direction.

Omak, at an elevation of 880 feet above sea level, and with a population of about 6,000 for the town and contributary district, is on a Branch Line of the Great Northern Railway running from the Main Transcontinental Line at Wenatchee 90 miles south from Omak, to Oroville 40 miles north of Omak where it connects with the Princeton Branch of the Great Northern Ry. which follows up the Similkameen River to Princeton, British Columbia, Canada.

Omak is well supplied with merchandise stores of all descriptions, and is the outfitting and supply point for a large surrounding territory.

TOPOGRAPHY:-

The area in which this property is situated is on the western border of the Okanogan Valley and Okanogan Mountains, and presents a fairly rugged mountainous topography. The relief has been sculptured during the Glacial Period by the present-day drainage system. The ice-sheets left near the margins of the Okanogan Valley large morainal hills of glacial debris. The stream valleys vary from 800 to 1,500 feet in elevation, and the crests of the surrounding hills have an average elevation of 3,000 to 4,000 feet. The first mountain chain to the westward attains a maximum elevation of 8,000 feet, while further westward across the Methow Valley the eastern flank of the rugged Cascade Range of Mountains forms a striking contrast with the more moderate topography of the Okanogan Highlands.

GEOLOGY:-

The ore deposits of this area are derived from an extensive granitic intrusion which is directly related to the Similkameen batholith so well exposed farther northward near the town of Nighthawk, where it crosses the International Boundary and is prominent in British Columbia.

Evidence has not yet been found to definitely fix the age of this intrusion, but it is evidently older than the Miocene Lake-bed formation near Oroville, and the physiographic evidence has caused most investigators to assign the intrusion to late Mesozoic.

The intrusion exhibits various phases but is essentially a biotite granite which is composed chiefly of quartz, feldspar, biotite, and minor amounts of hornblende.

Several younger intrusive dikes of granodiorite-porphyry cut

the granite on this property and are well exposed in several places. The older rocks of the area are made up of a series of slates, schists, quartzite, and limestone which are metamorphic equivalents of the sedimentary series of Palcozoic age.

Practically all of the productive mines in the district and further north to the International Boundary, are found to be directly related to the Similkameen intrusive batholith, and the ore deposits were no doubt introduced as a part of the batholith. During the extended cooling of the magma from a liquid state, the constituents tended to segregate within the magma, and during the closing stages of crystalization were forced up in a mixed molten and gaseous state to fill fissures which had been developed in the outer crust of the batholith.

The adjustments and contractions as the magma cooled down, caused the development of well-defined and continuous fissures which conform roughly parallel to the plane of contact with the other schistose rocks.

As the outer crust of the intrusive magma crystalized, residual silica segregated and was injected into the fissures. This siliceous segregation was but weakly mineralized with sulphides, but further adjustments in the contracting and cooling magma fractured the quartz filling, and these latter fractures were cemented with sulphides of lead, silver and zinc.

The ore minerals are gold, galena, pyrite, silver-bearing tetrahedrite, and sphalerite, all of which occur as primary sulphides. Oxidation is unimportant and extensive downward enrichment cannot be expected as the deposits have suffered severe glacial planing so that the present-day croppings represent deep-seated portions of the veins.

The deposits on this property occupy narrow shear zones between the granite and porphyry rocks. Replacement and alteration of the wall rocks by the ore-bearing solutions are plainly in evidence in places. The porphyry hanging wall is for a thickness of 6 to 8

inches altered to a soft sericite and talc as the chief constituents. Development has not yet proceeded far enough to determine the width of these zones of which there are three so far discovered on this property apparently parallel to each other, and in the neighbourhood of 800 feet apart, and approximately 50 feet in width in which the mineral veins are situated on the granite foot-wall side.

CONTINUITY OF VEINS:-

Judging from analogy with the vein system on Ruby Hill in the Conconully mining district (the nearest producing mines to this property), the mineral veins on the Sherman property may be expected to extend a thousand feet below the outcrops, but the development has not yet been prosecuted through a sufficient vertical range in either district to permit an intelligent prediction as to the depth to which minable ore-shoots will extend. The Last Chance mine workings on Ruby Hill are approximately 1,200 feet lower in elevation than the Arlington, yet they show excellent ore in their deepest workings. It is unsafe to attempt definite predictions on the basis of datum horizons from surrounding mines, yet this offers evidence in favor of a much deeper extension of the Arlington ore-shoot, and there is no opposing evidence to suggest an early disappearance of the Last Chance ore-shoots below the present workings. The Arlington vein has been explored for 700 feet in length, and 540 feet in depth, with an average width of from 4 to 5 feet and the Last Chance vein for a length of 650 feet, and to a depth of 300 feet with an average width of 12 feet.

These veins exhibit a series of step faults which shift segments of the vein latterally 4 to 15 feet, and similar faults may be expected on the Sherman property. These faults are small normal faults and no serious displacements may be looked for.

DEVELOPMENT:-

Considering the long period of time this property has been in the hands of the Sherman family, a very limited amount of

development has been accomplished. Lack of capital and inability to get the right kind of persons interested in its value and potential possibilities have greatly handicapped the owners in pursuing a vigorous system of exploration and development, and it is only within the last two years that active work by the Sherman Bros. has been followed up and an attempt made to open up some of the orebodies long since discovered by their late father, E. C. Sherman, the original owner and locator.

STANDARD CLAIM:-

On this claim an ill-advised incline shaft has been sunk to a depth of 100 feet. This incline is at angle of about 20 degrees from the horizontal which is about the same dip as the vein and as the gulch in which it is situated, and as it follows down the west side of this gulch only a few feet above its bed it fails to gain depth and consequently the face of the incline is but a very few feet below the surface contour. The lower 50 feet of the incline is filled with water and could not be examined, but a sample of the ore on the dump last taken from the face assayed Gold $0.70; Silver $3.07; Lead $1.10; Zinc $4.67. Total Value Per Ton $9.54.

Near the top of this incline and 15 feet below the collar, a drive following the vein westerly has been made for a distance of 10 feet. The vein here shows a width of 5 feet with a porphyry hanging wall and granite foot wall. A 6-inch of sericite and talc next the hanging wall assays Gold $0.35; Silver $ a trace; Lead $0.56; Zinc $5.85. TOTAL VALUE PER TON$6.76. The next 2½ feet of the vein gives Gold $1.40; Silver $4.89; Lead $0.75; Zinc $6.72. TOTAL VALUE PER TON $13.76. From the next 2 feet of ore on the footwall we get Gold $1.40; Silver $5.06; Zinc $8.45; Lead $2.94. TOTAL VALUE PER TON $17.85.

BROOK CLAIM:-

The bulch referred to above on the Standard Claim

continues down to the Brock Claim, and in it on this claim 2 shafts were sunk some years ago by the late E. C. Sherman. One of these shafts on the west side is down to a depth of 25 feet, and the one nearly opposite on the east bank to a depth of 40 feet. Both of these shafts are now filled with water to the colars so could not be examined. They are on the same dike and vein as the incline is on the Standard Claim, and show the vein here to be from 4 to 5 feet wide with dip nearly vertical. A general sample taken across the dump which came from the shafts gives the following assays:- Gold $2.80; Silver $13.90; Lead $3.31; Zinc $21.12. TOTAL VALUE PER TON $41.13.

LIZZIE BELL CLAIM:-

This claim adjoins the Standard Claim, and at a point near the road shows a quartz claim cutting across the granite which has been explored by an opencut 20 feet long and about 20 feet deep, but the sides of the cut have sloughed off and filled up the lower part. A general sample taken across the dump which came from this cut gives Gold $1.75; Silver $1.16; Lead $0.09; Zinc $3.94. TOTAL VALUE PER TON $6.94.

BROOK CLAIM:-

On the east end of this claim, north westerly of the dwelling-house one large and several smaller opencuts have been made on a quartz vein which promises to open into a fair body of milling ore with further development. A sample taken from these cuts gives Gold $0.35; Silver $2.76; Lead $0.28; Zinc $2.21; TOTAL VALUE PER TON $5.60.

LEASED LAND, SCHOOL SECTION 16.

At the mouth of the gulch emptying on to Poguo Flat, a vein of quartz 5 feet in width is exposed in the granite running diagonally across the gulch, No work has yet been done on this vein other than that performed by nature in the way of the stream water and melting snow washing away the detritus and

soil covering. Evidently owing to the oxidized state of the vein filling, the values too to some extent have been carried away from this exposure as a sample taken across the vein shows only Gold a trace; Silver $0.31; Lead $0.28; Zinc $2.40. TOTAL VALUE PER TON $2.99.

SHERMAN LODE NO. 3:-

Opposite to the road on the Flat and at the foot of the hill, a quarry has been worked to get road material, and near the top of this quarry a vein of quartz has been opened up by an opencut preparatory to starting a tunnel, which shows the vein dipping into the hill. A sample of the vein at this point shows Gold a trace; Silver $1.84; Lead $0.03; Zinc $2.88. TOTAL VALUE PER TON $4.77.

About 200 feet up the hill another opencut has been made on this same vein which shows a width of 1 inch at the mouth of the cut and widens out to 14 inches at the face in a distance of 10 feet. A sample across the vein at the face gives Gold $1.05; Silver $0.83; Lead $0.46; Zinc $6.43. TOTAL VALUE PER TON $8.77.

COPY OF ASSAYERS CERTIFICATE

Name of Claim	Gold Value	Silver Value	Lead	Zinc	Total Value
Standard, 6 in.	$0.35	$Trace	$0.56	$5.85	$6.76
" 2½ feet	1.40	4.89	0.75	6.72	13.76
" 2 "	1.40	5.08	2.94	8.45	17.85
" Dump	0.70	3.07	1.10	4.67	9.54
Lizzie Bell, Cut	1.75	1.16	0.09	3.94	6.94
Brook Claim "	0.35	2.76	0.28	2.21	5.60
" " Shafts	2.80	13.90	3.31	21.12	41.13
Leased Land, Gulch	Trace	0.31	0.28	2.40	2.99
Sherman No. 3 Lode	Trace	1.84	0.03	2.88	4.77
" " "	1.05	0.83	0.46	6.43	8.77

Gold @ $35.00
Silver @ 0.77¢
Lead @ 0.4.6¢
Zinc @ 0.4.8¢

Portland, Oregon
Sept. 10, 1936

Signed John F. Beede
Assayer

RECOMMENDATIONS:-

Seeing that but little depth on the vein can be obtained owing to its flat dip in the incline workings on the Standard Claim, I would strongly advise that all of the equipment be removed from that point and installed on the Brook Claim, and All work for the time being concentrated in sinking the 40 foot shaft down to a depth of at least 100 feet, when drifts on the vein in both directions can be driven and stopes opened up with a view of getting out such a supply of ore as would justify the installation of a 50-ton crushing and concentrating plant, and by the shipments of the concentrates provide funds to carry on active development work.

In the meantime, before snow falls, the services of an experienced engineer should be engaged to go over the property and make a carefully conducted and exhaustive examination with a view of tracing out the extension of all the veins so far discovered, and the possible finding of new ore bodies of economic value. A thorough study of the geological conditions and trend of the vein system is very essential before large and remunerative operations can be paid out systematically.

At the same time I would advise that a survey of the 5 mineral claims be made, the corners of each claim properly marked and staked, amended locations made if found necessary, and United States Patent applied for.

CONCLUSION:-

The foregoing report covers an examination of the Sherman mining property made during the last week in August.

This property has received some development, and to some extent has been equipped. The work has been extended to a point where properly directed permanent operations could have been started but financial requirements have held them back.

This matter of financial requirements resolves itself to a

question of policy. It is possible, with the present conditions and equipment, to restart operations and in a comparatively short time after the shaft is down to the 100 foot level, have an output of 50 tons of ore per day, which, after the installation of a concentrating plant, would bring in a revenue sufficient to cover expenses, allow possibly for further development, and still leave a profit. Or it may be decided to continue development on an increased scale with the idea in view of uncovering a greater tonnage of ore, and later on build a mill of larger capacity which would yield a very much greater proportionate return. Or also, it may be decided to undertake something along the lines of both ideas. In the writer's opinion, the property justifies the latter being given careful consideration.

In summerizing the situation it may be suggested that while it will be profitable to operate a 50-ton mill on the basis outlined, in as much as further development will probably uncover increased volumes of ore, it would be proper to have in view the building of a larger mill which would permit the extraction of the lower-grade ore also. Having this general plan in mind the capital necessary to carry the enterprise through successfully would probably not exceed the sum of $30,000, which amount, if the values in the ore hold out as at present, should be returned annually in profits. Therefore, considering the general conditions on the whole proposition as above outlined, it is cincluded that, with a very reasonable amount of capital to start with, coupled with good and conservative management, this property will pay a good profit over and above its operating costs.

I am assured and believe that the title is clear, taxes paid, and no attachments against it, but have made no search of the records.

There is here the making of a large tonnage producer with good profits, in fact, I believe the making of a great mine. I heartily

endorse it for I believe that it will prove to be a steady and profitable producer for many years to come.

Respectfully submitted,

(Sgd) W. B. HANCOCK, M. E.

PRESENT MINING EQUIPMENT

1 Ingersoll-Rand Air Compressor, 2 Cylinder single stage, P. P. Imperial, 51729, Type 14, 8x8 in. complete with receiver and mounted on wheels.

1. Sullivan Drill Sharpner, complete with dollies, dies, etc.

1. Ingersoll-Rand Jackhammer, ClassC.

3. Gardner-Denver Jackhammers.

1. Column and Arm.

1. Cradle.

400 ft. 1 inch Rubber Air Hose, complete with couplings and spares.

1. Ton of Drill Steel, 7/8, inch, in various lengths.

1. Gasoline 3 geared Hoist with 18 inch x 8 inch drum.

1. Steel car, end dump, 2.6½ in. gauge.

1. Air driven forge.

1. Hand driven forge 14 inch Buffalo Blower.

1. Anvil and complete set of Blacksmith tools.

Pipe fittings, pipe wrenches. stiltons, and a large quantity of Picks, Shovels, Hammers and other mining tools.

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. dma 1767X

Date received 6-29-51

Sherman Mining Co

Omak Wash

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROUD
Executive Secretary

Name and address of applicant

Date May 15 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124–A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).
   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - [x] Owner.
   - [ ] Lessee.
   - [ ] Contractor.
5. Number of years in production _____
   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*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.

JUL 2 1951

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8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
C.C.Sherman Omak Wn	President	None	$7000.00	1000.000	none	2500	none
W.E.Sherman Tacoma Wn	Vice Pres.	None	10.000	1000,000	none	none	none
Theo.H.Hohn Tacoma Wash	Sec,Y	None	15,000	5,184	92	2000	nOne
Charley Palmer Omak	Stock Holder	none		10,000	none		
Jess Palmor Omak	Stock Holder	None		10,000			
Gargett Brothers Bellingham Wash	Stock Holder			10,000			
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$5000,000	$135,184	$ 1.00 per		None
Preferred stock	$100,000	$ 192	$1.00 per		none

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves. Referr[illegible]o Engineers Report

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

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.

Sherman Mining Co
(Name of company)

By Theo H Hohn
(Signature of authorized official)

May 15 - 1951
(Date)

Secty
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 17697X

Date received 6-29-51

Participation

SHERMAN MINING CO
Omak, Wash

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Name and address of applicant

Date May 15 1951

FILL IN THIS BLOCK

Date of application May 15 1951

Estimated cost $ 100,000

Mineral or metal Metal

Percentage of Government participation 50%

Location of mine Okanogan County, Omak, Wash

Sec. 20&29 Twp. 34N Range 26 E.W.M.

Date of filing MF-100 May 15 1951

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64067-1

THE PROPERTY

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

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

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

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

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

THE EXPLORATION

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

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

THE REQUIREMENTS AND COSTS

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

CERTIFICATION

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

Sherman Mining Co — (Name of company)

By Theo H. Hohn — (Signature of authorized official)

May 15 - 1951 — (Date)

Secy — (Title)

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

*Same as footnote on page 1.

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

FORM FM 103

1 - Corporation
3 - President - C.C.Sherman Rt 1 Box 243 Omak Wash.
Vice President. W.E.Sherman 702 Darthmouth Tacoma Wash
Sect,Z Theo.H.Johnson 1807 So 25 Tacoma Wash.
Stock Holder Charley Palmer Omak Wash
Stock Holder Jess Palmer Omak Wash
Stock Holder Gargett Brothers Bellingham Wash

4 - C.C.Sherman & W.E.Sherman life time expierence in all phases ofmining industries

5 - Owner

6 None

8 - assests $ 600,000 Capilaziation Stock, Liability $ 9,475.00

9 - $ 50,000

10 - All Mining Claims owned and held by the Sherman Mining Co are as follows, Brock, Lizzy Bell, Standard,Vilica,Sundown,Black Jack, Sunshine, Sunshine Nol , Sunshine Extension No 2, Red Head, Red Head No 2, Red Head No 3 Red Head no 4,Red Head No 5, Ground Hog, Horse Shoe, above Claims are located in Sec.20 and 29 Township 34 N. Range 26 E.W.N. and recorded in County Auditors Office Okanogan, Wash.

11 - Present Owners Sherman Mining Co

12 - This Mining property is located 3½ Miles in a Westerly direction from Omak,Wash Hard surface Road to Mine, Rail Road At Omak, Wash
13 - Answered on form FM 100

14 - Answered on form FM 100

15 - Be Milled at Mill 3 Miles from Omak Wash,Consentrates to be shipped by rail road from Omak Wash to Bunker Hill And Sullivan,Kellog Ida.

16 - Refarre to Engineers Report
17 - " " " " " " " "
18 - " " " " " " " "
19 - " " " " " " " "
20 - " " " " " " " "
21 - According to our agrement with Mr. Overbildings, we intend to furnish him for for Milling purposes, 25 tons or more per day, to accomplish this we intend to start working in the shaft on the standard Claim, sink to 150 ft On the Ore and then drift both ways on the Ledge, so that we will be taking Ore out and developing the property at the same time , One Year after loan is granted

22 - Referre To Engineers Report

23 - 2 Miners @ 1.87½ per Hr,4 Muckers @ 1.50 Hr.,1 Compresser Man @ 1.87½ Hr 1 Blacksmith @ 2.00 Hr , 1 Truck Driver @ 1.90 Hr. 1 Timber man @ 2.25 Book keeper @ 1.85, 2 Supervisors, foreman for each shift @ 2.50
C - $ 1000.00
D - 3000.00
E - 5000.00
F - None
G - 2250.00 per Month
H - 800.00
I - 10.00

24 - One Year - - 12 Months

FORM M.F 100

1 A, Gold, Silver, Lead, Zinc, Copper
B, None
2 Sherman Mining Co Inc
A. 200 Ft shaft work, several open cuts showing ledges
Arrangements maden to custom Mill our Ore, which is a 7 mile haul
100 ft shaft, and 50 ft drift on copper property
D. Pumping problems surface water only
50 ton capacity in 90 days
3,A 3½ miles to Omak Washington Rail Road
B, Ruby Mining District
C, Township 34 N Range 26 E.W.N.
D Okanogan County Washington
4, Part time operated by owners
5 No Production — 90 Days
6 C.C.Sherman and W.E. Sherman life time expierence in all phases of mining
7 Referre to Engineers report, accompied with this form
since date of this report considerable developement work has ben done.
in the past two years, with Bull Dozer striping ground, and uncover Ledges

13 3½ Miles Hard Surface Road to Mining property

14 Amply supply of water by stream sufficient at all season,s of the year
for Milling and Mining

15 Gasoline , Diesel, Electricity
Electricity furnished by P,U.D. Mimium P.U.D. rate
20 Gallon Diesel Fuel a day , 50 Gal Gasoline per day

16 Owners self employed, doing developement work in spare time

17 210 Ingersol Rand air Compressor, Sullivan air ~~xxx~~ Diamond Drill
and 500 ft rod, International dump Truck K6, Sullivan Drill Sharpner
Gas Water Pump, one ten Drill Steel, 1000 Drill Points , Track and
Mining Cart, Blacksmith Eqt, Electric and Acetyline Welding Eqt,
D.4 Catapillar Bull Dozer, Air Hose, Pipe and Etc.
4 Jack Hammers ,Colum and arm cradle, 16x40 Bunk House, 26x ~~24~~ 28 repair
shop, 16x 24 Compressor House 16x 22 compressor House, all buildings
and equiptment in useable condition
18 Finincial conditions constrictsd our work to a minium

W. B. HANCOCK

Consulting Mining Engineer & Geologist

A.R.S.M.; London.

Telegraph Codes
Moreing & Neal
Bedford McNeil.

James J. Hill Hotel
Omak, Washington
September 10, 1936

PRELIMINARY REPORT

On the

SHERMAN BROS. MINING PROPERTY

Okanogan County, Washington

LOCATION:*

This mining property is located in Section 20; Township 34 N. Range 34 N. of Willamette Meridian, and consists of 5 mineral lode claims held by location and compliance with the United States mining laws and the mining laws of the State of Washington, comprising 103 acres, and mineral rights on 120 acres on a 10 per cent royalty basis on the net returns from all ore taken out during a period of two years. Also a State mineral lease on 40 acres on a 4 percent royalty basis on all ore taken out during a period of two years from Sept. 10, 1935. Both these leases are reneoable at will.

ACCESSIBILITY & TRANSPORTATION:*

This property is situated 3 miles from Omak, Okanogan County, State of Washington, and is approached over good automobile roads in a northwesterly direction.

Omak, at an elevation of 880 feet above sea level, and with a population of about 6,000 for the town and contributary district, is on a Branch Line of the Great Northern Railway running from the Main Transcontinental Line at Wenatchee 90 miles south from Omak, to Oroville 40 miles north of Omak where it connects with the Princeton Branch of the Great Northern Ry. which follows up the Similkameen River to Princeton, British Columbia, Canada.

Omak is well supplied with merchandise stores of all descriptions, and is the outfitting and supply point for a large surrounding territory.

TOPOGRAPHY:-

The area in which this property is situated is on the western border of the Okanogan Valley and Okanogan Mountains, and presents a fairly rugged mountainous topography. The relief has been sculptured during the Glacial Period by the present-day drainage system. The ice-sheets left near the margins of the Okanogan Valley large morainal hills of glacial debris. The stream valleys vary from 800 to 1,500 feet in elevation, and the crests of the surrounding hills have an average elevation of 3,000 to 4,000 feet. The first mountain chain to the westward attains a maximum elevation of 8,000 feet, while further westward across the Methow Valley the eastern flank of the rugged Cascade Range of Mountains forms a striking contrast with the more moderate topography of the Okanogan Highlands.

GEOLOGY;-

The ore deposits of this area are derived from an extensive granitic intrusion which is directly related to the Similkameen batholith so well exposed farther northward near the town of Nighthawk, where it crosses the International Boundary and is prominent in British Columbia.

Evidence has not yet been found to definitely fix the age of this intrusion, but it is evidently older than the Miocene Lake-bed formation near Oroville, and the physiographic evidence has caused most investigators to assign the intrusion to late Mesiozoic.

The intrusion exhibits various phases but is essentially a biotite granite which is composed chiefly of quartz. feldspar, biotite, and minor amounts of hornblende.

Several younger intrusive dikes of granodiorite-porphyry cut

the granite on this property and are well exposed in several places. The older rocks of the area are made up of a series of slates, schists, quartzite, and limestone which are metamorphic equivalents of the sedimentary series of Paleozoic age.

Practically all of the productive mines in the district and further north to the International Boundary, are found to be directly related to the Similkameen intrusive batholith, and the ore deposits were no doubt introduced as a part of the batholith. During the extended cooling of the magma from a liquid state, the constituents tended to segregate within the magma, and during the closing stages of crystalization were forced up in a mixed molten and gaseous state to fill fissures which had been developed in the outer crust of the batholith.

The adjustments and contractions as the magma cooled down, caused the development of well-defined and continuous fissures which conform roughly parallel to the plane of contact with the other schistose rocks.

As the outer crust of the intrusive magma crystalized, residual silica segregated and was injected into the fissures. This siliceous segregation was but weakly mineralized with sulphides, but further adjustments in the contracting and cooling magma fractured the quartz filling, and these latter fractures were cemented with sulphides of lead, silver and zinc.

The ore minerals are gold, galena, pyrite, silver-bearing tetrahedrite, and sphalerite, all of which occur as primary sulphides. Oxidation is unimportant and extensive downward enrichment cannot be expected as the deposits have suffered severe glacial planing so that the present-day croppings represent deep-seated portions of the veins.

The deposits on this property occupy narrow shear zones between the granite and porphyry rocks. Replacement and alteration of the wall rocks by the ore-bearing solutions are plainly in evidence in places. The porphyry hanging wall is for a thickness of 6 to 8

inches altered to a soft sericite and talc as the chief constituents. Development has not yet proceeded far enough to determine the width of these zones of which there are three so far discovered on this property apparently parallel to each other, and in the neighbourhood of 800 feet apart, and approximately 50 feet in width in which the mineral veins are situated on the granite foot-wall side.

CONTINUITY OF VEINS:-

Judging from analogy with the vein system on Ruby Hill in the Conconully mining district (the nearest producing mines to this property), the mineral veins on the Sherman property may be expected to extend a thousand feet below the outcrops, but the development has not yet been prosecuted through a sufficient vertical range in either district to permit an intelligent prediction as to the depth to which minable ore-shoots will extend. The Last Chance mine workings on Ruby Hill are approximately 1,200 feet lower in elevation than the Arlington, yet they show excellent ore in their deepest workings. It is unsafe to attempt definite predictions on the basis of datum horizons from surrounding mines, yet this offers evidence in favor of a much deeper extension of the Arlington ore-shoot, and there is no opposing evidence to suggest an early disappearance of the Last Chance ore-shoots below the present workings. The Arlington vein has been explored for 700 feet in length, and 540 feet in depth, with an average width of from 4 to 5 feet and the Last Chance vein for a length of 650 feet, and to a depth of 300 feet with an average width of 12 feet.

These veins exhibit a series of step faults which shift segments of the vein latterally 4 to 15 feet, and similar faults may be expected on the Sherman property. These faults are small normal faults and no serious displacements may be looked for.

DEVELOPMENT:-

Considering the long period of time this property has been in the hands of the Sherman family, a very limited amount of

development has been accomplished. Lack of capital and inability to get the right kind of persons interested in its value and potential possibilities have greatly handicapped the owners in pursuing a vigorous system of exploration and development, and it is only within the last two years that active work by the Sherman Bros. has been followed up and an attempt made to open up some of the orebodies long since discovered by their late father, E. C. Sherman, the original owner and locator.

STANDARD CLAIM:-

On this claim an ill-advised incline shaft has been sunk to a depth of 100 feet. This incline is at angle of about 20 degrees from the horizontal which is about the same dip as the vein and as the gulch in which it is situated, and as it follows down the west side of this gulch only a few feet above its bed it vails to gain depth and consequently the face of the incline is but a very few feet below the surface contour. The lower 50 feet of the incline is filled with water and could not be examined, but a sample of the ore on the dump last taken from the face assayed Gold $0.70; Silver $3.07; Lead $1.10; Zinc $4.67. Total Value Per Ton $9.54.

Near the top of this incline and 15 feet below the collar, a drive following the vein westerly has been made for a distance of 10 feet. The vein here shows a width of 5 feet with a porphyry hanging wall and granite foot wall. A 6-inch of sericite and talc next the hanging wall assays Gold $0.35; Silver $ a trace; Lead $0.56; Zinc $5.85. TOTAL VALUE PER TON$6.76. The next 2½ feet of the vein gives Gold $1.40; Silver $4.89; Lead $0.75; Zinc $6.72. TOTAL VALUE PER TON $13.76. From the next 2 feet of ore on the footwall we get Gold $1.40; Silver $5.06; Zinc $8.45; Lead $2.94. TOTAL VALUE PER TON $17.85.

BROOK CLAIM:-

The bulch referred to above on the Standard Claim

continues down to the Brook Claim, and in it on this claim 2 shafts were sunk some years ago by the late E. C. Sherman. One of these shafts on the west side is down to a depth of 25 feet, and the one nearly opposite on the east bank to a depth of 40 feet. Both of these shafts are now filled with water to the colars so could not be examined. They are on the same dike and vein as the incline is on the Standard Claim, and show the vein here to be from 4 to 5 feet wide with dip nearly vertical. A general sample taken across the dump which came from the shafts gives the following assays:- Gold $2.80; Silver $13.90; Lead $5.31; Zinc $21.12. TOTAL VALUE PER TON $41.13.

LIZZIE BELL CLAIM:-

This claim adjoins the Standard Claim, and at a point near the road shows a quartz claim cutting across the granite which has been explored by an opencut 20 feet long and about 20 feet deep, but the sides of the cut have sloughed off and filled up the lower part. A general sample taken across the dump which came from this cut gives Gold $1.75; Silver $1.16; Lead $0.09; Zinc $3.94. TOTAL VALUE PER TON $6.94.

BROOK CLAIM:-

On the east end of this claim, north westerly of the dwelling-house one large and several smaller opencuts have been made on a quartz vein which promises to open into a fair body of milling ore with further development. A sample taken from these cuts gives Gold $0.35; Silver $2.76; Lead $0.28; Zinc $2.21; TOTAL VALUE PER TON $5.60.

LEASED LAND, SCHOOL SECTION 16.

At the mouth of the gulch emptying on to Pogue Flat, a vein of quartz 5 feet in width is exposed in the granite running diagonally across the gulch, No work has yet been done on this vein other than that performed by nature in the way of the stream water and melting snow washing away the detritus and

soil covering. Evidently owing to the oxidized state of the vein filling, the values too to some extent have been carried away from this exposure as a sample taken across the vein shows only Gold a trace; Silver $0.31; Lead $0.28; Zinc $2.40. TOTAL VALUE PER TON $2.99.

SHERMAN LODE NO. 3:-

Opposite to the road on the Flat and at the foot of the hill, a quarry has been worked to get road material, and near the top of this quarry a vein of quartz has been opened up by an openout preparatory to starting a tunnel, which shows the vein dipping into the hill. A sample of the vein at this point shows Gold a trace; Silver $1.84; Lead $0.05; Zinc $2.88. TOTAL VALUE PER TON $4.77.

About 200 feet up the hill another openout has been made on this same vein which shows a width of 1 inch at the mouth of the cut and widens out to 14 inches at the face in a distance of 10 feet. A sample across the vein at the face gives Gold $1.05; Silver $0.83; Lead $0.46; Zinc $6.43. TOTAL VALUE PER TON $8.77.

COPY OF ASSAYERS CERTIFICATE

Name of Claim	Gold Value	Silver Value	Lead	Zinc	Total Value
Standard, 6 in.	$0.35	$Trace	$0.56	$5.85	$6.76
" 2½ feet	1.40	4.89	0.75	6.72	13.76
" 2 "	1.40	5.08	2.94	8.45	17.85
" Dump	0.70	3.07	1.10	4.67	9.54
Lizzie Bell, Out	1.75	1.16	0.09	3.94	6.94
Brook Claim "	0.35	2.76	0.28	2.21	5.60
" " Shafts	2.80	13.90	5.31	21.12	41.13
Leased Land, Gulch	Trace	0.31	0.28	2.40	2.99
Sherman No. 3 Lode	Trace	1.84	0.05	2.88	4.77
" " "	1.05	0.83	0.46	6.43	8.77

Gold @ $35.00
Silver @ 0.775
Lead @ 0.4.6¢
Zinc @ 0.4.8¢

Portland, Oregon
Sept. 10, 1936

Signed John F. Beede
Assayer

RECOMMENDATIONS:-

Seeing that but little depth on the vein can be obtained owing to its flat dip in the incline workings on the Standard Claim, I would strongly advise that all of the equipment be removed from that point and installed on the Brook Claim, and All work for the time being concentrated in sinking the 40 foot shaft down to a depth of at least 100 feet, when drifts on the vein in both directions can be driven and stopes opened up with a view of getting out such a supply of ore as would justify the installation of a 50-ton crushing and concentrating plant, and by the shipments of the concentrates provide funds to carry on active development work.

In the meantime, before snow falls, the services of an experienced engineer should be engaged to go over the property and make a carefully conducted and exhaustive examination with a view of tracing out the extension of all the veins so far discovered, and the possible finding of new ore bodies of economic value. A thorough study of the geological conditions and trend of the vein system is very essential before large and remunerative operations can be paid out systematically.

At the same time I would advise that a survey of the 5 mineral claims be made, the corners of each claim properly marked and staked, amended locations made if found necessary, and United States Patent applied for.

CONCLUSION:-

The foregoing report covers an examination of the Sherman mining property made during the last week in August.

This property has received some development, and to some extent has been equipped. The work has been extended to a point where properly directed permanent operations could have been started but financial requirements have held them back.

This matter of financial requirements resolves itself to a

question of policy. It is possible, with the present conditions and equipment, to restart operations and in a comparatively short time after the shaft is down to the 100 foot level, have an output of 50 tons of ore per day, which, after the installation of a concentrating plant, would bring in a revenue sufficient to cover expenses, allow possibly for further development, and still leave a profit. Or it may be decided to continue development on an increased scale with the idea in view of uncovering a greater tonnage of ore, and later on build a mill of larger capacity which would yield a very much greater proportionate return. Or also, it may be decided to undertake something along the lines of both ideas. In the writer's opinion, the property justifies the latter being given careful consideration.

In summerizing the situation it may be suggested that while it will be profitable to operate a 50-ton mill on the basis outlined, in as much as further development will probably uncover increased volumes of ore, it would be proper to have in view the building of a larger mill which would permit the extraction of the lower-grade ore also. Having this general plan in mind the capital necessary to carry the enterprise through successfully would probably not exceed the sum of $30,000, which amount, if the values in the ore hold out as at present, should be returned annually in profits. Therefore, considering the general conditions on the whole proposition as above outlined, it is cincluded that, with a very reasonable amount of capital to start with, coupled with good and conservative management, this property will pay a good profit over and above its operating costs.

I am assured and believe that the title is clear, taxes paid, and no attachments against it, but have made no search of the records.

There is here the making of a large tonnage producer with good profits, in fact, I believe the making of a great mine. I heartily

endorse it for I believe that it will prove to be a steady and profitable producer for many years to come.

Respectfully submitted,

(Sgd) W. B. HANCOCK, M. E.

PRESENT MINING EQUIPMENT

1 Ingersoll-Rand Air Compressor, 2 Cylinder single stage, P. P. Imperial, 51729, Type 14, 8x8 in. complete with receiver and mounted on wheels.

1. Sullivan Drill Sharpner, complete with dollies, dies, etc.

1. Ingersoll-Rand Jackhammer, ClassC.

3. Gardner-Denver Jackhammers.

1. Column and Arm.

1. Cradle.

400 Ft. 1 inch Rubber Air Hose, complete with couplings and spares.

1. Ton of Drill Steel, 7/8, inch, in various lengths.

1. Gasoline 3 geared Hoist with 18 inch x 8 inch crum.

1. Steel car, end dump, 2.6½ in. gauge.

1. Air driven forge.

1. Hand driven forge 14 inch Buffalo Blower.

1. Anvil and complete set of Blacksmith tools.

Pipe fittings, pipe wrenches. stiltons, and a large quantity of Picks, Shovels, Hammers and other mining tools.

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 17697X

Date received 6-29-51

Participation

SHERMAN MINING CO
Omak, Wash

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Name and address of applicant

Date May 15 - 1951

FILL IN THIS BLOCK

Date of application May 15 1951

Estimated cost $ 100,000

Mineral or metal Metal

Percentage of Government participation 50%

Location of mine Okanogan County, Omak, Wash

Sec. 20&29 Twp. 34N Range 26 E.W.M.

Date of filing MF-100 May 15 1951

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64067-1

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
C.C.Sherman Omak Wn	President	None	$7000.00	1000.000	none	2500	none
W.E.Sherman Tacoma Wn	Vice Pres.	None	10.000	1000,000	none	none	none
Theo.H.Hohn Tacoma Wash	Sec,Y	None	15,000	5,184	92	2000	nOne
Charley Palmer Omak	Stock Holder	none		10,000	none		
Jess Palmer Omak	Stock Holder	None		10,000			
Gargett Brothers Bellingham Wash	Stock Holder			10,000			
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$ 5000,000	$ 135,184	$ 1.00 per		None
Preferred stock	$ 100,000	$ 192	$ 1.00 per		none

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

Referre to Engineers Report

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

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.

Sherman Mining Co
(Name of company)

By Theo H Hohn
(Signature of authorized official)

May 15 - 1951
(Date)

Secty
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

FORM FM 103

1 - Corporation
3 - President - C.C.Sherman Rt 1 Box 243 Omak Wash.
Vice President. W.E.Sherman 702 Darthmouth Tacoma Wash
Sect,T Theo.H.hohn 1807 So 25 Tacoma Wash.
Stock Holder Charley Palmer Omak Wash
Stock Holder Jess Palmer Omak Wash
Stock Holder Gargett Brothers Bellingham Wash

4 - C.C.Sherman & W.E.Sherman life time expierence in all phases ofmining industries

5 - Owner

6 None

8 - assests $ 600,000 Capilaziation Stock, Liability $ 9,475.00

9 - $ 50,000

10 - All Mining Claims owned and held by the Sherman Mining Co are as follows, Brook, Lizzy Bell, Standard,Vilica,Sundown,Black Jack, Sunshine, Sunshine Nol , Sunshine Extension No 2, Red Head, Red Head No 2, Red Head No 3 Red Head no 4,Red Head No 5, Ground Hog, Horse Shoe, above Claims are located in Sec.20 and 29 Township 34 N. Range 26 E.W.N. and recorded in County Auditors Office Okanogan, Wash.

11 - Present Owners Sherman Mining Co

12 - This Mining property is located 3½ Miles in a Westerly direction from Omak,Wash Hard surface Road to Mine, Rail Road At Omak, Wash
13 - Answered on form FM 100

14 - Answered on form FM 100

15 - Be Milled at Mill 3 Miles from Omak Wash,Consentrates to be shipped by rail road from Omak Wash to Bunker Hill And Sullivan,Kellog Ida.

16 - Referre to Engineers Report
17 - " " " " " " " "
18 - " " " " " " " "
19 - " " " " " " Q "
20 - " " " " " " " "
21 - According to our agrement with Mr. Overbildings, we intend to furnish him for for Milling purposes, 25 tons or more per day, to accomplish this we intend to start working in the shaft on the standard Claim, sink to 150 ft On the Ore and then drift both ways on the Ledge, so that we will be taking Ore out and developing the property at the same time , One Year after loan is granted

22 - Referre To Engineers Report

23 - 2 Miners @ 1.87½ per Hr,4 Muckers @ 1.50 Hr.,1 Compressor Man @ 1.87½ Hr 1 Blacksmith @ 2.oo Hr , 1 Truck Driver @ 1.90 Hr. 1 Timber man @ 2.25 Book keeper @ 1.85, 2 Supervisors, foreman for each shift @ 2.50
C - $ 1000.00
D - 3000.00
E - 5000.00
F - None
G - 2250.00 per Month
H - 800.00
I - 10.00

24 - One Year - - 12 Months

FORM M.F 100

1 A, Gold, Silver, Lead, Zinc, Copper
B, None
2 Sherman Mining Co Inc
A. 200 Ft shaft work, several open cuts shewing ledges
Arrangements maden to custom Mill our Ore, which is a 7 mile haul
100 ft shaft, and 50 ft drift on copper property
D. Pumping problems surface water only
50 ton capacity in 90 days
3,A 5½ miles to Omak Washington Rail Road
B, Ruby Mining District
C, Township 34 N Range 26 E.W.N.
D Okanogan County Washington
4, Part time operated by owners
5 No Production 90 Days
6 C.C.Sherman and W.E. Sherman life time expierence in all phases of mining
7 Referre to Engineers report, accompied with this form
since date of this report considerable developement work has ben done.
in the past two years, with Bull Dozer striping ground, and uncover Ledges

15 3½ Miles Hard Surface Road to Mining property

14 Amply supply of water by stream sufficient at all season,s of the year
for Milling and Mining

15 Gasoline , Diesel, Electricity
Electricity furnished by P,U.D. Mimium P.U.D. rate
20 Gallon Diesel Fuel a day , 50 Gal Gasoline per day

16 Owners self employed, doing developement work in spare time

17 210 Ingersol Rand air Compressor, Sullivan air ~~xxx~~ Diamond Drill
and 500 ft rod, International dump Truck K6, Sullivan Drill Sharpner
Gas Water Pump, one ton Drill Steel, 1000 Drill Points , Track and
Mining Cart, Blacksmith Eqt, Electric and Acetyline Welding Eqt,
D.4 Catapillar Bull Dozer, Air Hose, Pipe and Etc.
4 Jack Hammers ,Colum and arm cradle, 16x40 Bunk House, 26x ~~24~~ 48 repair
shop, 16x 24 Compressor House 16x 22 compressor House, all buildings
and equiptment in useable condition
18 Fininoial conditions constrictsd our work to a minium

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 1767X

Date received 6-29-51

Participation

SHERMAN MINING CO
Omak, Wash

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Name and address of applicant

Date May 15-1951

FILL IN THIS BLOCK

Date of application May 15 1951

Estimated cost $ 100,000

Mineral or metal Metal

Percentage of Government participation 50%

Location of mine Okanogan County, Omak, Wash

Sec. 20&29 Twp. 34N Range 26 E.W.N.

Date of filing MF-100 May 15 1951

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

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

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

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

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

16—64007-1

THE PROPERTY

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

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

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

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

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

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

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

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

CERTIFICATION

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

Sherman Mining Co (Name of company) By Theo H Hoher (Signature of authorized official)

May 15. 1951 (Date) Sec Tr (Title)

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

*Same as footnote on page 1.

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

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. dmal 1767X

Date received 6-29-51

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 29 1951
LANDON F. STROBEL
Executive Secretary

Sherman Mining Co

Omak Wash

Name and address of applicant

Date May 15-1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - [x] Owner.
   - [ ] Lessee.
   - [ ] Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*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.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
C.C.Sherman Omak Wn	President	None	$7000.00	1000.000	none	2500	none
W.E.Sherman Tacoma Wn	Vice Pres.	None	10.000	1000,000	none	none	none
Theo.H.Hohn Tacoma Wash	Sec,T	None	15,000	5,184	92	2000	nOne
Charley Palmer Omak	Stock Holder	none		10,000	none		
Jess Palmer Omak	Stock Holder	None		10,000			
Gargett Brothers Bellingham Wash	Stock Holder			10,000			
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$ 5000,000	$ 155,184	$ 1.00 per		None
Preferred stock	$ 100,000	$ 192	$ 1.00 per		none

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

Referre to Engineers Report

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

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.

Sherman Mining Co
(Name of company)

By Theo H Hohn
(Signature of authorized official)

May 15 - 1951
(Date)

Secty
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

FORM FM 103

1 - Corporation

3 - President - C.C.Sherman Rt 1 Box 243 Omak Wash.
Vice President. W.E.Sherman 702 Darthmouth Tacoma Wash
Sect,T Theo.H.hohn 1807 So 25 Tacoma Wash.
Stock Holder Charley Palmer Omak Wash
Stock Holder Jess Palmer Omak Wash
Stock Holder Gargett Brothers Bellingham Wash

4 - C.C.Sherman & W.E.Sherman life time expierence in all phases ofmining industries

5 - Owner

6 None

8 - assests $ 600,000 Capilaziation Stock, Liability $ 9,475.00

9 - $ 50,000

10 - All Mining Claims owned and held by the Sherman Mining Co are as follows, Brook, Lizzy Bell, Standard,Vilica,Sundown,Black Jack, Sunshine, Sunshine Nol , Sunshine Extension No 2, Red Head, Red Head No 2, Red Head No 3 Red Head no 4,Red Head No 5, Ground Hog, Horse Shoe, above Claims are located in Sec.20 and 29 Township 34 N. Range 26 E.W.N. and recorded in County Auditors Office Okanogan, Wash.

11 - Present Owners Sherman Mining Co

12 - This Mining property is located 3½ Miles in a Westerly direction from Omak,Wash Hard surface Road to Mine, Rail Road At Omak, Wash

13 - Answered on form FM 100

14 - Answered on form FM 100

15 - Be Milled at Mill 3 Miles from Omak Wash,Consentrates to be shipped by rail road from Omak Wash to Bunker Hill And Sullivan,Kellog Ida.

16 - Referre to Engineers Report
17 - " " " " " " " "
18 - " " " " " " " "
19 - " " " " " " " "
20 - " " " " " " " "

21 - According to our agrement with Mr. Overbildings, we intend to furnish him for for Milling purposes, 25 tons or more per day, to accomplish this we intend to start working in the shaft on the standard Claim, sink to 150 ft On the Ore and then drift both ways on the Ledge, so that we will be taking Ore out and developing the property at the same time , One Year after loan is granted

22 - Referre To Engineers Report

23 - 2 Miners @ 1.87½ per Hr,4 Muckers @ 1.50 Hr.,1 Compressor Man @ 1.87½ Hr 1 Blacksmith @ 2.oo Hr , 1 Truck Driver @ 1.90 Hr. 1 Timber man @ 2.25 Book keeper @ 1.85, 2 Supervisors, foreman for each shift @ 2.50

C - $ 1000.00
D - 3000.00
E - 5000.00
F - None
G - 2250.00 per Month
H - 800.00
I - 10.00

24 - One Year - 12 Months

FORM M.F 100

1 A, Gold, Silver, Lead, Zinc, Copper
B, None
2 Sherman Mining Co Inc
A. 200 Ft shaft work, several open cuts shewing ledges
Arrangements maden to custom Mill our Ore, which is a 7 mile haul
100 ft shaft, and 50 ft drift on copper property
D. Pumping problems surface water only
50 ton capacity in 90 days
3,A 5½ miles to Omak Washington Rail Road
B, Ruby Mining District
C, Township 34 N Range 26 E.W.N.
D Okanogan County Washington
4, Part time operated by owners
5 No Production 90 Days
6 C.C.Sherman and W.E. Sherman life time expierence in all phases of mining
7 Referre to Engineers report, accompied with this form
since date of this report considerable developement work has ben done.
in the past two years, with Bull Dozer striping ground, and uncover Ledges

13 5½ Miles Hard Surface Road to Mining property

14 Amply supply of water by stream sufficient at all season,s of the year
for Milling and Mining

15 Gasoline , Diesel, Electricity
Electricity furnished by P,U.D. Mimium P.U.D. rate
20 Gallon Diesel Fuel a day , 50 Gal Gasoline per day

16 Owners self employed, doing developement work in spare time

17 210 Ingersol Rand air Compressor, Sullivan air ~~xxx~~ Diamond Drill
and 500 ft rod, International dump Truck K6, Sullivan Drill Sharpner
Gas Water Pump, one ton Drill Steel, 1000 Drill Points , Track and
Mining Cart, Blacksmith Eqt, Electric and Acetyline Welding Eqt,
D.4 Catapillar Bull Dozer, Air Hose, Pipe and Etc.
4 Jack Hammers ,Colum and arm cradle, 16x40 Bunk House, 26x ~~24~~ 48 repair
shop, 16x 24 Compressor House 16x 22 compressor House, all buildings
and equiptment in useable condition
18 Fininoial conditions constricted our work to a minium

W. B. HANCOCK

Consulting Mining Engineer & Geologist

A.R.S.M.; London.

Telegraph Codes
Moreing & Neal
Bedford McNeil.

James J. Hill Hotel
Omak, Washington
September 10, 1936

PRELIMINARY REPORT

On the

SHERMAN BROS. MINING PROPERTY

Okanogan County, Washington

LOCATION:- This mining property is located in Section 20; Township 34 N. Range 34 N. of Willamette Meridian, and consists of 5 mineral lode claims held by location and compliance with the United States mining laws and the mining laws of the State of Washington, comprising 103 acres, and mineral rights on 120 acres on a 10 per cent royalty basis on the net returns from all ore taken out during a period of two years. Also a State mineral lease on 40 acres on a 4 percent royalty basis on all ore taken out during a period of two years from Sept. 10, 1935. Both these leases are renewable at will.

ACCESSIBILITY & TRANSPORTATION:- This property is situated 3 miles from Omak, Okanogan County, State of Washington, and is approached over good automobile roads in a northwesterly direction.

Omak, at an elevation of 880 feet above sea level, and with a population of about 6,000 for the town and contributary district, is on a Branch Line of the Great Northern Railway running from the Main Transcontinental Line at Wenatchee 90 miles south from Omak, to Oroville 40 miles north of Omak where it connects with the Princeton Branch of the Great Northern Ry. which follows up the Similkameen River to Princeton, British Columbia, Canada.

Omak is well supplied with merchandise stores of all descriptions, and is the outfitting and supply point for a large surrounding territory.

TOPOGRAPHY:-

The area in which this property is situated is on the western border of the Okanogan Valley and Okanogan Mountains, and presents a fairly rugged mountainous topography. The relief has been sculptured during the Glacial Period by the present-day drainage system. The ice-sheets left near the margins of the Okanogan Valley large morainal hills of glacial debris. The stream valleys vary from 800 to 1,500 feet in elevation, and the crests of the surrounding hills have an average elevation of 3,000 to 4,000 feet. The first mountain chain to the westward attains a maximum elevation of 8,000 feet, while further westward across the Methow Valley the eastern flank of the rugged Cascade Range of Mountains forms a striking contrast with the more moderate topography of the Okanogan Highlands.

GEOLOGY:-

The ore deposits of this area are derived from an extensive granitic intrusion which is directly related to the Similkameen batholith so well exposed farther northward near the town of Nighthawk, where it crosses the International Boundary and is prominent in British Columbia.

Evidence has not yet been found to definitely fix the age of this intrusion, but it is evidently older than the Miocene Lake-bed formation near Oroville, and the physiographic evidence has caused most investigators to assign the intrusion to late Mesiozoic.

The intrusion exhibits various phases but is essentially a biotite granite which is composed chiefly of quartz, feldspar, biotite, and minor amounts of hornblende.

Several younger intrusive dikes of granodiorite-porphyry cut

the granite on this property and are well exposed in several places. The older rocks of the area are made up of a series of slates, schists, quartzite, and limestone which are metamorphic equivalents of the sedimentary series of Paleozoic age.

Practically all of the productive mines in the district and further north to the International Boundary, are found to be directly related to the Similkameen intrusive batholith, and the ore deposits were no doubt introduced as a part of the batholith. During the extended cooling of the magma from a liquid state, the constituents tended to segregate within the magma, and during the closing stages of crystalization were forced up in a mixed molten and gaseous state to fill fissures which had been developed in the outer crust of the batholith.

The adjustments and contractions as the magma cooled down, caused the development of well-defined and continuous fissures which conform roughly parallel to the plane of contact with the other schistose rocks.

As the outer crust of the intrusive magma crystalized, residual silica segregated and was injected into the fissures. This siliceous segregation was but weakly mineralized with sulphides, but further adjustments in the contracting and cooling magma fractured the quartz filling, and these latter fractures were cemented with sulphides of lead, silver and zinc.

The ore minerals are gold, galena, pyrite, silver-bearing tetrahedrite, and sphalerite, all of which occur as primary sulphides. Oxidation is unimportant and extensive downward enrichment cannot be expected as the deposits have suffered severe glacial planing so that the present-day croppings represent deep-seated portions of the veins.

The deposits on this property occupy narrow shear zones between the granite and porphyry rocks. Replacement and alteration of the wall rocks by the ore-bearing solutions are plainly in evidence in places. The porphyry hanging wall is for a thickness of 6 to 8

inches altered to a soft sericite and talc as the chief constituents. Development has not yet proceeded far enough to determine the width of these zones of which there are three so far discovered on this property apparently parallel to each other, and in the neighbourhood of 800 feet apart, and approximately 50 feet in width in which the mineral veins are situated on the granite foot-wall side.

CONTINUITY OF VEINS;-

Judging from analogy with the vein system on Ruby Hill in the Conconully mining district (the nearest producing mines to this property), the mineral veins on the Sherman property may be expected to extend a thousand feet below the outcrops, but the development has not yet been prosecuted through a sufficient vertical range in either district to permit an intelligent prediction as to the depth to which minable ore-shoots will extend. The Last Chance mine workings on Ruby Hill are approximately 1,200 feet lower in elevation than the Arlington, yet they show excellent ore in their deepest workings. It is unsafe to attempt definite predictions on the basis of datum horizons from surrounding mines, yet this offers evidence in favor of a much deeper extension of the Arlington ore-shoot, and there is no opposing evidence to suggest an early disappearance of the Last Chance ore-shoots below the present workings. The Arlington vein has been explored for 700 feet in length, and 540 feet in depth, with an average width of from 4 to 5 feet and the Last Chance vein for a length of 650 feet, and to a depth of 300 feet with an average width of 12 feet.

These veins exhibit a series of step faults which shift segments of the vein latterally 4 to 15 feet, and similar faults may be expected on the Sherman property. These faults are small normal faults and no serious displacements may be looked for.

DEVELOPMENT:-

Considering the long period of time this property has been in the hands of the Sherman family, a very limited amount of

development has been accomplished. Lack of capital and inability to get the right kind of persons interested in its value and potential possibilities have greatly handicapped the owners in pursuing a vigorous system of exploration and development, and it is only within the last two years that active work by the Sherman Bros. has been followed up and an attempt made to open up some of the orebodies long since discovered by their late father, E. C. Sherman, the original owner and locator.

STANDARD CLAIM:-

On this claim an ill-advised incline shaft has been sunk to a depth of 100 feet. This incline is at angle of about 20 degrees from the horizontal which is about the same dip as the vein and as the gulch in which it is situated, and as it follows down the west side of this gulch only a few feet above its bed it fails to gain depth and consequently the face of the incline is but a very few feet below the surface contour. The lower 50 feet of the incline is filled with water and could not be examined, but a sample of the ore on the dump last taken from the face assayed Gold $0.70; Silver $3.07; Lead $1.10; Zinc $4.67. Total Value Per Ton $9.54.

Near the top of this incline and 15 feet below the collar, a drive following the vein westerly has been made for a distance of 10 feet. The vein here shows a width of 5 feet with a porphyry hanging wall and granite foot wall. A 6-inch of sericite and talc next the hanging wall assays Gold $0.35; Silver $ a trace; Lead $0.56; Zinc $5.85. TOTAL VALUE PER TON$6.76. The next 2½ feet of the vein gives Gold $1.40; Silver $4.89; Lead $0.75; Zinc $6.72. TOTAL VALUE PER TON $13.76. From the next 2 feet of ore on the footwall we get Gold $1.40; Silver $5.06; Zinc $8.45; Lead $2.94. TOTAL VALUE PER TON $17.85.

BROOK CLAIM:-

The bulch referred to above on the Standard Claim

continues down to the Brook Claim, and in it on this claim 2 shafts were sunk some years ago by the late E. C. Sherman. One of these shafts on the west side is down to a depth of 25 feet, and the one nearly opposite on the east bank to a depth of 40 feet. Both of these shafts are now filled with water to the colars so could not be examined. They are on the same dike and vein as the incline is on the Standard Claim, and show the vein here to be from 4 to 5 feet wide with dip nearly vertical. A general sample taken across the dump which came from the shafts gives the following assays:- Gold $2.80; Silver $13.90; Lead $5.31; Zinc $21.12. TOTAL VALUE PER TON $41.13.

LIZZIE BELL CLAIM:-

This claim adjoins the Standard Claim, and at a point near the road shows a quartz claim cutting across the granite which has been explored by an opencut 20 feet long and about 20 feet deep, but the sides of the cut have sloughed off and filled up the lower part. A general sample taken across the dump which came from this cut gives Gold $1.75; Silver $1.16; Lead $0.09; Zinc $3.94. TOTAL VALUE PER TON $6.94.

BROOK CLAIM:-

On the east end of this claim, north westerly of the dwelling-house one large and several smaller opencuts have been made on a quartz vein which promises to open into a fair body of milling ore with further development. A sample taken from these cuts gives Gold $0.35; Silver $2.76; Lead $0.28; Zinc $2.21; TOTAL VALUE PER TON $5.60.

LEASED LAND, SCHOOL SECTION 16.

At the mouth of the gulch emptying on to Pogue Flat, a vein of quartz 5 feet in width is exposed in the granite running diagonally across the gulch, No work has yet been done on this vein other than that performed by nature in the way of the stream water and melting snow washing away the detritus and

soil covering. Evidently owing to the oxidized state of the vein filling, the values too to some extent have been carried away from this exposure as a sample taken across the vein shows only Gold a trace; Silver $0.31; Lead $0.28; Zinc $2.40. TOTAL VALUE PER TON $2.99.

SHERMAN LODE NO. 3:-

Opposite to the road on the Flat and at the foot of the hill, a quarry has been worked to get road material, and near the top of this quarry a vein of quartz has been opened up by an opencut preparatory to starting a tunnel, which shows the vein dipping into the hill. A sample of the vein at this point shows Gold a trace; Silver $1.84; Lead $0.05; Zinc $2.88. TOTAL VALUE PER TON $4.77.

About 200 feet up the hill another opencut has been made on this same vein which shows a width of 1 inch at the mouth of the cut and widens out to 14 inches at the face in a distance of 10 feet. A sample across the vein at the face gives Gold $1.05; Silver $0.83; Lead $0.46; Zinc $6.43. TOTAL VALUE PER TON $8.77.

COPY OF ASSAYERS CERTIFICATE

Name of Claim	Gold Value	Silver Value	Lead	Zinc	Total Value
Standard, 6 in.	$0.35	$Trace	$0.56	$5.85	$6.76
" 2½ feet	1.40	4.89	0.75	6.72	13.76
" 2 "	1.40	5.08	2.94	8.45	17.85
" Dump	0.70	3.07	1.10	4.67	9.54
Lizzie Bell, Cut	1.75	1.16	0.09	3.94	6.94
Brook Claim "	0.35	2.76	0.28	2.21	5.60
" " Shafts	2.80	13.90	3.31	21.12	41.13
Leased Land, Gulch	Trace	0.31	0.28	2.40	2.99
Sherman No. 3 Lode	Trace	1.84	0.05	2.88	4.77
" " "	1.05	0.83	0.46	6.43	8.77

Gold @ $35.00
Silver@ 0.775
Lead @ 0.4.6¢
Zinc @ 0.4.8¢

Portland, Oregon
Sept. 10, 1936

Signed John F. Beede
Assayer

RECOMMENDATIONS:-

Seeing that but little depth on the vein can be obtained owing to its flat dip in the incline workings on the Standard Claim, I would strongly advise that all of the equipment be removed from that point and installed on the Brook Claim, and All work for the time being concentrated in sinking the 40 foot shaft down to a depth of at least 100 feet, when drifts on the vein in both directions can be driven and stopes opened up with a view of getting out such a supply of ore as would justify the installation of a 50-ton crushing and concentrating plant, and by the shipments of the concentrates provide funds to carry on active development work.

In the meantime, before snow falls, the services of an experienced engineer should be engaged to go over the property and make a carefully conducted and exhaustive examination with a view of tracing out the extension of all the veins so far discovered, and the possible finding of new ore bodies of economic value. A thorough study of the geological conditions and trend of the vein system is very essential before large and remunerative operations can be paid out systematically.

At the same time I would advise that a survey of the 5 mineral claims be made, the corners of each claim properly marked and staked, amended locations made if found necessary, and United States Patent applied for.

CONCLUSION:-

The foregoing report covers an examination of the Sherman mining property made during the last week in August.

This property has received some development, and to some extent has been equipped. The work has been extended to a point where properly directed permanent operations could have been started but financial requirements have held them back.

This matter of financial requirements resolves itself to a

question of policy. It is possible, with the present conditions and equipment, to restart operations and in a comparatively short time after the shaft is down to the 100 foot level, have an output of 50 tons of ore per day, which, after the installation of a concentrating plant, would bring in a revenue sufficient to cover expenses, allow possibly for further development, and still leave a profit. Or it may be decided to continue development on an increased scale with the idea in view of uncovering a greater tonnage of ore, and later on build a mill of larger capacity which would yield a very much greater proportionate return. Or also, it may be decided to undertake something along the lines of both ideas. In the writer's opinion, the property justifies the latter being given careful consideration.

In summerizing the situation it may be suggested that while it will be profitable to operate a 50-ton mill on the basis outlined, in as much as further development will probably uncover increased volumes of ore, it would be proper to have in view the building of a larger mill which would permit the extraction of the lower-grade ore also. Having this general plan in mind the capital necessary to carry the enterprise through successfully would probably not exceed the sum of $30,000, which amount, if the values in the ore hold out as at present, should be returned annually in profits. Therefore, considering the general conditions on the whole proposition as above outlined, it is cincluded that, with a very reasonable amount of capital to start with, coupled with good and conservative management, this property will pay a good profit over and above its operating costs.

I am assured and believe that the title is clear, taxes paid, and no attachments against it, but have made no search of the records.

There is here the making of a large tonnage producer with good profits, in fact, I believe the making of a great mine. I heartily

endorse it for I believe that it will prove to be a steady and profitable producer for many years to come.

Respectfully submitted,

(Sgd) W. B. HANCOCK, M. E.

PRESENT MINING EQUIPMENT

1 Ingersoll-Rand Air Compressor, 2 Cylinder single stage, P. P. Imperial, 51729, Type 14, 8x8 in. complete with receiver and mounted on wheels.

1. Sullivan Drill Sharpner, complete with dollies, dies, etc.

1. Ingersoll-Rand Jackhammer, ClassC.

3. Gardner-Denver Jackhammers.

1. Column and Arm.

1. Cradle.

400 Ft. 1 inch Rubber Air Hose, complete with couplings and spares.

1. Ton of Drill Steel, 7/8, inch, in various lengths.

1. Gasoline 5 geared Hoist with 18 inch x 8 inch drum.

1. Steel car, end dump, 2.6½ in. gauge.

1. Air driven forge.

1. Hand driven forge 14 inch Buffalo Blower.

1. Anvil and complete set of Blacksmith tools.

Pipe fittings, pipe wrenches, stiltons, and a large quantity of Picks, Shovels, Hammers and other mining tools.

Dma-1767 X

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

So. 157 Howard Street
Spokane 4, Washington

June 26, 1951

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

Dear Mr. Strobel:

Enclosed herewith is a memorandum on the Sherman Mining Company, Okanogan County, Washington. Also enclosed are four copies of an Examination Team report and two copies each of MF-100 and MF-103.

The Sherman Mining Company filed an application for exploration assistance about May 15 and as the property is near another mine being examined, it was looked at then. As the examination was a turn-"down," the report was given a low priority and the application forms were inadvertently held here but are enclosed herewith.

Please forward them to the Chairman of the Lead-Zinc Branch.

Sincerely yours,

A. E. Weissenborn

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

Enclosures.
cc: U.S.B.M., Spokane
U.S.B.M., Albany

JUL 2 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

June 26, 1951

Memorandum

To: Otto Herres, Chairman
Lead-Zinc Branch
Defense Minerals Administration
Department of Interior
Washington 25, D. C.

From: Field Team, Region II

Subject: Sherman Mining Company
Okanogan County, Washington

The Field Team recommends that the application for exploration contract by the Sherman Mining Company, Okanogan County, Washington, be denied. The denial is based on the following two reasons:

1. It is the opinion of the Examination Team that there is not sufficient chance of finding enough ore on the Standard Group of claims to justify Government participation in the exploration proposal submitted by the applicant.

2. From conversations with the applicant, it was learned that the company is not, at the present time, financially able to match the money requested from the Government. However, the President of the company assured the Examination Team that if the loan were granted, sufficient capital could be obtained through stock sales.

By Field Team, Region II

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

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

cc: U.S. Bur. Mines
Spokane, Wash.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

June 26, 1951

Memorandum

To: Otto Herres, Chairman
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Defense Minerals Administration
Department of Interior
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By Field Team, Region II

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

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

cc: U.S. Bur. Mines
Spokane, Wash.

Dma- 1767X

UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN---SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

DMA-1767X --Sherman Mining Company

Okanogan County, Washington

R. N. Roby, Mining Engineer
U. S. Bureau of Mines

E. A. Youngberg, Geologist
U. S. Geological Survey

June 20, 1951

June 20, 1951

EXAMINATION TEAM REPORT

Sherman Mining Company

DMA Docket No. 1767X

Okanogan County, Wash.

R. N. Roby USBM
E. A. Youngberg USGS

RECOMMENDATIONS

It is the opinion of the examining team that there is not sufficient chance of finding enough ore on the Standard group of claims to justify the Government to participate in the exploration proposal submitted by the applicant. There is a moderate exposure of ore in the Standard shaft, but the evidence of ore is negligible on the surface along the strike of the same vein. Other mine workings on the property in which ore is reported are inaccessible. There does not appear to be sufficient evidence of ore mineralization at the dike-granodiorite contact above these reported ore bodies to reopen the old workings.

APPLICANT

The applicant is the Sherman Mining Co., Omak, Wash. The officers of this company are C. C. Sherman, Omak, Wash., president, W. E. Sherman, Tacoma, Wash., vice-president, and Theo. H. Holm, Tacoma, Wash., secretary.

LOCATION

The property of the Sherman Mining Co. is 3-1/2 miles west of Omak, Okanogan County, Wash. Altitudes at the property range from 1,700 to 1,900 feet above sea level. Omak is a small agricultural community on the Wenatchee-Oroville branch of the Great Northern railroad and on U. S. Highway 97.

OWNERSHIP

The following property, consisting of unpatented mining claims, is held by right of location by the Sherman Mining Co.:

Brook
Lizzy Bell
Standard
Vilica
Sundown
Black Jack
Sunshine
Sunshine No. 1
Sunshine Extension No. 2
Red Head
Red Head No. 2 - No. 5
Ground Hog Horseshoe

These claims are in secs. 20 and 29, T. 34 N., R. 26 W., Okanogan County, Wash.

HISTORY AND PAST PRODUCTION

The principal claims of the group have been held by the Sherman family for many years. Development work has consisted of the sinking of a few shallow shafts, the excavation of a few trenches, and the driving of one short adit.

No ore has been produced from the property.

DESCRIPTION OF PROPOSAL

The applicant proposes to sink a 150-foot shaft on the Standard claim and to drift on the ore from the bottom of the shaft.

No definite plan was presented for exploring the remainder of the property.

TECHNICAL FEASIBILITY

Geologic Setting and Description of Mine Workings

The rock exposures in the area are primarily granodiorites of the Colville batholith and overlying lenticular bodies of glacial till. Numerous porphyritic acid dikes crop out in the area. These dikes trend northwesterly, dip 25°-40° to the west, and range in width from a few feet to more than a hundred feet.

Mineralized areas observed are associated with footwall and hanging wall contacts between these dikes and the granodiorites. In the accessible mine workings mineralization had been most intense on the footwall side of the dikes.

Faulting along both strike and dip of the contacts appears to have been the primary structural control for mineralization. Some post-mineral faulting also has occurred.

The primary minerals in the veins are quartz, pyrite, sphalerite, and galena. The sulfides occur chiefly as fissure-fillings at the dike-granodiorite contacts. Viewed with the hand lens, the quartz appears as a porous mass of outward growing needle-like crystals. Openings between these crystals are filled with pyrite, sphalerite, and galena.

The vein walls have been intensely altered. This alteration consists mainly of sericitization and kaolinization of the feldspars in the dikes and granodiorite. Stripping on the Red Head claim has exposed a dike about 50 feet wide. This dike has been altered and bleached over its entire width. Some silification and pyritization of the dike also is evident.

A vertical shaft 13 feet deep on the Standard claim intersects a vein striking N. 40°-45° W. and dipping 26°-28° S. This vein, as exposed in the ribs of the bottom of the shaft, is at the contact of the footwall of an acid porphyritic dike with granodiorite. The vein consists in section of a 4-inch to 6-inch gouge, succeeded by 2 feet of quartz, pyrite, sphalerite, and galena. Under this structure is 2-1/2 feet of altered and mineralized granodiorite. A small fracture containing some gouge appears to have limited the footwall mineralization.

The winze from the bottom of the shaft has been sunk down the dip of the vein in a southerly direction for 90 feet. This winze is caved about 15 feet from the bottom of the shaft. The sulfide portion of the vein is cut off by a post-mineral fault 8 feet below the shaft bottom. The vein from this point to the cave is filled with crushed and altered granodiorite.

Little pertinent information concerning the lateral extent of this ore shoot could be gained from surface inspection of the outcrop area because of the overlying glacial till to the east and

the lack of exposures to the west. The absence of prospect openings along the strike of the vein to the west suggests the absence of any important amounts of ore in this direction. The extent of the sulfide ore down the dip is unknown. The 90-foot winze off the bottom of the shaft, according to Mr. Sherman, does not continue in ore its full length. This indicates either the ore shoot does not extend to this depth or that it rakes to the west away from the winze. Indications are that this ore shoot is small. The lack of other exposures of sphalerite-galena ore on this vein or other veins inspected suggest that commercial quantities of ore are not likely to be found by further exploration.

Ore Reserves

No ore reserves are evident. The Standard shaft was the only accessible mine opening in which ore in place could be seen. The vein in this opening was sampled by James J. Hill in 1936 (copy of Hill's report attached to application). A weighted average of three samples taken across a 5-foot vein width is as follows:

Gold.....	0.04	oz. per ton
Silver.....	5.8	oz. per ton
Lead.....	1.7	percent
Zinc.....	7.6	percent

The foregoing assay values, originally reported in dollars, have been computed on the basis of 1936 metal prices.

Additional samples taken in the area by Hill are as follows:

Name of claim	Ounces per ton Gold	Silver	Percent Lead	Zinc
	Computed on the basis of 1936 metal prices			
Standard, 6-inch	0.01	0.0	0.6	6.1
Standard, 2-1/2 foot	.04	6.3	.8	7.0
Standard, 2 foot	.04	6.6	3.2	8.8
Dump	.02	4.0	1.2	4.9
Lizzie Bell cut	.05	1.5	0.1	4.1
Brook Claim cut	.01	3.6	0.3	2.3
Brook Claim cut shaft	.08	17.9	3.6	22.0
Leased Land Gulch	.00	0.4	0.3	2.5
Sherman No. 3 lode	.00	2.4	-	3.0
Sherman No. 3 lode	.03	1.1	0.5	6.7

COMPETENCE OF APPLICANT

From conversations with the applicant, it was learned that the company is not able financially at the present time to match the money requested from the Government.

The company president assured the field team that if the loan were granted, sufficient capital could be obtained through stock sales.