DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE — Idm-E NO. 79 — DMEA NO. 1107

Application
- [ ] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

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

Right Side
- [x] Project summary (final)
- [x] Work Comoleted analysis (final)

All other material filed in chronological order including the following reports if checked:
- [x] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab)
- [x] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [x] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Folders No. 2 : Reports

Left Side
- [x] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side
- [x] Field Team Semi-Annual Report for Certified Project
- [x] Field Team Interim Reports
- [x] Operator's Monthly Reports with transmittal, narrative and maps.

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

Folders No. _____ : Settlement Sheets

Folders No. _____ : Drill Logs

Folders No. _____ : Royalty material

17963

[redacted]

1107

RECEIVED

JUN 18 1956

[redacted]

I have reviewed the files of the Executive Officer, DMEA Field Team, Region III, Denver, Colorado, pertaining to Contract Ida-279, Docket No. [redacted]-1107A (Tungsten), dated July 23, 1951, with

[redacted]

WSM

for the purpose of determining the amount of royalties due the U. S. Government on sales of tungsten from property referred to as Forest Home Lead Mining Claim located in Boulder County, Colorado, during the period July 23, 1951 through June 7, 1956.

A certification of Discovery or Development was issued on February 27, 1953 and, accordingly, royalty is payable on net smelter returns or other net proceeds from production resulting from such discovery for a maximum of ten years from the date of the Contract. A Report of Review in lieu of final cost audit dated December 11, 1952, indicated accepted costs under the Exploration Contract amounting to $21,408.40, with the Government's contribution on a 75% basis being $16,056.30.

My review included a conference with Mr. R. L. Rainey, Mining Engineer, Bureau of Mines, Denver, Colorado, who is thoroughly familiar with the project, and a tabulation and recomputation of all ore sales settlement sheets, which are summarized in the attached Exhibit A.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(a) According to the Field Team's Semi-Annual Report of Certified Projects, dated January 31, 1956, the mine has not been in operation since the Fall of 1952. Operations have been abandoned and the workings have been allowed to flood.

(b) The examining engineer is of the opinion that all sales of ore produced during the period July 23, 1951 to June 7, 1956, subject to DMEA royalty have been properly reported.

(c) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

The review established the total net sales of tungsten ores to be $4,655.55 Royalty due the U. S. Government at the contract rate of 5% is $232.78. The royalty paid and the amount of overpayment are as follows:

Total Royalty Due	$232.78
Total Royalty Paid	234.66
Overpayment of Royalty	$ 1.88

Recapitulation

Donald T. Finch

June 13, 1956

Donald T. Finch, Auditor

[redacted]

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[redacted]

[redacted]

[redacted]

PURCHASER	Vanadium Corp. of America	Rotary Minerals, Inc.	Total
DATES	5/20/52 to 3/11/53	4/17/53	
Gross Weight, lbs.	257,540	49,130	306,670
Dry Weight, lbs.	225,120	55,870	280,990
Dry Weight, Tons	112,560	27,935	140,495
Average Percent of V_2O_5 Content	1.41	.50	1.31
Pounds of V_2O_5 Content	3,181.65	[illegible]	3,696.65
Units of V_2O_5	159,1825	28,345	187,3340
Price per Unit Net of Fmr. Penalty (Average)	$27.45	$16.40	$26.24
Gross Value	$4,370.21	$467.65	$4,837.86
Deductible Cost of Hauling	$116.43	$[illegible].77	$[illegible]
Value Subject to NMMA Royalty	[illegible]	[illegible]	[illegible]
Average Value per Dry Ton	$37.76	$ 14.49	$33.14
NMMA Royalty Percentage	[illegible]%	[illegible]%	[illegible]%
NMMA Royalty Due	$212.54	$ 20.24	$232.78
NMMA Royalty Received	214.42	20.24	234.66
Net Overpayment of Royalty	$ 1.88	$ 0.00	$ 1.88
Overpayment of Royalty applicable to V.C.A. Liquidation No. 8929		$ 1.89	
Underpayment of Royalty applicable to V.C.A. Liquidation Nos. 8970 and 17024		.01	
Net Overpayment of Royalty as above			$ 1.88

DMEA
Date Rec'd.
JUN 7 1956
BUREAU OF MINES
Denver, Colorado

Check Sheet of Examining Engineer

Operator's Name Tom C. Stanford

Address P. O. Box 354

Boulder, Colorado

Exploration Contract No. Idm-E79 Docket No. DMA-1107X

	Check One Yes	No
1. (a) Does the Operator stockpile ore subject to royalty repayment?		X
(b) If so, is segregation and identification procedure adequate?		
2. (a) Does Operator commingle production subject to DMEA royalties with exempt production?		X
(b) If so, do you consider the allocation of the commingled production equitable?		
3. (a) Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		X
(b) If so, are adequate records maintained on such material to protect the Government's interest?		
4. Do you consider the assay controls in effect are adequate?	X	
5. Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	X	
6. Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA royalties?	X	
7. Does the Operator buy from or sell to other Operators?		X

8. Comment on any item 2 (b) to 6 if answer is No.

RECEIVED
JUN 18 1956

R. L. Bolmer
R. L. Bolmer
Mining Engineer

Date 6/7/56

82448

FILE COPY
SURNAME:

Rutledge
Lemmon
Martin
Geehan
Chambers
Griffin
Hoffman
Thayer
Hedges

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

CERTIFICATION BY THE UNITED STATES OF AMERICA OF A DISCOVERY OR DEVELOPMENT UNDER AN EXPLORATION PROJECT CONTRACT

To: Tom G. Stanford
Post Office Box 354
Boulder, Colorado

Pursuant to the provisions of Exploration Project Contract No. Idm-479, dated July 23, 1951, (Docket No. DMA 1107X), hereinafter called the "contract", between you and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the mineral deposit which is the subject of the exploration project, the Government considers and therefore certifies that a discovery or development has resulted from the work from which commercial production of ore may be made.

The Government's estimate of said discovery or development is particularly described and delimited as follows:

Tungsten in the form of ferberite (an iron-tungstate) occurs in narrow, irregular quartz veins in a granite which has been intruded by aplite and pegmatite. The quartz veins range from 1/2 to 3 feet in width and the individual ferberite ore shoots are small.

Drifting on the second level of the Forest Home tungsten mine followed by raising, sublevel drifting, and sampling has largely outlined tungsten ore bodies in a hanging-wall vein parallel to the Forest Home vein.

THE UNITED STATES OF AMERICA

Dated: FEB 27 1953

By Frank E. Johnson
ACTING Administrator, Defense Minerals Exploration Administration

3/29/53

cc: M. I. Young, Deputy Adm., D.M.P.A.
Docket
Admn. Read File
Field Team, Region IV
Finance Office
Operating Committee
F. E. Hedges, USBM
R. W. Geehan, USBM

cc: Code 400 - Mr. Martin
Code 800 - Mr. Chambers
Code 900 - Mr. Murkland
Code 110 - Mr. Johnson
T. P. Thayer, USGS
D. M. Lemmon, USGS

FAR Rutledge/la

Mails & Files

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Tom C. Stanford
P. O. Box 354
Boulder, Colorado

pertaining to Exploration Project Contract No. Idm-E79, Docket No. DMA 1107, for the period July 23, 1951 to September 30, 1952.

My review included an examination of the Monthly Reports (Forms MF-104)and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Government representative who visited and examined the project, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of an audit of the Operator's accounts and records for the reasons indicated by "X" below:

(X) The Monthly Reports were supported by documentary proof of the costs incurred under the contract.

(X) On July 31 and August 1, 1952, an interim audit, covering the period July 23, 1951 through May 31, 1952 was made.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total Cost as billed by Contractor		$21464.20
Exceptions:		
By DMEA Finance Officer	$1.10	
Herewith (Schedule Attached)	54.70	55.80
Total Accepted Cost		$21408.40

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Sixteen Thousand fifty six dollars and 30/100

-$16,056.30-

is considered valid and proper.

Donald T. Finch
Donald T. Finch
Auditor

DEC 11 1952

Copy retained 400
George C. Selfridge
1/9/53

Tom C. Stanford

Exploration Contract E79

Schedule of Liquidation: Track, and Pipe

Purchase Price:

Pipe	$ 32.19	
Track	197.22	
Total Cost		$229.41
Salvage Value at 50% of Purchase Price		$114.70
Estimated Cost of removing from the mine		60.00
Net Salvage Value, (Gross Amount of Contractor's bid accepted by Executive Officer)		$54.70

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

AUDIT CERTIFICATE

I have examined the records and transactions of:

Tom C. Stanford

P. O. Box 354

Boulder, Colorado

pertaining to Exploration Contract No. Idm-E79, Docket No. DMA 1107, for the period July 23, 1951 to May 31, 1952.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit disclosed the following facts in regard to the amount to be paid the contractor:

Total Cost as Billed by Contractor		$13646.34
Exceptions:		
During this Audit	None	
Prior to this Audit	None	
Total Accepted Cost		$13646.34

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the amount of Ten Thousand Two Hundred Thirty-four dollars and 75/100

- $10,234.75 -

is valid and proper.

This certificate is issued on the provision that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

Date: August 4, 1952

Donald T. Finch
Donald T. Finch,
Auditor

AUG 8 1952

I. INTRODUCTION

An audit was made on July 31, and August 1, 1952 of Defense Minerals Exploration Contract No. E 79, Tom C. Stanford. The records pertaining to this contract are in the office of Wilkins and Schone, Certified Public Accountants, 410 First National Bank Building, Boulder, Colorado. The project is located approximately 46 miles from Denver, Colorado, and is about 16 miles northwest of Boulder, Colorado on the Forest Home Lode Mining Claim in the Grand Island Mining District, Boulder County, Colorado. The audit covered the period July 23, 1951, to May 31, 1952 of the contract that continues until February 23, 1953. Work under the contract began on August 15, 1951. Mr. A. W. Schone, C.P.A., who maintains the project records was present and consulted when necessary.

II. EXTENT AND SCOPE OF AUDIT

1. Operating Equipment, Furnished by Operator

All charges for rental of equipment furnished by the operator were in accordance with the terms of the contract.

2. Rehabilitation and Repairs, Facilities

This item was for operating repairs that should have been shown under supplies, and the accountant was so instructed.

3. Labor

Payroll data for the months of September and December were examined in detail and computed for accuracy. Payroll data for all other months were scanned and adequately tested. The daily time for the various workers is recorded in a time book. This record shows the names of employees, hours worked, rates of pay, type and location of the work performed. The mine

superintendent approves all entries in the time book. At the end of each semi-monthly pay period, the public accountant prepares a payroll analysis and the payroll checks. The payroll analysis shows the gross amounts, O. A. B. and withholding tax, net amounts of each check and account distribution.

4. Supervision

Monthly payments for supervision were in accordance with the contract.

5. Supplies

The contractor does not maintain warehouse records. All supplies are charged, net of cash discount if any, to the operations. All invoices for the purchase of supplies were examined. Receipt of materials was indicated by the superintendent's initials on invoices.

6. Power

Power invoices from the Public Service Company of Colorado were examined and were based on the project meter. Amounts of the Monthly power bills agreed with the Contractor's MF-104 reports.

7. Insurance, Fire

This item consists of a yearly premium for fire insurance on machinery and equipment. Mr. W. H. King, Executive Officer, has determined that, in his opinion, this is an allowable item because of the excessive hazard at the project. Reference is made to Mr. King's memoranda, dated May 27, and August 1, 1952.

8. Insurance: Workmen's Compensation Insurance

Workmen's compensation insurance is carried with the State of Colorado.

Payments were supported by statements received from the State. Total payments were confirmed by applying the applicable rate to total claimed for salaries, wages and contract labor.

9. Contract Work

Charges for this item are for labor only at the rate of $9.00 per linear foot for drifting and $10.00 per linear foot for raising. These rates are in accordance on amendment to the contract dated October 30, 1951 and are based on a written contract with the employees. The total charges for contract work were confirmed by applying the applicable rates to the recorded footage.

10. Other

Charges for bookkeeping were supported by monthly statements from the Public Accounting firm and are authorized by an amendment to the contract dated October 30, 1951.

Social Security Tax represents the contractor's portion. The total amount was confirmed by applying the applicable rate to the total of salaries, wages and contract labor claimed. The amount of social security tax claimed was slightly less than could have been claimed.

III. FINDINGS

The project records maintained by Tom C. Stanford are in excellent condition and are complete. Payroll and other supporting data are filed chronologically. All invoices are filed according to dates paid and referenced to applicable checks. Cancelled checks are in numerical order by months. Source data is summarized in a distributive check register.

No exceptions are taken, the costs being reasonable, proper and within the terms of the contract and amendments.

IV. RECOMMENDATIONS

The audit certificate, prefacing this report, reflects the amount of the costs properly chargeable to this project through May 31, 1952.

[illegible] Copy
[illegible] No. 6

AMENDMENT OF CONTRACT: No. Idm-E79

Contract Docket No. DMA 1107, dated July 23, 1951, between the United States of America and Tom C. Stanford is hereby amended as follows, effective July 1, 1952:

> Referring to the Amendment dated October 30, 1951, item "2" which amended "Exhibit D", "Labor and Supervision", attached to the Contract, further referring to said Amendment, item "2", sentence beginning with "Bookkeeping is an allowable charge . . ." delete the figures "$30.00" and in lieu thereof substitute the figures "$50.00".

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 11 of the contract form.

Dated August 5, 1952.

TOM C. STANFORD

Tom C. Stanford

UNITED STATES OF AMERICA

By W. H. King
Executive Officer - DMEA

BL

SJS 8-14-52

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No. 5
Docket Copy

AMENDMENT OF CONTRACT: No. Ida-279

Contract Docket No. DSA-1107, dated July 23, 1951, between the United States of America and Tom C. Stanford is hereby amended as follows, effective as of the date of said contract:

Referring to Article 2 Exploration Project Contract Form [illegible] add the following: The west 300 feet of the Gold Spring Lode Mining Claim, Survey Lot No. 1[illegible].

Referring to Article 3 Exploration Project Contract Form [illegible] delete the following: "[illegible] months," insert in lieu thereof the following: "Eighteen (18) months."

Referring to the description rider attached to Exploration Project Contract Form [illegible] after the following: "Forest Home Lode Mining Claim survey lot No. 1[illegible]" insert the following: The west 300 feet of the Gold Spring Lode Mining Claim, Survey Lot No. 1[illegible].

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 11 of the contract form.

Dated April 15, 1952.

TOM C. STANFORD

By Tom C Stanford

UNITED STATES OF AMERICA

By J. H. Ewart
Executive Officer - DSA

Defense
MAR 2 1952

AMENDMENT OF CONTRACT: No. DMA-E79

Contract Docket No. DMA 1107, dated July 23, 1951, between the United States of America and Tom C. Stanford is hereby amended as follows, effective January 17, 1952:

1. Referring to Exploration Project Contract Form MF-200, Article 11, Participation by the Government; (a) delete the figure $7,500.00 and in lieu thereof substitute the figure $16,687.50; (b) delete the figure $10,000 and in lieu thereof substitute the figure $22,250.00.

2. Referring to EXHIBIT A, EXPLORATION PROJECT, attached to Exploration Project Contract Form MF-200, add the following:

"The following additional exploration work is authorized:

Ground Level

(1) Extend the 35-foot sublevel east 50 feet, or through the ore zone.

(2) Raise 75 feet at a location acceptable to the DMEA representative from the sublevel to the first level, or through the ore zone.

First Level

(3) Crosscut approximately 75 feet to cut the Cold Spring and other intermediate veins.

(4) Drift approximately 30 feet northeast and 90 feet southwest, or a total of 120 feet on the Cold Spring vein.

(5) Drift 55 feet on intermediate veins if acceptable to the DMEA representative.

(6) Raise on the various veins encountered, totaling 50 feet, at locations acceptable to the DMEA representative.

The proposed exploration consists of 300 feet of drifting or crosscutting and 125 feet of raising on the two levels.

The location of the proposed work is shown on the attached map.

The operator is a lessee in possession and entitled to possession, and the subordination agreement of the lessor is attached."

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 11 of the contract form, as hereby amended.

Dated March 24, 1942.

TOM C. STANFORD

Tom C. Stanford

UNITED STATES OF AMERICA

By J. H. Ernst Jr. Jwo

Executive Officer - DPA

2/19/52

U.S. DEPARTMENT OF THE INTERIOR

March 3, 1849

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Boulder, State of Colorado, described in a certain Exploration Project Contract dated July 23, 1951, between Tom C. Stanford,

the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated January 13, 1951, and agreement between Cold Spring Tungsten, Inc., and Tom Stanford dated January 17, 1952, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 19th day of February, 1952

HETZER MINES, INC.

By Dudley F. Hutchinson
Secretary

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

AMENDMENT OF CONTRACT: No. Idm-E79

Contract Docket No. DMA-1107, dated July 23, 1951, between the United States of America and Tom C. Stanford, Boulder, Colorado, is hereby amended as follows, effective as of the date of said contract:

The schedule in "Exhibit D" titled "Labor and Supervision," attached to Exploration Project Contract form MF-200 is amended to include the following:

"(1) 1 - Timberman @ $1.50 per hour, $12.00 per 8-hour day.

(2) The hourly rate for all labor is based on a 40-hour, 5-day week. Time and one-half will be allowed for all necessary time in excess thereof."

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 11 of the contract form.

Dated February 5, 1952.

TOM C. STANFORD

Tom C. Stanford

UNITED STATES OF AMERICA

By J. H. Ewing
Executive Officer - DMA

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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AMENDMENT OF CONTRACT: No. Idm-479

Contract Docket No. DMA-1207, dated July 23, 1951, between the United States of America and Tom C. Stanford is hereby amended as follows:

1. The approval of the agreement dated August 10, 1951, entered into by Tom Stanford, party of the first part, and George Erickson, Allen Erickson and Sam Walters, parties of the second part, is hereby rescinded as of October 20, 1951.

2. Exhibit "D", Labor and Supervision, attached to the contract, is amended by adding the following, to be effective as of October 20, 1951:

"Bookkeeping is an allowable charge at actual cost, but not to exceed $30.00 per month.

"Labor may be employed at the rate of $9.00 per linear foot for drifting, and $10.00 per linear foot for raising."

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may pay or the percentage of the costs which the Government may pay under the provisions of Article 11 of the contract form.

Dated October 30, 1951.

TOM C. STANFORD

By Tom C. Stanford

UNITED STATES OF AMERICA

By [illegible]
Executive Officer - DMA

AMENDMENT [illegible] No. [illegible]-879

Contract Docket No. DMA 1107, dated July 1, 1951, between the United States of America and Tom G. Stanford, is hereby amended, effective as of the date of said contract, as follows:

1. Exhibit "A" of the Exploration Contract is amended to include approximately 100 feet of crosscutting in a northeasterly direction, starting from a point about 50 feet east of the shaft, and is also amended to include approximately 50 feet of raise at a point about 70 feet from the beginning of this crosscut.

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

Dated October 11, 1951.

TOM G. STANFORD

Tom G. Stanford

UNITED STATES OF AMERICA

By J. H. Ewing
Executive Officer - DMA

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
OCT 29 8 55 AM '51

MF-200
(April 1951)

Docket No. DMA 1107
Commodity Tungsten

Idn-479

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 23rd day of July, 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and[2] Tom C. Stanford hereinafter called the "Operator," as follows:

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

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Colorado, County of Boulder described as follows:[3] Forest Home Lode Mining Claim, Survey Lot No. 19559, Grand Island Mining District with respect to which the Operator represents and undertakes:[4]

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

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

3. *Exploration project.* The Operator, within thirty (30) days from the date of this contract shall commence work on a project of exploration for[5] tungsten; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of[6] nine (9) months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

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

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

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

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

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

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

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

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

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator 75 percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $7,500.00, which is 75 percent of the agreed estimated total cost of this project, $10,000.00.

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

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

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

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

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

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

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

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

Executed in ~~triplicate~~ sextuplicate the day and year first above written.

Tom C. Stanford

Tom C. Stanford (Operator)

By _____

THE UNITED STATES OF AMERICA

By C. Mattendorf

Director, Production Expansion Division
Defense Minerals Administration

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

DMA DOCKET NO. 1107
FOREST HOME TUNGSTEN MINE
TOM C. STANFORD LESSEE AND APPLICANT

Forest Home Lode Mining Claim survey lot No. 19559
Grand Island Mining District, Boulder County, Colorado.

EXHIBIT A — **EXPLORATION PROJECT**

(See attached map for location of proposed exploration)

150 feet of drifting @ $32.00 per foot	$ 4,800.00
140 feet of raising @ 27.00 per foot	3,780.00
Supervision	1,350.00
Incidentals	70.00
Total	$10,000.00

EXHIBIT B — **FIXTURES AND IMPROVEMENTS**

None

EXHIBIT C — **OPERATING EQUIPMENT**

Equipment furnished by the operator for rental.

Hoist	$ 50.00 per month
Compressor	60.00 per month
Stoper	30.00 per month
Jackhammer	30.00 per month
Pump	10.00 per month
Total	$180.00 per month
4½ months	$810.00

EXHIBIT D — **LABOR AND SUPERVISION**

1 hoistman @ $1.50 per hour $12.00 per 8 hour day.

1 miner @ $1.50 per hour $12.00 per 8 hour day.

1 mucker @ $1.30 per hour $10.40 per 8 hour day.

Total 4½ months or 100 days $3440.00

1 supervisor @ $300.00 per month 4½ months $1350.00

These men are available in the area .

EXHIBIT E REHABILITATION AND REPAIRS

Rehabilitation of workings $550.00 included in drifting and raising costs.

5/2/51

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the county of Boulder, State of Colorado, described in a certain Exploration Project Contract dated July 23, 1951, 195__, between Tom C. Stanford, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated January 13, 1951, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 2nd day of May, 195 51.

Hetzer Mines Inc.

By A. A. McCoy, Treasurer

By Dudley F. Hutchinson Secy

U. S. GOVERNMENT PRINTING OFFICE 940768

LEASE

THIS INDENTURE, Made and entered into this 13th day of January, 1951, between HETZER MINES, INC., a corporation, hereinafter called the Lessor, and TOM C. STANFORD, hereinafter called the Lessee,

WITNESSETH: That the Lessor, in consideration of the covenants and agreements of the Lessee hereinafter expressed to be kept and performed by the Lessee, and upon and subject to the conditions hereinafter provided, has leased and demised, and by these presents does lease and demise unto the Lessee, the following described mining property or premises, to-wit:

Forest Home Lode Mining Claim, survey lot No. 19559, Grand Island Mining District, Boulder County, Colorado; together with the dumps situate thereon;

TO HAVE AND TO HOLD The said demised premises, only however to the extent necessary for the purpose of mining the same for tungsten ore and for no other purpose, for a term of three (3) years from the date hereof.

IN CONSIDERATION OF this lease, the Lessee covenants and agrees as follows, to-wit:

1. To work the said premises in thorough mine-fashion to the end of the safe development and preservation of the same as a workable mine, at all times extracting as much ore therefrom as is possible consistent with safe and prudent mining; and in this connection it is agreed and understood that the Lessor may at its election require the Lessee to produce ore instead of doing development work.

2. To work the demised premises continuously from the 1st day of March, 1951, performing at least 40 shifts of work therein underground during each calendar month during the time this lease shall remain in force and effect; any excess labor performed during any calendar month shall not apply on the work required hereunder in any preceding or following calendar month. The word "shift" is taken and accepted to mean the labor of one man for one day of at least 8 hours.

3. To make all [illegible]fts and inclines eight (8) feet long by four ([illegible]) feet wide in the clear, with [illegible]cket ways three and one-half (3-1/2) by four (4) feet in the clear, and all drifts seven (7) feet high by four (4) feet wide in the clear, provided that existing shafts, drifts and inclines shall, unless otherwise directed by the Lessor, be continued with their present dimensions. The Lessor reserves the right to change the dimensions of any workings as and whenever in the judgment of the Mining Superintendent of the Lessor the same may be necessary or expedient.

4. To do no underhand stoping, whether for the purpose of taking out ore or for any other purpose whatsoever.

5. To neither mine, extract nor remove the ground to a point nearer than four (4) feet to each side of any working shaft, and always to leave at least four (4) feet of ground, in its original condition, to support each such shaft. To leave more than four (4) feet of ground to support each such shaft if the Mining Superintendent of the Lessor shall so direct and to crib or rip-rap any shaft at the Lessee's expense, if the said Mining Superintendent shall so request the Lessee.

6. To allow the officers, agents and representatives of the Lessor at all times to enter upon and into the said premises and all parts thereof for the purpose of inspection and sampling, and to make any surveys they may desire, and to render them all the assistance in the power of the Lessee in so doing.

7. To keep and maintain the drifts, shafts, tunnels and other workings in the said premises thoroughly drained and clear of loose rock and rubbish, and in a safe and secure condition, except as prevented by extraordinary mining casualty, and to maintain at all times and leave the floors of all drifts and workings in good, even and unobstructed condition; to stow no waste underground except with the consent in writing of and under the direction of the Mining Superintendent of the Lessor.

8. To keep posted in conspicuous places on the surface of the said premises all notices which may be furnished by the Lessor for posting thereon.

9. To not assign this lease or any interest therein, nor to sublet

the said premises or any part thereof; and to not assign or transfer to anyone any interest in the sums payable by the Lessor, or any other, to the Lessee for ores produced from the demised premises, without the written consent of the Lessor first had and obtained.

10. To pay all charges for electric power required or to be furnished to the Lessee at the said premises, together with all proper costs of making such power available to the Lessee.

11. The Lessee hereby agrees that before beginning operations he will take out and will keep in force during the term of this lease compensation insurance to protect the Lessee under the Workmen's Compensation law of the State of Colorado. It is specifically understood and agreed that in the event said insurance is not kept in force this lease shall thereupon become null and void, with no further force and effect, without notice on the part of the Lessor.

12. The Lessee agrees to pay to the Lessor and the Lessor reserves a royalty of fifteen (15) percent of the net proceeds from the sale of any ores produced by the Lessee. The "net proceeds" is agreed to be the net sale price of said ores less the cost of hauling the same to the Lessor's mill at Nederland, Colorado.

IT IS MUTUALLY AGREED By and between the Lessor and Lessee as follows:

(a) The Lessor agrees that as long as it has a market for ore, it will maintain what it considers a fair schedule of price for tungsten ore produced from properties owned or leased by it. The Lessor shall have the right to purchase and the Lessee agrees to sell to the Lessor all ore produced by the Lessee from the leased premises, provided said schedule of prices maintained by the Lessor is at least equal to the price which may be offered the Lessee by any other party. In the event the Lessee is able to sell said ore at a net price higher than offered by the Lessor, the Lessee shall have the right to sell said ore to the buyer offering a higher net price. In the event any of said ore is sold to any one other than the Lessor, said ore shall be shipped in the names of the Lessor and the Lessee, and the royalty reserved by the

Lessor shall be paid directly to the Lessor. It is further agreed that no hauling charges in excess of hauling said ore to Lessor's mill shall be deducted in the event said ore is sold to any one other than the Lessor.

(b) It is further mutually understood and agreed that in the event the Lessee delivers to the Lessor shipments or lots of ore of a value less than $100.00 per lot, that the Lessee shall pay to the Lessor the cost of milling such ore and the cost of sampling the same.

(c) It is further mutually understood and agreed that in the event the Lessee fails to pay the royalty herein reserved, or fails to pay compensation insurance premiums, the Lessor shall have the right to terminate this lease immediately and without notice to the Lessee. In the event of the violation of any other term, provision or condition of this lease by the Lessee, the Lessor shall have the right to terminate this lease upon giving thirty (30) days' written notice to the Lessee. In the event the Lessee corrects any such defaults within thirty (30) days, said lease shall not be terminated. In the event any default shall not be corrected at the end of said 30-day period, then said lease shall be terminated as of the end of said 30-day period. Said notice shall be given in writing, addressed to the Lessee at Boulder, Colorado.

(d) The title to any ores broken or mined on said leased premises at the termination of this lease, shall be the property of the Lessor, and it shall not be liable for the payment to the Lessee for the same before any costs or expenses of breaking or mining said ore.

It is understood and agreed that the Lessor herein has a lease and option on the above described lode mining claim which expires on the 15th day of December, 1953, and that although the within lease is for a period of three years from January 13, 1951, it in fact shall terminate on said 15th day of December, 1953. Provided, however, that in the event the Lessor purchases the demised premises pursuant to said option or extends the term of said lease and option, the Lessee shall have the right to extend

the within lease for a term of three years after the expiration of the primary term, in the event the Lessor purchases said property. In the event the Lessor herein extends the term of said lease and option but does not purchase the same, then the Lessee shall have the further right to extend the term of the within lease for the term of any such extension obtained by the Lessor, not exceeding, however, an additional term of three years. In the event the Lessee elects to extend the term of the within lease subject to the above conditions, he shall give the Lessor written notice of such election prior to the termination of the within lease, and in the event the within lease is so extended, each and every term and provision of the within lease shall remain in full force and effect except the right to further extend the term of the within lease.

IN WITNESS WHEREOF, The Lessor has caused its name to be hereunto subscribed by its President and attested by its Secretary and its seal affixed hereunto, and the Lessee has hereunto set his hand and seal the day and year first above written.

HETZER MINES, INC.

By Thomas Hetzer
President.

ATTEST:
Dudley J. Hutchinson
Secretary.

Tom C. Stanford
Tom C. Stanford

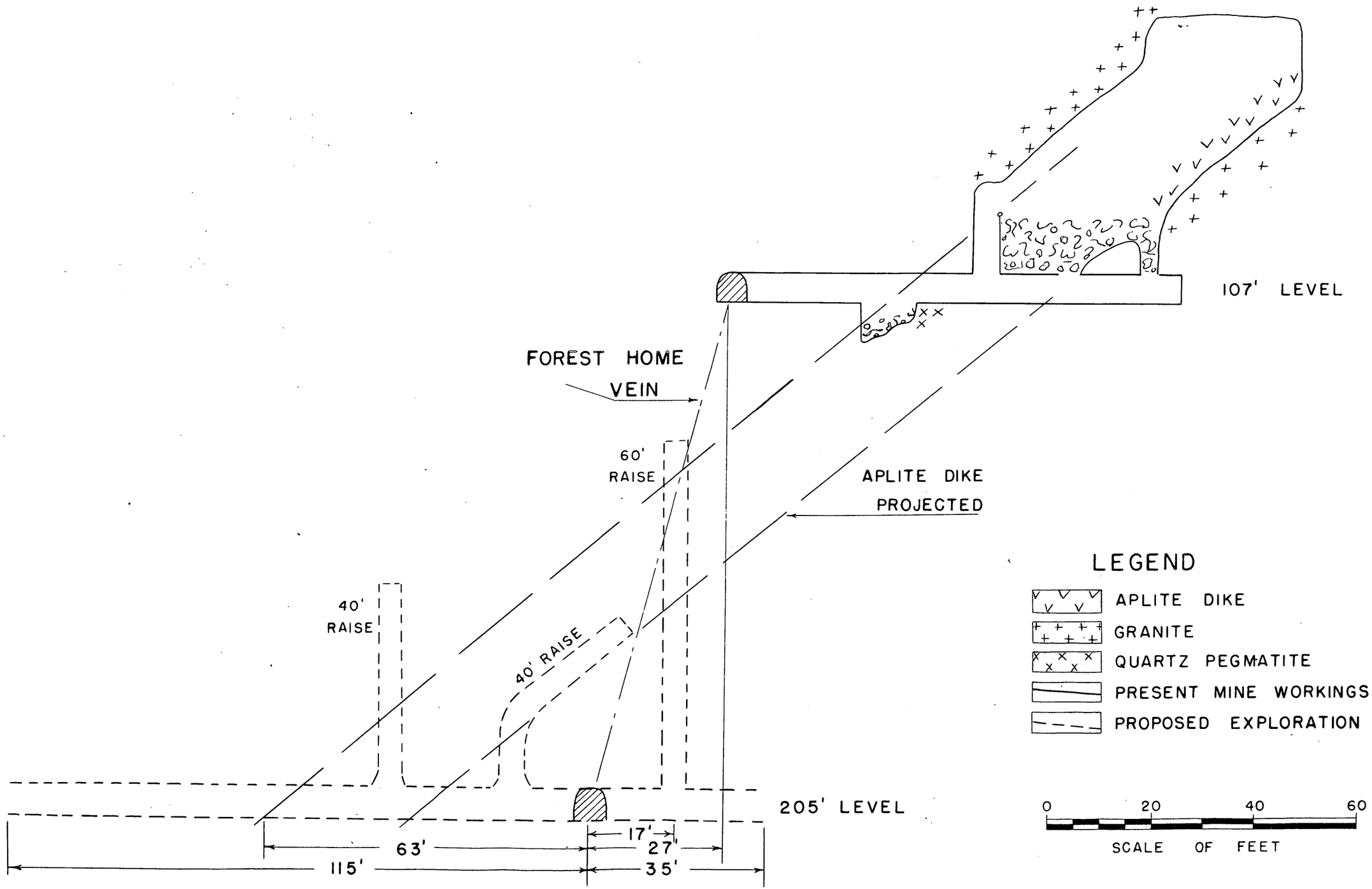

Fig. 3 - FOREST HOME MINE LONGITUDINAL SECTION IN PLANE OF CROSS-VEIN DMA 1107

TOM C. STANFORD
P.O. Box 354
Boulder, Colorado

dmn 1107

Answers re. to Form MF-100 should be on MF 103

1. A. - Tungsten
   b. - None
2. a. - Shaft - 200 ft.
   b. - 1200 ft.
   c. - not applicable
   d. - not applicable
   mine is completely unwatered
3. a. - Mine is located approximatley 3 miles from Nederland, Colo.
   b.- Grand Island
   c. - Forrest Home Lode Mining Claim, Survey Lot # 19559, Grand Is. Mining Dist., Boulder County, Colorado.
   d. - Boulder, Colorado
4. a. - Yes - Tom C. Stanford
   b. - Lesee
5. - During World War I, during World War II and four months of 1951
6. - Hard rock mining and by men who have been in this business for many years
7. - Information requested herein all available thru Bureau of Mines
8. & 9. - Not applicable - sole proprietor
10 & 11.- Not applicable - Bureau of Mines has previous production figures
12. - Small veins in various places and geology has been prepared by Bureau of mines in 1943
13. - Very good road
14. - Yes
15. - Electric Power
16. - Until recently I employed, 1 hoist man, 2 machine men and 2 muckers but due to the necessity of having to reduce operations and cut expenses I now employ 1 hoist man, 1 machine man and 1 mucker
17. - Equipment - 1-4 drill compressor, hoist drills, pump, water lines and air lines. This Mine is completely equipped.
18. - No

~~XXXX~~

Signed: Tom C. Stanford - Mining Account

Tom C. Stanford
Tom C. Stanford

May 2, 1951

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. _____

Date received _____

Name and address of applicant

Date _____

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		Life Insurance Carried for Benefit of Applicant	
				Common (e)	Preferred (f)	Amount (g)	Net Cash Surrender Value After Loans (h)
	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	$	$	$		
Preferred stock	$	$	$		

*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.

(*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.

(Name of company)

By ---
(Signature of authorized official)

(Date)

(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. 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. .....

Date received .....

Participation .....

Name and address of applicant

Date May 2, 1951

FILL IN THIS BLOCK

Date of application May 2, 1951

Estimated cost

Mineral or metal Tungsten

Percentage of Government participation 75%

Location of mine Approximately 3 miles NE of Nederland Colo.

Date of filing MF-100 May 2, 1951

DMA Docket Number, if available DM A 1107

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.

Refer to supplemental sheets for 4 & 8

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Individual

*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. Mined in Utah in 1927 & 1928

*5. Are you the owner or the lessee of the property? Lessee

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

7. If lessee, attach a copy of the lease and state if it is in good standing.

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)? $10,000.00 ---- $2500.00

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

16—64067-1

Refer to supplemental sheets for 12, 13, 14, 15, & 16

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. Forest Home Lode Mining Claim, Survey Lot # 10359, Grand Island Dist. Gul
(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. See above

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. Forest Home -- See above

*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. 3 Miles - Nederland, Colo. -- Excellent Roads

*13. State source and quantity of water available for operations and its sufficiency at all seasons. Sufficient
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. All necessary equipment is at the mine, at this time.

15. State in detail how the ore could be shipped and how and where milled. Wolfe/Tongue Mill -- Nederland, Colo.

*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. From about 1905 - During World War 1 & World War II.
(*b*) State briefly the known history and production of adjoining and neighboring properties. very good.
(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. Boulder Tungsten War Mineral report- 404.

*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	Shut Down at present.			
(3) Shipped or sold				

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

Refer to supplemental sheets

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.

Refer to supplemental sheets

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
(*b*) Supervisors, by numbers and positions, with salaries of each. One - $00.00/ Mo.
(*c*) Cost of necessary repairs to existing facilities, structures, and buildings. All facilities are in repair
(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings. none
(*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. None
(*f*) Cost of rental for equipment which the operator proposes to rent. None
(*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.

Tom C. Stanford Mining Co
(Name of company)

By Tom C. Stanford
Tom C. Stanford (Authorized official)

May 2, 1951
(Date)

(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

Supplement to Form 103 DMA Docket 1107
Forest Home Mine, Boulder County, Colo.

THE APPLICANT

4. (a) Tom C. Stanford - owns and operates a Real Estate and Insurance Business in Boulder, Colo. Worked as a hard rock miner in Park, Utah mines in 1927 and 1928.

(b) Elmer Hetzer, consultant; successful mine operator, president of of Hetzer Mines, Inc. which owns several producing tungsten mines as well as the Wolf Tongue Mill.

8. Not operating - no profit and loss statement available. Assets consist of equipment and machinery as follows:

(1) 7½ x 14 x 12 Ingersoll Rand Type 10 XB compressor V-belt driven by 50 HP, 440-V. electric motor, with starting box	$ 1500.00
(2) R91 stoper	300.00
(3) 45 # Jackhammer with shell, arm, and column	475.00
(4) 1 mine car 14 cu. ft. capacity	50.00
(5) 2 600 pound capacity shaft buckets	100.00
(6) 1 T 12 pound rails	120.00
(7) 500 ft of 2" pipe	100.00
(8) 15 HP Fairbanks Morse Pump	350.00
(9) Misc. small tools	400.00
	$ 3395.00

THE PROPERTY

12. 3 miles NE of Nederland, NE ¼, Sec. 7, T. 1 S., R. 72 W. Good gravel road from Nederland to mine.

13. Sufficient water available for mining operations. Power at 440 volts-60 cycles is purchased from P. S. C. of Colorado at $1.50/mo./HP for 1st 25 HP; $1.00 per HP for additional power used. Minimum includes use of 30 k.w.h. per HP demand. Next 60 k.w.h. used per mo. per HP demand but not less than 450 k.w.h. is charged at $.03 per k.w.h. Power bill averages about $125.00 per month.

14. 15 x 30-foot combination hoist and compressor building with a small wing for blacksmith shop. Building of wooden frame construction covered with corrugated sheet metal, 4-post head frame 20 feet high, and a 30-ton wooden ore bin.

15. Ore trucked 3 miles over good graveled road from mine to Wolf Tongue mill at Nederland at $1.25 per ton.

16. (a) and (b) Answered in War Minerals Report 404.
Past Production 1400 T of 2% WO_3 in 1943, 44
1700 T of 2% WO_3 in 1945.
(c) No private reports available.

DMA 1107 MF 103

EXPLORATION

20. Ferberite tungsten ore.

21. 150 feet of drifting, 150 feet of raising - Estimated time 4½ months.

22. Ore cut on 107-foot level, stoped on junction of vein and aplite dike, and ore stoped underhand 10 feet below level on same junction. Ore reported in bottom of underhand stope. Project to cut junction of vein and aplite dike on 205-foot level.

THE REQUIREMENTS AND COSTS

23.

(a)	1 hoist man @	$1.50/hr
	1 miner @	1.50/hr
	1 mucker @	1.30/hr
(b)	1 supervisor @	$300/mo
(c)	None	
(d)	None	
(e)	None	
(f)	None	
(g)	Hoist	$50.00
	Compressor	60.00
	Stoper	30.00
	Jackhammer	30.00
	Pump	10.00
		$180.00
(h)	Dynamite	$500.00
	Caps and fuse	50.00
	Power	680.00
	Drill bits	300.00
	Drill steel	100.00
	Mine rails	120.00
	Stulls	250.00
	Lagging	200.00
	Air pipe	100.00
	Water pipe	50.00
	Lumber	100.00
	Small tools	400.00
		$2850.00

(i) Power cost is estimated at $125 per month (see No. 13 for rate schedule).

24. 1 week preparation and rehabilitation, 10 weeks drifting, 7 weeks raising. Total time 4½ months.

The items on Form MF-103 that do not agree with items on these supplemental sheets have been eliminated.

~~6/5/51~~ June 28, 1951

Defense Minerals Administration

Review of Application for Exploration Assistance

For Approval

Docket No. DMA-1107 X

Commodity Tungsten

Total Amount $5000.00

Govt. Participation $3750.00

1. Name and Address of Applicant Tom C. Stanford
P.O. Box 354, Boulder, Colorado.

2. Location of Property near Nederland, Boulder County, Colorado.

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

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good _____

b) Poor _____

c) None _____

d) Don't know—needs field examination _____

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

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

6. If applicant is a lessee, is a copy of the lease attached? _____

Does the lease have sufficient time to run to cover a future

productive period? _____

*question numbers are those of MF-103

7. Are subordination agreements necessary? Yes.

   a) MF-201? _____

   b) MF-202 ✓

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

   a) Available manpower _____

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

   c) Accessibility (question 12)* _____

   d) Water (question 13)* _____

   e) Power (question 13)* _____

   Is a field check needed on any of these points? _____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* _____

   _____

   Is a field check needed on this point? _____

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

    a) Is the project adequately described? _____

       If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

    b) Is there an adequate map or sketch of the proposed work? _____

       _____

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

       If not, what part of it is? _____

       _____

       _____

       _____

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed?_____

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

e) Are the cost estimates reasonable?_____

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A?_____

11. Exhibit B (question 23-d)*

a) Is it applicable?_____

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed?_____

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

a) Is it applicable?_____

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed?_____ _____

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

a) Are there sufficient data?_____

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

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

d) Are the proposed wages and salaries reasonable?_____

e) Is a field check needed?_____

14. Exhibit E (question 23-c)*

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

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

(All exploration must be completed within two years)

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

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? Approval of this application is based on approval by Field Team in Denver received by telephone June 28, 1951, signed contract now in air mail. Report and extra copies of application in mail. More complete report can be filed when these are received.

Reviewed by: G. O. Hanson

Geo. H. Holdeen

Date June 28, 1951

97692

6/5/51

June 28, 1951

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA-1107 X

For Approval

Commodity Tungsten

Total Amount $10,000.00

Govt. Participation $7,500.00

1. Name and Address of Applicant Tom C. Stanford
P.O. Box 354. Boulder, Colorado.

2. Location of Property near Nederland, Boulder County
Colorado.

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

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination

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

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

6. If applicant is a lessee, is a copy of the lease attached?

Does the lease have sufficient time to run to cover a future

productive period?

*question numbers are those of MF-103

7. Are subordination agreements necessary? Yes.

   a) MF-201? _____

   b) MF-202 ✓

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

   a) Available manpower _____

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

   c) Accessibility (question 12)* _____

   d) Water (question 13)* _____

   e) Power (question 13)* _____

   Is a field check needed on any of these points? _____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* _____

   _____

   Is a field check needed on this point? _____

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

   a) Is the project adequately described? _____

      If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

   b) Is there an adequate map or sketch of the proposed work? _____

      _____

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

      If not, what part of it is? _____

      _____

      _____

      _____

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed?_____

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

e) Are the cost estimates reasonable?_____

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A?_____

11. Exhibit B (question 23-d)*

a) Is it applicable?_____

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed?_____

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

a) Is it applicable?_____

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed?_____ _____

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

a) Are there sufficient data?_____

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

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

d) Are the proposed wages and salaries reasonable?_____

e) Is a field check needed?_____

14. Exhibit E (question 23-c)*

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

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

(All exploration must be completed within two years)

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

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? Approval of this application is based on approval by Field Examiner Power received by telephone June 28, 1957, signed contract now in airmail. Report and extra copies of application in mail. More complete report can be filed when these are received.

Reviewed by: T. W. Hanson

Geo B Holden

Date June 28, 1957

Approved
Tom Lyon

97692

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
8/9	Holt	500
	Brannock	500
8/11	Sather	140
8-11	Brown	140
	App'd. Sol. Off.	
8/14	Talbert	800
8/14	Owlesse	120
"	Johnson	110
		220

AUG 1 4 1961

Mr. Tom C. Stanford
P. O. Box 354
Boulder, Colorado

INTERIOR DEPT.
AUG 1 0 1961
SOLICITOR

Re: DMA-1107X (Tungsten)
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract Idm-K79

Dear Mr. Stanford:

By the terms of the subject Exploration Project Contract, as amended, and the certification of discovery or development, dated February 27, 1953, all minerals mined or produced from July 23, 1951, to July 23, 1961, were subject to the Government's percentage royalty as set forth in said contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this contract. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the periods indicated.

FROM SOLICITOR
AUG 1 1 1961
FOR SIGNATURE

Sincerely yours,

George Fumich, Jr.
Director

Copy to:
Cold Spring Tungsten, Inc.
818 Seventeenth Street, Room 222
Denver 2, Colorado

SPHolt/gla
8-9-61
cc to: Director's Reading File
Region III (2)
Docket
Code 500

RECEIVED
AUG 1 0 1961
ASSOC. SOLICITOR
MINERAL RESOURCES

43683

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

OFFICIAL FILE COPY
O. M. E
RECEIVED JUL 3 1961

DATE	INITIALS	CODE
7-3	gad	220
7/5	[illegible]	100
7/5	FEJ	110
7/5	[illegible]	800
"	Brewood	500
		120
7/6	Hoet	300

220

June 28, 1961

Memorandum

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

From: Hugh M. Connors, Acting Field Officer, OME, Region III

Subject: Docket No. DMA 1107X- (Tungsten)
Contract No. Idm-E79
Tom C. Stanford
(Forest Home Mine)
Boulder County, Colorado
FINAL INSPECTION

I made a final inspection of the subject property on June 27, 1961 at which time there were no signs of recent activity. The Forest Home shaft is filled with water to within ten feet of the collar.

I talked to Bill Nolan, caretaker of the Cold Spring Tungsten, Inc. properties, who succeeded Hetzer Mines as owner of the Forest Home mine. He informed me that the subject property has been idle since 1955 and he has no knowledge of any stockpile ore or concentrates from this mine.

The Report of Royalty Review showed $1.88 overpayment of royalty which was later refunded to the Operator. We have no record of any shipments of ore except those covered by the Report of Royalty Review.

I believe that there has been no unreported production from the property and I recommend that the files on this contract be closed on July 23, 1961.

Hugh M. Connors

Hugh M. Connors

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
7/7	Holt	500
	Swanson	500
8/2	[illegible]	140
8/2	Brown	140
8/3	[illegible]	800
		120
		110
		100
		220

RC. 1
INTERIOR DEPT.
JUL 28 1961
SOLICITOR

Mr. Tom C. Stanford
P. O. Box 354
Boulder, Colorado

Re: DMA-1107X (Tungsten)
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract Idm-E79

Dear Mr. Stanford:

By the terms of the subject Exploration Project Contract, as amended, and the certification of discovery or development, dated February 27, 1953, all minerals mined or produced from July 23, 1951, to July 23, 1961, were subject to the Government's percentage royalty as set forth in said Contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the Contract or any future production therefrom. We, therefore, are closing our books and records on this Contract. Your attention, however, is called to the provisions of the Contract which require the Operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

Director

Copy to: Hetzer Mines, Inc.
Box 641
Boulder, Colorado

RECEIVED
JUL 28 1961
ASSOC. SOLICITOR
MINERAL RESOURCES

SPHolt/gla
7-7-61
cc to: Director's Reading File
Contract Adm. and Audit Division
Region III (2)
Docket
Code 500

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
8/9	Holt	500
	Fruewald	500
	[illegible]	140
	Rep'd. Sol. Off.	140
8/14	Talbot	800
8/14	On leave	120
"	Johnson	110
		220

AUG 1 4 1961

Cold Spring Tungsten, Inc.
818 Seventeenth Street, Room 222
Denver 2, Colorado

Re: DMA-1107X (Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract Idm-K79

Gentlemen:

Enclosed is a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Hetzer Mines, Inc., properties which were subsequently purchased by you.

Sincerely yours,

George Fumich, Jr.

Director

Enclosure

WRGriswold/gla
8-9-61
cc to: Director's Reading File
Region III (2)
Docket
Code 500

43683

George Sears Kellogg
Hartford
Cold Springs.

[illegible]
[illegible]

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
7/7	Holt	500
	Brimmel	500
8/2	Dallas	140
	Pub. Inf. Off.	140
8/3	Talbert	800
		120
		110
		100
		220

Hetzer Mines, Inc.
Box 641
Boulder, Colorado

Re: DMA-1107X (Tungsten)
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract Idm-E79

Gentlemen:

Enclosed is a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Landlords' Subordination Agreements signed by your company on May 2, 1951, and February 19, 1952, under the DMA and DMEA programs, respectively.

Sincerely yours,

Director

Enclosure

SPHolt/gla
7-7-61
cc to: Director's Reading File
Region III (2)
Docket
Code 500

43683

STANDARD FORM NO. 64

Office Memorandum · UNITED STATES GOVERNMENT

TO : Docket No. DMA 1107-X - Tungsten DATE: March 17, 1953

FROM : Iron and Ferro-Alloys Division, DMEA

Noted BW

SUBJECT: Supplement to summary of progress analyses of July 14, 1952
Docket No. DMA 1107-X - Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Exploration Contract No. Idm-E-79

Exploration under the subject contract was completed September 16, 1952. One small ore shoot, which was mined out during the course of the project, was found by the work of the exploration program. This discovery was made in the hanging-wall vein between the first and second levels of the Forest Home Mine.

A total of 518 feet of drifts and crosscuts and 202 feet of raises were driven under the subject contract. Cost data follows:

	Drifts & Crosscuts		Raises	
	Costs	Unit Cost	Cost	Unit Cost
Labor	$9,944.48	$19.20	$4,945.52	$24.48
Supplies	2,488.96	4.80	1,027.63	5.09
Equipment	1,319.16	2.55	725.84	3.59
Power	640.71	1.24	316.10	1.56
Total	14,393.31	27.78	7,015.09	34.73
Advance/shift		3.29 feet		2.53 feet
Advance/man shift		0.89 feet		0.65 feet

Because of the above discovery, and the royalty payments that had been received thereon, a certification was made.

Total expenditures under the contract were $21,408.40. Of this amount the Government's share at 75 percent was $16,056.30.

F. A. Rutledge

F. A. Rutledge, Mining Engineer
Iron and Ferro-Alloys Division

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Docket No. DMA 1107X - Tungsten DATE: July 14, 1952

FROM : F. A. Rutledge

SUBJECT: Summary of progress analyses as of June 1, 1952
Docket No. DMA 1107X - Tungsten
Exploration Project Contract Idm-E79
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado

The original contract was for 150 feet of drifting at $32.00 a foot plus supervision and incidentals, which divided on a prorated basis amounted to $791.00, made a total of $5,591.00 for drifting and 140 feet of raising at $27.00 a foot plus supervision and incidentals of $629.00 totaled $4,409.00. Total amount of the contract was $10,000.00. The location of the exploratory workings was shown on a map attached to the original contract.

The contract was signed July 23, 1951, and work begun August 15, 1951.

The Operator did not locate the first drift in the right location nor was it headed for the proper target. The field team was aware of this fact by October 9, 1951 and prepared an amendment to cover the drifting and 50 feet of raising at location R-1. This increased the allowable footage to 250 feet for drifting and 190 feet of raises without increasing the total amount of the contract. However, 60 feet of raise at location R-1 and 39 feet of raise at location R-2 have been driven and paid for and an amendment should be prepared to cover the additional 10 feet at R-1 and 39 feet at raise R-2. No significant tungsten mineralization was exposed by this work and the target is neither apparent nor the one proposed in the contract.

The crosscut to the north was also not located in its exact position as it was supposed to follow the diagional vein as shown on the map attached to the contract. This crosscut cut a vein of quartz and ferberite at 45 feet in the aplite dike that was the original target. This vein was followed by a drift to the east for 24 feet and a drift to the west for 8 feet. A raise at R-3 was started in tungsten mineralization but was stopped after 4 feet when the ferberite pinched out. Another raise at R-4 was driven 35 feet with a 9-foot sublevel drift to the east at 35 feet before the project was stopped when the funds were exhausted. Both raise R-4 and the sublevel drift exposed ferberite.

Two hundred twenty-two and five-tenth (222.5) feet of drifting and 135.67 of raising were completed before the project was recessed. A total of $474.15 over the contract was spent and included on the monthly reports. Costs per foot for drifting and raising and the advance per man shift and per shift were as follows:

	Drifting	Raising
Labor	$18.34	$23.40
Supplies	5.09	5.13
Equipment	2.22	3.66
Power	0.96	1.37
Total	$26.61	$33.55
Man shift	0.83 feet	0.65 feet
Shift	3.37 feet	2.58 feet

Additional exploration at this project was authorized by an amendment dated March 24, 1952. This amendment increased the contract by $12,250.00 and the footage for drifting by 300 feet and for raising by 125 feet. No definite breakdown was given on the funds with the exception of the unit prices arrived at by the field team to gain the estimate of the funds required.

125 feet of raising @ $28.80	$ 3,600.00
300 feet of drifting @ $28.16	8,448.00
	$12,048.00

$12,250.00 was granted.

These unit costs do not agree with those calculated from the Operator's costs submitted on the monthly MF-104 forms. Therefore, the additional funds have been apportioned between the raising and drifting on the basis of the calculated unit costs and actual expected costs as follows:

	Actual	Used
125 feet of raising @ $33.55	$4,193.75	$4,218.90
300 feet of drifting @ $26.61	7,983.00	8,031.10
	$12,176.75	$12,250.00

Under the original contract, labor and supervision consisted of a hoistman, one miner, one mucker, and a supervisor. This was later amended to allow payment of labor at the rate of $9.00 per linear foot for drifting and $10.00 per linear foot for raising. A later amendment specified for payment of a timberman. To date, the Operator has carried both miner-contractors on the payroll as miners, timbermen,

or miner-timbermen to cover the timbering and incidental mining not covered by contract payments. Cost per foot for labor not including insurance and other charges for the 462.17 feet is as follows:

Labor	
Contract	$ 9.07
Supervision	2.27
Hoistman	4.41
Miner-timbermen	3.79
	$19.54

The life of the contract has been extended from 9 to 19 months by an amendment.

The $474.15 expended above the $10,000.00 limitation on the original contract was paid under the amendment on the voucher for the April period.

By the end of May, the raise R-4 had been connected through to the first level. Only spots of ore were exposed in this raise above 46 feet and the raise has been bulkheaded off above the sub-level drift.

The sublevel drift has been advanced 53 feet under the amended contract. Since it was still in ore, the Bureau of Mines authorized continued advance as long as ore was showing (Narrative Report for May, 1952). An amendment should be prepared covering this and any additional work over the 50 feet authorized.

Thirty-eight thousand five-hundred ninety-five (38,595) pounds of ore assaying 1.08 percent WO_3 has been shipped and an additional 20,000 pounds of similar grade stockpiled from the ore that was obtained during the driving of the sublevel drift.

One hundred eighty-six and sixty-seven hundredths (186.67) feet of raising and 275.5 feet of drifting were completed under the contract and amendments by June 1, 1952. Following are the unit costs to date:

	Raising	Drifting
Labor	$23.58	$18.52
Supplies	5.25	5.01
Equipment	3.45	2.24
Power	1.31	1.01
Total	$33.59	$26.77

The advance per man shift and per shift has been 0.64 foot and 2.52 feet, respectively, for raising and 0.84 foot and 3.30 feet, respectively, for drifting.

When the work on the second level under the original contract was plotted on the composite map, it was noted that the raise R-1 came up under the proposed crosscut on the first level. This raise came within 40 feet of the first level and was barren of tungsten mineralization with the exception of a small showing at 35 feet.

Excessive hoist rate

An item for Fire Insurance in the amount of $42.80 was included in the MF-104 form for the month of April. Though recommended for deletion in the report by R. L. Bolmer, Bureau of Mines, and also in the transmittal memo by W. M. Traver, Bureau of Mines, the amount was approved for payment by the Executive Officer, DMEA Field Team, W. H. King, and has been shown as paid.

F. A. Rutledge

F. A. Rutledge

Yes Audited

Yes Certified

W[illegible] ANALYSIS SHEET - DMEA PROJECT[illegible]

Analysis as of 12/3/1954
Incl. Voucher for _____

Yes Actual Cost

Agreed Unit Costs

Name Tom C. Dtanford

Docket No. DMA-1107

State Colorado

Commodity Tungsten

Idm-E No. 79

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	450'	14,400.00	518'	15,048.01	15,048.01
Raising	265'	7,155.00	202	5,869.43	5,869.43
Shafts					
Winzes					
Drilling (Specify)					
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased		200.00		174.71	174.71
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)		495.00		316.25	316.25
Totals		22,250.00		21,408.40	21,408.40

6 Amendments on contract. Amendment No.4 increased drifting and raising 425 feet and cost from $10,000.00 to $22,250.00

Prepared by TLC

71626

DOCKET
SURNAME
400 Chapman
Martin
Talbot
Jefferson

OCT 3 0 1956

Rotary Mines, Inc.
Box 641
Boulder, Colorado

Re: Docket No. DMEA 1107 - Tungsten
Tom C. Stanford
Forest Home Claim
Boulder County, Colorado
Contract No. Ida-879

Gentlemen:

In reviewing our files we find that we did not advise you directly of the Certification of Discovery or Development of the above project. Accordingly, a copy of the "Certification of Discovery or Development" issued on February 27, 1953, for the subject contract is enclosed.

By the terms of the Exploration Project Contract and of the certification, all minerals mined or produced from July 23, 1951 to July 23, 1961, are subject to the Government's percentage royalty as set forth in the contract until the sum of $16,056.30 is repaid to the Government.

Sincerely yours,

C. D. Mittendorf

Administrator

TLChapman:foc 10/29/56
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. III
Messrs. Robert Holliday, USBM
T. H. Kiilsgaard, USGS

Enclosure

P.G.B.

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

RECEIVED AUG - 9

224 New Customhouse
Denver 2, Colorado

August 7, 1956

Memorandum

To: Royalty File E79

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 1107X (Tungsten), Contract Idm-E79, Tom C. Stanford, (Forest Home Lode Mine Claim), Boulder County, Colorado

Overpayment check for Tom C. Stanford in the amount of $1.88, requested per our memorandum dated June 29, 1956 to T. A. Christensen, was inadvertently sent directly to the subject operator by the Finance Office.

W. M. TRAVER

W. M. Traver

DMM/vj

cc: Royalty File E79
Corres. File E79
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Finance Office
Marshall
Chron.

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

RECEIVED JUL 2 - 1956

RECEIVED JUL 2 - 1956

226 New Customhouse
Denver 2, Colorado

June 29, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Royalty payment, Docket DMA-1187X (Tungsten), Contract Idm-E79, (Forest Home Lead Mining claim), Boulder County, Colorado, Tom C. Stanford

Reference is made to the Report of Royalty Review dated June 27, 1956, by Donald T. Finch, DMEA Auditor, a copy of which was furnished to you this date. According to this report, the operator, Tom C. Stanford, has overpaid the DMEA royalties due on past production from the subject property by the amount of $1.88.

In order to bring this account current to June 27, 1956, the ending date of the royalty report period, we request you have a check for $1.88 made payable to Tom C. Stanford.

Please transmit this check to our office.

W. M. TRAVER

W. M. Traver

MEM:jy

cc: Royalty File E79
Sec. Op. Comm. (2)
J. F. Shaw (2)
Donald T. Finch
Marshall
Chron.

Talbert

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

JUN 18 1956

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

Re: Report of Royalty Review
Tom C. Stanford
Idm-E79, DMA-1107X

Dear Mr. Finch:

Receipt is acknowledged of the Washington copies of your Report of Royalty Review covering the referenced project.

In order to effect the release of this report without returning it for correction, I have changed the second paragraph by deleting the words:

"all production from the land described in Article 2 of the Contract and Amendment No. 5"

and substituting the words:

"net smelter returns or other net proceeds from production resulting from such discovery."

Please make this change in all other copies, after which normal distribution is authorized.

It is to be noted that this contract was executed on the old form MF-200 (June 1951) and was not amended to extend the royalty provisions (Article 14) to all production from the land described in Article 2. Example No. 3 on pages 42 and 43 of the royalty audit manual covers a similar situation and presents a preferred wording, which I have abbreviated in the instant case in order to utilize the same typing space.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/wb
June 18, 1956

Copy to: Docket
Admr. Reading File
Mr. Chambers

RCS.

400

RECEIVED
APR 2 3 1956

U. S. DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

224 New Customhouse
Denver 2, Colorado

Date: April 23, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Royalty payments, DMEA Docket 1107 (Tungsten), Contract Idm-E79, Tom C. Stanford - Colorado

Period: March, 1956

During the above month the following royalty payments were received for ore or concentrates shipped from the subject property:

WSM

Lot No.	Dry Tons	Royalty Due	Royalty Pd.

(NONE)

Royalty

Totals:

Past Due Royalties Collected	None
Total Dry Tons (Ore or Cons.) Shipped to Date	140.497
Expiration Date of Royalty Repayment	July 23, 1961
Amount of Government Participation	$16,056.30
Total Royalty Payments to Date	$234.66
Percent of Loan Repayment	1.46%

W. M. Traver

W. M. Traver

vj

cc Royalty File E 79 w/Settlement Sheets
Monthly Royalty Payment File
~~T. A. Christensen~~
J. W. Shaw (2)
Chron.

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

224 New Customhouse
Denver 2, Colorado

June 29, 1953

Note: Only 1 copy of Settlement Sheet attached and was sent to Iron and Ferro Alloys on 7/3/53

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region IV

Subject: Settlement Sheet, Tom C. Stanford, Forest Home Tungsten Mine, Docket 1107, Contract Idm-E79

Enclosed is your copy of settlement sheet covering Lot 498 shipped by Tom Stanford to Hetzer Mines, Inc.

W. H. King
W. H. King

Enclosure

Form No. VW-52-C8

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date ~~March 11, 1953~~

SHIPPER: Tom Stanford, Box 354, Boulder, Colorado

NAME OF MINE: Forest Home

MINE OWNER: Hetzer Mines, Inc., 250 Pearl St, Boulder, Colo.

ROYALTY AT: 15% TO: Hetzer Mines Inc., (after hauling)
5% TO: Treasurer of the United States, 224 New Custom House, Denver, Colo.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
8970	32275	8.0	29693	.13	.43	127.68	6.3840		
17024	50755	11.0	45172	.127	.97	438.17	21.9085		
	83030		74865		.76	565.85	28.2925	22.40	633.75
	Phos penalty .08			.25¢	2.00 x 6.3840				12.77
	Phos penalty .077			.25¢	1.93 x 21.9085				42.28
									578.70
									56.14

CHECK NO. 4238 3/11/53 $ 8.42 (15%) TO: Hetzer Mines, Inc., 250 Pearl St, Denver, Colo.
CHECK NO. 4239 3/11/53 $ 2.80 (5%) TO: Treasurer of the United States
CHECK NO. 4240 3/11/53 $ 44.92 TO: Tom Stanford, Bo. 354 Boulder, Colo.
CHECK NO. _____ $ _____
CHECK NO. _____ $ _____

I hereby certify that the ore described above and sold is from the Forest Home Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

_____
Vendor.

MBF 5M 8-52

By _____

Tom C. Stanford (E79)

Hma - 1107

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 14 1953

Form No. VW-52-C8

C.1

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date Dec 4 as of Nov. 30, 1952

SHIPPER: TOM STANFORD, BOX 354, BOULDER, COLORADO

NAME OF MINE: FOREST HOME

MINE OWNER: HETZER MINES, INC., 250 PEARL ST., BOULDER, CLORADO

ROYALTY AT: 15% TO: HETZER MINES, INC., BOULDER, COLORADO
5% TO: TREASURER OF THE UNITED STATES, ROOM 224 NEW CUSTOMSHOUSE, DENVER, COLO.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
17090	1985	1.0	1965	.068	18.70	367.46	18.3730	44.40	
Phos Penalty				.050					
				.018 @ .15¢				.27	
								44.13	810.80

Mineral Division
Date Received

DEC 1952

Bureau of Mines
Denver, Colorado

CHECK NO. ~~3868 12-4-52~~ $~~121.62 (15%) TO: HETZER MINES, INC.~~
CHECK NO. ~~3869 12-4-52~~ $~~40.54 (5%) TO: TREASURER OF THE UNITED STATES~~
CHECK NO. ~~3870 12-4-52~~ $648.64 TO: TOM STANFORD
CHECK NO. _____ $_____
CHECK NO. _____ $_____

I hereby certify that the ore described above and sold is from the FOREST HOME Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

_____
Vendor.

MBF 5M 8 52

By_____

Form No. VW-52-C8

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date November 25, 1952

SHIPPER: TOM STANFORD, BOX 354, BOULDER, COLORADO

NAME OF MINE: FOREST HOME

MINE OWNER: HETZER MINES, INC., 250 PEARL ST., BOULDER, COLORADO

ROYALTY AT: 15%(after hauling) TO: HETZER MINES, INC., BOULDER, COLORADO
5%(after hauling) TO: TREASURER OF THE UNITED STATES, ROOM 224
NEW CUSTOMSHOUSE, DENVER, COLORADO

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
17057	43110	21.0	34057	.102	2.40	817.37	40.8685	30.00	
Phos Penalty				.050					
				.052 @ .254				1.30	
								28.70	1172.93
17064	39480	18.0	32374	.123	2.05	663.67	33.1835	30.00	
Phos Penalty				.050					
				.073 @ 254				1.83	
								28.17	934.79
									2107.71

Mining Division
Date Rec'd.
DEC 1 - 1952
BUREAU OF MINES
Denver, Colorado

CHECK NO. ~~3824~~ ~~11-25-52~~ $ ~~42.54 (1.00 per ton / 3%) TO: PEARSON TRUCKING CO., BOULDER, COLO.~~
CHECK NO. _____ $ _____
CHECK NO. ~~3835~~ ~~11-25-52~~ $ ~~309.78 TO: HETZER MINES, INC., 250 PEARL ST., BOULDER, COLORADO~~
CHECK NO. ~~3836~~ ~~11-25-52~~ $ ~~103.26 TO: TREASURER OF THE UNITED STATES, DENVER, COLORADO~~
CHECK NO. ~~3837~~ ~~11-25-52~~ $ ~~1652.13 TO: TOM STANFORD, BOULDER, COLORADO~~

I hereby certify that the ore described above and sold is from the FOREST HOME Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

_____
Vendor.

By _____

MEF 5M 8 52

orm No. VW-52-C8

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date [illegible] 1 as of Oct. 31/52

SHIPPER: TOM STAMFORD, BOX 354, BOULDER, COLORADO

NAME OF MINE: FOREST HOME

MINE OWNER: RETZER MINES, INC., 250 PEARL STREET, BOULDER, COLORADO

ROYALTY AT: 15% TO: RETZER MINES, INC., BOULDER, COLORADO
5% TO: TREASURER OF THE UNITED STATES, 224 NEWCUSTOM HOUSE, DENVER, COLO.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price / Per Unit	Total Value
8970	32275	8.0	29693	.13	.43	127.68	6.3840		
17024	50755	11.0	45172	.127	.97	438.17	21.9085		
	83030		74865		.76	565.85	28.2925	22.40	
	(PHOS PENALTY .13-.05=.08 @ .25=2.00)								
	(PHOS PENALTY .127-.05=.077 @ .25=1.93)					PHOS PENALTY		3.93	
								18.47	
									522.56

Mining Division
Date Rec'd.
NOV 6 - 1952
BUREAU OF MINES
Denver Colorado

CHECK NO. $
CHECK NO. 3778 11-2-52 $ 39.21 (Hauling) TO: PEERSON TRUCKING CO., Boulder, Colorado
CHECK NO. 3779 11-2-52 $ 72.50 (15% After Hauling) TO: RETZER MINES, INC., BOULDER, COLO.
CHECK NO. 3780 11-2-52 $ 28.17 (5% After Hauling) TO: TREASURER OF THE UNITED STATES, DENVER, COLORADO
CHECK NO. 3781 11-2-52 $ 385.68 TO: TOM STAMFORD, BOULDER, COLORADO

I hereby certify that the ore described above and sold is from the FOREST HOME Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

Vendor.

By

MBF 5M 8-52

Form No. VW-51-C8

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date May 20, 1952

SHIPPER: Tom Stanford, 2014 Broadway, Boulder, Colo.

NAME OF MINE: Forest Home

MINE OWNER: Hetzer Mines, Inc.

ROYALTY AT: 15%

5% Additional to Treasurer of U.S.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
8357	39595	9.0	36031	.13	1.08	389.13	19.4565	26.00	
			Phos Penalty 13-5--8 @ .25¢					2.00	
								24.00	466.96

CHECK NO. ..... $ .....

CHECK NO. 2905 5/20/52 $ 70.04--15% TO: Hetzer Mines, Inc., 250 Pearl, Boulder

CHECK NO. 2906 5/20/52 $ 23.35---5% TO: Treasurer of U.S., Room 244, New Customs Bldg, Denver, Colo.

CHECK NO. ..... $ .....

CHECK NO. 2907 5/20/52 $ 373.57---TO: Tom Stanford, Boulder, Colo.

I hereby certify that the ore described above and sold is from the Forest Home Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

Vendor.

By .....

Montrose Daily Press 12-51-5m

Form No. VW-51-C8

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date July 4 as of June 30, 1952

SHIPPER: Tom Stanford, P.O. Box 354, Boulder, Colo.

NAME OF MINE: Forest Home

MINE OWNER: Hetzer Mines, Inc. 250 Pearl, Boulder, Colo.

ROYALTY AT: 15% Hetzer Mines
5% U.S. Treasurer, Room 224, New Customs Bldg., Denver, Colo.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
8509	50360	9.0	45828	.14	.83	330.37	19.0185	23.60	
	Phos.	[illegible]		.02					
				.16	.25			2.42	
								21.03	403.04

CHECK NO. 3176 7/5/52 $ 27.77 (15%) To: Hodgson Transfer Co., Leader-Land, Colo.
CHECK NO. $
CHECK NO. 3177 7/5/52 $ 60.91 To: Hetzer Mines, Inc. (15%)
CHECK NO. 3178 7/5/52 $ 20.30 (5%) To: U.S. Treasurer, Room 224, New Customs Bldg., Denver
CHECK NO. 3179 7/5/52 $ 287.06 To: Tom Stanford

I hereby certify that the ore described above and sold is from the Forest Home Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

Vendor.

By

Montrose Daily Press 12-51-5m

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO

PHONE 61

PURCHASER

No. [illegible]

Shipped By C. C. Stanford
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

June 17, 19[illegible]
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
6/8	Bonnet Bond	600	96,110	30,900	18	7800	65,370	.90	600.05	.03	607.65
	Schedule Price:										
			Unit	30.00							
	Base .100										
	Loss .05										
	Excess .050 on .30#		1.40								
	Net Unit		10.50								
	Price per lb.		C .03								

DEDUCTIONS		
Royalty	C. U. S. Bureau. 10% Hetzer-Hasco, Inc.	20.00 60.75
Sampling & Assaying		
Hauling	Hodgson	02.77
Milling		
Total Deductions		163.76
Net Value		C 523.09

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

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

22½ New Customhouse
Denver 2, Colorado

April 10, 1953

E 79

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMAA Field Team, Region IV

Subject: Royalty Payments - Settlement Sheets

Enclosed are copies of the settlement sheets covering royalty payments on shipments of ore under contracts - Idm-E54, Idm-E79 and Idm-E333, which you requested in your letter of March 25, 1953.

These copies were made on the Thermo-Fax Duplicator. In some instances it is difficult to make legible copies; however, we hope these copies will serve your purposes. In some instances settlement sheets are not printed with India-Ink so it is impossible to duplicate them in this manner. In those instances it would be necessary for us to have the settlement sheets photostated.

W. H. King

Enclosure

Regate

Form No. VW-51-C8

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date July 4 as of June 30, 1952

SHIPPER: Tom Stanford, P.O. Box 354, Boulder, Colo.

NAME OF MINE: Forest Home

MINE OWNER: Hetzer Mines, Inc. 250 Pearl, Boulder, Colo.

ROYALTY AT: 15% Hetzer Mines
5% U.S. Treasurer, Room 224, New Customs Bldg., Denver, Colo.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
8509	50360	9.0	45828	.14	.83	380.37	19.0185	23.60	
	Phos. penalty			.05					
				.09 @ .25				2.25	
								21.35	406.04

CHECK NO. 3176 7/5/52 $ 27.77 (1.50 per ton haulage) To: Kingman Transfer Co., Pueblo, Colo.
CHECK NO. $
CHECK NO. 3177 7/5/52 $ 60.91 To: Hetzer Mines, Inc. (15%)
CHECK NO. 3178 7/5/52 $ 40.30 (5%) To: U.S. Treasurer, Room 224, New Customs Bldg., Denver
CHECK NO. 3179 7/5/52 $ 287.06 To: Tom Stanford

I hereby certify that the ore described above and sold is from the Forest Home Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

Vendor

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date May 20, 1952

SHIPPER
Tom Stanford, [illegible], Colo.

NAME OF MINE
Forest Home

MINE OWNER
Hetzer Mines, Inc.

ROYALTY AT
15%

5% Additional to Treasurer of U.S.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
8357	39595	9.0	36021	.13	1.08	389.13	19.4565	26.00	
				Phos Penalty 13-[illegible]8 @ .25¢				2.00	
								24.00	466.96

CHECK NO. $
CHECK NO. 2905 5/20/52 $ 70.04—15% TO: Hetzer Mines, Inc., 250 Pearl, Boulder
CHECK NO. 2906 5/20/52 $ 23.34—5% TO: Treasurer of U.S., Room 244, New Customs Bldg., Denver, Colo.
CHECK NO. $
CHECK NO. 2907 5/20/52 $ 373.57—TO: Tom Stanford, Boulder, Colo.

I hereby certify that the ore described above and sold is from the Forest Home Mine, and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged

Vendor.

N. VW 52 Cr

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date [illegible]

SHIPPER. TOM STAMFORD, BOX 354, BOULDER, COLORADO

NAME OF MINE FORMER MINE

MINE OWNER BETTER MINES, INC., 250 PEARL STREET, BOULDER, COLORADO

ROYALTY AT. 15% TO: BETTER MINES, INC., BOULDER, COLORADO
5% TO: TREASURER OF THE UNITED STATES, [illegible] MONTGOMERY BLOCK, DENVER, COLO.

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price / Per Unit	Total Value
6970	12875	8.0	2673	.13	.43	127.63	6.3840		
17024	50755	11.0	45173	.127	.37	334.17	21.2085		
	63630		74883		.76	565.85	28.2925	22.40	
	(PHOS PENALTY .13-.05=.08 @ .25=2.00)								
	(PHOS PENALTY .127-.05=.077 @ .25=2.93)					PHOS PENALTY		1.93	
								18.47	
									522.75

CHECK NO. $
CHECK NO. 3778 11-3-52 $ 39.20 (Hauling) TO: PETERSON TRUCKING CO., Boulder, Colorado
CHECK NO. 3779 11-3-52 $ 78.50 (15% After hauling) TO: BETTER MINES, INC., BOULDER, COLO.
CHECK NO. 3780 11-3-52 $ 26.17 (5% After hauling) TO: TREASURER OF THE UNITED STATES, DENVER, COLORADO
CHECK NO. 3781 11-3-52 $ 385.88 TO: TOM STAMFORD, BOULDER, COLORADO

I hereby certify that the ore described above and sold is from the [illegible] that I have authority from its owner to remove and sell the same, that said ore is not encumbered by [illegible] and receipt of payment in full is hereby acknowledged:

[illegible]

Form No. VW-52-C84

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date November 25, 1952

SHIPPER TOM STANFORD, BOX 554, BOULDER, COLORADO

NAME OF MINE FOREST MINE

MINE OWNER HEYZER MINES, INC., 250 PEARL ST., BOULDER, COLORADO

ROYALTY AT 15%(after hauling) TO: HEYZER MINES, INC., BOULDER, COLORADO
5%(after hauling) TO: TREASURER OF THE UNITED STATES, ROOM 224
NEW CUSTOMHOUSE, DENVER, COLORADO

Lot No	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO	Pounds WO	Units WO	Price Per Unit	Total Value
17657	63120	21.0	34057	.102	2.40	817.37	40.8685	30.00	
Phos Penalty				.050					
				.052 @ .254				1.32	
								28.70	1172.93
17664	37480	18.0	32374	.123	2.05	663.67	33.1835	30.00	
Phos Penalty				.050					
				.073 @ 254				1.83	
								28.17	934.79
									2107.71

CHECK NO 3004 11-25-52 42.54 (2.00 per ton / 3%) TO: FERRUCCI TRUCKING CO., BOULDER, COLO.
CHECK NO
CHECK NO 3005 11-25-52 309.78 TO: HEYZER MINES, INC., 250 PEARL ST., BOULDER, COLORADO
CHECK NO 3006 11-25-52 109.26 TO: TREASURER OF THE UNITED STATES, DENVER, COLORADO
CHECK NO 3007 11-25-52 1658.13 TO: TOM STANFORD, BOULDER, COLORADO

I [illegible] that I [illegible] the above and sold is from the FOREST MINE [illegible] authority from its owner to receive and sell the same that said ore is not encumbered by any [illegible] rights [illegible] to the best of my knowledge.

Vendor

Form No. 5 W 52-C8

VANADIUM CORPORATION OF AMERICA

Durango, Colorado

Tungsten Settlement Sheet

Date Dec 4 as of Nov. 30, 1952

SHIPPER: TOM STANFORD, BOX 354, BOULDER, COLORADO

NAME OF MINE: FORGET MINE

MINE OWNER: METZER MINES, INC., 250 PEARL ST., BOULDER, COLORADO

ROYALTY AT: 15% TO: METZER MINES, INC., BOULDER, COLORADO
5% TO: TREASURER OF THE UNITED STATES, ROOM 224 NEW CUSTOMSHOUSE, DENVER, CO

Lot No.	Gross Weight	% H_2O	Dry Weight	% Phos.	% WO_3	Pounds WO_3	Units WO_3	Price Per Unit	Total Value
17090	1985	1.0	1965	.062	18.70	367.46	18.3730	44.40	
Phos Penalty				.050					
				.012 @ .154					
								+.27	
								44.13	810.80

CHECK NO. ~~3064~~ ~~12-4-52~~ $~~121.62~~ (15%) TO: METZER MINES, INC.
CHECK NO. ~~3065~~ ~~12-4-52~~ $ ~~40.54~~ (5%) TO: TREASURER OF THE UNITED STATES
CHECK NO. ~~3070~~ ~~12-4-52~~ $~~648.64~~ TO: TOM STANFORD
CHECK NO. _____ $_____
CHECK NO. _____ $_____

I hereby certify that the ore described above and sold is from the FORGET MINE Mine and that I have authority from its owner to remove and sell the same, that said ore is not encumbered by any liens or attachments and receipt of payment in full is hereby acknowledged.

_____
Vendor

MPF M 8 52

FILE COPY
SURNAME:

400

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

Rutledge
Martin
Jaffee
Selfridge
Johnson
Matthews

Air Mail

RW.

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

MAR 25 1953

J. C. 3/25/53

Re: Docket No. DMA 1107-X - Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-E-79

Dear Mr. King:

Reference is made to the payment of royalty under the subject contract. To date we have record of the following payments:

Date	Amount
7-10-52	$ 20.30
8- 4-52	23.35
11- 7-52	24.17
12- 3-52	103.26
12-18-52	40.54

The settlements sheets covering these payments were not attached to the "Schedule of Collections" received in Washington.

It will be appreciated if you will furnish this Administration with copies of settlement sheets applying to the previous, as well as each future "Schedule of Collections".

Sincerely yours,

George C. Selfridge (GB)
Chairman, Operating Committee

Approved:

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

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

cc: Docket
Field Team, Region 4
Code 400
Admn. Read. File
Operating Committee
R. W. Geehan, USBM
D. M. Lemmon, USGS

FARutledge/hhb
3/20/53

400

FILE COPY
SURNAME:

Rutledge
Lemmon
Martin
Geehan
Chambers
Martin
Hoffman
Johnson
Thayer
Selfridge

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

FEB 27 1953

Mr. Tom G. Stanford
Post Office Box 354
Boulder, Colorado

Re: Docket No. DMA 1107X - Tungsten
Tom G. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-M79

FARutledge/ls
2/19/53

Dear Mr. Stanford:

J.C. 3/4/53

Transmitted herewith is a Certification of Discovery under Contract No. Idm-M79 on the Forest Home mine leased by Tom G. Stanford.

By the terms of the Exploration Project Contract and of the Certification, all production from the aforesaid lands from the date of the Exploration Project Contract is subject to the Government's percentage royalty as set forth in the contract until the sum of $16,056.30 is paid, or until July 23, 1961, whichever occurs first.

Payments should be made to Mr. W. E. King, Executive Officer, DMEA Field Team, Region IV, 224 New Customhouse Building, Denver 2, Colorado. Checks should be payable to the Treasurer of the United States. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward check direct to the Executive Officer. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the tungsten products sold, the name of the purchaser, and the price and charges certified to be correct by the purchaser.

You are requested to notify Mr. King of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also, if production ceases at any time for any extended period, please notify Mr. King at 6-month intervals that no production has been made, when that is the case.

Sincerely yours,

(signed) FRANK E. JOHNSON (fw)

ACTING Administrator

Enclosure

cc: Code 400 - Mr. Martin
Code 800 - Mr. Chambers
Code 110 - Mr. Johnson
Mr. F. E. Hedges, USBM
Mr. R. W. Geehan, USBM

CC: Docket
Field Team, Reg. 4
Admn. Read. File
Operating Committee
T. P. Thayer, USGS
D. M. Lemmon, USGS

FILE COPY
SURNAME:

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

FEB 27 1953

Mr. H. I. Young
Deputy Administrator
Defense Materials Procurement Agency
General Services Administration Building
Washington 25, D. C.

Re: Docket No. DMA-1107X (Tungsten)
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-E79

J. C. 3/2/53

Dear Mr. Young:

I am enclosing one copy each of a "Certification of Discovery" under Exploration Project Contract No. Idm-E79, a final report by the Field Team, and a final report by the Operator.

Contract No. Idm-E79 was signed July 23, 1951, with the Government participating to the extent of 75 percent in an exploration project estimated to cost $10,000.00. This contract was amended (Amendment No. 4, dated March 24, 1952, and effective January 17, 1952) to increase the total cost of the project to $22,250.00: Government's share, $16,687.50. Of the latter amount, $16,056.30 was expended.

Work under the contract, which allowed for 150 feet of drifting and 140 feet of raises, was started August 15, 1951. The footages specified for drifts and raises were increased to 250 and 190 feet, respectively, by Amendment No. 1, dated October 11, 1951, without an increase in the amount of the contract. Amendment No. 4 increased both the exploration project footages and the total contract funds. Total footages authorized were 550 feet for drifts and 315 feet for raises; total footages driven were 518 and 202 feet, respectively.

A small ore body in a hanging wall vein on the 200-foot level of the Forest Home Mine was exposed by the work performed under the contract. Sufficient work was done to establish that the ore body was of limited extent and stoping of ore by the Operator confirmed

this fact. Approximately 200 tons of ore were removed in this steping, of which the first 150 tons averaged from 0.8% to 0.9% WO_3. The Operator has paid royalties to the Government on the ore shipped to date. Although the total production is expected to be small, a certification of discovery or development has been issued in order that the Government may retain the royalties voluntarily paid by the Operator on this production, and which he expects to pay on any future production.

Sincerely yours,

(signed) FRANK E. JOHNSON

ACTING Administrator

Enclosures

FARutledge/FEJohnson/ls/bih
2/26/53
cc to: Docket
Admr. Reading File
Region IV (2)
Operating Committee
Messrs. Thayer GSA R-4234
Hedges R-4604
Lemmon R-4234 GSA
Geehan R-3521
Hofflund R-4627
Chambers R-2612
Murkland R-6020
Martin R-3538
Johnson R-4624

DOCKET

400

FILE COPY
SURNAME:

Rutledge
Lemmon
Martin
Gahon
Chamberlin
Ontiz
Hoffman

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

Mr. H. I. Young, Deputy Administrator
Defense Materials Procurement Agency
General Services Administration Building
Washington 25, D. C.

Re: Docket No. DMA 1107X - Tungsten
Tom G. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-279

Dear Mr. Young:

I am enclosing one copy each of a "Certification of Discovery" under Exploration Project Contract No. Idm-279, a final report by the Field Team, and a final report by the Operator.

Contract No. Idm-279 was signed July 23, 1951, with the Government participating to the extent of 75 percent in an exploration project estimated to cost $10,000.00. This contract was amended (Amendment No. 4, dated March 24, 1952, and effective January 17, 1952) to increase the total cost of the project to $22,250.00; Government's share, $16,687.50. Of the latter amount, $16,056.30 was expended.

The contract allowed for 150 feet of drifting and 140 feet of raises, and the exploration program was started August 15, 1951. The footages specified for drifts and raises were increased to 250 and 190 feet, respectively, by Amendment No. 1, dated October 11, 1951, without an increase in the amount of the contract. Amendment No. 4 increased both the exploration project footages and the total contract funds. Total footages authorized were 550 feet for drifts and 315 feet for raises; total footages driven were 518 and 202 feet, respectively.

A small ore body in a hanging wall vein on the 200-foot level of the Forest Home mine was found in workings, hereinafter described, designed to explore veins known on the level above. A crosscut, starting on the 200-foot level approximately 80 feet east of the Forest Home shaft, was driven northerly 50 feet to intersect a parallel unnamed vein north of the Forest Home vein. This vein, a narrow quartz vein carrying small quantities of ferberite, strikes N. 82° E. and dips 60° to 70° northwest. A 24-foot drift was driven easterly from the crosscut to explore this vein.

A raise on the vein, starting from the midpoint of the 24-foot drift, found good ore 35 feet above the 200-foot level and an 82-foot sublevel was driven east from that intersection. The raise went out of ore just above the sublevel and remained in barren vein material to the 100-foot level. The vein for the first 60 or 70 feet along the sublevel drift contained streaks and spots of ferberite which ranged from 1/2 inch to 4 inches wide and probably averaged about 1-1/2 inches.

Stoping above the sublevel proved that the ore body was small. After removal of about 200 tons, of which the first 150 tons averaged 0.8 to 0.9 percent WO_3, the vein in the back of the stope contained only a thin, unminable streak of ferberite (less than 1/2 inch). Only a few spots of ore were found in the floor of the sublevel, and it is unlikely that the ore extends below the sublevel. About 25 feet east of the breast of the sublevel drift, the vein should intersect a stoped area on a cross vein.

Sincerely yours,

Administrator

Enclosure

Copy to: Docket
Field Team, Region 4 (2)
Admn. Reading File
Operating Committee
Code 400 - Mr. Martin
Code 800 - Mr. Chambers
Code 110 - Mr. Johnson
Code 900 - Mr. Murkland
F. E. Hedges, USBM
R. W. Geehan, USBM
T. P. Thayer, USGS
D. M. Lemmon, USGS

FARutledge/ls
2/19/53

400

FILE COPY
SURNAME:

Rutledge
Lemmon
Martin
Gehean
Chambers
Anthony
Hoffman
Selfridge
F E Johnson

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

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

3/2/53

Re: Docket No. DMA 1107X - Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-N79

Dear Mr. King:

Enclosed is a copy of the "Certification of Discovery or Development" on the above-noted property.

Sincerely yours,

George C. Selfridge (JHB)

Chairman, Operating Committee

Enclosure

Copy to: Docket
Field Team, Region 4
Admn. Read. File
Operating Committee
Code 400 - Mr. Martin
Code 800 - Mr. Chambers
Code 900 - Mr. Murkland
Code 110 - Mr. Johnson
F. E. Hedges, USBM
R. W. Geehan, USBM
T. P. Thayer, USGS
D. M. Lemmon, USGS

Approved:

J. H. Hedges (JHB)

Member, Bureau of Mines

T. P. Thayer (JHB)

Member, Geological Survey

FARutledge/ls
2/19/53

FILE COPY
SURNAME:

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

Martin
Self Indg.
Mitchell

FEB 9 1953

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

Re: Docket No. DMA 1107, Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-E-79

Dear Mr. King:

This will acknowledge receipt of your letter of January 21, 1953, inquiring about the subject contract. Our letter of January 23, which crossed yours in the mail, advised you that we are preparing a certification of discovery but did not explicitly instruct you how to handle the money received. You should, of course, deposit such funds with your finance officer as a repayment of our claim which will be established by that certification.

Judging from letters originating in your office, dated December 5, and 16, 1951 and January 6, 1952, it appears that there has been some doubt as to the procedure to be followed with regard to certifications. This doubt probably has been dispelled by now as a result of our recent correspondence. However, we wish to call your attention to DMEA, Circular 26, which relates to certifications, in the event that there is still some question regarding procedure.

It is realized that it will be difficult in some cases to decide if a project should be recommended for certification. Each will have to be decided on its own merits. It is only expectable that there will be occasionally differences of opinion between your office and Washington regarding certifications. But such differences will be held to a minimum if Washington has the complete information instead of only a part and can also present its views for your consideration.

Your letter of January 28 transmitting the final reports has been received and the reference to royalty payments noted. The certification will be completed in a manner qualified to fit this particular

contract in accordance with the views set forth in the copy of a proposed Supplement No. 2 to DMEA Circular 26 sent you on January 8.

Sincerely yours,

George C. Selfridge (JB)

Chairman, Operating Committee

J.H. 2-9-53

Approved:

J. H. Hodges (JB)

Member, Geological Survey

A. R. Kinkel, Jr. (JB)

Member, Bureau of Mines

WSMartin/ls 1/30/53

GC Selfridge/pa 2/6/53

CC: Docket
Code 400
Field Team, Reg. IV
Admin. Reading File
Operating Committee
D. M. Lemmon, USGS
R. W. Geehan, USBM

400

FILE COPY
SURNAME:

Martin

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

FEB 9 1953

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

Re: Docket No. DMA 1107, Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-E-79

Dear Mr. King:

This will acknowledge receipt of your letter of January 21, 1953, inquiring about the subject contract. Our letter of January 23, which crossed yours in the mail, advised you that we are preparing a certification of discovery but did not explicitly instruct you how to handle the money received. You should, of course, deposit such funds with your finance officer as a repayment of our claim which will be established by that certification.

We see no good operating reason why you should hesitate to give us your recommendations about this or similar discoveries merely because we have told you, as we did in our letter of December 12, 1952, that "Based upon the information that you have given us, we would not make a certification of discovery or development." It is unreasonable to expect that we will agree with your recommendations in every case, even if all the information is available to us. When, as in this instance, you hold the engineering and geological reports in your office until the matter is "clarified," you make it difficult for us to reach sound decisions, and thus fulfill our responsibility.

Neither is there any sound administrative reason why you should wait for further authorization to make such recommendations. You are already authorized by DMEA Circular 26 of May 29, 1952, from which we quote in part:

"1. In suitable cases, the Administrator will certify to the operator, as provided in the contract form, that a discovery or development has resulted from the work under the contract. This certification will be prepared in the Washington office upon a suitable report and recommendation from the field team."

Sincerely yours,

George C. Selfridge (WB)

Chairman, Operating Committee

Approved:

J. H. Hedges (WB)

Member, Geological Survey

A. R. Kinkel, Jr. (WB)

Member, Bureau of Mines

WSMartin/ls
1/30/53

CC: DOCKET
CODE 400
FIELD TEAM, REG. IV
ADMN. READ. FILE
OPER. COMMITTEE
D. M. LEMMON, USGS
R. W. GEEHAN, USBM

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

224 New Customhouse
Denver 2, Colorado

January 28, 1953

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, DMEA, Region IV

Subject: Docket DMA ~~1707X~~ 1107, (Tungsten), Contract Idm-E79, Tom C. Stanford, Forest Home Mine, Boulder County, Colorado

In compliance with the request contained in the last paragraph of the letter from the Chairman of the Operating Committee dated January 23, 1953, we are enclosing the following final reports pertaining to work performed under the subject contract:

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

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

3. Original and three copies of the final geologic report by the Geological Survey.

Work accomplished under Contract Idm-E79 consisted of 518 feet of crosscutting and drifting and 202 feet of raising, at a total cost of $21,408.40. The Government's contribution amounted to $16,056.30.

A small amount of ore was discovered as a result of the work under the exploration contract. To date 223,120 dry pounds of ore have been shipped which has resulted in royalty payments to the Government in the aggregate amount of $211.62. Our memorandum of December 16, 1952, and of January 21, 1953, were in error relative to the statement that royalty payments in the amount of $285.99 had been received.

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

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

Contract Idm - E79
DMA - 1107
Forrest Home Mine

FINAL REPORT

Work was started on subject contract August 10, 1951, and terminated September 15, 1952, during which time we made the following exploration.

SECOND LEVEL (200 ft) - Forrest Home Mine:

Crosscutting	140 ft
Drifting	157 ft
Raise	202 ft

FIRST LEVEL (100 ft) - Forrest Home and Cold Springs

Crosscutting	86 ft
Drifting on Cold Springs vein	131 ft
Slabbing	4 ft

TOTALS:

Drifting, Crosscutting & slabbing	518 ft at $27.83 per ft
Raising	202 ft at 34.89 per ft

Various small quartz veins were encountered in both levels. No feberite showing except in sub-level drift on second level where ore was taken out in the stoppings, some of which was shipped as taken out. Majority of formation encountered - silicious granite.

After termination of contract on September 15, 1952, operator proceded to take out ore on sub-level, but ore was very bunchy and considered to be of doubtful economic value. Ore on ground taken from stopping was then sorted, screened and shipped.

Ore taken from the mine is summarized as follows:

ORE SHIPPED and SETTLEMENT RECEIVED:

Date	Weight	WO_3 Content	Units
5/20/52	39,595	1.08%	19.4565
7/4/52	50,360	.83	19.0185
10/31/52	32,275	.43	6.3840
10/31/52	50,755	.97	21.9085

ORE SHIPPED (Settlement not received as yet):

11/3/52	39,480	2.05%	Not available yet
11/3/52	43,110	2.4	"
11/14/52	1,985	(High Grade	"
		(Estimated 10-12%	"

OPER
FINAL
REAU

ORE ON HAND:

Ore taken out but too wet to be screened--was placed on the dump where it is now frozen solid and cannot be shipped until spring:

Estimated tonnage	12 to 15 tons
Estimated WO_3 Content	2%

Contract Amount Authorized	$22,250.00
Total Amount Expended	21,464.20
Unused Portion.....	$ 785.80

Tom C. Stanford

Tom C. Stanford
P.O. Box 354
Boulder, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20
Denver Federal Center
Denver 14, Colorado
December 19, 1952

Memorandum

To: Executive Officer, Field Team, Region IV

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

Subject: DMEA 1107, Contract I4n-K79 (Tungsten), Tom C. Stanford (Forest Home mine), Boulder County, Colorado

Please find enclosed the original and eight copies of R. L. Belmer's final report on the subject project.

In accordance with your instructions, the costs section of the report is subject to final audit.

W. M. Traver, Jr.

W. M. Traver, Jr.

enclosures

WMT/amh

cc: 8
K79
DMEA Chron.

Reviewed by
DMEA OPERATING COMMITTEE
2-2-53
(date)

GS
2/6/53

FOREST HOME TUNGSTEN MINE

BOULDER COUNTY, COLORADO

DMA DOCKET 1107

Final Geologic Report

FT
FINA
REPO

By Ogden Tweto
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE

2-2-53
(date)

FOREST HOME TUNGSTEN MINE
BOULDER COUNTY, COLORADO

Final geologic report

Exploration under contract Idm-E79 at the Forest Home tungsten mine, Boulder County, Colorado, was completed in September 1952. Three general areas were explored, as indicated on the accompanying map: the hanging wall on the 200-foot level, the footwall on the 200-foot level, and the footwall on the 100-foot level. The exploration in the hanging-wall yielded some ore; neither of the projects in the footwall disclosed ore. The ore in the hanging wall appeared promising at the time of extension of the original contract, in the spring of 1952, and also at completion of the project in September, but stoping done since then disclosed that the orebody is small. As of November 5, 1952, it was largely mined out. Total output will probably be about 200 tons averaging 0.80 to 0.90% WO_3.

The exploration in the hanging wall on the 200-foot level was done to explore veins known on the level above. A crosscut was driven northward about 50 feet (see map), where a vein was cut. A short drift on this vein revealed a little ferberite. A raise was put up on the vein and came into good ore at 35 feet, where a sublevel was started. At this time, funds under the original contract were depleted, and an extension was obtained to drive the sublevel and extend the raise. The sublevel was then driven to a total length of 82 feet. For the first 60 feet, the vein contained streaks and spots of ferberite which ranged from ¼ inch to 4 inches wide and probably averaged about 1½ inches. The raise was extended

from the sublevel to the level above, but it went out of ore just above the sublevel and never showed any more. Stoping done above the sublevel has proved the orebody to be small. About 150 tons averaging 0.80 to 0.90% WO_3 have been shipped, and about 50 tons remain in the chute and in the stope. This appears to be all the ore that can be obtained from this vein. The vein is barren on the west side of the raise, and in the eastern 22 feet of the sublevel. About 25 feet east of the breast of the sublevel, the vein should intersect another hanging-wall vein which has been stoped at this level. No ore was found in the floor of the sublevel except a few spots near the east end of the stope, so it is unlikely that the ore goes below the sublevel. In the back of the stope above the sublevel, the vein is barren or contains only a thin, unmineable streak of ferberite (less than ½ inch).

In the footwall on the 200-foot level, an 85-foot crosscut was run southward to the Cold Spring vein, and a 40-foot drift was driven on a footwall vein that was productive on the level above. Raises were put up on both veins, but only traces of ferberite were found.

In the footwall on the 100-foot level, an 85-foot crosscut was driven southeastward to and beyond the Cold Spring vein, and a 135-foot drift was driven on the Cold Spring vein, which proved to be barren throughout this distance.

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

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1/6/53

FINAL ENGINEERING REPORT

DMA 1107, Exploration Project Contract Idm-E79

Tom C. Stanford, Contractor

Forest Home Mine

Boulder County, Colorado

Tungsten

R. L. Bolmer, Mining Engineer
Bureau of Mines

December 19, 1952

Reviewed by
DMEA OPERATING COMMITTEE
2-2-53
(date)

DMA 1107
Contract Idm-E79

FOREST HOME MINE
BOULDER COUNTY, COLORADO

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DMA 1107
Contract Idm-E79

FOREST HOME MINE
BOULDER COUNTY, COLORADO

FINAL ENGINEERING REPORT

By

R. L. Bolmer

SUMMARY AND INTRODUCTION

In May 1951, Tom C. Stanford applied under the provisions of the Defense Production Act of 1950 (DMA 1107) for assistance in undertaking an exploration program for tungsten at the Forest Home mine, Boulder County, Colo. The proposed program, estimated by the applicant to cost $10,000.00, involved exploration of a cross vein on the mine's second level.

A field examination of the property was made in June 1951. The examining team concluded that the proposed program was sound and estimated that 290 feet of drifting and raising were necessary to test the possibilities of the vein. A program in the amount of $10,000.00 was recommended.

Exploration project contract Idm-E79, signed July 23, 1951, provided $10,000.00 (Government participation, $7,500.00) for the program as proposed by the applicant and recommended by the examining team. The original program later was reappraised. On the basis of the work then accomplished and on the basis of promising objectives yet existing in the mine, the program was expanded and the contract amount increased to $22,250.00 (Government participation, $16,687.50).

Work under the contract commenced August 15, 1951, and continued until the original contract amount was reached, February 4, 1952. Work under the revised program resumed after a recess, April 14, 1952. The final stage of the revised program was stopped by Defense Minerals Exploration Administration representatives September 16, 1952. At that time most of the recommended program had been completed without a significant discovery. Further exploration at the Forest Home mine, either with or without Government assistance, was not recommended.

A total of 720 feet of drifting, crosscutting, and raising was performed under the contract at a total cost of $21,408.40 (Government participation, $16,056.30). The work conformed to the terms of the exploration project contract and was performed in an efficient manner and according to good mining practice. The costs incurred were necessary and are not considered excessive.

A single, insignificant discovery was made as a result of the program. The ore shoot discovered occurred between the first and second levels on an unnamed vein in the Forest Home hanging wall. Between 1/2 and 4 inches of high-grade ferberite were opened for about 75 feet along the vein. Upon completion of exploration, the contractor attempted to mine the discovery. Stoping revealed that the ore shoot narrowed and became spotty. As stoping advanced, the ore became marginal and further mining of the discovery was not attempted.

About 200 tons of crude ore were removed from the discovery vein during exploration and stoping operations. The tonnage was sorted and screened and 144 tons averaging 1.47 percent WO_3 marketed.

A total production of approximately 183 units WO_3, valued at about $5,000.00, resulted from the discovery made under the exploration project contract.

LOCATION AND OWNERSHIP

The Forest Home mine is within the boundaries of the Forest Home lode mining claim, survey number 19559, an area of about 7 acres located in the Grand Island Mining District, Boulder County, Colo. The property is 3 miles by road northeast of Nederland, Colo. (fig. 1). The specific location of the property is NE1/4, sec. 7, T. 1 S., R. 72 W., 6th P. M.

The Forest Home mine is owned by Hetzer Mines, Inc., Elmer Hetzer, president, of Boulder, Colo. The property is leased to Tom C. Stanford, of Boulder, Colo., until December 15, 1953, for a royalty of 15 percent of the net proceeds from the sale of any ore produced therefrom. The lessor subordinated its rights to the interest of the Government under the provisions of the exploration project contract.

DESCRIPTION OF THE PROPERTY

The mine was developed by a two-compartment, inclined shaft, 205 feet deep, and sunk on the Forest Home vein (fig. 2). Two level drifts on the Forest Home vein were driven off the shaft at 107- and 205-foot depths. A total of 800 feet of drifting and crosscutting had been performed on the first level and 400 feet on the second level. The greater portion of the development was confined to the Forest Home vein.

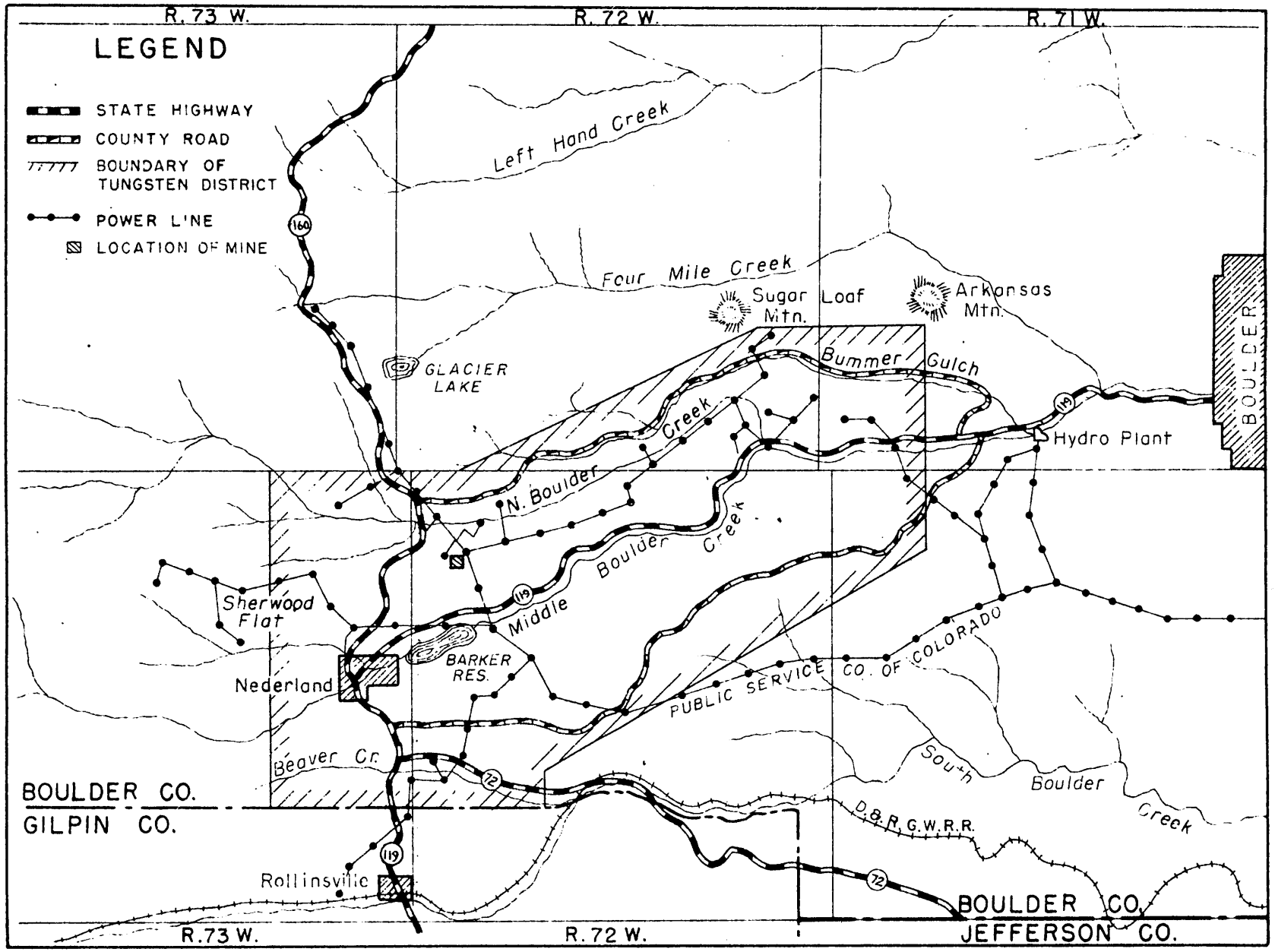

Figure 1 - Location map, Forest Home mine, Boulder County, Colorado - DMA 1107, Contract Idm-E79 (Tungsten)

The property contained a combination hoist and compressor building and a 30-ton ore bin; transmission lines providing 440-volt alternating current were extended to the property. During the few months preceeding the approval of the exploration program, the lessee unwatered the mine workings and rehabilitated the shaft and portions of both levels. During this period both the lessee and the lessor provided and installed at the property equipment necessary for mining operations. The following equipment was on the property at the time the exploration program started and was used by the project during the period that the program was in force:

*Single-drum mine hoist; 40 horsepower motor
2 - Shaft buckets (1/4-ton capacity); 1 - bucket dolly
1 - Mine car (14-cubic-foot capacity)
*Ingersoll-Rand, Type 10, 7-1/2 x 14 x 12 air compressor; 50 horsepower motor
*Gardner-Denver R91 stoper; *S55 sinker
Air receiver, water tank, hoses; shell, column, arm
*1-1/2-inch centrifugal pump; 15 horsepower motor

(*The project was charged depreciation for the use of these items.)

DESCRIPTION OF THE DEPOSIT

Tungsten ore occurred as ferberite in narrow, irregular quartz veins in a granite which had been intruded by aplite and pegmatite. Individual ore shoots were small and most had been followed through vertical distances of less than 100 feet. Veins ranged from 1/2 to 3 feet in width and dipped 60° to 90°. The general course and attitude of the principal, or Forest Home, vein was S. 78° W. and 75° W. The vein had been opened for over 400 feet along its strike and to a depth of 200 feet below the surface. Numerous cross and branch veins occurred both in its foot and hanging walls.

Because of air slacking, openings in the granite would not stand unsupported for any extended period. Haulageways required timbering and some variation of cut-and-fill stoping was necessary. The dike rock was harder; the walls stood well and shrinkage stoping was possible.

PRODUCTION AND RESERVES

Since it was opened in 1909, the Forest Home mine has produced in excess of 10,000 units WO_3. During World War II it was one of the more productive mines in the Boulder district. Production during 1943-45 was 3,500 tons containing 4,700 units WO_3. Early output came from the Forest Home vein, principally above the first level. World War II output came from branch veins in the foot and hanging walls of the Forest Home vein.

Like all tungsten properties in Boulder County, the Forest Home mine did not or never had contained a known reserve of more than a few hundred units. Exploration was appraised from a point of view of geologic possibilities still remaining untested. The mine had several such possibilities.

EXPLORATION OBJECTIVES

The applicant proposed exploration on the second level of a cross vein which intersected the Forest Home vein about 50 feet east of the shaft (fig. 2). The vein had been productive where it cut an aplite dike on the first level and contained good ore in a winze 12 feet deep in the floor of the level. The dike had a rather flat dip to the north and projected into the hanging wall of the Forest Home vein on the

second level. The rake of the first level stope was about 40° northeast. At least 63 feet of drifting to the northeast were required to cut the ore shoot on the second level. A drift at least 27 feet southwest also was required to test the possibility of ore projected directly below the first level. In order to allow for variations in the dip of the aplite and the consequent change in rake of the ore shoot, 150 feet of drifting were recommended. Approximately 140 feet of raising also were recommended to complete exploration of the cross vein. It was estimated that the work recommended would result in 1,800 tons of inferred ore averaging 1.8 percent WO_3.

The contractor later requested and received approval to crosscut south from the second level and explore by raising footwall veins believed to parallel the Forest Home vein.

When the costs incurred had equalled the original contract amount, the project was stopped and the program reappraised. To that time, exploration in the footwall of the second level had been unproductive. When the project recessed, a vein showing some ferberite had been cut in the hanging wall of the second level and a raise and sublevel therefrom had been started on it. Extension of the raise and the sublevel through the indicated ore was recommended. A crosscut on the first level to cut parallel veins (particularly the Cold Spring vein, which had been productive farther to the east) in the footwall also was recommended. Drifting and raising on footwall veins was permitted but the extent of such work was dependent upon the conditions encountered.

WORK COMPLETED UNDER THE EXPLORATION PROJECT CONTRACT

Project work commenced August 15, 1951, and was continuous until the allotted funds were expended on February 4, 1952. Work resumed April 14, 1952, under the extended program and continued until halted by the Defense Minerals Exploration Administration on September 16, 1952. Initial work included exploration both north and south off the mine's second level. Exploration into the footwall of the Forest Home vein was attempted first.

An 88-foot crosscut was driven southeasterly to the Cold Spring vein from a location in the Forest Home drift 45 feet east of the shaft (fig. 2). The Cold Spring and three intermediate veins were cut; all were barren of mineral. A 42-foot drift was driven southwesterly on the cross vein. Raises of 60 and 37 feet, respectively, were put up on the Cold Spring and cross veins but only traces of ferberite were found.

A crosscut toward the north was started with the objective of cutting the cross vein; however, the vein weakened with distance into the footwall and was not recognized. The crosscut was continued for 52 feet, entering the aplite dike and cutting at 47 feet a mineralized east-west vein in the aplite. A 32-foot drift to the east and west on the vein revealed a little ferberite. This vein could be projected to one which had shown some production on and above the first level. A raise on the vein was begun from the west drift but went out of mineral at 4 feet and stopped. A raise started on the vein from the east drift came into good ore at 35 feet where a sublevel drift to the east was begun.

After the program was extended, the sublevel was advanced easterly for a total of 83 feet and the raise extended to the first level above, a distance of 66 feet. The vein for the first 70 feet along the sublevel contained fairly continuous mineral over widths ranging from 1/2 to 4 inches, probably averaging 1-1/2 inches. The raise went out of ore just above the sublevel and the vein continued barren to the upper or first level.

On the first level, an 86-foot crosscut was driven south in the footwall to and beyond the Cold Spring vein. The Cold Spring vein was explored by drifts 94 feet west and 37 feet east of the crosscut. The vein was strong but barren of mineral throughout this distance. A drift was started on a narrow vein westerly from near the end of the crosscut but the vein did not improve and work was stopped after 4 feet. Further exploration in this section was not warranted and the program was stopped by the Defense Minerals Exploration Administration representatives.

Summary of Work Completed

Objective	Footage		
	Crosscutting	Drifting	Raising
Second level:			
footwall veins	88	-	60
cross vein	-	42	37
hanging wall veins	52	32	105
Sublevel:			
hanging wall vein	-	83	-
First level:			
footwall veins	86	135	-
Totals	226	292	202
		418	

DESCRIPTION OF DISCOVERY

Operations under the exploration project contract resulted in a single, rather insignificant discovery. A small ore shoot was opened on the second hanging wall vein occurring north of the principal Forest Home vein (fig. 2). It was recommended that a discovery be certified for an 88-foot section along the vein beginning 80 feet west of the Forest Home shaft and included between the first and second levels. Production from within the described limits of the vein was to be subject to the Government's percentage royalty.

The ore shoot occurred in a narrow quartz vein striking east-west and dipping steeply north. The vein was explored by a raise driven between the first and second levels and by an 83-foot sublevel driven easterly off the raise at a height of 35 feet above the second level. As encountered in the raise, the vein showed weak and very spotty mineralization. Its exposure in the west side of the raise and west of a second level crosscut contained no mineral. The possibility of ore occurring on the vein west of the raise was considered remote.

The sublevel exposed 1/2 to 4 inches of high-grade ferberite continuously along the vein for a distance between 5 and 75 feet east of the raise. The sublevel was driven along the bottom or lower extent of the ore shoot and extended through the eastern limit of the shoot. Immediately beyond the breast of the sublevel, the discovery vein intersected a cross vein which had been stoped in this section. As the discovery vein itself had been stoped above the first level, the ore shoot comprising the discovery was confined to a section of the vein immediately above the sublevel.

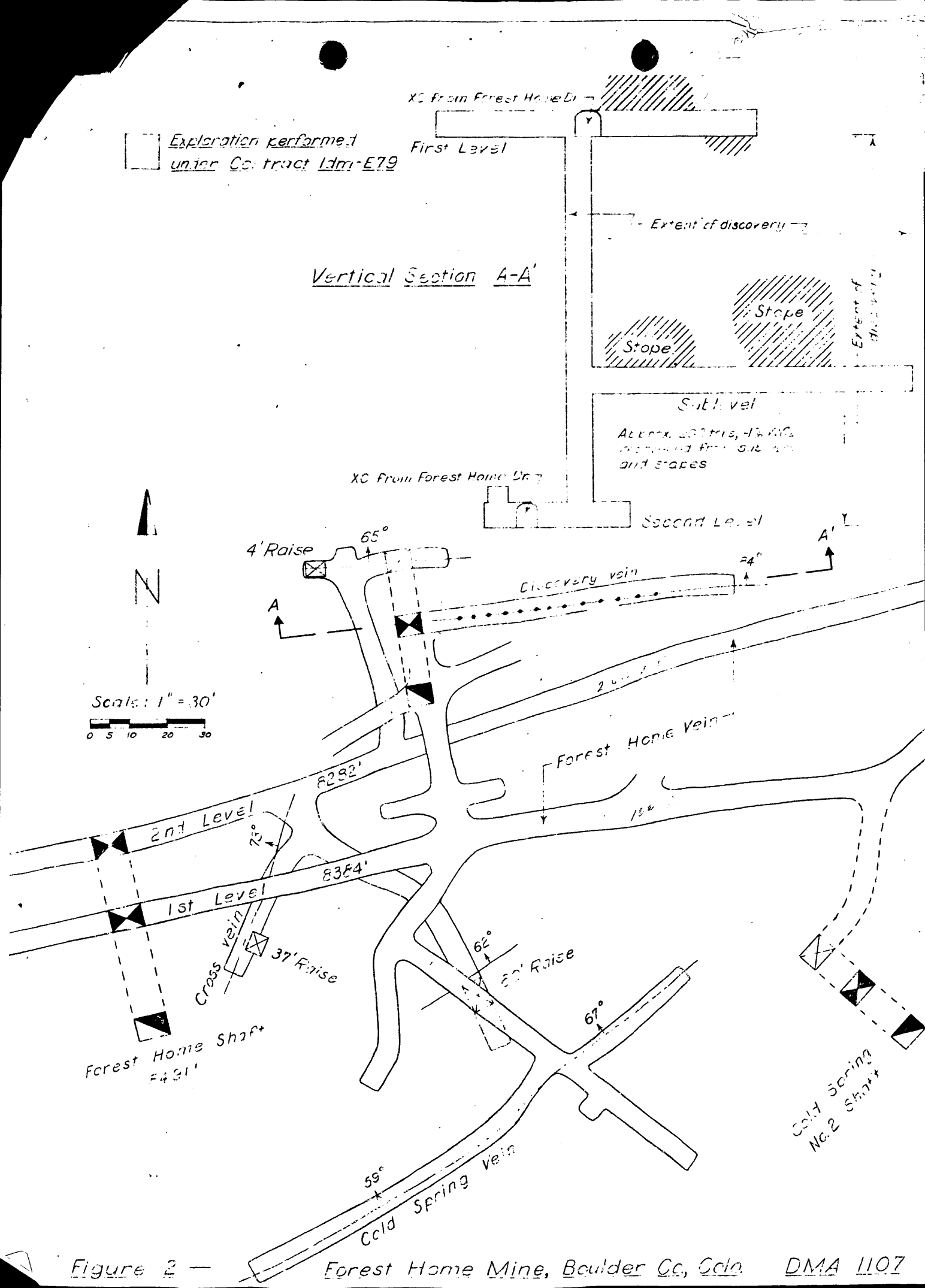

Figure 2 — Forest Home Mine, Boulder Co., Colo. DMA 1107

PRODUCTION FROM DISCOVERY

About 86 tons, representing screened and up-graded portions of the material broken during sublevel drifting, were shipped to a local custom mill. The shipments contained approximately 67 units WO_3 and netted $1,356.35. The Government received as royalty 5 percent, or $67.82, of the net value.

Upon completion of the exploration program, the contractor attempted to mine the discovery. The ore exposed along the sublevel was promising; however, the shoot, as stoped above the sublevel, proved disappointing. The continuity and thickness of the mineral in the vein decreased with height. In places, the vein was stoped 20 to 30 feet above the sublevel. At such heights the mineral content of the vein averaged less than 1 inch in width and became too spotty for the continuance of a commercial operation. The ore in the back of the stopes was considered marginal under current market conditions and operating costs, and was left unmined.

About 57 tons, representing up-graded portions of the ore removed by stoping, were or will be shipped. The mineral content of this production (estimated in part) was approximately 116 units WO_3 and should net about $3,543.47. Ore shipped during exploration averaged 0.85 percent WO_3; during stoping operations dilution was held to a minimum and shipments averaged 2.52 percent WO_3. Due to the higher grade, the average unit price received on stope ore was $30.99 as compared with $20.90 per unit for exploration ore.

A total production of approximately 183 units WO_3 resulted from the discovery made under the exploration project contract. About 200 tons of crude ore actually were mined from the discovery. The crude was up-graded by screening and sorting and a total of about 144 tons averaging 1.47 percent WO_3 were or will be shipped. Total value of the production was estimated at about $5,000.00; a net return of about $4,900.00 was indicated.

Production resulting from ore discovery under exploration project contract Idm-E79[1]

Date Shipped	Weight Gross	Weight Dry	Percent Phosphorus	Percent WO_3	Units WO_3	Unit[2] Price	Total Value	Freight	Net Value	Government Royalty
5/20/52	39,595	36,031	.13	1.08	19.4565	$24.00	$ 466.96	-	$ 466.96	$ 23.35
7/4/52	50,360	45,828	.14	.83	19.0185	21.35	406.04	-	406.04	20.30
10/31/52	32,275	29,693	.13	.43[3]	6.3840)	18.47	522.56	$ 39.21	483.35	24.17
10/31/52	50,755	45,172	.127	.97	21.9085)					
Recovered from exploration	172,985	156,724	.132	.85	66.7675	$20.90	$1,395.56	$ 39.21	$1,356.35	$ 67.82
11/25/52	43,110	34,057	.102	2.40	40.8685	$28.70	$1,172.93)	$ 42.54	$2,065.17	$103.26
11/25/52	39,480	32,374	.123	2.05	33.1835	28.17	934.78)			
11/14/52	1,985	1,965	.068	18.70	18.3730	44.13	810.80	-	810.80	40.54
4/	30,000	24,000	.10	2.00	24.0000	28.75	690.00	22.50	667.50	33.37
Produced from stopes	114,575	92,396	.108	2.52	116.4250	$30.99	$3,608.51	$ 65.04	$3,543.47	$177.17
Total produced from discovery	287,560	249,120	.123	1.47	183.1925	$27.32	$5,004.07	$104.25	$4,899.82	$244.99

1/ Shipped to Vanadium Corporation of America, Nederland, Colo.
2/ Unit price reduced $0.25 for each .01 percent phosphorus in excess of .05 percent.
3/ .05 percent WO_3 minimum grade accepted--lots combined to average .76 percent WO_3--phosphorus penalty computed individually on both lots.
4/ 12 to 15 tons (estimated grade 2 percent WO_3), too wet to screen, now frozen on dump--will be shipped in the spring of 1953--grade and tonnage estimated.

0.5?

EXPENDITURES

Costs incurred by the exploration project between August 15, 1951, and September 16, 1952, were approved, subject to final audit, for a total amount of $21,463.10. At the completion of the project, the net salvage value of unexpended operating materials and supplies amounted to $54.70 and the net incurred costs of the project were adjusted to $21,408.40. The Government participated to the extent of 75 percent in the net incurred costs, or $16,056.30. The remaining 25 percent of the net incurred costs, or $5,352.10, was borne by the contractor. The total approved costs incurred by the exploration project were distributed as follows:

	Incurred Costs		Percent of Total	
Labor and Supervision:				
Contract labor	$7,069.95		33.0	
Other labor	5,433.00		25.4	
Supervision	1,600.00	$14,102.95	7.5	65.9
Operating Materials and Supplies:				
Timber	$ 309.87		1.4	
Explosives	1,570.09		7.3	
Pipe (less net salvage value)	24.52		0.1	
Track (less net salvage value)	150.19		0.7	
Power	956.81		4.5	
Other	1,128.51	4,139.99	5.3	19.3
Operating Equipment (depreciation):		1,890.00		8.8
Miscellaneous:				
Repairs to equipment	$ 252.16		1.2	
Payroll taxes	211.52		1.0	
Liability insurance	495.53		2.3	
Bookkeeping	316.25	1,275.46	1.5	6.0
Total incurred costs		$21,408.40		100.0

EFFICIENCY OF OPERATION

Operations under the exploration project contract were conducted efficiently and according to good mining practice. The contractor was a business man not experienced in mining; however, an experienced superintendent was employed to direct the work. The superintendent was employed on a part-time basis at a rate of $150.00 per month and performed all the duties relating to supervision and management of the operation.

An outside certified public accountant kept the project's books and prepared the monthly claim to the Government for the costs incurred. For this service $30.00, and later a maximum of $50.00, per month was allowed.

A total of three men was employed by the project: a hoistman who also serviced the compressor and trammed broken rock, and two miner-timbermen who performed all the underground work. The hoistman was paid $1.50 per hour. The miner-timbermen each received $1.50 per hour while timbering and while performing miscellaneous underground work. The labor for advancing the exploration headings was performed by the underground crew under an independent subcontract at rates of $10.00 per foot for raises and $9.00 per foot for drifts. The rates included all labor for advancing the headings, except for timbering. Overtime was paid on both hourly and contract rates for work in excess of 40 hours per week. The contractor employed a surface man to screen and sort the ore recovered during the exploration program; however, this cost was not charged to the project.

Unusual conditions were not encountered. For the most part, drifts and crosscuts were driven 5 by 7 feet in cross section and were not timbered. In a few sections, the ground sloughed badly and drift sets were placed and lagged. Broken rock was hand loaded into shaft buckets and the loaded buckets hand trammed on a dolly to the shaft. Raises were driven two-compartment and about 4 by 8 feet in section. Stull timbering was used and the ladderways were lagged from the chute compartment.

The mine made water, and intermittent pumping was necessary each shift. On two occasions the mine's pump was burned out during electrical storms and operations were shut down temporarily until a replacement pump was obtained and the mine unwatered.

In the contract, the cost of drifting and raising, exclusive of supervision and incidental costs, was estimated at $32.00 and $27.00 per foot, respectively. The total incurred cost of the project was distributed between the various classifications of work as follows:

	Total Distributed Cost	Total Units	Unit Cost
Drifting, crosscutting	$14,376.65	518 feet	$27.75 per foot
Raising	7,031.75	202 feet	34.81 per foot
	$21,408.40	720 feet	$29.73 per foot

The higher unit cost for raising probably was attributed to the subcontract which provided a higher per-foot labor payment for raises and to the additional timbering required in the raises, the labor for which was paid in addition to the per-foot labor cost.

EQUIPMENT PURCHASED FOR PROJECT

The contractor furnished all necessary equipment for the project and rental (depreciation) for its use was charged as a cost of the project. It was not necessary to purchase any equipment during the exploration program; therefore, the contractor and the Government were not concerned with equipment disposal and salvage. Except for pipe and track, all the operating materials and supplies charged to the project were expended. During the project a total of $229.41 was approved for the purchase of pipe and rail. The maximum salvable value on such used material was 50 percent, and about five man-shifts at $12.00, or a total of $60.00, were estimated as the cost of removing the pipe and rail from the mine.

Purchase price:	
Pipe	$ 32.19
Rail	197.22
Total	$229.41
Salvage value (50 percent of purchase price)	$114.70
Cost of removing from mine	60.00
Net salvage value	$ 54.70
Government's equity (75 percent)	$ 41.02

The contractor's offer to purchase the Government's equity in the pipe and rail for $41.02 was accepted and that amount was withheld from the final payment to the contractor.

RECAPITULATION

		Government Participation
Approved total costs incurred	$21,463.10	
Salvage value (pipe and track)	54.70	
Net costs incurred	$21,408.40	$16,056.30
Royalty received on ore shipped during exploration	$ 67.82	
Royalty received or due (unpaid royalties estimated) on ore produced from mining the discovery	177.17	244.99
Government's net cost under exploration project contract Idm-E79		$15,811.31

amh

400 FILE COPY
SURNAME:

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

Martin
Selfridge
Mitterling

JAN 23 1953

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

Re: Docket No. DMA 1107X, Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-E79

Dear Mr. King:

Reference is made to our letter of January 8, 1953, with which we enclosed a draft of a proposed Supplement No. 2 to DMEA Circular 26 covering certification of discovery or development for exploration project contracts. We added that you might be guided by the same draft with respect to the captioned project and all current and future exploration projects unless otherwise instructed.

In accordance with the foregoing and in consideration of the additional information and recommendations received from you since we wrote our letter of December 12, 1952, advising you to the contrary, we are now preparing a certification of discovery or development for Contract No. Idm-E79. Therefore, unless you have already done so, it will be appreciated if you will send us at your earliest convenience copies of the final engineering and geologic report for the above project.

J. C. 1/23/53

Sincerely yours,

George C. Selfridge (HB)

Chairman, Operating Committee

Approved:

J. H. Hedges (HB)

Member, Bureau of Mines

E. P. Thayer (HB)

Member, Geological Survey

WSMartin/ls 1/22/53

cc: DOCKET
FIELD TEAM, REG. IV
CODE 400
ADMN. READ. FILE
OPERATING COMMITTEE
D. M. LEMMON, USGS
R. W. GEEHAN, USBM

DRAFT 1/22/53
WSMartin/ls

Exploration

CERTIFICATION BY THE UNITED STATES OF AMERICA
OF A DISCOVERY OR DEVELOPMENT UNDER
AN EXPLORATION PROJECT CONTRACT

To: Mr. Tom C. Stanford
P. O. Box 354
Boulder, Colorado

Pursuant to the provisions of Exploration Project Contract No. Idm-E79, dated July 23, 1951, (Docket No. DMA ~~1107~~ 1107X), hereinafter called the "Contract," between you and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the mineral deposit which is the subject of the exploration project, the Government considers and therefore certifies that a discovery or development has resulted from the work from which commercial production of ore may be made, in or upon that certain property situated in the State of Colorado, County of Boulder, described as follows: Forest Home Lode Mining Claim, Survey Lot No. 19559, Grand Island Mining District.

The Government's estimate of said discovery or development is particularly described and delimited as follows:

Tungsten in the form of ferberite occurs in a block of ground including that vein first found on the 200-foot level 50 feet north, or on the hanging wall side, of the principal, or Forest Home, vein in the Forest Home Mine on the above Lode Mining Claim. The block, 102 feet vertically by 88 feet horizontally, is bounded below by the 200-foot level (elevation 8,282 feet); above by the 100-foot level (elevation

8384 feet); on the west by a raise 80 feet east of the Forest Home shaft; and on the east by a line parallel to that same raise, between the 200-foot and 100-foot levels, and ~~188~~ 168 feet east of the Forest Home shaft. The discovery is a narrow quartz vein, in granite, striking N. 82° E. and dipping 60° to 70° NW. The vein contained streaks and spots of ferberite ranging from less than 1/2 inch to 4 inches wide. It is believed that all the ore that can be obtained from this vein has already been removed by stoping, which produced about 200 tons of ore averaging 0.80 to 0.90 percent WO_3.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense Minerals
Exploration Administration

Dated: _____

DRAFT 1/22/53
WSMartin/ls

NOTES FOR LETTER TO DMPA - DOCKET NO. DMA 1107X - TUNGSTEN

A small ore body in the hanging wall on the 200-foot level found in workings, as hereinafter described, designed to explore veins known on the level above. A crosscut, starting on the 200-foot level approximately 80 feet east of the Forest Home shaft, was driven northerly 50 feet to intersect the second vein (unnamed) north of the principal, or Forest Home, vein. A drift was driven 24 feet east along said second vein, a narrow quartz vein in granite, carrying small quantities of ferberite, and striking N. 82° E. and dipping 60° to 70° NW. A raise on the vein, starting from the midpoint of the new drift, found good ore 35 feet above the 200-foot level and an 82-foot sublevel was driven east on that horizon. The raise went out of ore just above the sublevel. For the first 60 or 70 feet along the sublevel the vein contained streaks and spots of ferberite which ranged from 1/2 inch to 4 inches wide and probably averaged about 1-1/2 inches.

Stoping above the sublevel proved that the ore body was small. After removal of about 200 tons, of which the first 150 averaged 0.80 to 0.90 percent WO_3, the vein in the back of the stope contained only a thin, unminable streak of ferberite (less than 1/2 inch). Only a few spots of ore were found in the floor of the sublevel, and it is unlikely that the ore extends below the sublevel. About 25 feet east of the breast of the sublevel the vein should intersect a cross vein which has been stoped in this area.

DOCKET

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
JAN 26 1953

WSM

224 New Customhouse
Denver 2, Colorado

January 21, 1953

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Termination of Contract Idm-E79, Docket DMA 1107, Tom C. Stanford

Reference is made to your letter dated January 9, 1953, in which you request information regarding the final reports so that Contract Idm-E79 may be closed.

On December 5, 1952, this office wrote the Administrator and asked whether a certification of discovery should be made on this property. A copy of an engineering report was attached to this letter. On December 12, 1952, the Administrator wrote this office and stated, "Based upon the information that you have given us, we would not make a certification of discovery or development". On December 16, 1952, we wrote the Administrator and asked what disposition should be made of the royalties totaling $285.99, which have already been received, if we should not make a certification of discovery. On January 8, 1953, we received a draft of a proposed Supplement No. 2 to DMEA Circular 26. This draft did not answer our questions.

We hesitate to recommend a certification of discovery because the Administrator in the letter dated December 12, 1952 stated that he would not make a certification of discovery. Until we are authorized to recommend a certification of discovery or are told how to handle the money already received we cannot proceed further. The engineering and geological reports are being held in this office until this matter is clarified. ?

Field Team [illegible] Recommendations should not be [illegible] to conform with the [illegible] Washington [illegible]

W. H. King

W. H. King

Case
1-26

Copy retained 400

Mr. Martin - 1/16/53

Bill - Field Team, per letter of 12/5/52, were in doubt as to recommending Certificate. Based on data supplied by Field Team at that time we wrote 12/12/52 regarding no Certificate. Field Team now believes we should Certify and have supplied additional information. Should advise Field Team we will Certify in view of the additional information and their recommendation. Refer to our letter of 1/8/53 and attached copy of proposed supplement No. 2 to Circular 26.

Suggest that Certification be prepared. If you want to discuss please call me.

FEJohnson

OFFICE OF
THE SECRETARY OF THE INTERIOR

140

FILE COPY
SURNAME:

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

Hoffland
Selfridge
Mittendorf

JAN 8 1953

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

Re: Stanford, Tom C
Docket No. DMA-1107X
Contract Idm-E79
(Tungsten)

Dear Mr. King:

Reference is made to your memorandum to Mr. C. O. Mittendorf, dated December 16, 1952, relating to a possible certification of discovery under the subject contract.

Attached is a draft of a proposed Supplement No. 2 to DMEA Circular 26. Although this is presently nothing but a draft, you may be guided by it with respect to this particular project and for all current and future exploration projects unless otherwise instructed.

Sincerely yours,

Frank E. Johnson (JHB)
Chairman, Operating Committee

Enclosure

Approved:

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

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

JLHofflund/em 1/6/52

Copy to: Mails and Files
Adm. R. File
C. O. Mittendorf
J. H. Hedges
T. P. Thayer
Operating Comm.
G. C. Selfridge
J. L. Hofflund
chron.
pending

1-8-53

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA Circular 26, Supplement No. 2

Exploration Project Contracts--

Certification of Discovery or Development

Article 4 of DMEA Circular 26 (set forth in Supplement No. 1) is amended by adding thereto the following:

The mere fact that production may be small is no reason for not certifying. The test, as previously set forth, is whether "there is any reasonable likelihood of production within ten years from the date of the contract from which the Government may recover some part of the contribution." If there is any ~~valuable~~ considerable production in the course of the exploration operations, this question is answered in the affirmative, and certification ~~should~~ may be made. In any case where royalty payments have been made to the Government before certification, certification ~~should~~ may be made, even though further production may not be expected.

It may be objected that the foregoing may result in many certifications which will bear on small, even insignificant production. Conceding that this may be the case, yet certification seems

necessary and preferable. It is difficult to justify a repayment of money voluntarily paid to the Government. Moreover, the production certified, in the course of ten years, may turn out to be larger than was contemplated. For statistical purposes it may be necessary for IAMA to classify its certifications, so that those relating to small production will not be counted with certifications of significant production. The certification form itself, in a suitable case, may show on its face that the production referred to has been or is expected to be small.

Administrator

Docket

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

224 New Customhouse
Denver 2, Colorado

January 6, 1953

Memorandum

To: J. H. East, Jr., Regional Director, Region IV

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMA 1107X, Contract Idm-E79, Forest Home Mine (Tungsten)

Enclosed is a copy of a letter dated December 12, 1952, from the Administrator, DMEA, to the Executive Officer, DMEA Field Team, Region IV, stating that he should not make a certification of discovery or development under Contract Idm-E79. Also enclosed is a copy of a memorandum dated December 16, 1952, from the Executive Officer, Region IV, to the Administrator, DMEA. To date we have not received a reply to this memorandum.

We are at a loss to know why the Washington office does not want a certification of discovery on this project, which has been shipping ore and from which we have been receiving royalties, particularly when the Washington office insisted that we make a certification of discovery on Contract I-DMA-E35, Docket DMA 1050, The Utze Lode Company, when the only indication of ore in this case was one drill hole which contained 48 inches of 1.57% zinc and 3.82 ounces of silver.

John F. Shaw
John F. Shaw
For W. H. King

Enclosures

Copy retained 400

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

DEC 12 1952

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

Re: Certification of Discovery
Docket No. DMA 1107X - Tungsten
Tom G. Stanford
Forest Home mine
Boulder County, Colorado
Contract No. 1[illegible]-E79

Dear Mr. King:

This is in response to your letter of December 5, with attachment by R. L. Bolmer, dated November 19, 1952.

Based upon the information that you have given us, we would not make a certification of discovery or development. At present our thought is that each case will have to be decided upon its merits. We do not want to certify when it may cost more to collect the royalties than what they are worth.

In this particular case it would have been helpful to know how many tons were involved in the royalty payments aggregating $171.08 and the bases of settlement and what the 200 tons might ultimately net. In addition, we should have been supplied with the total tonnage involved in the block across a mining width and its inferred grade since mention is made that the remaining mineralization is marginal at the present market price. This would have enabled us to judge what its production possibilities might be under different conditions. The only calculation we could make was that the 200 tons averaged sufficiently close to consider it as 1.0 percent WO_3 ore which might be worth $26.00 a ton at the mill or a total of $5,200.00. A five percent royalty would net the Government $260.00. We then had to assume that no additional tonnage would be mined within the 10-year period following the date of the contract.

Sincerely yours,

Administrator

Carbon copy to [illegible]

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 22 1952

224 New Customhouse
Denver 2, Colorado

December 16, 1952

GCS
12/24/52

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMA 1107X, Contract Idm-E79, Tom C. Stanford (Tungsten)

This is in reply to your letter dated December 12, 1952, regarding certification of discovery under Contract Idm-E79.

We are enclosing a copy of the final geologic report on Docket DMA 1107. According to this report the vein is barren and there is little likelihood of additional ore being discovered as a result of the exploration work.

To date we have received royalty checks totaling $285.99. This represents the royalty on 323,312 dry pounds of ore. Please advise if we should make a certification of discovery. If not, what disposition should be made of the funds already received?

Copies of the final engineering and geologic report will be forwarded to your office in the near future.

John F. Shaw
John F. Shaw
For W. H. King

Copy retained 400

Enclosure

cae
12.22

400

FILE COPY
SURNAME:

Selfridge

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

DEC 12 1952

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

Re: Certification of Discovery
Docket No. DMA 1107X - Tungsten
Tom C. Stanford
Forest Home mine
Boulder County, Colorado
Contract No. Idm-E79

Dear Mr. King:

This is in response to your letter of December 5, with attachment by R. L. Bolmer, dated November 19, 1952.

Based upon the information that you have given us, we would not make a certification of discovery or development. At present our thought is that each case will have to be decided upon its merits. We do not want to certify when it may cost more to collect the royalties than what they are worth.

In this particular case it would have been helpful to know how many tons were involved in the royalty payments aggregating $171.08 and the bases of settlement and what the 200 tons might ultimately net. In addition, we should have been supplied with the total tonnage involved in the block across a mining width and its inferred grade since mention is made that the remaining mineralization is marginal at the present market price. This would have enabled us to judge what its production possibilities might be under different conditions. The only calculation we could make was that the 200 tons averaged sufficiently close to consider it as 1.0 percent WO_3 ore which might be worth $26.00 a ton at the mill or a total of $5,200.00. A five percent royalty would net the Government $260.00. We then had to assume that no additional tonnage would be mined within the 10-year period following the date of the contract.

Sincerely yours,

G. O. Mittendorf (fw)

Administrator

S.H. 12-12-52

GCSelfridge:ls 12/11/52

CC: Docket
Admn. Read. File
Field Team, Reg. 4
G. C. Selfridge
D. M. Lemmon, USGS
R. W. Geehan, USBM

Docket

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

224 New Customhouse
Denver 2, Colorado

December 5, 1952

gcl 12/10/52

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 8 1952

Memorandum

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

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMA 1107, (Tungsten), Contract Idm-E79, Tom C. Stanford, Boulder County, Colorado - Certification of Discovery

only 1 copy rec'd

Enclosed is a copy of a report by R. L. Bolmer of the Bureau of Mines pertaining to a certification of discovery under the subject contract.

Inasmuch as there is some doubt in the minds of the Field Team, Region IV, as to the advisability of recommending a certification of discovery, under the existing condition of this contract, we are therefore forwarding the information for your review. We will appreciate a policy statement at your earliest convenience for our guidance in the matter.

The operator has presently mined the ore from the discovery, totalling approximately 200 tons, that will average less than 1 percent WO_3, and there is little likelihood that additional ore will be discovered. net?

To date royalty payments aggregating $171.08 have been received from the operator and credited to the Revolving Fund, Defense Production Act, Symbol 14X4401.

The status of project work and final payments is as follows:

2.5 months

Work under Contract Idm-E79 was terminated on or about September 16, 1952, when funds authorized under the contract had been expended. Final payment has been withheld pending receipt of final reports; settlement of Government equity in unexpended material purchased under the contract; and completion of final Audit or Report of Review by the Contract Administration and Audit Division. A Report of Review is in process which on completion will permit final reimbursement within the next few days.

W. H. King
W. H. King

Enclosure

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 8 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
November 19, 1952

Memorandum

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

From: R. L. Belmer

Subject: DMA 1107, Contract Idm-E79 (Tungsten), Tom C. Stanford, Forest Home mine, Boulder County, Colorado - Certification of discovery

Operations under the subject contract between August 15, 1951, and September 16, 1952, have resulted in the following discovery:

The second (unnamed) vein in the hanging wall (north) of the principal, or Forest Home, vein in the Forest Home mine, Forest Home Lode Mining Claim, survey lot number 19559, Grand Island Mining District, Boulder County, Colorado.

Vertical extent - 102 feet between the first level (elevation 8,344 feet) and the second level (elevation 8,282 feet) off the Forest Home shaft.

8384 by Tweto's map TWSM

Horizontal extent - A length of 88 feet occurring 80 to 168 feet east of the Forest Home shaft.

Production from within the above described block of ground (fig. 1) in the Forest Home mine is to be subject to the Government's percentage royalty.

The discovery is a narrow quartz vein in granite striking N. 82° E. and dipping 60° to 70° NW. The vein was explored by a raise driven

between the first and second levels and by an 82-foot sublevel driven east from the raise at a point 42 feet above the second level. The vein as encountered in the raise showed weak and very spotty mineralization. Its exposure in the west side of the raise and west of a second-level crosscut contained no mineral. The possibility of an ore occurrence on the vein west of the raise is remote.

The sublevel exposed 1 to 3 inches of high-grade ferberite along the vein. The mineral was quite continuous for a distance between 5 and 75 feet east of the raise. The sublevel was driven along the bottom, or lower extent, of the ore shoot and the last few feet of the sublevel apparently passed through the eastern limit of the ore. Immediately beyond the breast of the sublevel, the discovery vein intersects a cross vein which has been stoped in this area. The discovery vein has been stoped above the first level. The ore shoot comprising this discovery thus is confined to a block of ground directly above the sublevel.

Exploration under the subject contract was stopped September 16, 1952. Since that time, the operator has attempted to mine the discovery. The ore shoot disclosed through mining above the sublevel has been disappointing. The continuity and thickness of the mineral in the vein decreased with height. In places, the operator stoped the vein 20 to 30 feet above the sublevel. At this height the mineral became too spotty for the continuance of a commercial

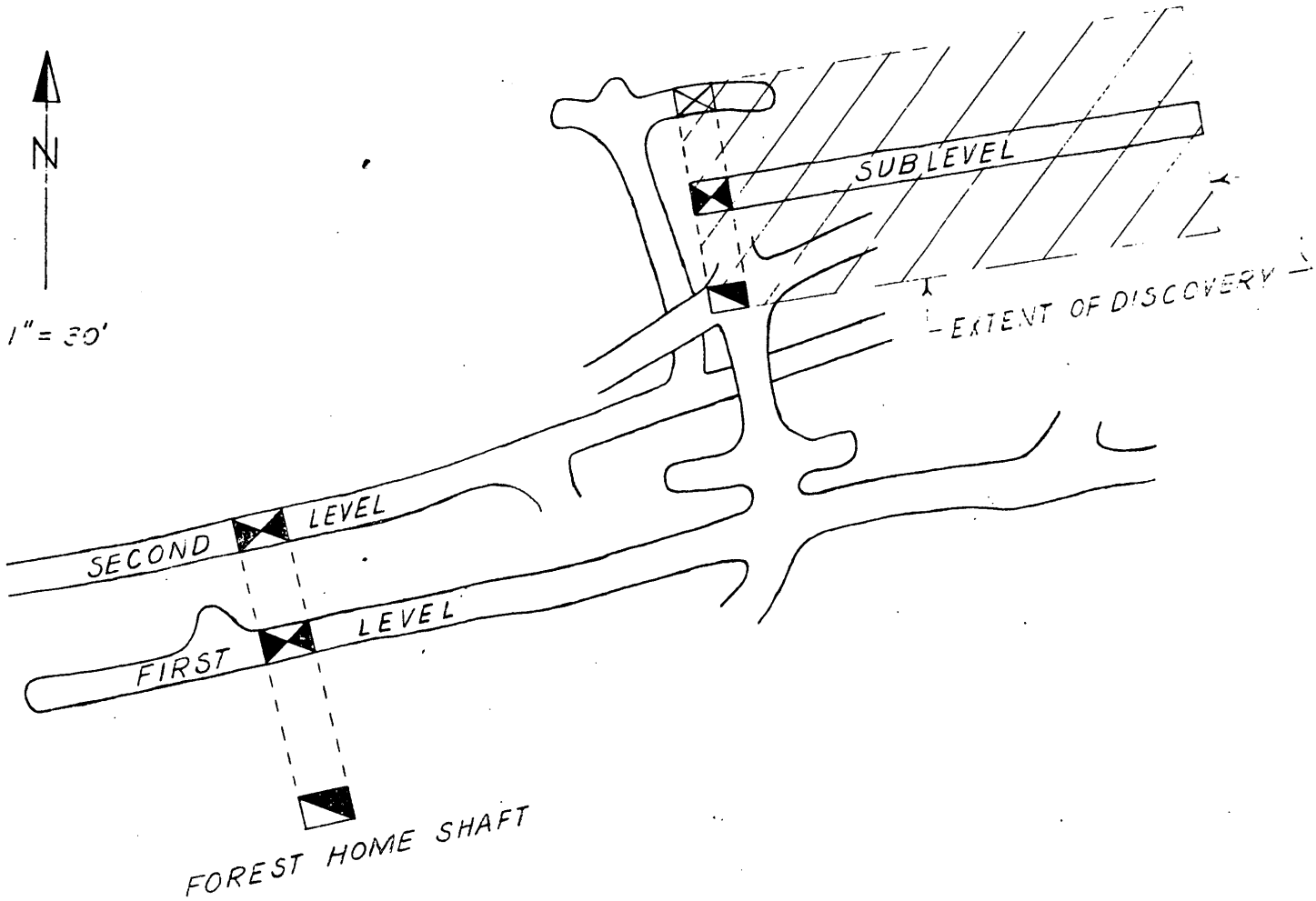

FIG. 1 - LOCATION AND EXTENT OF ORE DISCOVERY, FOREST HOME MINE, BOULDER COUNTY, COLORADO - DMA 1107, CONTRACT 1DM-E79 (TUNGSTEN)

Extracted from Monthly Report of Region IV for October 1952

DMA-1107 - Tom C. Stanford

An ore discovery has been certified. Preparation of a final report is awaiting receipt of the operator's report and liquidation of the small amount of equipment.

DMA-1447X - Cold Spring Tungsten, Inc.

The two raises from the fifth level, 517B and 517C, were advanced 16 feet and 27 feet, respectively, chutes installed, and manways started. The 606 crosscut on the sixth level was cleaned up, the east side straightened by slabbing and timbered where necessary, and the breast advanced 23 feet. Construction of the new headframe continued during the period.

DMA-1567X - Eureka Tungsten

Work was resumed under the new partnership, October 18. The tunnel was cleaned up and advance of the heading 10 feet completed.

C. D. Mittendorf, Acting Administrator, DMA August 27, 1952

Iron and Ferro-Alloy Division, DMA

Reports by Audit Division

Amen 1107

Reports of review by the Audit Division have been examined and noted for the following completed contracts:

Idm-582 - Docket No. DMA 1248X - Arkansas Manganese Company
Idm-[illegible] - Docket No. DMA 197X - Westmoreland Manganese Corporation
Idm-6139- Docket No. DMA 2002X - Westmoreland Manganese Corporation

An audit certificate and report was also received pertaining to Exploration Contract No. Idm-879, Docket No. DMA 1107X, Tom C. Stanford.

The above reports are attached for your information. It would be appreciated if in the future copies of all such audit reports were prepared for the Division files. This would enable us to keep a more accurate check on the expenditures and costs for each project.

W. E. Martin, Acting Chief
Iron and Ferro-Alloy Division

Attachments

WARutledge:lm
8/27/52

cc: Admn. Reading File
Docket
J. L. Chambers
O. C. Selfridge
W. A. Rutledge
DMA 1248, 197, 2002, 1107

FILE COPY
SURNAME:

Chambers

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

AUG 18 1952

Air Mail

Mr. Thomas H. Breading
c/o Mr. W. H. King
224 New Customhouse Building
Denver 2, Colorado

Re: Contract No. Idm-279
Docket No. DMA-1107
Sam C. Stanford

Dear Mr. Breading:

Reference is made to your letter of August 12, 1952, in reply to my letter of August 7, 1952. On August 14, 1952, I wrote you another letter on the above contract and returned the Audit Report for a statement of justification for allowing fire insurance payment. I had not received your August 12 letter at the time the Audit Reports were returned.

The statement made in your August 12 letter appears to justify the payment of fire insurance on this particular project. Please return the Audit Reports for our files.

Sincerely yours,

J.N. 8-18-52

(Signed) J. L. Chambers
Jay L. Chambers, Chief
Contract Administration and
Audit Division

JLChambers/wb
August 18, 1952

Copy to: Mails & Files
Admr. Reading File
Mr. Chambers

FILE COPY
SURNAME:
800

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

AUG 14 1952

Mr. Thomas H. Brading
c/o Mr. W. H. King
224 New Customhouse Building
Denver 2, Colorado

Dear Tom:

I have just finished reading the Audit Report of the Tom C. Stanford Contract No. Idm-E79, as prepared by Mr. Finch. Please refer to Item 7, Page 2 of the Report, where fire insurance is charged to the project.

Ordinarily fire insurance is a general overhead expense which should be borne by the contractor. Merely a statement to the effect that there is a fire hazard in connection with this work is not sufficient to allow an expense which has been generally disallowed by the General Accounting Office for over thirty years. The burden of proof is on the contractor that the project itself is unusual and for this reason the fire hazard is entirely different than the fire hazard on other projects. Unless such proof can be given, a disallowance should be taken on this item.

I am returning the Report for further reasons for allowing the fire insurance or for its disallowance.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration and
Audit Division

Enclosure

JLChambers/wb
August 13, 1952

Copy to: Mails & Files
Admr. Reading File
Mr. Chambers

FILE COPY
SURNAME:
800

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

AUG 7 1952

Mr. Thomas H. Brading
c/o Mr. W. H. King
224 New Customhouse Building
Denver 2, Colorado

Dear Tom:

Please check the May report of project Idm-E79, Docket No. 1107, Operator - Tom C. Stanford, for an item of $42.80 listed as fire insurance. As a general rule the General Accounting Office has ruled that the United States Government does not contribute toward the payment of fire insurance. If there are any unusual circumstances which would tend to justify this payment, please give me a statement on it.

I believe it has been common practice in the fourth region to allow reimbursement for fire insurance. If so, it may be that we will have to justify every payment or receive disallowances from the General Accounting Office.

In making your investigation of this latter statement, please do not get Mr. King excited over the matter because I may be able to get a general agreement from the General Accounting Office.

Sincerely yours,

Signed J.L.C. 8-7-52

Jay L. Chambers, Chief
Contract Administration and
Audit Division

JLChambers/wb
August 7, 1952

Copy to: Mails & Files
Admr. Reading File
Mr. Chambers

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

224 New Customhouse
Denver 2, Colorado

August 5, 1952

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: Amendment No. 6 to Contract Idm-E79, Docket DMA 1107, Thomas C. Stanford (Tungsten)

Enclosed are the original and two copies of Amendment No. 6 to Contract Idm-E79. Copies of this amendment have been given to the operator, Fiscal Officer, Region IV, and a copy has been retained for our files.

Also enclosed are three copies of a letter from the operator requesting this amendment and three copies of a memorandum from the Chief, Colorado Branch, Mining Division, Region IV, supporting this request.

W. H. King

W. H. King

Enclosures

RECEIVED
AUG 12 1952
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20
Denver Federal Center
Denver 14, Colorado
July 23, 1952

Memorandum

To: Executive Officer, Field Team, Region IV

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

Subject: DMA 1107, Contract Idm-E79 (Tungsten), Tom C. Stanford (Forest Home mine), Boulder County, Colorado - Amendment request

Please find enclosed a request for an amendment to the above contract to permit an increase of $20.00 per month for bookkeeping charges. Two copies of Stanford's letter accompanying his letter of justification are also enclosed.

This was to be expected, inasmuch as the same accounting firm is keeping the books on the Smith and Rugg project and is being paid $50.00 for it.

W. M. TRAVER, JR.
W. M. Traver, Jr.

enclosures

WMT/dd

cc WHKing
E79
DMEA Chron.

COPY

July 21, 1952
P. O. Box 3541
Boulder, Colorado

Mr. W. M. Traver, Jr.
Building 20
Denver Federal Center
Denver 14, Colorado

Dear Mr. Traver,

I have enclosed herewith a request for an amendment to DMA Docket 1107, contract Idm-E79, to provide for an increase in bookkeeping expense for reasons explained on the request, for your approval and transmittal to Mr. East.

Sincerely yours,

/s/ Tom C. Stanford

Tom C. Stanford

P.O. Box 354
Boulder, Colorado
July 21, 1952

J. H. East, Jr.
Department of Interior
Defense Minerals Administration
224 New Custom House
Denver 2, Colorado

Subject: DMA Docket 1107
Contract Idm - E79
Tom C. Stanford
Boulder, Colorado

Dear Sir:

An amendment dated October 30, 1951 to subject contract between the U. S. Government and the undersigned provides for bookkeeping costs as an allowable charge, but not to exceed $30.00 per month. On some occasions the actual bookkeeping cost has exceeded $30.00 per month and I have absorbed the excess.

I find that the revised forms and procedures effective for the month of June 1952, have entailed additional bookkeeping expense, since detailed transcripts of payrolls are required, summaries of all expenditures showing distribution thereof are required, and certified or duplicate copies of all invoices must be provided.

Because of the above reasons, it is therefore requested that the subject contract be further ammended to provide for bookkeeping costs as an allowable charge up to but not exceeding $50.00 per month, in lieu of the present maximum of $30.00 per month, effective for the month of July and thereafter. It is understood that such revision will not increase the total aggregate amount which the U. S. Government may pay under the provision of the contract.

Sincerely Yours,

Tom C. Stanford

Tom C. Stanford

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

224 New Customhouse
Denver 2, Colorado

July 24, 1952

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, Field Team, Region IV

Subject: Docket DMA 1107X (Tungsten), Tom C. Stanford, Forest Home Mine, Boulder County, Colorado

We have reviewed the memo by F. A. Rutledge that was attached to your memo of July 18 concerning Docket DMA 1107X.

The exploration work on this project was undertaken with the approval and at the recommendation of a Geological Survey engineer. The engineer has spent years in the Boulder County tungsten area and is thoroughly familiar with the geology. He has personal knowledge of all properties that were accessible to him during the expanded operations carried on during World War II. The DMEA Field Team has the highest regard for his judgment.

We have asked the Contract Administrative and Auditing Division to audit the contractor's accounts and in case we have paid for items that are not allowed under the contract, the amounts will be withheld when we process future forms MF-104. Likewise the auditor may find it necessary for us to reimburse the contractor for amounts that have been deducted on previously processed MF-104's.

We believe that the money was spent and the contract administered in the best interests of the Government.

W. H. King

W. H. King

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 28 1952

Copy retained 400

Excerpt from Monthly Report, Region IV, June 21, 1952 to July 20, 1952

DMA 1107 - Forest Home mine (Tungsten), Boulder County, Colorado

The second level sublevel drift was advanced 21 feet, making the total drifting completed to date 83 feet from the raise. Ore shows all along the entire length of drift except for the last two rounds. A crosscut authorized under the contract was started on the first level and advanced 23 feet.

400
FILE COPY
SURNAME:

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

Selfridge
Lehmann

JUL 18 1952

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

Re: Docket No. DMA 1107X - Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado
Contract No. Idm-E-79

Dear Mr. King:

Attached hereto are two copies of a memorandum concerning the subject docket, which has been prepared by the Iron and Ferro-Alloy Division for use in the Washington Office. The memorandum is being passed on to you for your information and we would appreciate having your comments thereon, if any. We wish to call your attention especially to the proposed amendments.

Sincerely yours,

cc 7/18/52

George C. Selfridge

(JHB)

ACTING Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures

Approved:

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

T. P. Thayer (JHB)
Member, Geological Survey

GCSelfridge:ls 7/17/52

cc: Docket
Admn. Read. File
Field Team, Reg. 4
G. C. Selfridge
D. M. Lemmon, USGS
R. W. Geehan, USBM
Operating Committee

Excerpt from Monthly Report, Region IV, April 21 to May 20, 1952

DMA 1107 - Forest Home Mine (Tungsten), Boulder County, Colorado

Contract work has been resumed under an amendment which authorized funds for additional exploration. The raise was advanced 17 feet with about 10 feet in fair ore. The sublevel was advanced 7 feet in good ore.

Excerpt from Monthly Report, Region IV, March 21 to April 20, 1952

DMA 1107 - Forest Home Mine (Tungsten), Boulder County, Colorado

Contract work has been resumed as of April 7 under an amendment which authorized funds for additional exploration.

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

224 new Customhouse
Denver 2, Colorado

April 15, 1952

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: Amendment to Contract Idm-E79, Docket DMA 1107, Tom C. Stanford

Enclosed are the original and two copies of an amendment to Contract Idm-E79, Docket DMA 1107.

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

W. H. King

W. H. King, for
J. H. East, Jr.

Enclosures

Sal

DOCKET

400

FILE COPY
SURNAME:

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

APR 4 1952

Mr. J. H. East, Jr., Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMA 1107X - Tungsten
Tom C. Stanford
Forest Home Tungsten Mine
Boulder County, Colorado
Exploration Project Contract Idm-E79

Dear Mr. East:

Returned herewith are two copies of the proposed amendment to the subject contract, which were forwarded with the original and three other copies in your letter of March 25, 1952.

We have filled in the date of the contract in the subordination agreement. One copy of the amendment is for the Operator and the other for your file. Before forwarding the Operator's copy, we suggest, if you have not done so, that you secure for your file and review for acceptability a copy of his lease dated January 17, 1952.

It is further suggested that you draw up an additional amendment to include the Cold Spring Claim in Section 2 of the Exploration Project Contract and to extend the period of nine months in Section 3 to whatever period of time is necessary.

In looking over the maps showing the proposed work, it was noted that ferberite on the vein was of common occurrence on the first level. This was not true on the second level, which was mapped as being practically barren of ferberite. This, with the information that the stope started from 10 to 20 feet above the second level, suggested that the ore shoots of the first level bottomed between the levels. This suggestion was substantiated by the work done under the contract to January 23, 1952. Ferberite of interest was encountered only in raise No. 2 and at some distance above the second level. It is noted that the two shafts on

the Cold Spring Claim reached only shallow depths and that the proposed crosscut and drifting will be below their bottoms. We are wondering if the mineralization lensed out at or near the bottoms of the shafts and for that reason they were stopped? If so, there is the likelihood that the proposed work would be in barren vein material.

Sincerely yours,

C. O. Mittendorf (fw) 4/4

Acting Administrator
Defense Minerals Exploration
Administration

Enclosures

GCSelfridge:ls
4/3/52

cc: Admn. Reading File
Docket
Field Team, Region IV
G. C. Selfridge
R. W. Geehan, USBM
D. M. Lemmon, USGS

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

224 New Customhouse
Denver 2, Colorado

March 25, 1952

AIR MAIL

Memorandum

Department of the Interior
Defense Minerals Administration
Received
MAR 2 1952

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

From: Executive Officer, Field Team, Region IV

Subject: Amendment to Contract Idm-E79, Docket DMA 1107, Tom C. Stanford

Enclosed are the original and five copies of a proposed amendment to Contract Idm-E79, which provides for an increase in the amount of the contract from $10,000.00 to $22,250.00. This amendment also authorizes 300 feet of drifting or crosscutting and 125 feet of raising. A breakdown of the cost per foot on the work performed under this contract is as follows:

Item	Raising Per Foot	Drifting or Crosscutting Per Foot
Company account labor (includes accounting)	$ 7.53	$ 8.65
Contract labor	10.00	9.00
Supervision	2.23	2.23
Equipment rental	2.68	2.68
Equipment repair	1.12	1.12
Explosives	2.11	2.11
Power	1.07	1.07
Supplies	1.80	1.80
Compensation insurance	.26	.26
TOTAL	$28.80	$28.16

8,448.00
3,600
12,048.00

The total cost of the proposed exploration on the basis of this breakdown would be $12,048.00. Kindly expedite processing of this amendment because all the money allocated under the original contract has been spent and the operator is keeping the mine unwatered at his own expense.

Note last paragraph
If approved re: refinancing
contr.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

Excerpt from Monthly Report, Region IV, January 21, 1952 to February 20, 1952

DMA 1107 - Forest Home Tungsten Mine (Tungsten), Boulder County, Colorado

The crosscut was continued to the east for 24 feet. A raise R-4, was started at the end of the crosscut and advanced to a height of 35 feet. Some ferberite stringers were encountered. An intermediate drift was driven 9 feet to the east from the top of the raise. Ferberite, 7 to 8 inches wide, shows in the back of the drift. At this point, DMA funds were exhausted. Application for extension has been made.

FILE COPY
SURNAME:

Selfridge
Hoffland

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

FEB 1 3 1952

Mr. J. H. East, Jr.
Executive Officer, Region IV
Bureau of Mines
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMA 1107 - Tungsten
Forest Home Mine
Boulder County, Colorado
Project Contract Idm-E79

Dear Mr. East:

This is to acknowledge receipt of your letter of February 4, 1952, transmitting information relative to an amendment to the subject contract.

As a result of a discussion with the Legal Division concerning the validity of an amendment involving a new claim, it was decided that the execution of an amendment incorporating the submitted proposals fell within your delegated authority. Also, it was recommended that an appropriate amendment be added to the original lease and that the necessary subordination be obtained. The drafting of the amendment rests with your office.

We are returning herewith the three copies of the proposal sent us.

Sincerely yours,

C. O. Mittendorf (for) E.L. 2/13/52

Acting Administrator
Defense Minerals Exploration
Administration

Enclosures
GCSelfridge:ls
2/12/52
Copy to: Admn. Reading File
Docket
G. C. Selfridge
Field Team, Region IV

OFFICE OF THE ADMINISTRATOR

S.R.
2-11-52

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

224 New Customhouse
Denver 2, Colorado

February 5, 1952

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: Amendment to Contract Idm-E79, Docket DMA 1107, Tom C. Stanford

Enclosed are the original and two copies of an amendment to the above contract.

Copies of this amendment have been given to the operator, to the Fiscal Officer, Region IV, and we have retained a file copy.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 11 1952

OK. GCdelfrodge

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 6 1952

224 New Customhouse
Denver 2, Colorado

February 4, 1952

AIR MAIL

Memorandum

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

From: Executive Officer, Field Team, Region IV

Subject: Application for Additional Funds, Tom Stanford, DMA 1107, Contract Idm-E79, Forest Home Mine (Tungsten) Boulder County, Colorado

Enclosed are the original and two copies of a memorandum by W. M. Traver, Jr., Mining Engineer, U. S. Bureau of Mines, and the original and two copies of a memorandum by Ogden Tweto, Geologist, U. S. Geological Survey, pertaining to the request of Tom Stanford, DMA 1107, Contract Idm-E79.

The original exploration project was estimated to cost $10,000. The operator expended $8,574.25 as of February 1, 1952. The work originally proposed will not be completed with the expenditure of $10,000 and additional exploration is desirable. The proposed work will require $12,250. The Government's share will be $9,187.50.

A good showing of ferberite was encountered in the raise being driven in the hanging wall above the 200 foot level, and in a sublevel driven from the raise at a height of 35 feet. The applicant proposes to extend the sublevel east 50 feet and raise 75 feet from the sublevel to the first level at a favorable location. This work should be completed to thoroughly explore this area.

The applicant also proposes to drive a crosscut southeast approximately 75 feet on the 100 foot level to the Cold Spring vein, drift 120 feet on the vein, drift 55 feet on intermediate veins if geologically justified, and raise a total of 50 feet in favorable locations. The proposed crosscut would start from the stub crosscut in the drift on the so-called Footwall vein which branches southward from the drift on the Forest Home vein 88 feet east of the shaft. The location of the proposed work is shown on the accompanying map. The proposed exploration consists of 300 feet of drifting or crosscutting and 125 feet of raising.

T. J. Henning who is working under a split-check lease agreement with Tom Stanford is stoping ore on the Footwall vein above the first level. Government funds have not been used to develop the ore being mined by Henning. Henning's work will not conflict with the proposed work, and his ore should be specifically excluded from royalty payments.

The operator has driven 100.67 feet of raise at a total cost of $2,899.45, and has driven 201.50 feet of drift or crosscut at a cost of $5,674.80. The cost per foot for raising was $28.80. The cost per foot for drifting or crosscutting was $28.16. The average cost per foot of combined raising and drifting or crosscutting is $28.38.

It is recommended that contract Idm-E79 be amended as follows:

(1) The total amount of the contract be changed from $10,000 to $22,250.

(2) The amount of Government participation be changed from $7,500 to $16,687.50.

(3) That the following be added to the description of the exploration project:

1. Extend the 35-foot sublevel east 50 feet, or through the ore zone.

2. Raise 75 feet at a favorable location from the sublevel to the first level or through the ore zone.

3. Crosscut approximately 75 feet to cut the Cold Spring vein and other intermediate veins.

4. Drift approximately 30 feet northeast and approximately 90 feet southwest, a total of 120 feet on the Cold Spring vein.

5. Drift 55 feet on intermediate veins if indicated as justified geologically.

6. Raise on the various veins encountered a total of approximately 50 feet at locations acceptable to the DMEA representative.

All these proposals are shown on the accompanying map.

The labor schedule in the contract need not be changed.

A summary of the estimated costs follows:

Labor and Supervision	$8,408.00	19.78/yd.
Equipment depreciation	1,139.00	2.68/yd.
Equipment repair	476.00	1.12/yd.
Explosives	896.75	2.11/yd.
Power	454.75	1.07
Other supplies	765.00	1.80/yd.
Compensation	110.00	.26/yd
Total Cost	$12,250.00	

The funds available under the present contract are nearly exhausted; therefore, it is recommended that approval of this amendment be expedited so that the operation may continue uninterruptedly. A shutdown of the operation would work a hardship on the operator and involve additional expense to both the Government and the operator.

J. H. East, Jr.

Enclosures

Excerpt from Monthly Report, 12/21/51 - 1/20/52, Region IV, page 6:

DMA-1107 - Forest Home Tungsten Mine, (Tungsten), Boulder County, Colo.

The north crosscut was advanced 52 feet, cutting aplite with ferberite stringers at 35 feet and a vein at 45 feet. Drifting on the vein was started and 8 feet to the west and 12 feet to the east were completed during December. A raise was also started.

Excerpt from page 6 of Monthly Report, Region IV, Mining Division dated November 21, 1951, to December 20, 1951.

DMA-1107 - Forest Home Tungsten Mine, (Tungsten), Boulder County, Colorado

The raise in the second crosscut, designated as Raise No. 2, was driven to 42 feet without encountering ore and was discontinued. Work was resumed in the raise from the first crosscut, designated as Raise No. 1, at 36 feet and the raise extended to a length of 60 feet above the second level without encountering ore and it was discontinued. A total of 43 feet of raising was completed in November. A crosscut northeast from the second level as proposed in the contract will be started in December.

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

RECEIVED
NOV 14 1951
G. A. O.

NOV 13 1951

Contract Service Section
General Accounting Office
Washington 25, D. C.

Re: Docket No. DMA 1107
Tom C. Stanford
Exploration Project Contract
Idm-E79
Amended: October 30, 1951

Gentlemen:

Enclosed for recording in your office is the original of an amendment to the Exploration Project Contract between the operator named in the above reference and the Government of the United States.

Sincerely yours,

Frank E. Johnson

Frank E. Johnson, Acting Director
Production Expansion Division

Enclosure-1

400
FILE COPY
SURNAME:

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

OCT 31 1951

Contract Service Section
General Accounting Office
Washington 25, D. C.

Re: Docket DMA 1107
Tom C. Stanford
Exploration Project Contract
Idm-E-79
Amended: October 11, 1951

Gentlemen:

Enclosed for recording in your office is the original of an amendment to the Exploration Project Contract between the operator named in the above reference and the Government of the United States.

Sincerely yours,

(signed) FRANK E. JOHNSON (for) 10/31

Acting Director,
Production Expansion Division

Enclosure-1

PBBlakemore/hmj
Typed: 10/30/51
cc to: Reports and Records
Adm. Reading File
PED
Mr. Blakemore
Docket

Th. Beatty

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

RECEIVED
NOV 6 1951

224 New Customhouse
Denver 2, Colorado

DEPARTMENT OF THE INTERIOR
RECEIVED
NOV 7 1951
Defense Minerals Administration,
Production Expansion Division.

October 31, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division
Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: Amendment to Contract Idm-E79, DMA Docket 1107, Tom C. Stanford

Enclosed herewith are the original and two copies of an amendment to the above contract.

This amendment provides for payment of a bookkeeper and the employment of labor at the rate of $9.00 per linear foot for drifting and $10.00 per linear foot for raising.

Copies of this amendment have been sent to the operator and to the Fiscal Office, Region IV. One copy has been retained for DMA files.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

FISCAL FILE COPY

To	Init.	Date

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

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 29 1951
Defense Minerals Administration,
Production Expansion Division.

224 New Customhouse
Denver 2, Colorado

October 26, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division
Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: Amendment to Contract Idm-E79, DMA Docket 1107, Tom C. Stanford

Enclosed herewith are the original and two signed copies of an amendment to Contract Idm-E79, as listed above.

Copies of this amendment are being sent direct to the Region IV Finance Officer and to the operator.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.
OCT 29 8 55 AM '51

FILE COPY
SURNAME:
400
Blakemore
F E Johnson

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

OCT 19 1951

A. E. C.

Contract Service Section
General Accounting Office
Washington 25, D. C.

Re: Docket No. DMA 1107X
Exploration Project Contract
Idm-E79
Tom C. Stanford
Boulder, Colorado

Gentlemen:

Enclosed please find a copy of the Agreement between Tom Stanford, Allan Erickson, George Erickson and Sam Walter together with the approval thereof to be attached to the Exploration Project Contract which you have in your files.

Sincerely yours,

(signed) FRANK E. JOHNSON ACTING
(for)
C. O. Mittendorf, Director
Production Expansion Division

10/19

Enclosures-2

PBBlakemore/meh
10/17/51
cc to: Adm. Reading File
Reports and Records
Messrs. Mittendorf, Olund
Mr. Blakemore
Docket

FILE COPY
SURNAME:

400
Blakemore
Mittendorf

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

OCT 18 1951

Q.E.D.

Memorandum

To: Executive Officer, DMA Field Team, Region IV
224 New Customhouse Building, Denver 2, Colorado

From: Acting Administrator

Subject: Preparation of agreements for attachment to contracts.

Transmitted herewith for your guidance in the captioned subject is a copy of a memo of October 12, 1951 from General Counsel which covers the agreement consumated in your office on the Tom C. Stanford Contract, Docket DMA 1107, Idm-E79.

It is essential to have the docket and contract numbers in the upper right hand corner, as well as recited in the body of the agreement.

The correction from Article 13 to 11 has been made on the copies you sent, and the remaining copies should be similarly corrected.

C. O. Mittendorf (for)
S.J. 10-18

Enclosure-1
PBBlakemore/meh 10/16/51
cc to: Reports and Records
Adm. Reading File
Messrs. Mittendorf, Olund
Mr. Blakemore
Docket
Region IV

FILE COPY
SURNAME:
140
Stanford

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

October 12, 1951

Memorandum

To: Director, Production Expansion Division

From: General Counsel

Subject: Tom C. Stanford exploration contract Idm-E79 - Docket No. DMA-1107 (Forest Home Tungsten Mine)

In your memorandum to me of October 9, you asked for my opinion on an agreement for employment under the subject contract and on Mr. East's approval of that agreement. Apparently the agreement of employment is already entered into, and the approval of Mr. East is binding upon the Government.

I cannot tell for sure whether the agreement which Mr. East approved is designed to be an agreement for employment or an agreement for the performance of work by an independent contractor. The first provision of the agreement, for the employment of the three men ~~on an hourly of~~ $1.50 per hour, seems plainly to be nothing but an agreement for employment. The agreement then provides: "Thereafter, the parties of the second part will work on a contract basis as follows:

> To drive a drift seven feet high by four feet wide in the clear at $9.00 per running foot."

I cannot tell whether the "$9.00 per running foot" is simply the rate of pay for the labor performed, or whether the three men are to run the drift as independent contractors, supplying their own tools, explosives, power, and other necessaries for performing the work. I presume, however, that the "$9.00 per running foot" is merely a means of measuring the pay of the workers, that they will work under the direction and control of the operator, not as independent contractors, and that the operator will provide the necessary tools, explosives, equipment and other materials for performing the work.

If this is merely an agreement of employment as contrasted with an independent contract, it is not necessary to give a formal approval of it, although the approval will do no harm, and in this case

O.K.

may serve as an amendment of Exhibit B which does not provide for employing labor at a rate of $9.00 per running foot.

That this agreement is really intended as nothing but an agreement of employment is further indicated by the fact that it does not indicate at all how much driving or raising is to be done by the employees.

In short, although the meaning of the agreement is not very certain, I think that it cannot be of any harm to the Government, and that the agreement and the approval thereof by Mr. East do not need to be questioned after the fact.

The approval is defective however, in that it refers to Article 13 of the contract form instead of Article 11 of the contract form. This defect should be corrected.

J. L. Hofflund

J. L. Hofflund
General Counsel

not stripped in R.R.

Attachment

JLHofflund/ema

Copy to: Reports & Records
J.L. Hofflund
R.R. Guthrie
Chron.

FILE COPY
SURNAME:

400
Blakemore
Mittendorf
(Law)

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

October 9, 1951

Not stripped in RMR.

Memorandum

To: General Counsel

From: C. O. Mittendorf, Director
Production Expansion Division

Subject: Docket No. DMA 1107, Contract Idm-E79

Tom C. Stanford

Attached hereto are:

1. Two signed copies and one copy of an Agreement between Tom Stanford, Allen Erickson, George Erickson and Sam Walter
2. Three copies of an approval of the above agreement signed by J. H. East, Jr.
3. The PED file copy of the subject contract.

Your opinion is requested.

C. O. Mittendorf

(J. H.)

Attachments-7

PBBlakemore/meh
cc to: Reports and Records
Messrs. Mittendorf, Olund
Mr. Blakemore
Docket

PED Files

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D.C.
OCT 8 12 08 PM '51

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

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 8 1951
Defense Minerals Administration,
Production Expansion Division.

224 New Customhouse
Denver 2, Colorado

October 1, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Div., Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: DMA-1107, Contract Idm-E79, Approval of Contract

We are enclosing two signed copies and one copy of an Agreement between Tom Stanford and Allen Erickson, George Erickson and Sam Walter, dated August 15, 1951; and three copies of an approval of the above agreement.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

OFFICIAL FILE COPY

To	Initials	Date
400	A.E.C.	10-8

1107 X
E79

Contract dated August 15, 1951, between Tom Stanford, party of the first part, and George Erickson, Allan Erickson and Sam Walker, parties of the second part, for carrying out certain specified work under the provisions of Exploration Contract No. Ida-279, between the United States of America and Tom Stanford is hereby approved.

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

Dated September 25, 1951.

By J. H. East, Jr.
J. H. East, Jr.,
Executive Officer
DMA Field Team, Region IV

1107X
Idm E79

AGREEMENT

THIS AGREEMENT, Made and entered into by and between TOM STANFORD, party of the first part, and GEORGE ERICKSON, ALLEN ERICKSON, and SAM WALTERS, parties of the second part; WITNESSETH, That,

The party of the first part agrees to employ the parties of the second part to work in the development of the Forest Home Lead Mining Claim, and the parties of the second part agree to work for the party of the first part in the development of said mining claim on the following basis.

The parties of the second part agree to commence employment on August 15, 1951, and to work 12 days on an hourly basis of $1.50 per hour for the time spent by the parties of the second part. Thereafter, the parties of the second part will work on a contract basis as follows:

To drive a drift seven feet high by four feet wide in the clear at $9.00 per running foot;

For raising, $10.00 per foot;

For timbering, $1.50 an hour for time actually spent in timbering;

For a man to operate the hoist, $1.50 an hour.

The party of the first part agrees to employ the parties of the second part on the above basis.

IN WITNESS WHEREOF, This agreement has been executed this the 10th day of August, 1951.

Tom Stanford

Allen Erickson

George Erickson

Sam Walters

FILE COPY
SURNAME:

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

Contract Service Section
General Accounting Office
Washington 25, D. C.

AUG 3 1 1951

G. E. C.

Re: Docket DMA 1107
Exploration Project Contract
Idm-879
Tom C. Stanford, Forest Home Tungsten
Boulder County, Colorado

Gentlemen:

Enclosed for recording in your office is the original, signed copy of an Exploration Project Contract executed between the operator named in the above reference and the Government of the United States.

Sincerely yours,

C. O. Mittendorf

B 7/31

C. O. Mittendorf, Director
Production Expansion Division

Enclosure-1

HEOlund/bjs
8/20/51
cc to: Adm. Reading File
Field Team, Region IV (2)
Mr. Mittendorf, Mr. Olund
Reports and Records
Docket copy
Chron. copy

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REGION IV

OFFICE OF
REGIONAL DIRECTOR

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

August 10, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division
Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: Exploration Project Contract Idm-E79, DMA Docket ~~1525~~ 1107,
Tom C. Stanford, Forest Home Tungsten, Boulder County,
Colorado

Enclosed herewith are an original and three copies of the contract as listed above, which have been signed by the operator.

The applicant has been given one copy and one copy is being retained for DMA Files.

J. H. East, Jr.

J. H. East, Jr.

Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 14 1951

GOSS & HUTCHINSON
ATTORNEYS AT LAW

MELVIN C. GOSS
DUDLEY I. HUTCHINSON
DUDLEY I. HUTCHINSON, JR.

BOULDER, COLORADO

August 1, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 1 1951

Mr. C. O. Mittendorf
c/o Defense Minerals Administration
New Interior Building
Washington, 25, D. C.

Dear Sir:

I am the secretary of the Hetzer Mines, Inc., a corporation, which corporation owns the Forest Home Lode Mining Claim. Mr. Thomas Stanford has a lease on this claim, and has made application for a government loan to develop the same. It is our understanding that this loan has been approved and will you please advise us whether or not this is correct.

Thank you.

Yours very truly,

Dudley I Hutchinson

Dudley I Hutchinson

DIH:ng

FILE COPY
SURNAME:

S. Warren

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

G. E. C.

AUG 1 1951

Mr. J. H. East, Jr.
Executive Director
DMA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Tom C. Stanford
Forest Home Tungsten Mine
Box 354, Boulder, Colorado

Dear Mr. East:

There will accompany this letter:

6 - cancelled Exploration Project Contracts.
6 - Exploration Project Contracts with accompanying Exhibits A-B-C-D-E, maps, Landlord's Subordination Agreement and signed ready to receive signature of applicant.
4 - photostatic copies of Lease from the Hetser Mines, Inc. to applicant.
1 - copy of a letter from our General Counsel explaining the reasons why it was necessary to prepare other copies of the contract.

Will you please have applicant sign all six copies of the contract, in accordance with the instructions given by the General Counsel. Applicant must also change the date of the Subordination Agreement to conform to the one on the Exploration Contract. Also two additional copies of the Lease must be procurred and attached to the two Exploration Contracts which presently do not have these attachments.

When the contracts have been completed in accordance with instructions from the General Counsel and signed by applicant, please deliver one complete copy to the applicant, retain one complete copy for your files and return four completed copies to this office for further distribution.

FILE COPY
SURNAME:

SPWarren
Mittendorf

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

A copy of the contract required by the Regional Finance Office will be forwarded directly by the Washington Finance Section, together with accounting instructions.

Sincerely yours,

C. O. Mittendorf not displayed here

C. O. Mittendorf, Director
Production Expansion Division

Enclosures-17

APPROVED:

Tom Lyon

Chairman, Coordinating Committee

Merrill

Member, Bureau of Mines

Olaf N. Rove

Member, Geological Survey

SPWarren/bjs
7/27/51

cc to: Adm. Reading File
Reports and Records
Mr. Mittendorf, Mr. Olund
Mr. Warren
Mr. Thayer
Mr. Holderer
Mr. Moon
Mrs. Terry
Region IV
Docket copy
Chron. copy

mt 8/2

FILE COPY
SURNAME:

Guthrie

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

July 13, 1951

Memorandum

To: C. O. Mittendorf

From: J. L. Hofflund

Subject: Forest Home Tungsten Mine exploration contract -- Docket No. DMA-1107

We cannot approve the subject contract without additional information as to the identity of the applicant.

The papers do not show for sure whether the Forest Home Tungsten Mine is simply the name generally applied to the property, the name of a partnership, a corporation or the name under which Mr. Stanford proposes to do business. If it has no significance other than as the name generally applied to the property, it should not have been inserted as the name of the applicant, which in fact would be Mr. Stanford.

If any of the other possibilities prove to be the case, we should know exactly what the status is and what capacity Mr. Stanford occupies.

The subordination agreement is defective because it sets out a date for the exploration contract and that contract has not yet been dated.

Your file is returned herewith.

J. L. Hofflund

J. L. Hofflund
General Counsel

Attachment
R R Guthrie/ema
Copy to: L. F. Strobel
R. R. Guthrie
J. L. Hofflund
Chron.
Files

DMA 1107

856

FILE COPY
SURNAME:

SPWarren

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

July 9, 1951

Memorandum

TO: ~~H. J.~~ Hofflund

FROM: C. O. Mittendorf

SUBJECT: DMA No. 1107, Forest Home Tungsten Mine
Tom. C. Stanford, Lessee

We are forwarding herewith for your review and approval, certain data pertaining to cautioned applicant.

Original and five copies of:
Exploration Project Contract signed by applicant
Exhibits A-B-C-D-E
Landlord's Subordination Agreement

Six copies of:
Composite Map
Longitudinal Section

We would appreciate your consideration of these data at your early convenience.

Attachments-12

SPWarren/meh
cc to: Strobel
Mittendorf, Olund
Warren
Hofflund
FILES

DMA 1107

958

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

224 New Customhouse
Denver, Colorado

June 26, 1951

Memorandum

To: L. B. Moon

Attention: J. H. East, Jr.
Regional Director, Region IV
(in Washington)

From: DMA Field Team, Region IV

Subject: DMA Docket 1107, Forest Home Mine

Enclosed are six copies of the signed contract, exhibits A to E and subordination agreements on the above tungsten application. Also enclosed are three copies of a statement by Ogden Tweto on the favorable geology and the original brochure.

We recommend approval of the contract.

P. T. Allsman, Alternate

A. H. Koschmann

Attachments

WMT/m

Denver, Colorado

Chief, Mining Division, Region IV

June 22, 1951

W. M. Traver, Jr.

DMA Docket 1107 - Forest Home Tungsten Mine Application

Enclosed please find the original and three copies of Tom Stanford's application on form MF-103 for a $10,000 participating loan on the Forest Home Tungsten Mine, Boulder County, Colorado.

In accordance with Mr. Bradley's instructions in his memorandum of May 8, 1951 we have obtained from Stanford all the data requested, including the copies of his lease, to clarify the forms and they are annexed as supplemental sheets to each of the four copies of form MF-103.

We did not obtain subordination agreements from the owner as the instructions on form MF-103 definitely state these are required with the contract agreement which we have not been instructed to obtain.

A report by Shaw and Tweto recommending the participating loan for $10,000.00 is ready for final typing. Incidentally his original request was for $5,000.00 and he has revised it in this application to $10,000.00.

All the data relating to the Docket, transmitted with your memorandum of May 22, 1951, is returned herewith.

W. M. Traver, Jr.

W. M. Traver, Jr.

Encl.

cc: P. T. Allsman
DMA 1107
DMA Chron.

Approved
Jim Ryon

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

200 New Customhouse
Denver 2, Colorado

June 22, 1951

Memorandum

To: DMA Field Team, Region IV

From: Ogden Tweto

Subject: DMA Docket 1107--Forest Home Mine, Boulder County, Colorado

Enclosed are the original and 7 copies of the above geologic report by Ogden Tweto.

Ogden Tweto

Ogden Tweto, Alternate
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-1107, Forest Home Tungsten Mine

Boulder County, Colorado

John H. Shaw, Mining Engineer
U. S. Bureau of Mines

Ogden Tweto, Geologist
U. S. Geological Survey

ON SITE EXAM

June 25, 1951

FOREST HOME TUNGSTEN MINE

BOULDER COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By John H. Shaw
Mining Engineer
U. S. Bureau of Mines

and

Ogden Tweto
Geologist
U. S. Geological Survey

FOREST HOME TUNGSTEN MINE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By John H. Shaw and Ogden Tweto

Tom C. Stanford, lessee of the Forest Home mine, has applied for an exploration loan of $10,000.00 under the Defense Production Act of 1950.

Tungsten ore occurs at the Forest Home mine as ferberite in narrow, irregular veins in granite intruded by aplite and pegmatite dikes. The majority of the veins range from 6 inches to 3 feet in width, and dips are generally from vertical to 60 degrees; however, an ore shoot may have a rake as flat as 30 degrees in a vein.

The mine does not contain any minable measured or indicated ore. It is estimated that the exploration will show about 1,800 tons of inferred reserves averaging 1.80 percent WO_3.

The applicant proposes to drive a drift on the 205-foot level on a cross vein that is reported to contain ore in the winze on the 107-foot level. The ore mined from the stope above the level was in the vein where it passed through an aplite dike. A drift will be driven northeast on the vein to cut the junction of the vein and the aplite dike. A drift also will be driven southwest on the cross vein and raises will be driven to thoroughly explore the ore shoot. The cost of the project is estimated at $8955.00.

The operating costs are estimated at $29.34 per ton. The net mill return on 1.80 percent WO_3 is $55.20. The profit per ton will be $25.86, and the profit on 1,800 tons will be $46,548.00.

The proposed project is sound. The applicant is reliable, and the operation will be in charge of a competent mining man.

The amount of the loan is adequate to do the proposed work. It is recommended that the loan for $10,000.00 on the Forest Home Mine, DMA Docket 1107, be granted.

FOREST HOME TUNGSTEN MINE

BOULDER COUNTY, COLORADO

Engineering Report

By John H. Shaw
Mining Engineer
U. S. Bureau of Mines

FOREST HOME TUNGSTEN MINE

BOULDER COUNTY, COLORADO

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ILLUSTRATIONS

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* See Geology Report.

FOREST HOME TUNGSTEN MINE

ENGINEERING REPORT

By

John H. Shaw
Bureau of Mines

INTRODUCTION

The Forest Home mine was examined on June 14 and 15, 1951, by John F. Shaw, mining engineer, U. S. Bureau of Mines, and on June 14, 1951, by Ogden Tweto, geologist, U. S. Geological Survey, with reference to an application for an exploration loan of $10,000.00 submitted by Tom C. Stanford, lessee of the property.

ACKNOWLEDGMENTS

Mr. Elmer Hetzer, president, Hetzer Mines, Inc., owner of the property, and Mr. Tom C. Stanford, lessee of the mine, were very cooperative.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Forest Home mine is 3 miles by road northeast of Nederland, Boulder County, Colo. (fig. 1). The specific location is the NE 1/4, sec. 7, T. 1 S., R. 72 W, Grand Island Mining District. The area is one of rounded mountains and flat ridges separated by deep gorges. The altitude ranges from 6,000 to 9,000 feet. Winters are severe but little time is lost due to heavy snowstorms.

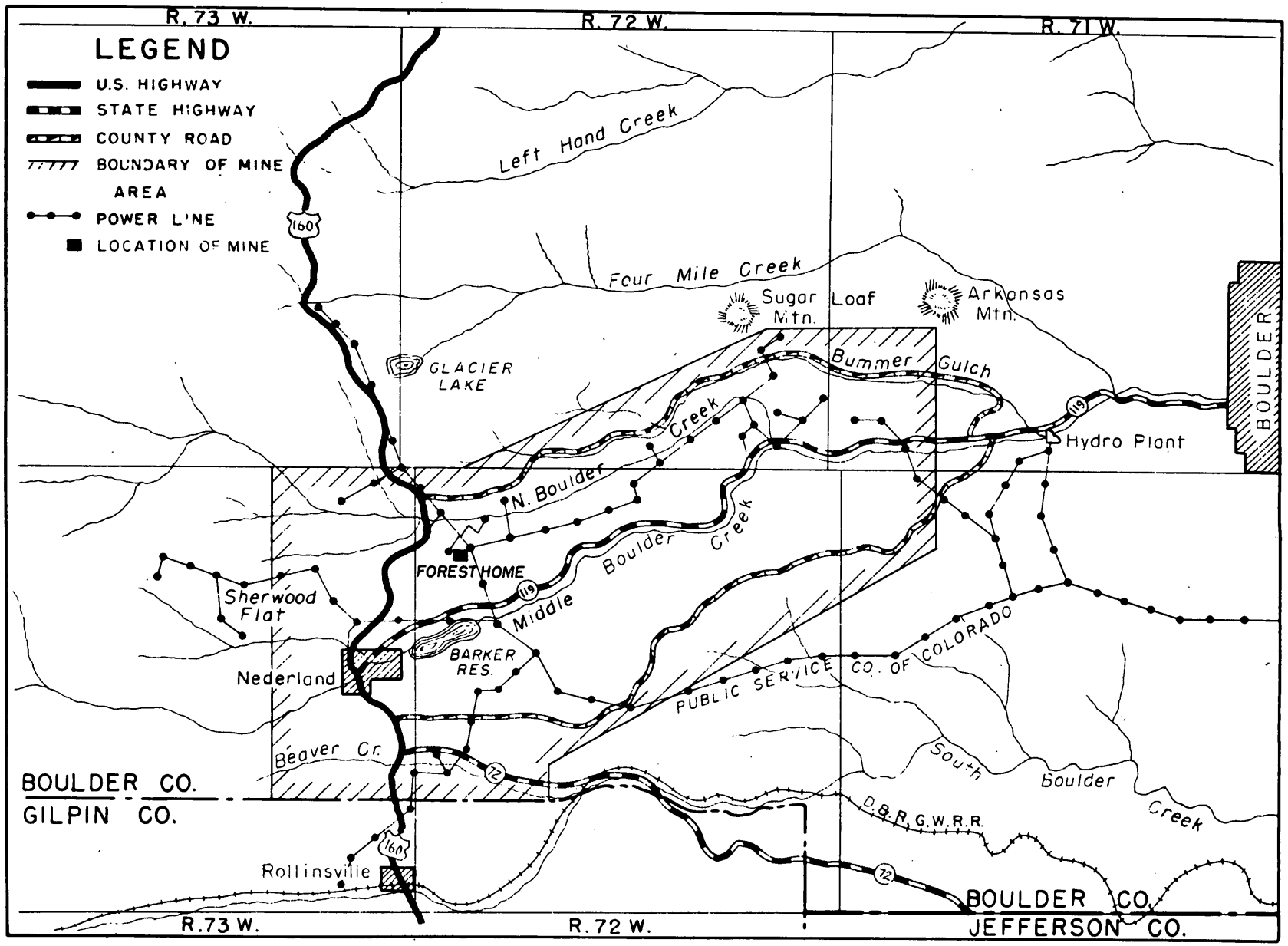


Fig. 1, INDEX MAP-BOULDER COUNTY, TUNGSTEN AREA, DMA-1107

HISTORY AND PRODUCTION

The mine was opened in 1905 and is reported to have had a large production during World War I; however, production figures are not available. The mine was reopened in 1943 and produced 3,100 tons of ore during 1943, 1944, and 1945. The ore was shipped to the Metals Reserve stockpile and contained an average of 1.80 percent WO_3.

OWNERSHIP AND EXTENT

The Forest Home property consists of only the Forest Home patented claim, Survey No. 19559, containing about 7 acres in the Grand Island Mining District, Boulder County, Colo. It is owned by Hetzer Mines, Inc., Elmer Hetzer, president, of Boulder, Colo.

DESCRIPTION OF THE DEPOSITS

Tungsten ore occurs as ferberite in narrow, irregular veins in granite intruded by aplite and pegmatite dikes. Individual ore shoots are small. The ore has been found to exist through a vertical range of about 700 feet, though most of the individual ore shoots have been followed through a vertical distance of less than 100 feet. The majority of the tungsten veins range from 6 inches to 3 feet in width and dips are generally from vertical to 60 degrees; however, an ore shoot may have a rake as flat as 30 degrees in a vein. When ore shoots occur in the granite, the wall rock will not stand and some variation of the cut-and-fill stoping method must be used; however, when they are in the dike rock, the walls stand well and shrinkage stoping may be used.

MINABLE ORE RESERVES

The mine does not contain any minable measured and indicated ore. It is estimated that the exploration will show about 1,800 tons of

inferred ore averaging 1.80 percent WO_3.

The ore mined above the level occurred at the junction of the cross vein and the aplite dike. The average width of this stope was 6 feet. The volume included in the junction of the cross vein and the aplite dike from the 107-foot level to the 205-foot level with an average width of 6 feet was taken as the volume of inferred ore (fig. 3). The number of cubic feet per ton was taken as 12. The average grade of ore was assumed to be 1.80 percent WO_3 which is the same as the grade of the ore shipped from the stope above the 107-foot level. The calculation of the inferred ore follows:

$$\frac{160 \times 23 \times 6}{12} = 1{,}840 \text{ tons,}$$

considered as 1,800 tons of 1.80 percent tungsten ore which will produce 64,800 pounds WO_3.

PRESENT STATUS

Exploration and Development

The mine is opened by a 2-compartment inclined shaft 205 feet deep sunk on the Forest Home vein which has an average strike of S. 78° W. and dips 75° north (fig. 2). Levels are cut at 107 and 205 feet. There is about 800 feet of drifting and crosscutting on the 107-foot level and about 400 feet of drifting and crosscutting on the 205-foot level. The greater part of the development work was confined to the Forest Home vein, with a small amount of drifting on production cross veins. The Bureau of Mines core drilled 10 holes in this mine in 1942 and 1943 and drilled 1 hole from the surface. The total length of the holes was 877.8 feet. Three holes on the 107-foot level delimited an ore body on a cross vein below the level

from which 1,700 tons of ore containing 2.2 percent WO_3 were mined.

Ore is reported in the bottom of a winze 10 feet long by 10 feet deep on a cross vein 90 feet east of the shaft on the 107-foot level. This ore could not be sampled because of an accumulation of broken waste in the bottom. The stope above the level produced 1,400 tons of ore containing 1.80 percent WO_3.

The mine makes a small amount of water and is kept unwatered by a pump driven by a 15 horsepower electric motor provided with automatic controls.

Mining and Milling Equipment

The mine is provided with the following equipment:

- 1 Hoist, 3rd motion, single drum, 5/8-inch cable, driven by 15 HP, 440-volt motor
- 2 Shaft buckets, 500 pounds capacity
- 1 Bucket dolly
- 1 14 cu.ft. capacity top car
- 1 4-post wooden head frame, 20 feet high, complete with sheave wheel and bucket dump
- 1 Air compressor, Ingersoll-Rand, Type 10, 7 1/2 x 14 x 12, belt driven by 50 HP, 440-volt motor
- 1 Stoper R-91
- 1 Jackhammer, 55-pound, complete with shell, column, arm, air and water hoses, water pressure tank
- 1 Miscellaneous hand tools
- Drill steel

The hoist house is adequate but a 30-ton capacity ore house will need repairing. The pump is adequate to keep the mine unwatered.

PROJECT PROPOSALS, WITH COSTS

The applicant proposes to drive a drift on the 205-foot level (figs. 2, 3) on the cross vein that is reported to contain ore in the winze on the 107-foot level. This cross vein is cut on the 205-foot level 48 feet from the shaft. The ore in the stope above the level was in the vein where it passed through an aplite dike. The rake of the stope is about 42 degrees northeast and if the rake of the ore shoot is constant, it will require 63 feet of drifting northeast on the vein to drift through the ore (fig. 3). A drift also should be driven 27 feet southwest on the cross vein, and a raise driven to intersect the ore body. The shoot should also be explored by other raises as shown on the accompanying longitudinal section. This section indicates 90 feet of drifting and 140 feet of raising will be required. In order to allow for variations in dip of the aplite dike, and the consequent change in the rake of the ore shoot, provision should be made for 150 feet of drifting at $32.00 a foot, and 140 feet of raising at $27.00 a foot. Approximately $375.00 will be spent on preparation and rehabilitation. The total cost will be $8,955.00.

The mine is fully equipped; however, it will be necessary to purchase some mine rails, compressed air pipe, water pipe, and small tools. The mine is 3 miles northeast of Nederland and is accessible by a good gravelled road. Consequently, no road work will be required.

Ample skilled labor is available. The development work will require 1 hoistman, 1 miner, 1 mucker, and a supervisor. When the mine is in production, it will require an additional miner, mucker, and top man.

Power is furnished by the Public Service Company of Colorado as 440-volt, 60-cycle, alternating current. All the electric motors at the property are connected and in operating condition. The rates of the power company are $1.50 per month per horsepower for the first 25 horsepower and $1.00 per horsepower for all additional horsepower, which minimum charge includes a use of 30 k.w.h. per horsepower of demand. The next 60 k.w.h. used per month per horsepower of demand, but not less than 450 k.w.h., is charged for at $.03 per k.w.h. The estimated cost of power is $125.00 per month.

PRODUCTION PLAN

It will require one week to lay track and pipe on the 205-foot level and retimber the shaft station; 150 feet of drifting at 2 1/2 feet per day will take 60 days; and 140 feet of raising at 3 1/2 feet per day will take 40 days. It is estimated about 4 1/2 months will be required to complete the project.

The mine will produce about 10 tons of ore containing 36 pounds of WO_3 per ton, or 360 pounds of WO_3 per day. The total inferred tonnage is 1,800 tons containing 64,800 pounds of WO_3.

The ore will be in the vein where it passes through the aplite dike. The wall rock will stand without support so the ore can be mined by the shrinkage stope method. The overall mining cost is estimated at $20.00 per ton. This figure includes the compensation insurance of $2.81 per $100.00 payroll. The haul to the mill is $1.25 per ton. The 15 percent royalty is deducted from the net mill payments after the haul is deducted.

SUMMARY: COST OF PROJECT

Capital Requirements

Preparation and rehabilitation

Power	$ 30.00	
Timber	50.00	
Labor (underground)	145.60	
Labor (surface)	78.00	
Rental of equipment	45.50	
Supplies	20.00	
Compensation	5.90	$ 375.00

Drifting

	Per foot
Rental of equipment	$ 3.25
Power	2.00
Timber	2.45
Labor (surface)	5.25
Labor (underground)	9.75
Compensation	.45
Powder	3.35
Caps and fuse	.40
Drill bits	.50
Drill steel	.75
Track	.60
Air and water pipe	.40
Incidentals	2.85
	$ 32.00

Cost of 150 feet of drifting at $32.00 per foot — 4,800.00

Raising

	Per foot
Rental of equipment	$ 2.25
Power	1.75
Timber	4.00
Labor (surface)	4.00
Labor (underground)	7.00
Compensation	.30
Powder	3.35
Caps and fuse	.40
Drill bits	.50
Drill steel	.75
Air and water pipe	.30
Incidentals	2.40
	$ 27.00

Cost of 140 feet of raising at $27.00 per foot — 3,780.00

Total Cost of Exploration — $ 8,955.00

Mining Costs

	Per ton
Rental of equipment	$ .75
Power	.50
Timber	4.75
Labor (surface)	2.50
Labor (underground)	5.00
Compensation at $2.81/$100 payroll	.20
Powder	2.50
Caps and fuse	.40
Drill bits	.30
Drill steel	.60
Air and water pipe	.20
Incidentals	2.30
Mining cost, per ton	$20.00

Estimated Profit

Mill return per ton at 1.80 percent WO_3	$55.20	
Trucking to mill	1.25	
Net mill return		$53.95
Stoping cost per ton	$20.00	
Royalty: 15 percent net mill return	8.09	
Total cost per ton		28.09
Profit per ton		$25.86
Total profit: 1,800 tons at $25.86		$46,548.00

PROPOSED FINANCING

It is proposed to finance operations by an exploration loan granted under the provisions of the Defense Production Act of 1950. An application for a loan of $10,000.00 has been submitted by Tom C. Stanford, of Boulder, Colo., lessee of the property. The Government will contribute 75 percent of the loan, or $7,500.00, and the lessee 25 percent, or $2,500.00, as provided for in Section 9 (b) of Mineral Order 5. The amount requested is adequate

to do the proposed work. The Government will be repaid as provided for in Section 14 of Mineral Order 5.

CONCLUSIONS

The proposed project is based on sound geological and engineering considerations. There is no ore immediately available, but the geology is favorable for a downward extension of the ore mined in the cross vein above the 107-foot level. The logical way to explore this cross vein at depth is to drive a drift on the vein on the 205-foot level until the intersection of the vein and the aplite dike is cut. Raises should also be run in the vein to explore the junction of the vein and the dike at different horizons as shown in figure 3. This is necessary because the ore shoots in the Boulder tungsten district are usually small and irregular, and an ore body may not be encountered unless several horizons are explored.

The applicant is a substantial business man and owns a real estate and insurance business in Boulder. His mining experience is limited but Elmer Hetzer will be employed as consultant on the project. Hetzer, a successful mine operator in the district, is president of Hetzer Mines, Inc., which owns several tungsten properties in the area, including the Forest Home. Hetzer Mine, Inc., also owns the Wolf Tongue mill, a custom tungsten concentrator, in Nederland. Hetzer will select a competent man to act as foreman and will see that the project is conducted in a workmanlike manner. Hetzer received loans totaling $8,000.00 from the Reconstruction Finance Corporation on the Forest Home mine in 1942 and 1943. These loans were repaid in full.

RECOMMENDATIONS

It is recommended that the application for an exploration loan of $10,000.00 on the Forest Home mine, DMA Docket 1107, be granted. The money should be expended driving drifts on the cross vein on the 205-foot level, and raising from these drifts to explore thoroughly the junction of the cross vein and the aplite dike. The proposed work is shown in figure 3, a longitudinal section through the cross vein.

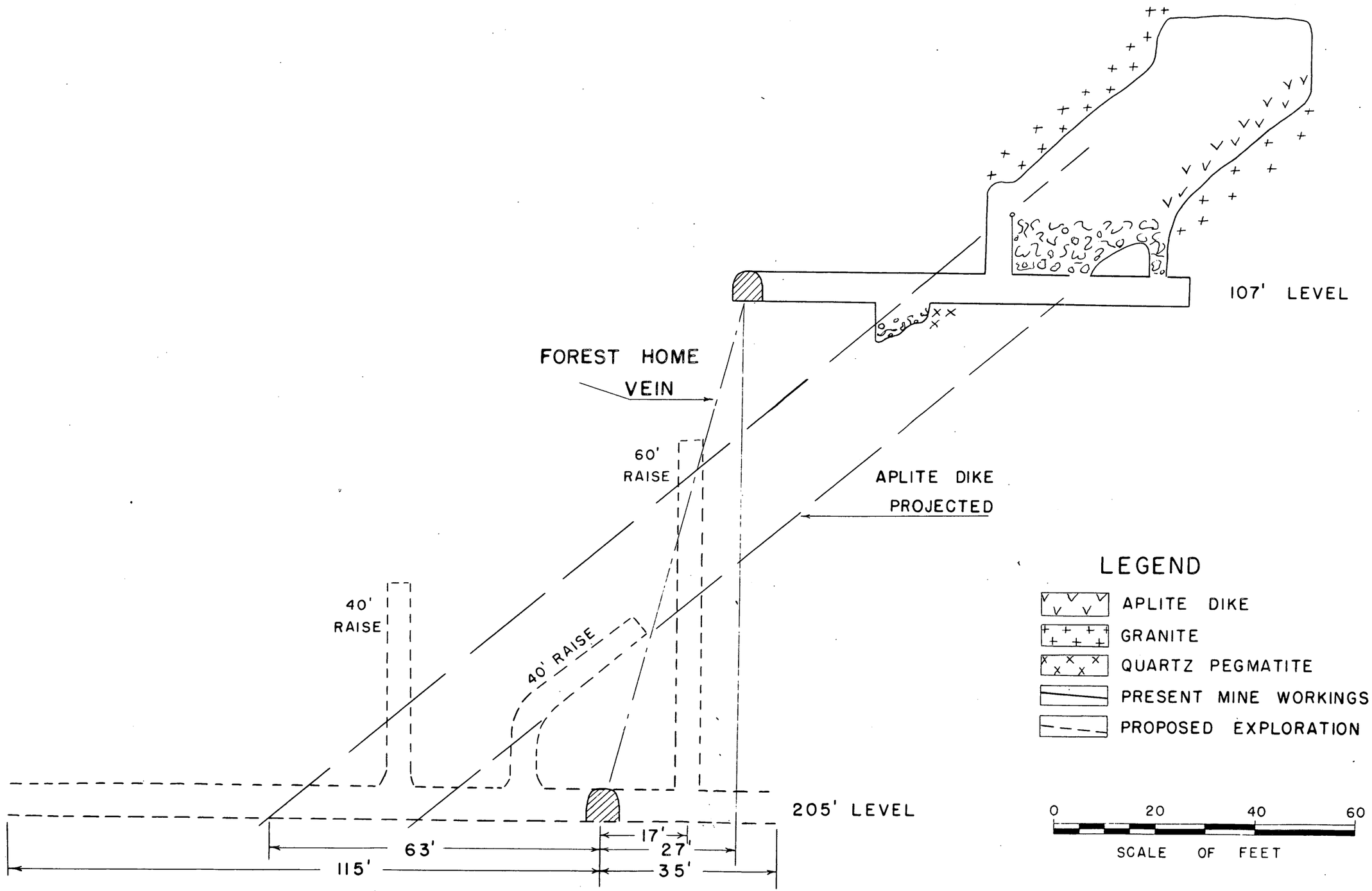


Fig. 3 - FOREST HOME MINE LONGITUDINAL SECTION IN PLANE OF CROSS-VEIN DMA 1107

FOREST HOME MINE

BOULDER COUNTY, COLORADO

DMA Docket 1107

Geology and Outlook

By
Ogden Tweto
U. S. Geological Survey

FOREST HOME MINE
BOULDER COUNTY, COLORADO

The Forest Home mine was one of the more productive tungsten mines in the Boulder district during World War II, when it produced about 3,500 tons of ore containing about 4,700 units WO_3. The total output is not known but exceeds 10,000 units WO_3. The mine is small and shallow (see attached map). The output during World War II came from the branch veins north and south of the Forest Home vein, principally above the first level, although one important stope lay between the first and second levels. The early output came from the Forest Home vein between the surface and the first level, and from a vein that dips into the Forest Home vein on the first level.

Like practically all the tungsten mines of Boulder County, the Forest Home mine does not now and never has contained a known reserve of more than a few hundred units. It must, therefore, be appraised from the point of view of geologic "possibilities" still remaining untested. The mine has many such possibilities. The proposed work to explore the "Footwall Vein" (see map of second level) on and above the second level is one of the most obvious of such possibilities. This vein was productive where it cuts an aplite dike on the first level and contained good ore in a winze 12 feet deep in the floor of the level. The dike has a rather flat dip to the north and would lie north of the Forest Home vein on the second level. The operator therefore proposes to drift northeast on the vein on the second level, and raise, as shown in the longitudinal section accompanying the report of

John Shaw, of the Bureau of Mines. A short drift would be driven southwestward on the vein also, to test the possibility of the ore's going straight down from the first level.

Other good possibilities for exploration in the Forest Home mine are: (1) to drive west on either the first or second level, or both, as the vein should intersect an aplite dike in this direction, and aplite dikes localize many ore shoots in this part of the district; (2) to crosscut northwestward from the northeastern part of the first level, to explore veins known in this direction at the surface; (3) to drive the second level eastward to explore several veins known at the surface east of the present workings; and (4) to sink and explore the Forest Home and branch veins at greater depth, as the present bottom level is only 200 feet deep.

Considering these several possibilities, it is recommended that the request for a loan be granted.

May 22, 1951

Memorandum

To: W. M. Traver, Jr.

From: Field Team, Region IV

Subject: DPA 1107 - Forest Home Tungsten Mine, Nederland, Colo.
Tom Sanford, applicant.

The above brochure and copy of a letter from the Executive Committee, DMA, is being submitted to Mr. Koochmann. Considerable information requiring attention of a geologist and engineer is missing. Please prepare a report and recommendations after the needed investigation.

Please return the original application.

Paul T. Allsman, Alternate

A. H. Koochmann

PTA:ftm

CC: A.H. Koochmann
P.T. Allsman
DMA

FILE COPY
SURNAME:

Lemmon
Bradley
Geehan
Rove

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

File Sent to 5/18/51

May 8, 1951

Mr. J. H. East, Executive Officer
D.M.A. Field Team, Region 4
224 New Customhouse
Denver 2, Colorado

Through: DMA Coordinating Committee Subject: DMA 1107 - Tungsten

Dear Mr. East:

It is requested that you review the application of Mr. Tom Stanford for an exploration project to cost $5,000 at the Forest Home tungsten mine, near Nederland, Boulder County, Colorado. Mr. Stanford's application (DMA 1107) is not sufficiently detailed with regard to the proposed expenditures, and is not accompanied by the necessary lease and subordination agreements. As part of your review, please assist Mr. Stanford to complete the necessary items in his application.

The report by Carl Belser, submitted with your letter of March 23, 1951, mentions on page 16 of the Appendix that the mine is leased to Gregory and Stafford and that plans were made to sink the shaft another 100 feet. Has the lease situation changed since this report?

We have copies of maps of the mine prepared in 1943 by Ogden Tweto of the Geological Survey, and we also have various memoranda from Mr. Tweto concerning exploration in the mine during 1942-43.

The application is enclosed.

Sincerely yours,

P. R. Bradley

P. R. Bradley, Jr.
Chief, Tungsten Branch

Enclosure

DMLemmon:gt

Copies to: Administrator's reading file
Mr. Strobel
Mr. Lemmon
Mr. Geehan
Mr. Bradley
Field Team, Region IV
Files

APPROVED BY:
Tom Lyon

Chairman, Coordinating Committee
Olaf N. Rove

Geological Survey
Lowell B. Moon

Bureau of Mines

FILE COPY
SURNAME:

Bellard
Bradley
Pm

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

May 8, 1951

Mr. Tom C. Stanford
P. O. Box 354
Boulder, Colorado

In reply please refer to
DMA-1107

Dear Mr. Stanford:

Your application for an exploration loan has been referred to Mr. J. H. East, Executive Officer, DMA Field Team, Region IV, 224 New Customhouse, Denver 2, Colorado, for a field review.

Please advise Mr. East where he may contact you or someone else familiar with the property.

Yours very truly,

Tom Lyon

Tom Lyon
Director, Supply Division

TJBallard:mem

cc: Admin. Reading File
Mr. Strobel
Mr. Lemmon
Mr. Geehan
Mr. Bradley
Field Team, Region IV
F I L E S

FILE COPY
SURNAME:

Brady
Ballard

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

May 7, 1951

Mr. Tom C. Stanford
P. O. Box 354
Boulder, Colorado

In reply please refer to
DMA -1107

Dear Mr. Stanford:

We have received your letter of application for an exploration loan together with the attached technical information. The application has been given Docket No. 1107 and is being processed; however, it is not possible under present conditions to complete the necessary investigations in two weeks.

In the meantime, please complete the enclosed exploration application form MF-103 in quadruplicate and return to this office.

Very truly yours,

P. R. Bradley ec

P. R. Bradley, Jr., Chief
Chrome-Manganese-Tungsten Branch

Enclosure

TJBallard:ec

CC: Adm. Reading File
Mr. Strobel
Mr. Bradley
Files

Docket 1107

856

FILE COPY
SURNAME:

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

May 7, 1951

Mr. Tom C. Stanford
P. O. Box 354
Boulder, Colorado

Subject: DMA-1107
Re: Loan $3,750

My dear Mr. Stanford:

Receipt is acknowledged of your application and attachments of May 2 for a Government loan under the Defense Production Act of 1950.

The application was assigned Docket Number 1107 and referred to Mr. P. R. Bradley, Chief, Tungsten Branch, on May 4.

In any future correspondence relating to your application, kindly refer to DMA-1107.

Sincerely yours,

A.E.C.

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

LFSTROBEL:aec
copies to Strobel-2
Files
Mr. Bradley
Mr. Lyon

May 2, 1951

LANDON F. SIMOBEL

dma 1107

Defense Minerals Administration
Department of the Interior
Washington 25, D.C.

Gentlemen:

Enclosed are four copies of the answers contained in form MF100.

I would like to apply for a Government Exploratory Loan which I understand is available on 75% participation basis. The amount of the loan $5000.00 of which I will be able to put up $1250.00.

Time is urgent and unless this can be put thru within the next two weeks it will be of no benefit.

Please instruct us by return Air Mail.

Thanks.

Yours very truly,

Tom C. Stanford-Mining Account

By Tom C. Stanford
Tom C. Stanford

P.O. Box 354
Boulder, Colo.

TCS:amg

BUREAU OF MINES
WASHINGTON, D. C.

MAY 3 1 48 PM '51

Month	Advance Feet	To Date
Sept.	16	
Oct.	37.67	53.67
Nov.	43.0	96.67
Dec.	4.0	100.67
Jan-Feb 4	35.0	135.67
		135.67
April 5	17.0	152.67
May	34.0	186.67
June	15.33	202.0
Feb-April		
July		
Overtime pay to July 31		
		202.0

1/ Includes extra
2/ Man shifts over
3/ Based on 40
5/ Data incomplete

Project DMA 1107X - Tungsten

Raising 11-11-51 ~~140~~ 190 feet @ $27.00 - $3,780.00 plus supervision (594.00) + 35.00

Costs						Cost per foot						
Labor 1/	Supplies	Equip	Power	Total	To Date	Labor 1/	Supplies	Equip	Power	Total	To Date	Man Shifts 2/
308.00	89.08	47.00	20.23	464.31		19.25	5.57	2.94	1.26	29.02		19.5
784.97	168.02	100.80	43.57	1097.36	1561.67	20.84	4.46	2.67	1.16	29.13	29.10	43
1161.24	257.55	154.26	66.68	1639.73	3201.40	27.01	5.99	3.59	1.55	38.13	33.12	89.5
72.87	22.82	77.58	4.51	177.78	3379.18	18.22	5.71	19.40	1.13	44.46	33.57	5
847.48	158.13	117.00	50.57	1173.18	4552.36	24.21	4.52	3.34	1.44	33.52	33.55	52
317456	695.60	496.64	185.56	455236	4552.36	23.40	5.13	3.66	1.37	33.55		209

Total of $474.15 over contract. Prorated on Total Rising $206.07 more than authorized and paid

Amendment 3/29/52 increased amount $4218.90 and 125 feet. — $8,627.90 315 feet 19 months

562.03	117.13	65.70	11.39	756.25	5308.61	33.06	6.89	3.86	0.67	44.48	34.77	46
664.87	167.44	81.00	47.99	961.30	6269.91	19.56	4.92	2.38	1.41	28.27	33.59	35.5
4401.46	980.17	643.34	244.94	6269.91		23.58	5.25	3.45	1.31	33.59		290.5
381.09	46.25	82.50	25.04	534.88	6804.79	24.86	3.01	5.38	1.63	34.88	33.69	20.5
6.61	19.48		46.12	72.21	6877.00						34.04	
156.36												
4945.52	1045.90	725.84	316.10	7033.36	7033.36							
	-18.27											
	1027.63				7015.09	24.48	5.09	3.59	1.56		34.73	311.0

et price of $70.00 per foot plus insurance & S.S.
ained by adding all shift plus 9% for shift or contract
ristmen's shift
$31.24 fire insurance

$4409.00

Shifts	Advance per shift Mon	Advance per shift	Work Completed	Funds Consumed	Time Consumed
5	0.82	3.20	11.4	10.5	33.3
10	0.88	3.77	38.3	35.4	44.4
23	0.48	1.87	50.9	72.6	55.5
1	0.80	4.00	53.0	76.6	66.6
13.5	0.67	2.59	71.4	103.2	77.7
52.5	0.65	2.58	71.4	103.2	77.7
10.25	0.37	1.66	48.5	61.5	52.6
11.25	0.96	3.02	59.3	72.7	57.9
74.0	0.64	2.52			
6.0	0.75	2.56	64.1	78.9	63.2
			64.1	79.7	68.4
80.0	0.65	2.53	64.1	79.7	

DMA No. 1107 - TUNGSTEN; FOREST HOME MINE, BOULDER COUNTY, COLORADO

CONTRACT 1DM-E79 SIGNED WITH TOM C. STANFORD, LESSEE, ON JULY 23, 1951 FOR EXPLORATION CONSISTING OF 150 FT. OF DRIFTING @ $32/FT. ($4800) AND 140 FT. OF RAISING @ $27/FT. ($3,780) FOR TOTAL AMOUNT NOT TO EXCEED $10,000 INCLUDING RENTAL OF EQUIPMENT, SUPERVISION, & INCIDENTALS. ORIGINAL CONTRACT TO HAVE BEEN COMPLETED IN 9 MONTHS, BUT THAT CONTRACT HAS SUBSEQUENTLY BEEN AMENDED SEVERAL TIMES TO COMPRISE AN ADDITIONAL 300 FT. OF DRIFTING AND CROSSCUTTING PLUS 125 FT. OF RAISING AT A TOTAL AGGREGATE COST OF $22,500 (INCLUDING ORIGINAL GRANT). CURRENT CONTRACT, AS AMENDED, TO EXPIRE FEB. 23, 1953.

FUNDS PROVIDED UNDER ORIGINAL CONTRACT WERE CONSUMED AND EXPLORATORY WORK SUSPENDED ON FEB. 4, 1952. THE FOLLOWING WORK WAS DONE:

1) 222.5 FT. OF DRIFTING & X-CUTTING (150 FT. AUTHORIZED) AT ACTUAL COST OF $27.80/FT. ($32/FT. + SUPERVISORY COSTS CONTEMPLATED IN CONTRACT)
2) 135.67 FT. OF RAISING (140 FT. AUTHORIZED) AT ACTUAL COST OF $33.70/FT. (CONTRACT PROVIDED $27/FT. + SUPERVISORY COSTS OR ABOUT $31.45/FT. TOTAL).

OPERATOR OVERCHARGED RENTAL ON HIS OWN EQUIPMENT BY $180 AND MADE A FEW OTHER UNAUTHORIZED CHARGES. IN ALL, $531.20 WERE DISALLOWED BRINGING TOTAL CONTRACT COSTS TO EXACTLY $10000 ON FEB 4, 1952. EXPLORATORY WORK ACTUALLY PERFORMED

DID NOT AGREE PRECISELY TO THAT PROVIDED IN CONTRACT BUT AMENDMENTS AND FIELD TEAM RECOMMENDATIONS TO OPERATOR ACCOUNTED FOR MOST VARIATIONS FROM PLAN. AT 35 FT. ABOVE LOWER LEVEL A SHOWING OF FERBERITE WAS REPORTED IN RAISE R4 AND IN A SHORT SUB-LEVEL DRIVEN TO THE EAST ON THAT HORIZON. FUNDS WERE EXHAUSTED BEFORE CONCLUSIVE EXPLORATORY WORK WAS COMPLETED. THIS LEVEL APPEARS TO MARK LOWER HORIZON OF ORE.

ON MARCH 24, 1952 CONTRACT WAS AMENDED TO PROVIDE AN ADDITIONAL $12,250 FOR FURTHER EXPLORATION (300 FT. OF DRIFTING & X-CUTTING AND 125 FT. OF RAISING) TO BE COMPLETED BY FEB. 23, 1953 (AS SPECIFIED IN A SEPARATE AMENDMENT OF APRIL 15, 1952).

DMA No 1107 (TUNGSTEN) FOREST HOME MINE, BOULDER COUNTY, COLORADO

RESUME OF PROGRESS ON AMENDED CONTRACT

$4,800 + SUPERVISORY COSTS AUTHORIZED (ABOUT 560 LIMIT)

$3,780 + SUPERVISORY COSTS AUTHORIZED (ABOUT 440 LIMIT)

MONTH	FT. ADVANCED DRIFTS & X-CUTS	FT. ADVANCED RAISES	TOTAL TO DATE DRIFTS & X-CUTS	TOTAL TO DATE RAISES	MONTHLY COSTS CHARGED DRIFTS & X-CUTS	MONTHLY COSTS CHARGED RAISES	MONTHLY COSTS CHARGED TOTAL	COSTS ALLOWED TO DATE DRIFTS & X-CUTS	COSTS ALLOWED TO DATE RAISES	COSTS ALLOWED TO DATE TOTAL	MISC. ITEMS INC. SUPER	MISC. ITEMS INC. RENTAL	MISC. ITEMS INC. OTHER
AUG. 1951	37	—	37	—	1,102.32	—	1,102.32	1,102.32	—	1,102.32	75.00	90.00	—
SEPT.	51	16	88	16	1,343.94	471.98	1,815.92	2,446.26	471.98	2,918.24	150.00	180.00	BK- 29.50
OCT.	41.50	37.67	129.50	53.67	874.32	1,112.80	1,959.57	3,286.98	1560.33	*4,848.31	150.00	180.00	25.50
NOV.	—	43	129.50	96.67	273.83	1639.50	1,913.33	3560.81	3199.83	6761.64	150.00	180.00	
DEC.	72	4	201.50 (150 FT. AUTHORIZED)	100.67	1730.77	177.84	1,908.61	5291.58	3377.67	8669.25 OK	150.00	180.00	
JAN 1952	21	35	222.50	135.67	631.72 (5956.00)	1173.18 (4575.30)	1,804.90 (10,504.75)	5,756.58	4243.42	++10,000.00	150.00	180.00	
FEB.													
MAR.													
APR.													
MAY													
JUNE													
JULY													
AUG.													
SEPT.													
OCT.													

ACTUAL COST ± 27.80/FT

ACTUAL COST ± $33.70/FT

$990 SPENT, $810 AUTHORIZED

* 29.50 disallowed Sept. 1951
27.55 disallowed Oct. 1951 } ++ $474.15 disallowed in excess of $10,000 limit on loan - $1 discrepancy in totals since Oct. 1951

Project DMA 1107X - Tungsten

November:

Some showings of tungsten at 35 feet in Raise #1. Then barren again.

December:

At 35 feet in crosscut to north on 2nd level intersected small ferberite stringers parallel to drift. At 45 feet hit northeast vein of quartz in aplite with some ore showing.

January:

Continued drift to east to 24 feet and drove R-4 to 35 feet ore in raise. At 35 feet drifted 9 feet to east. 7-8" ore in back ~~and~~

April:

Raised an additional 17 feet in R-4. Lost ore for two rounds (11 feet?) then barren. Drifted an additional 7 feet to east. Good showing ore.

May:

Field Team report on May 20 states sublevel to 53 feet. 43 feet show vein of ferberite 1/2 to 2 1/2 inch

~~Shipped~~ 38,595 pounds assayed 1.08 percent WO_3 from this sublevel

20,000 pounds of similar grade stockpiled

Raise connected to 1st Level. Only few spots of ore above sublevel. Raise bulkheaded off above sublevel.

June. Advanced drift 21 feet all but last two rounds in ore.

Crosscut 23 feet in aplite dike and granite

Shipped 25 tons of ore from 2nd level drift

10 tons still on dump.

July No ore

Project DMA 1107X-Tungsten
Tom C. Stanford
Forest Home Mine
Boulder County, Colorado

Contract signed July 23, 1951 — 9 months

150 feet of drifting @ $32.00	$4,800.00
Supervision & incidentals	791.00
	$5,591.00
140 feet of raising @ $27.00	3,780.00
Supervision & incidentals	629.00
	4,409.00
	$10,000.00

Amended 11/11/51
150 feet of drifting increased to 250 feet
140 feet of raising increased to 190 feet

Amended 3/24/52 to increase amount by $12,250.00 and footage, by Drifting 300' -- Raising 125'
No definite breakdown on funds. By prorating on costs to date we have.

550 feet of drifting (24.77)	$13,622.10
315 feet of raising (27.39)	8,627.90
	$22,250.00

Project DMA 1187X - Tungsten

Tom C. Stanford Labor - Supervision

	Month	Contract Drift Ft.	Contract Drift unit pr.	Contract Drift Cost	Contract Raise Ft.	Contract Raise unit pr.	Contract Raise Cost	Total Ft.	Total Cost	Supervision	Hoistman	Miners	Timberman	Miners-Tinks		Total	Total Labor & Supervision Cost/Ft
37	Aug.	20	9.00	180.00	—		—	20	180.00	75.00	198.00	300.00				753.00	37.65
	Sept	51	9.00	459.00	16	10.00	160.00	67	619.00	150.00	267.00		150.00			1186.00	17.70
	Oct	33.5	9.00	301.50	37.67	10.00	376.67	71.17	678.17	150.00	235.00	165.00	126.00			1354.17	19.03
	Nov.	8	9.00	72.00	43	10.00	430.00	51	502.00	150.00	297.00	264.00	114.00			1327.00	26.02
	Dec.	72	9.00	648.00	4	10.00	40.00	76	688.00	150.00	291.37	96.00				1225.37	16.12
	Jan-Feb.	21	9.00	189.00	35	10.00	350.00	56	539.00	150.00	258.00			198.00		1145.00	20.45
	Sub. Total	225		1849.50	135.67		1356.67	358.17	3206.17	825.00	1546.37	825.00	390.00	198.00		6990.54	
									3206.17	825.00	1546.37			1413.00		6990.54	
	Cost per foot								8.95	2.30	4.32			3.95		19.53	19.53
	April	7	9.00	63.00	17	10.00	170.00	24	233.00	75.00	174.00			192.00		674.00	28.08
	May	46	9.00	414	34	10.00	340.00	80	754.00	150.00	318.00			147.00		1369.00	17.11
	June	44 x-cut	9.00	396.00	15	10.00	150.00	59	546.00	150.00	326.23	313.50				1335.73	22.64
	July	76	9.00	684.00	—	—	—	76	684.00	150.00	288.00	90.00				1212.00	15.95

Month	Advance feet	To Date
Aug.	37	37
Sept.	51	88
Oct.	41.5	129.5
Nov.	— 4/	129.5
Dec.	72.0	201.5
Jan-Feb 4	21.0	222.5
		222.5
April 5/	7.0	229.5
May	46.0	275.5
June	44.5	320.0
Feb-April		
July	76	396.0
Overturn	fig To	July 31
August	83	479.0
Sept.	39	518.0
		518.0

1/ Includes contrac
2/ Man shifts assum
3/ Based on forst
4/ 8 feet include
5/ Labor includes

Project DMA 1107X – Tungsten

9 month

Drifting 11-11-51 ~~150~~ 250 feet @ $32.00 – $4,800.00 plus supervision (756.00) +

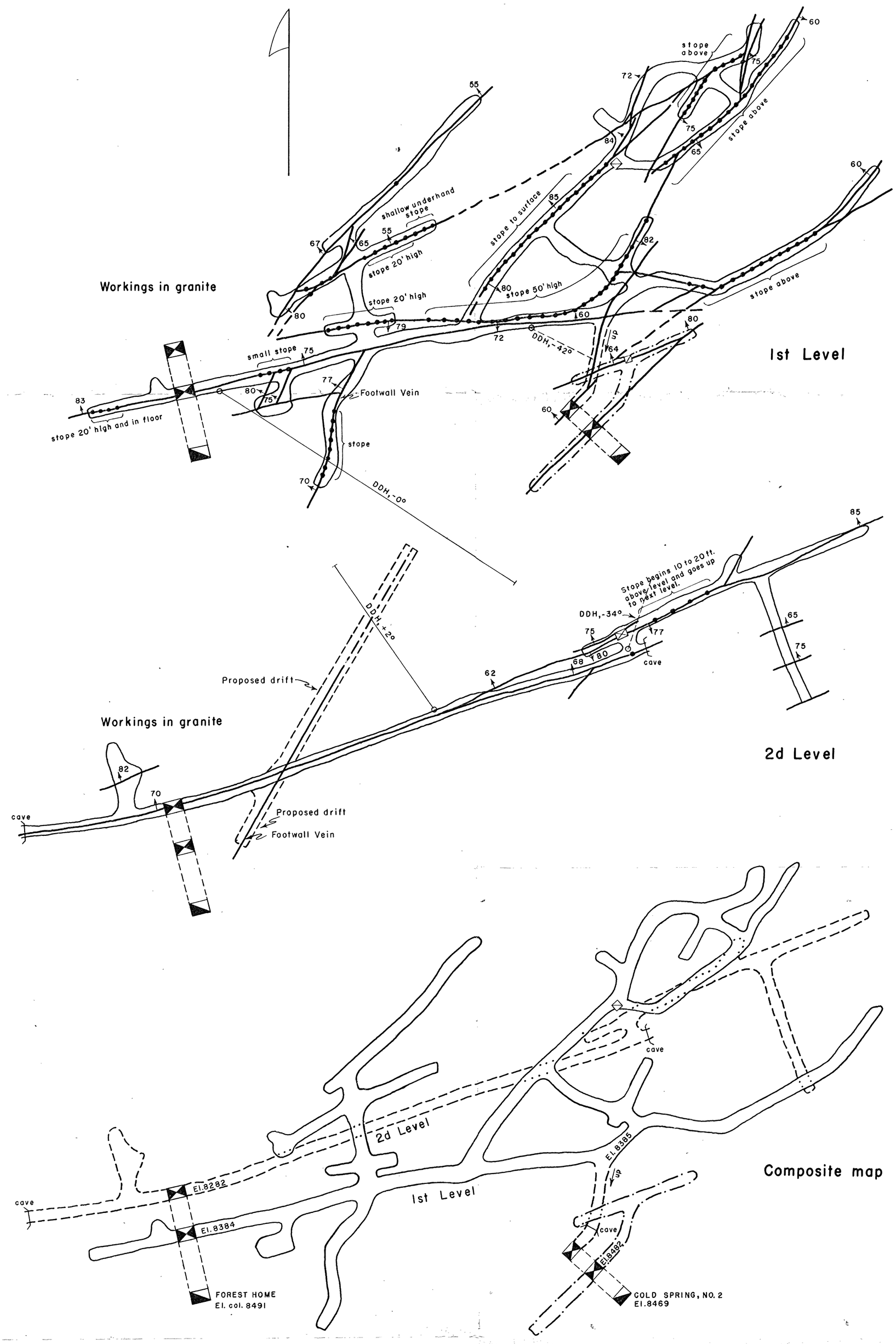
Costs 1/ Labor	Supplies	Equip.	Power	Total	To Date	Cost per foot 1/ Labor	Supplies	Equip	Power	Total	To Date	Man 2/ shifts
753.00	248.54	90.00	10.78	1102.32		20.35	6.72	2.43	0.29	29.79		65 (?)
878.00	253.54	133.00	57.57	1322.11	2424.43	17.22	4.97	2.61	1.13	25.92	27.55	62
616.77	132.01	79.20	34.23	862.21	3286.64	14.86	3.18	1.91	0.82	20.78	25.38	34
193.76	42.98	25.74	11.12	273.60	3560.24	—	—	—	—	—	27.49	—
1183.50	370.62	102.42	73.29	1729.83	5290.07	16.44	5.15	1.42	1.02	24.02	26.25	78
456.34	85.15	63.00	27.23	631.72	5921.79	21.73	4.05	3.00	1.30	30.08	26.61	28
4081.37	1132.84	493.36	214.22	5921.79	5921.79	18.34	5.09	2.22	0.96	26.61		267
Total of Amendment		$474.15 3/24/52	over contract increased amount		Prorated $8031.10	on Total Drifting and 300 feet –		$268.08 more than authorized or paid. $13,622.10		550 feet		19 months
207.88	43.32	24.30	4.21	279.71	6201.50	29.70	6.19	3.47	0.60	39.96	27.02	17
812.63	204.64	99.00	58.66	1174.93	7376.43	17.67	4.45	2.15	1.28	25.54	26.77	43.25
5101.88	1380.80	616.66	277.09	7376.43		18.52	5.01	2.24	1.01	26.77		327.25
1004.70	121.66	217.50	66.01	1409.87	8786.30	22.58	2.73	4.89	1.48	31.68	27.46	54
10.57	31.11		73.68	115.36								
1272.19	518.32	215.00	78.00	2083.51	10985.17	16.74	6.82	2.83	1.03	27.41	27.74	91.5
302.36				302.36								
1486.77	410.88	180.00	78.00	2155.65	13443.18	17.91	4.95	2.17	0.94	25.97	28.06	76.0
766.01	62.72	90.00	67.93	986.66	14429.84	19.64	1.61	2.31	1.74	25.30	27.86	34.5
9944.48	2525.49	1319.16	640.71	14429.84		19.20	~~4.88~~	2.55	1.24	27.86		583.25
	-36.53											
	2488.96				14393.31		4.80			27.78		

t price of $9.00 per foot plus insurance – SS
ed by adding all shifts plus 4 per shift on contract
mm is shifts
d on Oct report but paid for on Nov 1
$11.56 fire insurance

35 $5591.00

Shifts	Man	Advance shift	per Shift	Work Completed	Funds Consumed	Time Consumed
15		0.57	2.47	24.7	19.7	22.2
15		0.82	3.40	58.7	43.4	33.3
8		1.22	5.19	86.3	58.8	44.4
—		—	—	51.8	63.7	55.5
21		0.92	3.43	80.6	94.6	66.6
7		0.75	3.00	89.0	105.9	77.7
66		0.83	3.37	89.0	105.9	77.7
Paid 6-2-52						
3.75		0.41	1.87	41.7	45.5	52.6
13.75		1.06	3.35	50.1	54.0	57.9
83.5		0.84	3.30			
15		0.82	2.97	58.2	64.5	63.2
23		0.83	3.30	72.0	80.6	68.4
25⅓						
10.5						
157.3		0.89	3.29	94.2	105.9	78.9

(10)



Explanation

- 75 — Vein, showing dip
- Ferberite on vein
- DDH, -0° — Diamond drill hole
- Shaft at surface
- Shaft station
- Winze
- Raise

U.S. GEOLOGICAL SURVEY

DMA Docket 1107

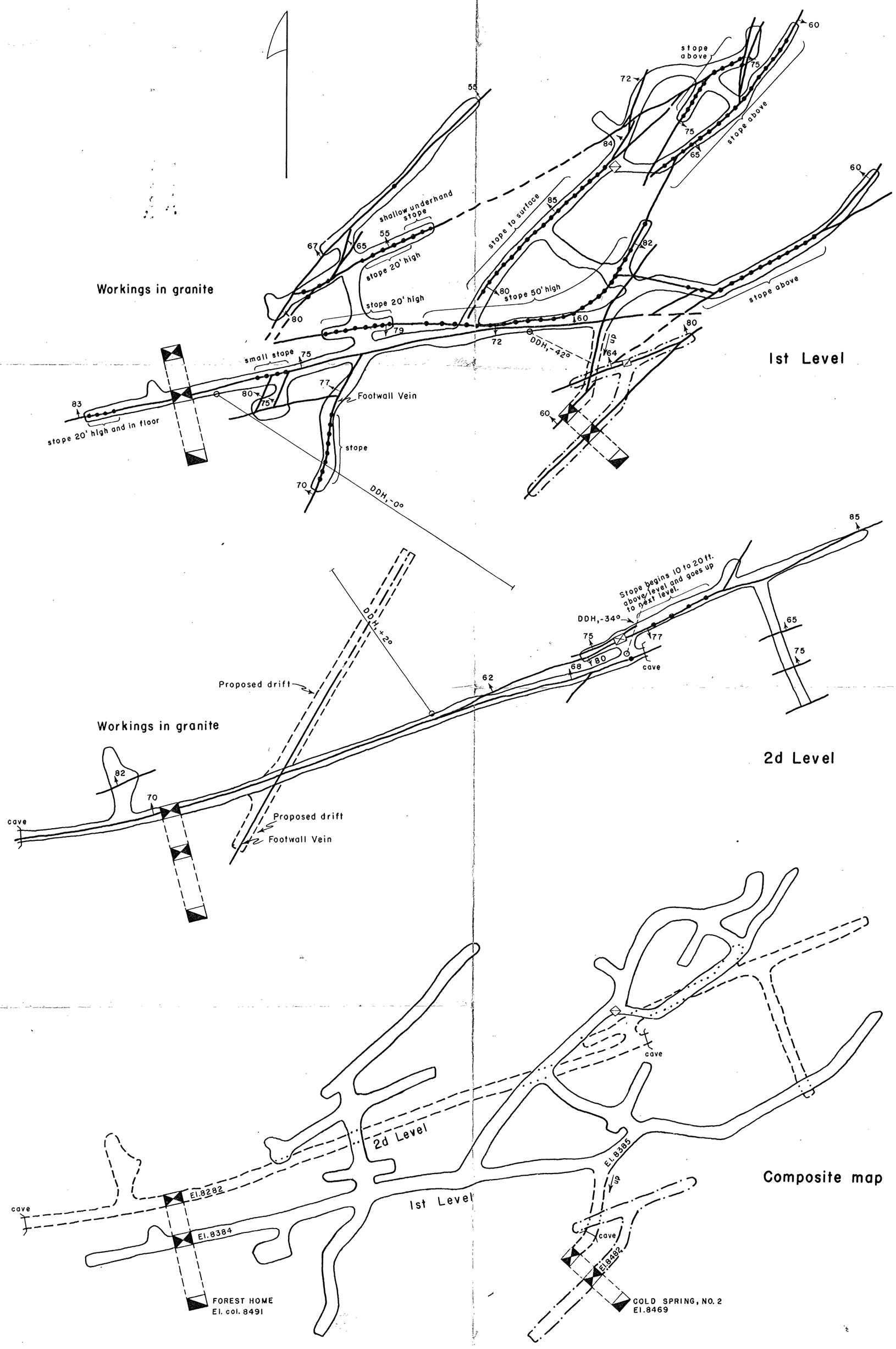
Geologic and composite map of the

FOREST HOME MINE

Boulder County, Colorado

By Ogden Tweto, 1942-44, revised June 1951

Scale 0 50 100 Ft.



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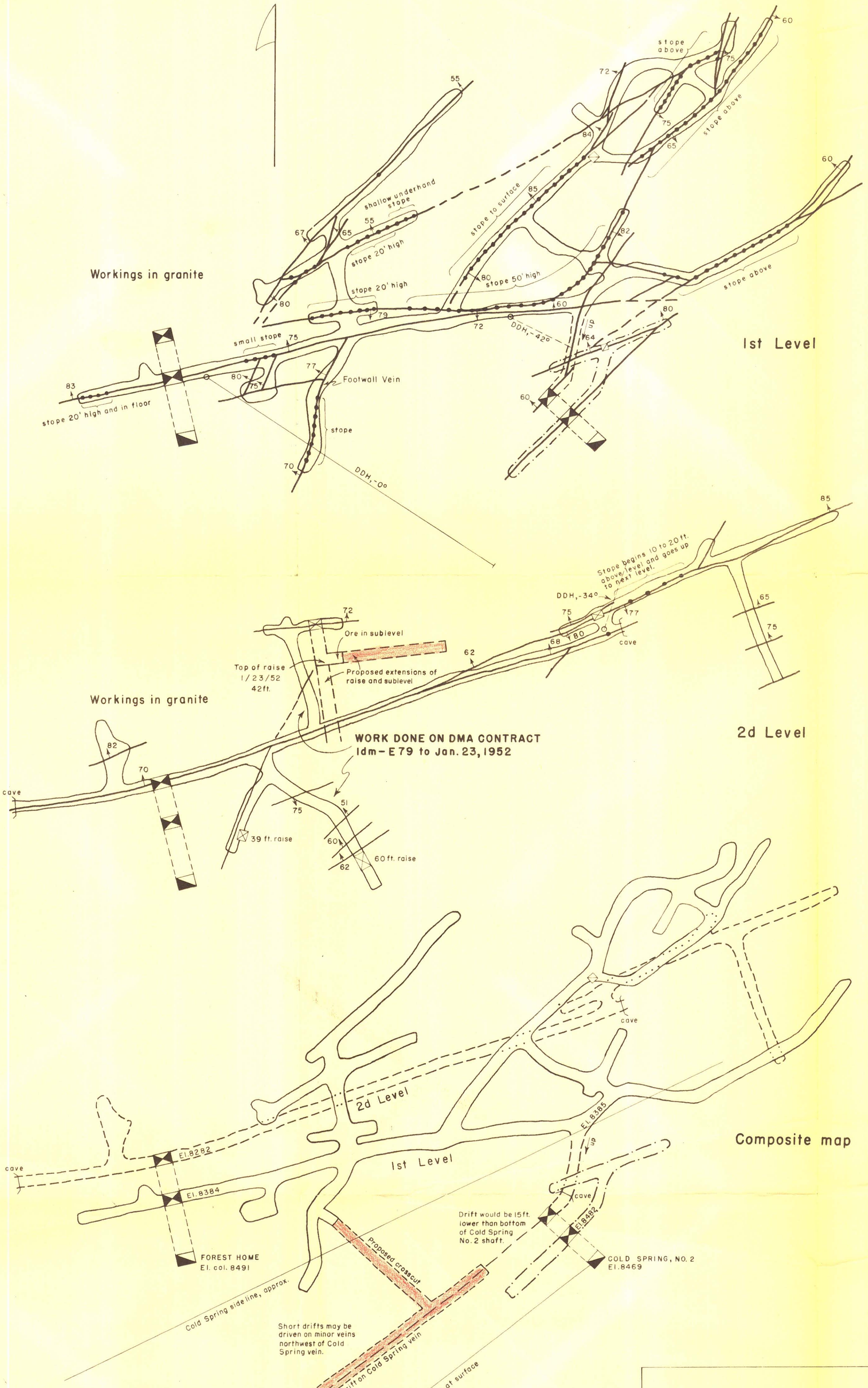

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