DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4614

26 AUG 1957 1125

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
✓ Report of Review
✓ Termination Notice or Agreement
Recision Notice
Assignment of Contract
✓ Contract Amendments (latest on top)
✓ Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
✓ Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

✓ Project summary
✓ Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

✓ Final Field Team Report (Tab)
✓ Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order)
Interim Summary Reports by W. O. Engineers

Right Side

Operator's Semi-Annual Report for Certified Project, Field Team Interim Reports, Operator's Monthly Report with transmittal, narrative, maps, and Field Team review.

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

9775

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/29	Holt	400
	Brown	400
8/3	Talbert	800
8/4	Selfridge	120
		110
		220
Tungsten		225

400

AUG 5 1959

Mr. Ralph E. Shupe
1521 ~~North~~ 79th Street
Los Angeles 47, California

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

Dear Mr. Shupe:

Reference is made to your terminated exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government 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 project. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the period indicated.

We appreciate your interest and participation in the DMEA exploration program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

SPHolt:gad 6/26/59
Copy to: Dir. R. File
Audits
Region II
Mr. Kirkemo, USGS
Mr. R. W. Holliday, USBM
Mr. and Mrs. H. O. Johanson, Bishop, Calif.
Mr. and Mrs. Al Stevens, Bishop Calif.
Mr. Gerard N. Crawford, Bishop, Calif.
Miss Mary Trout, 2321 Griffith Pk. Blvd., Los Angeles 39, Calif.
Miss Annie Rasmussen, 323 E. Bixby Rd., Long Beach, Calif.
Mr. and Mrs. Howard Stevens, 1805 Thompson Blvd., Ventura, Calif.

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
WASHINGTON 25, D. C. 400

Mr. Ralph E. Shupe
1521 ~~North~~ West 79th Street
Los Angeles 47, California

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

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We appreciate your interest and participation in the DMEA exploration program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

Acting Director

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/29	Holt	400
	Irvine	500
8/3	Talbot	800
8/4	Seffinger	120
		110
		220
		225

400

AUG 5 1959

Mr. Gerard N. Crawford
Executor of G. Crawford Estate
Bishop, California

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

Dear Mr. Crawford:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the above-cited contract.

This refers to the Consent to Lien and Subordination Agreement signed by you on April 15, 1957, under the DMEA program, which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

Enclosure

SPHolt:gad 6/29/59
Copy to: Dir. R. File
Audits
Region II
Mr. Kirkemo, USGS
Mr. R. W. Holliday, USBM

IDENTICAL LETTERS TO:
Mr. Gerard N. Crawford, Bishop, Calif.
Miss Mary Trout, 2321 Griffith Pk. Blvd., Los Angeles 39, Calif.
Miss Annie Rasmussen, 323 E. Bixby Rd., Long Beach, Calif.
Mr. & Mrs. Howard Stevens, 1805 Thompson Blvd., Ventura, Calif.
Mr. & Mrs. H. O. Johanson, Bishop, Calif.
Mr. & Mrs. Al Stevens, Bishop, Calif.
(except that all but Crawford signed CL&SA dated 12/14/56)

43683

Government's copy

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 29 1959
DATE | INITIALS | RULE

TERMINATION AGREEMENT

It is agreed this 19th day of December, 1958, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government", and Ralph E. Shupe, hereinafter called the "Operator", parties to that certain Exploration Project Contract No. Idm-E1125 (Docket No. DMEA-4614), dated August 26, 1957, as amended, hereinafter called the "Contract", that:

1. Effective November 1, 1958, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall not contribute to the fixed unit costs of work performed after said effective date, except the fixed unit cost of analyses of samples taken not later than November 1, 1958.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account.

4. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this termination agreement.

5. All rights of the Government respecting certification of discovery or development, percentage royalty and liens to secure the payment thereof, reports (including preservation of Operator's records), accounts, audits, and the right to recover any overpayment, are hereby preserved.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Director, Office of Minerals Exploration

RALPH E. SHUPE

Ralph E. Shupe

OFFICE OF MINERAL EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT SECTION

EXTRA COPY
O. M. E.
RECEIVED JAN 23 1959
DATE INITIALS COUNT

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Ralph E. Shupe
1521 West 79th Street
Los Angeles 47, California

pertaining to Exploration Contract No. Idm-E1125, Docket No. [illegible]-4614, dated August 26, 1957, including Amendment Nos. 1 and 2 for the months of November 1957 to October 1958, inclusive, covering a project for the exploration of Tungsten, on property known as the Round Valley and Tungsten Hill Mines, located in Inyo County, California.

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, verification of work performed by reference to Field Team Reports and correspondence, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reason:

All of the costs incurred were under a contract provision for payment by the Government on the basis of fixed costs of work actually performed.

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

Total cost as billed by the Contractor		$52,637.40
Exceptions:		
Prior to this review	$ -0-	
Herewith	-0-	-0-
Total Accepted Cost		$52,637.40

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 Thirty Nine Thousand Four Hundred Seventy Eight and 5/100 Dollars is valid and proper, provided that the Regional Executive Officer, The Director, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

Amount payable to Operator	$39,478.05
Amount paid to date	38,978.05
Balance due Operator	$ 500.00

George Mavor
George Mavor, Chief Auditor

January 20, 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

ORIGINAL FILE COPY
DMEA
RECEIVED 1958

DATE		CODE
9/24	C	220
9/29	WSM	400

Sept. 18, 1958

Mr. Ralph E. Shupe
1521 West 79th Street
Los Angeles 47, California

Re: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Dear Mr. Shupe:

This will confirm the Government's approval for commencing Stage II of referenced contract in accordance with instruction given you by our engineer on September 8, 1958. Plan of the work was laid in consultation with you and your geologist, Mr. Byron Works, during the inspection by our field team on September 4, 1958.

Our engineer and geologist will make their inspections from time to time as usual and make their recommendations as to any changes in the work plans upon which you had agreed.

Very truly yours,

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

SRicker:ft
cc: Opr. Com., DMEA, Wash., D.C. (2)
Finance Office, Reg. II
GeoMayor
RMSmith
File
Chron

Work authorization

Government's copy

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O. M. E.
RECEIVED DEC 5 1958

DATE	INITIALS	CODE

Long
Sawyer
Holt
Martin
Chambers
Selfridge

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-4614

AMENDMENT NO. 2

It is agreed this 14th day of ~~November~~, 1958, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, and Ralph E. Shupe, that Exploration Project Contract No. Idm-E1125 (Docket No. DMEA-4614), dated August 26, 1957, as amended, is further amended, effective May 1, 1958, as follows:

1. The effective date of Amendment No. 1 is revised from "June 1, 1958", to read "effective May 1, 1958".

2. In Exhibit A, under the heading Description of the Work, Stage I, item 2 is revised to read:

"From the crosscut or other locations approved by the Government, ~~explore the wall rock of the crosscut with~~ not to exceed 1,000 feet of long hole drilling." shall be performed

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Director, Office of Minerals Exploration

RALPH E. SHUPE

Ralph E. Shupe

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA 4614

AMENDMENT NO. 2

Justification

Amendment No. 1, dated June 9, 1958, was made effective as of June 1, 1958. It has since been noted that, according to the Operator's Narrative Report for May 1958, diamond drill holes Nos. 1 and 2, authorized by Amendment No. 1, were drilled during the month of May.

Amendment No. 2 changes the effective date of Amendment No. 1 from June 1, 1958, to May 1, 1958.

FILE COPY
DMEA
RECEIVED JUL 11 1958
DATE | INITIALS | CODE

Government's copy

App'd. Sol. Off.
Chapman
Martin
Chamberlin
Selfridge
Johnson

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-4614

AMENDMENT NO. 1

It is agreed this 9th day of June, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Ralph E. Shupe, that Exploration Project Contract No. Idm-E1125 (Docket No. DMEA-4614), dated August 26, 1957, is amended, effective June 1, 1958, as follows:

In Exhibit A:

(a) Under the heading, Description of the Work, Stage I:

1. In item 2, the drilling is revised to read "long hole and/or diamond drilling."

2. Items 3 and 4 are deleted and the following item 3 is substituted:

"3. With the prior approval of the Government, drift from the crosscut adit (item 1) to areas indicated by drilling (item 2). The drift shall be timbered as necessary."

(b) Under Estimated Cost of the Project, Fixed Unit Costs, Stage I:

1. The fourth item, Winzing, and the fifth item, long hole drilling from winze, are deleted.

2. In the third item, "long hole drilling" is revised to read "long hole or diamond drilling."

3. A new item is added as follows:

"Drifting 252.4 feet at $31.50/ft. $7,950.00"

4. The second item, Timbering, includes drifts.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Mittenzwey
Administrator, Defense Minerals
Exploration Administration

Ralph E. Shupe
Ralph E. Shupe, Operator

Government's copy

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DMEA
RECEIVED SEP 9 1957

DATE	INITIALS	CODE

MF-200A
(Rev. April 1956)

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT
(Short Form)

DMEA No.	*Commodity*	*Contract No. Idm–E*	*County*	*State*
4614	Tungsten	1125	Inyo	California

It is agreed 2 6 AUG 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Ralph E. Shupe

whose mailing address is 1521 West 79th Street, Los Angeles 47, California

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority and project.*—(a) This contract is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF–200A), the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed therein. The project work is a search for indicated or undeveloped deposits of the commodity designated above. The Operator shall begin the work on or before NOVEMBER 15 1957, and, subject to the provisions of Article 7 and Exhibit A, shall complete the work within 24 months from the date of the contract.

(b) The description of the work and the fixed cost for each unit of work to be performed (per foot of drilling, per foot of drifting, per hour of operations, etc.) are hereby agreed upon as specified in Exhibit A. The estimated total cost of the project work is $70,680.00. The Government will contribute 75 percent of the fixed unit cost of the work performed, not exceeding $53,010.00, in accordance with the provisions of Articles 4 and 5.

(c) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's rights of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances: Interests of Lessors

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached, as follows: Consents to Lien and Subordination Agreements of lessors

(c) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing

in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. Two copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 6 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. *Performance of the work.*—(a) Operator's responsibility.—The work shall be performed diligently, efficiently, expertly, in a workmanlike manner, and in accordance with good mining standards and State regulations governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work, as specified in Article 1 (a).

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after certification of discovery or development, to inspect production operations and underground workings. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. *Contribution by the Government.*—The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5 (b); but all payments by the Government are provisional only, subject to audit, and until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been rendered, the Government may withhold such sums as it sees fit but not in excess of 10 percent of the estimated total cost of the work. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government will not contribute to the cost of any work performed prior to the date of this contract. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(a) Operator's records.—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered a sufficient final report (see Article 5), may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer or as surety if the Operator is not the producer (for example, if the Operator either transfers or fails to retain his interest in the land), shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling, assaying, or transportation performed or paid by the Operator or by anyone other than the buyer are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

RECEIVED SEP 9 1957 D.M.E.A.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent) after the lapse of six months from the date the ore was extracted from the ground remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this Article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 7. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 7 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and liens to secure the payment thereof, and such rights shall be fully preserved.

ARTICLE 8. *Notices to be given by the Government* may be delivered to the Operator or may be sent by registered mail addressed to the Operator at the mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 9. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 10. *Changes and added provisions.*—

.....

.....

.....

.....

.....

.....

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

RALPH E. SHUPE
(Operator)

By C. Mitchendorf
Administrator, Defense Minerals
Exploration Administration

XX Ralph E. Shupe

"Appd. Sol. Off."
Chapman
Talbot
Selfridge
Johnson

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ....., who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE: 1956—O-383069

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D.M.E.A.

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DMEA
RECEIVED SEP 9 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-4614

ANNEX NO. 1

The land referred to in Article 2 of the Contract consists of eleven unpatented lode mining claims recorded at Independence, Inyo County, California, as follows:

Name of Claims	Book No.	Page No.
Tungsten Hill group		
Haco No. 1	58	298
Haco No. 2	58	388
Haco No. 3	58	389
Haco No. 4	58	390
Owned by Applicant		
Haco No. 5	86	103
Haco No. 6	86	103
Round Valley Mine Group		
Big Shot Tungsten	46	109
Big Shot No. 1	46	109
Big Shot No. 2	46	110
Big Shot No.3	46	110
Big Shot No. 4	46	110
Amended Locations		
Big Shot Tungsten	86	95
Big Shot No. 1	86	97
Big Shot No. 2	86	99
Big Shot No. 3	86	101

The Tungsten Hill group of claims is owned by G. Crawford, Bishop, California, and has been leased to Ralph E. Shupe, by an Option and Lease Agreement dated January 1, 1955, to which is attached a Supplementary Agreement, dated June 11, 1955.

The Round Valley Mine group of claims is owned one-third by Al Stevens and Bessie Stevens, husband and wife, Bishop, California; one-third by Howard Stevens and Josephine Stevens, husband and wife, Ventura, California; one-ninth by Mary Trout, a married woman, Los Angeles, California; one-ninth by C. A. Rasmussen and Annie Rasmussen, husband and wife, Long Beach, California; and one-ninth by H. O. Johanson and June Mary Johanson, husband and wife, Bishop, California; and has been leased to Ralph E. Shupe, by a Mining Lease and Option to Purchase dated November 20, 1955, and by an Amendment and Supplementary Agreement to Mining Lease and Agreement to Purchase dated December 6, 1956. Annie Rasmussen signed as the Executrix of the estate of C. A. Rasmussen.

Item 1-M of the Modifications to Mining Lease and Option to Purchase Agreement states that the Big Shot Tungsten mining claim is not owned in its entirety by the aforesaid owners.

All the claims are situated in sections 34 and 35, T.6 S., R. 31 E. and sections 2 and 3, T. 7 S., R. 31 E., Inyo County, California, as shown on the attached Figure 2, claim map.

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

RECEIVED JUN 13 1957 D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Inyo State of California, described ~~as follows:~~ 2/ in an " Option and Lease ", dated January 1, 1955, between G. Crawford, OWNER, now deceased, and Ralph E. Shupe, LESSEE, and recorded in Vol.120, Pages 356-360, official records of said county; consisting of "Haco No. 1,2,3,4" in addition to "Haco 5,6" later claimed and recorded in Vol 86,Pages 103-105, Mining Locations.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

none

none

none

1/ Mining or production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in Book _____, Page _____, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: none (State "None" or "See Annex No.____")

Dated this 15th day of April, 1957.

Gerard N. Crawford Executor of G.Crawford estate	[Seal]	Bishop, Calif.	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, GERARD N. CRAWFORD certify that I am the executor (Secretary, etc.) of the ~~corporation~~ estate named herein; ~~that who signed this agreement was then (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.~~

x Gerard N. Crawford

~~[Corporate Seal]~~

STATE OF CALIFORNIA)
) ss.
COUNTY OF INYO)

On this 15th day of May, 1957, before me, the undersigned, a Notary Public in and for said County and State, personally appeared GERARD N. CRAWFORD, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same.

WITNESS MY HAND AND SEAL

Lilian Edell

Notary Public in and for said County & State

MF-205
(Combines and supercedes MF-201 and MF-203)
June 1956

(3)

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator______________
Docket No. DMEA-______________
Contract No. Idm-E______________
Contract Date______________

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Inyo, State of California, described ~~as follows:~~ 2/ in a "Mining Lease and Option to Purchase" dated November 20, 1955 and recorded in Book 123, Pages 518 to 532, official records of said county. - ,
which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

NONE
____
____

1/ Mining or production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated ______________, and recorded in Book __________, Page __________, official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: NONE (State "None" or "See Annex No.____")

Dated this 14th day of December, 1956.

Mary Trout	[Seal]	2321 Griffith Pk. Blvd., Los Angeles 39 Calif.	[Address]
Annie Rasmussen	[Seal]	~~323 E Bixby Rd, Long Beach 7~~ Calif.	[Address]
Howard Stevens	[Seal]	~~1305 Thompson Blvd, Ventura~~ Calif.	[Address]
Josephine Stevens	[Seal]	Same as above	[Address]
H. O. Johanson, Bishop, Calif	[Seal]	June Mary Johanson, Bishop, Calif	[Address] seal
Al Stevens Bishop, Calif.	[Seal]	Bessie Stevens Bishop, Calif.	[Address] seal

I _____ certify that I am the _____ (Secretary, etc.) of the corporation named herein; that _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____

[Corporate Seal]

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 9 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-4614

EXHIBIT A

Description of the Work

Attached maps are as follows:

Figure 1. Index Map of Inyo County, California, showing location of the property.

Figure 2. Claim Map of Round Valley and Tungsten Hill Mines.

Figure 3. Geologic Sketch Map of the Round Valley and Tungsten Hill Mines.

Figure 4. Geologic Cross Sections and Level Maps, Round Valley and Tungsten Hill Mines.

This work is set forth below in two stages. The Operator shall perform all of Stage I, and as much of Stage II as is approved in advance in writing by the Government.

The location, direction, inclination, and extent of each item of work are subject to the approval of the Government.

All drifts and/or crosscuts shall be timbered as necessary, and shall be a minimum of 5 feet by 7 feet in the clear. The quantities of timbering estimated below may be increased by mutual agreement.

A supervising engineer and geologist shall oversee, map, and sample the work as necessary.

All mineralized zones shall be sampled, and the samples assayed for WO_3.

Stage I

1. Drive a crosscut adit 900 feet, approximately as indicated on Figures 2, 3, and 4. It is estimated that 225 feet of timbering will be required.

2. Explore the walls of the crosscut with not to exceed 1,000 feet of long hole drilling.

3. At the southwest end of the Round Valley deeper workings, sink an inclined winze 100 feet. The winze shall be timbered as necessary, shall be not less than 5 feet by $7\frac{1}{2}$ feet in the clear, and shall be two compartment (hoisting and manway). The estimated inclination of the winze shall be approximately 35 degrees.

4. From the bottom of the winze, explore the adjoining area with not to exceed 500 feet of long hole drilling.

Stage II

1. Crosscut 900 feet from the face of the crosscut in Stage I, approximately as indicated on Figures 2, 3, and 4. It is estimated that 225 feet of timbering will be required.

2. Explore the walls of the crosscut with not to exceed 1,000 feet of long hole drilling.

Estimated Cost of the Project

Fixed Unit Costs

Stage I

Crosscutting 900 feet at $31.50/ft.	$28,350.00	
Timbering crosscut, 225 feet at $6.00/ft.	1,350.00	
Long hole drilling from crosscut or other locations (Amend No. 2) 1,000 ft. at $1.50/ft.	1,500.00	
Amendment No. 1 ~~Winzing, 100 feet at $72.00/ft., including the cost of timbering.~~ 252.4' @ 31.50	7,200.00	
~~Long hole drilling from winze, 500 feet~~ at $1.50/ft.	750.00	7950.00
Assaying, 65 samples for WO_3 at $3.00/each sample.	195.00	$39,345.00

Stage II

Crosscutting, 900 feet at $31.50/ft.	$28,350.00	

Timbering crosscut, 225 feet at $6.00/ft.	$ 1,350.00	
Long hole drilling, 1,000 feet at $1.50/ft.	1,500.00	
Assaying, 45 samples for WO_3 at $3.00/each sample	135.00	$31,335.00

SUMMARY

Estimated total cost of Stage I	$39,345.00	
Estimated total cost of Stage II	31,335.00	
Estimated total cost of project		$70,680.00
Government participation at 75 percent		$53,010.00

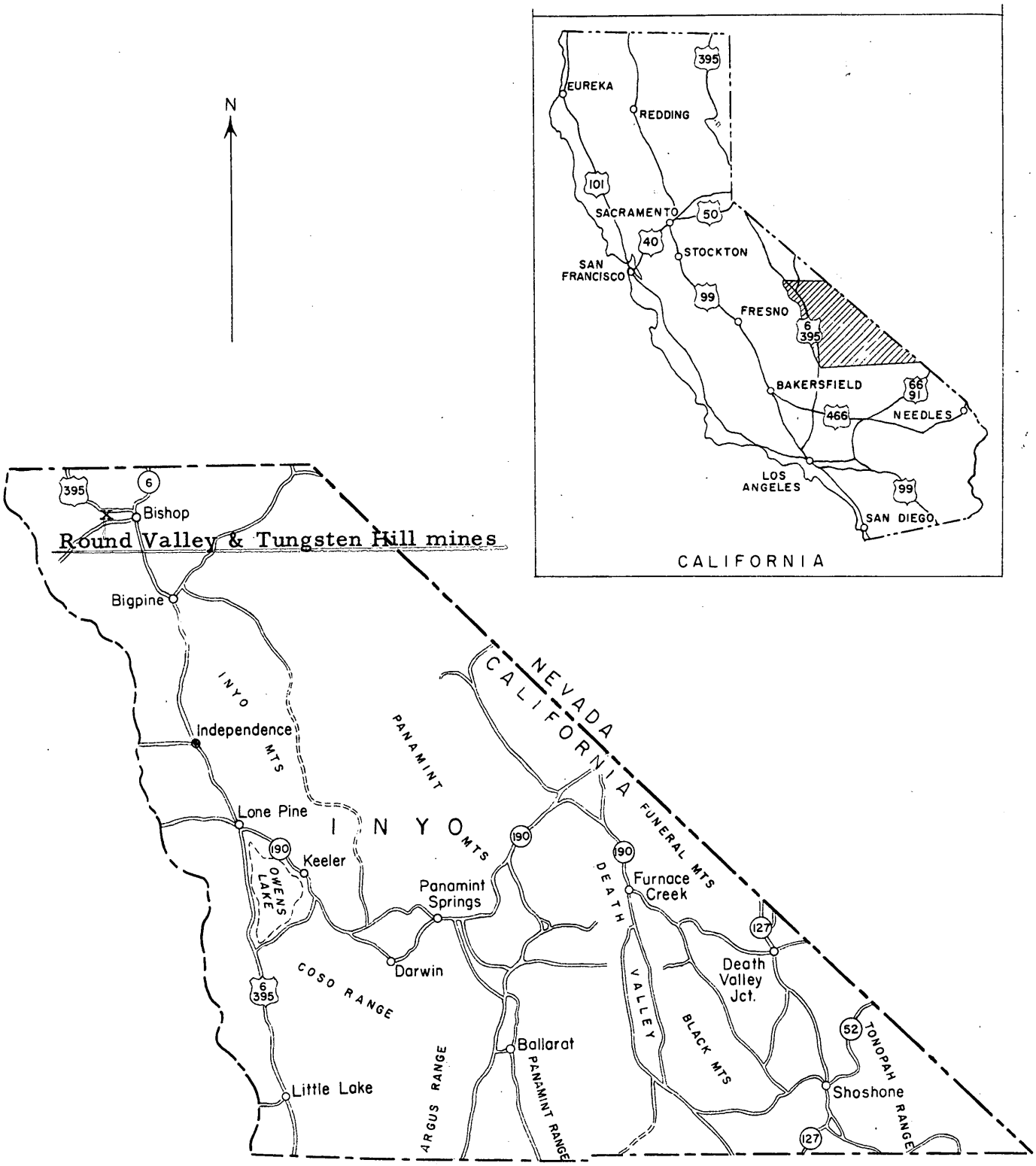

Figure 1. INDEX MAP OF INYO COUNTY, CALIFORNIA

0 25 50 75 Miles

EXTRA COPY
D M E A
RECEIVED APR 22 1957

DATE	INITIALS	CODE

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 4614
(TUNGSTEN)

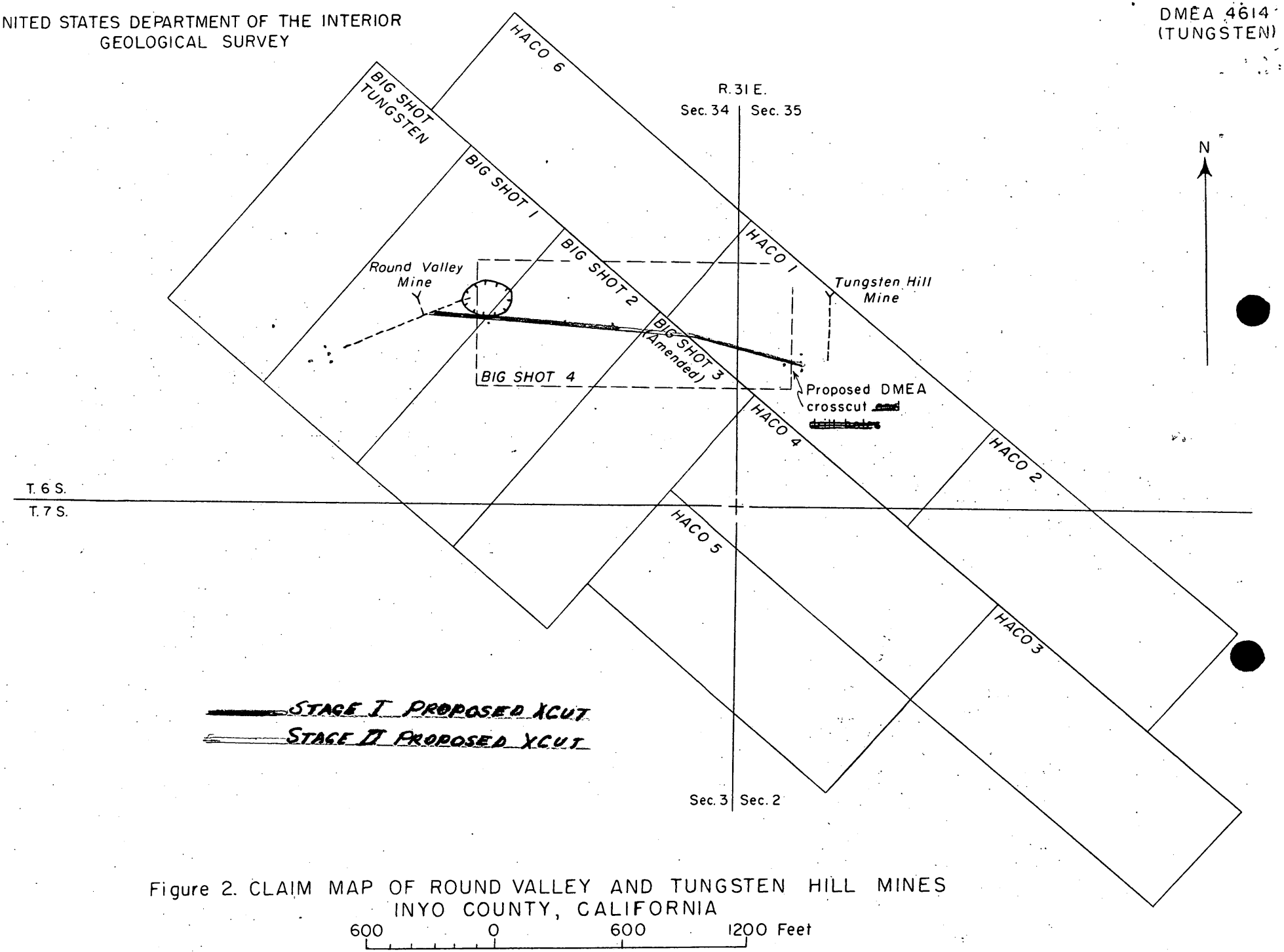

Figure 2. CLAIM MAP OF ROUND VALLEY AND TUNGSTEN HILL MINES
INYO COUNTY, CALIFORNIA

600 0 600 1200 Feet

EXTRA COPY
D M E A
RECEIVED 1957

DATE	INITIALS	CODE

Jun[illegible]3, 1957
Los Angeles, Calif.

To Whom It May Concern;

The claims known as " Haco No. 5 " and " Haco No. 6 " were claimed by Ralph E. Shupe after the claims known as " Haco No. 1,2,3,4 " were leased from G, Crawford by Ralph E. Shupe.

All six of the aforesaid claims are now in the same group and if Shupe should quitclaim the lease from G. Crawford, then the " Haco No. 5 " and"Haco No. 6 " would belong to the Crawfor Estate, and could be either kept or let go, as they desired.

Because of this fact,I have included the " Haco No. 5 "and " Haco No. 6 " in the MF 205 form signed by the executor of the Crawford Estate and I have also made a separate one out covering these two claims, owned by me, and am sending it in to you also.

Ralph E Shupe
Ralph E, Shupe

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 13 1957

DATE	INITIALS	CODE

May 27, 1957
Los Angeles, Calif.

To Whom It May Concern;

I, Ralph E. Shupe, herein state and affirm that the Four Hundred Dollars ($400.00) a month minimum royalty payments on the Big Shot Group of mining claims, situate in the Round Valley Mining Distict, approximately eleven (11) miles West of Bishop, Inyo County, Calif., which I leased on December 10, 1955 and which lease is recorded in the records at the Inyo County, California, Recorders Office at Independence, California, have each and every one been paid from the date of the lease, which is December 10, 1955, to and including the payment due as of May, 10, 1957.

I further state and affirm that the Haco Group of mining claims which I am leasing under a lease dated January 1, 1955, said lease recorded on Pages 356 to 361, Volume 120 of Official Records of Inyo County, California in the Inyo County Recorders Office at Independence, California, are held under a valid mining lease on which the monthly minimum royalty payments have been paid and satisfied as of this date, May 27, 1957.

I further state and affirm that I am Applying for aid in exploring certain claims included in these two abovesaid groups, under the DEFENSE MINERALS EXPLORATION ACT, and that I fully intend, and am able, to maintain the payments set forth in the respective leases above mentioned for the life of any project entered into with the GOVERNMENT of the UNITED STATES as concerns the exploration of said claims.

Subscribed and sworn to before me this
27 day of May 1957
E. F. Shanley Notary Public
In and for the County of Los Angeles, State of California

My Commission Expires Sept. 26, 1958

Ralph Ellison Shupe
Ralph E. Shupe
1521 W 79th St.
Los Angeles 47, Calif.
Phone PLeasant 1-5215

(Duplicate-Original)

ASSIGNMENT OF CLAIMS UNDER GOVERNMENT CONTRACT

RECEIVED JUL 4

For VALUE RECEIVED, the undersigned, (1) I, Ralph E. Shupe

(hereinafter referred to as "Assignor") hereby assigns, transfers and sets over unto Bank of America National Trust and Savings Association, a National Banking Association having its principal place of business in San Francisco, California, and branches throughout the State of California, (hereinafter referred to as "Bank"), all the moneys now due or hereinafter to become due from the United States of America under

Contract No. (2) Idm - E 1125

Letter Contract No. (2) _____ and any superseding Definitive Contract of the same number

dated 26 August, 1957 for (3) Exploration project No. 4614 executed by

Assignor and (4) Defense Minerals Exploration Administration.

Assignor hereby constitutes and appoints said Bank the true and lawful attorney, irrevocable, of Assignor, to demand, receive and enforce payments and to give receipts, releases and satisfactions, either in the name of Assignor or in the name of the Bank, in the same manner and with the same effect as Assignor could do if this assignment had not been made.

Assignor covenants that Assignor will receive all moneys advanced hereunder by the Bank as a trust fund to be first applied to the payment of claims of laborers, materialmen, sub-contractors, and of other expenditures arising out of the performance of said contract, and until such payments have been made Assignor will not use any part of said advances for any other purpose; and the said Assignor does hereby represent and warrant unto said Bank that no payments have been received on account of said contract, and that Assignor has not heretofore alienated or assigned said contract or any rights or interest therein or thereto.

This assignment is made pursuant to the Assignment of Claims Act of 1940.

IN WITNESS WHEREOF, Assignor has executed this assignment in several originals this

27th day of May, 1958.

(5) Ralph E Shupe

Duplicate-Original

INSTRUCTIONS

(1) Insert name of Assignor and whether a corporation, partnership, or individual doing business under a trade name. Name must correspond with that in the contract.

(2) Insert number of contract; delete line not applicable.

(3) Insert object of contract.

(4) Insert name of contracting party whether the United States or agency or department thereof.

(5) Signature of Assignor must correspond with that in contract. If a corporation, affix corporate seal.
Signature of Assignor should be acknowledged before a Notary Public. See forms of acknowledgment on the reverse hereof.
A true copy of this assignment must accompany each original copy of the notice of assignment. For form of written notice and the names of the parties with whom such notice must be filed, see accompanying form "Notice of Assignment."

ACKNOWLEDGMENT: FOR INDIVIDUALS

STATE OF CALIFORNIA
COUNTY OF INYO } SS.

On this 27th day of May 19 58 before me,

the undersigned, a Notary Public in and for said Inyo County,

personally appeared Ralph E. Shupe

known to me to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same.

WITNESS my hand and official seal.

Notary Public in and for said Inyo County and State.

My Commission expires October 21, 1961

ACKNOWLEDGMENT: FOR CORPORATION IF SIGNED BY PRESIDENT OR SECRETARY OR BOTH

STATE OF CALIFORNIA
COUNTY OF } SS.

On this day of 19, before me,

, a Notary Public in and for said County,

personally appeared

known to me to be the

of the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same.

WITNESS my hand and official seal.

Notary Public in and for said County and State.

ACKNOWLEDGMENT: FOR CORPORATION IF SIGNED BY OTHER THAN PRESIDENT OR SECRETARY OR BOTH

STATE OF CALIFORNIA
COUNTY OF } SS.

On this day of 19, before me,

, a Notary Public in and for said County,

personally appeared

known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

WITNESS my hand and official seal.

Notary Public in and for said County and State.

ACKNOWLEDGMENT: FOR PARTNERSHIP

STATE OF CALIFORNIA
COUNTY OF } SS.

On this day of 19, before me,

, a Notary Public in and for said County,

personally appeared

known to me to be one of the partners of the partnership that executed the within instrument, and acknowledged to me that such partnership executed the same.

WITNESS my hand and official seal.

Notary Public in and for said County and

STATE OF California
County of Inyo } ss.

ON THIS 28th day of May, A.D., 19 57, before me, Mary F. Tinder a Notary Public in and for said County and State, personally appeared Gerard N. Crawford, as executor of the estate of G. Crawford, deceased, known to me, to be the person whose name is subscribed to the within Instrument, and acknowledged to me that he executed the same. as such executor.

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

Mary F Tinder
Notary Public in and for said County and State.

ACKNOWLEDGMENT—GENERAL—WOLCOTTS FORM 231

STATE OF CALIFORNIA,

County of Los Angeles } *ss.*

ON THIS 25 *day of* May, 1957, *before me,*

Sheila Brown

a Notary Public in and for said County and State, personally appeared

Ralph E. Shupe

known to me,

to be the person ___ *whose name* ___ He ___ *subscribed to the within Instrument, and acknowledged to me that* ___ *he* ___ *executed the same.*

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

Sheila Brown

Notary Public in and for said County and State.

My Commission Expires Sept. 29, 1959

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

58560

AFFIDAVIT of ERROR

WHEREAS, in a LEASE AND OPTION AGREEMENT between Ralph E. Shupe, Lessee, and G. Crawford, Owner, dated January, 1, 1955 and recorded at Independence, California, in the Inyo County Recorders office, there is an error in the spelling of the mining claims being leased and an error in the information as to where the NOTICES OF LOCATION are recorded insofar as the Book and Pages are concerned;

NOW THEREFORE, it is stipulated and agreed by both Ralph E.Shupe, Lessee, and Gerard N. Crawford, executor of the estate of G. Crawford, Owner, that the original LEASE AND OPTION AGREEMENT, dated and recorded as stated above, should in truth read as follows;

"HACO No. 1, recorded on Page 298, in Book 58 of Mining Locations,
HACO No. 2, recorded on Page 388, in Book 58 of Mining Locations,
HACO No. 3, recorded on Page 389, in Book 58 of Mining Locations,
HACO No. 4, recorded on Page 390, in Book 58 of Mining Locations,
All recorded in the Inyo County Recorders office at Independence,California.
The abovesaid claims are all situate inthe Round Valley Mining District, approximately Eleven miles West of Bishop, Inyo County, California. "

Ralph E. Shupe

Ralph E. Shupe. 1321 W. 79th St.
Lessee Los Angeles 47, Calif.

Gerard N. Crawford

Gerard N. Crawford Bishop, Calif.
~~Owner~~ as Executor of the estate of G. Crawford, deceased, Owner

Addendum No. 2 to MF-103
Ralph E. Shupe 1521 W.79 St
Los Angels 47

Copied from an original document
bearing notation Volume 120, page 356,
Inyo County, California Recorder.

Bishop, California

OPTION AND LEASE AGREEMENT

This memorandum of option and lease made this 1st day of January, 1955, by and between G. CRAWFORD, party of the first part, hereinafter known as Owner, and RALPH E. SHUPE, party of the second part, hereinafter known as the Lessee.

W I T N E S S E T H :

That is consideration of rents, royalties, payments, covenants and agreements hereinafter set forth on the part of Lessee to be paid, kept, and performed, the Owner lad let, optioned, demised and leased, and by these presents does lease, option, demise and let unto Lessee all those certain unpatented mining claims in Round Valley Mining District, in the County of Inyo, State of California, and particularly described as follows:

HECO No. 1
HECO No. 2
HECO No. 3 and
HECO No. 4, all in Rpund Valley Mining District, and more particularly known as the TUNGSTEN HILL MINE, located about fifteen miles westerly from Bishop, Inyo County, California. Notice of location of said claims is duly recorded in Vol. 83, page 487, of the records of the County Recorder, at Independence, California.

In consideration of said option and lease, the Lessee does hereby covenant for himself, his assigns and heirs, as follows:

TERMS OF THIS AGREEMENT:

1. As time is the essence of this option and agreement, there will be a period of two (2) months from the date of execution of this instrument in which Lessee will have:

a. Full privilege to explore, prospect, drift, sink, stope and to extract ores, sell, ship, and/or mill ores and/or concentrates, until March 1, 1955 without the minimum royalty of $300.00 per month. From March i, 1955 on, until the full purchase price os paid, there will be a minimum royalty of #300.00 per month.

(b). Option to buy mine according to terms stated herein.

2. Lessees will pay to the Owner throughout the life of this agreement a royalty of ten (10) per cent of the grossreturns received from the sale of tungsten concentrates, also ten (10) per cent of the net smelter or mint returns on other products from said mining property, until the full purchase price is paid.

3. Full purchase price is to be paid by Lessee for the above mentioned property, and according to the minimum royalty payment schedule, is to be, Twelve Thousand Two Hundred and Ninety Dollars. All payments made by Lessee to Owner are to be applied toward this full purchase price, and any payments made to Owner in excess of the minimum royalty payments by Lessee are to be applied to the full purchase price.

4. Good and sufficient quit claim deed by Owner is to be placed in escrow with the Bank of America, Bishop, California, or other institution agreeable to both Owner and Lessee, along with copy of this agreement, and with escrow instructions that said quitclaim deed is to be delivered to Lessee after Lessee has paid the full purchase price.

5. From the date of this agreement, Lessee is to have done thirty (30) man-shifts of work, or the equivalent thereof per month at the mine, unless delay, layoff or idleness is caused by strike, riot, flood, bad weather, act of God, or for any other reason not under the direct control of Lessee.

6. Mining is to be done in a minerlike manner. Timbering will be done with due regard of the safety of the miners. ANY AND ALL stoping or raising done is to be done in accordance with the Mining Safety Laws of the State of California.

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

8. Owner or his duly elected representative shall have the privilege to enter the premises and inspect the mine, but at their own risk, and also to examine the books and accounts of the Lessee at any reasonable time. Owner shall be supplied with sales receipts, engineer's reports, assay reports, and records of the mine during the time/this agreement. Lessee is to have the full use of all existing facilities now at the mine.

9. The Lessee further agrees to keep accurate books of accounts showing the approximate amount of ore extracted from said mine, leased premises, the amount of concentrates milled, sold or shipped, and the amount of money received therefor.

10. Lessee agrees to keep posted in a conspicuous place or places notices of Non-responsibility upon the said premises as required by the laws of the STATE OF CALIFORNIA.

11. Lessee will at all times keep and save harmless the Owner from any responsibility to person or persons from liability.

12. Lessee will carry adequate policy, or policies of Workmen's Compensation and Insurances in accordance with the laws of the STATE OF CALIFORNIA. And the Lessee will operate said premises in full accordance with the Laws and Regulations pertaining to the operations thereof.

13. Lessee agrees to pay, before the same become delinquint, all taxes and assessments against all improvements on said premises.

14. Upon abandonment of said premises, or upon termination of this agreement the Lessee shall deliver to Owner a quitclaim deed and surrender all rights, title amd interest in and to said mining premises and shall have the privilege of removing within NINETY(90) DAYS abandonment or termination of this agreement weather conditions permitting, all equipment, improvements and mining machinery placed there upon or in said premises, excepting timber and other placements protecting said mine.

15. Lessee agrees to perform during the term thereof the annual assessment work required by law. Such assessment work to be completed and performed, and proof of the work as required on or before the 15th day of June of each year, during the life of this agreement.

16. Lessee agrees at all times to keep said mining premises free from all liens by reason of the operation of it, by persons acting through or under them, and to pay all debts before same shall become delinquint, such as those incurred in the operation of said premises, such as labor and supplies or anything else which might or would be a lien due to failure to pay.

17. As time and the comenants hereof are of the essence of this agreement, should Lessee remain in default of any term, covenant or condition hereof for a period of fifteen (15) days, after written notice shall have been served upon Lessee this lease and option shall be terminated and be of no further force, save and excepting that they shall not be relieved of any obligations arising from such termination, or the royalties due or to become due on account of ore extracted from said

premises, previous thereto. Upon termination Owner shall retain all payments previously paid under the terms hereof, and Owner shll be entitled to enter upon said premises and each and every portion thereof, remove any and all persons therefrom, with or without process of law.

18. No assignment or transfer of interest hereunder or sub-letting of any portion of premises shall be valid for any purposes whatsoever, until Lessee has notified the Owner and informed him of the name of the person or persons to whom such an assignment, transfer or sub-letting is to be made, and of the time, and of the address at which mail to such person or persons may be directed as herein provided.

19. When the full purchase price is paid to Owner by Lessee, Owner is to receive an overriding royalty of two (2%) per cent under the following conditions: Owner hereby gives the Lessee an option on this two (2%) per cent royalty for the sum of Ten Thousand ($10,000.00) Dollars with the privilege of paying this amount in six semi-annual payments, and at no interest from date in writing of Lessee's execution of option on this two (2%) per cent royalty.

20. All notices and demands herein provided for shall be deemed to be given and made if deposited in U. S. Postoffice, registered, and postage fully paid and directed to address as hereinafter provided below.

IN WITNESS WHEREOF, the parties hereto have set their hands the day and year above written.

Signed: G. CRAWFORD, Owner. Bishop, Calif.
Signed: Ralph E. Shupe, Lessee.
1521 W. 79th St.,
Los Angeles, Calif.
Notary: Inyo County, Gertrude W. Pye.

SUPPLEMENTAL AGREEMENT TO MINE LEASE AND OPTION TO PURCHASE, ON HACO GROUP, BETWEEN G. CRAWFORD, Owner, and RALPH E. SHUPE, Lessee, To wit:

WITNESSETH

On this eleventh day of June, 1955, the above named parties to herein and hereby agree that the purchase price, as of this date, shall be set at TEN THOUSAND ONE HUNDRED FORTY and 70/100 DOLLARS ($10,140.70), plus the 2% over ride as set forth in the original BOND AND LEASE.

Owner further agrees that Lessee, or his assignees, may purchase clear title and the override agreement for the total price of FIFTEEN THOUSAND DOLLARS ($15,000.00), said sum to be paid to Owner on or before the Thirty first day of December, 1955. Should this complete purchase not be completed by aforesaid date, then purchase price agreement shall revert back to terms set forth in original BOND AND LEASE, with the exception that the figure set forth in the first paragraph of this document shall be used as the amount due as of this date and any royalty or other payments made from this date on shall reduce said figure by amount pf said payments.

Further: the minimum labor requirement of THIRTY MAN SHIFTS a month shall be set aside and the only minimum required shall be the THREE HUNDRED DOLLARS a month minimum royalty payments.

ALL ELSE SHALL BE THE SAME AS IN THE ORIGINAL BOND AND LEASE.

Signed: G. CRAWFORD Owner Bishop, Calif.

RALPH E. SHUPE Lessee Los Angeles, Calif.

One page only.

Addendum No. 3 to MF-103
Ralph E. Shupe, 1521 W 79 St
Los Angeles 47

AMENDMENT AND SUPPLEMENTARY AGREEMENT
TO MINING LEASE AND OPTION TO PURCHASE

THIS AGREEMENT, Made and entered into this 10th day of December, 1956, by and between AL STEVENS and BESSIE STEVENS, of Shepard Lane, Bishop, California, tlephone 3884 Bishop, as to a one-third (1/3) interest, HOWARD STEVENS and JOSEPHINE STEVENS, of 1805 Thompson Boulevard, Ventura, California, phone Miller 8-4673, as to a one-third interest (1/3), the executrix of THE ESTATE OF C. A. RASMUSSEN, and ANNIE RASMUSSEN, of 323 East Bixby Road, Long Beach 7, California, phone Garfield 4-3275, as to a one-ninth (1/9) interest, MARY TROUT, of 2321 Griffith Park Boulevard, Los Angeles 39, California, as to a one ninth (1/9) interest, and H. O. Johanson and JUNE MARY JOHANSON, of Box 567, Bishop, California, as to a one-ninth (1/9) interest, the parties of the first part, hereinafter referred to as Owners, and Ralph E. Shupe, of 1521 West 79th Street, Los Angeles 47, California, phone Pleasant 1-5215, the party of the second part, hereinafter referred to as Lessee,

W I T N E S S E T H :

RECEIVED JAN 25 1957 D.M.E.A.

That, WHEREAS, the Lessee now holds a good and valid lease from the Owners, together with option to purchase, that is dated November 20, 1955, and that is recorded in Volume 123, pages 518-532, of Official Records of the County of Inyo, State of California, in the Inyo County Recorder's Office in Independence, Inyo County, California; and

WHEREAS, Owners and Lessee desire to herein amend above said lease and also make a supplementary agreement to the abovesaid lease;

NOW, THEREFORE, it is expressly agreed by the Owners and Lessee that the minimum monthly royalty payments shall remain at and be Four Hundred Dollars ($400.00) per month for the entire life of the lease. Said minimum royalty payments of $400.00 per month shall be payable on or before the 10th day of each month commencing as of the 10th day of December, 1956, and should payment be made by mail, the Lessee shall deposit such payment or payments to Owners in the mail in sufficient time to reach them on or before the 10th day of the month, it being the understanding and agreement of the parties that the date of payment is a condition going to the essence of this agreement, and that upon failure to make any such royalty payment promptly when due same shall constitute cause for cancellation of this agreement and the lease and option agreement dated November 20, 1955. It is further agreed that the abovesaid minimum monthly royalty payments and the Ten percent (10%) royalty payments on the ores produced and sold, as set forth in the lease Dated November

20th, 1955, shall be the only payments to Owners by Lessee necessary to keep said lease valid, Owners herein agreeto waive all other payments that were set forth in the lease dated November 20, 1955, that were to be made by Lessee to Owners. Only the payments actually made by the Lessee to the Owners shall apply on the total purchase price of Sixty Five Thousand Dollars (65,000.00), and any payments waived by the owners shall in no way be construed as payments by the Lessee on this total purchase price.

AND FURTHER, the Owners hereby agree that in the event that the Lessee should build or cause to have built upon any part of the land covered in this leaseany type of mill or ore concentrating plant, thenthe Lessee shall have his option or choice of the following procedures, if for any reason this lease should be terminated, and control of the properties is thereby returned to the Owners:

(1) Owners agree to give Lessee a written agreement whereby he may retain the use of the area of the Owners claims that would be necessary in the continued operation of the abovesaid mill or plant. This agreement will include the use of property areas necessary as a tailings pond, or ponds, haulways, roadways, storage areas and any other areas necessary to a millsite. Lessee agrees that the Owners shall retain the mineral rights to the property so used by the Lessee, and that he, the said Lessee, shall so locate said mill site and use of same that it will not interfere with Owners in the conduct of mining operations uponthe mining premises. Owners agree that in the use of and in exercising the mineral rights within said areas they will not interfere with the operation of the mill by the Lessee. It is the understanding, stipulation and agreement of the parties thatthe said mill shall be located within an area or areas agreeable to the Owners and the Lessee. Lessee agrees to pay the Owners a rental feeof One Hundred Dollars($100.00) per month on the 10th day of each month for the use of said millsite, and Owners agree thatsaid agreement shall stay in effect for a period of at least fifteen years (15) from the date of the termination of the Lessee's mining lease and optionon the aforesaid mining claims and premises. Owners further agree that in the event of a contemplated sale of this property the sale shall not be consummated until the buyer has given Lessee a like agreement. Owners agree that Lessee may have the right to terminate this rental agreement, should it me entered into, at any time he may so desire. Owners agree that Lessee shall have ninety days(90) from date of termination in which to remove the mill and all things appurtenant thereto the mill. Owners further agree that Lessee shall incur

no penalties as a result of such termination except that Lessee may not process any ore in the mill after the termination. It is further the understanding, stipulation and agreement of the parties that Lessee shall not be relieved of any obligation to pay the minimum royalties hereunder and under said lease and option agreement dated the 20th day of November, 1955, unless and until he has executedquitclaim deed to said mining premises, and Lessee shall not be relieved pf payments under aid agreement for continuance of a mill and use of mill site until he has executed and delivered to Owners a quitclaim deed and cancellation of the agreement referred to in this paragraph.

(2). Owners agree that Lessee shall have ninety (90) days from date of termination of the mining lease in which to remove the mill and appurtenances.

AND FURTHER, the Owners agree to sign and give to Lessee the government form known and identified as Form MF-205 or itssupercedure. This form is a CONSENT TO LIEN AND SUBORDINATION AGREEMENT necessary for the Lessee to secure aid from the government through an APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED.

All of the clauses and agreements in the original lease dated November 20, 1955, shall remain unchanged and in full effect with the exception of the amendments and supplementary agreements set out above. In the event that there is any conflict in the clauses set out above, then both Owners ans the Lessee agree herein that the terms set out in the lease dated November 20,1955, shall bewaived in favor of the terms set out in this document.

The heirs, agents, successors, and/or assignees of the Owners and Lessee shall be bound by the terms set out above and/or in the original lease dated November 20, 1955.

All other comenants and agreements shall be and continue the same as in the original mining lease and option to,purchase.

In witness whereof, the parties have hereunto set their hands and seals the day and year first above written.

Signed by: Al Stevens, Bessie Stevens,
Howard Stevens and Josephine Stevens
Annie Rasmussen, Executrix for Eatate of C. A. Rasmussen.
Annie Rasmussen
H. O Johanson and June Mary Johanson
Owners
Ralph Shupe, Lessee.

Notarized in due form by all.

Recorded Vol. 123, page 518-532.
Inyo County, California.

MINING LEASE AN D OPTION TO PURCHASE.

THIS AGREEMENT, Made and entered into this 20th day of November, 1955, by and netween AL STEVENS ans BESSIE Stenven, husband and wife, HOWARD STEVENS and JOSEPHINE STEVENS, husband and wife, of the County of Inyo, State of California, MARY TROUT, a married woman, C. A. RASMUSSEN and ANNIE RASMUSSEN, husband and wife, of the County of Los Angeles, Stare of California, the parties of the first part ,hereinafter referred to as the owners, and RALPH E. SHUPE, 1521 West 79th Street, Los Angeles 47, California, the party of the second part, hereinafter referred to as the lessee;

W I T N E S S E T H:

THAT WHEREAS, the Ownerssare vested with the title and entitled to the possession of those certain unpatented mining claims and real property worked as a mine situated in the County of Inyo, State of California, and more particularly described as follows, To-wit:

The claims are known as the Big Shot Tungsten Group of mining claims, located in the Bishop Mining District, Inyo County, State of California, namely:

BIG SHOT TUNGSTEN, recorded in Volume 46 of Mining Locations, page 109 thereof, Inyo County Records, to which recordation reference is hereby made.

BIG SHOT NO.1, recorded in Volume 46 of Mining Records, page 109 thereof, Inyo County Records, to which recordation reference is hereby made.

BIG SHOT NO.2, recorded in Volume 46 of Mining Locations, page 110 thereof, Inyo County Records, to which recordation reference is hereby made.

BIG SHOT NO. 3, recorded in Volume 46 of Mining Locations, page 110 thereof, Inyo County Records, to which recordation reference is hereby made.

BIG SHOT NO. 4, recorded in Volume 46 of Mining Locations, page 110 thereof, Inyo County Records, to which recordation reference is hereby made.

BIG SHOT No. 5, recorded in Volume 50 of Mining Locations, page 502 thereof, Inyo County Records, to which recordation reference is hereby made.

BIG SHOTNO. 6, recorded in Volume 51 of Mining Locations, page 336 thereof, Inyo County Records, to which recordation reference is hereby made.

BIG SHOT PLACER NO.1, recorded in Volume 53 of Mining Locations, page 83 thereof, Inyo County Records, to which recordation reference is hereby made.

TOGETHER with all equipment and improvements located on said hereinabove described mining claims and millsite, and owned by Owners.

TOGETHER with all the ribhts, privileges and franchises thereto incident, appurtenant, and therewith usually had and enjoyed, and all tenements and appurtenances thereto belonging, or in anywise appertaining, including the right to waters on said real property for use in mining and milling operations by said Lessee.

TOGETHER with and as appurtenant to the aforesaid mine, supplues and equipment upon or used in connection, all improvements, structures, buildings, machinery, tools, expressly including all water rights and priorities and all flumes, pipe lines, ditches, power lines, structures, improvements, equipment and applicnaes used in connection with any such water and/or water rights; and

WHEREAS, it is the desire of Lessee to take possession of and lease said mining ground and mining claims (as hereinabove described) and to prospect, work, develpp and mine the same, with a view to the purchase thereof;

NOW, THEREFORE, the aid Owners hereby grant to the Lessee for and during such term or period as the Lessee shall perform, keep and comply with every covenant, term and condition hereof on his part to be kept or performed, the immediate possession and right to the exclusive possession of said hereinabove described mining ground, and the whole thereof, with the appurtenances and water rights thereto appertaining, together with the option to purchase the same for the full purchase price of Sixty Five Thousand Dollars ($65,000.00), in lawful money of the United States of America, without interest, to be paid and payable at the residence of said Owners in said County, in installments as hereinafter provided.

1. Lessee is hereby expressly granted the right to enter upon said premises and to mine and explore the same and to take, remove and dispose of any and all metals or minerals or other sunstances (organic or inorganic) and whether existing as placer, lode or other type of deposit on or beneath the surface of said property so long as this contract shall be and remain in full force and effect. That said mining operations to be conducted by the Lessee may be by any method and to whatever extent selected by the Lessee; except that Lessee must perform adequate work

to conform to minimum annual assessment work requirements set by the Federal Government. This shall be the only work required during the life of this lease.

2. Before the commencement of said mining operations, a complete and detailed inventory of all equipment, amertial and supplies, now upon or in said premises and the property of said owners, shall be made jointly by a duly authorized agent or representative of the Owners and Lessee. A copy of the inventory, bearing the signatures of the agents or representatives shall be given to the owners and lessee and shall be accepted as final. In the conduct of said mining operations the Lessee shall have the right and privilege of using all buildings, improvements, amchinery, tools, equipment, water and water rights, ditch and ditch rights, power lines and roads now on said premises or appurtenant thereto, and he shall have the future privilege of erecting other and additional improvements, buildings, structures, and of installing such equipment and applicanes as he may think proper. All mining operations, however, shall at all times be conducted and carried on in a good and minerlike manner and in accordance with established and accepted methods and practices, and not otherwise. Any or all abandoned workings, whether in active areas or otherwise, shall not be required to be maintained or timbered, other than as may be required by law. Any or all timbers, lumber, track, or pipe that is now in or upon the premises and the property of the Owners, may be removed from one area thereof to another, so long as the same is used upon or in the premises and that by so doing the underground workings are not endangered in such areas as may be considered as active working areas. The Owners, or their duly appointed agent or representative, shall have the privilege of entering into and inspecting said properties and all buildings, improvements and workings thereon for the purpose of ascertaining the manner in which Lessee is carrying on said operations.

3. Lessee may, at any time, during the term herein stated, surrender this lease and agreement, together with the possession of said properties hereinabove described, upon giving of written notice to that effect to the Owners and thereupon be relieved of all future obligations hereunder, including the payment of any monies becoming due and payable thereafter, but such surrender shall not release the Lessee from any obligations or liability theretofore accrued by him hereunder.

4. As a further and additional consideration of this agreement, said Lessee shall pay to said Owners, at the residence of Howard Stevens or his duly appointed agent, as rental for said property and as royalty payments,

10 per cent (10%) of the gross value of all gold and silver, tungsten, and/or other minerals mined or produced from said properties, or any part thereof. Commencing on December 10th, 1955 a minimum royalty payment of Four Hundred Dollars ($400.00) per month, for one year, shall be paid to the said Owners. Commencing on December 10th,1956 a minimum royalty payment of One Thousand Dollars ($1,000.00) per month, for one year, shall be paid to the said Owners. On December 10th, 1957, Lessee shall pay to the said Owners the sum of Twenty Thousand Dollars ($20,000.00). Commencing on January 10th, 1958 a minimum royalty payment of Two Thousand Dollars ($2,000.00) per month, until a total of Sixty Five Thousand Dollas ($65,000.00) has been paid to said Owners. All minimum monthly royalty payments shall be applied upon the total actual royalties due that monthly period. If Lessee shall mill or reduce gold, silver ores, tungsten or other minerals from said properties he shall ship all bullion and/or concentrates or other minerals either to the United States Mint in San Francisco, California, or the Selby Smelting Works of California, or to any other Government recognized buyer. In the event of the disposition of other minerals or ores mined or recovered from said properties, they shall be disposed of by Lessee in the customary channels of trade and commerce. Within five (5) days after the receipt by the Lessee of the Mint, smelter or mill payments fro said shipments, or the payment by the buyer of other than gold or silver ores or tungsten concentrates, Lessee shall pay the hereinbefore designated percentage or royalty on the groos yield and value of said ores, metals or minerals minted, smelted or sold, as aforesaid, as evidenced by the mint, mill or smelter returns or shipping or billing invoices therefor, without deducting therefrom any mint charges, smelter costs, transportation charges, commissions, taxes or any other costs or charges whatsoever, and that the gross value of said gold, silver or tungsten concentrates or any other product taken and extracted from said mining premises as shown by the returns of the mint, smelter or mill or other buyer of said ores or minerals, as thr case may be, shall be used as the basis for computation of royalties herein agreed to be paid.

All royalty payments made by Lessee to the Owners as aforesaid shall constitute rental for said premises, and shall also constitute payments upon the balance of said purchase price of said real property in the event Lessee shall elect to exercise said option.

All payments to be made on account of royalty, as hereinabove specified, shall be accompanied by a mint or smelter return (or shipping or billing invoice as to any ore or minerals not sold or disposed of to the United States Mint, or one of the specified customs mills or smelters) evidencing the gross yield of said ores minted and smelted and sold as herein provided.

5. The Owners shall have accessto all shipping and refining records, milling or production records, or other reecords giving information of the amount of minerals reduced, extracted or recovered by Lessee from said mining ground and of the proceeds thereof.

6. That Lessee may assign this lease, or any interest therein, and sublease the whole, or any portion of said properties, and this lease shall be binding upon and extend to the assigns, successors, administrators and heirs of the parties hereto.

7. That there is hereby granted to Lessee the right to dump waste materials or tailings on the surface of said lands, or any adjacent lands acquired by Lessee, to erect restraining dams in connection with the storage amd restraint of mine tailings, to build reservoirs and store waters, and to stockpile, or otherwise deposit ores, concentrates or other products from mining operations conducted on said premises, or from other premises controlled by Lessee.

8. There is granted to Lessee the right to use any waters riparian to said lands and to pump said riparian waters in connection with unrestricted mining operations to be conducted on said premises or other premeses controlled by Lessee, as well as the free and unrestricted use of any waters on or appurtenant to said lands, whether in the form of springs, percolating waters or other sources of supply.

9. The Lessee may, at his own cost and expense, apply for, in the names of the Owners, and prosecute to completion an application for a patent as to any of said hereinabove described lands which are now held as unpatented mining claims or locations. The owners agree to cooperate with Lessee, make and sign an application for a patent, and otherwise abide by the rules and regulations of the United States Land Office relating to the procurement of a patent on unpatented mining claims.

10. Upon demand of Lessee, after payment of sums aggregating $21,000.00 or more upon said purchase price, the Owners will execute and deposit in escrow with a bank in Bishop, California, a good and sufficient deed conveying to Lessee all of the hereinabove described properties with appurtenances and water rights thereto belonging, free and clear of all liens and/or encumbrances and adverse claims of any kind or character, except the following:

(a) The paramount title of the United States as to any unpatented mining claims;

(b) Any lien of claim, applying or existing from any act done or suffered by Lessee.

Said deed will be deposited, as afore said, with appropriate instructions to said escrow holder, to deliver said deed to the Lessee, or his successors or assigns, or to their order, upon the payment in full according to the terms hereof of the total purchase price hereinbefore named for said properties, in royalty payments or otherwise, and provided that the Lessee has otherwise performed all of the terms and conditions of this agreement, on his part to be performed.

Concurrently therewith the Owners will deposit in escrow as afore said, subject to similar instructions, title insurance, in the sum of $65,000.00, showing the title to be vested in the Owners; or in event it is impossible to secure such title insurance, there shall be deposited in lieu thereof a certificate of title or title report in the best and most satisfactory form procurable showing such title to be vested in the Owners; and the same shall be subject to inspection by Lessee, his agents and attorneys from time to time as required by him.

11. The said Owners shall not be liable nor responsible for any work or labor of whatsoever kind or character done or performed in, on, or upon said property during the life of this agreement, or for any material or materials furnished to be used, or used in, on, or upon, or in connection with the working of said property.

12. The said Lessee will pay all expenses and charges of each and every nature for which he shall become expressly or impliedly liable, in anywise connected with the working of said property during the life of this agreement, and will protect and save harmless the said property from all claims and liens of each and every nature arising from any act of Lessee.

13. The Owners shall have the right of entry upon said property at any and all times, and to post thereupon a notice that enither they, nor the said property, will be responsible or liable for any work or labor done or performed thereon at the direction of the Lessee, or for any material or materials used by. or furnished to be used by, the said Lessee, or any agent, representative, grantee or successor of the Lessee, upon, in or about, or in the improvement of, said property, or any part thereof.

14. The said Lessee promises and agrees, as soon as work shall be commenced thereon by any employee upon said property under this agreement, to procure and carry a policy of insurance for the protection of the parties hereto for

any injury or injuries to employees under the Workmen's Compensation, Insurance and Safety Act of the State of California, and under the Acts amendatory thereto, and to carry the same as his own proper charge and expense.

15. All development work done, and all improvements made upon said property shall be in accordance with the requirements, rulessand regulations of the Industrial Accident Commission of the State of California, and shall constitute the annual assessment work required to maintain the unpatented mining claims aforesaid. Said Lessee covenants and agrees to perform the necessary assessment work and to provide the necessary improvements to so maintain said unpatented mining claims to the extent of $100.00 in value annually on each of said claims, and to record proper proofs of labor in connection therewith in the office pf the County Recorder of Inyo County, California, on or before the 15th day of June of each year during said term and any extension thereof, unless this agreement is cancelled, surrendered or terminated to that date.

16. TIME is the essence of this contract.

17. Each and every agreement, covenant, term or condition herein contained on the part of Lessee to be kept or performed shall be and it is hereby made a condition of this agreement, and in the event that the Lessee shall fail or refuse to keep or perform any agreement, covenant, term or condition set forth herein for thirty days after written notice of default specifying the particulars of said alleged fault, the Owners may at their option with written notice to Lessee and without waiving any other right hereunder, or at law, or against Lessee arising from any default, terminate this agreement and with or without process of law, expel, remove and putout the Lessee from the possession of the hereinabove described property and mining claims; but such termination shall not release the Lessee from any obligations or liability theretofore incurred by him under the provisions hereof. Anything to the contrary notwithstanding it is mutually agreed that no notice of termination need be given with respect to default in the payment of any installment of royalties as and when the same by the terms hereof become due and payable, and that this agreement may be terminated for failure to pay the royalties as and when the same become due and payable without the service of any notice of default with respect thereto or service of any notice of default with respect thereto or service of notive of intention to terminate on account thereof.

A waiver of one default by the Owners shall not be deemed to be a waiver of any other default.

Should any such default be by its naturenot capable of being remedied within said thirty day period, then and in that event, such alleged default shall be deemed cured in the event Lessee commences to remedy such default within said thirty day period, and the work of curing such default be prosecuted until completed, with reasonable diligence.

18. In the event of the termination of this contract in any manner other than by the consumation of the sale of said properties, the Lessee may remove all machinery and equipment, including underground and surface pumps, rails, air ans compressor pipes, leaching tanks, tools, supplies and other personal property whatsoever which may have hereafter be placed on said property by Lessee; said removal to be accomplished within 90 days(weather and road conditions permitting) after the termination of this contract as aforesaid - it being distinctly agreed and understood between the parties hereto that any of the following improvements hereafter placed upon said property shall remain thereon and be surrendered therewith, to-wit: all buildings, including mill buildings, warehouses, assay office, bunkers for storing ore, flumes, ditches and sluice boxes constructed on said property, any gallows frame or head frame to any shaft situated thereon; and, as to any underground works, all ladders, underground bunkers and all underground timbers affixed to and a part of said mine.

In the event of termination of this contract, as aforesaid, all sums of money theretofore paid to the Owners, shall be regarded as liquidated damages for the prior use and occupation of said mining ground and improvements, and shall be so retained by the Owners, without claims or demands therefor by Lessee.

19. In the event Lessee should elect to terminate this agreement prior to the term fixed, Lessee shall and will peacefully and quietly leave, surrender and yield up said premises unto the Owners and execute and deliver to the owners a quitclaim deed or other appropriate instrument by virtue of the terms of which Lessee shall surrender all his right, title and interest in and to said mining claims and mining premises and the whole thereof, and Lessee shall be relieved from all obligations with respect to the performance of the terms of this agreement save and excepting those existing at the time of the execution and delivery of the quit claim deed or other appropriate instrument.

20. This contract shall expressly inure to the benefit of and shakk bind the successors, assigns, heirs, administrators and executors of the parties hereto.

Modifications to Mining Lease and Option to Purchase Agreement.

In addition to the hereinabove set forth provisions, the parties hereto do also conenant and agree as follows:

1-M. It is understood and agreed that owners do not own all of the BIG SHOT TUNGSTEN mining claim, and that a portion thereof has heretofore been deeded by owners to others. It is therefore specifically understood and agreed that any and all reference in this lease and option agreement to the BIG SHOT TUNGSTEN mining claim, pertains only to that portion of said mining claim now owned by Owners.

2.M. It is understood and agreed that all ~~items~~ items of equipment, material and supplies, as referred to in paragraph 2 of this lease and option agreement, shall upon the termination of this lease for any reason other than by reason of Lessee's exercise of the option provision herein contained, be returned to owners in like condition as the same are, less reasonable wear and tear, and that the Lessee shall properly care for and repair said items of equipment, material and supplies, and shall not permit any liens or encumbrances to be placed thereon, nor shall he remove the same from the leased premises.

3-M. Lessee covenants and agrees that he will at all times, and before the same become delinquint, pay any and all taxes or assessments which may be levied upon the demised premises, any and all improvements located thereon, and any and all ore bodies, stockpiles, or concentrates located there on said demised premises or removed therefrom.

4-M. Lessee covenanys and agrees that he will furnish Lessors, true and exact copies of all logs obtained from any core or diamond drilling operations conducted on said demised premises, and true and exact copies of all assay returns, to the end that the owners shall have all information which may be developed pertaining to said mining claims.

5-M. The Lessee, as a material part of the consideration under this lease, does hereby assume all the risk of injury or damage to persons and property, including all property of the Lessee and the Lessors, in or about the said premises, from every source, and that the Lessee will hold the Lessors harmless on account of any such damage or injury, provided, however, that the Lessee shall not be liable to Lessors for damage or injury to Lessor's property caused by accidental fire, earthquake, or other acts of God. Lessee hereby undertakes

and agrees to carry such public liability and property damage insurance as may be deemed necessary to fully protect the Lessors from any damage of whatsoever nature suffered by persons or property in or upon said premises during the term of this lease and option agreement.

6-M. Lessee covenants and agrees that he will so conduct the mining and exploratory work on said claims that he will not directly or indirectly damage or destroy the lower levels of the mine now existing on said premises and commonly known and referred to as the Kittle Winze and Pinnacle stopes and drifts, nor remove the pillars from said mine without the permission in writing of owners first had and obtained.

7-M. Lessee covenants and agrees that he will make the necessary arrangements whereby all monies to fall due under the terms hereof shall be paid directly to the individual owners and at the following addresses, or at any address which they shall designate, in proportion to their interest, which is as follows:

Name and address.	Value of Interest.
Al & Bessie Stevens Shepard Lane Bishop, Calif.	One third
Howard & Josephine Stevens Box 478 Bishop Calif.	One third
Mary Trout 2321 Griffith Park Ave Los Angeles 39, Calif.	One ninth
C. A. & June Mary Rasmussen 323 East Bixby Road, Long Beach 7, Calif.	One ninth
H. O & June Mary Johansen, Box 567, Bishop Calif.	One ninth

IN WITNESS WHEREOF, the said parties have executed this agreement in triplicate, the day and year first above written.

Signed by: Al Stevens
Bessie Stevens
Howard Stevens
Josephine Stevens
H O Johanson.
Owners

June Mary Johanson
Mary Trout
C. A. Rasmussen
Annie Rasmussen
Owners

Ralph E. Shupe
Lessee.

and agrees to carry such public liability and property damage insurance as may be deemed necessary to fully protect the Lessors from any damage of whatsoever nature suffered by persons or property in or upon said premises during the term of this lease and option agreement.

6-M. Lessee covenants and agrees that he will so conduct the mining and exploratory work on said claims that he will not directly or indirectly damage or destroy the lower levels of the mine now existing on said premises and commonly known and referred to as the Kittle Winze and Pinnacle stopes and drifts, nor remove the pillars from said mine without the permission in writing of owners first had and obtained.

7-M. Lessee covenants and agrees that he will make the necessary arrangements whereby all monies to fall due under the terms hereof shall be paid directly to the individual owners and at the following addresses, or at any address which they shall designate, in proportion to their interest, which is as follows:

Name and address.	Value of Interest.
Al & Bessie Stevens Shepard Lane Bishop, Calif.	One third
Howard & Josephine Stevens Box 478 Bishop Calif.	One third
Mary Trout 2321 Griffith Park Ave Los Angeles 39, Calif.	One ninth
C. A. & June Mary Rasmussen 323 East Bixby Road, Long Beach 7, Calif.	One ninth
H. O & June Mary Johansen, Box 567, Bishop Calif.	One ninth

IN WITNESS WHEREOF, the said parties have executed this agreement in triplicate, the day and year first above written.

Signed by: Al Stevens
Bessie Stevens
Howard Stevens
Josephine Stevens
H O Johanson.
Owners

June Mary Johanson
Mary Trout
C. A. Rasmussen
Annie Rasmussen
Owners

Ralph E. Shupe
Lessee.

Notary Certificates attached:

Inyo County.
Al Stevens, Bessie Stevens, Howard Stevens, Josephine Stevens. Dec. 2, 1955. Gertrude W. Pye Notary.

Los Angeles County.
Mary Trout. Nov. 29, 1955 Helen J. Shepard, Notary.

Los Angeles County.
C. A. Rasmussen and Annie Rasmussen.
November 25, 1955 Floyd G. Hubbard, notary.

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November 25, 1955 Floyd G. Hubbard, notary.

DMEA

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

1605 Evans Avenue
Reno, Nevada

January 23, 1957

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Loan Application Lungoten (Mercury)
Ralph E. Shupe
Round Valley Consolidated Mines
Inyo County, California

Enclosed are three sets of MF-103, Application for Aid forms, relative to above subject. The fourth set has been retained in our files.

S. Ricker

Encls.

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 25 1957

DATE	INITIALS	CODE
1/28	WSM	400

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DEPARTMENT OF THE INTERIOR
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EXTRA COPY
DMEA
RECEIVED JAN 25 1957

DATE	INITIALS	CODE
1/28	WSM	400

103
d April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

RECEIVED JAN 25 1957 D.M.E.A.

Not to be filled in by applicant

Docket No. 4614
Metal or Mineral Tungsten ~~Manganese~~
Date Received 1-25-57
Estimated Cost $88,410.50
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Ralph E. Shupe, 1521 West 79th Street, Los Angeles 47, Calif.
See attached sheets Nos. 1 to 5 inclusive for explanation of proposed program, with other addendum sheets.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. Individual

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Two groups of unpatented lode claims adjoining, known as the Round Valley Mine and the Tungsten Hill Mine, in Inyo County, California, to be known and operated as one project - the Round Valley Consolidated Mines - See addendums.

(*b*) State any mine name by which the property is known. " "

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise
Lessee and optionee of each group separately.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Copies of lease-options attached. Addendum sheets 2 & 3.

(*e*) If you own the land, describe any liens or encumbrances on it no land owned in fee. current payments on lease-options are being made.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See reports and also addendum sheet No. 10.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes See addendum sheets 5-6-7.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. " "

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.
Properties are idle but accessible for examination.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.
All necessary men and facilities available.

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore

Scheelite - tungsten ore exclusively

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. See attached maps and engineer's recommendations.

(*c*) The work will start within 30 days and be completed within five months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project: See page 1 attached

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.). Page 4-5

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants. See page No. 4

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. See page 4

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be. See page 4 and addendum sheet No. 3

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. No rehabilitation expense involved.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. none.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes. blanket sum - see page 4 & 5.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes. See page 5.

(*b*) How do you propose to furnish your share of the costs?

☒ Money ☒ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated January 16, 1957

Ralph E. Shupe
(Applicant)

By

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—66551-1

Addendum Sheets.
MF-103 Application for aid in Mine Exploration.
Round Valley Consolidated Mines Project.
Tungsten Ores.

RECEIVED
JAN 25 '51
U.M.E.A.

Ralph E. Shupe,
1521 West 79th Street,
Los Angeles 47, California

Addendum Sheet No. 1.

1.(a) Ralph E. Shupe, 1521 West 79th St., Los Angeles 47, Calif.

(b) Individual. Ralph E. Shupe will operate this exploration project, using experienced men who worked the Tungsten Hill Mine for him, so far as now available, and the services of Frank R. Wicks, as needed as consultant and supervising engineer. This arrangement pending the organization of a Nevada Corporation, set up expressly for this project if developments justify.

(c) Not presently incorporated.

(d) No partnership.

3. (a) Two adjoining groups of unpatented lode mining claims, viz: Haco Group - Haco Claims Nos. 1 to 6, inclusive and Big Shot Group - Big Shot Tungsten and Big Shot Nos. 1 to 4, inclusive, all in Round Valley District, Inyo County, California, being portions of sections 34 & 35: T-6-S:R-31-E:MDM. and portions of sections 2 & 3: of T-7-S adjoining. See large property map.

(b) Haco Group now known as Tungsten Hill Mine; was shown on early maps as Little Shot Mine.
Big Shot Group now known as Round Valley Mines, and so shown on some maps.
The combined project will be known as the Round Valley Consolidated Mines Project.

(c) Ralph E. Shupe is sole lessee and optionee of each group separately. Required minimum payments being currently paid by him. Haco Group purchase contract substantially paid out by royalties.

(d) Addendum No. 2 is Tungsten Hill lease-option.
Addendum No. 3 is Round Valley lease-option, with ammendments thereto.

(e) No land owned in fee.

(f) List attached - Addendum No. 4.

Addendum Sheets
MF-103 Application for aid in Mine Exploration.
Ralph E. Shupe. 1521 West 79th St., Los Angeles 47.

4. (a) Properties are now idle but in possession of lessee's agent. Mining engineers' reports attached with maps and information requested. Lessee will furnish transportation from Bishop to the properties and all necessary assistance upon notification by phone or mail to Shupe or Wicks. Los Angeles phones: PL-1-5215 or LU-5-8276, respectively. Properties are easily accessible from Bishop. Some snow on ½-mile of road to Tungsten Hill workings at intervals in winter.

(b) See Wicks' reports attached. The Tungsten Hill Mine appears to have produced about 7500 tons of tungsten ore since discovery, of which about 1,000 tons came from operations of Shupe during the past two or three years. Stated average grade is 0.50% to 0.65% WO_3. Probable actual WO_3 content of crude ore nearer 0.80% WO_3, as custom mill by-passed sampler with fines after coarse crushing.
Round Valley Mine published reports show 60,000 tons of ore produced from mines and about 32,000 units of WO_3 sold, all prior to 1955, except for small hand mining of selected ore since.
Existing ore reserves on a conventional developed tonnage basis does not exceed 500 tons in each mine at this time, even though there are many places where good ore is showing in faces.

(c) All requested information is included in Wicks' reports attached, addendum No. 5 and No. 6, together with Wicks' discussion of the combined project, dated February 12, 1956, addendum No. 7. None of these copies need be returned to applicant.

(d) Also included in above reports.

(e) Availability: Manpower - good in a District where most men are experienced in tungsten ore work.
Materials - timber abd explosives and most mining supplies available in Bishop; other items from Los Angeles by truck daily delivery.
Equipment: Shupe has considerable equipment owned by him; other items can be bought or rented locally or in Los Angeles.
Water and Electric power when wanted. Water would be from shallow wells for permanent operations, but would be hauled in for drilling jobs now scheduled. Electric line crossed the property and now terminates at old millsite. We will use liquid fuel engines for drilling program and then electric power for tunnel work.

Addendum Sheets.
MF-103 Application for Aid in Mine Exploration.
Ralph E. Shupe. 1521 W. 79th St., Los Angeles 47.

Page 3.

5. (a) Exploring for tungsten ores exclusively.

(b) Proposed work: Exploration, as initial steps of a sizable project for producing scheelite ores, beginning with determinations as to presence or absence of useful ore extensions in two old mines, and in unknown area between the two mines. All as shown on large plan map attached. Both mines had fairly good production records, but only a small fraction of the favorable zones have been prospected.
It is proposed to drill about 26 cored holes 7/8" size cores probably, starting from favorable locations in vicinity of former production
The first would be five vertical Holes #1-to-5 from surface and slant holes A-1 to A-4 from existing mine workings, all proximate to the Round Valley Mine. We would do essentially the same thing in the Haco or Tungsten Hill Mine, by vertical holes #17 to #20, and slant holes #A-5 & A-6.
If these two programs are satisfactory, we would then plan to determine merit of intervening ground by holes #6 to #16, in the order as numbered.
If during the progress of this work, it appears that a tunnel driven horizontally , at elevation 5000', would afford opportunity for good lateral exploration and for haulage, as well as for the actual samp,ing of discovered ore, we would then expect to proceed with tunnel work to connect the two properties. The length of this tunnel would be about 1825 feet, as indicated on the map.

(c) The work will start in 30 days and be completed in three months on drill work and five months on tunnel work, from the date of an exploration contract.

(d) Shupe has financed and managed many small mines and projects. Has 12 years experience in mill-operation and surface work. His underground experience is limited to general supervision. Wicks has been a consulting engineer in this region for 35 years, with broad experience in all manner of mining and metallurgical projects. Is rated as one of the very best on the production and treatment of tungsten ores. His services on this project will be on a part time basis as needed, but he will supervise closely.

Addendum Sheets.
MF-103 Application for Aid in Mine Exploration.
Ralph E. Shupe, 1521 W. 79th St., Los Angeles 47.

6. (a) It is intended that the two main projects, the core drilling and the tunnel driving, both be done only on contract. thus the only other expense involved is for supervision, sampling and engineering.

The tentative contract price on core drilling is $6.15 per lineal foot, plus the following items: water hauling for drill use, starting casings if needed, core boxes and core storage, moving drill rigs into property and away from property. All of this can be contracted on the basis of fifty cents per foot of drilling if we guarantee more than 1,000 feet of core hole drilling.

The total program calls for 3370 ft. of drilling, which would cost, on a contract basis $22,410.50 if fully completed. The minimum guarantee required would be $6,665.00. It is probable that we can negociate a lower overall price, and will do so if possible.

The proposed tunnel work for underground exploration would approximate 2,000 lineal feet, on which we have a tentative bid of $28.00 per lineal foot, holding back $3.00 per foot until the full length is driven and approved, as a guarantee that the contractor will complete. This contract would thus call for an expenditure of $56,000. The applicant for this assistance will bear such additional expense as may be incurred in establishing raise-connections to Tungsten Hills workings, timbering, trackage in existing tunnel connections at Round Valley mine and expected extras for sampling, etc.

The applicant will assume the responsibility for extra labor, engineering, supervision and consultant expenses in excess of $2,000 per month, allowing a total of five months for the program, and all expense for those items beyond that time.

Thus the total sum needed for the program amounts to $22,410.50, plus $56,000, plus $10,000, or $88,410.50 for the program, including all items listed under paragrph 6, (a) to (h) inclusive.

7. (a) Applicant will be prepared to proceed immediately upon exploration project as soon as government contract is signed. He will arrange work contracts on best possible terms, and will carry the costs from month to month pending receipt of reimbursement of government share as agreed.

(b) Applicant will furnish necessary money. If the equipment owned by applicant is useful to the contractors, its use will be charged to contractor on rental basis, and proper deductions made from contract price. If contracts are made on basis of retaining certain proportion pending completion of job, such withheld sums will be deposited in a separate contingent fund expressly for the purpose.

ADDENDUM NO. 4.
DMEA MF-103
Ralph E. Shupe,
1521 W. 79 St.,
Los Angeles.

MEMO OF RECORDING DATA ON MINING CLAIMS INCLUDED IN APPLICATION FOR AID IN MINE EXPLORATION.

Name of Claim	Date of Location	Book No.	page No.	Locator Original
Haco No. 1	12/13/47	58	298	Tom Coleman
" 2	1/10/48	58	388	" etal
" 3	1/17/48	58	389	" "
" 4	1/17/48	58	390	" "
Haco No. 5	12/1/56	86	103	Shupe
" 6	12/1/56	86	105	"
Big Shot Tungsten	7/15/34	46	109	Stevens &Stevens
Big Shot No. 1	7/15/34	46	109	"
" 2	"	46	110	"
" 3	"	46	110	"
" 4	"	46	110	"
" 5	8/14/37	50	502	"
" 6	3/14/38	51	336	"Bessie Stevens
" Placer No. 1	9/26/39	53	83	Bessie Stevens.
Amended Locations:				
Big Shot Tungsten	12/1/56	86	95	Stevens & Stevens
Big Shot No. 1	"	86	97	"
" 2	"	86	99	"
" 3	"	86	101	"
"				

Haco Option and Lease Agreement Vol. 120 Page 356-360
Tungsten Hill Mine.

Big Shot Lease and Option Vol. 124 page 612
Round Valley Mine.

RECEIVED JAN 25 1957 D.M.E.A.

Addendum No.5 to MF-103
Ralph Shupe, 1521 W 79 St.
Los Angeles

PHONE: LUDLOW 5-8276

FRANK R. WICKS
CONSULTING MINING AND INDUSTRIAL ENGINEER
6816 HOLMES AVENUE, LOS ANGELES 1, CALIF.

RECEIVED JAN 25 1957 D.M.E.A.

REPORT OF PRELIMINARY EXAMINATION.

THE ROUND VALLEY TUNGSTEN MINE GROUP.

Near: BISHOP, INYO COUNTY, CALIFORNIA

Date of the Report: October 13, 1956

Dates of Examination: June 15-16, 1955
Oct. 7-8, 1956

Name of Mine: The Round Valley. Also known as the Big Shot Group, the Big Shop Tungsten, the Stevens Mines and others.

Report prepared for: Mr. Ralph E. Shupe
1521 West 79th Street,
Los Angeles 47, Calif.

Location: At the northwesterly end of the Tungsten Hills Range of Mountains, nine miles west of Bishop, California; one mile east of Horton Creek.

Legal Location: A portion of Section 34: T-6-S:R-31-E: MDM., and Section 3:T-7-S:R-31-E, adjoining.

Names of Claims: Big Shot Nos.1 to 6, incl., and Big Shot Tungsten Lode and Big Shot Placer No. 1. Eight claims total.

Title: Unpatented mineral locations; six lode claims and one 20-acre placer claim. Still owned by the original locators: Howard Stevens and Al. Stevens. Under lease-option to Ralph E. Shupe of Los Angeles, Calif., against which monthly payments are currently being made.

Mining District: Round Valley.

Recording Data: Inyo County Recorder's Office; book 46, pages 109-110, and 50/502 and 51/336, with proofs of labor and amendments following.

Area: Approximately 150 acres.

Elevations: 5,000 to 5,600 feet above sea level; main entry 5044 feet; lowest workings 4880 feet.

Access Road: 8 miles of paved highway; one mile of good dirt road to main workings and pits.

Shipping: Most of the mine service is now by trucks, to and from the properties in this vicinity. The access road to Round Valley mines is adequate for heavy trucking. Nearest rail service is Laws, Calif., about 12 miles from the properties; narrow gauge Southern Pacific Aqueduct Branch, daily service.

Underground Workings: In excess of 3,000 lineal feet of tunnelling, winze slopes and raises. Two large and two small glory hole stopes and many underground stopes also. One 400 ft. inclined shaft, mostly on ore.

Present Operations: Assessment work only; mostly idle for past three years. No suitable mill to receive ore from these workings. Original mill on this ground was moved during time of low market.

Prior Production: Estimated total to date about 60,000 tons of crude ore. For some years, this mine was the principal producer in the District. The average grade of ore was said to be about 0.50% WO_3, net yield after milling. Some very rich ore derived from hand mining recently. About 25 thousand tons of tailing material remains on the property; mineral content not known.

Proposed Millsite: On or near the Big Shop Placer No. 1 Cla im. Ample tailing room.

Mining Conditions: Quite good. Ground stands well, mostly without timber; mine dry except for small low section; ore can be delivered to the mill by conveyor from underground if desired, and from Tungsten Hill Mine by level haulage when cross connection is established.

Equipment: Air compressor, tracks, mining tools, air hoist, miscellaneous items, piping; one good shop building. Electric p ower line across property, from which power may be taken when wanted.

Water: Water for mine operation can likely be taken from shallow drill holes at bottom of mine. Water for milling from near Horton Creek; a 1½-mile pipe line will deliver at a bout 100 ft. pumping head. Ample supply.

Ore developed: Numerous ore faces exposed, but al most no measurable developed ore bodies; 400 to 500 tons at most.

Ore indications: More or less assured tonnage, in undeveloped or unexplored areas on known ore zones; needs systematic core drilling from surface and underground.

A General Description of the Round Valley Property:

This is a well known mine in an area that has produced much tungsten ore during prior years. The original locators took up these properties in 1934, and for some years the Round Valley or Big Shot mines were the principal p roducers of scheelite ore. These mines were not exhausted when the tungsten market prices receded, but operations were susp ended as unprofitable; in the meanwhile the larger mines of the H igh Sierra Regions were brought in with very large ore bodies in sight, so the Round Valley area remained inactive. At this time, the market will absorb all the scheelite ore that any or all of the mines can produce.

The Round Valley Mine was crippled by the removal of the milling plant, which was even then somewhat outmoded, but far better than any other available plant within economic distance range. Thus this property, in common with many others in the Round Valley District must remain idle until mill facilities are available. A milling plant on or near the Round Valley property will serve many mines, of which Round Valley Mine will be the principal contributor.

The ore in this property is essentially all of the scheelite type, calcium tungstate, mostly in tactite gangue. However, some of the ore is in, or lies conformably in, heavy mud-stone seams, in lenses and pockets of sizable proportions, quite away from the tactite-limestone bedding. This ore contains but little garnet or epidote, but has a small proportion of pyrite. This pyrite can be separated by simple means and appears to carry some small value in gold, thus making it worth while to

sep arate. The ore resp onds to flotation treatment and tabling quite well, so there is no serious metallurgical p roblem involved.

The Round Valley Mine is favorably situated as to climate, water, power, labor, transportatiom, waste disposal and available workings. At this time the tungsten concentrate is readily marketable. Thus, it appears to me to be the making of a profitable enterprise. It will be better situated, and can be brought into production quicker by joining with the Tungsten Hill mine, for earlier development of adequate tonnage for milling. This is recommended on some sort of a joint venture or joint ownership basis. Ultimately some nearby properties should be added, but are not essential now. Core drilling on known ore areas, from surface and from underground is best at this time, to be followed by underground development while mining.

Please refer to my letter of February 12th, 1956, for a discussion of the reasons and results of the combined or joint program.

Respectfully submitted,

Frank R. Wicks

Consulting mining engineer.
Registered engineer #2370, Calif.

Addendum No. 6 to MF-103
Ralph E Shupe, 1521 W 79 St
Los Angeles

PHONE: LUDLOW 5-8276

FRANK R. WICKS
CONSULTING MINING AND INDUSTRIAL ENGINEER
6816 HOLMES AVENUE, LOS ANGELES 1, CALIF.

RECEIVED JAN 25 1957 D.M.E.A.

REPORT OF EXAMINATION.

TUNGSTEN HILL MINE.

Near: BISHOP, INYO CO., CALIF.

Date of this Report. October 13, 1956.

Dates of Examination Oct. 7-8, 1956, and many previous visits, during 2 prior years.

Name of Mine: The Tungsten Hill Mine. Formerly known as the Little Shot Mine and the Crawford Mine.

Report prepared for: Ralph E. Shupe, lessee-optionee, 1521 West 79th Street, Los Angeles 47, Calif.

Location: Near the northwesterly end of the Tungsten Hills Range, nine miles west of Bishop, Calif., in northwesterly portion of Inyo County.

Legal Location: Portions of: Sections 34 & 35:T-6-S:R-31-E, and Sec. 2 & 3: 7-S:31-E: MDM, adjoins.

Names of Claims: Haco Nos. 1-2-3-4; principal claim Haco #1. Haco Claims Nos. 5 & 6 now being taken by location, if indicated discoveries prove adequate for claiming.

Title: Unpatented lode locations as 20-acre mining claims, adjoining to make a single group. Now under lease-option to Ralph Shupe, with purchase price substantially paid out. Claim surveys by W.F.Spain.

Recording Data: Book 74, page 141; 83/487; PL-9/173; etc.

Present Area: 80 acres; projected area 120 acres.

Elevations:

Highest area	5700	feet.
Shaft collar	5656	"
Tunnel portal	5510	"
Valley below	5000	"
Bishop (town)	4147	"

Access Road: Paved 8 miles; good dirt road 1 mile; steep dugway hillside road 1 mile to ore bin and mine portal.

Shipping: Practically all service is by trucks and regular freight truck schedules. Nearest rail point is Laws, Calif. 12 miles; Southern Pacific narrow gauge line, daily service.

Underground Workings: Total about 1100 lineal feet. Maximum depth attained 200 feet below surface; maximum horizontal penetration 500 feet.

Mining Conditions: Excellent. Ground stands well without much timber; ventilation is good; mine is dry. Some mining of both ore and waste can be done with a power loader

Equipment: Compressor and small tools for two crews. 50-ton capacity ore bin at end of road at the portal of tunnel. No useful buildings on property.

Principal ore: Scheelite - a calcium tungstate - the principal commercial ore of tungsten in this area.

Ore types: Scheelite in tactite-limestone upturned beds, and in fault drag cross fissures; also in block-crushed granitic porphyry bordering main ore zone.

Prior Production: No complete record available; estimated at 7500 tons of crude ore; estimated average 0.50% to 0.65%, as nearly as can be determined. This is discussed later in this report.

Ore Indications: Croppings and rock types indicate that the mineral zone will continue several hundred feet to the southeast of present workings, and should also continue to an ultimate junction with the Round Valley Mine workings 2000 feet west-northwest from the Tungsten HillMine.

Mine Operations: Property now idle; latest active mining was in May, 1955. Some surface development by dozer pits near the original shaft in recent months, on ore. No suitable mill available for receiving this ore.

Developed ore reserve: Only about 400 to 500 tons.

Recommendations: Core drilling from surface easterly, south and westerly. Core drilling with short holes from underground. Develop thoroughly before building a milling plant.

A General Description of the Property:

The Haco Claims, called the Tungsten Hill Mine, are high on top of the northwest portion of the Tungsten Hills Range, and in an old tungsten ore district not far from a dozen or more small mines that produced scheelite ores for years. Some examinations of the other properties have indicated that the scheelite ores occur best in the cross fissures in fragmentary sedimentary blocks and in crushed fault drag. Others have mentioned a Tungsten Hills pendant, occurring as a faulted blanket of nominal depth. In the adjoining Round Valey Mine, several hundred feet below the assumed blanket, the ores are found in both tactite zones and in horizontal lenses under and with mud and lake bed clays.

In the Tungsten Hill Mine, we find some ore with tactite gangue, but better ore in block crushed porphyry having no apparent connection with the original limestone bedding. For these reasons, the habit has been to follow the ore stringers from lense to lense without very much consideration for the general geology.

The whole Tungsten Hill structure is vastly older, geologically than the Sierra Range, insofar, as the granites are concerned, but contain essentially the same sediments, and it is likely that the main mineralization of the whole District occurred at the same time. This mineralization extended many miles in all directions and impregnated all formations to some extent. Thus in Tungsten Hills we have the same minerals, but deposited in different gangue rocks.

The Tungsten Hill Mine, and many others in the District nearby, could be operated if there was an adequate milling plant available. The only mill nearby is so badly arranged and so grossly mismanaged as to be impossible. Thus I have recommended a joint venture plan with the Round Valley Mine adjoining, and to include others in due time. This is the only feasible plan, and it will result in considerable production when completed. To bring this about, it is necessary to develop more ore in both the Tungsten Hill Mine and the Round Valley Mine. A program for doing this is being worked out. See my letter of February 12th, 1956, on this subject.

The Tungsten Hill Mine should ultimately be connected to the Round Valley Mine by underground haulage. It is not feasible to put a mill on the Haco Group alone nor would such a mill serve other mines as well as one at a lower elevation.

I believe the Tungsten Hill Mine will contribute a sizable tonnage to the joint milling plant, and recommend such a program, beginning with the core drilling around the present workings and between the two mines, substantially as shown on the accompanying map of the consolidated properties.

Respectfully submitted,

Frank R. Wicks

Consulting mining engineer.
Registered engineer #2370, Calif.

Addendum No. 7 to MF-103
Ralph E. Shupe, 1521 W 79 St
Los Angeles 47

PHONE: LUDLOW 5-8276

FRANK R. WICKS
CONSULTING MINING AND INDUSTRIAL ENGINEER
6816 HOLMES AVENUE, LOS ANGELES 1, CALIF.

RECEIVED JAN 25 1957 D.M.E.A.

February 12, 1956

Mr. Ralph E? Shupe,
1521 West 79th Street,
Los Angeles 47, Calif.

Dear Mr. Shupe: Persuant to our several conversations as to tungsten ore and tungsten mines in the Bishop area, this letter is prepared for you and your associates, to outline the general program I have in mind, and to make certain recommendations regarding the project you now have under way.

Since I first examined the Tungsten Hill mine nearly two years ago, I have favored consideration of a consolidation of the Tungsten Hill property with the adjoining Round Valley Mines property, as I felt that the two could be successfully worked together as one project, but would have trouble as separate operations. Both properties have been mined in a small way in recent months and the results have shown that such is undoubtedly the case.

The two properties, the Tungsten Hill Mine on the Haco Group of Claims and the Round Valley Mines on the Big Shot Group were originally considered one property, but some division of family ownership, as I understand it, caused the properties to be separately developed and operated. The Round Valley Mine had a milling plant for a time and was a sizable producer.

These properties are on and in a small range of mountains known as the Tungsten Hills, about nine miles west of Bishop, Inyo County, California, and a portion of the holdings extend out onto the flat area known as Round Valley at the north and westerly end of the Range.

The Bishop area, or Bishop District, is by far the largest producer of scheelite tungsten ores, with several large mines now in active production. The Tungsten Hills and Round Valley Mines are several miles nearer to the town of Bishop than the active mines held by the big companies. There are two principal operating mining companies in the area. Both have complete milling plants on the properties owned by them, but these mills are fully occupied with the treatment of their own ores. Custom ores from other mines are accepted only at sacrafice prices and terms that are wholly intolerable and unworkable. There are no independent milling plants in the Bishop area that are equipped to do a good milling job.

Tungsten ore can not be profitably sold as crude ore; it can not be transported for long distances to conventional smelting plants, as the base metal ores are handled. Tungsten ore must be concentrated right at the properties to avoid excessive costs, and by specially designed equipment suitable for the particular ore to be handled. There is no point in attempting any other method of operation, and none has been attempted at these properties since you secured the combined purchase-lease options. Milling equipment is needed as an essential part of the project.

Consolidated or joint operations on the Tungsten Hill Mine and the Round Valley Mine, as one project is especially interesting because of two main reasons. The ores are similar, but different from the ores in the big properties in the higher regions. The two mines can be worked as one, mostly from one level.

The claims adjoin; there is no controversy as to land lines. A recent survey map has been made, showing the joint holdings. All are agreed that the best results will be attained by consolidation. Some additional ground is available and should be taken un in the near future.

At the properties, the floor of Round Valley is only about 600 feet above the town of Bishop; the best millsite is almost at the valley floor, near the northwest end of the properties. The claimed area is from there up to near the highest point in the Tungsten Hills. The main level of the Tungsten Hill Mine is about 500 feet above the valley, 200 feet below the top surface workings. The Round Valley mine workings are much lower and one inclined shaft extends well below the valley floor. Mineralization is known in the combined workings at various elevations of 900 feet from the top of the upper gloryhole workings near the original Tungsten Hill shaft to the lowest point yet explored. We do not yet know how continuous or how extensive this mineralization actually is, but this will come with development and exploration, drilling and mining progresses.

Scheelite tungsten ore in bedded deposits, is known and has been mined from the workings in the lower mine, at depths 200 feet below the valley floor; also from vein deposits near the surface in the higher mine. The depth to which mineralization extends is not yet known. Depending upon conditions to be found in the unexplored sections and depending also upon the minimum grade of ore that can be treated at a profit, the lower limits must be determined later.

The same ore zone appears to extend through the two mines under discussion and on the southeasterly projection through several smaller mines in the same range of hills. Likewise, there seems to be an extension of this same fault fissure, across Round Valley to the west and into the High Sierras Range, with possibly some connection with the big mines there. I have not traced out this trend, but some sort of relationship is evident and some geological maps so indicate.

The type of ore in the Tungsten Hill Mine and in the Round Valley Mine is similar but not identical. Much of the Tungsten Hill Mine ore is soft and has a gangue of porphyritic granite, alongside of tactite. The Round Valley ore is mainly in hard limestone in tactite associated therewith, and in or under bedded mudstone shales. All of these ores are softer than the ores in the Sierra Range, containing less epidote and garnet than the Sierra ore.

For these reasons, the interpretation of the geological conditions and the mineralization characteristics in the Tungsten Hills Region, cannot be based upon the usual conditions found in the Sierras, nor can the ores be found or evaluated by the same methods and rules.

The basic difference, which I believe most geologists have overlooked or discounted, is that the Tungsten Hills structure is much older than the Sierra Range, and the gangues or structural rocks are different. However, the fault fissuring of the two ranges probably occurred at the same time. Simultaneous mineralization through fissure channels deposited scheelite in both structures, but in different gangues and probably at different structural temperatures, thus producing different types of deposits. This is one reason why I expect to findscheelite ores deeper, away from the sedimentary beds, but within the metamorphic, block-broken zone of flow rocks which make up a substantial part of the Jurassic geostructure of the Tungsten Hills.

The ores from all mines in the Tungsten Hills structure can probably be treated in one mill and by one main process, but mills designed for the treatment of the harder Sierra ores do not handle the soft ores very well. None of the existing mills in the Tungsten Hills area are any good at all.

Neither of the mines under discussion are in operation. Both were worked in a small way recently, but the developed ore was limited, and both were worked on a short money basis, lacking milling facilities. The Tungsten Hill mine produced nearly 1,000 tons since the first of 1954, but received credit for only about one-third of the scheelite actually contained in the

ore, as nearly as I can determine.

The Round Valley Mine suffered the same experiment, but on a smaller scale; it was only hand-mined in recent months for selected, hand-picked ores, for which the mills paid the producer little or nothing.

The only solution to these problems is to set a good modern milling plant on the Round Valley millsite, or proximate thereto, set low enough to receive ores from both mines, mostly by level haulage for a long time. Meanwhile, some intermediate workings can be opened for ore production and for convenience in hauling. The whole arrangement will make for exceedingly economical operating conditions. This, in turn, means very low grade ores may be treated when necessary - ores that would have to be wasted in other mines where higher costs prevail.

All other conditions are favorable; there is an old tailings pile, estimated to contain something between 15 and 20,000 tons of mill waste from Round Valley mill operations and other mines, produced when scheelite prices were low and treatment methods less efficient than now. Maybe this pile can be retreated.

Ore bodies are wide and easy to mine. Most of the workings will be dry all the time; some water may be encountered at depth, but not for some years. Most of the ground stands well, requiring but little timber; the mining plan will permit stowing waste in exhausted stopes, making for a minimum of waste haulage. Advance drilling for exploration can be held at a minimum as to footage and costs.

Ample water for milling is available, and the cost will be low. Electric power lines are in. Service may be had at the mill and at both mines, with but a few hundred feet of secondary line.

Ample labor is usually available, and mostly experienced in mining and milling. The mines are close to towns and the highways are mostly paved. All-year operations can be safely planned.

Taking all these things into consideration, this project seems to be exceptionally good for quick results, for easy and economical operation. For a time, at least, there is a fixed price for the product. I am inclined to believe that the government purchasing program will again be extended, but if such is not the case, then the open market prices will likely remain high without any government support.

The use of tungsten metal and the alloys of tungsten is increasing; it is so much higher now than in previous years that historical data on consumption and prices are of no present value. The current market requirements are reported to be greater than at any time in the past, and 20 times higher than in pre-war periods. If the market prices for scheelite concentrate should fall after completion of the government purchasing program, then this project would still be in a favorable position, as it would and could compete successfully with any other local producer and could continue to operate profitably on a price range where the big properties would lose money.

When funds are available, we can build a 50-ton daily capacity plant in 100 days, and can have the mines ready to produce continuously by that time. A 100-ton plant would be most desirable, if exploration work is successful as expected.

I believe part of the equipment could be acquired on a part cash and part stock basis, if so desired; dealers in milling machinery have expressed to me a willingness to participate in projects in the Bishop districts. It is possible that some governmental financing might be worked out to build the mill, but I would be cautious about depending upon government loans because of the time required to get projects approved. Time is so important that private financing in this case is much the best.

You already have a more or less detailed report of each of the two mines. Attached hereto is a summarized estimate of the costs of the planned program for the whole project, except for the initial exploratory drilling and tunnelling for exploration now being considered on a DMEA basis. This estimate is based on the proposition that a newly organized company would furnish the money needed to open the mines, build the mill and furnish working capital for the initial stages. A 50-ton mill is recommended at the outset, with provisions for a second unit of 50-tons soon.

In these estimates, I have not included the purchase prices or costs of purchase of the properties, but instead have shown a royalty on the ore produced. On that basis, the operating company would pay a perpetual royalty on production, while the mine owners would receive that royalty and charge off a suitable depletion charge against their investment. There are a number of ways to treat this, but the overall costs figure out about the same.

The estimate of anticipated profit is based on an assumed average grade of ore and an assumed percentage of extraction, both of which seem to me to be reasonable and conservative, according to present information on both of the properties.

The operating costs may be looked upon as being too low by engineers who are familiar with other tungsten properties, but who may not know the combination of conditions at the Tungsten Hills which makes for low cost production. When I figure that an extraction of eight pounds of tungstic acid per ton of ore will yield a profit, I do so advisedly. I believe the whole project is sound and favorable. The quicker it is started the safer and more profitable the outcome will be.

Yours very truly,

Frank R. Wicks

Consulting mining & industrial engineer.
Registered engineer #2370, California.

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ESTIMATED COSTS OF OPERATION AND ESTIMATED PROFITS OF THE CONSOLIDATED PROJECT FOR TUNGSTEN HILL MINE AND ROUND VALLEY MINE, WITH CONCENTRATION-FLOTATION PLANT TO SERVE BOTH PROPERTIES UNDER JOINT PROGRAM.

	Estimated cost per dry ton of ore mined and treated.	
	Tungsten Hill	Round Valley
	$	$
Advance developments charge off exclusive of ore mined or now opened but including DMEA reimbursement on exploration ore	1.00	1.00
Direct mining of ore	3.20	4.25
Tramming of ore to mill	1.00	0.20
Direct milling	4.60	4.80
Operating overhead	1.20	1.40
Depletion or royalties	1.00	1.00
Depletion, depreciation or to retire investment as may be	1.35	1.45
Taxes & insurance	1.50	1.50
Total estd. production costs	$14.85	$15.60
Estimated production ratio	25%	75%
Estimated average operating costs, jointly per dry ton treated	$15.40	

Crude value of ore, estimated at 0.4% WO_3 or 8 pounds.
Est'd net extraction 85% or 0.34% WO_3 or 6.8 pounds.
Est'd average sales price of product $3.00 per pound WO_3.
Est'd product value per ton, 6.8# at $3.00/# $20.40

Est'd net return per dry ton treated $5.00

Federal income tax and corporation tax not included.

On this basis the project would earn $6,500 to $7,000 per month, less Federal taxes, returning the whole capital investment in about four years.

FRANK R. WICKS

SUMMARY OF THE PRELIMINART ESTIMATES OF COSTS TO EQUIP THE TUNGSTEN HILL MINE AND THE ROUND VALLEY MINE, AND TO PUT BOTH MINES IN OPERATION, WITH A COMPLETE MILLING PLANT SERVING BOTH.
February 12, 1956.

Tungsten HillMine:		
Mining equipment	$26,000	
Mine development & preparation	10,000	
Road improvement for temporary haulage	1,000	
Other items	5,000	
		$42,000
Round Valley Mine:		
Mining equipment	$33,000	
Mine development & preparation	14,000	
Other items	5,000	
		$52,000
Milling Plant:		
Property purchase	$ 5,000	
Mill building & equipment	70,000	
Water system, piping & pumps	8,000	
Electric power & deposits	6,000	
Waste disposal ponds	2,000	
Other items	7,000	
		$98,000
Overhead Plant:		
Office, laboratory, shops & other	$15,000	
Equipment & facilities in these	9,000	
Trucks and cars	12,000	
Insurance, all prior to production	10,000	
Ogganization expense	5,000	
Engineering & supervision	10,000	
		$61,000
Total investment required to start production with everything paid for to date of starting, except properties being purchased on royalties, and government equity on some ores on DMEA contract		$253,000
Operating capital for 60-days		30,000
Maximum total investment for proposed program		$283,000

Frank R. Wicks

FRANK R. WICKS

Addendum Sheet No. 8
Application for aid in mine exploration.
Ralph Shupe, 1521 W. 79th St., Los Angeles 47.

List of Equipment now owned by Ralph E. Shupe, and to be made available for exploration work on Round Valley Cons. Mines Project, if and when needed, on the basis of rental at 10% of the estimated present value. Rental to be figured on each item separately for time actually used.

1.	Chevrolet Flat Bed truck, 4-wheel type	$700.
2.	#38 Thor jack hammer and jack leg	$350
3.	#60 sinker and jack leg	$350
4.	Copco Rock Drill and jack leg	$350
5.	Gorman portable water pump	$100
6.	1 mine car, track can & ore bin	$1000
7.	#70 Thor Rock Drill	$125
8.	Davy #210 air compressor on wheels	$1100
9.	LeRoi air comressor	$1600
10.	Air hose and ~~pipe and mine track~~	~~$2000~~
11.	Air receiver tank	$200
12.	~~Drill steel and rock bits~~	~~$350~~
13.	Slusher rig and scraper	$1000
14.	Bit grinder	$75
15.	Miscellaneous tools	$100
	Total listed	$9400 2350 7050

DMEA Addendum sheet 9
Ralph E. Shupe.
1521 W.79 St.Los Angeles 47.

Round Valley Consolidated Mines Project. See large map.
Tentative Locations for Core Drill Holes for Tungsten Ore.

Hole No.	Name of Claim See Map	Co-ordinates East	North	Approx. Elevations Surface	Ore?	Probable Ft. Depth of Hole
1	Big Shot No. 1	7780	5300	5030'	4880'	150'
2	"	7650	5160	5040	4840	200
3	"	7780	5010	5040	4890	150
4	"	7825	5180	5070	4980	90
5	"	7825	5030	5120	5020	100
6	Big Shot No. 2	8380	5225	5170	5040	130
7	"	8380	5030	5140	5090	50
8	"	8600	5150	5220	5100	120
9	"	8600	5370	5180	5000	180
10	"	8950	5150	5300	5200	100
11	Big Shot No. 3	8950	4920	5340	5240	100
12	"	9180	5190	5410	5240	190
13	"	9475	4920	5580	5360	220
14	Haco No. 1	9475	5190	5500	5260	220
15	Haco No. 4	9710	4750	5700	5510	190
16	Haco No. 1	9710	4920	5700	5450	250
17	Haco No. 1	9710	5190	5500	5350	150
18	Haco No. 1	9960	4750	5700	5590	110
19	Haco No. 1	10240	4750	5670	5550	120
20	Haco No. 1	10240	4890	5650	5500	150
	The following in mine workings - slant holes					
A-1	Big Shot No. 1	7700	5190	4885	-5°N-NW	50
A-2	"	7725	5150	4885	-45°S-SW	75
A-3	"	8090	5300	5005	-45°S-SE	50
A-4	"	8280	5340	5050	-45°S-SE	75
A-5	Haco No. 1	9825	4890	5512	-45°NW	50
A-6	"	9960	4880	5517	-75°SE	100

Total Drilling from surface locations 2970 feet; average depth 148.5 Ft.
Total Drilling from underground works 400 feet; average depth 69 Ft.
Total proposed drill core work 3370 feet.

FRANK R. WICKS

(Copied for DMEA application)

Schroter & Lockwood, Inc.
Consulting engineers - Geologists.
3515 Sunset Blvd. Los Angeles. Normandy 3-2266

RECEIVED JAN 25 1957 D.M.E.A.

Mr. R. E. Shupe,
1521 West 79th St.,
Los Angeles 47, Calif.

Subject: Round Valley Tungsten Property
Tungsten Hills, Inyo County, Calif.

Dear Mr. Shupe:

In accordance with your instructions, this facility has conducted a reconnaissance examination of your Round Valley Tungsten Claims, in Tungsten Hills approximately nine miles west of Bishop, California. It must be pointed out that the findings herewith are based only on reconnaissance, and as such, are subject to revision with more detailed engineering study.

General Geology: An intrusive contact between a series of steeply dipping metasediments on the south, and a granitic rock on the north, trends N-78°W through the claim group. The intruded segments have been selectively altered and mineralized as a result of composition differences and pyrometasomatic activity. Certain zones of limestone and marble are altered to a garnet-diopside tactite and in the vicinity of the contact are hosts for localized, butpersistant scheelite mineralization. Examination of the meta-sediments between the previously operated portions of the property on the east and west, exposed in numerous places bulldozer cuts, did not indicate potentially suitable host rocks for scheelite deposition. However, additional study of this section would be warranted during subsequent detailed examination.

Ore Occurrence: Observations both in the Round Valley workings to the west, and the Tungsten Hills workings on the east, indicate mineralized widths in excess of six feet and stope lengths of 100 feet, more or less. Stope horizons, are restricted to certain favorable calcareous horizons, and to a subordinate zone in close proximity to the intrusive contact. In the western workings this contact dips approximately 60° to the south resulting in a southwesterly rake to the ore shoots. Judging from the stope measurements, commercial mineralization appears to have continued for a minimum of 550 feet down the dip.

In the Tungsten Hills workings, commercial contact relationships can not be deciphered without detailed surface and underground geological mapping, i. e., basic and critical phenomena pertaining to the structural control and ore shoot localization, could not be ascertained within the time available for this study.

ascertained within the time available for this study.

DEVELOPMENT POSSIBILITIES

Although basic and necessary geological mapping, heretofore never made, may indicate otherwise, the reconnaissance evidence indicates that favorable areas for additional exploration are limited principally to downward continuations of known oresshoots. The Round Valley mine has been worked to a vertical depth of some 200 feet below the surface. Round financial computations, in terms of known assay values, suggest the economic futility for deeper ore shoots in this locality. In other words, existing settlement prices for Tungsten, together ofngrade of ore here indicated, very likely would not defray development and hoisting charges at depth in the Round Valley.

The deepest workings of the Tungsten Hills Mine are an estimated 400-500 ft. above the valley. This is suggestive ofmore favorable costs if the ore shoots or continuations ofold shoots are located. Dumps resulting from the upper workingsindicate that most of the ore was stoped and shipped by the old timers. This is a remarbable vertical continuity for pyrometasomatic scheelite deposits. Evidence suggests that there are a better than average expectancy that continuations of the Tungsten Hills Ore Shoots, as well as favorable exploration objective for new shoots, can be predicted on the basis of detailed surface and underground geologic mapping. One would expect to conduct exploration work based on such mapping, via both the diamond drill and an exploration winze from the lower level of the present workings provided such a winze could be driven in ore.

Assuming from the evidence a 6 ft stope width, loo ft stope length, and a pitch length of 500 ft, one would contemplate approminately 30,000 tons of ore for this area. It will be understood that this figure is only indicative, since it is based on reconnaissance work only. Since contact ore shoots of this type are notorious for pinches and swells, a stope width of 6ft has bee n taken as an average even though measureable widths are considerably greater than this figure, Greater stope widths would naturally mean tonnage in excess of the above but only development work will indicate stope dimensions,

SUGGESTED DEVELOPMENT PROGRAM

Dult considering reconnaissance geology, history of the properties stope dimensions, and economic factory of cost and settlement, the property merits the following program.

1. Surface geology should be mapped on a scale not smaller than 100 feet per inch. Underground geology should be mapped on a scale of not less than 30 feet per inch. Preceding such mapping basic engineering control via transit surveys must be provided for plane table mapping, topogtaphy, amd ore shoot estimation, Compile results into working maps and usable gross sections. Estimate costs, designate drill hole sites and objectives. Time

requirements three to four weeks. Estimate cost fees, labor labratory, blue prints, living and traveling expenses $4000.- $5000.

2. Contingent upon favorable findings of Stage 1, Stage 2 is actual exploration work. This may be accomplished with diamond drilling, by the sinking of a winze, from the lower levels of the Tungsten Hills , by driving of entries or by a combination of all of these methods. For a "thinking" development cost assume the driving of a 5' x 6' winze at $72./ft, following establishment of basic geology and engineering. Based on the above assumptions of shoot dimension and tonnage the approximate total cost of engineering, geology and development for the initial 30,000 tons would be $2.00 per tom.

ECONOMICS.

Assuming that a minimum of 100,000 tons of positive ore has been developed in order to assure mill feed and distribute liquidation costs, it now becomes necessary to make a rough profit and loss estimate of a proposed operation in this ground.

Assuming the operation is adequately financed, management should have the option to dispose of ore as follows:

1. SHIP TO EXISTING RED HILL CUSTOM MILL. Treatment charge $9.00/ton. Recovery guaranteed- none; estimated recovery from best available evidence this mill 70%,

2. SHIP TO PINE CREEK MILL OF UNION CARBIDE NUCLEAR. Anticipated purchase price for 0.5% WO_3 $28.25 per unit.

3. ERECT CONCENTRATOR ON THE GROUND. Estimated cost of 100-ton gravity concentrator and cleaning unit- $100,000. estimated recovery - 78%

TABLE 1.

COMPARATIVE APPROXIMATE P/L- TUNGSTEN HILLS
Estimate mill head - 0.5% WO_3)

	1. CUSTOM MILL		2. PINE CREEK.		3. FORCE ACCOUNT.	
	CH.	CR.	CH.	CR	CH.	CR.
Mill Head		$27.40		$14.13		$27.50

Continued

	CH	CR	CH	CR	CH	CR
Tail Loss	(30%) 8.22.				(33%)6.05	
Haulage	1.25		2.50		-	
Treatment	9.00				3.00	
Liquidation (100,000T)	.30		.30		1.30	
Royalty/contract	1.93		1.45		2.15	
Development	2.00		2.00		2.00	
Stope,tram,hoist	5.00		5.00		5.00	
Surface	1.25		1.25		1.25	
Engr/& Burden	1.00	29.95	1.00	13.50	1.00	21.75
Approx. P/L	Loss	$2.45 Profit		.63 Profit		5.75
				Less freight on conc.		

This analysis indicates that for this grade of ore it is not profitable to ship to either the local custom mill or to Pine Creek. It therefore becomes necessary to develop a sufficient tonnage to justify erection of a mill or to gamble on the discovery of a higher grade ore. For instance, a difference of 0.1% in the grade of the mill head represents a gross return of $5.50 above the figure shown for custom milling. After due allowance for freight to point of sale and containers, 0.6% WO 3 would probably approximate the break-even point for custom milling.

Stope development, tramming and extraction costs cannot ofvourse bw any more tha n approximately at this time. Average figures are used after due consideration of the fact that the ground stands well and stope dilution will probably be a minor factor.

CONCLUSIONS

Assuming that operators are satisfied with the rather harsh deal, and that titles are good and sufficient. then the following recommendations are in order:

1.Perform detailed engineering and geologic mapping anf sampling as recommended above. Estimate budget - $5,000 maximum.

2. Based on favorable findings of recommendation #1, suitablr development steps, based upon said findings, should be inaugurated. Estimated budget approximately $50,000.

3. Based on favorable development of recommendation #2, property is ready for exploitation. Whether or not ores should be milled on the property or shipped to custom millers depends entirely upon toggage and grade of ore developed. Certainly there is no geologically valid basis to assume that tagtite ores of this type cover broad sweeping vistas of the landscape merely because mineralization is exposed to a series of openings maby thousabds of feet apart. Rather one would expext a series of smaller shoots of varying dimensions and grades.

Water development is a function of metallurgy and it is assumed that arrangements therefor would be made during recommendation #2.

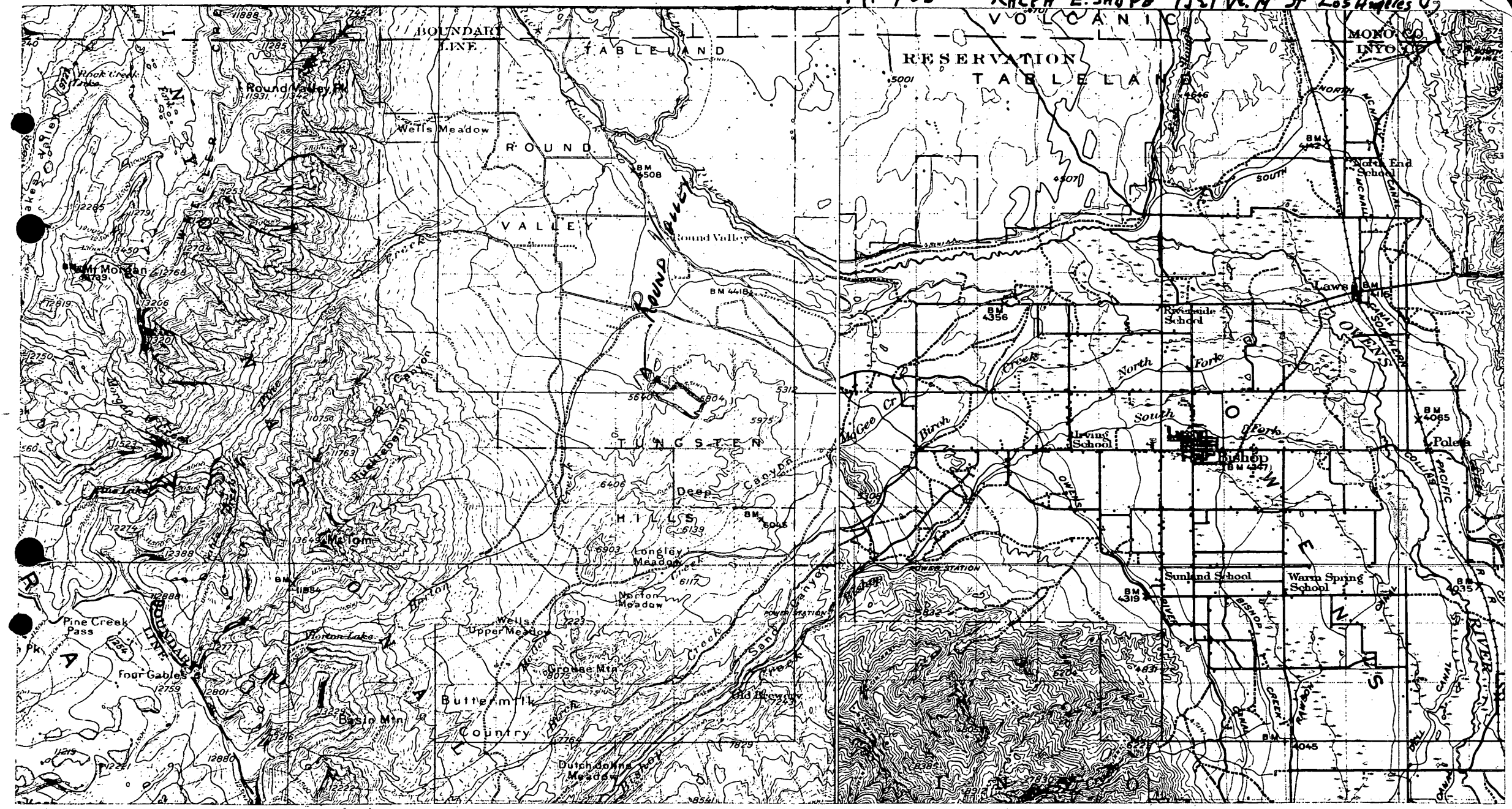
Assuming now that a sufficient tonnage of ore has been developed under recommendation #1, and management has elected to concentrate ore on the property, then one should think in terms of approximately $130,000 - $150,000 budget for erection of concentrator and provision of necessary surface facilities.

Very truly yours,

Schroter-Lockwood & Associates

(signed, R. Bruce Lockwood.

MF-103 RALPH E. SHUPE 1521 W. 79th St Los Angeles



NOTICE OF LOCATION. QUARTZ CLAIM.

Notice is hereby given that the undersigned hereby locates and claims the following described piece of mineral bearing ground as a mining claim. From this discovery monument 100 feet in a south easterly direction and 1400 feet in a north westerly direction and three hundred feet on each side of the middle of the vein. This claim is located about 3/4 mile East from the Old Western Tungsten Mill Site and on the north east side of Elec. Power line running through this country to U. S. Vanadium (about 200 yds N. E. of Power Line) The general course of the vein or ledge is N. W. and S. E., the size of the claim is 1500 feet long by 600 feet wide. This claim shall be known as the HACO #1 situated in the R. V. Mining District, County of Inyo, State of Calif. Located this 13th day of Dec. 1947.

Witness: H. V. Hague

Tom Coleman Locator

Filed for record at the request of Tom Coleman,

Dec. 15, 1947, 5 Minutes past 9 o'clock A. M.

#111 Fee $1.00

Mamie Reynolds, Recorder

By Nellie Fries, Deputy Recorder.

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing

to be a full, true and correct copy of

Mining Locations

as the same appears on record in my office in Volume

58 of Mining Locations at page

298, Records of Inyo County.

Witness my hand and seal of said County Recorder this

14th day of December 1956

Richard F. Oyler County Recorder

By Lenore J. Miller Deputy

NOTICE OF LOCATION. QUARTZ CLAIM.

Notice is hereby given that the undersigned hereby locates and claims the following described piece of mineral bearing ground as a Mining Claim. From this discovery monument 1500 feet in a south easterly direction and No feet in a north west direction and three hundred feet on each side of the middle of the vein. Extension of and joining Haco #1 on south east end. The general course of the vein or ledge is S. E, and N. W, the size of the claim is 1500 feet long by 600 feet wide. This claim shall be known as the HACO #2 situated in the R. V. Mining District, County of Inyo, State of Calif. Located this 10th day of Jan. 1948

Tom Coleman

G. Crawford

V. Hague

Witness Locator

STATEMENT OF MARKING OF BOUNDARIES AND PERFORMANCE OF REQUIRED DISCOVERY WORK.

The undersigned, locators of the lode mining claim described in within notice of location, states: That in accordance with Section 2302 of the Public Resources Code we defined the boundaries of the claim in the manner following: from discovery monument 300' in a S. W. direction thence 1500' S. E. thence 600' N. E. thence 1500' N. W. thence 300' S W to start.

That within sixty days after the location of the lode mining claim described in the within notice, to-wit; between the 10th day of Jan 1948 and the 10th day of March, 1948, we erected at each corner of the claim and at the center of each end line, or the nearest accessible points thereto rock monuments., as required by Section 2302 of the Public Resources Code: That within ninety days after the date of the location of the lode mining claim described in the within notice, to-wit: between the 10th day of Jan, 1948 and the 10th day of Apr. 1948 we performed the following discovery work in accordance with the requirements of Section 2304 of the Public Resources Code: Open cut, removing at least 10 yds of rock and dirt.

Dated at Bishop this 26 day of Mar, 1948.

Tom Coleman

G. Crawford

V. Hague

Filed for record at the request of G. Crawford,

Apr. 14, 1948, 5 Minutes past 9 o'clock A. M.

#73 Fee $1.00

Mamie Reynolds, Recorder

By Elva E. Bell, Deputy Recorder.

MAY 26 1951 OMEGA

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume 58 of Mining Locations at page 388, Records of Inyo County.

Witness my hand and seal of said County Recorder this 14th day of December 1955

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy

NOTICE OF LOCATION. QUARTZ CLAIM.

Notice is hereby given that the undersigned hereby locates and claims the following described piece of mineral bearing ground as a mining claim. From this discovery monument 300 feet in a easterly direction and 1200 feet in a westerly direction and three hundred feet on each side of the middle of the vein. Extension of Haco #1 and joining Haco #2 on east side. The general course of the vein or ledge is East and West., the size of the claim is 1500 feet long by 600 feet wide. This claim shall be known as the HACO #3 situated in the R. V. Mining District, County of Inyo, State of Calif. Located this 17th day of Jan. 1948

Tom Coleman

Witness G. Crawford

V. Hague

Locator

STATEMENT OF MARKING OF BOUNDARIES AND PERFORMANCE OF REQUIRED DISCOVERY WORK

The undersigned, locators of the lode mining claim described in within notice of location states;

That in accordance with Section 2302 of the Public Resources Code we defined the boundaries of the claim in the manner following: From this monument 300 ft east thence 300 ft south thence 1500 ft west thence 600 ft north thence 1500 ft east thence 300 ft south.

That within sixty days after the location of the lode mining claim described in the within notice, to-wit: between the 17th day of January, 1948 and the 17th day of March, 1948, we erected at each corner of the claim and at the center of each end line, or the nearest accessible points thereto rock monuments as required by section 2302 of the Public Resources Code: That within ninety days after the date of the location of the lode mining claim described in the within notice, to-wit: between the 17th day of Jan. 1948 and the 17th day of Apr, we performed the following discovery work in accordance with the requirements of Section 2304 of the Public Resources Code: Approach to tunnel, removing not less than 10 yards rock & dirt. Dated at Bishop this 5th day of Apr. 1948.

Tom Coleman

G. Crawford

V. Hague

Filed for record at the request of G. Crawford,

Apr. 14, 1948, 5 Minutes past 9 o'clock A. M.

#74 Fee $1.00

Mamie Reynolds, Recorder

By Elva E. Bell, Deputy Recorder.

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing

to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume

58 of Mining Locations at page

389, Records of Inyo County.

Witness my hand and seal of said County Recorder this

14th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller, Deputy

NOTICE OF LOCATION. QUARTZ CLAIM.

Notice is hereby given that the undersigned hereby locates and claims the following described piece of mineral bearing ground as a mining claim. From this discovery monument 425 feet in a south easterly direction and 1075 feet in a north westerly direction and three hundred feet on each side of the middle of the vein. Extension of and on south west side of Haco #1. The general course of the vein or ledge is N. W. and S. E., the size of the claim is 1500 feet long by 600 feet wide. This claim shall be known as the HACO #4 situated in the R. V. Mining District, County of Inyo, State of Calif. Located this 17th day of Jan. 1948.

Tom Coleman

Witness G. Crawford

V. Hague

Locator

STATEMENT OF MARKING OF THE BOUNDARIES AND PERFORMANCE OF REQUIRED DISCOVERY WORK.

The undersigned locators of the lode mining claim described in within notice of location, states: That in accordance with Section 2302 of the Public Resources Code we defined the boundaries of the claim in the manner following: 425 ft S. E. thence 300 ft S. W. thence 1500 ft N. W. thence 600 ft N. E. thence 1500 ft S. E. thence 300 ft S. W. That within sixty days after the location of the lode mining claim described in the within notice to-wit: between the 17th day of Jan, 1948 and the 17th day of Mar, 1948, we erected at each corner of the claim and at the center of each end line, or the nearest accessible points, thereto, rock monuments as required by Section 2302 of the Public Resources Code: That within ninety days after the date of the location of the lode mining claim described in the within notice, to-wit: between the 17th day of Jan, 1948 and the 17th day of Apr. 1948, we performed the following discovery work in accordance with the requirements of Section 2304 of the Public Resources Code: Open cut not less than 10 yds rock & dirt moved. Dated at Bishop this 26th day of Mar. 1948.

Tom Coleman

G. Crawford

V. Hague

Filed for record at the request of G. Crawford,

Apr. 14, 1948, 5 Minutes past 9 o'clock A. M.

#75 Fee $1.00

Mamie Reynolds, Recorder

By Elva E. Bell, Deputy Recorder

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume 58 of Mining Locations at page 390, Records of Inyo County.

Witness my hand and seal of said County Recorder this 14th day of December 1956

Richard F. Oyler County Recorder

By Elinor J. Miller Deputy

NOTICE OF LOCATION OF QUARTZ CLAIM

Notice is hereby given that the undersigned citizen of the United States, ha discovered a vein of rock in place, carrying gold, silver, or other valuable deposits, upon which we have erected a discovery monument and posted this notice; that in accordance with the mining laws of the United States and the local customs, laws and regulations we hereby claim fifteen hundred (1500) feet along the course of said vein, and a width of three hundred (300) feet on each side of center line thereof.

General course of vein Easterly and Westerly. Discovery monument consists of Wood and Stone situate about two miles South of Round Valley. This claim shall be known as the BIG SHOT TUNGSTON Mining claim. Its boundaries are as follows: Beginning at location monu running thence 900 feet westerly and 600 Easterly together with 300 feet on each side of center bounded on the South by Big Shot No 1 and is a relocation of the Round Valley Tungston thence to place of beginning. Situate in Unknown mining district Inyo County, Calif. Location made and notice posted this 15 day of July 1934.

Howard Stevens

Al Stevens

Witness Locator

Filed for Record at the request of Al Stevens

Aug 15 1934, 10 Minutes past 9 o'clock A. M.

#131 Mamie Reynolds, Recorder.

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume 46 of Mining Locations at page 109, Records of Inyo County.

Witness my hand and seal of said County Recorder this 14th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy

NOTICE OF LOCATION QUARTZ CLAIM

Notice is hereby given that the undersigned citizen of the United States, ha discovered a vein of rock in place, carrying gold, silver or other valuable deposits, upon which we have erected a discovery monument and posted this notice; that in accordance with the mining laws of the United States and the local customs, laws and regulations we hereby claim fifteen hundred (1500) feet along the course of said vein, and a width of three hundred (300) feet on each side of center line thereof.

General course of vein Easterly and Westerly. Discovery monument consists of a mon of wood and stone situate about two miles South of Round Valley. This claim shall be known as the BIG SHOT NO 1 Mining claim. Its boundaries are as follows: Beginning at location mon running thence 750 feet Easterly and 750 Westerly together with 300 feet on each side of center bounded on the South side by Big Shot No 2 on the East by the Big Shot No 2. This is a relocation of the Round Valley Tungston thence to place of beginning. Situate in Unknown Mining district Inyo County, Calif. Location made and notice posted this 15 day of July 1934.

Howard Stevens

Al Stevens

Locator

Witness

Filed for Record at the request of Al Stevens
Aug 15 1934, 10 Minutes past 9 o'clock A. M.
#132

Mamie Reynolds, Recorder.

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume 46 of Mining Locations at page 109, Records of Inyo County.

Witness my hand and seal of said County Recorder this 17th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy

NOTICE OF LOCATION OF QUARTZ CLAIM

Notice is hereby given that the undersigned citizen of the United States, ha discovered a vein of rock in place, carrying gold, silver, or other valuable deposits, upon which we have erected a discovery monument and posted this notice; that in accordance with the mining laws of the United States and the local customs, laws and regulations we hereby claim fifteen hundred (1500) feet along the course of said vein, and a width of three hundred (300) feet on each side of center line thereof.

General course of vein Easterly and Westerly. Discovery monument consists of Monument of stone and wood. Situate about two miles South of Round Valley. This claim shall be known as the BIG SHOT NO 2 Mining claim. Its boundaries are as follows: Beginning at location mon running thence 750 feet Easterly and 750 feet Westerly together with 300 feet on each side of center. Bounded on the South by the Big Shot No 3 on the North by the Big Shot No 1 on the East by the Big Shot No 4. This is a relocation of the Round Valley Tungston thence to place of beginning. Situate in Unknown mining district Inyo County, Calif. Location made and notice posted this 15 day of July 1934.

Howard Stevens

Al Stevens

Witness Locator

Filed for Record at the request of Al Stevens

Aug 15 1934, 10 Minutes past 9. o'clock A. M.

#133 Mamie Reynolds, Recorder.

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing

to be a full, true and correct copy of Mining Location

as the same appears on record in my office in Volume 46 of Mining Locations at page 110, Records of Inyo County.

Witness my hand and seal of said County Recorder this 14th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy

NOTICE OF LOCATION OF QUARTZ CLAIM

Notice is hereby given that the undersigned citizen of the United States, ha discovered a vein of rock in place, carrying gold, silver, or other valuable deposits, upon which we have enected a discovery monument and posted this notice; that in accordance with the mining laws of the United States and the local customs, laws and regulations we hereby claim fifteen hundred (1500) feet along the course of said vein, and a width of three hundred (300) feet on each side of center line thereof.

General course of vein Easterly and Westerly. Discovery monument consists of wood and stone situate about two miles South of Round Valley. This claim shall be known as the BIG SHOT NO 3 Mining claim. Its boundaries are as follows: Beginning at location mon running thence 750 feet Westerly and 750 Easterly together with 300 feet on each side of center. This is a relocation of the Round Valley Tungston bounded on the South side by the Big Shot No 2 on the East by the Big Shot No 4 thence to place of beginning. Situate in Unknown mining district Inyo County, Calif. Location made and notice posted this 15 day of July 1934.

Howard Stevens

Al Stevens

Witness Locator

Filed for Record at the request of Al Stevens

Aug 15 1934, 10 Minutes past 9 o'clock A. M.

#134 Mamie Reynolds, Recorder. ✓

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing

to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume

46 of Mining Locations at page

110, Records of Inyo County.

Witness my hand and seal of said County Recorder this

14th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy

NOTICE OF LOCATION OF QUARTZ CLAIM

Notice is hereby given that the undersigned citizens of the United States, ha discovered a vein of rock in place, carrying gold, silver, or other valuable deposits, upon which we have erected a discovery monument and posted this notice; that in accordance with the mining laws of the United States and the local customs, laws and regulations we hereby claim fifteen hundred (1500) feet along the course of said vein, and a width of three hundred (300) feet on each side of center line thereof.

General course of vein Easterly and Westerly. Discovery monument consists of wood and stone situate about two miles South of Round Valley. This claim shall be known as the BIG SHOT NO 4 Mining claim. Its boundaries are as follows: Beginning at location mon running thence 650 feet Easterly and 850 feet Westerly together with 300 feet on each side of center. This is a relocation of the Round Valley Tungston bounded on the South by the Big Shot No 3 thence to place of beginning. Situate in Unknown mining district Inyo County, Calif. Location made and notice posted this 15 day of July 1934.

Howard Stevens

Al Stevens

Witness. Locator

Filed for Record at the request of Al Stevens

Aug 15 1934, 10 Minutes past 9 o'clock A. M.

#135 Mamie Reynolds, Recorder.

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume 46 of Mining Locations at page 110, Records of Inyo County.

Witness my hand and seal of said County Recorder this 14th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy

NOTICE OF LOCATION OF QUARTZ CLAIM

Notice is hereby given that the undersigned citizens of the United States, have discovered a vein of rock in place, carrying gold, silver, or other valuable deposits, upon which we have erected a discovery monument and posted this notice; that in accordance with the mining laws of the United States and the local customs, laws and regulations we hereby claim fifteen hundred (1500) feet along the course of said vein, and a width of three hundred (300) feet on each side of center line thereof.

General course of vein Easterly and Westerly. Discovery monument consists of a post and sand four high situate about 1000 feet North Westerly from the old Round Valley Mill and about two mile S West from State Highway. This claim shall be known as the BIG SHOT TUNGSTEN LODE NO 5 Mining claim. Its boundaries are as follows: Beginning at location mons running thence 750 feet Easterly and 750 Westerly together with 300 feet on each side of center This claim covers one four room house and all the tallings from the old Round Valley Mill. The location work was completed on the 23 of Oct 1937 consists of shaft 6 x 4 x 60 thence to place of beginning. Situate in Unknown mining district Inyo County, Calif. Location made and notice posted this 14 day of Aug 1937. 4 x 6 x 10 shaft is located about 550 feet South from location monument.

Locator

Al Stevens

Howard Stevens

Julius Hubner Witness

Filed for Record at the request of Al Stevens

Oct 27 1937, 35 Minutes past 10 o'clock A. M.

#241

Mamie Reynolds, Recorder.

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of

Mining Location

as the same appears on record in my office in Volume 50 of Mining Locations at page 502, Records of Inyo County.

Witness my hand and seal of said County Recorder this 14th day of December 1956

Richard F. Oyler
County Recorder.

By Elinor L. Miller Deputy

NOTICE OF LOCATION PLACER CLAIM

Notice is hereby Given: That the undersigned citizens of the United States, over the age of twenty-one years, in compliance with the requirements of Chapter VI, Title 32, of the revised Statutes of the United States and the local customs, laws and regulations, have this day located and claim the following described Placer Mining grounds, viz:

Twenty acres in the form of a parrellegram extending 750 feet in a Westerly direction and 750 feet in an Easterly direction together with 300 feet on each side of center. This claim adjoins the side line of the Big Shot Lode and the South side line of this claim being the North side line of the Big Shot Lode claim and the Big Shot Tungsten No 1 claim. The West end line of this claim adjoins onto the East end line of Big Shot Tungsten No 6 claim. The Location monument at which this notice is posted is situated approximately 300 feet in a Westerly direction from the Old Round Valley boarding house. The work has been completed and consists of an open cut over 30 feet long 3 feet deep and 4 feet wide. (240 cubic feet) together with all water and timber appurtenant, allowed by law, are hereby claimed. This claim shall be known as the BIG SHOT PLACER NO 1 Placer Mining Claim and is situated in the Buttermilk Mining District County of Inyo, State of California. Section 34, Township 6-S, Range 31 E. Meridian. Located this 26 day of Sept. 1939. The date of the discovery and posting of this notice is the 26 day of Sept 1939.

Locators

(Witness) Robert O. Boylinis Bessie P. Stevens

Al Stevens.

Filed for Record at the request of Howard A. Stevens

Dec 14 1939, 5 Minutes past 9 o'clock A. M.

#101 Fee $1.00 Mamie Reynolds, Recorder ✓

COUNTY RECORDER'S OFFICE

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of Mining Location as the same appears on record in my office in Volume 53 of Mining Locations at page 83, Records of Inyo County.

Witness my hand and seal of said County Recorder this 17th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy

NOTICE OF LOCATION OF QUARTZ CLAIM

Notice is hereby given that the undersigned citizens of the United States, have discovered a vein of rock in place, carrying gold, silver, or other valuable deposits, upon which we have erected a discovery monument and posted this notice; that in accordance with the mining laws of the United States and the local customs, laws and regulations we hereby claim fifteen hundred (1500) feet along the course of said vein, and a width of three hundred (300) feet on each side of center line thereof.

General course of vein Easterly and Westerly. Discovery monument consists of post of stone & wood situate about 2½ miles South of Round Valley & About 80 feet Westerly from Electric Co pole No 881508 about five feet South of location work. This claim shall be known as the BIG SHOT NO 6 mining claim. Its boundaries are as follows: Beginning at location running thence 750 feet Easterly to East end line & to 750 feet Westerly to West end line thence to place of beginning. Situate in Unknown mining district Inyo County, Calif. Location made and notice posted this 14 day of March 1938. Work consists of an open cut 15 feet long 4 feet wide & 4 feet deep about five feet South of location.

Al Stevens

Howard Stevens

Locator

Bessie Stevens Witness

Filed for Record at the request of Howard Stevens

Jun 14 1938, 10 Minutes past 9 o'clock A. M.

#149

Mamie Reynolds, Recorder.

STATE OF CALIFORNIA }
COUNTY OF INYO } ss.

I, RICHARD F. OYLER, County Recorder of the County of Inyo, State of California, do hereby certify the foregoing to be a full, true and correct copy of

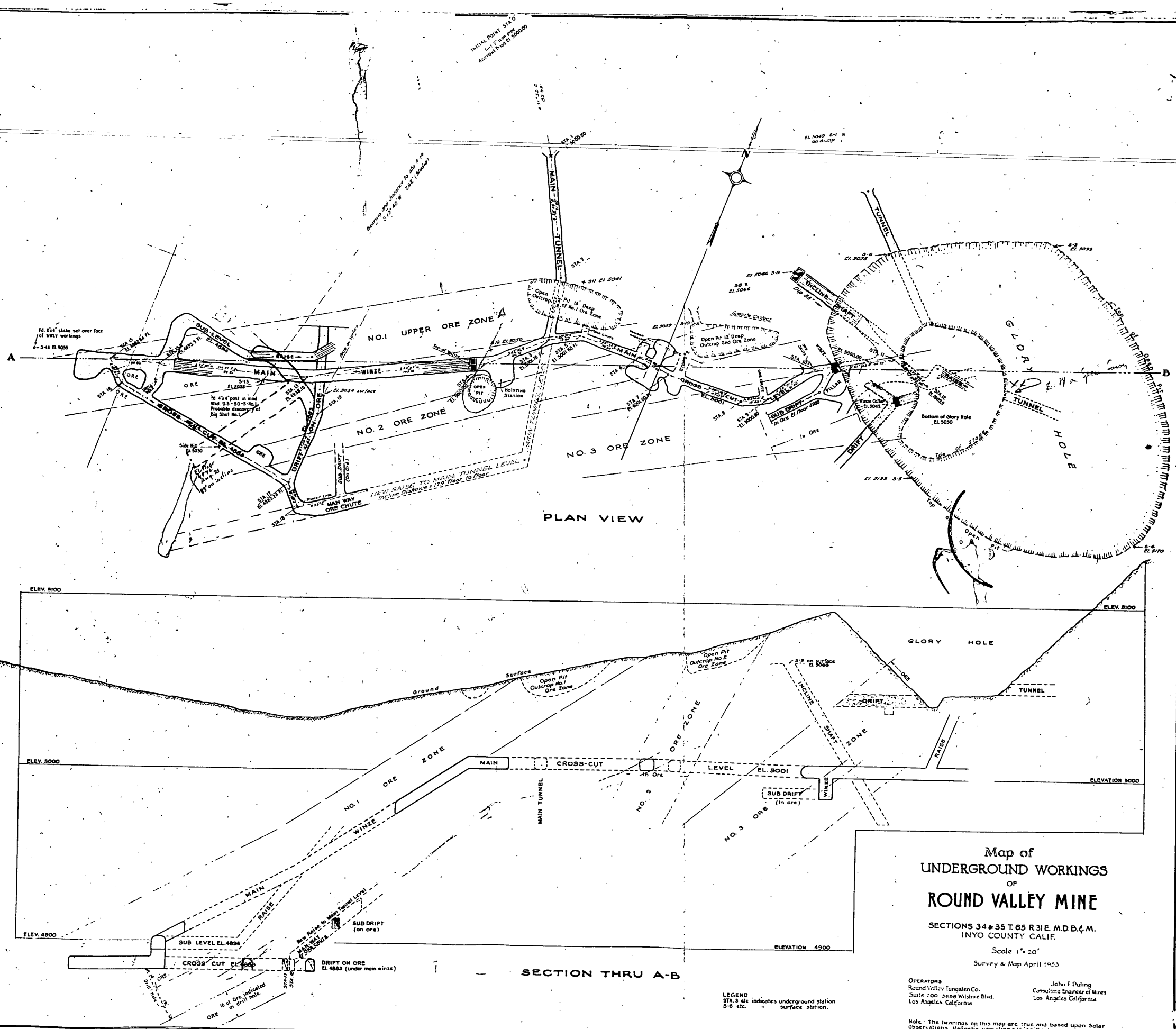
Mining Location

as the same appears on record in my office in Volume 51 of Mining Locations at page 336, Records of Inyo County.

Witness my hand and seal of said County Recorder this 14th day of December 1956

Richard F. Oyler County Recorder

By Vernon J. Miller Deputy



Map of UNDERGROUND WORKINGS OF ROUND VALLEY MINE

SECTIONS 34 & 35 T. 65 R. 31 E. M.D.B.&M.
INYO COUNTY CALIF.

Scale 1" = 20'

Survey & Map April 1953

OPERATORS
Round Valley Tungsten Co.
Suite 200 5658 Wilshire Blvd.
Los Angeles California

John F Duling
Consulting Engineer of Mines
Los Angeles California

Note: The bearings on this map are true and based upon Solar Observations. Magnetic variation = 16°30 East.

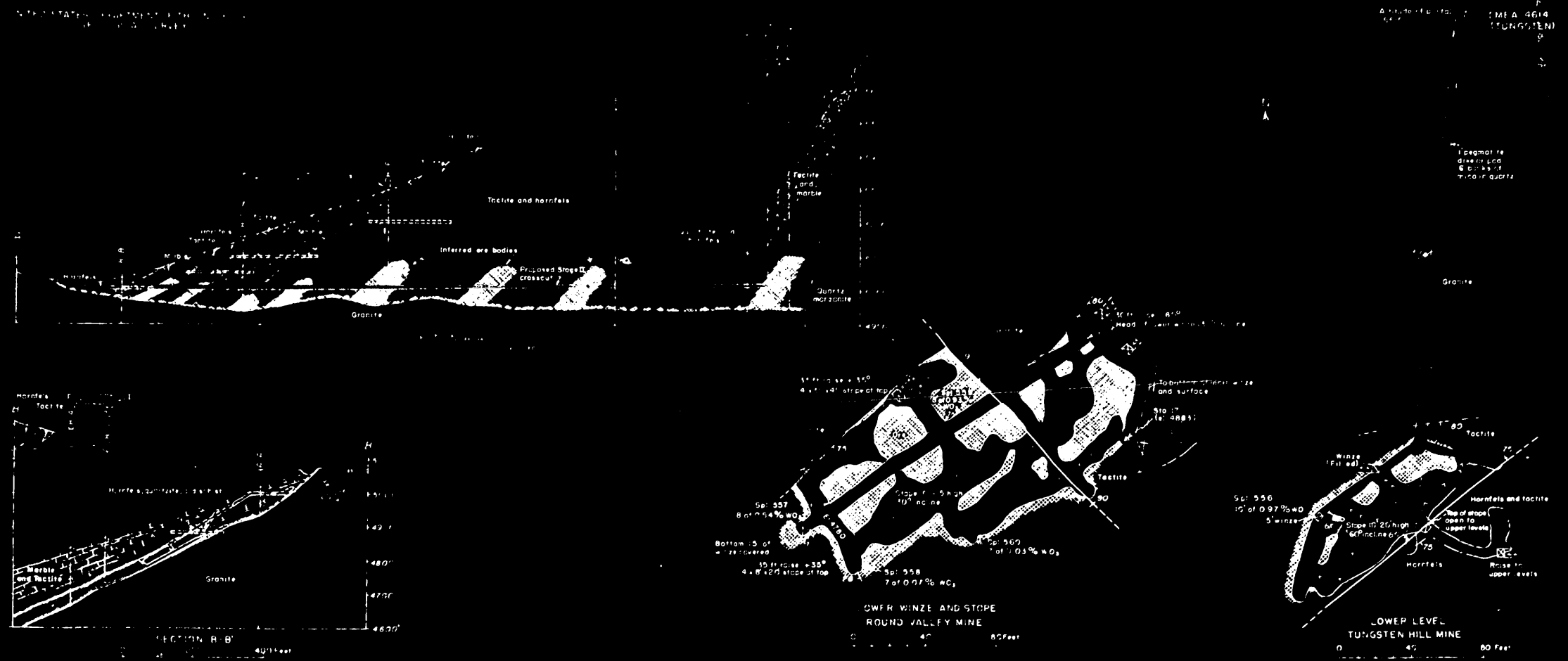
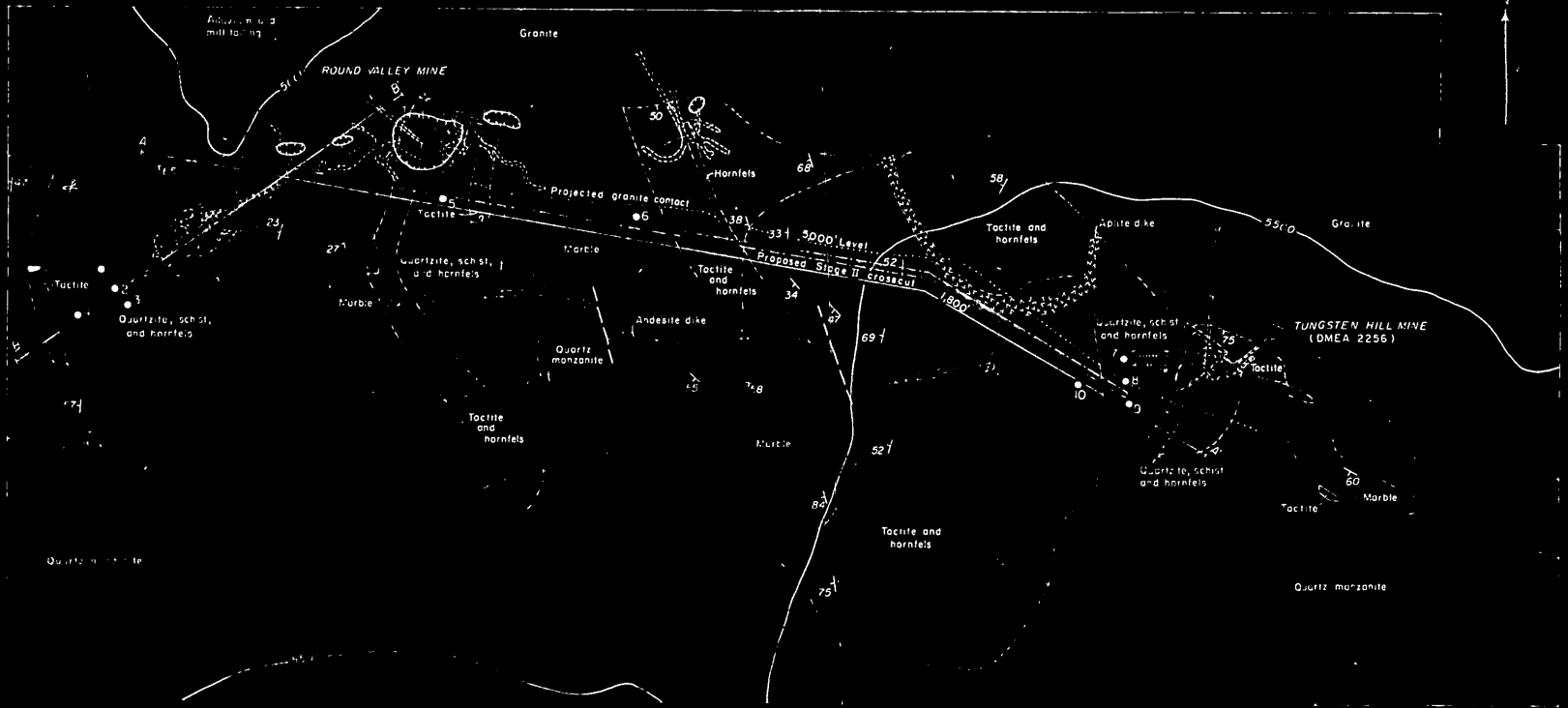


Figure 4 GEOLOGIC CROSS SECTIONS AND LEVEL MAPS, ROUND VALLEY AND TUNGSTEN HILLS MINES, INYO COUNTY, CALIFORNIA

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DME A 4614
(TUNGSTEN)



Compiled from Company and Geological Survey maps

Figure 3 GEOLOGIC SKETCH MAP OF THE ROUND VALLEY AND TUNGSTEN HILL MINES, INYO COUNTY, CALIFORNIA

0 200 400 Feet

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

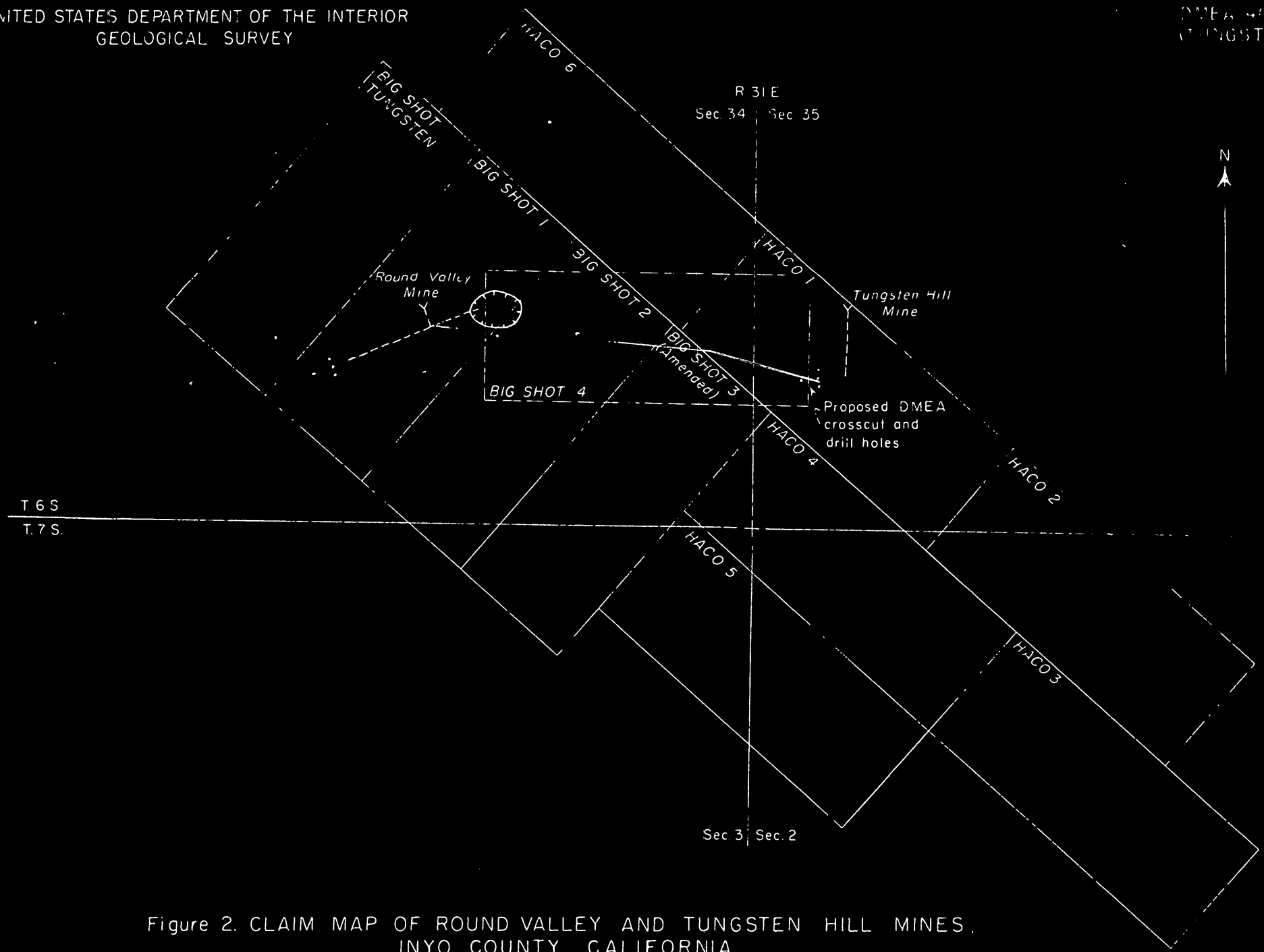


Figure 2. CLAIM MAP OF ROUND VALLEY AND TUNGSTEN HILL MINES, INYO COUNTY, CALIFORNIA

600 0 600 1200 Feet

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

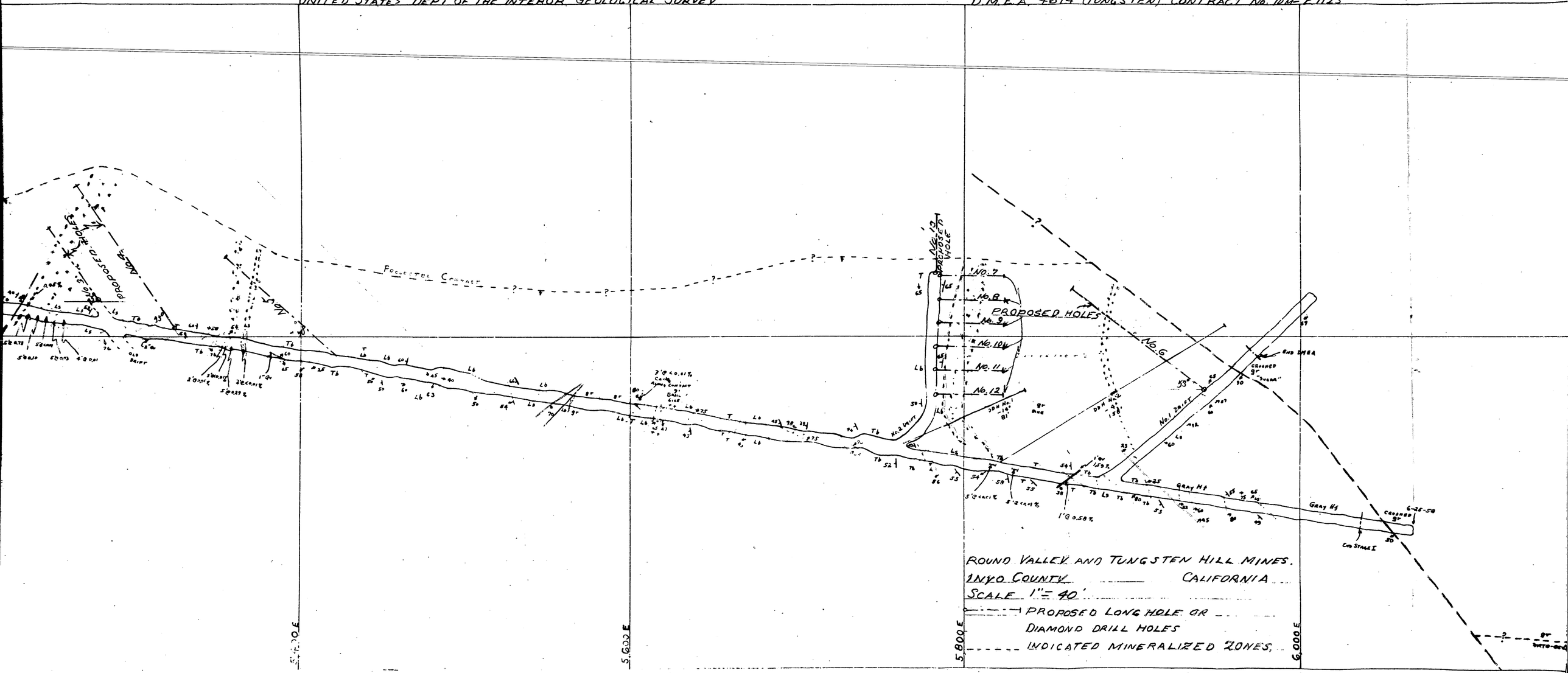
DMEA-4614
(Tungsten)

Figure 1 INDEX MAP OF INYO COUNTY, CALIFORNIA

0 25 50 75 Miles

UNITED STATES DEPT OF THE INTERIOR GEOLOGICAL SURVEY

D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10M-E1125



ROUND VALLEY AND TUNGSTEN HILL MINES.
INYO COUNTY CALIFORNIA
SCALE 1" = 40'
PROPOSED LONG HOLE OR DIAMOND DRILL HOLES
INDICATED MINERALIZED ZONES.

Miscellaneous (continued)

[illegible]
[illegible]
[illegible]
Region I
(Alaska [illegible])

PACIFIC NORTHWEST MINING COMPANY, INC., ANCHORAGE, ALASKA. Red Devil Mine, Kuskokwim Recording District, 4th Judicial Division, Territory of Alaska.

Letter to the Field acknowledging its letter of December 9, 1955, enclosing photostatic copy of lease dated September 1, 1952, covering Forrester claim. The Field was asked to advise Operator of discrepancies in lease.

[illegible]
[illegible]
[illegible]
Region V

ROY GRUNDSTAFF, B. G. THOMAS, AND W. J. BOONE, BAKERSVILLE, NORTH CAROLINA. John Conley Mine, Mitchell County, North Carolina.

Letter to the Field with reference to Interim Report dated December [illegible], 1955, withholding payment of monthly royalty until royalty due in full, certification of the project, and Operator's final report on the project.

[illegible]
Mica
[illegible]
Mica
Region V

B. M. HOLLAND, FRANKLIN, NORTH CAROLINA. Holland Prospect No. 2, Macon County, North Carolina.

B. M. HOLLAND, FRANKLIN, NORTH CAROLINA. Holland Prospect No. 1, Macon County, North Carolina.

Letter to the Field with reference to Field Team's report. Additional data and two new sets of maps showing topography and all geological data were requested.

The Minutes for January 6, 1956, were approved. The next meeting will be held on January 11, 1956.

APPROVED:

George C. Selfridge
Chairman, Operating Committee

for R. W. Cochran
For Bureau of Mines

Thor N. Dibblee
For Geological Survey

JUSTIFICATION.

The better values in tungsten ores of the Round Valley and Tungsten Hill mines are found in shear zones at or near the granite contacts. The proposed long holes or diamond drill holes of Amendment No. 2 are to explore the shear zones at and near the granite contacts. Stage II of the Contract will be dependent on the results obtained from these drill holes.

TLC.

Miscellaneous (continued)

[illegible]
[illegible]
[illegible]
Region I
(Alaska Dist.)

POSTHUMY INDIAN MINING COMPANY, INC., ANCHORAGE, ALASKA. Red Devil Area, Kuskokwim Recording District, 4th Judicial Division, Territory of Alaska.

Letter to the Field acknowledging its letter of December 7, 1955, enclosing photostatic copy of lease dated September 1, 1952, covering Barometer claims. The Field was asked to advise Operator of incorporation in lease.

[illegible]
[illegible]
[illegible]
Region V

JOE CRUMESTAFF, B. G. THOMAS, AND W. J. BOONE, BAKERSVILLE, NORTH CAROLINA. Jean Conley Mine, Mitchell County, North Carolina.

Letter to the Field with reference to Interim Report dated December 14, 1955, withholding payment of monthly voucher until royalty fee is paid, certification of the project, and Operator's Final report on the project.

[illegible]
Mica
[illegible]
Mica
Region V

B. M. HOLLAND, FRANKLIN, NORTH CAROLINA. Holland Prospect No. 2, Macon County, North Carolina.

B. M. HOLLAND, FRANKLIN, NORTH CAROLINA. Holland Prospect No. 1, Macon County, North Carolina.

Letter to the Field with reference to Field Team's report. Additional data and two new sets of maps showing topography and all geological data were requested.

The Minutes for January 6, 1956, were approved. The next meeting will be held on January 11, 1956.

APPROVED:

George C. Lelfridge
Chairman, Operating Committee

for R. W. Cochran
For Bureau of Mines

Alan H. Dilcgaard
For Geological Survey

Hole No. 5, shall be drilled from the north end of drift No. 2 to intersect the granite contact as shown on map. The hole shall be horizontal, have a northerly course and be about 40 feet in length.

The total of all holes to be drilled shall be about 600 feet.

This drilling shall be part of the 1,000 feet of long hole drilling as alloted in the Contract and as amended in Amendment No. 1.

This amendment shall not be construed to increase the total estimated cost of Stage ~~No~~. I of the project, the aggregate amount which the Government may be required to contribute for Stage I, nor the agreed unit cost of any item of work.

Executed in quintuplicate the day and year first above written

THE UNITED STATES OF AMERICA

By._____
Administrator.

RALPH E. SHUPE.

By_____
Operator.

TLC

For Internal Use Only

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON 25, D. C.

No. 614

Minutes
CONTROVERSY COMMITTEE
January 9, 1956

Field Referral - Application

MMA-4092
Copper
Region II

SHASTA COPPER AND URANIUM COMPANY, INC., SALT LAKE CITY, UTAH. Bellstedt Mine, Shasta County, California.

Letter to the Field requesting its recommendations on the application. Copies of memoranda dated December 21, 1955, and January 3, 1956, by J. V. Pennington, USGS, and T. H. Killgore, USGS, respectively, were sent to the Field. Copies of a memorandum dated December 28, 1955, by John P. Albers, USGS, were also sent to the Field.

Letter to the Applicant.

Denial

MMA-4019
Copper
Region I
(Pub. District)

ROMAN PORT COPPER COMPANY, INC., SPOKANE, WASHINGTON. Copper Mind Mine, Stevens County, Washington.

Letter to the Applicant denying the application.

Field Report

MMA-4036
Zinc, Lead,
and Copper
Region I
(Pub. District)

ROBERT ALAMEDA, SALINAS, CALIFORNIA. Chief Joseph Mine, Stevens County, Washington.

Field Examination Report recommending denial. The report was referred to the Commodity Group.

Miscellaneous

MMA-1 & 14
Idaho (amended)
Lead and Zinc
Region III

CHIEF CONSOLIDATED MINING COMPANY, EUREKA, UTAH. Chief No. 1 Mine, Juab and Utah Counties, Utah.

Letter to the Field with reference to its letter of December 23, 1955, regarding property settlement under the contract. The Field was asked to advise list of equipment, indicating items that are salvageable, together with Operator's best offer.

MMA-2729
Idaho
Lead and Zinc
Region I
(Pub. District)

DAY MINES, INC., WALLACE, IDAHO. Hercules Mine, Shoshone County, Idaho.

Letter to the Field with reference to its letter of December 29, 1955, regarding holding the amended contract until Operator is able to resume operations.

EXPLORATION PROJECT CONTRACT
RALPH E SHUPE
DOCKET NO. DMEA-4614
AMENDMENT NO. 2

It is agreed this _____ day of _____, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Ralph E. Shupe, That Exploration Project Contract No. Idm-E1125 (Docket No. DMEA-4614), executed August 26, 1957, as amended, is further amended as follows:

Map of Round Valley and Tungsten Hill mines is attached, showing proposed long holes or diamond drill holes.

Under Exhibit A of the Contract ~~and~~ as amended by Amendment No. 1, the following long holes or diamond drill holes are to be drilled:

Hole No. 3, ~~horizontal and about 50 feet in length~~ shall be drilled from end of old drift as shown on above map to intersect the first mineralized ore zone in DMEA crosscut, Stage I. This hole shall be horizontal, have a course of about N. 35 degrees W. and be about 50 feet long.

Hole No. 4, shall start from north side of DMEA crosscut to intersect above mineralized zone as indicated on above map. This hole shall be horizontal, have a course of about N. 35 degrees W. and be approximately 100 feet in length.

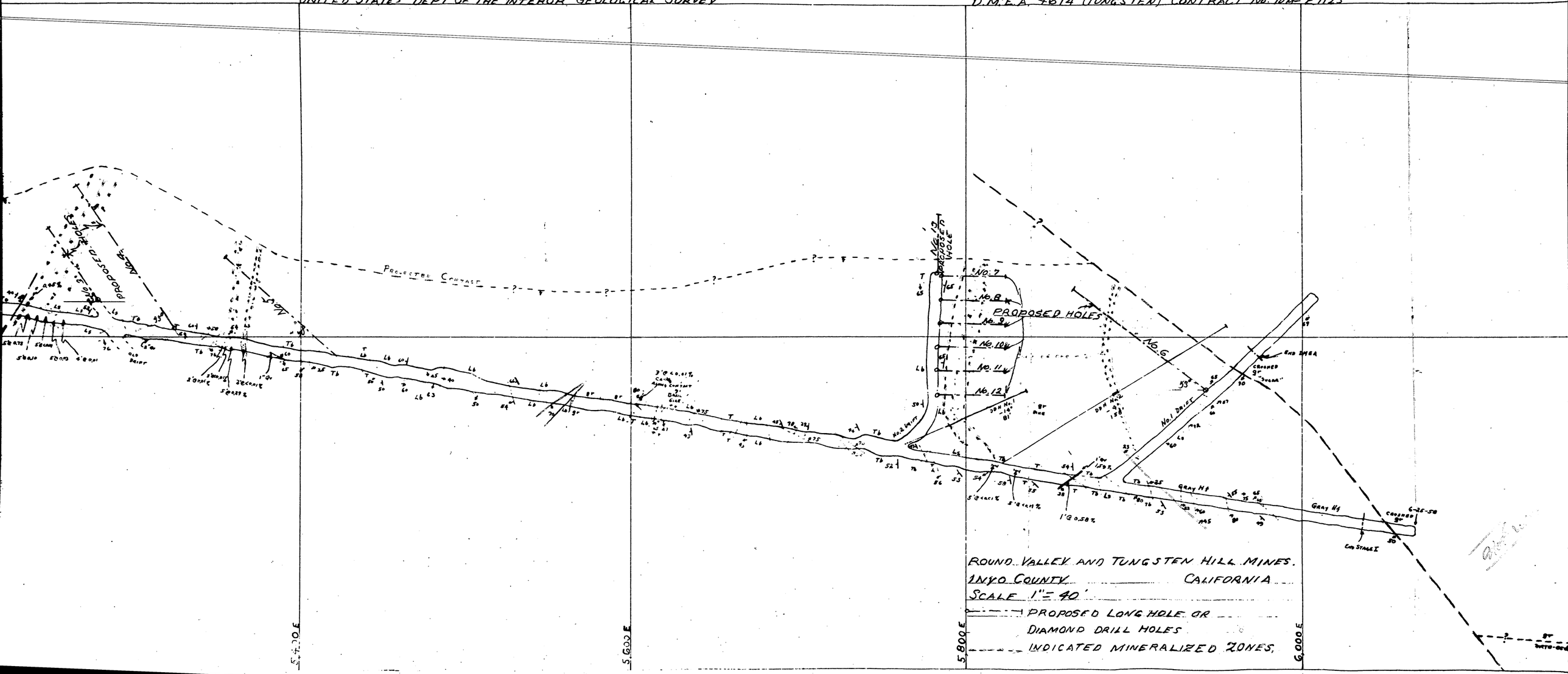
Hole No. 5. shall be started from north side of DMEA crosscut to intersect second mineralized zone as shown on map. This hole shall be horizontal, have a course of about N. 50 degrees W. and be approximately 70 feet in length.

Hole No. 6, shall be started from the northwest side of drift No. 1, as indicated on above map to explore the indicated mineralized zone. This hole shall be drilled at a plus 20 degree angle, on a course about N. 53 degrees W. and be approximately 100 feet in length.

Holes Nos. 7 to 12 inclusive shall be drilled at 15 foot intervals as indicated on above map from the easterly side of No. 2 drift. These holes shall be horizontal, on an easterly course and each shall be approximately 40 feet in length.

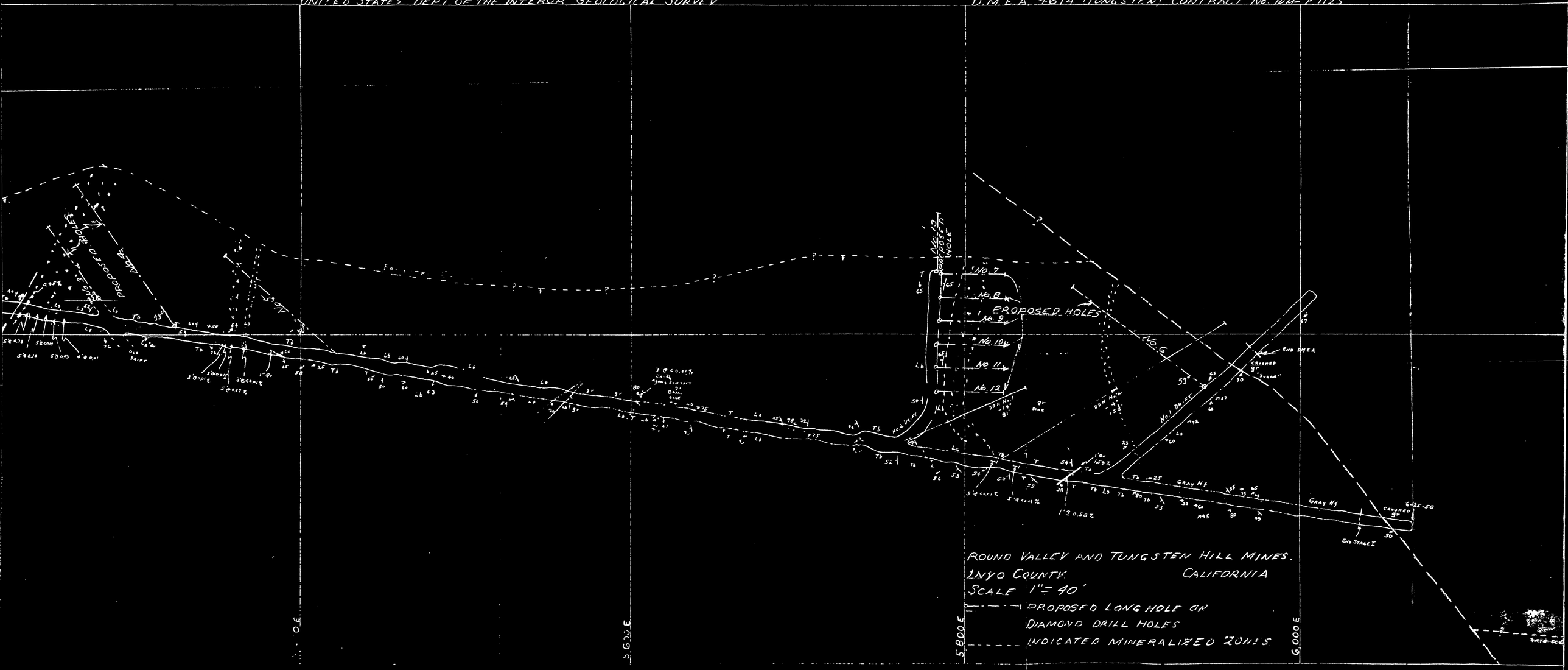
UNITED STATES DEPT OF THE INTERIOR GEOLOGICAL SURVEY

D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10M-E1125



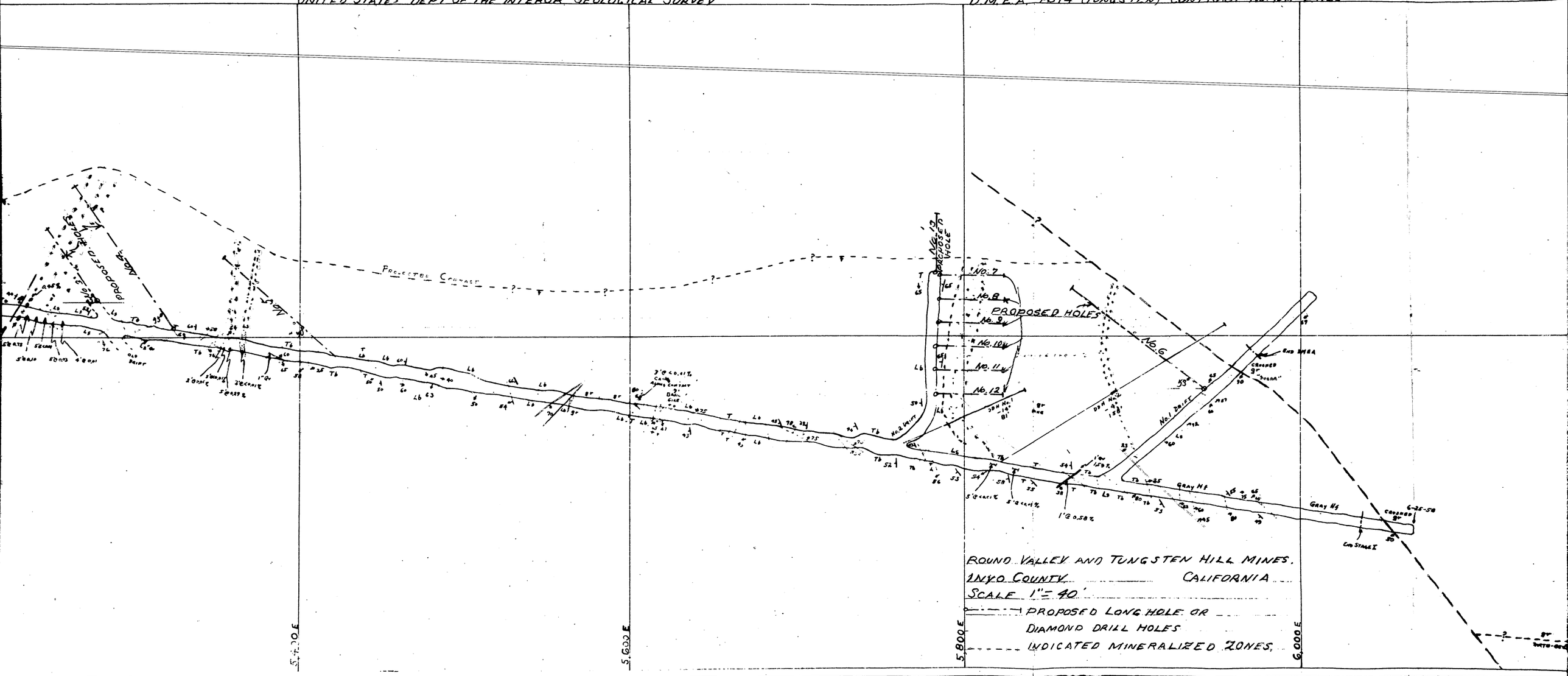
UNITED STATES DEPT OF THE INTERIOR GEOLOGICAL SURVEY

D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10M-E1125



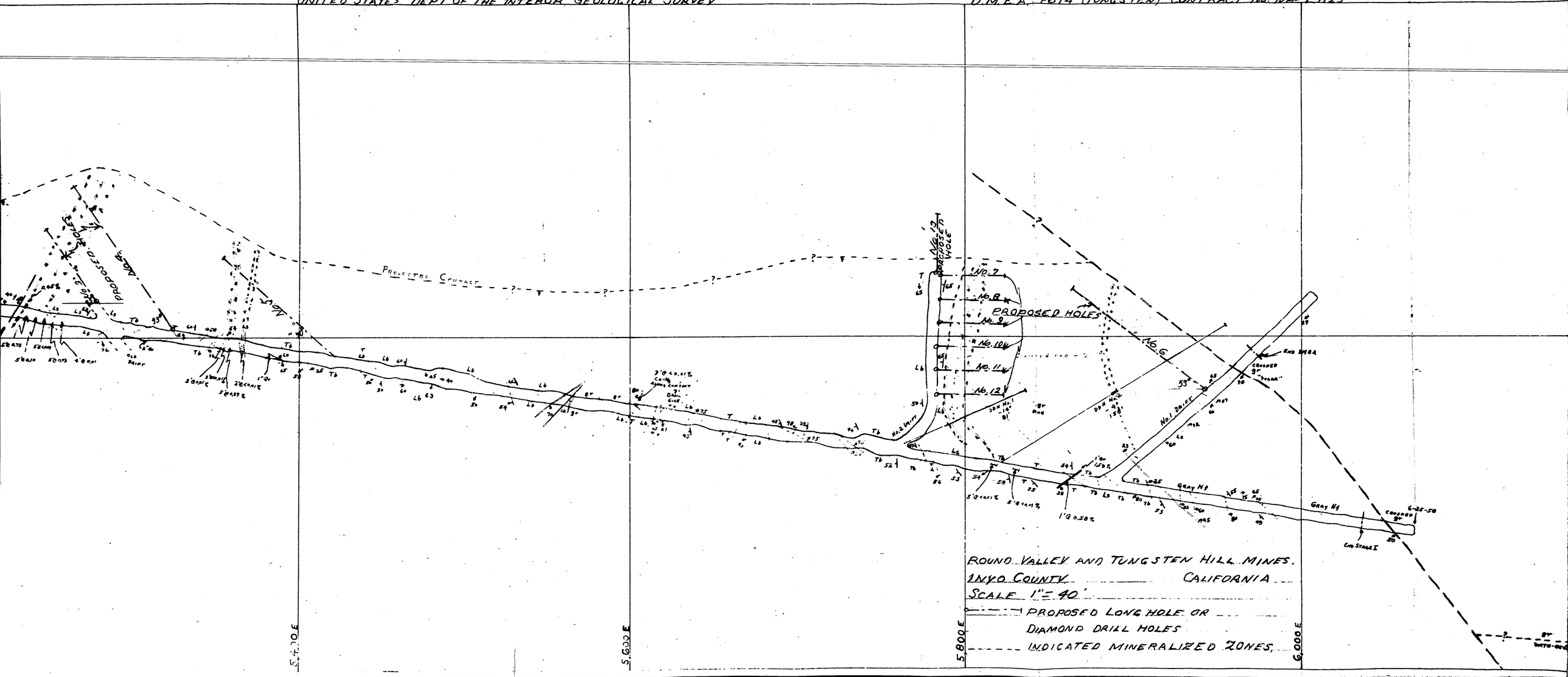
UNITED STATES DEPT OF THE INTERIOR GEOLOGICAL SURVEY

D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10M-E1125



UNITED STATES DEPT OF THE INTERIOR GEOLOGICAL SURVEY

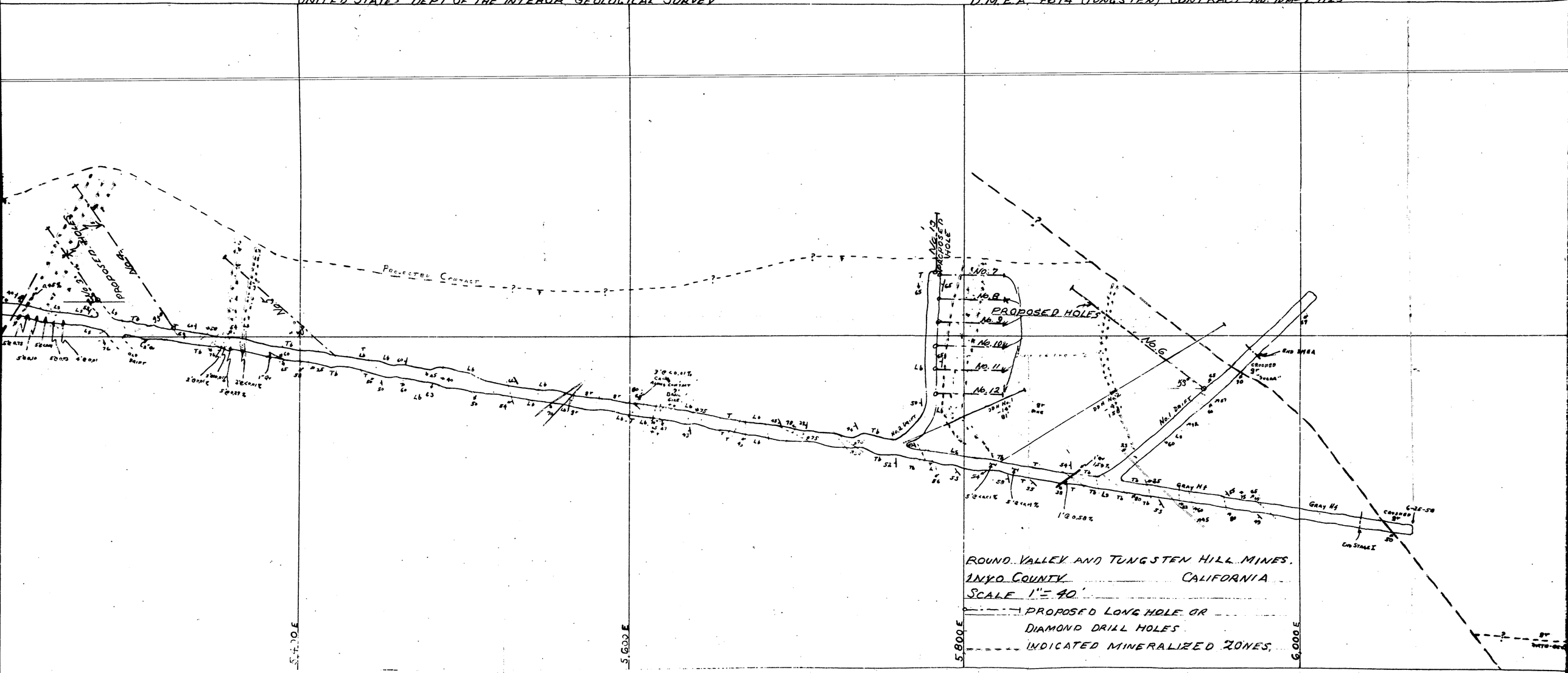
D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10M-E1125



ROUND VALLEY AND TUNGSTEN HILL MINES.
INYO COUNTY CALIFORNIA
SCALE 1" = 40'
PROPOSED LONG HOLE OR DIAMOND DRILL HOLES
INDICATED MINERALIZED ZONES.

UNITED STATES DEPT OF THE INTERIOR GEOLOGICAL SURVEY

D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10M-E1125



ROUND VALLEY AND TUNGSTEN HILL MINES.
INYO COUNTY CALIFORNIA
SCALE 1" = 40'
PROPOSED LONG HOLE OR DIAMOND DRILL HOLES
INDICATED MINERALIZED ZONES.

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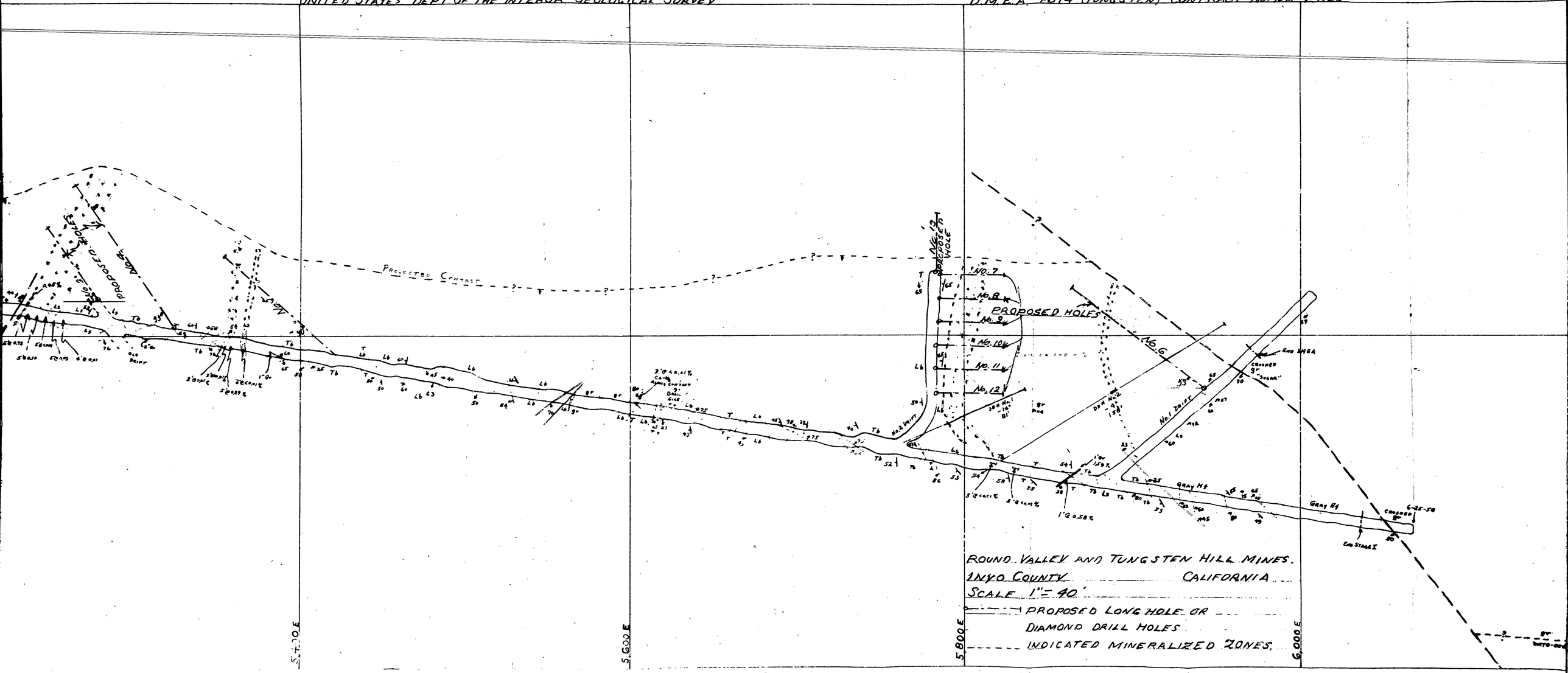
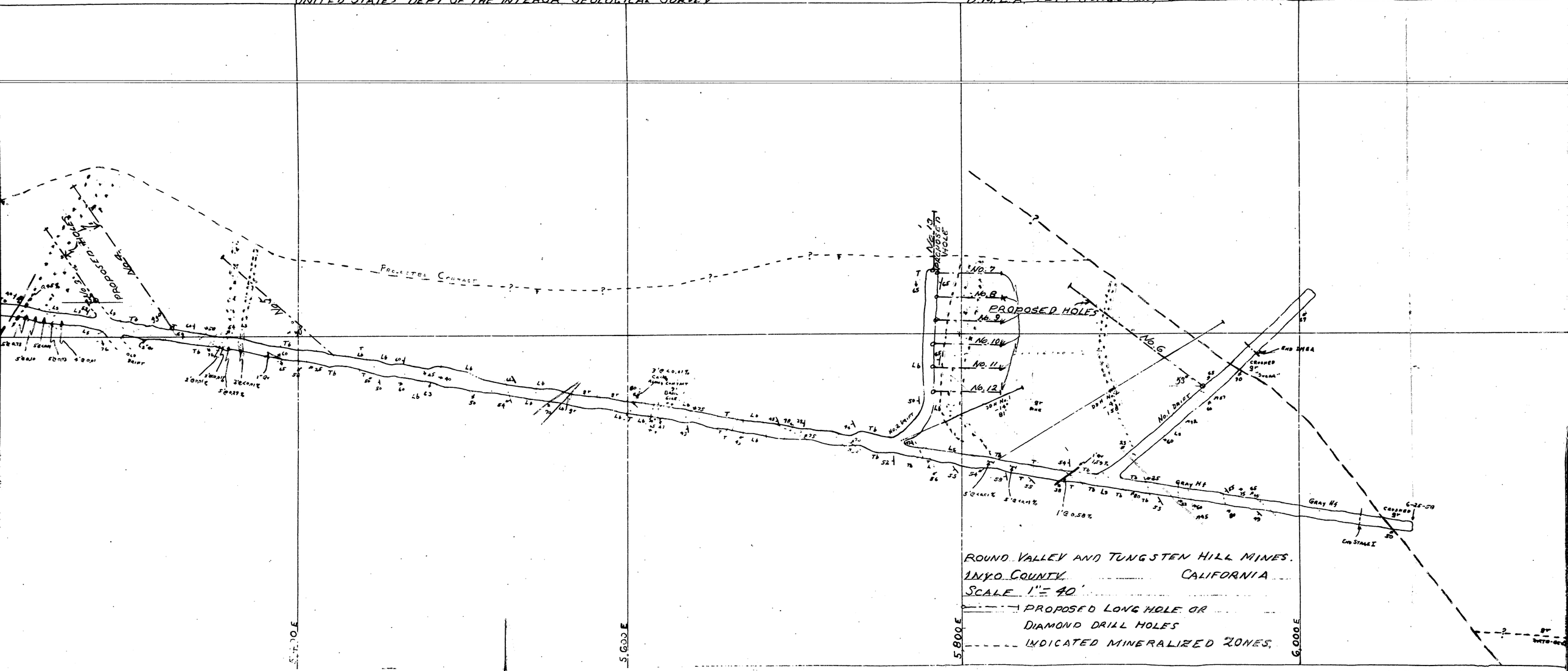
D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10M-E1125



UNITED STATES DEPT OF THE INTERIOR GEOLOGICAL SURVEY

D.M.E.A. 4614 (TUNGSTEN) CONTRACT No. 10m-E1125



PROJECT SUMMARY REPORT

By: F. M. Murphy August 3, 1959

1. Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E1125
Property: Round Valley & Tungsten Hill Mines
Inyo County, California

Operator: Ralph E. Shupe
1521 West 79 Street
Los Angeles 47, California

Operator's Property Rights: Lessee of 9 unpatented mining claims Haco Nos. 1 through 4, Big Shot Tungsten, Big Shot Nos. 1 thru 4, and Owner of Haco Nos. 5 and 6. The claims are situate in sections 34 and 35, T. 6S., R. 31E., and in Secs. 2 and 3, T. 7S., R. 31E., M.D.B. & M., Inyo County, California.

2. Contract dated August 26, 1957.

Amendments

No. 1 June 9, 1958.

Deletes winzing and long hole drilling from winze and replaces these items with 252.4 feet of drifting @ $31.50/ft.

No. 2 November 14, 1958.

Revised effective date of Amendment No. 1 from June 1 to May 1, 1958, and permitted diamond or long hole drilling from any location approved by the Government.

Termination Agreement, December 19, 1958, effective November 1, 1958.

The exploration work was started November 11, 1957 and was terminated as of November 1, 1958.

3. Certification of Discovery or Development was not recommended by the Field Team, field examiners. Washington office concurred.

4. Work Authorized and Completed (Fixed Unit Costs)

Item Stages I and II	Units Authorized	Unit Cost	Units Completed	Actual Cost
Crosscutting	1,800 feet	$31.50/ft.	1,350 feet	$42,525.00
Drifting	252.4 feet	31.50/ft.	252.4 feet	7,950.00
Timbering	450 feet	6.00/ft.	143.5 ft.	861.00
Longhole and diamond Drilling	2,000 feet	1.50/ft.	839.6 feet	1,259.40
Assaying (WO_3	110 samples	3.00/s	14	42.00
Actual Cost of Work completed				$52,637.40
Total Estimated cost of Project				$70,680.00

5. Audit Report of Review: January 20, 1959.

Total cost as billed by Operator	$52,637.40
Exceptions	0 000 00
Total Accepted Cost	$52,637.40
Government's Participation, 75%	$39,478.05

6. Final Reports:

Operator's, received by Field Team January 6, 1959
Operator's received by Washington Office, January 12, 1959

The report complies with Article 5(c) of the contract and is considered acceptable.

Field Team's received February 25, 1959.

Excerpts from Final Report by B.M. Sheahan, USBM, and H. K. Stager, USGS:

The Round Valley and Tungsten Hill mines are on the north contact of a series of metamorphosed sediments that lie between granite on the north and quartz monzonite on the south and east. The granite dips south 50-80 degress and the monzonite dip's steeply north. The Round Valley mine lies about 1800 feet west of Tungsten Hill mine, the latter being on the east end of the sediments. The two granitic rocks are probably in contact at a depth of less than 500 feet midway between the two mines.

The metamorphic rocks are chiefly marble, tactite and calc-hornfels which strike about normal to the north (granite) contact. The ore bodies are scheelite-rich tactite layers along and near the granite contact. They have short strike lengths, usually less than 100 feet, are from a few feet to 40 feet thick, and have been mined down dip for as much as 400 feet.

Total estimated production prior to the DMEA contract was 80,345 tons of ore averaging 0.5% WO_3 from the Round Valley mine and 5,790 tons averaging 0.6% WO_3 from the Tungsten Hill mine. There was no production from either mine during the contract period, and both mines are now idle.

The DMEA work consisted of driving an adit at 5000 feet elevation, from the Round Valley mine in an easterly direction toward the Tungsten Hill mine. The adit penetrated limestone, tactite and hornfels along and near the north granite contact for about 920 feet. At this point the adit entered bleached granite, so it was turned south. However, it did not re-enter the metamorphic sediments, the last 430 feet remaining in granite or in alaskite porphyry.

From the adit two drifts about 150 feet apart were driven to the north granite contact. From the drifts and adit 3 long holes and 8 cored holes were drilled.

The adit, drifts and drill holes intersected numerous scheelite-bearing tactite lenses, but all of these are either too small or too low grade to warrant further development. The 100,000 tons of ore that was inferred for the two mines prior to this contract has been reduced to about 25,000 tons as a result of the project work. The remaining reserves consist of ore contained in old winze walls, stope pillars and the downward continuation of ore bodies exploited prior to the contract.

COMMENTS

No additional exploration is warranted in the area between the Round Valley and Tungsten Hill mines. However, some exploration between Round Valley and the Western Tungsten mine, about 2000 feet west, is warranted.

The work was done by competent miners and reports on the results of the work were satisfactory. The contract allowed only part-time supervision. Full-time supervision would have prevented the driving of the two drifts at such close intervals, and also, continuing the main adit for 430 feet after it entered granite rock. It appears that the Field examiners did not check the work often enough.

Fred M. Murphy.

Fred M Murphy

FMMurphy/er
CC: Docket
Dir Read File
Chron.

17

OFFICE OF MINERALS EXPLORATION

WORK COMPLETED ANALYSIS

___ Certified No After final audit or review report is received, prepare in duplicate. File original in official docket. Send copy to Code 210.

Operator: Ralph E. Shupe

Actual Cost:

State: California - Inyo County

Agreed Unit Cost: X

Final Report of Audit:

Commodity: Tungsten

Docket No.: DMEA-4614

Final Report of Review: X

Contract No.: Idm-E 1125

Type of Work (Use these categories only)	Authorized by Contract and Amendments		Completed and Paid for		Net cost after sale of Gov't. Property
	Units	Cost 1/	Units	Cost 1/	
Drifting & Crosscutting	2052.4'	67,336	1602.4'	51,336	51,336.00
Raising					
Shafts					
Winzes					
Drilling (Specify) Long hole & diamond	2000'	3000	839.6'	1259.00	1259.40
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) WO_3 Assays @ $3/sample		330		42	42.00
Totals		$ 70,680		$ 52,637	2/ $52,637.40

1/ Round off to dollars.
2/ Net cost total must agree with final report of audit or review.

Prepared by F M Murphy Date 7/31/59

5206

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

February 20, 1959

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DATE		CODE
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3/23		130
3/3		130
3-3	C	220
3/4	WSM	400

Memorandum

To: Operating Committee, OME, Interior Building
Washington 25, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California

Enclosed are three copies of our final report on subject docket by H. K. Stager, Geological Survey, and B. H. Sheahan, Bureau of Mines. Roscoe Smith and I concur in the recommendations of the report and do not believe that a certification is justified.

S. Ricker

Attachments

Reviewed by
OME OPERATING COMMITTEE
3-3-59
(date)

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O. M. E.
RECEIVED FEB 25 1959

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

FT's FINAL REPORT

FINAL REPORT

DMEA-4614, Contract Idm-E1125 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill mines
Inyo County, California

by

B. H. Sheahan
U. S. Bureau of Mines

H. K. Stager
U. S. Geological Survey

February 18, 1959

Reviewed by
OME OPERATING COMMITTEE
3-3-59
(date)

CONTENTS

	Page
Introduction	1
Summary	2
Conclusions and Recommendations	3
Location, Accessibility, and Local Facilities	4
The Property	5
History and Production	5
Claims and Ownership	5
Development	7
The DMEA Project	9
Geology	12
Geologic Setting	12
Ore Deposits	15
Sampling	17
Ore Reserves	19

ILLUSTRATIONS

Figure 1 ..... Index map
2 ..... Property map
3 ..... Geologic map of Round Valley & Tungsten Hill mine
4 ..... Map of part of the Round Valley mine

APPENDIX A ..... Drill logs

INTRODUCTION

The area between the Round Valley and Tungsten Hill mines, also known as the Big Shot and Little Shot mines, respectively, Inyo County, California was explored by Mr. Ralph E. Shupe, 1521 West 79th Street, Los Angeles 47, California, in cooperation with the Defense Minerals Exploration Administration, docket DMEA-4614 (Tungsten), contract Idm-E1125 dated August 26, 1957. The total cost of the DMEA project was $52,637.40, of which the Government's share at 75 percent was $39,478.05. Exploration work under the contract was started November 11, 1957 and was terminated as of November 1, 1958 by an agreement dated December 19, 1958.

An examination of the property to evaluate the work was made on January 8, 1959 by B. H. Sheahan and G. G. Gentry, U. S. Bureau of Mines. The work was discussed with Mr. Byron W. Works, geologist, representing the Operator.

A prior application for exploration assistance at the Tungsten Hill mine (DMEA-2256) was denied in 1952. The geology of the Tungsten Hills has been studied in detail by geologists of the Geological Survey[1].

[1] Lemmon, Dwight M., 1941, Tungsten deposits in the Tungsten Hills, Inyo County, California: U. S. Geological Survey Bulletin 922Q.
[2] Bateman, Paul C., Erickson, Max P., and Proctor, Paul D., 1950, Geology and Tungsten Deposits of the Tungsten Hills, Inyo County, Calif.: California Division of Mines Journal of Mines and Geology, Vol. 46, No. 1.

Much of the material contained in this report has been taken from those earlier publications.

SUMMARY

The purpose of the project was to explore for tungsten ores along the northern contact of a pendant-like mass of metamorphosed sediments between the Round Valley and Tungsten Hill mines. The project was justified by a geologic setting favorable for the localization of ore and past production from the two mines of about 29,000 units of WO_3.

Work completed under the contract consisted of 1,350 feet of crosscutting, 252.4 feet of drifting, and 839.6 feet of drilling in eleven holes. Abundant tactite was exposed by the work but the scheelite-bearing lenses of ore grade material were small and insignificant. The property was one of the first in the district to be explored at depth and general geologic information concerning the deposit was obtained.

The Operator's final report was received on January 6, 1959.

CONCLUSIONS AND RECOMMENDATIONS

The favorable areas along the metamorphic-granitic rock contact between the Round Valley and Tungsten Hill mines were adequately explored but the showings do not warrant developing, and production is not economically feasible. No new ore bodies were discovered by the DMEA work. No ore was mined from the property during the period of the contract and no royalties are due the Government. Significant reserves of tungsten ore were not found and certification of discovery is not recommended. A large part of the DMEA workings is in heavy ground and in a short time will be caved and serve no use for any possible future extraction purposes without expensive rehabilitation.

No additional exploration is warranted at the Tungsten Hill mine or in the area between the two mines and further Government assistance, if requested, is not recommended. Some new exploration between the Round Valley and the Western Tungsten mine, about two thousand feet to the west, is warranted. The downward extent of the Round Valley ore bodies in this direction is not known and a project to explore this area, if requested, should be given favorable consideration.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The property is in the northern portion of the Tungsten Hills at an altitude of 4900 to 5700 feet in sections 34 and 35, T. 6 S., R. 31 E., and in sections 2 and 3, T. 7 S., R. 31 E., M. D. B. & M., Inyo County, California.

To reach the Round Valley mine from Bishop, California, travel U. S. Highway 395 northwesterly 7.7 miles, turn left and follow an improved graded road 3.1 miles westerly to the main workings. The Tungsten Hill mine is 1.3 miles east of the Round Valley mine and is reached by way of a steep, narrow, dirt road. The Round Valley mine road is in good condition and the lower adit is accessible all year.

Bishop, California is the nearest source of labor and supplies. Water is available at Horton Creek, two miles by road west of the mine. Electric power is available from a transmission line a few miles north of the property.

THE PROPERTY

History and Production:

Scheelite was discovered in the Tungsten Hills district in 1913. A mill was constructed at the Round Valley mine in 1916 and the most productive period was from 1917 to 1919. Operations were profitable only during periods of exceptionally high tungsten prices.

The Round Valley mine was operated intermittently from 1917 to 1955. The mill plant was salvaged in 1931 and the claims were relocated by Al Stevens and associates of Bishop, California in 1934. Total estimated production is 80,345 tons of ore that averaged 0.5% WO_3 from which 26,990 short ton units of WO_3 were recovered. The mine was idle in 1956 and most of 1957.

The Tungsten Hill mine was discovered prior to 1940, and was operated intermittently from 1943 to 1956. In 1947, the Haco group of claims were relocated by Tom Coleman, G. Crawford and V. Hague. The most productive period of operations was from 1953 to 1955. Estimated total production from 1943 to 1956 is 5,790 tons of ore that averaged 0.6% WO_3 from which 1,848 short ton units of WO_3 were recovered. The mine has been idle since early in 1956.

Claims and Ownership:

The property consists of eleven unpatented lode mining claims

that are recorded at Independence, Inyo County, California.

Name of Claims	Book No.	Page No.	Amended Locations Book	Amended Locations Page
Tungsten Hill group				
Haco No. 1	58	298		
Haco No. 2	58	388		
Haco No. 3	58	389		
Haco No. 4	58	390		
Haco No. 5	86	103		
Haco No. 6	86	103		
Round Valley Mine group				
Big Shot Tungsten	46	109	86	95
Big Shot No. 1	46	109	86	97
Big Shot No. 2	46	110	86	99
Big Shot No. 3	46	110	86	101
Big Shot No. 4	46	110	86	101

The Haco No. 1 through 4 claims are owned by G. Crawford, Bishop, California and are leased by Ralph E. Shupe, by an Option and Lease Agreement dated January 1, 1955, to which is attached a Supplementary Agreement, dated June 11, 1955. The Haco No. 5 and 6 claims are owned by Mr. Shupe.

The Round Valley Mine group of claims is owned one-third by Al Stevens and Bessie Stevens, Shepard Lane, Bishop, California; one-third by Howard Stevens and Josephine Stevens, 1805 Thompson Boulevard, Ventura, California; one-ninth by Mary Trout, 2321 Griffith Park Boulevard, Los Angeles 39, California; one-ninth by the estate of C. A. Rasmussen and Annie Rasmussen, 323 East Bixby Road, Long Beach 7, California, and one-ninth by H. O. Johanson and June Mary Johanson, Box 567, Bishop, California; and has been leased to Ralph E. Shupe, by a Lease and Option Agreement dated November 20, 1955, and by an Amendment and Supplementary Agreement dated December 6, 1956.

Exploration under the DMEA contract was confined to the Big Shot No. 1, No. 2, No. 3, and No. 4 claims (fig. 2).

Development:

The Round Valley mine is developed by more than 4,500 feet of workings. Above the main crosscut adit the ore was mined by glory hole methods and from open stopes. Below the main adit the deposit is developed by inclined winzes sunk through the heart of the ore body. The bottom 15 feet of the winze is dry but is filled with muck. Pillars of scheelite bearing tactite are left along the sides of the winze for ground support. Very little timber was used, and the backs of many workings are unsafe.

The Tungsten Hill mine is developed by an 80-foot inclined shaft 4 feet by 4 feet in clear of timber and by a 400 foot crosscut which intersects the deposit at a depth of 146 feet below the collar of the shaft. The ore body was stoped through to the 45-foot level.

Surface improvements on the property are a dilapidated engine room and two 50 ton capacity ore bins. Equipment furnished by the Operator consisted of:

1 Air Compressor, 500 c.f.m., with diesel power unit

1 Eimco, 12 B., Mucking Machine

1 Eimco, Model 401, Air locomotive

3 Pneumatic rock drills, I.R. JR 38 with jack leg

1 Rock Drill I.R. Long hole machine, and steel

6 ore cars, 1 1/2 ton, side dump

1 Diamond Drill and rods

Miscellaneous track, pipe, 2 trucks, drill steel and tools

THE DMEA PROJECT

The exploration work, as set forth in the contract, was to be in two stages. Stage I consisted of 900 feet of crosscutting, 100 feet of winzing, and 1,500 feet of long hole drilling. Stage II consisted of 900 feet of crosscutting and 1,000 feet of long hole drilling.

The contract was signed on August 26, 1957 and work was started on November 11, 1957. After driving about 750 feet of crosscut the Operator requested an amendment to allow several exploratory drifts in lieu of the winzing under Stage I and to allow diamond drilling instead of long hole drilling. Amendment No. 1, dated June 9, 1958, allowed 252.4 feet of drifting to be done in lieu of the 100 feet of winzing authorized for Stage I and permitted diamond drilling as well as long hole drilling. Amendment No. 2, dated November 14, 1958, revised the effective date of Amendment No. 1 from June 1, 1958 to May 1, 1958 and permitted the diamond- or long hole drilling to be done from the DMEA crosscut or from other locations approved by the Government.

A total of 1,350 feet of crosscutting (900 feet under Stage I and 450 feet under Stage II), 252.4 feet of drifting, and 839.6 feet of drilling in 11 holes was completed under the DMEA contract (fig. 4). In addition the Operator completed 147.4 feet of crosscutting and

drifting at his own expense. Abundant tactite containing numerous minor concentrations of scheelite was exposed by the work done under Stage I and served as the justification for starting Stage II of the contract. Work was discontinued about October 31, 1958 when about half of the Stage II work was completed and it became evident that the metamorphic rocks that contained the ore deposit at the Tungsten Hill mine did not extend to the depth of the crosscut. It was mutually agreed by the Government and the Operator that further work was unlikely to result in a significant discovery. The Operator requested termination of the project on November 10, 1958. A Mutual Termination Agreement, dated December 19, 1958, effective as of November 1, 1958, was signed by the Operator and the Government. The Operator submitted his final report on January 6, 1959.

The work was done by competent miners under the part-time direction of competent supervisors and is satisfactory to the Government. Full-time supervision would have prevented the driving of some unnecessary drifts and crosscuts and would have resulted in a saving to the Operator. Payment for those parts of the work considered unnecessary by the DMEA field personnel was not approved and was not paid for by the Government.

Expenditures

Total estimated amount of contract	$70,680.00
Total estimated amount of Government participation at 75%	53,010.00
Total expenditures	52,637.40
Government's share of total expenditures at 75%	39,478.05
Unexpended funds	18,042.60
Government's share of unexpended funds	13,531.95

Units of work and unit costs

Stage I

900 feet - crosscutting	5 ft. x 7 ft. @ $31.50/ft.	$28,350.00
252.4 feet - drifting	5 ft. x 7 ft. @ $31.50/ft.	7,950.00
143.5 feet - timbering	@ 6.00/ft	861.00
839.6 feet - long hole and diamond drilling	@ 1.50/ft.	1,259.40
14 assays - for WO_3	@ 3.00 ea.	42.00

Stage II

450 feet - crosscutting	@ $31.50/ft.	14,175.00
Total project (subject to audit)		$52,637.40

ok

There was no production from the property during the period of the contract and no royalties are due the Government. All equipment used for the exploration work was provided by the Operator at no charge to the DMEA contract.

GEOLOGY

Geologic Setting:

The Round Valley and Tungsten Hill mines are at the north end of the Tungsten Hills in an area of moderate relief. The rocks exposed in the vicinity of the mines are chiefly metamorphosed sedimentary rocks of Paleozoic age. These rocks are part of an east-trending septum of metamorphic rocks 500 to 1,000 feet wide and about one mile long between two granitic plutons of the Sierra Nevada batholith of Cretaceous age (fig. 3). The tungsten deposits are along the north contact of the septum. The southern contact has been repeatedly prospected without finding any tungsten.

The metamorphic rocks are chiefly impure marble, tactite, and calc-hornfels. The marble is gray, fine-grained, and in places is recrystallized to coarse white calcite. It is in sharp contact with the tactite and calc-hornfels, which occur thinly interlayered with each other between the marble on one side and granite on the other. Tactite predominates near the granite and calc-hornfels near the marble, but they interfinger complexly on both large and small scales. The tactite and calc-hornfels zone is a few feet to a thousand feet wide and is exposed intermittently for about 1,500 feet along the granite contact. The metamorphic rocks, in general,

strike north or northwest across the septum and dip 20 degrees to 70 degrees west. The dip is less in the western part of the mine area and steepens toward the eastern end. The beds are truncated by the granite at about right angles.

There are two principal granitic rocks in the mine area, a light-colored, coarse-grained granite on the north side of the septum and a light-gray, porphyritic quartz monzonite on the south side. Near the contact the granite is bleached and has a sugary texture and near the east end of the DMEA crosscut it is a bleached, kaolinized alaskite porphyry. The granite contact dips 50 degrees to 80 degrees south and the quartz monzonite contact is vertical or dips steeply north. If these dips remain constant the septum pinches out between 1,000 and 2,000 feet at the west, or Round Valley mine, end of the septum but the DMEA crosscut has indicated a much shallower pinch-out at the east, or Tungsten Hill mine, end of the septum. The two granitic rocks are probably in contact at a depth of less than 500 feet midway between the two mines (fig. 3).

The rocks in the mine area are cut by several aplite and andesite dikes, but these dikes have no significant relationship to the ore deposit or to the mining problem.

Fractures are common in the metamorphic rocks near the

northern, or granite, contact and in places the contact is sheared. Much of the fracturing was evidently pre-mineral, whereas the area of the southern, or quartz monzonite contact is much less fractured, and is not mineralized.

The DMEA crosscut was driven through limestone, tactite, and hornfels along and near the north granite contact for about 920 feet (fig. 4). At this point the crosscut intersected a strong NW striking fault that dips about 50° to 70° SW and offsets the granite-metamorphic rock contact for an unknown distance to the south. The direction of the crosscut was turned to the south and an additional 500 feet of crosscut was driven through bleached granite and alaskite porphyry in order to again intersect the offset segment of the contact. Driving of the crosscut was stopped when it was determined that the east end of the septum bottoms above the level of the crosscut and that the granite and quartz monzonite are in contact at this level thereby eliminating the possibility of finding significant tungsten ore bodies in the target area.

A detailed map at a scale of one inch equals twenty feet, showing the geology of the DMEA workings is contained in the Operator's final report and has been reproduced in part, at a scale of one inch equals one hundred feet, as Figure 4 of this report.

Ore Deposits:

The ore bodies are scheelite-rich tactite layers along and near the contact of the granite and metamorphic rocks. In general the ore bodies have the same strike and dip as the enclosing metamorphic rocks but they rake sharply to the southwest, parallel to the intersection of the tactite layers and the granite. They have short strike lengths, generally less than 100 feet, are from a few feet to 40 feet thick, and have been mined down dip for as much as 400 feet.

Scheelite, the only tungsten mineral known to occur in the deposits, is irregularly distributed along almost all of the granite contact although only rarely in minable amounts. It is chiefly concentrated in layers that are confined to the more favorable tactite beds. Much of the tactite does not contain scheelite and in the favorable beds the amount of scheelite diminishes with distance from the granite contact. It does not continue beyond the tactite and hornfels into the marble. The WO_3 content of the favorable tactite layers ranges from a trace to several percent, but averages about 0.5 percent in the minable bodies. Gangue minerals are garnet, epidote, quartz, calcite, pyrite, and traces of sphalerite, molybdenite, and chalcopyrite. Near the surface

the tactite and hornfels are fractured and oxidized and contain abundant limonite and nontronite, a yellow-green hydrous iron silicate, in solution cavities and coating fracture surfaces.

Ore has been mined from five principal ore bodies, or shoots, in the deposit, one at the Tungsten Hill mine at the east end of the septum and four at the Round Valley mine. The ore shoot at the Tungsten Hill mine consists of a layer of scheelite-bearing tactite that strikes about N 30° E and dips 60° NW. It is about 10 feet thick, extends outward from the granite contact about 100 feet and has been mined down dip for about 100 feet. It has yielded about 6,000 tons of ore with an average grade of about 0.6 percent WO_3. The four principal ore shoots at the Round Valley mine average about 15 feet thick, 70 feet wide, and have been mined down dip 50 to 400 feet. They strike north and dip 23 degrees to 35 degrees west. They have yielded about 80,000 tons of ore with an average grade of about 0.5 percent WO_3.

The DMEA crosscut intersected numerous scheelite-bearing tactite lenses but all of these are either too small or too low in grade to warrant further development. The best exposure of sheelite-bearing tactite was discovered by the crosscut at 75- to 80 feet from the starting point (fig. 4) and consists of a 5 foot thick

lens of material that assays 0.73 percent WO_3. This lens is a faulted segment of an ore body that was partly mined from the old mine workings a short distance away and does not represent more than a few hundred tons of ore. Other exposures of ore grade material are limited to several thin scheelite-bearing lenses or veinlets about one foot or less thick that assay from 0.58 to 1.59 percent WO_3. One of these is exposed at the starting point of the DMEA crosscut; two were cut by DDH-3; and one is exposed in the crosscut about 20 feet west of the No. 1 drift (fig. 4).

Sampling:

During the period of the contract 17 samples were taken by the Bureau of Mines and assayed for tungsten. Sample locations are indicated by thickness and grade on attached map, Figure 4. Three additional samples S-771, S-772, and S-773 were taken for rock identification purposes and contained no scheelite.

Sample Number	Width Feet	% WO_3	Description
618	2.0	0.03	No. 2 Drift. Tactite with Scheelite. 140'-142' From main cross cut
668	1.0	1.22	Tactite with scheelite P.O.B. 4'-5' S. side
704	5.0	0.73	Tactite with scheelite P.O.B. 75-80' N. side

705	5.0	0.10	Tactite with scheelite P.O.B. 80'-85' N. side
706	5.0	0.01	Tactite with scheelite P.O.B. 85'-90' N. side
707	5.0	0.03	Tactite with scheelite P.O.B. 90'-95' N. side
708	4.0	0.01	Tactite with scheelite P.O.B. 95'-99' N. side
709	2.0	0.01	Tactite with scheelite P.O.B. 197'-199' N. side
710	3.0	0.01	Tactite with scheelite P.O.B. 199'-202' N. side
711	5.0	0.27	Tactite with scheelite P.O.B. 207'-212' N. side
712	3.0	0.01	Tactite with scheelite P.O.B. 227'-230' N. side
719	3.0	<0.01	Tactite with scheelite P.O.B. 459'-462' N. side
720	2.0	0.08	Tactite with scheelite P.O.B. 82'-84' S. side
721	5.0	<0.01	Barren tactite P.O.B. 672'-677' N. side
722	5.0	<0.01	Barren tactite P.O.B. 688'-693' N. side
723	1.0	0.58	Quartz vein with scheelite P.O.B. 714'-715' S. side
724	1.0	1.59	Quartz vein with scheelite P.O.B. 720'-721' N. side

771	5.0	none	Face at 1410' - hard granitic rock
772	2.8	none	Pegmatite dike. P.O.B. 1407'-1410' S. side
773	5.0	none	Sugary granite. P.O.B. 1325'-1330' S. side

Ore Reserves:

Ore reserves at the property are summarized as follows:

Mine	Measured tons	Indicated tons	Inferred tons	Average grade percent WO_3
Tungsten Hill	500	3,000	5,000	0.6
Round Valley	500	12,000	20,000	0.5
Total	1,000	15,000	25,000	0.5

Except for about 2,000 tons of ore that averages about 0.5 percent WO_3 indicated by exposures in the DMEA crosscut and drill holes between coordinates 5,200 E and 5,400 E no ore reserves were discovered by the DMEA work. This ore was inferred before the start of the DMEA work and does not represent a new ore body. The 100,000 tons of ore that was inferred for the two mines prior to the start of the DMEA work has been reduced by about 75,000 tons as a result of the work.

The measured reserves total about 1,000 tons of ore that

averages about 0.5 percent WO_3. These reserves are contained in old winze walls and stope pillars and could not be mined without causing the workings to cave.

Indicated reserves total about 15,000 tons of ore averaging about 0.5 percent WO_3, and are contained in the downward continuation of the five principal ore bodies. The reserves at the Tungsten Hill mine are contained in the downward continuation of the ore body that has been stoped above the level of the lower adit and are in a block of ground about 12 feet thick, 100 feet wide, and extending down dip for about 30 feet below the level. The reserves at the Round Valley mine are contained principally in the downward continuation of the ore body mined from the deep winze at the west end of the mine in a block 15 feet thick, 70 feet wide, and extending down dip 100 feet below the deepest level of the mine. This block is estimated to contain about 7,000 tons of ore having an average grade of about 0.5 percent WO_3. An additional 5,000 tons of indicated ore, including the 2,000 tons attributed to DMEA work, is contained in downward continuations of the three ore bodies that have been mined from the glory holes at the surface and from short underground adits and stopes at the east end of the old mine workings.

Inferred reserves total about 25,000 tons of ore of the same average grade and are contained in the downward continuations of the known ore shoots. The reserves at the Tungsten Hill mine are in a block 12 feet thick, 50 feet wide, and extending down dip about 100 feet below the bottom of the indicated reserve block. This block is inferred to contain about 5,000 tons of ore having an average grade of about 0.6 percent WO_3. The principal reserves at the Round Valley mine are in a block 15 feet thick, 70 feet wide, and extending down dip 200 feet below the bottom of the indicated reserve block at the west end of the mine. This block is inferred to contain about 14,000 tons of ore having an average grade of about 0.5 percent WO_3. An additional 6,000 tons of ore is inferred in the downward continuations of the three glory hole ore bodies and other small ore lenses in the eastern part of the old mine workings.

Drill Log Summary

Diamond Drilling - (Location of holes indicated on attached map)

Hole No.	Feet Depth	Bearing	Inclination	Interval	Description
1	81	N66 1/2°E	-14°	0-36	Thin bedded Lms. and tactite
				35-51	Tactite with sparse scheelite
				51-77	Tactite and hornfels
				77-77.5	Fault gouge - poor core
				77.5-81	Granite
2	158	N66E	-4°	0-76	Massive tactite
				76-81	Tactite with sparse scheelite on fractures
				81-116	Tactite and hornfels with traces of scheelite
				116-117	Hornfels, poor core recovery
				117-139	Fault gouge - difficult drilling
				139-158	Aplite dike and fine-grained granite. Traces of copper stain on joints
3	127	N58E	-8 1/2°	0-41	Tactite with spotty scheelite, quartz and pyrite

Hole No.	Feet Depth	Bearing	Inclination	Interval	Description
					Assays: 13.8-14.2 -- 1.22% WO_3 24.6-25.9 -- 0.95% WO_3 42.4-44.4 0.22% WO_3
				41-66	Bedded tactite, with sparse scheelite 41 to 66
				66-73	Gray and black limestone
				73-115	Tactite. Sparse scheelite
				115-127	Granite
4	44	S85°E	-11	0-19	Tactite. Tactite with scheelite at 9.8 feet
				19-30	Bedded tactite - with scheelite 22.8 to 24.6
				30-35	Tactite, sparse scheelite from 30-33
				35-40	Black limestone and dike rock at 35-36
				40-42	Tactite
				42-44	Granitic rock
5	96	N60°E	0°	0-10	Tactite
				10-21	Bedded tactite
				21-26	Limestone
				26-30	Bedded tactite
				30-37.5	Limestone and tactite
				37.5-40.4	Thin bedded limestone

Hole No.	Feet Depth	Bearing	Inclination	Interval	Description
				40.4-51.3	Tactite
				51.3-65	Thin bedded limestone with sparse scheelite at 63 feet
				65-90	Tactite with sparse scheelite
				90-96	Thin bedded limestone
6	60	N40°E	-10 1/2	0-17	Limestone
				17-50	Tactite with sparse scheelite. Poor core recovery.
				50-60	Marble and tactite. Sparse scheelite in sludge 56-60
7	100	N50°W	+33°	0-25	Banded limestone and tactite
				25-37	Thin-bedded limestone
				37-65	Tactite
				65-80	Thin-bedded limestone
				80-84	Tactite
				84-85.7	Granite dike
				85.7-100	Tactite. 0.1 foot at 95 feet Tactite with scheelite. Poor core recovery. Tactite 95 to 100 may be soft and altered granite.
8	41	N65E	-28°	0-10	Tactite with sparse scheelite

Hole No.	Feet Depth	Bearing	Inclination	Interval	Description
8 (Cont'd.)				10-14	Quartz, muscovite and altered tactite
				14-41	Tactite with sparse scheelite. Very difficult drilling conditions
	Long Hole Drilling				
1	30.6	S67W	+2°	0-5.1	Bedded tactite with sparse scheelite
				5.1-10.2	Thin-bedded limestone
				10.2-20.4	Limestone with garnet
				20.4-30.6	Thin-bedded limestone
2	51	S82°E	+2 1/2°	0-10.2	Thin-bedded limestone
				10.2-20.4	Limestone and tactite
				20.4-35.7	Thin bedded limestone
				35.7-51	Tactite
3	51	East	+2°	0-25.5	Tactite, altered zone with traces of scheelite
				25.5-51	Tactite with sparse scheelite

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA-4614
(Tungsten)
Idm-E1125

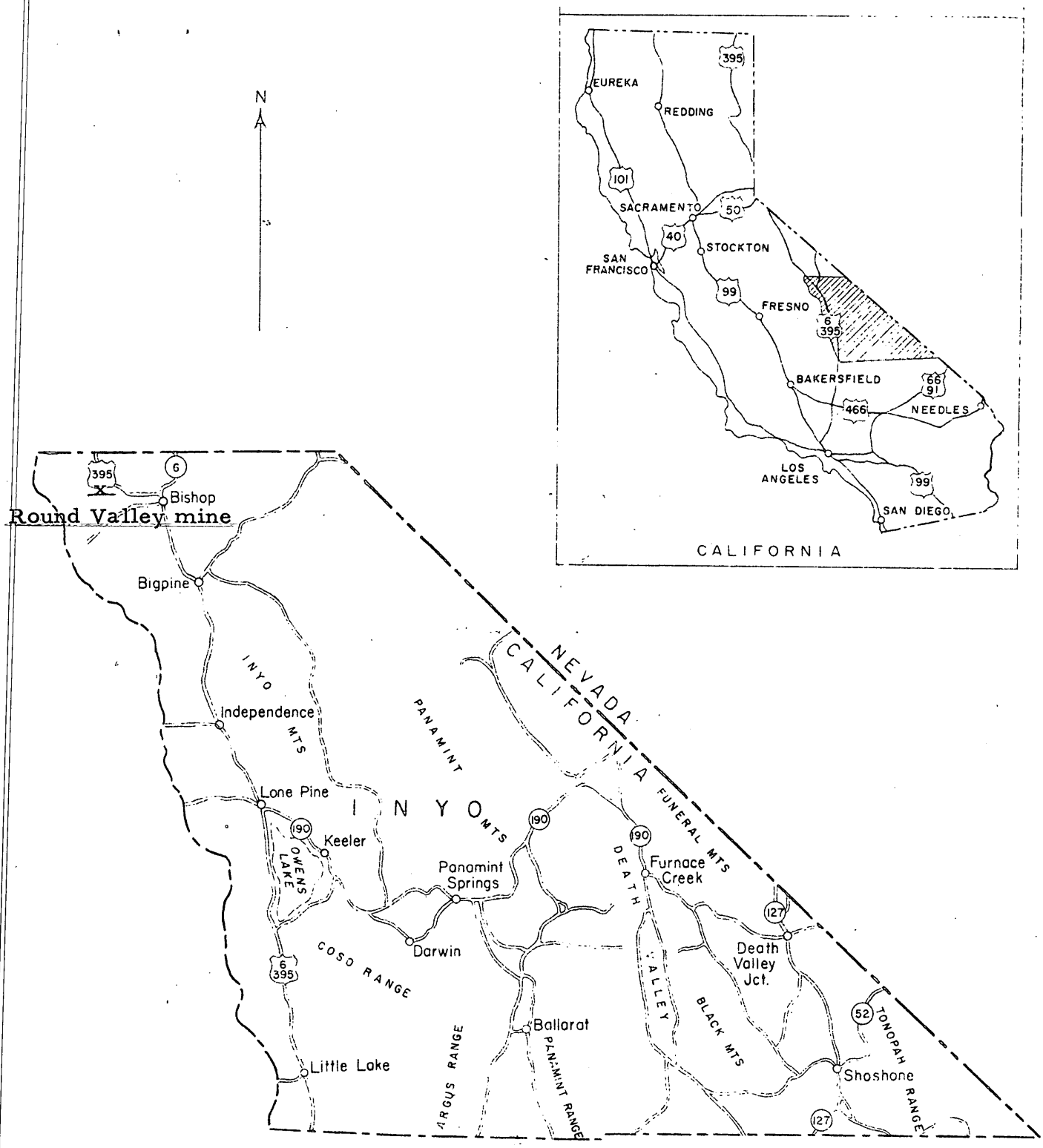

Figure 1. INDEX MAP OF INYO COUNTY, CALIFORNIA

0 25 50 75 Miles

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O. M. E.
RECEIVED FEB 25 1959

DATE	INITIALS	CODE

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 4614
(TUNGSTEN)
Idm E-1125

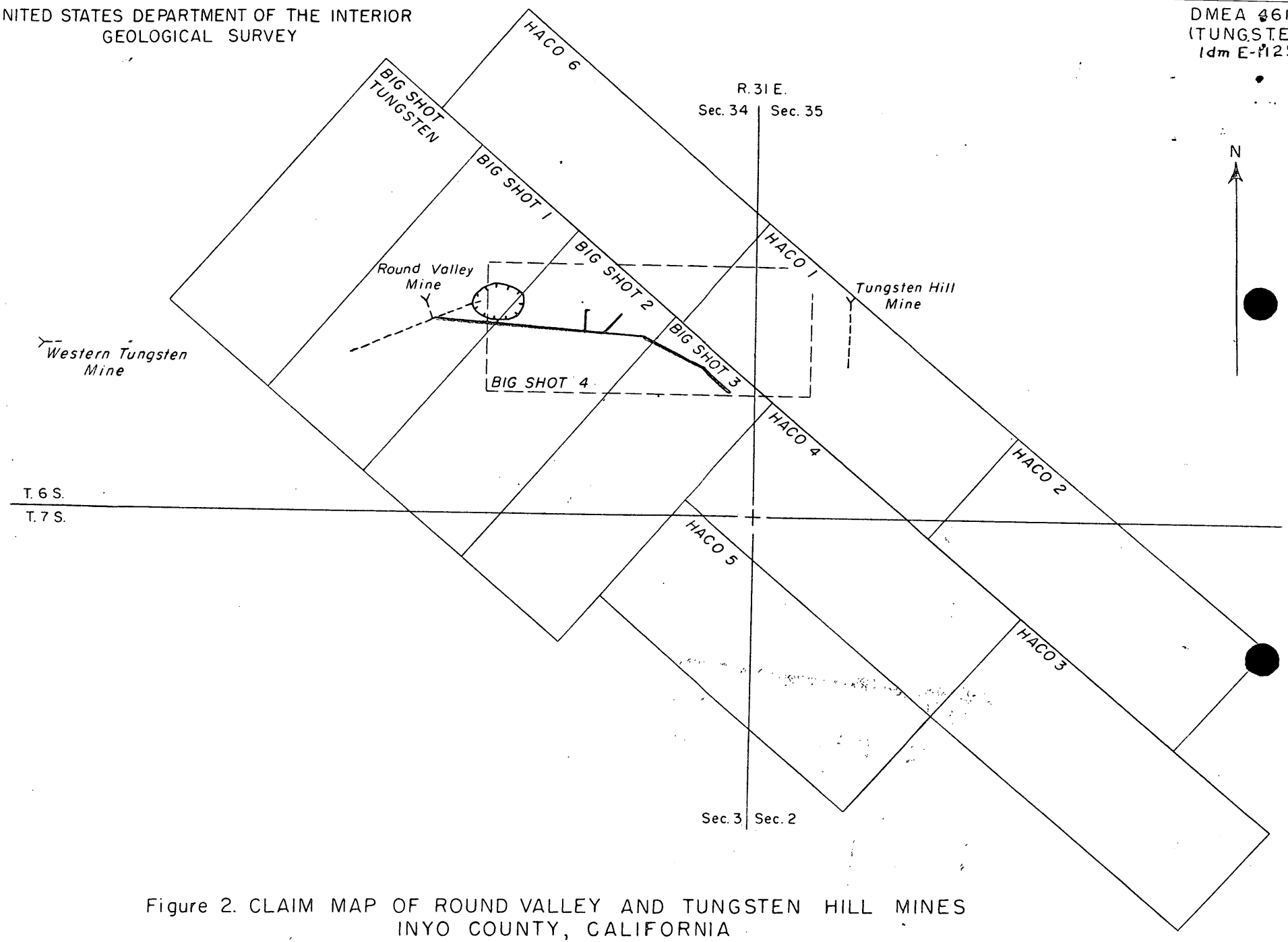

Figure 2. CLAIM MAP OF ROUND VALLEY AND TUNGSTEN HILL MINES
INYO COUNTY, CALIFORNIA

600 0 600 1200 Feet

OFFICIAL FILE COPY
RECEIVED FEB 25 1959

DATE		

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

Jan. 26, 1959

OFFICIAL FILE COPY
RECEIVED JAN 29 1959

DATE	INITIALS	CODE
1/29	C	220
1/29	WSM	400

Memorandum

To: Operating Committee, OME, Interior Building
Washington 25, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Enclosed are the Government's and Audit copies of Termination Agreement on subject contract, executed by the Operator. The remaining copies have been distributed in the usual manner.

For: S. Ricker

Attachments

BUREAU OF MINES
WASHINGTON, D. C.
JAN 28 9 52 AM '59

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

Jan. 22, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 27 1959

DATE	INITIALS	CODE
1-27	C	220
		400

Memorandum

To: Operating Committee, OME, Interior Building
Washington 25, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
(Your letter, January 16, 1959)

Operator's final report was submitted to this office by his accountant, Mr. D. A. Sada, on January 6, 1959 and copies were forwarded to Washington on January 7, 1959.

S. Ricker

Notes on Operator's Final Report
WSM
1/27/59

DMEA Form
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/23	G McCarthy	800
1/23	Talbot	800
1/26	C	220
1/26	Lsoy	400

JAN 23 1959

Mr. George Mavor
CME Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Contract No. Idm-E1125

Dear Mr. Mavor:

Your Report of Review on the above-referenced project is acceptable and normal distribution is authorized.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers
Contract Administration
and Audit Division

GMcCarthy/GMcC
January 23, 1959

cc: Docket
Director's Reading File
Mr. Chambers

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 19 1959

DATE	INITIALS	CODE
1-19	C	220
1/19	WSM	460

January 16, 1959

Memorandum

To: George Mavor, OME Auditor, Region II

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

The Operator requested that the contract be terminated. Approval of the request has been granted and copies of a Termination Agreement dated December 19, 1958 have been sent to the Operator for signature.

A final examination of the project was made January 8, 1959 by B. H. Sheahan and Glenn G. Gentry, U.S. Bureau of Mines. A final report by B. H. Sheahan and H. K. Stager, Geological Survey, is in process and certification of a discovery will not be recommended.

noted S.B.H.

Payment of $500.00 has been withheld from the Operator's vouchers until audit confirms allowable expenditures.

The Operator's final report was received and forwarded to the Operating Committee on December 7, 1958.

Work completed in accordance with terms of the contract is:

Stage I:

	Authorized	Completed
Crosscutting	900 ft.	900 ft.
Timbering	225 ft.	143.5 ft.
Long-hole or diamond drilling	1,000 ft.	839.6 ft.

Stage I (cont'd.):

	Authorized	Completed
Drifting	252.4 ft.	252.4 ft.
Assays for WO_3	65	14

Stage II:

Crosscutting	900 ft.	450 ft.
Timbering	225 ft.	None
Long hole or diamond drilling	1,000 ft.	None
Assays for WO_3	45	None

Work under the contract, not approved by the Government for completion, consists of 450 feet of crosscutting, 1,160.4 feet of long hole or diamond drilling, 306.5 feet of timbering, and 86 assays.

The Operator on his own account, during the period of contract, completed 147.4 feet of crosscutting.

It is now in order for you to issue your Report of Review.

S. RICKER

S. Ricker
Executive Officer
OME Field Team, Region II

SRicker:ft
cc: Opr. Com., OME, Wash., D.C.
Finance Office, Reg. II
RMSmith
File
Chron

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
1/14	Holt	400
1/14	Martin	400
1/16	[illegible]	130
"	Johnson	110
		~~400~~
		~~[illegible]~~
1/19	C	225
		400

JAN 16 1959

Mr. Spangler Ricker
Executive Officer
OME Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill
Mines
Inyo County, California
Contract No. Idm-E1125

Dear Mr. Ricker:

On January 12, 1959, we received your letter dated December 7, 1959, enclosing the Final Report of the subject Operator.

In this instance the Final Report has not been stamp-dated to show when it was received in your office. As you know, the six-month period within which we must make our decision regarding certification runs from the date the Operator's Final Report is received by OME. Receipt of the report in the Field Office counts as receipt by OME.

Ordinarily, when the Field omits any stamped date from an Operator's report, we can use the date of the letter of transmittal as a rough indication of the time of receipt. But in this case, as the Operator's report has not been stamp-dated, and the date on your letter of transmittal is an obvious typographical error, we cannot fix the time of receipt by OME until we hear further from you.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

APPROVED:

G. T. SAROCH (JHB)
Member, Bureau of Mines

N. E. Nelson (JHB)
Member, Geological Survey

SPHOLT:foc 1-14-59
cc to: Code 400
Director's Read. File
Operating Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

Dec. 7, 1959

OFFICIAL FILE COPY
RECEIVED JAN 12 1959

DATE	INITIALS	CODE
1/12	C	220
1/14	[illegible]	800
1/12	WSM	400

Memorandum

To: Operating Committee, OME, Interior Building
Washington 25, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California

Enclosed are three copies of the Operator's final report on subject project.

We recommend that the report be accepted. Our final report is being processed.

Rec'd by FT 1/6/59
See FL let of Jan. 22, 1959 to Op. Com.

S. Ricker

Attachments

Operations

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 12 1959
DATE | INITIALS | CODE

ROUND VALLEY MINE
Ralph E. Shupe

OPERATOR'S FINAL REPORT
D.M.E.A. Contract No. Idm-E-1125

December 7, 1958

On November 11, 1957, preparatory work was begun in the Round Valley Mine to explore southeasterly along and near the contact between the granite on the north and the metamorphic beds on the south. On November 15, the first round was blasted in the exploration adit which eventually was advanced southeasterly 1350 feet; 910 feet in the metamorphics and 440 feet in shattered granite. A total of 252.4 feet of drifting in the metamorphics was completed as well as 707 feet of diamond drilling and 132.6 feet of longhole drilling. 14 samples were assayed; 12 from diamond drill cores and longhole sludge, and 2 chip samples from rock in place.

A total of 143.5 feet of the adit was timbered in faulted and shattered zones.

In addition to the above footages, the operator completed 87.4 feet of crosscutting in granite, 25 feet of which was near the portal to eliminate back-switching on the main haulage, and 62.4 feet was in granite northeasterly from a point 738 feet from the point of beginning.

After government participation ceased, the operator continued the main heading 60 feet and, as seen on the accompanying maps, encountered what may be the granitic rock lying to the south of the mine. Thus, it appears, the metamorphics are surrounded by igneous rock on the north, east, and south at this elevation, and the Tungsten Hills Mine would have to be a separate lens of metamorphics if it should happen to extend to such a depth.

No new ore zones were discovered. A few narrow, low grade, spotty scheelite bands were found near the granite contact, but these could not be classified as ore even at the old government-supported price of $60.00 per unit.

Respectfully submitted,

Byron W. Works

Byron W. Works, Geologist

Rec'd by FT
Jan 6, 1959
See letter of
Jan 22, 1959 to Op. Com.
from FT

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 5 1959

DATE	INITIALS	CODE
1-5	C	220
"	668	800
1/5	WSM	400

Dec. 31, 1958

Mr. Ralph E. Shupe
1521 West 79th Street
Los Angeles 47, California

Re: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Dear Mr. Shupe:

Enclosed are the original and four copies of a proposed Termination Agreement for the above-referenced contract, signed by the Acting Director for the Government.

If the terms and conditions of the proposed agreement are satisfactory to you, all five copies should be signed by you. The copy marked "Operator's copy" should be retained by you and the original and other three copies should be returned to this office.

If any part of the agreement does not meet with your approval, the original and all copies should be returned with your suggested changes.

Very truly yours,

S. RICKER

S. Ricker
Executive Officer
OME Field Team, Region II

Attachments
SRicker:ft
cc: Opr. Com., OME, Wash., D.C.
Finance Office, Region II
GeoMayor
RMSmith
File
Chron

OFFICIAL FILE COPY

Date	Surname	Code
12/18	Ho Cf	400
12/18	Martin	400
12-14	Chamber	800
12/19	GCS	130
"	Jensen	116
		~~400~~
		24
12/22	C	225
		400

Mr. Spangler Ricker
Executive Officer
OME Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

Dear Mr. Ricker:

Enclosed are the original and four copies of a proposed Termination Agreement for the above-referenced contract, signed by the Acting Director for the Government. Two extra copies are enclosed for the use of the Field Team.

If the terms and conditions of the proposed agreement are satisfactory to you and the Operator, all five copies should be signed by the Operator and the usual distribution made.

If any part of the proposed agreement does not have your approval or that of the Operator and cannot be altered with your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (24B)

Enclosure

APPROVED:

C. T. BAROCH (24B)
Member, Bureau of Mines

N. E. Nelson (24B)
Member, Geological Survey

SPHOLT:foc 12-19-58
cc to: Code 400
Director's Read. File
Operating Comm.
FT. REC. II
R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

43683

DMEA Form 1
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/18	Holt	400
12/18	Martin	400
		120
		110
		100
		225

December 17, 1958

MEMORANDUM

To: Acting Director, Office of Minerals Exploration

From: Division of Iron and Ferro-Alloys, OME

Subject: Termination of Contract
Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

Operator: Ralph E. Shupe, 1521 North 79th Street, Los Angeles 47, California

Operator's Property Rights:

The Operator controls, by lease from the owners, or ownership, 11 unpatented lode mining claims, situated in secs. 34 and 35, T. 6 S., R. 31 E., and secs. 2 and 3, T. 7 S., R. 31 E., Inyo County, California, and recorded in the records of Inyo County at Independence, California as follows:

Name of Claim	Recorded Book No.	Recorded Page No.
Tungsten Hill Group		
Haco No. 1	58	298
Haco No. 2	58	388
Haco No. 3	58	389
Haco No. 4	58	390
Owned by Operator		
Haco No. 5	86	103
Haco No. 6	86	103
Round Valley Mine Group		
Big Shot Tungsten	46	109
Big Shot No. 1	46	109
Big Shot No. 2	46	110
Big Shot No. 3	46	110
Big Shot No. 4	46	110

8623

Amended Locations

Big Shot Tungsten	86	95
Big Shot No. 1	86	97
Big Shot No. 2	86	99
Big Shot No. 3	86	101

The Tungsten Hill Group, except for claims held by the Operator, is owned by the estate of G. Crawford, deceased, Bishop, Calif. The Round Valley Mine Group is owned by Al Stevens and Bessie Stevens, his wife, Bishop, Calif. (1/3); Howard Stevens and Josephine Stevens, his wife, Ventura, California, (1/3); Mrs. Mary Trout, Los Angeles, Californis, (1/9); C. A. Rasmussen and Annie Rasmussen, his wife, Long Beach, California, (1/9); and H. O. Johanson and June Mary Johanson, his wife, Bishop, California, (1/9).

Contract:

(a) Executed August 26, 1957, on Short Form, MF-200A (Rev. April 1956).

(b) Completion period: Work to be started on or before November 15, 1957, and to be completed within 24 months from the date of the contract (or before August 26, 1959).

(c) Work authorized:

Fixed Unit Costs

Stage I

Crosscutting, 900 feet @ $31.50/ft.	$28,350.00	
Timbering crosscut, 225 feet @ $6.00/ft.	1,350.00	
Long-hole drilling from crosscut, 1,000 feet @ $1.50/ft.	1,500.00	
Winzing, 100 feet @ $72.00/ft. including timbering	7,200.00	
Long-hole drilling from winze, 500 feet @ $1.50/ft.	750.00	
Assaying 65 samples for WO_3 @ $3.00/each	195.00	
		$39,345.00

Stage II

Crosscutting, 900 feet @ $31.50/ft.	$28,350.00
Timbering crosscut, 225 feet @ $6.00/ft.	1,350.00
Long-hole drilling from crosscut, 1,000 feet @ $1.50/ft.	1,500.00

Assaying 45 Samples for WO_3 @ $3.00/each	$ 105.00	
		$31,335.00
Estimated Total Cost of the Project		$70,680.00
Government Participation @ 75%		$53,010.00

Amendment No. 1, executed June 9, 1958, effective June 1, 1958, authorized diamond core drilling instead of (percussion type) long-hole drilling, at the same unit cost per foot, deleted the authorization for winzing and long-hole drilling from winze, substituting authorization for additional drifting to the equivalent dollar value of the deleted items, so that the estimated total cost of the contract and the Government participation should not be increased.

Amendment No. 2, executed November 14, 1958, corrected the effective date of Amendment No. 1 from June 1, 1958, to May 1, 1958.

(d) Work completed: The following work on the contract has been completed, to October 31, 1958:

Crosscutting, 1,350 feet @ $31.50/ft.	$42,525.00	
Drifting, 252.4 ft./@ $31.50	7,950.00	
Timbering drift and crosscut, 143.5 feet @ $6.00/ft.	861.00	
Long-hole and diamond drilling, 839.6 feet @ $1.50/ft.	1,259.40	
Assaying, 14 Samples for WO_3 @ $3.00/each	42.00	
Total cost of the contract, to 10/31/58		$52,637.40*
Government participation @ 75%		$39,478.05*

(*) Subject to final audit

Work under the contract started November 15, 1957, and was stopped, short of completion, at the end of October, 1958.

Audits:

Report of Final Audit has not been received.

Reports:

The Operator's Final Report is being prepared. The Final Report of the Field Team has not been received.

Past Production:

Production from the Round Valley mine, prior to the date of the contract, totals 80,345 tons, averaging 0.5% WO_3, from which 26,990 short ton units of WO_3 were extracted. Production from the Tungsten Hill mine totals 5,790 tons, averaging 0.6% WO_3, from which 1,848 units of WO_3 were extracted.

Present Production:

No production has been reported from the property since the date of the contract, and no royalty has been paid to the Government.

Certification:

Recommendations of the Field Team regarding certification have not been received.

Comment:

The property has extensive mine workings in two areas about 1,800 feet apart, known as the Round Valley and Tungsten Hill mines.

The project was established to explore for tungsten in the Round Valley and Tungsten Hill claims, where it occurs in the form of scheelite-bearing lenses in tactite, along and near contacts between marbleized limestone and granite or quartz monzonite.

Although early work under Stage I of the contract showed promise of discovering substantial new reserves of tungsten ore, the latest work indicates that the northern and southern masses of granite or monzonite are coming together at depth, pinching out the limestone and tactite area between them, hence disproving the postulated extension of the tactite area to depth, and indicating that the discovery of a significant ore body is improbable.

The Operator, by letter of October 10, 1958, to the Executive Officer, Region II, requested termination of the contract, and the Executive Officer, when transmitting the Operator's request, recommended a Mutual Termination Agreement. This Division has prepared such an agreement.

SPHOLT:foc
12-18-58
cc to: Docket
Code 400
Director's Read. File

W S Martin
W. S. Martin, Chief
Division of Iron and Ferro-Alloys

D.
(12-

OFFICIAL FILE COPY

Date	Surname	Code
12/12	Holt	400
12/12	Martin	400
		140
		140

December 12, 1958

MEMORANDUM

To: Associate Solicitor, Division of Minerals Resources

From: Division of Iron and Ferro-Alloys, OME

Subject: Preparation of Termination Agreement
Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

Attached is a rough draft of a proposed Termination Agreement for the above-captioned contract for your use in preparing it in final form.

W. S. MARTIN

W. S. Martin, Chief
Division of Iron and Ferro-Alloys

Attachment

SPHOLT:foc
12-12-58
cc to: Docket
Code 400

8623

TERMINATION AGREEMENT

It is agreed this _____ day of _____, 1958, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government," and Ralph E. Shupe, hereinafter called the "Operator", parties to that certain Exploration Project Contract No. Idm-E1125 (Docket No. DMSA 4614), dated August 26, 1957, as amended, hereinafter called the "Contract", that:

1. Effective November 1, 1958, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the fixed unit costs of work performed prior to said effective date.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account.

4. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided for in this termination agreement.

5. All rights of the Government provided for in the Contract with respect to audits, maintenance of records, certification of discovery or development, percentage royalty and liens for its payment, and recovery of any overpayment, are preserved.

IN WITNESS WHEREOF, the parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Acting Director, Office of Minerals Exploration

_____
Ralph E. Shupe

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 5 1958

DATE	INITIALS	CODE
12/5	C	220
12/5	WSM	400

Dec. 2, 1958

Memorandum

To: Operating Committee, OME, Interior Building
Washington 25, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California

Enclosed are the Government's and Audit copies of Amendment No. 2 to subject contract, executed by the Operator. The remaining copies have been distributed in the usual manner.

S. Ricker

Attachments

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11-24	C	220
11/25	EOT	800
11/25	WSG	400

Nov. 21, 1958

Mr. D. A. Sada
720 N. Virginia Street
Reno, Nevada

Re: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Dear Mr. Sada:

Enclosed are the original and four copies of a proposed Amendment No. 2 to the above-referenced contract signed by the Acting Director for the Government.

Will you please arrange to have Mr. Ralph Shupe execute the amendment? He should retain the "Operator's copy" and return the original and remaining copies to this office.

This amendment only serves to justify some minor changes in the work plan on which payment by the Government has already been made.

Very truly yours,

S. RICKER

S. Ricker
Executive Officer
OME Field Team, Region II

Attachments

cc: Opr. Com., OME, Wash., D.C.
Finance Office, Region II
GeoMavor
RMSmith
File
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

Nov. 17, 1958

OFFICE - M E
O. M. E.
RECEIVED NOV 20 1958

DATE	INITIALS	CODE
11/21	C	220
		130
11/21	WSG	400

Memorandum

To: Operating Committee, OME, Interior Building
Washington 25, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California

Enclosed are two copies of a letter from the operator requesting a termination of subject contract.

I have consulted with Roscoe Smith and our engineers and the consensus is that a mutual Termination Agreement should be prepared. Further work in the crosscut since our last report intersected the contact between the northern and southern granite masses. This disproves the extension of the tactite target area in depth and indicates that the discovery of a significant ore body is improbable.

noted S.R.H.

S. Ricker

Attachments

TUNGSTEN HILL MINE
c/o D. A. SADA, P.A.
720 North Virginia Street
Reno, Nevada

CONFIRMATION

1521 West 79th. Street
Los Angeles 47, California

November 10, 1958

O. M. E.
RECEIVED NOV 20 1958

DATE	INITIALS	CODE

Mr. Spangler Ricker
Executive Officer
OME Field Team, Region II
Bureau of Mines
U. S. Department of the Interior
1605 Evans Avenue
Reno, Nevada

Re: RALPH E. SHUPE
Docket No. DMEA 4614 (Tungsten)
Contract No. Idm E 1125

Dear Mr. Ricker:

It is respectfully requested that the subject Project be terminated, effective with the progress as indicated in our Reports (MF 104, MF 104A and Narrative) through the month of October, 1958.

After consulting with your OME Field Team and Mr. Byron W. Works, our Geologist, it has been concluded that no further Geological information could be accomplished toward the objective of the Project.

Further information on the subject will be submitted in our "Final Operator's Report", which will be forwarded to your office in the near future.

noted

Respectfully yours,

Ralph E Shupe

RALPH E. SHUPE
Operator

RES:hbs
cc: Mr. D. A. Sada

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 17 1958

DATE	INITIALS	CODE
11-17	C	22C
11/17	WSM	4CC

Nov. 12, 1958

Memorandum

To: Lloyd Sjolander, Finance Officer, Region II

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Contract No. Idm-E 1125
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California

Please withhold $500.00 on payment due Operator on the enclosed MF-104, MF-104A vouchers for the month of October. Contract will probably be terminated and no additional work done.

Until final decision is made and Operator's final report submitted, the full amount of vouchers should not be paid.

Very truly yours,

S. Ricker

Attachments
SRicker:ft
cc: Opr. Com., OME, Wash., D.C.
~~FinanceOffice~~
GeoMavor
RMSmith
File
Chron

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/10	Holt	400
11/10	Martin	400
11-12	Clanahan	800
11/14	GCS	130
"	Johnson	110
		~~100~~
11/17	C	220
		400

NOV 14 1958

Mr. Spangler Ricker
Executive Officer
OME Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill mines
Inyo County, California
Contract No. Idm-E1125

Dear Mr. Ricker:

Enclosed are the original and four copies of a proposed Amendment No. 2 to the above-referenced contract, signed by the Acting Director for the Government. Two extra copies are enclosed for the use of the Field Team.

If the terms and conditions of the proposed amendment are satisfactory to you and the Operator, all five copies shall be signed by the Operator and the usual distribution made.

If any part of the proposed amendment does not have your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge
(esf)
ACTING Chairman, Operating Committee

Enclosure

APPROVED:

Richard H. Mote
(esf)
Member, Bureau of Mines

N. E. Nelson
(esf)
Member, Geological Survey

SPHOLT:foc 11-10-58
cc to: Code 400
Director's Read. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

DMEA FORM 6 REFERENCE SLIP

REV. 12-56 DEFENSE MINERALS EXPLORATION ADMINISTRATION

TO:	INITIALS	DATE
1. SOLICITOR'S DCKT. RM. 6036		
2. MR. DUYER - RM. 6556		
3. MR. MARTIN RM. 5[illegible]		
4.		
5. ASSOC. SOLICITOR		
FROM: MINERAL RESOURCES		10/29

RECEIVED
SOLICITOR
OCT 29 1958
OCT 29 1958
INTERIOR DEPT.

FOR: Check items for action desired

____ Action	____ Reply for signature of ____	
____ Approval	____ Investigate	____ Surname
____ Comment	____ Recommendations	____ Signature
____ Conference	____ Rewrite	____ File
____ Instructions	Your information	

REMARKS: Insert the following in the attached draft of the proposed amendment:

under the heading

Stage II,

"2. In Exhibit A, Description of the Work, item 2 is ~~changed~~ amended to read: "Explore the wall rock of the crosscut with not to exceed 1,000 feet of long hole drilling" from the crosscut or other locations approved by the Government,"

SEC., WASH., D.C. M8278

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/29	Holt	400
10/29	Martin	400
		140
		140

October 29, 1958

MEMORANDUM

TO: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys, OME

Subject: Preparation of Amendment
Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill mines
Inyo County, Califoraia
Contract No. Idm-E1125

Attached is a rough draft of a proposed Amendment No. 2 to the above-captioned contract for your use in preparing it in final form.

W. S. MARTIN
W. S. Martin, Chief
Division of Iron and Ferro-Alloys

Attachment

SPHOLT:foc
10-29-58
cc to: Docket
400 Chron. File

8623

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA - 4614

AMENDMENT NO. 2

It is agreed this _____ day of _____, 1958, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration ~~(successor to the Defense Minerals Exploration Administration)~~, and Ralph E. Shupe, that Exploration Project Contract No. Idm-E1125 (Docket No. DMEA 4614), dated August 26, 1957, as amended, is further amended, effective May 1, 1958, as follows:

1. The ~~last clause of the first paragraph~~ effective date of Amendment No. 1 is changed from "June 1, 1958" ~~to read~~ "effective May 1, 1958."

Insert 2. (See routing slip.) This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, or the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Director, Office of Minerals Exploration

RALPH E. SHUPE

By _____

Title _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 29 1958

DATE	INITIALS	CODE
10/29	C	220
10/31		800
10/31	NSay	400

Reno, Nevada

Oct. 27, 1958

Mr. Ralph E. Shupe
1521 West 79th Street
Los Angeles 47, California

Re: Docket No. DMEA-6614 (Tungsten)
Ralph E. Shupe
Round Valley & Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Dear Mr. Shupe:

Enclosed is confirmation of telegram to you dated October 27, relative to referenced contract.

Unless more concrete evidence is found as to location of the granite-tactite contact, continuation of the current work is not justified. The two holes decided upon in conference between our engineers and your geologist, Mr. Byron Works, should be started from near the face of the crosscut and should be drilled at angles of plus 45 degrees and at bearing South 48 degrees East and South 30 degrees East.

Very truly yours,

S. RICKER

S. Ricker
Executive Officer
OME Field Team, Region II

Attachment

SRicker:ft
cc: OME, Opr. Com., Wash., D.C.
Finance Office, Region II
GeoMavor
RMSmith
File Chron

CONFIRMATION

STANDARD FORM No. 14A
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

GOVERNMENT PRINTING OFFICE 6—7134

FROM INTERIOR DEPARTMENT

BUREAU of Mines, OME, Region II

CHG. APPROPRIATION WO-RO-59-3

Oct. 27, 1958

RALPH E. SHUPE
1521 WEST 79th STREET
LOS ANGELES 47, CALIFORNIA

RE DOCKET DMEA-4614, CONTRACT IDM-E 1125, GOVERNMENT WILL ONLY PARTICIPATE IN A TOTAL OF 450 FEET OF CROSSCUTTING AND OR DRIFTING UNDER STAGE II UNTIL EXPLORATORY DRILLING ESTABLISHES LOCATION OF GRANITE TACTITE CONTACT. TWO DRILL HOLES IN ACCORDANCE WITH INSTRUCTIONS BY OUR ENGINEERS TO YOUR GEOLOGIST BYRON WORKS ARE APPROVED.

S. RICKER
EXECUTIVE OFFICER
OME FIELD TEAM, REGION II

cc: Opr. Com., OME, Wash., D.C.
Finance Office, Region II
GeoMavor
RMSmith File Chron

EXPLORATION PROJECT CONTRACT
RALPH E. SHUFE
DOCKET NO. DMEA 4614

AMENDMENT NO. 2

Justification

Amendment No. 1, dated June 9, 1958, was made effective as of June 1, 1958. It has since been noted that, according to the Operator's Narrative Report for May 1958, diamond drill holes Nos. 1 and 2, authorized by Amendment No. 1, were drilled during the month of May.

Amendment No. 2 changes the effective date of Amendment No. 1 from June 1, 1958, to May 1, 1958.

OME

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 21 1958

DATE	INITIALS	CODE
10/21	C	220
10/21	WSM	400

Oct. 16, 1958

Memorandum

To: Operating Committee, OME, Interior Building
Washington 25, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Mr. Talbert brought to my attention that the effective date of Amendment No.1 to subject contract was June 1, 1958. Could this be changed as effective May 1, 1958? Long holing had been tried and was not satisfactory and operator agreed to bear the extra expense of the more suitable diamond drilling. The Government was actually getting more for its money. yes

The location of holes were drilled from the crosscut and drifts therefrom. Exhibit A, Stage I, Item 2, states: "Explore the walls of the crosscut with not to exceed 1,000 feet of long hole drilling." All drilling actually explored the crosscut wall rock but all did not actually start from the crosscut itself. The intent was the same. In order that this Item 2 could not be misinterpreted, an amendment changing it to read "Explore the wall rock of the crosscut with not to exceed 1,000 feet of long hole drilling from crosscut or other locations approved by the Government" may be proper.

I note that Order No. 2834 of September 22, 1958 will in the future permit the Executive Officers to take care of such changes in the field. This should greatly facilitate the operation of the contract.

S. Ricker

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 13 1958

DATE	INITIALS	CODE
10/13	C	220
10/13	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

October 9, 1958

BMA Docket No. 4614 (Tungsten)
BMA Contract No. Idm E1125
Commodity Tungsten
Name of Applicant Ralph E. Shupe
Name of Property Round Valley & Tungsten Hill
Location of Property Inyo County, California
Contract Area of Project

To: W. S. Martin, Chief, Iron and Ferroalloys Division
Through: H. G. Iverson, Chief, Br. of Ferrous Metals and Ferroalloys
From: R. W. Holliday, Commodity Specialist
Br. of Ferrous Metals and Ferroalloys
Subject: Interim Report and Recommendation

1. Date of project contract: September 11, 1958 2. Date expired by reason: Oct. 1, 1958
3. Data upon which the property has to evaluate: Yes [ ] No [x]
4. Data upon which mining program has to evaluate: Yes [ ] No [x]
5. Information available on non-production: Yes [ ] No [x]
6. Other pertinent factors have to evaluate: Yes [ ] No [x]
7. Explain item which "yes" checked:

8. Factors considered:
a. Location [ ] c. Proposed exploration method [ ]
b. Ownership [ ] f. Alternate exploration method [ ]
e. Evidence of mineralization [ ]
d. Geology [ ] g. Costs
h. [ ]

9. Action taken:
a. Claim information for optioned [ ] c. Discuss with field [ ]
b. Refer to field [ ] f. Submit alternate plan [ ]
e. Defer [ ] g. Report another contractor [ ]
d. Agree with field [x] h. Approved [ ]
i. Submit [illegible] j. [illegible] k. Other

10. Remarks: (Use back of page if necessary) I concur with the recommendation of the examining geologist and the mining engineer that Stage II of the project should be approved.

Robert W Holliday

Copy to: Div. of Minerals
Mr. Lamb - Rm. 3608
Ferrous Metals (2)
Files

WESTERN UNION

Telefax

O REA101 PD=RENO NEV 24 905AMP=

1958 SEP 24 PM 12 22

GEO C SELFRIDGE, CHAIRMAN OPERATING COMMITTEE=

OFC OF MINERALS EXPLORATION INTERIOR BLDG WASHDC=

REURTEL CONTRACT IDM-E1125, DOCKET 4614, RALPH E SHUPE, SEE COPY OF OUR LETTER DATED SEP 18 TO SHUPE IN WHICH GOVT APPROVAL TO PROCEED WITH STAGE 2 AS OF SEP 8 WAS GRANTED. ROSCOE SMITH AND I APPROVE THE RECOMMENDATION AND CONCLUSIONS IN INTERIM REPORT BY SHEAHAN AND STAGER=

S RICKER=

1958 SEP 24 PM 12 30

No reply necessary DMEA
Crossed in the mail
WSM

1270 (1-51)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-23	Holt	400
9-23	Martin	400
9/23	GCS	130
9-23	Devenyns	130
9/23	Delson	130
"	Gunson	110
"	Attendorn	108
9/24	"	220
		400

SEP 24 1958

Call Letters N C Q Charge to: 1490108, Salaries & Expenses, Office of Minerals Exploration, Interior 1959

MR. SPANGLER RICKER, EXECUTIVE OFFICER, ONE FIELD TEAM, REGION II
1605 EVANS AVENUE, RENO, NEVADA

PLEASE ADVISE YOUR RECOMMENDATION REGARDING APPROVAL OF PART OR ALL OF STAGE II WORK UNDER CONTRACT IDM E1125, DOCKET 4614, RALPH E. SHUPE, AS RECOMMENDED BY B. K. STAGER AND B.H. SHEAHAN IN THEIR INTERIM REPORT OF SEPTEMBER 11, 1958.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE (JHS)

SPHOLT:foc
9-23-58
cc to: Docket
Director's Read. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8-5	Chapman	400
8-5	Martin	400
8/5	[illegible]	130
"	[illegible]	110
6	[illegible]	190
8/6	W.G.O.	220
		400

AUG 6 1958

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph F. Shupe
Round Valley and Tungsten Hill
Mines
Inyo County, California
Contract No. Idm-E1125

Dear Mr. Ricker:

The memorandum of July 14, 1958, by R. M. Smith, Geological Survey, and B. H. Sheahan, Bureau of Mines, advised that they had recommended to the Operator the drilling of 6 holes easterly for about 40 feet each; one 40-foot hole northerly from drift No. 2; and one hole parallel to granite contact, at a plus 20 degree angle for 100 feet from drift No. 1. We concur in these recommendations.

We also believe it might be advisable to drill 3 or 4 holes, from the north side of the main crosscut, to intersect mineralized zones at 5230E. and 5360E. nearer to the contact. We would appreciate your comment on this suggestion.

If no significant ore showings are found by the work proposed above, we agree that it would not be advisable to approve Stage II.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

Frank D. Lamb (GCS)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

TLCHAPMAN/dlm 8-5-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

RECEIVED JUL 30 1958

DATE	INITIALS	CODE
7/30	C	220
	WSM	400

July 28, 1958

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125
(Your letter, July 10, 1958)

Our records indicate that none of the work under Amendment No. 1 was done previous to the effective date June 1, 1958. A corrective amendment is, therefore, not required.

S. Ricker

A Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/15	Chapman	400
7/15	Martin	400
7/18	Martin	130
"	Johnson	110
"	Anderson	100
7/21	C	220
	Long	140
7/15	Chambers (Ann'd. Sec. Off.)	800
		400

JUL 18 1958

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten
Hill Mines
Inyo County, Arizona
Contract No. Idm-E1125

Dear Mr. Ricker:

According to the Interim Report of July 2, 1958, by H. K. Stager and R. M. Smith, Geological Survey, 180 feet of drifting, authorized by Amendment No. 1, has been completed up to June 25, 1958, on the above-noted project.

Amendment No. 1 did not become effective until June 1, 1958, and we would appreciate being informed whether this drifting was undertaken after June 1, or if part of it was done in May. Our telegram of May 20, 1958, authorized the Operator to proceed at his own risk, and indicated our intention to participate in the cost of the new work. Accordingly, if any of the work was performed in May, we will prepare a corrective amendment.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (SLB)

APPROVED:

Frank D. Lamb (SLB)
Member, Bureau of Mines

N. E. Nelson (SLB)
Member, Geological Survey

TLChapman/dlm 7/15/58
Revised HCRubin/hm 7/16/58
cc: Code 400
Admr. reading file
Operating committee
Region II
R. W. Holliday, usbm
T. H. Kiilsgaard, usgs
Mr. Dwyer

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7-15	Chapman	400
7-15	Martin	400
		130
		110
		100
		220
	[redacted]	140
7-15	Chambers	800

R

SOLICITOR

JUL 15 1958

INTERIOR DEPT.

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMFA 4614 - Tungsten
Ralph B. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, Arizona
Contract No. Idm-11125

Dear Mr. Ricker:

According to the Interim Report of July 2, 1958, by H. K. Stager and R. M. Smith, Geological Survey, 180 feet of drifting, authorized by Amendment No. 1, has been completed up to June 25, 1958, on the above-noted project.

Amendment No. 1 did not become effective until June 1, 1958, and we would appreciate being informed whether this drifting was ~~completed~~ undertaken after June 1, or if part of it was done in May. Our telegram of May 20, 1958, authorized the Operator to proceed at his own risk, and ~~the Amendment should have been written to be effective as of the date of the contract. If any of the work was done in May it will be necessary for us to prepare a new amendment.~~

Sincerely yours,

(indicated our intention to participate in the cost of the new work. According, if any of the work was performed in May, we will prepare a corrective amendment.)

APPROVED:

Chairman, Operating Committee

TLCHAPMAN/dlm 7-15-58
cc to: Code 400
Admr. R. File
Oper. Comm.
REGION II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

Member, Bureau of Mines

Member, Geological Survey

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 11 1958

DATE	INITIALS	CODE
7/11	C	220
	WSM	400

July 9, 1958

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125
(Your letter, June 9, 1958)

Enclosed are the Government's and Audit copies of Amendment No. 1 to subject contract, executed by the Operator. The remaining copies have been distributed in the usual manner.

S. Ricker

Attachments

Amend. #1

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

June 26, 1958

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Attached is the original Notice of Assignment to the Bank of America on the Government Contract on subject docket.

For: S. Ricker

Attachment

NOTICE OF ASSIGNMENT OF CLAIMS UNDER GOVERNMENT CONTRACT

(Before filling out this notice, read carefully instructions on reverse side.)

Date May 27, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 4 1958

DATE	INITIALS	CODE

TO: (a) Defense Minerals Exploration Administration
c/o Bureau of Mines
(b) 1605 Evans Ave.,
Reno, Nevada
(c)

RE CONTRACT NUMBER Idm - E 1125
MADE BY THE UNITED STATES OF AMERICA

Interior DEPARTMENT

Defense Minerals Exploration Administration DIVISION

WITH Ralph E. Shupe
(Name and Address of Contractor)

FOR Exploration Project No. 4614

DATED 26 August, 1957

PLEASE TAKE NOTICE that monies due or to become due under the contract described above have been assigned to the undersigned pursuant to the provisions of the Assignment of Claims Act of 1940 as amended.

A true copy of the instrument of assignment is attached hereto.

Payments due or to become due under such contract should be made to the assignee, at the Branch and address indicated below.

Please return to the undersigned the three enclosed copies of this notice with appropriate notations showing the date and hour of receipt and duly signed by the person acknowledging receipt on behalf of the addressee.

RECEIVED JUN 30 1958 D.M.E.A.

Very truly yours,

Bank of America
NATIONAL TRUST AND SAVINGS ASSOCIATION

by [signature] Assistant Manager
(Name and title of signing officer)

BISHOP BRANCH

125 So. Main St., Bishop, California.
(Branch Name and Address)

Receipt is hereby acknowledged of the above notice and a copy of the above mentioned instrument of assignment. These were received at 10:30 a.m. p.m. on June 24, 1958.

[signature], Executive Officer
(Signature)

on behalf of Defense Minerals Exploration Administration

(Name and title of addressee of notice)

N-296 7-51 (Revised)

INSTRUCTIONS

In order to avoid delay, inconvenience, and possible impairment of the validity of assignments, these instructions should be followed carefully.

1. Under the terms of the Assignment of Claims Act of 1940 as amended, written notice of each assignment of monies due or to become due from the United States or from any agency or department thereof, together with a true copy of the instrument of assignment must be filed with:

(a) the contracting officer or the head of his department or agency,

(b) the surety or sureties upon the bond or bonds, if any, in connection with such contract, and

(c) the disbursing officer, if any designated in such contract to make payment.

2. All blanks should be carefully filled in and the original and three copies should be forwarded to each of the parties with whom notice is required to be filed.

3. The addressee should acknowledge receipt of this notice on the three copies and return the same to the assignee.

4. One copy of each such receipt should be retained by the assignee for his own records and two copies of each such receipt should be attached to the first invoice, voucher, or other similar document submitted for payment.

5. It will not be necessary to forward additional copies of such receipts with requests for further payments, because the first copies will be duly recorded in the appropriate offices of the Government.

6. If there is no surety bond in connection with the contract giving rise to the claim which is assigned, it is not necessary to serve notice of assignment upon any surety.

7. If no disbursing officer is designated in such contract to make payment, it is not necessary to serve notice of assignment upon any disbursing officer.

8. To the original (but not the copies) of each notice of assignment, there should be attached one true copy of the instrument of assignment. This may consist of *(a)* a duplicate original containing all the signatures, seals, acknowledgments, etc., which appear on the original, *(b)* a complete photostatic copy of the original or *(c)* a certified copy of the original, provided that such copy is accurate and complete in all respects, including signatures, seals, acknowledgments, etc., which may be typewritten, and provided that the certificate to the effect that it is a true copy be executed by a notary public or other officer authorized by law to administer oaths.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

6/30	C	220
7/1	400	800
	WSM	400

June 26, 1958

Bank of America
125 South Main Street
Bishop, California

Gentlemen:

We are enclosing three copies of Notice of Assignment of Claims under Government Contract No. Idm-E 1125 with Ralph E. Shupe, exploration project No. DMEA-4614.

Very truly yours,

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments
cc: Opr. Com., DMEA, Wash., D.C. (r)
Finance Office, Reg. II
GeoMavor
RMSmith
File
Chron

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 19 1958
DATE
6/18 H.J. 225
800
WSM 400

1605 Evans Avenue
Reno, Nevada

June 16, 1958

Mr. Ralph E. Shupe
1521 West 79th Street
Los Angeles 47, California

Re: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Dear Mr. Shupe:

Enclosed are the original and four copies of a proposed Amendment No. 1 to above referenced contract, signed by the Administrator for the Government.

If the conditions and terms of the proposed amendment are satisfactory, all five copies should be signed by you. The copy marked "Operator's copy" should be retained by you and the original and other three copies should be returned to this office.

If any part of the amendment does not meet with your approval, the original and all four copies should be returned to this office with your suggested changes.

Very truly yours,

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments
SRicker:ft
cc: Opr. Com., DMEA, Interior Bldg., Wash., D.C.
Finance Office, Region II
GeoMayor
RMSmith File Chron

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/20	Martin	400
6/20	[illegible]	130
"	[illegible]	110
"	[illegible]	100
		220
6/20	Talbot	800
6/23	C	420
		400

JUN 20 1958

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill mines
Inyo County, California
Contract No. Idm-E1125

Dear Mr. Ricker:

Attached are the original and three copies of "Notice of Assignment of Claims Under Government Contract" sent to us with your letter of June 2, 1958, regarding the subject contract.

You are authorized and directed to complete the notation showing the time of receipt. Please return the original to us and return the three copies to Bank of America.

Mr. Goodale's letter to you of May 28, 1958, and the Duplicate-Original "Assignment of Claims Under Government Contract" dated May 27, 1958, will be kept in our files unless you inform us that you require them.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosure

APPROVED:

Frank D. Lamb (JHB)
Member, Bureau of Mines

N. E. Nelson (JHB)
Member, Geological Survey

WSMARTIN/foc 6-20-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

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

JUN 18 1958

Memorandum

To: Administrator, DMEA
Attention: Director, Division of Iron and Ferro-Alloys

From: Acting Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-4614 - Ralph E. Shupe
Assignment of claims under Government contract.

Pursuant to Mr. Martin's request, we have reviewed the assignment Mr. Shupe has executed in favor of the Bank of America, and the Bank's "Notice of Assignment of Claims Under Government Contract."

Both documents are in the form prescribed by General Services Administration Circular No. 35 and are properly executed. Accordingly, the three copies of the "Notice" should be acknowledged and returned to the bank.

J. L. Hofflund

OFFICIAL FILE COPY

Date	Surname	Code
6/16	Chapman	400
6/16	Martin	400
		140
		140

June 16, 1958

MEMORANDUM

To: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Review of Assignments of monies payable on Contract
Ralph E. Shupe
Docket No. DMEA 4614 - Tungsten
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

Attached for your review are two forms for Assignment of Monies due on above noted Contract. The Division of Contract Administration and Audit says it is in order.

W. S. MARTIN

W. S. Martin, Director
Division of Iron and Ferro-Alloys

Enclosure

TLCHAPMAN:foc
6-16-58
cc to: Docket
Chron. File

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 4 1958

DATE	INITIALS	CODE
6/5	C	220
	WSM	400

June 2, 1958

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Enclosed are the original and copy of a letter dated May 28, 1958 from L. A. Goodale, Assistant Manager, Bank of America, Bishop, California and enclosures noted therein.

If the assignment is in order, will you please take the proper action or return the documents to me for any action I should take, whichever procedure is preferable? If the assignment is not in order, we would appreciate your suggestions.

S. Ricker

Attachments

Cable Address—BANKAMERICA

Bank of America

NATIONAL TRUST AND SAVINGS ASSOCIATION

BISHOP BRANCH • 125 SOUTH MAIN STREET • BISHOP, CALIFORNIA

May 28, 1958

REFER TO	NOTED	DATE
S Ricker	JR	6/2/58
ANSWERED		

Defense Minerals Exploration Administration
c/o Bureau of Mines
1605 Evans Ave.,
Reno, Nevada

Attn: Spangler Ricker

Subject: Ralph E. Shupe
Contract No. Idm-E 1125

Dear Mr. Ricker:

We enclose Notice of Assignment of Claims under Government Contract in quadruplicate together with a duplicate original assignment dated May 27, 1958 and executed by Ralph E. Shupe. If this assignment is in order please acknowledge receipt on 3 copies of the notice returning them to us.

If payments on this contract are not made by your office we would appreciate being advised the name and address of the disbursing officer so that notice of this assignment may be filed with the proper paying agency.

Any assistance you can give us will be appreciated.

Very truly yours,

L. A. Goodale
Assistant Manager

LAG/ml
Encl:

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 4 1958

DATE	INITIALS	CODE
	WSM	400

7

OFFICIAL FILE COPY

Date	Surname	Code
6-9	Chapman	400
6-9	Martin	400
6-9	Chambers	800
6/9	GCS	130
"	Jensen	110
"	Hattendorf	100
6/10	"	220
		100

JUN 9 1958

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614, Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-11125

Dear Mr. Ricker:

Enclosed are the original and four copies of a proposed Amendment No. 1 to the above-referenced contract, signed by the Administrator for the Government. Two extra copies are enclosed for the use of the Field Team.

If the conditions and terms of the proposed amendment are satisfactory to you and the Operator, all five copies shall be signed by the Operator and the usual distribution made.

If any part of the proposed amendment does not have your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Enclosures

Sincerely yours,

APPROVED:

George C. Selfridge
Chairman, Operating Committee (GCS)

Frank D. Lamb (FDL)
Member, Bureau of Mines

TLCHAPMAN/dlm 6-9-58
cc to: Code 400
Admr. R. File

cc to: Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

Thor H. Kiilsgaard (THK)
Member, Geological Survey

8623

OFFICIAL FILE COPY

Date	Surname	Code
5/26	Chapman	400
5/26	Martin	400
		140
		140

May 26, 1958

MEMORANDUM

TO: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Preparation of Amendment No. 1
Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E1125

Attached is a rough draft of a proposed Amendment No. 1 to the above-captioned contract for your use in preparing it in final form.

W. S. MARTIN

W. S. Martin, Director
Division of Iron and
Ferro-Alloys

Attachment

TLCHAPMAN/foc
5-26-58
cc to: Code 400
Docket

8623

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA 4614

AMENDMENT NO. 1

It is agreed this _____ day of _____, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Ralph E. Shupe, that Exploration Project Contract No. Idm-E1125 (Docket No. DMEA 4614), executed August 26, 1957, is amended as follows:

In Exhibit A under the heading Description of the Work, the following change is made:

Under Stage I, delete items 3 and 4 and substitute the following:

Drift from crosscut adit to areas indicated by long hole drilling or diamond drilling. If timbering is necessary, use a portion of the timbering allowed for adit crosscut in Stage I. The Operator at its option may substitute diamond drilling for long hole drilling, at the same cost as the long hole drilling. The layouts of drifting to be approved by the Government.

ESTIMATED COST OF THE PROJECT
Agreed Unit Costs

Under Stage 1, delete "Winzing, 100 feet at $72.00/ft., including the cost of timbering."	$7,200.00
and	
"Long hole drilling from winze, 500 feet at $1.50/ft.	750.00
Total	$7,950.00
and substitute 252.4 feet of drifting at $31.50/ft.	$7,950.00

This amendment shall not be construed to increase the total estimated cost of the project, the aggregate amount which the Government may be required to contribute, nor the agreed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense Minerals
Exploration Administration

RALPH E. SHUPE

_____
Operator

[redacted]

JUSTIFICATION

The present work on the adit level indicates that more work is justified on this level to further explore the tactite zones already found. It is indicated that drifting after long hole or diamond drilling would be better exploration than sinking the winze and long hole drilling from the bottom of the winze.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 20 1958

DATE	INITIALS	CODE
5/20	H. S.	225
	WSM	400

Memorandum

May 19, 1958

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of request for contract amendment, DMEA 4614, Contract Idm-E1125 (tungsten), Ralph E. Shupe, Round Valley and Tungsten Hill Mines, Inyo County, California.

The Operator requests amendment of the subject exploration contract to allow drifting and diamond drilling in lieu of winzing and long-hole drilling.

The Operator points out that the extra drifting would allow exploration of new ground while the winzing would only follow known mineralized ground. The Operator also demonstrates that diamond drilling would be far superior to long-hole drilling, both from the standpoint of drilling feasibility and the information received.

The Field Team, Region II, have indicated their approval of the Operator's request. I recommend that the contract be amended in accordance with the Field Teams' advice.

W. P. Williams

W. P. Williams

OFFICIAL FILE COPY

Date	Surname	Code
5-19	Chapman	400
5-19	Martin	400
"	Chambers	800
5/19	[illegible]	130
5/19	[illegible]	130
5/19	[illegible]	130
"	[illegible]	110
"	[illegible]	108
5/20	[illegible]	220

MAY 20 1958

INTERIOR

IMEA

14X4401(01 REVOLVING FUND
DEFENSE PRODUCTION ACT, INTERIOR(TRANSFER TO OFFICE OF SECRETARY*

T E L E G R A M

MR. SPANGLER RICKER, EXECUTIVE OFFICER
IMEA FIELD TEAM, REGION II
1605 EVANS AVENUE
RENO, NEVADA

REURMEMO MAY 13, RECOMMENDING CHANGES IN WORK DOCKET NO. IMEA 4614, RALPH E. SHUPE AND ENCLOSING COPIES OF LETTER OF MAY 3, 1958, FROM SHUPE REQUESTING SUBSTITUTION OF DRILLING AND DRIFTING ON THE ADIT LEVEL FOR WORK IN WINZE. WE AGREE TO THE CHANGE AND WILL WRITE AN AMENDMENT ACCORDINGLY. PLEASE ADVISE OPERATOR THAT IT MAY PROCEED AT OWN RISK.

George C. Selfridge

CHAIRMAN, OPERATING COMMITTEE

TLCHAPMAN:foc
5-19-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 19 1958

DATE	INITIALS	CODE
5/19	C	220
		400

May 16, 1958

4614
Idm-E 1125
Tungsten
Ralph E. Shupe
Roud Valley & Tungsten Hill Mine
Inyo County, Calif.

W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals and Ferroalloys
R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Application for amendment

May 3, 1958 May 16, 1958

DMEA Docket 4614

x

I agree that the authorization should be amended to agree with the Field Team alternate proposal (memo of May 13).

R. W. Holliday

GCS

Probably we could get a wire to Op. Com. to-day on this, but we have no comments from BM & GS commodity specialists. Shall we try to get OK's on a "yes, go ahead" wire?

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

May 13, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED 15 1958
DATE
5/15 C 220
130
WSM 400

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Enclosed are three copies of a letter dated May 3, 1958 from the Operator requesting an amendment to subject contract.

I have discussed this request with Roscoe Smith and our engineer and geologist. We agree that the winze work at a cost of $7,950.00 should be eliminated and money expended for 252.4 feet of drifting at $31.50 per foot. This drifting would be done after completion of sufficient diamond or long hole drilling, not to exceed 1,000 feet, to definitely locate contact with granite and the most attractive location for drifting.

Have discussed our alternate proposal with the Operator and he agrees to it. Where necessary, he will core drill instead of long hole and bear the extra expense. This is agreeable to us as results from diamond drilling will be more satisfactory in most of the ground.

Second stage of contract remains the same and will only be done if results of first stage are favorable.

Please advise by telegram if you approve.

S. Ricker

Attachments

BUREAU OF MINES
WASHINGTON, D. C.

MAY 15 9 20 AM '58

May 3, 1958
Los Angeles, Calif.

REFER TO | INITIAL | DATE
Ricker
ANSWERED

Re:

DMEA No. 4614 Tungsten Contract No. Idm-E 1125 Inyo County Calif.
Ralph E. Shupe, Operator

OFFICIAL COPY
DMEA
RECEIVED MAY 15 1958
DATE | INITIALS | CODE

Mr. Spangler Ricker,

Dear Sir,

I am herein applying for some changes in the above contract. It is the opinion of all parties concerned and consulted with on this project that these changes will be advantageous to both the Government and the Operator insofar as the costs, compared to the information obtained, are concerned.

First, I would like to eliminate the winze work included in stage I of the project at an estimated cost of $ 7,950.00 . While I didn't include this winze work in my application, when it was included I thought that it would be a sound expenditure. Further investigation has convinced of the inadvisibility of doing it for the following three reasons;

(1) It is the studied opinion of all of the several geologists consulted that the ore will most likely be there. This, then, will not discover any new ore but will only be blocking out and developing ore bodies the existence of which are pretty well conceded. My purpose in this project is to try to find new ore bodies, and I believe that this is also the Government's purpose.

(2) Should the work be done and ore result therefrom, it would be economically impossible to extract said ore because of the inferior engineering on the mine in these lower levels. The method of mining these lower levels has reulted in high costs and therefore a loss by the last couple of lessors.

(3) Should the work being done on the crosscut level result in a commercially feasible mine, then it is my intention to use development money from the profits and explore and develop

these lower levels by going out away from all of the existing workings and sinking a vertical shaft below them and then drifting over to get the ore. This will be a much cheaper and better way of getting the ore.

Second, I would like to eliminate the longhole drilling program that is meant to explore the contact from the 1800' crosscut, at an estimated cost of $ 3,000.00 . My reasons are set out below.

(1) The structures we are going through in the crosscut are many and varied, as you can see from the maps sent in with my monthly reports. It is the opinions of Lennie Palmer And Al Decker, both of whom are specialists at longhole and core drilling in this mining district, and my engineers, Frank Wicks and Byron Works, that the costs to longhole drill would be exorbitant in comparison with the results that would be obtained. They lose the water in a short distance and therefore no sludge would be forthcoming for examination. This conclusion is supported by the fact that 4' steel is being used in the heading because the percentage of lost holes was very high whenever they tried to use 5' or 6' steel.

(2) The authorization of the 900' of crosscut in the second stage is entirely dependent upon the results obtained from this probing of the contact zone. In our opinion it should be as complete and authoritative as it is possible to make it. To determine exactly how far we are from the contact at this time is important. To do this I have stopped the crosscutting temporarily and have dropped back from the heading some way and am putting in a core drill hole at about a 45 degree angle from the crosscut toward the contact. This is at my own expense as it is not in the contract at this time. The crosscut is in about 750' at this time. The core drill hole is picking up ore showings at 53'.

This is what I am requesting authorization to do. Substitute 350' of tunnel at $ 31.50 per foot or $ 11,025.00 for 100' winze ($ 7,200.00), 2,000' of longhole ($ 3,000.00), and 25 assays ($ 75.00), 500' of winze

longhole ($ 750.00), the total of which is also $ 11,025.00 . This tunnel work to be used as follows; the Government and my engineers select a point near the 750' mark and drift to the contact, not to exceed the 350' allowed. At the same time I will be completeing the other 150' of crosscut allowed in the first stage of 900'. If the showing then does not warrant the authorization of the second stage 900' of crosscut, a second point will be selected by the engineers near the 900' mark from which to again drift to the contact. Should these two drifts exceed the substituted 350', I will pay for the overage. Should there be any total left from the 350' of drift and the second stage is then authorized, other points will be selected in the second stage 900' and the balance of the substituted 350' will be used to further explore the contact. Naturally if the DMEA project discovers ore, I intend to spend more private capital to develop and block out the bodies, if possible, to the extent to warrant a mill.

Should this plan not meet with your approval, I would welcome any alternate plan that you might suggest. However I think that the elimination of the winze work and the longhole drilling are of paramount importance. They can only cost the Government and the Operator money and can accomplish no equitable purpose in the project. The plan I suggest will cost me much more money as the costs are running well over the estimated $ 31.50 per foot but at least the money will not be wasted as it will definitely refute or establish the existence of ore in these unexplored sections we are exploreing.

For numerous reasons time is of the utmost importance in this project so if there is anything that you wish to communicate with me about I would most certainly appreciate it if you would call me on the phone any morning before 9 A.M. Reverse the charges.

Yours most sincerely,

Ralph E. Shupe

Ralph E. Shupe
1521 W. 79th St.
Los Angeles 47, Calif.

Phone PLeasant 1-5215

DMEA Form 7
(12-56)

February 5, 1958

OFFICIAL FILE COPY

Date	Surname	Code
2-6	Chapman	400
2-6	Martin	400
12	Cook	100
11	Fey	110
		400

February 5, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Summary and Justification of Contract No. Idm-E1125
Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

The above noted property was the subject of a request dated January 16, 1957, for exploration assistance at an estimated cost of $88,410.50 for diamond drilling and drifting.

A field examination of the property was made on February 26 and 27, 1957, by B. H. Sheahan, Bureau of Mines, and H. K. Stager, Geological Survey, accompanied by Mr. Frank R. Wicks, consulting engineer, and Mr. E. J. Duncan, representing the Applicant. The Field Team suggested some revision to the work proposed by the Applicant with 4,700 feet of diamond drilling and 1,800 feet of crosscutting at an estimated cost of $94,520.00.

After a review of the Field Team Report, this Division suggested a project to include crosscutting, winzing and long hole drilling which was acceptable to the Applicant and the Field Team. The work was to be divided into two stages and was as follows:

Stage I

Crosscut 900 feet and explore the walls with not to exceed 1,000 feet of long hole drilling. At the southwest end of the Round Valley deeper workings sink a winze 100 feet and explore the adjoining area with not to exceed 500 feet of long hole drilling.

Stage II

Continue crosscut 900 feet and explore walls with not to exceed 1,000 feet of long hole drilling.

Total cost of project estimated to be $70,680.00, Government participation 75 percent $53,010.00.

Past production of these properties was as follows:

Tungsten Hill mine: 5,790 tons averaging 0.6 percent WO_3; 1,848 units.

Round Valley mine: 80,345 tons averaging 0.5 percent WO_3; 26,990 units.

Total units produced 28,838.

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Estimated ore reserves of the properties are as follows:

Mine	Measured Ore, Tons	Indicated Ore, Tons	Inferred Ore, Tons	Percent WO_3
Tungsten Hill	500	3,000	20,000	0.60
Round Valley	500	10,000	80,000	0.50
Total	1,000	13,000	100,000	0.52

While exploring the recognized ore areas for continuation of ore in known zones, it estimated 3 or more new lodes or ore bodies will be found by the exploration work indicated in Figures 3 and 4 accompanying the contract. Geological conditions indicate that each of these zones should produce 20,000 or more tons of ore of average grade

Comments and Justification:

The property has extensive mine workings in two areas about 1,800 feet apart, known as the Round Valley and Tungsten Hill mines.

A custom mill is located about 10 miles from the property. A broad tactite zone extends for about a mile in metamorphosed sediments lying along granite contacts. Tungsten rich tactite layers occur near the contacts of the metamorphosed rock and granite. The ore mined is scheelite and the WO_3 content ranges from a trace to several percent.

Geological studies indicate that future production from the proposed work should at least equal the past production of 86,135 tons averaging 0.50 percent WO_3, from which 28,838 units of WO_3 were recovered.

Five principle ore bodies have been mined. The project is designed to explore for the downward extension of the known ore bodies and the inferred locations of new ore bodies in the expectation of finding a large tonnage of low grade ore.

The operation is well equipped and work is progressing efficiently in driving the crosscut under Stage I. Some mineralization has been encountered. A sample from one small pod of scheelite is estimated to contain 0.8 percent WO_3.

W S Martin

W. S. Martin, Director
Division of Iron and Ferro-Alloys

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

OFFICIAL FILE COPY DMEA RECEIVED SEP 9 1957		
DATE	INITIALS	CODE
9/9	C	220
9/10	RB	215
		400

September 4, 1957

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California
Contract No. Idm-E 1125

Enclosed are the Government's and Audit copies of subject contract executed by the Operator. The remaining copies have been distributed in the usual manner.

S. Ricker

Attachments

OFFICIAL FILE COPY

Date	Surname	Code
8-22	Chapman	400
8-22	Martin	400
8/23	Talbitt	800
8/26	[illegible]	130
"	Johnson	110
"	Butterdorf	100
8/27	P	220
		400

AUG 26 1957

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Dear Mr. Ricker:

Enclosed are the original and four copies of a proposed short form contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Annex I (2 pages), two Consents to Lien and Subordination Agreements, Exhibit A (3 pages), and four maps. Two extra copies of Exhibit A with Annex and maps are enclosed for the use of the Field Team.

If the conditions and terms of this proposed contract are satisfactory to you and the Operator, all five copies should be signed by the Operator, and the usual distribution made.

If any part of the proposed contract does not have either your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

but note Chapman

Under Article 1, the starting date has been left blank and is to be filled in when the contract is signed by the Operator.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

P. F. Yopes

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

Enclosures

TLCHAPMAN:foc 8-23-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

OFFICIAL FILE COPY

Date	Surname	Code
6.25	Holt	400
	Chapman	400
6/26	Talbot	800
		130
	Hogg	
	Nelson	110
		100
		220
		400

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA-4614, Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Dear Mr. Ricker:

Enclosed are the original and ~~five~~ 4 copies of a proposed short-form contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Annex 1 (2 pages), two Consents to Lien and Subordination Agreements, Exhibit A (3 pages), and four maps. Two extra copies of Exhibit A with Annex and maps are enclosed for the use of the Field Team.

If the conditions and terms of this proposed contract are satisfactory to you and the Operator, all six 5 copies should be signed by the Operator, and the usual distribution made.

If any part of the proposed contract does not have either your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Under Article 1, the starting date has been left blank and is to be filled in when the contract is signed by the Operator.

Sincerely yours,

APPROVED:

Chairman, Operating Committee

Member, Bureau of Mines

Member, Geological Survey

Enclosures

TLChapman/dlm 6-25-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
R. W. Holliday, USBM
T. H. Kiilsgaard
USGS

Government's Copy

MF-200A
(Rev. April 1956)

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT
(Short Form)

DMEA No.	Commodity	Contract No. Idm-E	County	State
4614	Tungsten		Inyo	California

It is agreed ....., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Ralph E. Shupe

whose mailing address is 1521 West 79th Street, Los Angeles 47, California

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority and project.*—(a) This contract is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed therein. The project work is a search for indicated or undeveloped deposits of the commodity designated above. The Operator shall begin the work on or before ....., and, subject to the provisions of Article 7 and Exhibit A, shall complete the work within 24 months from the date of the contract.

(b) The description of the work and the fixed cost for each unit of work to be performed (per foot of drilling, per foot of drifting, per hour of operations, etc.) are hereby agreed upon as specified in Exhibit A. The estimated total cost of the project work is $ 91,980.00. The Government will contribute 75 percent of the fixed unit cost of the work performed, not exceeding $ 68,985.00, in accordance with the provisions of Articles 4 and 5.

(c) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's rights of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances: Royalty payments to owners as set forth in leases.

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached, as follows: Consent to Lien and Subordination Agreements of Lessors

(c) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing

in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. Two copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 6 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. *Performance of the work.*—(a) Operator's responsibility.—The work shall be performed diligently, efficiently, expertly, in a workmanlike manner, and in accordance with good mining standards and State regulations governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work, as specified in Article 1 (a).

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after certification of discovery or development, to inspect production operations and underground workings. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. *Contribution by the Government.*—The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5 (b); but all payments by the Government are provisional only, subject to audit, and until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been rendered, the Government may withhold such sums as it sees fit but not in excess of 10 percent of the estimated total cost of the work. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government will not contribute to the cost of any work performed prior to the date of this contract. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(a) Operator's records.—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered a sufficient final report (see Article 5), may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer or as surety if the Operator is not the producer (for example, if the Operator either transfers or fails to retain his interest in the land), shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling, assaying, or transportation performed or paid by the Operator or by anyone other than the buyer are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent) after the lapse of six months from the date the ore was extracted from the ground remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this Article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 7. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 7 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and liens to secure the payment thereof, and such rights shall be fully preserved.

ARTICLE 8. *Notices to be given by the Government* may be delivered to the Operator or may be sent by registered mail addressed to the Operator at the mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 9. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 10. *Changes and added provisions.*—

.....

.....

.....

.....

.....

.....

Larry Dunkgar
Chapman
Martin
Talbert

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Ralph E. Shupe (Operator)

By .....
Administrator, Defense Minerals Exploration Administration

By .....

.....

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ....., who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE: 1956—O-383069

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-4614

EXHIBIT A

Description of the Work

Attached maps are as follows:

Figure 1--Index Map of Inyo County, California, showing location of the property
Figure 2--Claim Map of Round Valley and Tungsten Hill Mines
Figure 3--Geologic Sketch Map of the Round Valley and Tungsten Hill Mines
Figure 4--Geologic Cross Sections and Level Maps, Round Valley and Tungsten Hill Mines

The work will be performed in two stages. The Operator shall perform all the Stage I work and as much of Stage II work as is approved in advance in writing by the Government.

STAGE I

1. Bulldoze approximately 2,000 feet of access roads, an adit portal site, drill sites, and diamond drill 10 holes vertically as indicated on figures 2, 3, and 4. The holes shall be not less than AX in size and will vary from 200 to 700 feet in depth with the total footage not to exceed 4,700 feet. Due to fractured ground the first 100 feet of each hole shall be drilled with a plug bit and cased. The approximate depths of the holes are as follows:

Holes 1, 2, and 3 (360 feet each) . . .	1,080 feet
Hole 4	500 feet
Hole 5	200 feet
Hole 6	310 feet
Hole 7	630 feet
Hole 8	630 feet
Hole 9	650 feet
Hole 10.	700 feet
Total depth of holes	4,700 feet

2. Holes shall be cemented and redrilled and/or reamed and cased as necessary.

3. Holes shall be sampled in mineralized zones and assayed for WO_3.

4. All work of drilling and sampling shall be supervised by a consulting engineer and geologist.

5. All bulldozer work shall be with a D-7 or equivalent unit of another make.

6. Not in excess of 40 hours of bulldozer time, 4,700 feet of drilling or 30 days of consulting engineer and geologist services shall be performed under this stage of the Contract.

STAGE II

1. Crosscut not to exceed 1,800 feet approximately as indicated on Figures 2, 3, and 4.

2. The crosscut shall be timbered as necessary with standard drift sets and shall be 5 feet X 7 feet in the clear.

3. Not in excess of 30 days of consulting engineer and geologist services shall be performed under this stage of the Contract.

4. The crosscut shall be sampled in mineralized zones and assayed for WO_3.

Estimated Cost of Project

Fixed Unit Costs

Stage I

Bulldozing 40 hours at $12.00/hr.	$ 480.00
Diamond plug drilling 1,000 feet at $4.00/ft.	4,000.00

Casing 1,000 feet at $1.50/ft.	$ 1,500.00	
Core drilling 3,700 feet at $6.00/ft.	22,200.00	
Reaming and casing and/or cementing and redrilling 800 feet at $2.50/ft.	2,000.00	
Estimated total for diamond drilling	$30,180.00	
Consulting Engineer and Geologist 30 days at $50.00/day	1,500.00	
50 assays for WO_3 at $3.00 each	150.00	
Estimated total cost of Stage I		$31,830.00

Stage II

Crosscutting, 1,800 feet at $31.00/ft.	$55,800.00	
Timbering 450 feet at $6.00/ft.	2,700.00	
Consulting Engineer and Geologist 30 days at $50.00/day	1,500.00	
50 assays for WO_3 at $3.00 each	150.00	
Estimated total cost of Stage II		$60,150.00

S U M M A R Y

Estimated Total Cost of Stage I	$31,830.00	
Estimated Total Cost of Stage II	$60,150.00	
Estimated Total Cost of Project		$91,980.00
Government participation at 75 percent		$68,985.00

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Chapman	400
	Martin	400

August 7, 1957

MEMORANDUM

To: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Preparation of Contract
Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Attached is second draft of the proposed contract for the captioned project for your use in preparing the final form.

Annex I may be used as written in the first draft of the contract.

W. S. Martin, Director
Division of Iron and Ferro-Alloys

Attachment

TLChapman/esf
cc to: Docket
Code 400
Admr. R. Fiala

8623

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-4616

Attached maps are as follows:

Figure 1. Index Map of Inyo County, California, showing location of the property.

Figure 2. Claim Map of Round Valley and Tungsten Hill Mines.

Figure 3. Geologic Sketch Map of the Round Valley and Tungsten Hill Mines.

Figure 4. Geologic Cross Section and Level Maps, Round Valley and Tungsten Hill Mines.

This work will be performed in two stages. The Operator shall perform all of Stage I and as much of Stage II as is approved in advance in writing by the Government.

All drifts and/or crosscuts shall be timbered as necessary and shall be minimum of 5 feet by 7 feet in the clear.

A supervising engineer and geologist shall oversee the work, map and sample the work as necessary.

STAGE I

1. Drive crosscut adit 900 feet approximately as indicated on Figures 2, 3 and 4.

2. Explore the walls of the crosscut with long hole drilling.

3. At the southwest end of the Round Valley deeper workings sink an inclined winze 100 feet. The winze is to be 5 feet by 7½ feet in the clear with a hoisting and manway apartment. The estimated inclination of the winze will be approximately 35 degrees.

4. From the bottom of the winze explore the adjoining area with long hole drilling.

STAGE II

1. Crosscut 900 feet from the face of the crosscut in Stage I, approximately as indicated on Figures 2, 3 and 4.

2. Explore the walls of the crosscut with long hole drilling.

All mineralized zones in Stages I and II shall be sampled and assayed for WO_3.

ESTIMATED COST OF THE PROJECT
Fixed Unit Costs

Stage I

Crosscutting 900 feet at $31.50/ft.	$28,350.00	
Timbering 225 feet 1/ at $6.00/ft.	1,350.00	
Long hole drilling 1,000 feet at $1.50/ft.	1,500.00	
Estimated cost of crosscutting and long hole drilling		$31,200.00
Winzing 100 feet at $72.00/ft.	$7,200.00	
Long hole drilling 500 feet at $1.50/ft.	750.00	
Estimated cost of winze and long hole drilling		$7,950.00
Assaying 65 samples for WO_3 at $3.00 each		$195.00
Estimated total cost of Stage I		$39,345.00

Stage II

Crosscutting 900 feet at $31.50/ft.	$28,350.00	
Timbering 225 feet 1/ at $6.00/ft	1,350.00	
Long hole drilling 1,000 feet at $1.50/ft.	1,500.00	
Estimated cost of crosscutting and long hole drilling Stage II		$31,200.00
Assaying 45 samples for WO_3 at $3.00 each		135.00
Estimated cost of Stage II		$31,335.00
Estimated total cost of project		$70,680.00
Government participation, 75 percent		$53,010.00

1/ By mutual agreement the amount of timbering may be increased if found necessary.

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

July 26, 1957

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

We have discussed your letter of July 8, 1957 regarding changes in our proposed exploration of subject property and recommend that a contract be prepared in accordance with your suggestions. The Applicant is agreeable to the proposal.

We assume that Stage I will cover 900 feet of drifting and the 100-foot winze including long hole drilling. Stage II would cover the additional 900 feet of drifting if justified from results obtained in Stage I.

Attached are our revised estimates of costs.

S. Ricker

Attachments

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8/1	WSM	400

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DATE	INITIALS	CODE

Estimated Costs

Stages I & II — Drifting and Crosscutting

1800 feet total, 900 feet in each stage, size 5 ft. by 7 ft., timbered as required. Average rate of advance 4.5 feet per shift. Time: 8 mos., or 200 shifts for each stage. Labor to be performed by independent contractor, and operating equipment to be furnished by the Operator.

	Cost per foot	
(a) Supervision, Engineering, and Labor		
Supervisor, engineer, geologist one at $600.00/mo.	$ 7.50	5.33
Miner, one at $24.00/shift	12.50	13.33
Helpers, two at $18.00/shift ea.		18.66
(b) Operating Materials and Supplies		
Power, fuel oil, and lubricants	2.38	2.38
Explosives - powder and detonators 185.36.90	2.46	2.65
Track, 16 lb. rail, ties, and other supplies (used)	1.06	1.06
Pipe, 2 in. air and 1 in. water (used) 7163 Salvage 238	0.72	.19
Ventilation tube Salvage 35%	1.05	.69
Timber at $75./M, 450 ft. timbered, or 225 ft. ~~timbered per 900 ft. of drifting~~ within each stage	~~1.04~~	
Steel and Bits		1.61
(c) Operating Equipment - to be furnished by Operator. Estimated value ~~$9,400.00~~ 7.050.00. Depreciation allowance ~~$156.66~~ 117.50/mo.	~~0.74~~	1.05
		10
(d) Miscellaneous		
Industrial insurances, OAB, and taxes $13.54/$100.00	3.05	2.54
Cambell & Lamb		.04
Total unit cost per foot for drifting or crosscutting	$32.50	31.50

Stage I - Winzing 100 feet at southwest end of Round Valley Mine. Estimated inclination approximately minus 35 degrees, 5 x 7.5 size, hoist compartment and manway, average advance 3.33 feet per shift. Time: 30 shifts or 1.25 mos. Labor to be performed by independent contractor with operating equipment to be supplied by Operator.

	Cost per foot	
(a) Supervision, Engineering, and Labor		
Supervisor, engineer, geologist 1.25 mos. at $600.00	$ 7.50	7.50
Labor - 2 shaft miners at $24./shift ea. 1 helper, 1 hoist man, and 1 trammer at $18.00/shift ea.	30.60	30.60
(b) Operating Materials and Supplies		
Power, fuel oil, and lubricants	~~3.08~~ 4.00	4.00
Explosives - powder and detonators	2.54	4.00
Track - 20 lb. rail with ties and other supplies	2.25	2.25
Pipe - 2 in. air, and 1 in. water	0.72	.72
Ventilation tube 35% Salvage	1.05	.68
Timber, blocking, hangers, etc. (use $10.00/ft.)	10.14	10.14
(c) Operating Equipment		
(To be furnished by the Operator) Estimated value ~~$9,400.00~~ 7,050.00, 5 yrs. depreciation, or $156.66/mo., ~~$196~~/ft. 117.50 (use $2.00)	2.00	1.47
(d) Miscellaneous		
Industrial insurances, OAB, taxes, 13.5% of ~~$3810.00~~ 10,200.00 = ~~$514.35~~	5.67 ~~5.14~~	5.67
Preparation of hoisting station and long hole drilling station at winze $500.00	5.00	5.00
Estimated cost per foot for winzing:	$ 70.02	72.03
(use)	$ ~~70.00~~ 72.00	

Stage I and II Long hole percussion drilling to further explore the scheelite mineralized marble tactite zone. Drilling to be done from the 100-foot inclined winze, or from drifts or crosscuts in the southwest portion of the Round Valley Mine. Estimated footage 2000 feet at 66.7 feet/shift, or 30 shifts.

	Cost per foot
Supervisor, engineer, geologist	$ 0.36
Labor - 1 miner, and 1 helper	0.63
Operating materials and supplies	0.40
Operating equipment	0.20
Miscellaneous	0.16
Estimated cost per foot for long hole percussion drilling	$ 1.75

Cost Summary on Unit Cost Basis

Stage I	(a) Drifting or crosscutting, size 5 ft x 7 ft., 900 ft. at $32.50/ft.	$29,250.00
	(b) Winzing 100 ft. at $60.00/ft	6,000.00
	Timbering winze (as required) 100 ft. at $10.00/ft.	1,000.00
	(c) Long Hole percussion drilling 1,000 ft. at $1.75/ft.	1,750.00
	(d) Assaying - 50 assays for WO_3 at $3.00/each	150.00
	Total cost Stage I	$38,150.00
Stage II	(a) Drifting or Crosscutting, size 5 ft.x7ft. 900 ft. at $32.50	$29,250.00
	(b) Long Hole percussion drilling, 1,000 ft. at $1.75/ft.	1,750.00
	(c) Assaying - 50 assays for WO_3 at $3.00 each	150.00
	Total cost, Stage II	$31,150.00

Estimated total cost of project	$69,300.00
Government's share at 75%	$51,975.00
Applicant's share at 25%	$17,325.00

Time to complete work: Cost estimates are based on completing proposed project in 460 shifts, or approximately 18 months minimum time. However, a period of 24 months should be allowed to provide for a 5-day work week, delays or inclement weather conditions.

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1605 Evans Avenue
Reno, Nevada

June 11, 1957

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Reference is made to your telegrams dated May 17 and June 3, 1957, relative to subject docket.

Enclosed are two copies of a covering letter dated June 7, 1957, from Mr. D. A. Sada and documents that are enumerated therein.

We hope the documents are in order.

S. Ricker

Attachments

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DMEA
RECEIVED JUN 13 1957

DATE	INITIALS	CODE
6/13	C	220
13	WSM	400

BUREAU OF MINES
WASHINGTON, D. C.
JUN 13 9 01 AM '57

TELEPHONES
OFFICE FAIRVIEW 2-7114
RESIDENCE ELGIN 5-8973

DONALD A. SADA

PUBLIC ACCOUNTANT
138 VESTA STREET
RENO, NEVADA

June 7, 1957

Mr. [illegible], Field Executive Officer
Defense Minerals Exploration Administration
Department of the Interior
Reno, Nevada

Dear Mr. Ricker:

Attached hereto are the following documents appertaining to the Application for aid in an exploration project, pursuant to DMEA Order 1, under the Defense Production Act of 1950, as amended; by Mr. R. W. Shupe:

1. Affidavit of Owner, executed by Mr. Ralph R. Shupe, and Mr. Gearld A. Crawford.

2. Affidavit relating to fulfillment of Minimum Royalties requirements by the Lessee, Ralph R. Shupe.

3. Consent to Lien and Subordination Agreement executed by the following:

[illegible]

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DMEA
RECEIVED JUN 1[illegible]
DATE | INITIALS | CODE

4. [illegible]
Mr. [illegible]

5. [illegible]
Mr. [illegible]

6. Consent to Lien and Subordination Agreement executed by
Mr. [illegible], Earl [illegible] Crawford [illegible].

Sincerely yours,

D. A. SADA

DAS:sm

WHEN Congratulations ARE IN ORDER
Congratulations
IT'S WISE TO WIRE!

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

DMEA-4614

1957 JUN 4 PM 5 54

O REA359 NL PD=RENO NEV 4=

GEORGE C SELFRIDGE,CHAIRMAN OPERATING COMMITTEE

DEFENSE MINERALS EXPLORATION ADMIN=INTERIOR BLDG

WASHDC=

:REYOUR TEL MR SHUPE'S ATTORNEY HAS ADVISED US THAT ALL PAPERS WOULD BE SUBMITTED BY JUNE 12TH

:S RICKER=.

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DMEA
RECEIVED JUN 5 1957

DATE	INITIALS	CODE
6/5	C	220
6/5	NSM	400

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

MEA Form 7
(12-56)

INTERIOR

DMEA

OFFICIAL FILE COPY

Date	Surname	Code
6-4	Chapman	400
6-4	Martin	400
		14X1401(01) Revolving Fund, Defense Production Act, Interior, Transfer to Office of Secretary)
6/4	GCS	130
		~~130~~
		~~130~~
		~~100~~
6/4	C	220
		400

T E L E G R A M

JUN - 4 1957

MR. SPANGIER RICKER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION II
1605 EVANS AVENUE
RENO, NEVADA

PLEASE ADVISE WHETHER YOU EXPECT TO BE ABLE TO OBTAIN DATA REQUESTED IN OURTT MAY 17, DOCKET NO. DMEA 4614, RALPH E. SHUPE.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

TLCHAPMAN:foc
6-4-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

INTERIOR
DMEA

OFFICIAL FILE COPY

Date	Surname	Code
5-16	Chapman	400
5-16	Martin	400
	14X4401(01) REVOLVING	
	FUND, DEFENSE PRODUCTION ACT, INTERIOR,	
	TRANSFER TO OFFICE OF SECRETARY)	
	Long	120
5/17	Stanger	110
"	Mattenson	100
5/20	C	220
5/17	Selfridge	
	Kiilsgaard	
	(400)	

TELEGRAM

MAY 17 1957

MR. SPANGLER RICKER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION II
1605 EVANS AVENUE
RENO, NEVADA

RE DOCKET 4614, RALPH E. SHUPE, ROUND VALLEY AND TUNGSTEN HILL MINES. PLEASE OBTAIN PROMPTLY FROM APPLICANT: (1) STATEMENT THAT LEASES, WHICH HAVE NO FIXED TERM BUT DEPEND ON ROYALTY PAYMENTS AND WORK PERFORMANCE, ARE IN GOOD STANDING AND CAN BE SO MAINTAINED FOR DURATION OF PROJECT; (2) VERIFY RECORDING DATA AND SPELLING OF CLAIM NAMES WHICH DIFFER IN APPLICATION AND CRAWFORD LEASE.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

TLCHAPMAN:foc
5-16-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

5/17

8623

DMEA Form 7,
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-13	Chapman	400
5-13	Martin	400
		140
		140

May 13, 1957

MEMORANDUM

To: Associate Solicitor, Division of Mineral Resources

From: Iron and Ferro-Alloys Division, DMEA

Subject: Docket No. DMEA 1611 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Attached is a draft of a proposed contract for the captioned project for your use in preparing in final form.

W. S. Martin
W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachment

RECEIVED
MAY 14 1957
ASSOC. SOLICITOR
MINERAL RESOURCES

TLChapman:foc
5/13/57
cc to: Docket
Chron.

8623

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-4614

ANNEX NO. 1

The land referred to in Article 2 of the contract form is shown on the attached Figure 2, Claim map. The property consists of eleven unpatented lode mining claims, in three groups recorded as follows at Independence, Inyo County, California:

Name of Claims	Book No.	Page No.
Tungsten Hill group		
Haco No. 1	58	298
Haco No. 2	58	388
Haco No. 3	58	389
Haco No. 4	58	390
Owned by Applicant		
Haco No. 5	86	103
Haco No. 6	86	103
Round Valley Mine Group		
Big Shot Tungsten	46	109
Big Shot No. 1	46	109
Big Shot No. 2	46	110
Big Shot No. 3	46	110
Big Shot No. 4	46	110
Amended Locations		
Big Shot Tungsten	86	95
Big Shot No. 1	86	97
Big Shot No. 2	86	99
Big Shot No. 3	86	101

The Tungsten Hill group of claims is owned by G. Crawford, Bishop, California, and has been leased to Ralph E. Shupe, Los Angeles, California, by an Option and Lease Agreement dated January 1, 1955, to which is attached a Supplementary Agreement, dated June 11, 1955.

The Round Valley Mine group of claims is owned 1/3 by Al Stevens and Bessie Stevens, husband and wife, Bishop, California, 1/3 by Howard Stevens and Josephine Stevens, husband and wife, Ventura, California, 1/9 by Mary Trout, a married woman, Los Angeles, Calif, 1/9 by C. A. Rasmussen and Annie Rasmussen, husband and wife, Long Beach, Calif. and 1/9 by H. O. Johanson and June Mary Johanson, husband and wife, Bishop, California, and has been leased to Ralph E. Shupe, Los Angeles, California, by a Mining Lease and Option to Purchase dated November 20, 1955, and by an Amendment and Supplementary Agreement to Mining Lease and Agreement to Purchase dated December 6, 1956. Annie Rasmussen, signed as the Executrix of the estate of C. A. Rasmussen.

Item 1-M of the Modifications to Mining Lease and Option to Purchase Agreement advises that the Big Shot Tungsten is not owned in its entirety by the aforesaid owners.

All the claims are located in sections 34 and 35, T. 6 S., R. 31, E. and sections 2 and 3, T. 7 S., R. 31 E., Inyo County, California.

EXPLORATION PROJECT CONTRACT
RALPH E. SHUPE
DOCKET NO. DMEA-1614

EXHIBIT A

Description of the Work

Attached maps are as follows:

Figure 1 - Index Map of Inyo County, California, showing location of the property

Figure 2 - Claim Map of Round Valley and Tungsten Hill Mines

Figure 3 - Geologic Sketch Map of the Round Valley and Tungsten Hill Mines

Figure 4 - Geologic Cross Sections and Level Maps, Round Valley and Tungsten Hill Mines

The contract will be divided into two stages and Stage II will require the approval of the Government and will be dependent on the results obtained in Stage I.

STAGE I

1. Bulldoze approximately 2,000 feet of access road, sites for 10 diamond drill stations and Adit portal with a D7 or equivalent of another make. Time 40 hours.

2. Drill 10 diamond drill holes vertically as indicated on figures 2, 3, and 4. These holes shall be not less than AX in size and will vary from 200 to 700 feet in depth, the total footage not to exceed 4,700 feet. Due to fractured ground the first 100 feet of each hole shall be drilled with a plug bit and cased. The approximate depths of holes are as follows:

Holes 1, 2 and 3, 360 feet each	1,080 feet
Hole 4	500 feet
Hole 5	200 feet
Hole 6	310 feet
Hole 7	630 feet

Hole 8	630 feet
Hole 9	650 feet
Hole 10	700 feet
Total depth of holes	4,700 feet

Holes shall be cemented and redrilled and/or reamed and cased as necessary.

3. Consulting Engineer and Geologist. 30 days.

4. Holes shall be sampled in mineralized zones and assayed for WO_3.

STAGE II

Stage II shall be dependent on the results obtained in the diamond drill holes of Stage I and shall have the prior approval of the Government.

1. Crosscut not to exceed 1,800 feet approximately as indicated on Figures 2, 3 and 4. The crosscut to be 5 feet by 7 feet in the clear.

2. The crosscut shall be timbered as necessary with standard drift sets.

3. Consulting Engineer and Geologist. 30 days.

4. The crosscut shall be sampled in mineralized zones and assayed for WO_3.

ESTIMATED COST OF PROJECT
Fixed Unit Costs

Stage I	Bulldozing 40 hours at $12.00/hr.	$ 480.00
	Diamond plug drilling 1,000 feet at $4.00/ft.	4,000.00
	Casing 1,000 feet at $1.50/ft.	1,500.00

Core drilling 3,700 feet at $6.00/ft.	$22,200.00	
Reaming and casing and/or cementing and redrilling 800 feet at $2.50/ft.	2,000.00	
Estimated total for diamond drilling		$30,180.00
Consulting Engineer and Geologist 30 days at $50.00/day		1,500.00
50 assays for WO_3 at $3.00 each		150.00
Estimated total cost of Stage I		$31,830.00
Crosscutting, 1,800 feet at $31.00/ft.	$55,800.00	
Timbering 450 feet at $6.00/ft.	2,700.00	
Consulting Engineer and Geologist 30 days at $50.00/day	1,500.00	
50 assays for WO_3 at $3.00 each	150.00	
Estimated total cost of Stage II		$60,150.00
Estimated Cost of Stage I		$31,830.00
Estimated Cost of Stage II		$60,150.00
Estimated Cost of Project		$91,980.00
Government participation at 75 percent		$68,985.00

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DATE	INITIALS	CODE
4/23	WSM	400

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Reference is made to your recent letter relative to subject docket.

Enclosed is a report by H. K. Stager, Geological Survey, and B. H. Sheahan, Bureau of Mines, in which a DMEA exploration project, at an estimated cost of $94,520.00, is recommended.

Roscoe Smith and I concur in the recommendation.

Consent to Lien and Subordination Agreement forms have not yet been received from the Applicant.

S. Ricker

Encls.

APR 22 8 -0 AM '57
WASHINGTON, D.C.
BUREAU OF MINES

Reviewed by
DMEA OPERATING COMMITTEE
4-26-57
(date)

BUREAU OF MINES
WASHINGTON, D. C.

APR 22 8 -0 AM '57

EXTRA COPY
DMEA
RECEIVED APR 22 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

APPLICATION REPORT

DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill mines
Inyo County, California

by

B. H. Sheahan
U. S. Bureau of Mines

H. K. Stager
U. S. Geological Survey

April 12, 1957

Reviewed by
DMEA OPERATING COMMITTEE
4-26-57
(date)

CONTENTS

	Page
Introduction	1
Conclusions and Recommendations	2
Location, Accessibility, and Local Facilities	3
History and Production	4
Property and Ownership	6
Development	8
Geologic Setting	9
Ore Deposits	11
Sampling	13
Ore Reserves	14
Proposed Exploration	17
Exploration Costs	19

ILLUSTRATIONS

Figure 1 . . . . . Index map

2 . . . . . Claim map

3 . . . . . Geologic sketch map

4 . . . . . Geologic sections and level maps

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INTRODUCTION

Mr. Ralph E. Chupe, 1521 West 79th Street, Los Angeles 47, California, applied to the Defense Minerals Exploration Administration for Government assistance to explore for tungsten at the Round Valley and Tungsten Hill mines, also known as the Big Shot and Little Shot mines, Inyo County, California. The applicant estimates about 1,000 tons of ore, assaying 0.5 percent WO_3, and wishes to further explore the deposit to determine if an ore reserve of sufficient tonnage can be assured to justify the construction of a 50-ton-per-day mill on the property.

A field examination was requested by the Operating Committee, and was made by B. H. Sheahan, U. S. Bureau of Mines, and H. K. Stager, U. S. Geological Survey, on February 26 and 27, 1957, accompanied by Mr. Frank R. Wicks, consulting engineer, and Mr. E. J. Duncan, former lessee, representing the applicant.

Inasmuch as the mine workings are extensive and numerous company and Geological Survey underground and surface maps were available the field examiners mapped only the lowermost unmapped workings of the Round Valley and Tungsten Hill mines. The applicant's maps and existing Geological Survey maps were carefully studied and were compared with geologic exposures on the surface and in the mine workings. The lower levels of both mines were examined with an ultraviolet light. As the average grade of the ore bodies in the deposit

is well known from past production the examiners took only six check samples of old stope pillars and walls.

The Tungsten Hill mine was also examined in 1952 under docket DMEA-2256 for tungsten, and the application was denied.

CONCLUSIONS AND RECOMMENDATIONS

The Round Valley and Tungsten Hill mines are in the same tactite deposit and have produced ore from five known ore bodies. The results of the examination indicate that these ore bodies will continue down dip and that other similar bodies can be inferred in the area between the two mines.

Following the examination the applicant's proposed program was discussed and some revisions in the location of the proposed work were considered desirable. The revised program, which is acceptable to the applicant, is well suited to explore the deposit, and the applicant is qualified to do the work. The project site is readily accessible and facilities for accomplishing the work are available. The proposed exploration has been discussed with Paul Bateman of the Geological Survey and he concurs in the type and location of the proposed work. The revised program will require about 25 months to complete and the Government's share of the estimated total cost of $94,520 would be $70,890.

It is recommended that the Government enter into a DMEA contract with the applicant to provide 75 percent of the costs of the

revised program. To facilitate administration of the contract the work should be based on unit costs, and Stage II should be made subject to the prior written approval of the Government.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The property is in the northern portion of the Tungsten Hills at an altitude of 4,900 to 5,700 feet in secs. 34 and 35, T. 6 S., R. 31 E., and in secs. 2 and 3, T. 7 S., R. 31 E., M.D.B.&M., Inyo County, California.

To reach the Round Valley mine from Bishop, California, travel U. S. Highway 395 northwesterly 7.7 miles, turn left on improved graded road and travel 3.1 miles westerly to the main workings. The Tungsten Hill mine is 1.3 miles east of the Round Valley mine and is reached by way of a steep, narrow, dirt road which is not passable during stormy weather. The Round Valley mine road is in good condition and the lower adit is accessible all year.

Bishop, California, is the nearest source of labor and supplies. Water for domestic and mining use is available at Horton Creek, two miles west of the mine. Electric power is available a few miles north of the property. There are several custom tungsten mills in the area. Custom ore is purchased by the Union Carbide Nuclear Company at their Pine Creek mill, about 10 miles west of the mine. The present purchase schedule for ore, similar to that

of the Round Valley mine, is approximately $12.00 per short ton unit of contained WO_3.

HISTORY AND PRODUCTION

Scheelite was discovered in the Tungsten Hills district in 1913. A mill plant was constructed at the Round Valley mine in 1916 and the most productive period was from 1917 to 1919. The mine was profitable only during periods of exceptionally favorable market conditions.

Tonopah Mining Company of Nevada operated the property from 1928 to 1931. The mill plant was salvaged and comparatively small intermittent operations followed. The claims were relocated by Al Stevens and associates of Bishop in 1934. Mr. Ottis Kittle of Reno, Nevada, leased the mine in 1948 and did considerable shallow surface trenching but ore was not found.

The Tungsten Hill (Little Shot) mine was discovered prior to 1940. The Haco group of claims were relocated by Tom Coleman, G. Crawford and V. Hague in 1947. Mr. Sterling Carter of Murphys, California, leased the Haco claims in 1951 and drove a lower crosscut tunnel which intersected the ore body. Operations were suspended in 1956.

Production

Tungsten Hill (Little Shot) mine:

Year	Operator	Estimated Tonnage mined	Estimated Percent WO_3	Units of WO_3 recovered
1943	?	50	0.5	10(?)
-idle				
1946	?	180	0.5	50(?)
-idle				
1952	Sterling Carter	410	0.5	5
1953	Tungsten Hill Mng.Co.	2,879	0.5	701
1954	" " " "	307	1.9	306
	Sterling Carter	1,264	0.5	504
1955	Tungsten Hill Mng.Co.	300	0.4	76
	Duncan & Nettleton	375	1.0	186
1956	" " "	15(?)	1.0(?)	10(?)
	TOTALS:	5,790	0.6	1,848

Round Valley mine:

1917-18	Round Valley Mng.Co.	32,000	0.5	9,500
1919-41	" " " "	25,000	0.5	9,500
1942	" " " "	450	0.3	80
	Calif. Tungsten Mng. & Milling Co.	200	0.2	33
1943	" " " " "	Tailings	0.2	170
1944-47	idle	----------	----------	----------
1948	C.A.Kittle Mng. & Exp. Co.	1,080	0.5	310
1949	" " " "	4,674	0.5	1,656
1950	idle	----------	----------	----------
1951	Pinnacle Mng.Co.	15	1.2	16
1952	" " "	200	0.5	142
1953	Round Valley Tungsten Co.	9,156	0.5	2,260
1954	" " " "	7,470	0.5	3,280
1955	" " " "	100	0.7	43
1956	idle	----------	----------	----------
	TOTALS:	80,345	0.5	26,990

PROPERTY AND OWNERSHIP

The applicant is reported to be financially responsible and able to provide his share of the costs of an exploration program. The work will be under the supervision of Mr. Frank R. Wicks, consulting mining engineer of Los Angeles, California.

The property included in the application consists of 11 unpatented lode claims (fig. 2).

The Tungsten Hill mine property consists of six claims. The Haco No. 1, No. 2, No. 3, and No. 4 claims are owned by G. Crawford, Bishop, California. The applicant optioned these four claims as described by agreements dated January 1, 1955 and June 11, 1955, recorded at Independence in Vol. 120, pages 356-360. Two adjoining claims, Haco No. 5 and Haco No. 6 were located by the applicant December 1, 1956.

The Round Valley mine property consists of the Big Shot Tungsten, Big Shot No. 1, No. 2, No. 3, and No. 4 claims. A lease option agreement was dated November 20, 1955 and recorded at Independence, California, in Vol. 124, page 612, and lists the following owners:

One-third interest: Al Stevens and Bessie Stevens, Bishop, California.

One-third interest: Howard Stevens and Josephine Stevens, Ventura, California

One-ninth interest: Estate of C. A. Rasmussen and Annie Rasmussen, Long Beach, California.

One-ninth interest: Mary Trout, Los Angeles, California.

One-ninth interest: H. D. Johanson and J. Mary Johanson, Bishop, California

Location certificates for the following claims, included in the project, are recorded at Independence, California:

Claim	Location date	Book No.	Page No.
Hace No. 1	12/13/47	58	298
" " 2	1/10/48	58	388
" " 3	1/17/48	58	389
" " 4	1/17/48	58	390
" " 5	12/1/56	86	103
" " 6	12/1/56	86	103
Big Shot Tungsten	7/15/34	46	109
" " No. 1	7/15/34	46	109
" " " 2	7/15/34	46	110
" " " 3	7/15/34	46	110
" " " 4	7/15/34	46	110

Amended Locations:

Big Shot Tungsten	12/1/56	86	95
Big Shot No. 1	12/1/56	86	97
" " 2	12/1/56	86	99
" " 3	12/1/56	86	101

Mr. Wicks states that the applicant can obtain the owners' consent to lien on all of the claims.

DEVELOPMENT

Most of the mining equipment and supplies have been removed from the property. A list of items at the property follows:

Item	Condition	Estimated value
4 mine cars, 1-ton	fair	$400.00
1 hoist, 10-h.p., gasoline	poor	300.00
1,000 ft. track, 18 in. gauge, 16 lb. rail	fair	1,000.00
1,500 ft. pipe, 2 in. to 4 in. air lines	poor	500.00

Equipment valued at $9,400, owned by Ralph E. Shupe, and to be made available for exploration if an when needed is listed in the application. Several of the items, including a portable air compressor, are stored at Bishop, California.

The Round Valley mine is developed by more than 3,000 feet of workings. Above the main crosscut adit the ore was mined by glory hole methods and from open stopes. Below the main adit the deposit was developed by incline winzes sunk through the heart of the ore body. The bottom 15 feet of the winze is dry but filled with muck. Pillars of ore are left along the sides of the winzes for ground support. Very little timber was used and the backs of many workings are unsafe. The surface between the two mines has been explored by several thousand feet of shallow trenches and open cuts.

The Tungsten Hill mine was developed by an 80-foot incline shaft 4 feet by 4 feet in clear of timber and by a short crosscut

tunnel on the 45-foot level. The main entry is a 400 foot crosscut adit which intersects the deposit 146 feet below the shaft collar. The ore body was stoped through to the upper working and practically no timber was used for ground support. A shallow underhand stope below the adit level is backfilled with waste rock.

The only surface improvements on the property are a dilapidated hoist house, two 50-ton capacity ore bins, an obsolete air compressor and diesel engine, and a shed. Track and some pipe remains in the main haulage workings.

GEOLOGIC SETTING

The Round Valley and Tungsten Hill mines are at the north end of the Tungsten Hills in an area of moderate relief and much of the surface in the mine area is covered by slope wash and alluvium. The rocks exposed in the vicinity of the mines are chiefly metamorphosed sedimentary rocks of Paleozoic age. These rocks are part of an east-trending septum of metamorphic rocks 500 to 1,000 feet wide and about one mile long between two granitic plutons of the Sierra Nevada batholith of Cretaceous age (fig. 3). The tungsten deposits are along the north contact of the septum. The southern contact has been repeatedly prospected without finding any tungsten.

The geology and ore deposits of the Tungsten Hills have been studied in detail by geologists of the Geological Survey and much

of the material contained in this report has been taken from their reports[1/]. Maps contained in these earlier reports are not

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1/ Lemmon, Dwight M., 1941, Tungsten deposits in the Tungsten Hills, Inyo County, California: U. S. Geol. Survey Bull. 922 C.

1/ Bateman, Paul C., Erickson, Max P., and Proctor, Paul D., 1950, Geology and Tungsten Deposits of the Tungsten Hills, Inyo County, California: Calif. Div. of Mines Jour. of Mines and Geol., Vol. 46, No. 1

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reproduced in this report but should be referred to when appraising the deposit.

The metamorphic rocks are chiefly impure marble, tactite, and calc-hornfels. The marble is gray, fine-grained, and in places is recrystallized to coarse white calcite. It is in sharp contact with the tactite and calc-hornfels, which occur thinly interlayered with each other between the marble on one side and granite on the other. Tactite predominates near the granite and calc-hornfels near the marble, but they interfinger complexly on both large and small scales. The tactite and calc-hornfels zone is a few feet to a thousand feet wide and is exposed intermittently for about 1,500 feet

along the granite contact. The metamorphic rocks, in general, strike north or northwest across the septum and dip 20 degrees to 70 degrees west. The dip is less in the western part of the mine area and steepens at the eastern end. The beds are truncated by the granite at about right angles.

There are two granitic rocks in the mine area, a light-colored, coarse-grained granite on the north side of the septum and a light-gray, porphyritic quartz monzonite on the south side. The granite contact dips 50 degrees to 80 degrees south and the quartz monzonite contact is vertical or dips steeply north. If these dips remain constant the septum pinches out between 1,000 and 2,000 feet.

The metamorphic rocks in the mine area are cut by several aplite and andesite dikes, but these dikes have no significant relationship to the ore deposit or to the mining problem.

Fractures are common in the metamorphic rocks near the northern, or granite, contact and in places the contact is sheared. Much of the fracturing was evidently pre-mineral, whereas the area of the southern, or quartz monzonite contact is much less fractured, and is not mineralized.

ORE DEPOSITS

The ore bodies are tungsten-rich tactite layers along and near the contact of the granite and metamorphic rocks. In general the ore bodies have the same strike and dip as the enclosing

metamorphic rocks but they rake sharply to the southwest, parallel to the intersection of the tactite layers and the granite. They have short strike lengths, generally less than 100 feet, are from a few feet to 40 feet thick, and have been mined down dip for as much as 400 feet (fig. 4).

Scheelite, the only tungsten mineral known to occur in the deposits, is irregularly distributed along almost all of the granite contact although only rarely in minable amounts. It is chiefly concentrated in layers that are confined to the more favorable tactite beds. Much of the tactite does not contain scheelite and in the favorable beds the amount of scheelite diminishes with distance from the granite contact. It does not continue beyond the tactite and hornfels into the marble. The WO_3 content of the favorable tactite layers ranges from a trace to several percent, but averages about 0.5 percent in the minable bodies. Gangue minerals are garnet, epidote, quartz, calcite, pyrite, and traces of sphalerite, molybdenite, and chalcopyrite. Near the surface the tactite and hornfels are fractured and oxidized and contain abundant limonite and nontronite, a yellow-green hydrous iron silicate, in solution cavities and coating fracture surfaces.

Ore has been mined from five principal ore bodies, or shoots, in the deposit, one at the Tungsten Hill mine at the east end of the septum and four at the Round Valley mine. The ore shoot at the Tungsten Hill mine consists of a layer of scheelite-bearing tactite that strikes about N 30° E and dips 60° NW. It is about 10 feet thick, extends outward from the granite contact about 100 feet and has been mined down dip for about 100 feet. It has yielded about 6,000 tons of ore with an average grade of about 0.6 percent WO_3. The four principal ore shoots at the Round Valley mine average about 15 feet thick, 70 feet wide, and have been mined down dip 50 to 400 feet. They strike north and dip 23 degrees to 35 degrees west. They have yielded about 80,000 tons of ore with an average grade of about 0.5 percent WO_3.

SAMPLING

Nearly all exposed faces of scheelite-bearing tactite have been mined to the economic limit. Most of the following check samples represent the grade of ore exposed in winze walls and stope pillars. Sample locations are shown on figure 4. The average grade of ore used in the ore reserve estimates has been computed from production records.

Sample No.	Width, feet	Percent WO_3	Remarks
S-556	10.0	0.97	Tungsten Hill mine, tactite pillar, lower level.
S-557	8.0	0.54	Round Valley mine, tactite pillar, north of winze, lower level.
S-558	7.0	0.07	Round Valley mine, tactite face of south drift, lower level.
S-559	8.0	0.93	Round Valley mine, tactite pillar north of winze, lower sub-level.
S-560	7.0	0.03	Round Valley mine, tactite pillar, near south face of sub-level drift.
S-561	10.0	1.19	Round Valley mine, tactite pillar, north wall of winze.

ORE RESERVES

Ore reserves at the property are summarized as follows:

Mine	Measured tons	Indicated tons	Inferred tons	Average grade percent WO_3
Tungsten Hill	500	3,000	20,000	0.6
Round Valley	500	10,000	80,000	0.5
TOTALS:	1,000	13,000	100,000	0.5

The applicant estimates that the ore reserves at the property are about 1,000 tons of measured ore assaying about 0.5 percent WO_3. A study of the mine maps and sections revealed that this estimate of measured reserves is conservative. However, this ore is exposed in winze walls and stope pillars and much of it could not be mined without causing the workings to cave.

Indicated reserves total about 13,000 tons of ore averaging about 0.5 percent WO_3, and are contained in the downward continuation of the five principal ore bodies. The reserves at the Tungsten Hill mine are contained in the downward continuation of the ore body that has been stoped above the level of the lower adit and are in a block of ground about 12 feet thick, 100 feet wide, and extending down dip for about 30 feet below the level. The reserves at the Round Valley mine are contained principally in the downward continuation of the ore body mined from the deep winze at the west end of the mine in a block 15 feet thick, 70 feet wide, and extending down dip 100 feet below the deepest level of the mine. This block is estimated to contain about 7,000 tons of ore with an average grade of about 0.5 percent WO_3. An additional 3,000 tons of indicated ore is contained in a downward continuation of the three ore bodies that have been mined from the glory holes at the surface and from short underground adits and stopes at the east end of the mine.

Inferred reserves total about 100,000 tons of ore of the same average grade and are contained in the downward continuation of the known ore shoots and in undiscovered ore shoots between the two mines. The reserves at the Tungsten Hill mine are in a block 12 feet thick, 50 feet wide, and extending down dip 500 feet below

the bottom of the indicated reserve block, or to the level of the proposed Stage II crosscut. This block is inferred to contain about 20,000 tons of ore with an average grade of about 0.6 percent WO_3. The reserves at the Round Valley mine are in a block 15 feet thick, 70 feet wide, and extending down dip 200 feet below the bottom of the indicated reserve block at the west end of the mine. This block is inferred to contain about 14,000 tons of ore with an average grade of about 0.5 percent WO_3. An additional 6,000 tons of ore is inferred in the downward continuation of the three glory hole ore bodies and other small ore lenses in the east part of the mine. In the area to be explored between the two mines it is inferred that at least three new ore bodies will be discovered and these ore bodies will average about 10 feet thick, 75 feet wide, and extend down dip 300 feet with an average grade of 0.5 to 0.6 percent WO_3. These bodies are inferred to contain about 20,000 tons of ore each, or a total of 60,000 tons.

The downward extensions of the five known ore bodies and the location of the inferred ore bodies in the area between the two mines are the targets of the proposed exploration.

PROPOSED EXPLORATION

The applicant proposed to explore the downward and lateral extent of the known ore bodies by diamond drilling from surface and underground sites and to explore for other inferred ore bodies in the same deposit by driving an 1,800-foot crosscut. Because of several misconceptions by the applicant as to the geologic control and orientation of the ore bodies, the location and estimated depths of the drill holes and the orientation of the exploratory crosscut were inadequate to properly explore the most favorable targets. Several changes were necessary to insure that the greatest amount of information would be obtained by the proposed program at the least cost. The number of drill holes was reduced from 26 to 10 but the average depth was increased from about 130 feet to 470 feet and the total footage to be drilled was increased from 3,370 feet to 4,700 feet. The starting point for the exploratory crosscut was changed slightly and the course of the crosscut was shifted from the granite side of the contact to the side containing the ore bodies and in such a position to insure cutting all of the favorable tactite beds between the Round Valley and Tungsten Hill mines and to cut them at a point where they would be most likely to contain ore.

Oxidation is nearly complete to about 100 feet and the ore and enclosing rock do not core readily above this depth. The rocks near the surface are also highly fractured and circulation of drilling water is almost impossible to maintain. For these reasons it is planned to drill the top 100 feet of each hole with a solid bit, then case the hole and continue to drill with a coring bit to the desired depth. The geometry of the deposit is such that core from the top hundred feet of each hole planned would yield little useful information and any scheelite-bearing tactite intersected by drilling will be confined to the lower 200 feet of each hole.

To attempt to adequately explore the entire favorable area between the two mines by diamond drilling alone would require a large number of closely-spaced holes and the cost would greatly exceed that of the proposed crosscut. For this reason it is planned to limit drilling to the testing of the downward extent of known ore bodies and to locating the granite contact at about the level of the proposed exploratory crosscut. With this information, obtained by drilling, the crosscut can be oriented so as to explore all of the favorable tactite beds between the two mines. If the drilling does not discover ore, or favorable tactite beds, at the level of the proposed crosscut it is probable that the contract will be terminated at the end of Stage I.

Although the revised location of the crosscut, as proposed in Stage II, will not be as well suited for mining and ore haulage as the location proposed by the applicant, and the drive through metamorphic rocks will be more difficult and costly than through granite, the exploratory value will be greatly increased.

EXPLORATION COSTS

An analysis of the applicant's exploration costs, which are based upon tentative bids from independent contractors, follows:

Diamond drilling 26 holes, 3,370 ft. @ $6.65/ft.	$22,410.50
Crosscutting, 5 ft. by 7 ft., 2,000 ft. @ $28.00/ft.	56,000.00
Misc. costs - Extra labor-Engineering	10,000.00
TOTAL:	$88,410.50

Exploration work proposed by the examiners will require closer supervision and engineering than was anticipated by the applicant. Drill holes are deeper and unit cost estimates are, therefore, higher. The applicant has agreed to furnish operating equipment for exploration work under Stage II, and the depreciation allowance is included with the estimated cost of the proposed work.

The project could be started within one month and could be completed within about 25 months.

Estimated Costs

STAGE I - Diamond Drilling, 4,700 feet, ten holes from surface locations, average depth 470 feet. First 100 feet of each hole to be drilled with plug bit. Minimum core size AX, crew: 1 supervisor-engineer-geologist, independent contractor, 1 driller, 2 driller helpers. Estimated rate of advance, 20 feet per shift. Time to complete -- 9 months.

	Cost per foot
(a) Supervision, Engineering, and Labor	
Supervisor, 1 @ $600.00/mo.	$1.00
Driller, 1 @ $28.00/day	3.20
Driller helpers, 2 @ $18.00/day	)
(b) Operating Materials and Supplies:	
Power	$0.19
Diamond bits	0.75
Cement	0.27
Core boxes	0.05
Water and transportation	0.44
(c) Operating Equipment:	
Depreciation and maintenance	$0.12
Casing	1.00
(d) Miscellaneous	
Insurance and accounting	$0.51
Core splitting and storage	0.07
Total cost per foot, Stage I	$7.60

STAGE II: - Crosscutting, 1,800 feet, size 5 ft. by 7 ft., 450 feet timbered. Average rate of advance 4.5 feet per shift. Time: 400 shifts or 16 months. Labor to be performed by independent contractor and operating equipment provided by the applicant.

	Cost per foot	
(a) Supervision, Engineering, and Labor		
Supervisor, engineer, geologist, 1 @ $600.00/mo.	$7.50	
Miner, 1 @ $24.00/shift	12.50)	
Helpers, 2 @ $18.00/shift	)	
(b) Operating Materials and Supplies		
Power, fuel oil, and lubricants	$2.38	
Explosives, powder, fuse, and caps	2.46	
Track, 16 lb. rail, 4 in. by 6 in. ties, fish plates, bolts, and spikes (part furnished by applicant)	1.06	
Pipe, 2 in. compressed air and 1 in. water 50% Salvage	0.72	0.36
Ventilation tube 35% Salvage	1.05	0.68
Timber @ $75/M	1.04	
(c) Operating Equipment - to be furnished by applicant. Estimated value--$9,400.00. Depreciation allowance--$156.66/mo.	$0.74	
(d) Miscellaneous		
Industrial insurances, CAB, and taxes, $13.54 per $100	$3.05	
Total unit cost per foot, Stage II	$32.50	

Cost Summary on Unit Cost Basis

Stage I:	Diamond Drilling - minimum core size AX, 4,700 ft. @ $7.60/ft.	$35,720.00	
	50 assays for WO_3 @ $3.00/ea.	150.00	
	Total cost, Stage I		$35,870.00
Stage II:	Crosscutting (5 ft. by 7 ft.) 1,800 ft. @ $32.50/ft.	$58,500.00	
	50 assays for WO_3 @ $3.00/ea.	150.00	
	Total cost, Stage II		$58,650.00
Estimated total cost of project.			$94,520.00
Government's share at 75 percent.			$70,890.00
Applicant's share at 25 percent			$23,630.00

U S B M & U S G S
Comments.

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May 1, 1957

DMEA Contact No. 4614
DMEA Contract No.
Commodity Tungsten
Name of Applicant Ralph E. Shupe
Name of Property Round Valley & Tung. Hill Mines
Location of Property Inyo County, California
Estimated cost of project

W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Br. of Ferrous Metals & Ferroalloys

R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals & Ferroalloys

Report of Examination by Field Team

1. Date of Field Team Report, 4/12/57 2. Date received by DMEA 4/26/57

3. Has the property been to an DMEA: Yes [ ] No [x]

4. Has an earlier proposal been made on this: Yes [ ] No [x]

5. Indicate the method of ore production: Yes [ ] No [x]

6. Other ore, which has been known to mention: Yes [ ] No [x]

7. Explain the above matter: yes above:

8. Factors meeting special consideration:
a. Mention [ ]
b. Critical [ ]
c. Importance of mineralization [ ]
d. Geology [ ]
e. Proposed exploration method [ ]
f. Alternate exploration method [ ]
g. Costs [ ]
h. [ ]

9. Action taken:
a. Obtain information from applicant [ ]
b. Return to Field Team [ ]
c. Approval [ ]
d. Agree with Field Team [x]
e. Disagree with Field Team [ ]
f. Suggest alternate plan [ ]
g. Request another examination [ ]
h. Approval [x]
i. Consult with Mr. _____ at _____ DEC office.

10. Remarks: (Use back of page if necessary) I concur in the Field Team recommendation of approval.

R. W. Holliday

R. W. Holliday

IN REPLY REFER TO:

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DMEA
RECEIVED APR 30 1957

DATE	INITIALS	CODE
4/30	C	220
5/1	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 30, 1957

Re: DMEA 4614 (Tungsten)
Round Valley and
Tungsten Hill Mines
Inyo County, Calif.

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: T. H. Kiilsgaard, U. S. Geological Survey

Subject: Review of Field Team Report

The applicant proposes to explore the area between the Round Valley and Tungsten Hill mines by diamond drilling and crosscutting. Following the field examination, a modified program was discussed with the applicant who was in agreement with the plan. This plan has now been recommended by the Field Team for approval.

After reading the Field Team report, I am of the opinion that the modified plan is a sound way of exploring the property, and I recommend that a contract be approved, the work to be along the line proposed by the field examiners.

T. H. Kiilsgaard

T. H. Kiilsgaard

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

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DATE	INITIALS	CODE
4/22	C	220
		130
4/26	C	220
	WSM	400

April 18, 1957

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill Mines
Inyo County, California

Reference is made to your recent letter relative to subject docket.

Enclosed is a report by H. K. Stager, Geological Survey, and B. H. Sheahan, Bureau of Mines, in which a DMEA exploration project, at an estimated cost of $94,520.00, is recommended.

Roscoe Smith and I concur in the recommendation.

Consent to Lien and Subordination Agreement forms have not yet been received from the Applicant.

S. Ricker

Encls.

Reviewed by
DMEA OPERATING COMMITTEE
4-26-57
(date)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

APPLICATION REPORT

DMEA-4614 (Tungsten)
Ralph E. Shupe
Round Valley and Tungsten Hill mines
Inyo County, California

ON-SITE REPORT

by

B. H. Sheahan
U. S. Bureau of Mines

H. K. Stager
U. S. Geological Survey

April 12, 1957

Reviewed by
DMEA OPERATING COMMITTEE
4-26-57
(date)

CONTENTS

	Page
Introduction	1
Conclusions and Recommendations	2
Location, Accessibility, and Local Facilities	3
History and Production	4
Property and Ownership	6
Development	8
Geologic Setting	9
Ore Deposits	11
Sampling	13
Ore Reserves	14
Proposed Exploration	17
Exploration Costs	19

ILLUSTRATIONS

Figure 1 . . . . . Index map

2 . . . . . Claim map

3 . . . . . Geologic sketch map

4 . . . . . Geologic sections and level maps

INTRODUCTION

Mr. Ralph E. Shupe, 1521 West 79th Street, Los Angeles 47, California, applied to the Defense Minerals Exploration Administration for Government assistance to explore for tungsten at the Round Valley and Tungsten Hill mines, also known as the Big Shot and Little Shot mines, Inyo County, California. The applicant estimates about 1,000 tons of ore, assaying 0.5 percent WO_3, and wishes to further explore the deposit to determine if an ore reserve of sufficient tonnage can be assured to justify the construction of a 50-ton-per-day mill on the property.

A field examination was requested by the Operating Committee, and was made by B. H. Sheahan, U. S. Bureau of Mines, and H. K. Stager, U. S. Geological Survey, on February 26 and 27, 1957, accompanied by Mr. Frank R. Wicks, consulting engineer, and Mr. E. J. Duncan, former leasee, representing the applicant.

Inasmuch as the mine workings are extensive and numerous company and Geological Survey underground and surface maps were available the field examiners mapped only the lowermost unmapped workings of the Round Valley and Tungsten Hill mines. The applicant's maps and existing Geological Survey maps were carefully studied and were compared with geologic exposures on the surface and in the mine workings. The lower levels of both mines were examined with an ultraviolet light. As the average grade of the ore bodies in the deposit

is well known from past production the examiners took only six check samples of old stope pillars and walls.

The Tungsten Hill mine was also examined in 1952 under docket DMEA-2256 for tungsten, and the application was denied.

CONCLUSIONS AND RECOMMENDATIONS

The Round Valley and Tungsten Hill mines are in the same tactite deposit and have produced ore from five known ore bodies. The results of the examination indicate that these ore bodies will continue down dip and that other similar bodies can be inferred in the area between the two mines.

Following the examination the applicant's proposed program was discussed and some revisions in the location of the proposed work were considered desirable. The revised program, which is acceptable to the applicant, is well suited to explore the deposit, and the applicant is qualified to do the work. The project site is readily accessible and facilities for accomplishing the work are available. The proposed exploration has been discussed with Paul Bateman of the Geological Survey and he concurs in the type and location of the proposed work. The revised program will require about 25 months to complete and the Government's share of the estimated total cost of $94,520 would be $70,890.

It is recommended that the Government enter into a DMEA contract with the applicant to provide 75 percent of the costs of the

revised program. To facilitate administration of the contract the work should be based on unit costs, and Stage II should be made subject to the prior written approval of the Government.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The property is in the northern portion of the Tungsten Hills at an altitude of 4,900 to 5,700 feet in secs. 34 and 35, T. 6 S., R. 31 E., and in secs. 2 and 3, T. 7 S., R. 31 E., M.D.B.&M., Inyo County, California.

To reach the Round Valley mine from Bishop, California, travel U. S. Highway 395 northwesterly 7.7 miles, turn left on improved graded road and travel 3.1 miles westerly to the main workings. The Tungsten Hill mine is 1.3 miles east of the Round Valley mine and is reached by way of a steep, narrow, dirt road which is not passable during stormy weather. The Round Valley mine road is in good condition and the lower adit is accessible all year.

Bishop, California, is the nearest source of labor and supplies. Water for domestic and mining use is available at Horton Creek, two miles west of the mine. Electric power is available a few miles north of the property. There are several custom tungsten mills in the area. Custom ore is purchased by the Union Carbide Nuclear Company at their Pine Creek mill, about 10 miles west of the mine. The present purchase schedule for ore, similar to that

of the Round Valley mine, is approximately $12.00 per short ton unit of contained WO_3.

HISTORY AND PRODUCTION

Scheelite was discovered in the Tungsten Hills district in 1913. A mill plant was constructed at the Round Valley mine in 1916 and the most productive period was from 1917 to 1919. The mine was profitable only during periods of exceptionally favorable market conditions.

Tonopah Mining Company of Nevada operated the property from 1928 to 1931. The mill plant was salvaged and comparatively small intermittent operations followed. The claims were relocated by Al Stevens and associates of Bishop in 1934. Mr. Ottis Kittle of Reno, Nevada, leased the mine in 1948 and did considerable shallow surface trenching but ore was not found.

The Tungsten Hill (Little Shot) mine was discovered prior to 1940. The Haco group of claims were relocated by Tom Coleman, G. Crawford and V. Hague in 1947. Mr. Sterling Carter of Murphys, California, leased the Haco claims in 1951 and drove a lower crosscut tunnel which intersected the ore body. Operations were suspended in 1956.

Production

Tungsten Hill (Little Shot) mine:

Year	Operator	Estimated Tonnage mined	Estimated Percent WO_3	Units of WO_3 recovered
1943	?	50	0.5	10(?)
-idle				
1946	?	180	0.5	50(?)
-idle				
1952	Sterling Carter	410	0.5	5
1953	Tungsten Hill Mng.Co.	2,879	0.5	701
1954	" " " "	307	1.9	306
	Sterling Carter	1,264	0.5	504
1955	Tungsten Hill Mng.Co.	300	0.4	76
	Duncan & Nettleton	375	1.0	186
1956	" " "	15(?)	1.0(?)	10(?)
	TOTALS:	5,790	0.6	1,848

Round Valley mine:

1917-18	Round Valley Mng.Co.	32,000	0.5	9,500
1919-41	" " " "	25,000	0.5	9,500
1942	" " " "	450	0.3	80
	Calif. Tungsten Mng. & Milling Co.	200	0.2	33
1943	" " " " "	Tailings	0.2	170
1944-47	idle	----------		
1948	O.A.Kittle Mng. & Exp. Co.	1,080	0.5	310
1949	" " " "	4,674	0.5	1,656
1950	idle	----------		
1951	Pinnacle Mng.Co.	15	1.2	16
1952	" " "	200	0.5	142
1953	Round Valley Tungsten Co.	9,156	0.5	2,260
1954	" " " "	7,470	0.5	3,280
1955	" " " "	100	0.7	43
1956	idle	----------		
	TOTALS:	80,345	0.5	26,990

PROPERTY AND OWNERSHIP

The applicant is reported to be financially responsible and able to provide his share of the costs of an exploration program. The work will be under the supervision of Mr. Frank R. Wicks, consulting mining engineer of Los Angeles, California.

The property included in the application consists of 11 unpatented lode claims (fig. 2).

The Tungsten Hill mine property consists of six claims. The Haco No. 1, No. 2, No. 3, and No. 4 claims are owned by G. Crawford, Bishop, California. The applicant optioned these four claims as described by agreements dated January 1, 1955 and June 11, 1955, recorded at Independence in Vol. 120, pages 356-360. Two adjoining claims, Haco No. 5 and Haco No. 6 were located by the applicant December 1, 1956.

The Round Valley mine property consists of the Big Shot Tungsten, Big Shot No. 1, No. 2, No. 3, and No. 4 claims. A lease option agreement was dated November 20, 1955 and recorded at Independence, California, in Vol. 124, page 612, and lists the following owners:

One-third interest: Al Stevens and Bessie Stevens, Bishop, California.

One-third interest: Howard Stevens and Josephine Stevens, Ventura, California

One-ninth interest: Estate of C. A. Rasmussen and Annie Rasmussen, Long Beach, California.

One-ninth interest: Mary Trout, Los Angeles, California.

One-ninth interest: H. D. Johanson and J. Mary Johanson, Bishop, California

Location certificates for the following claims, included in the project, are recorded at Independence, California:

Claim	Location date	Book No.	Page No.
Haco No. 1	12/13/47	58	298
" " 2	1/10/48	58	388
" " 3	1/17/48	58	389
" " 4	1/17/48	58	390
" " 5	12/1/56	86	103
" " 6	12/1/56	86	103
Big Shot Tungsten	7/15/34	46	109
" " No. 1	7/15/34	46	109
" " " 2	7/15/34	46	110
" " " 3	7/15/34	46	110
" " " 4	7/15/34	46	110

Amended Locations:

Big Shot Tungsten	12/1/56	86	95
Big Shot No. 1	12/1/56	86	97
" " " 2	12/1/56	86	99
" " " 3	12/1/56	86	101

Mr. Wicks states that the applicant can obtain the owners' consent to lien on all of the claims.

DEVELOPMENT

Most of the mining equipment and supplies have been removed from the property. A list of items at the property follows:

Item	Condition	Estimated value
4 mine cars, 1-ton	fair	$400.00
1 hoist, 10-h.p., gasoline	poor	300.00
1,000 ft. track, 18 in. gauge, 16 lb. rail	fair	1,000.00
1,500 ft. pipe, 2 in. to 4 in. air lines	poor	500.00

Equipment valued at $9,400, owned by Ralph E. Shupe, and to be made available for exploration if and when needed is listed in the application. Several of the items, including a portable air compressor, are stored at Bishop, California.

The Round Valley mine is developed by more than 3,000 feet of workings. Above the main crosscut adit the ore was mined by glory hole methods and from open stopes. Below the main adit the deposit was developed by incline winzes sunk through the heart of the ore body. The bottom 15 feet of the winze is dry but filled with muck. Pillars of ore are left along the sides of the winzes for ground support. Very little timber was used and the backs of many workings are unsafe. The surface between the two mines has been explored by several thousand feet of shallow trenches and open cuts.

The Tungsten Hill mine was developed by an 80-foot incline shaft 4 feet by 4 feet in clear of timber and by a short crosscut

tunnel on the 45-foot level. The main entry is a 400 foot crosscut adit which intersects the deposit 146 feet below the shaft collar. The ore body was stoped through to the upper working and practically no timber was used for ground support. A shallow underhand stope below the adit level is backfilled with waste rock.

The only surface improvements on the property are a dilapidated hoist house, two 50-ton capactity ore bins, an obsolete air compressor and diesel engine, and a shed. Track and some pipe remains in the main haulage workings.

GEOLOGIC SETTING

The Round Valley and Tungsten Hill mines are at the north end of the Tungsten Hills in an area of moderate relief and much of the surface in the mine area is covered by slope wash and alluvium. The rocks exposed in the vicinity of the mines are chiefly metamorphosed sedimentary rocks of Paleozoic age. These rocks are part of an east-trending septum of metamorphic rocks 500 to 1,000 feet wide and about one mile long between two granitic plutons of the Sierra Nevada batholith of Cretaceous age (fig. 3). The tungsten deposits are along the north contact of the septum. The southern contact has been repeatedly prospected without finding any tungsten.

The geology and ore deposits of the Tungsten Hills have been studied in detail by geologists of the Geological Survey and much

of the material contained in this report has been taken from their reports[1/]. Maps contained in these earlier reports are not

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1/ Lemmon, Dwight M., 1941, Tungsten deposits in the Tungsten Hills, Inyo County, California: U. S. Geol. Survey Bull. 922 Q.

1/ Bateman, Paul C., Erickson, Max P., and Proctor, Paul D., 1950, Geology and Tungsten Deposits of the Tungsten Hills, Inyo County, California: Calif. Div. of Mines Jour. of Mines and Geol., Vol. 46, No. 1

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reproduced in this report but should be referred to when appraising the deposit.

The metamorphic rocks are chiefly impure marble, tactite, and calc-hornfels. The marble is gray, fine-grained, and in places is recrystallized to coarse white calcite. It is in sharp contact with the tactite and calc-hornfels, which occur thinly interlayered with each other between the marble on one side and granite on the other. Tactite predominates near the granite and calc-hornfels near the marble, but they interfinger complexly on both large and small scales. The tactite and calc-hornfels zone is a few feet to a thousand feet wide and is exposed intermittently for about 1,500 feet

along the granite contact. The metamorphic rocks, in general, strike north or northwest across the septum and dip 20 degrees to 70 degrees west. The dip is less in the western part of the mine area and steepens at the eastern end. The beds are truncated by the granite at about right angles.

There are two granitic rocks in the mine area, a light-colored, coarse-grained granite on the north side of the septum and a light-gray, porphyritic quartz monzonite on the south side. The granite contact dips 50 degrees to 80 degrees south and the quartz monzonite contact is vertical or dips steeply north. If these dips remain constant the septum pinches out between 1,000 and 2,000 feet.

The metamorphic rocks in the mine area are cut by several aplite and andesite dikes, but these dikes have no significant relationship to the ore deposit or to the mining problem.

Fractures are common in the metamorphic rocks near the northern, or granite, contact and in places the contact is sheared. Much of the fracturing was evidently pre-mineral, whereas the area of the southern, or quartz monzonite contact is much less fractured, and is not mineralized.

ORE DEPOSITS

The ore bodies are tungsten-rich tactite layers along and near the contact of the granite and metamorphic rocks. In general the ore bodies have the same strike and dip as the enclosing

metamorphic rocks but they rake sharply to the southwest, parallel to the intersection of the tactite layers and the granite. They have short strike lengths, generally less than 100 feet, are from a few feet to 40 feet thick, and have been mined down dip for as much as 400 feet (fig. 4).

Scheelite, the only tungsten mineral known to occur in the deposits, is irregularly distributed along almost all of the granite contact although only rarely in minable amounts. It is chiefly concentrated in layers that are confined to the more favorable tactite beds. Much of the tactite does not contain scheelite and in the favorable beds the amount of scheelite diminishes with distance from the granite contact. It does not continue beyond the tactite and hornfels into the marble. The WO_3 content of the favorable tactite layers ranges from a trace to several percent, but averages about 0.5 percent in the minable bodies. Gangue minerals are garnet, epidote, quartz, calcite, pyrite, and traces of sphalerite, molybdenite, and chalcopyrite. Near the surface the tactite and hornfels are fractured and oxidized and contain abundant limonite and nontronite, a yellow-green hydrous iron silicate, in solution cavities and coating fracture surfaces.

Ore has been mined from five principal ore bodies, or shoots, in the deposit, one at the Tungsten Hill mine at the east end of the septum and four at the Round Valley mine. The ore shoot at the Tungsten Hill mine consists of a layer of scheelite-bearing tactite that strikes about N 30° E and dips 60° NW. It is about 10 feet thick, extends outward from the granite contact about 100 feet and has been mined down dip for about 100 feet. It has yielded about 6,000 tons of ore with an average grade of about 0.6 percent WO_3. The four principal ore shoots at the Round Valley mine average about 15 feet thick, 70 feet wide, and have been mined down dip 50 to 400 feet. They strike north and dip 23 degrees to 35 degrees west. They have yielded about 80,000 tons of ore with an average grade of about 0.5 percent WO_3.

SAMPLING

Nearly all exposed faces of scheelite-bearing tactite have been mined to the economic limit. Most of the following check samples represent the grade of ore exposed in winze walls and stope pillars. Sample locations are shown on figure 4. The average grade of ore used in the ore reserve estimates has been computed from production records.

Sample No.	Width, feet	Percent WO_3	Remarks
S-556	10.0	0.97	Tungsten Hill mine, tactite pillar, lower level.
S-557	8.0	0.54	Round Valley mine, tactite pillar, north of winze, lower level.
S-558	7.0	0.07	Round Valley mine, tactite face of south drift, lower level.
S-559	8.0	0.93	Round Valley mine, tactite pillar north of winze, lower sub-level.
S-560	7.0	0.03	Round Valley mine, tactite pillar, near south face of sub-level drift.
S-561	10.0	1.10	Round Valley mine, tactite pillar, north wall of winze.

ORE RESERVES

Ore reserves at the property are summarized as follows:

Mine	Measured tons	Indicated tons	Inferred tons	Average grade percent WO_3
Tungsten Hill	500	3,000	20,000	0.6
Round Valley	500	10,000	80,000	0.5
TOTALS:	1,000	13,000	100,000	0.5

The applicant estimates that the ore reserves at the property are about 1,000 tons of measured ore assaying about 0.5 percent WO_3. A study of the mine maps and sections revealed that this estimate of measured reserves is conservative. However, this ore is exposed in winze walls and stope pillars and much of it could not be mined without causing the workings to cave.

Indicated reserves total about 13,000 tons of ore averaging about 0.5 percent WO_3, and are contained in the downward continuation of the five principal ore bodies. The reserves at the Tungsten Hill mine are contained in the downward continuation of the ore body that has been stoped above the level of the lower adit and are in a block of ground about 12 feet thick, 100 feet wide, and extending down dip for about 30 feet below the level. The reserves at the Round Valley mine are contained principally in the downward continuation of the ore body mined from the deep winze at the west end of the mine in a block 15 feet thick, 70 feet wide, and extending down dip 100 feet below the deepest level of the mine. This block is estimated to contain about 7,000 tons of ore with an average grade of about 0.5 percent WO_3. An additional 3,000 tons of indicated ore is contained in a downward continuation of the three ore bodies that have been mined from the glory holes at the surface and from short underground adits and stopes at the east end of the mine.

Inferred reserves total about 100,000 tons of ore of the same average grade and are contained in the downward continuation of the known ore shoots and in undiscovered ore shoots between the two mines. The reserves at the Tungsten Hill mine are in a block 12 feet thick, 50 feet wide, and extending down dip 500 feet below

the bottom of the indicated reserve block, or to the level of the proposed Stage II crosscut. This block is inferred to contain about 20,000 tons of ore with an average grade of about 0.6 percent WO_3. The reserves at the Round Valley mine are in a block 15 feet thick, 70 feet wide, and extending down dip 200 feet below the bottom of the indicated reserve block at the west end of the mine. This block is inferred to contain about 14,000 tons of ore with an average grade of about 0.5 percent WO_3. An additional 6,000 tons of ore is inferred in the downward continuation of the three glory hole ore bodies and other small ore lenses in the east part of the mine. In the area to be explored between the two mines it is inferred that at least three new ore bodies will be discovered and these ore bodies will average about 10 feet thick, 75 feet wide, and extend down dip 300 feet with an average grade of 0.5 to 0.6 percent WO_3. These bodies are inferred to contain about 20,000 tons of ore each, or a total of 60,000 tons.

The downward extensions of the five known ore bodies and the location of the inferred ore bodies in the area between the two mines are the targets of the proposed exploration.

PROPOSED EXPLORATION

The applicant proposed to explore the downward and lateral extent of the known ore bodies by diamond drilling from surface and underground sites and to explore for other inferred ore bodies in the same deposit by driving an 1,800-foot crosscut. Because of several misconceptions by the applicant as to the geologic control and orientation of the ore bodies, the location and estimated depths of the drill holes and the orientation of the exploratory crosscut were inadequate to properly explore the most favorable targets. Several changes were necessary to insure that the greatest amount of information would be obtained by the proposed program at the least cost. The number of drill holes was reduced from 26 to 10 but the average depth was increased from about 130 feet to 470 feet and the total footage to be drilled was increased from 3,370 feet to 4,700 feet. The starting point for the exploratory crosscut was changed slightly and the course of the crosscut was shifted from the granite side of the contact to the side containing the ore bodies and in such a position to insure cutting all of the favorable tactite beds between the Round Valley and Tungsten Hill mines and to cut them at a point where they would be most likely to contain ore.

Oxidation is nearly complete to about 100 feet and the ore and enclosing rock do not core readily above this depth. The rocks near the surface are also highly fractured and circulation of drilling water is almost impossible to maintain. For these reasons it is planned to drill the top 100 feet of each hole with a solid bit, then case the hole and continue to drill with a coring bit to the desired depth. The geometry of the deposit is such that core from the top hundred feet of each hole planned would yield little useful information and any scheelite-bearing tactite intersected by drilling will be confined to the lower 200 feet of each hole.

To attempt to adequately explore the entire favorable area between the two mines by diamond drilling alone would require a large number of closely-spaced holes and the cost would greatly exceed that of the proposed crosscut. For this reason it is planned to limit drilling to the testing of the downward extent of known ore bodies and to locating the granite contact at about the level of the proposed exploratory crosscut. With this information, obtained by drilling, the crosscut can be oriented so as to explore all of the favorable tactite beds between the two mines. If the drilling does not discover ore, or favorable tactite beds, at the level of the proposed crosscut it is probable that the contract will be terminated at the end of Stage I.

Although the revised location of the crosscut, as proposed in Stage II, will not be as well suited for mining and ore haulage as the location proposed by the applicant, and the drive through metamorphic rocks will be more difficult and costly than through granite, the exploratory value will be greatly increased.

EXPLORATION COSTS

An analysis of the applicant's exploration costs, which are based upon tentative bids from independent contractors, follows:

Diamond drilling 26 holes, 3,370 ft. @ $6.65/ft.	$22,410.50
Crosscutting, 5 ft. by 7 ft., 2,000 ft. @ $28.00/ft.	56,000.00
Msc. costs - Extra labor-Engineering	10,000.00
TOTAL:	$88,410.50

Exploration work proposed by the examiners will require closer supervision and engineering than was anticipated by the applicant. Drill holes are deeper and unit cost estimates are, therefore, higher. The applicant has agreed to furnish operating equipment for exploration work under Stage II, and the depreciation allowance is included with the estimated cost of the proposed work.

The project could be started within one month and could be completed within about 25 months.

Estimated Costs

STAGE I - Diamond Drilling, 4,700 feet, ten holes from surface locations, average depth 470 feet. First 100 feet of each hole to be drilled with plug bit. Minimum core size AX, crew: 1 supervisor-engineer-geologist, independent contractor, 1 driller, 2 driller helpers. Estimated rate of advance, 20 feet per shift. Time to complete -- 9 months.

	Cost per foot
(a) Supervision, Engineering, and Labor:	
Supervisor, 1 @ $600.00/mo.	$1.00
Driller, 1 @ $28.00/day	3.20
Driller helpers, 2 @ $18.00/day	2.30
(b) Operating Materials and Supplies:	
Power	$0.19
Diamond bits	0.75
Cement	0.27
Core boxes	0.05
Water and transportation	0.44
(c) Operating Equipment:	
Depreciation and maintenance	$0.12
Casing	1.00
(d) Miscellaneous	
Insurance and accounting	$0.51
Core splitting and storage	0.07
Total cost per foot, Stage I	$7.60

STAGE II: - Crosscutting, 1,800 feet, size 5 ft. by 7 ft., 450 feet timbered. Average rate of advance 4.5 feet per shift. Time: 400 shifts or 16 months. Labor to be performed by independent contractor and operating equipment provided by the applicant.

	Cost per foot	
(a) Supervision, Engineering, and Labor		
Supervisor, engineer, geologist, 1 @ $600.00/mo. $24.00/day.	5.33 ~~$7.50~~	
Miner, 1 @ $24.00/shift	~~12.50~~)	
Helpers, 2 @ $18.00/shift	13.33)	18.66
(b) Operating Materials and Supplies		
Power, fuel oil, and lubricants	$2.38	2.38
Explosives, powder, fuse, and caps 2.00 .35 .30	2.46	2.65
Track, 16 lb. rail, 4 in. by 6 in. ~~ties~~, fish plates, bolts, and spikes (part furnished by applicant) TIES	1.06	1.96
Pipe, 2 in. compressed air and 1 in. water 50% Salvage	0.~~72~~	0.36
Ventilation tube 33% Salv.	1.05	0.68
Timber @ $75/M Sled - 4	1.04	1.50
(c) Operating Equipment - to be furnished by applicant. Estimated value ~~$9,400.00~~, 7,125 Depreciation allowance ~~$156.66~~/mo. 117.50	$~~0.74~~	1.10
(d) Miscellaneous		
Industrial insurances, OAB, and taxes, $13.54 per $100	$3.05	3.93 31.11
Total unit cost per foot, Stage II	$32.50	

Rendering from 31.00 6.00

400 ft. timber 00

Cost Summary on Unit Cost Basis

Stage I:	Diamond Drilling - minimum core size AX, 4,700 ft. @ $7.60/ft.	$35,720.00	
	50 assays for WO_3 @ $3.00/ea.	150.00	
	Total cost, Stage I		$35,870.00
Stage II:	Crosscutting (5 ft. by 7 ft.) 1,800 ft. @ $32.50/ft.	$58,500.00	
	50 assays for WO_3 @ $3.00/ea.	150.00	
	Total cost, Stage II		$58,650.00
Estimated total cost of project.			$94,520.00
Government's share at 75 percent.			$70,890.00
Applicant's share at 25 percent			$23,630.00

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/5	Chapman	400
2/5	Martin	400
2/6	Selfridge	130
"	Johnson	110
"	Whitteaday	100
2/8	C	220
2/11	Bm	400

FEB 7 1957

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4614 - Tungsten
Ralph E. Shupe
Round Valley and Tungsten Hill
Mines
Inyo County, California

Dear Mr. Ricker:

The above docketed application for exploration assistance is being referred to your office for a field examination of the property.

Copies of memoranda dated January 28 and 29, 1957, by R. W. Holliday, Bureau of Mines, and H. E. Nelson, Geological Survey, respectively, relating to the project are enclosed. Also enclosed is an extra copy of the application for use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JLB)

APPROVED:

Frank D. Lamb (JLB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JLB)
Member, Geological Survey

Enclosures

TLChapman:am 2-5-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG II
Messrs. R. Holliday, USBM
T. Kiilsgaard, USGS

R.S.B.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/5	Chapman	400
2/5	Martin	400
2/6	Selridge	130
"	Johnson	110
"	Mittenbergf	100
		220
		400

FEB 7 1957

Mr. Ralph E. Shupe
1521 West 79th Street
Los Angeles 47, California

Re: Docket No. DMEA 4614 - Tungsten
Round Valley and Tungsten Hill Mines
Inyo County, California

2/4/57 Lamb (130
2/6/57 Kiilsgaard (130

Dear Mr. Shupe:

The above docketed application for exploration assistance for tungsten ores has been reviewed by the Iron and Ferro-Alloys Division, of the Defense Minerals Exploration Administration, and referred to Mr. Spangler Ricker, Executive Officer, DMEA Field Team, Region II, 1605 Evans Avenue, Reno, Nevada, for a field examination of the property.

Any assistance you can give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittenbergf

Administrator

TLChapman:am 2-5-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG II
Messrs. R. Holliday, USBM
T. Kiilsgaard, USGS

8623

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 1 1957

DATE	INITIALS	CODE
2/1	C	220
2/1	WSM	400

January 29, 1957

Re: DMEA 4614
Ralph E. Shupe
Round Valley-Tungsten Hill mines
Inyo County, California
$88,410.50 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in exploring by cored holes the assumed extensions of tactite zones from which scheelite has been recovered. If the extensions are proven to exist, underground work, including a connection between the mines, is proposed.

The two mines are credited with the production of:

Round Valley	60,000 tons	at 0.52% WO_3
Tungsten Hill	7,500 "	" 0.50% to .65% WO_3

No reserves of consequence can be assumed to exist, as leasers have been gouging out the visible ore.

Referral of the application to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY DMEA RECEIVED JAN 29 1957		
DATE	INITIALS	CODE
1-29	ewv	220
1/29	WSM	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Washington 25, D. C.

Date January 28, 1957

DMEA Docket No. 4614
DMEA Contract No.
Commodity Tungsten
Name of applicant Ralph E. Shupe
Name of property Round Valley Cons. Mines
Location of property Inyo County, Calif.
Estimated cost of project

Memorandum ✓

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA HMR
Through: Chief, Br. of Ferrous Metals & Ferroalloys

From: R. W. Holliday, Commodity Specialist, Br. of Ferrous Metals & Ferroalloys

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: 1/57. 2. Date received by reviewer: 1/28/57.

3. Prior reports on this property known to reviewer: Yes [ ], No [x].

4. Prior reports on nearby properties known to reviewer: Yes [ ], No [x].

5. Information available on past production: Yes [ ], No [x].

6. Other pertinent factors known to reviewer: Yes [ ], No [x].

7. Explain items marked yes above:

8. Factors meriting special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration [illegible]
   f. Alternate exploration [illegible]
   g. Costs [ ]
   h.

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [x]
   c. Denial [ ]
   d. Agree with Field Team [ ]
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [ ]
   i. Consult with Mr. _____ at _____ MES office

10. Remarks: (Use back of page if necessary)

R W Holliday
R. W. Holliday

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

January 25, 1957

Mr. Ralph E. Shupe
1521 West 79th St.
Los Angeles 47, California

Subject: DMEA-4624

Dear Mr. Shupe

Your application for exploration assistance, dated January 16, 1957 submitted to our office at Reno, has been assigned Docket Number DMEA-4624 and referred to the Iron and Ferro-Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

(Sgd) Allen S. Dakan

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

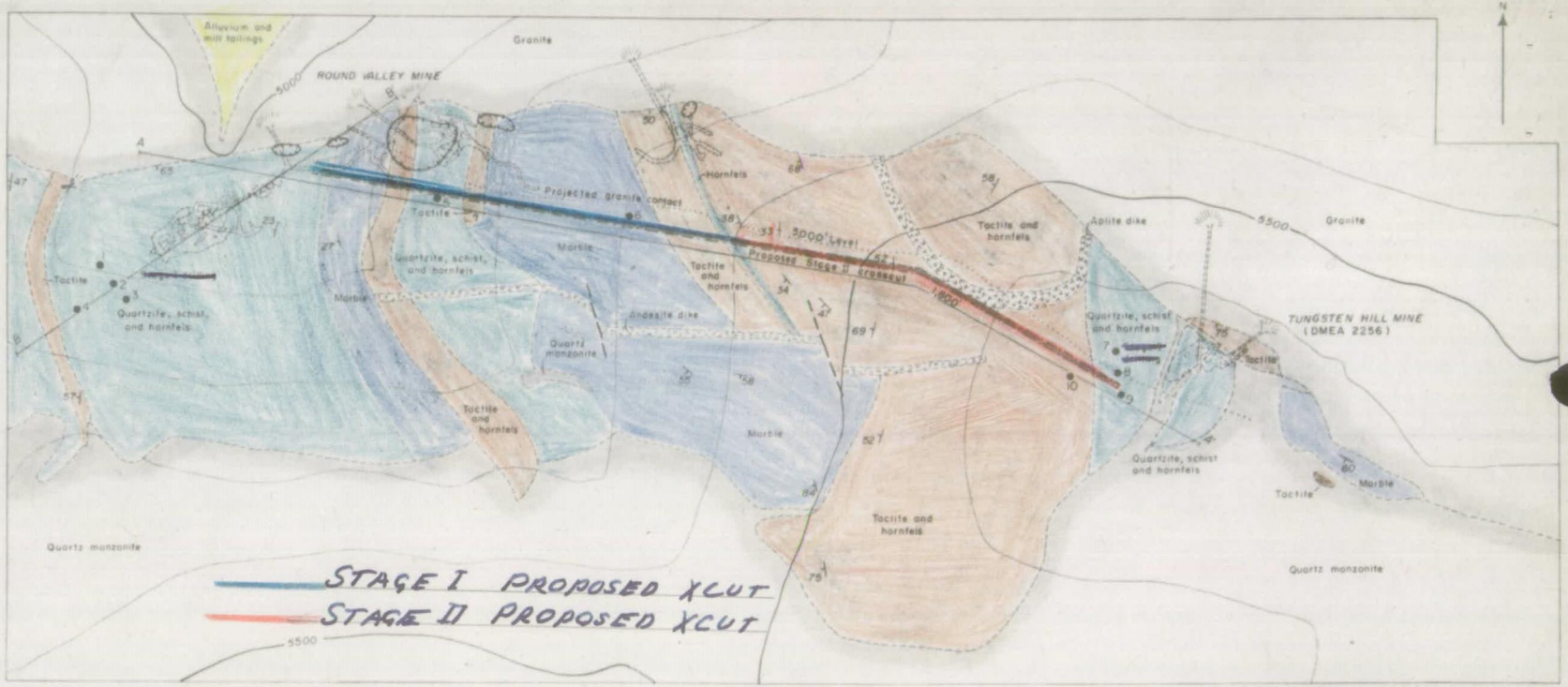
Region II. Reno, Nevada

~~Code~~ 400

6416

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 4614
(TUNGSTEN)



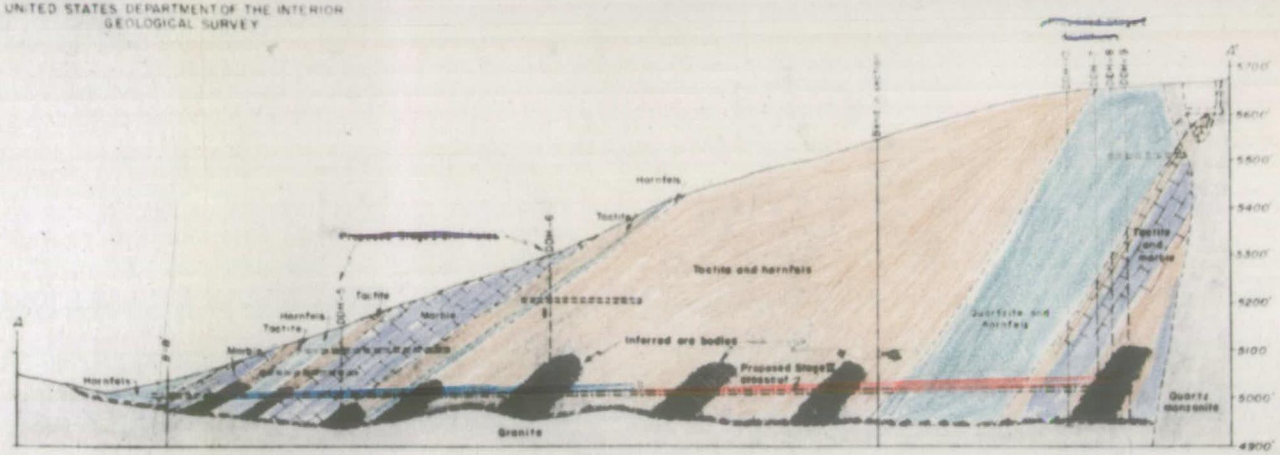
Compiled from Company and Geological Survey maps

Figure 3 GEOLOGIC SKETCH MAP OF THE ROUND VALLEY AND TUNGSTEN HILL MINES, INYO COUNTY, CALIFORNIA

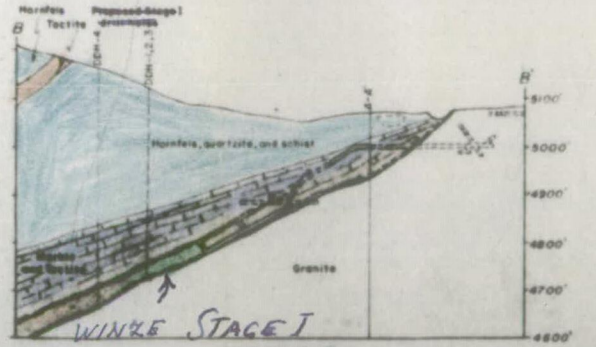
0 200 400 600 Feet

Contour interval 100 Feet
Datum is mean sea level

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

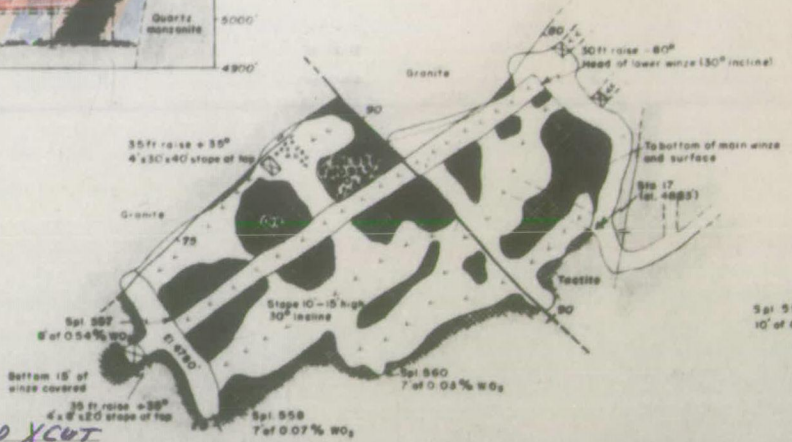


SECTION A-A'
0 200 400 feet

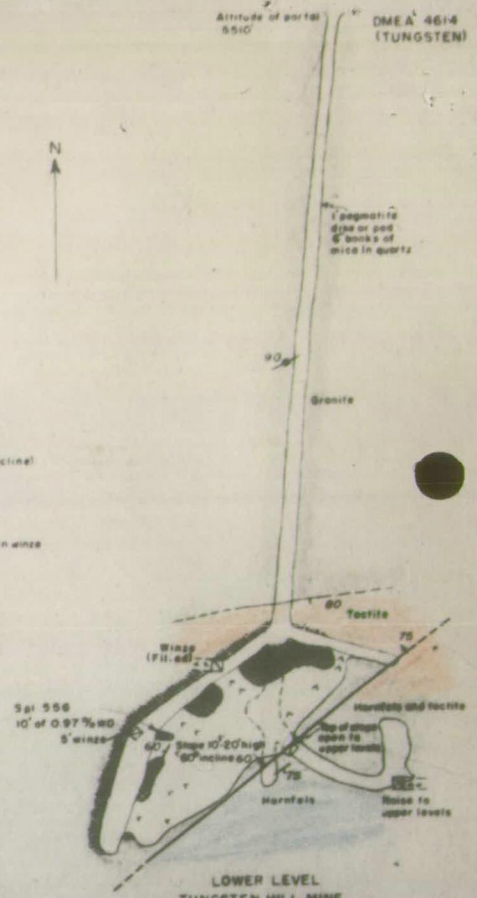


SECTION B-B'
0 200 400 Feet

STAGE I PROPOSED XCUT
STAGE II PROPOSED XCT



LOWER WINZE AND STOPE
ROUND VALLEY MINE
0 40 80 Feet



LOWER LEVEL
TUNGSTEN HILL MINE
0 40 80 Feet

Figure 4 GEOLOGIC CROSS SECTIONS AND LEVEL MAPS, ROUND VALLEY AND TUNGSTEN HILLS MINES, INYO COUNTY, CALIFORNIA

FRANK R. WICKS

JAN · 57

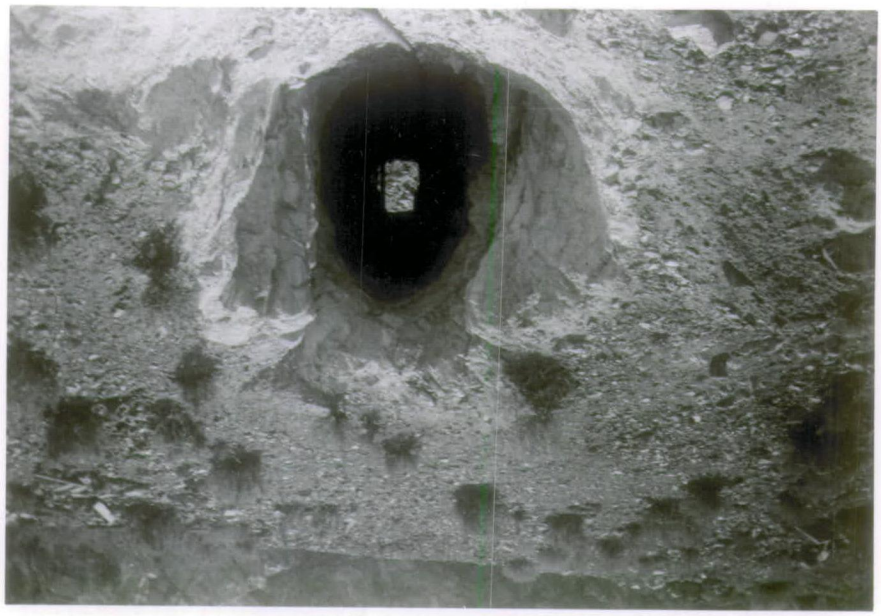
At Round Valley Mine. Bishop District.
Looking easterly across old open pit.
Light colored rock shows width of main
tungsten ore vein.

JAN · 57

At
A closer view of same vein, taken from
inside at base of open pit.

RECEIVED
JAN 25 1957
D.M.E.A.

FRANK R. WICKS



JAN · 57

Round Valley Mine. Bishop District.
Main haulage way from open pits and from
some of the underground workings.

· JAN · 57

Round Valley Mine Bishop District.
Machine shop used in former operations
and portable air compressor now used.

Adit Portal - Tungsten Hill Mine

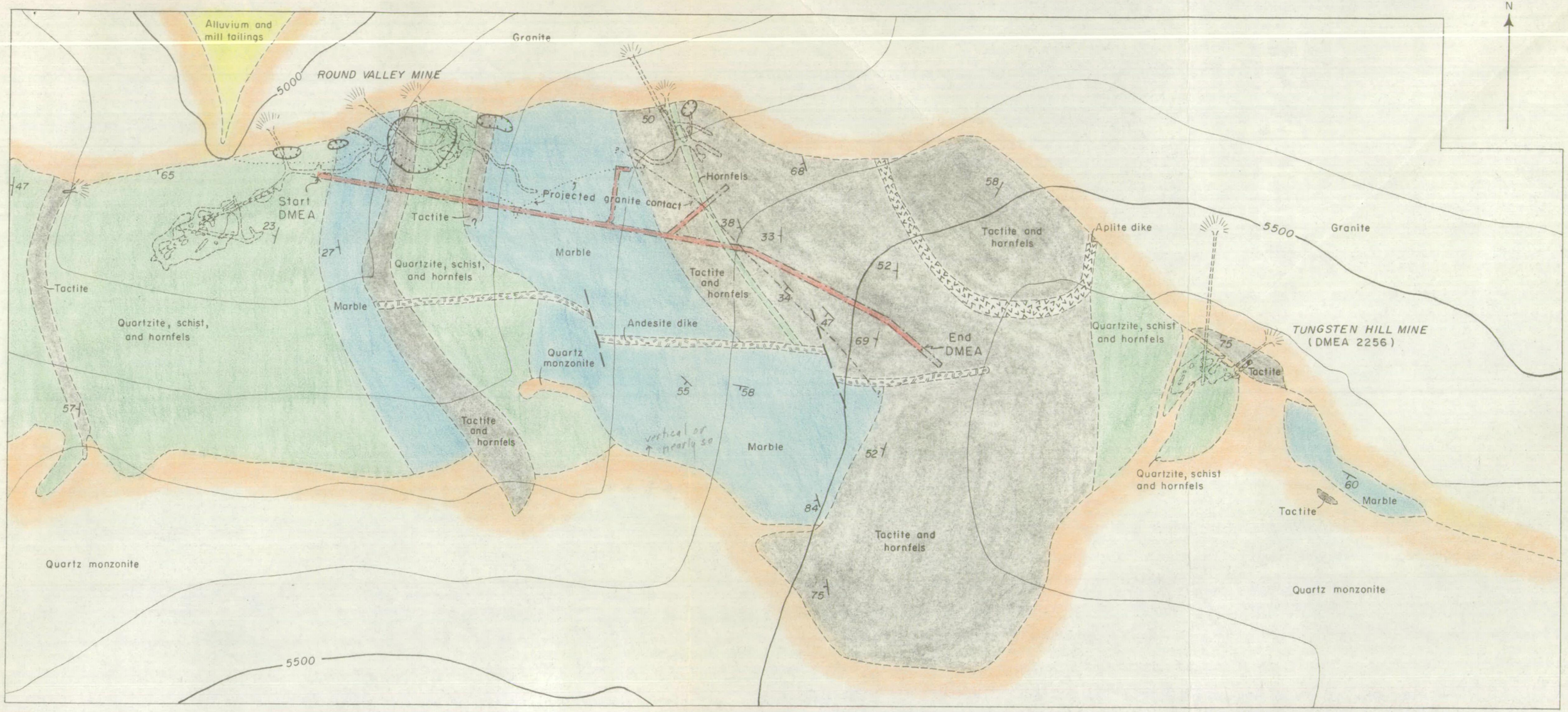
Ore Bin at the Portal shown above. Tungsten Hill Mine.

Tungsten Hill Mine. Looking up to shaft headframe, from portal of main adit.

Looking northwesterly from same point, showing the road to mine from highway and showing Round Valley.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 4614
(TUNGSTEN)
Idm E-1125



Compiled from Company and Geological Survey maps

Figure 3. GEOLOGIC SKETCH MAP OF THE ROUND VALLEY AND TUNGSTEN HILL MINES, INYO COUNTY, CALIFORNIA

0 200 400 600 Feet

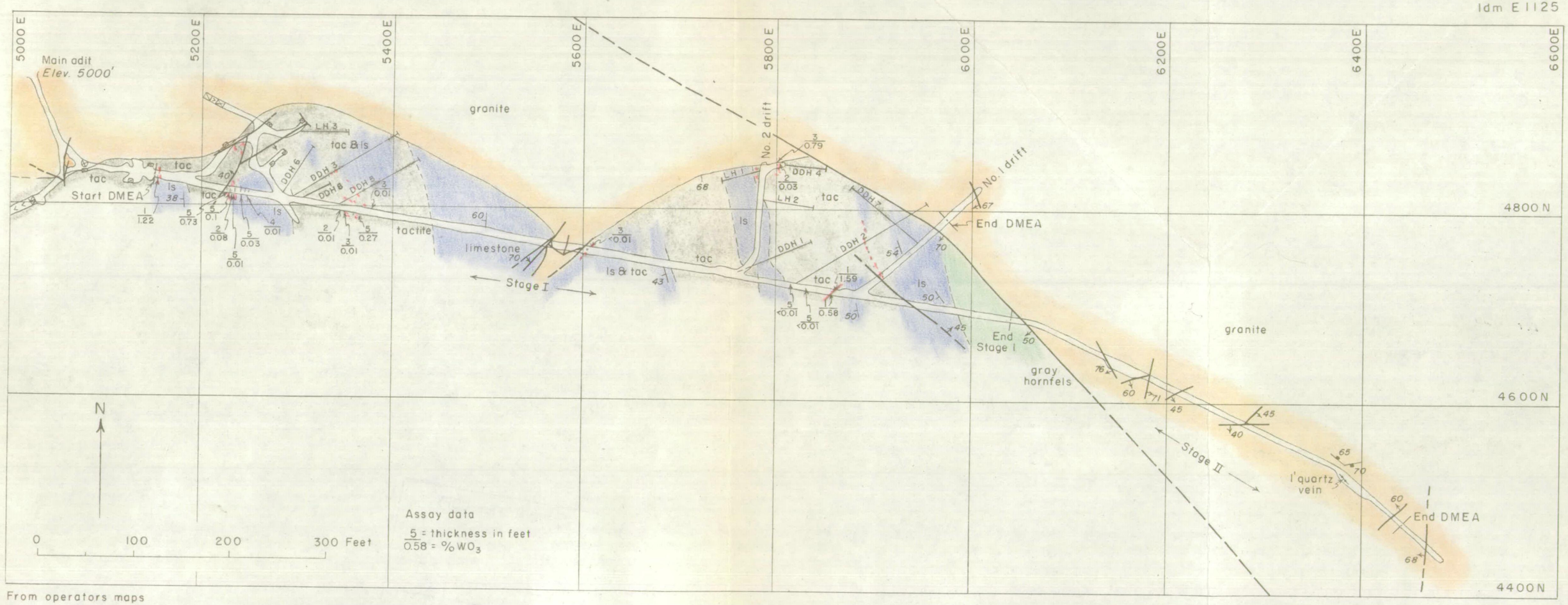
Contour interval 100 Feet
Datum is mean sea level

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 25 1959

DATE	INITIALS

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 4614
(TUNGSTEN)
Idm E 1125



From operators maps

Figure 4. DMEA CROSSCUT, ROUND VALLEY MINE, INYO COUNTY, CALIFORNIA

OFFICIAL FILE COPY
O. M. E.
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DATE	INITIALS	CODE

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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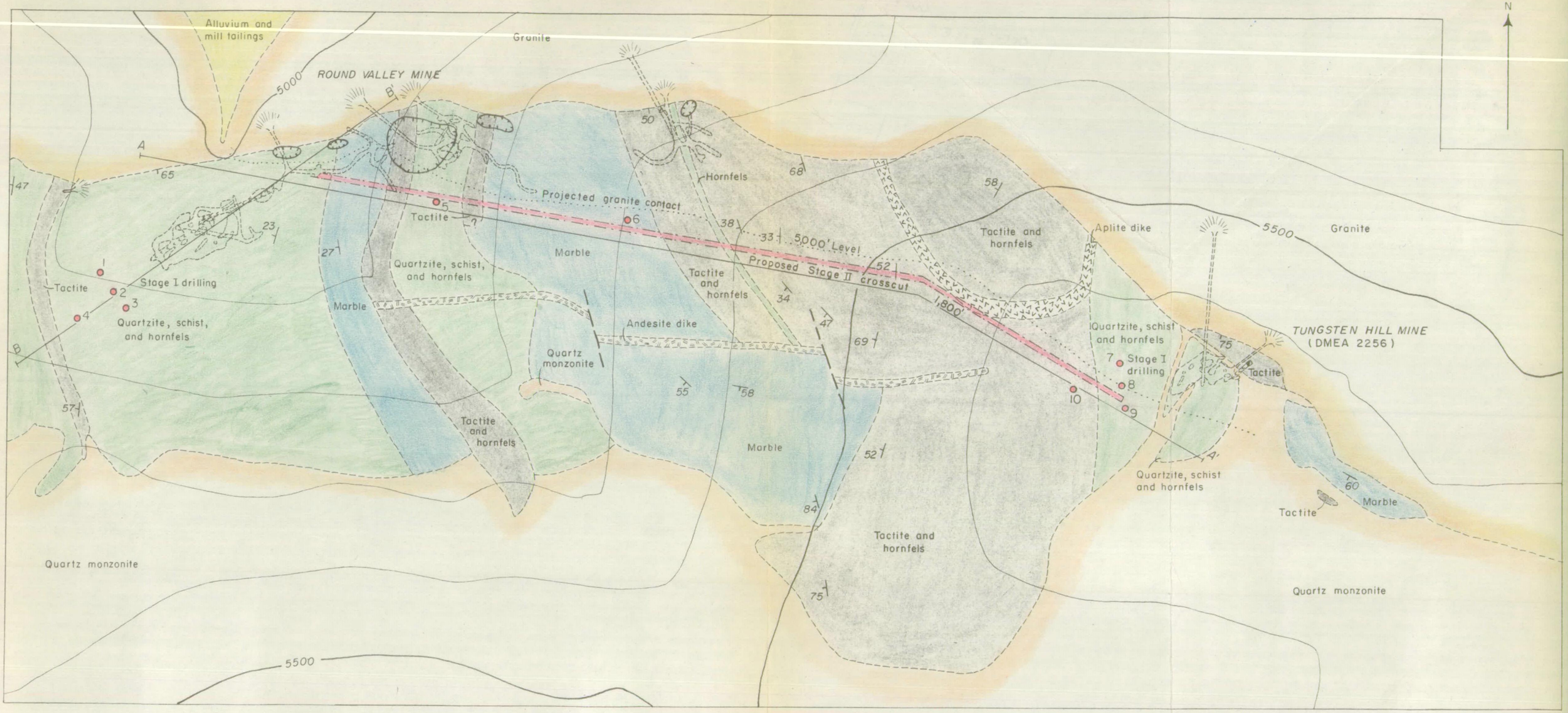

Compiled from Company and Geological Survey maps

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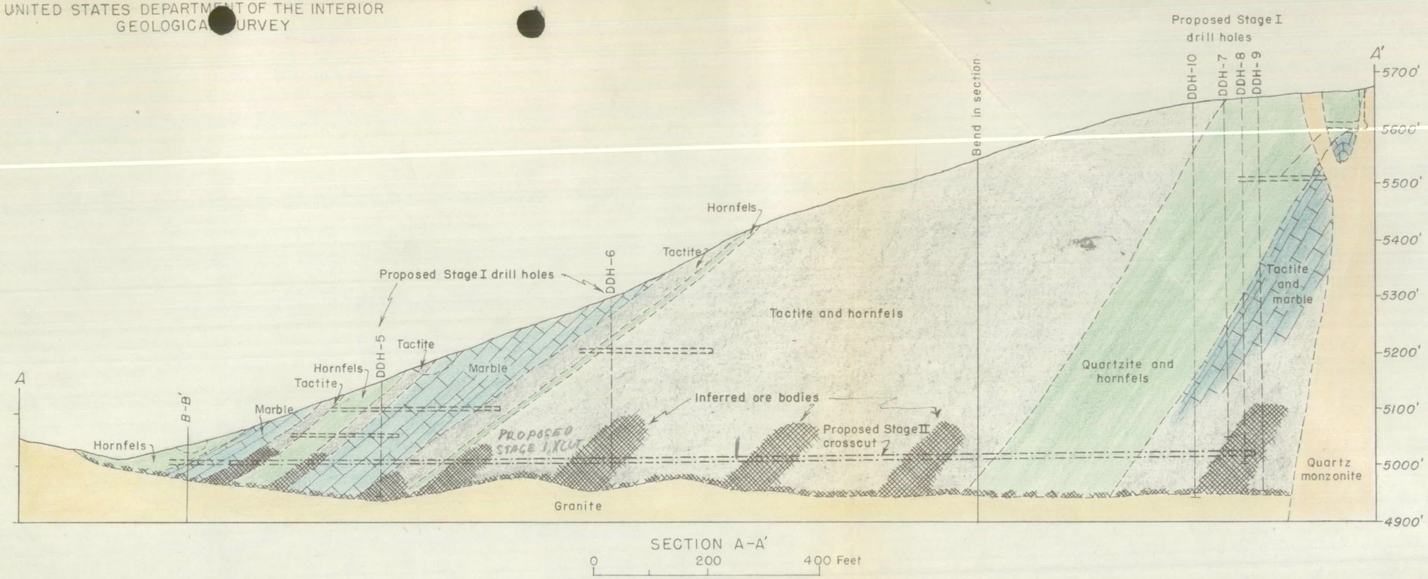
0 200 400 600 Feet

Contour interval 100 Feet
Datum is mean sea level

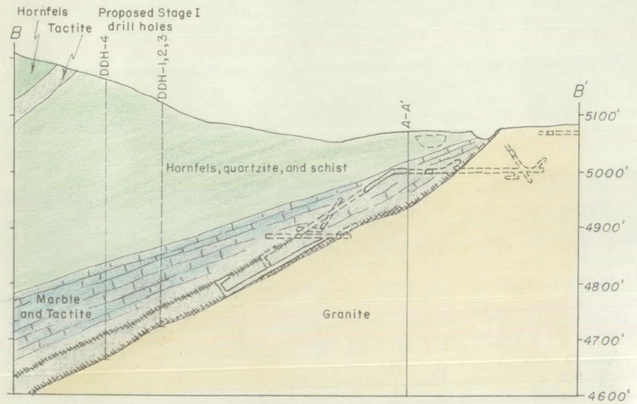
OFFICIAL FILE COPY
D M E A
RECEIVED APR 22 1957

DATE	INITIALS	CODE



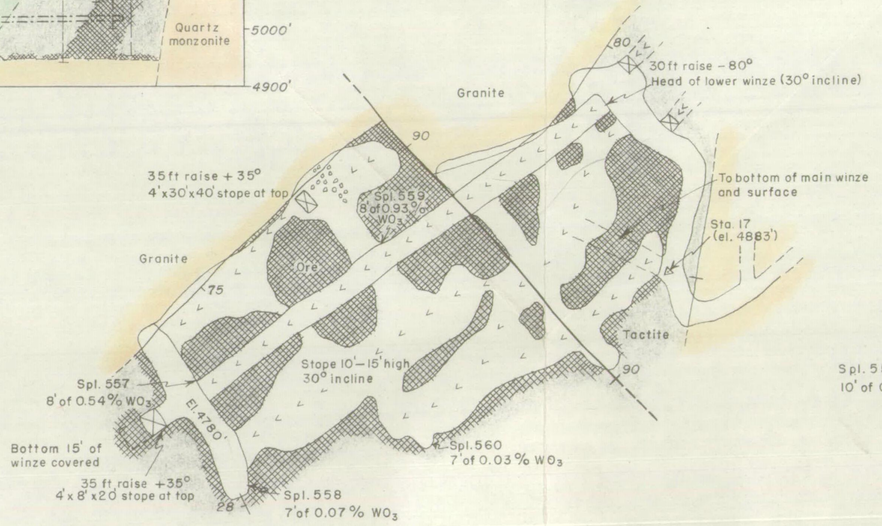
SECTION A-A'

0 200 400 Feet



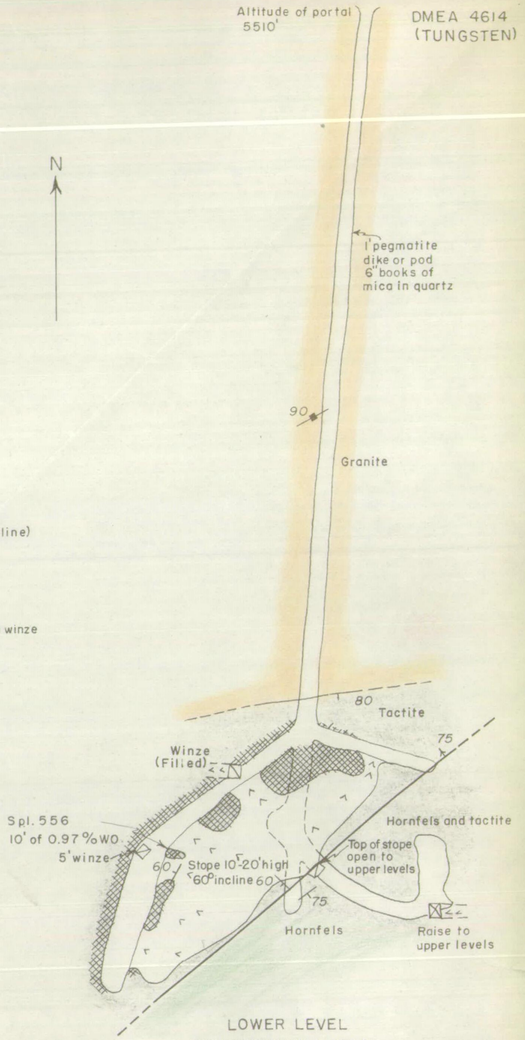
SECTION B-B'

0 200 400 Feet



LOWER WINZE AND STOPE
ROUND VALLEY MINE

0 40 80 Feet



LOWER LEVEL
TUNGSTEN HILL MINE

0 40 80 Feet

Figure 4. GEOLOGIC CROSS SECTIONS AND LEVEL MAPS, ROUND VALLEY AND TUNGSTEN HILLS MINES, INYO COUNTY, CALIFORNIA

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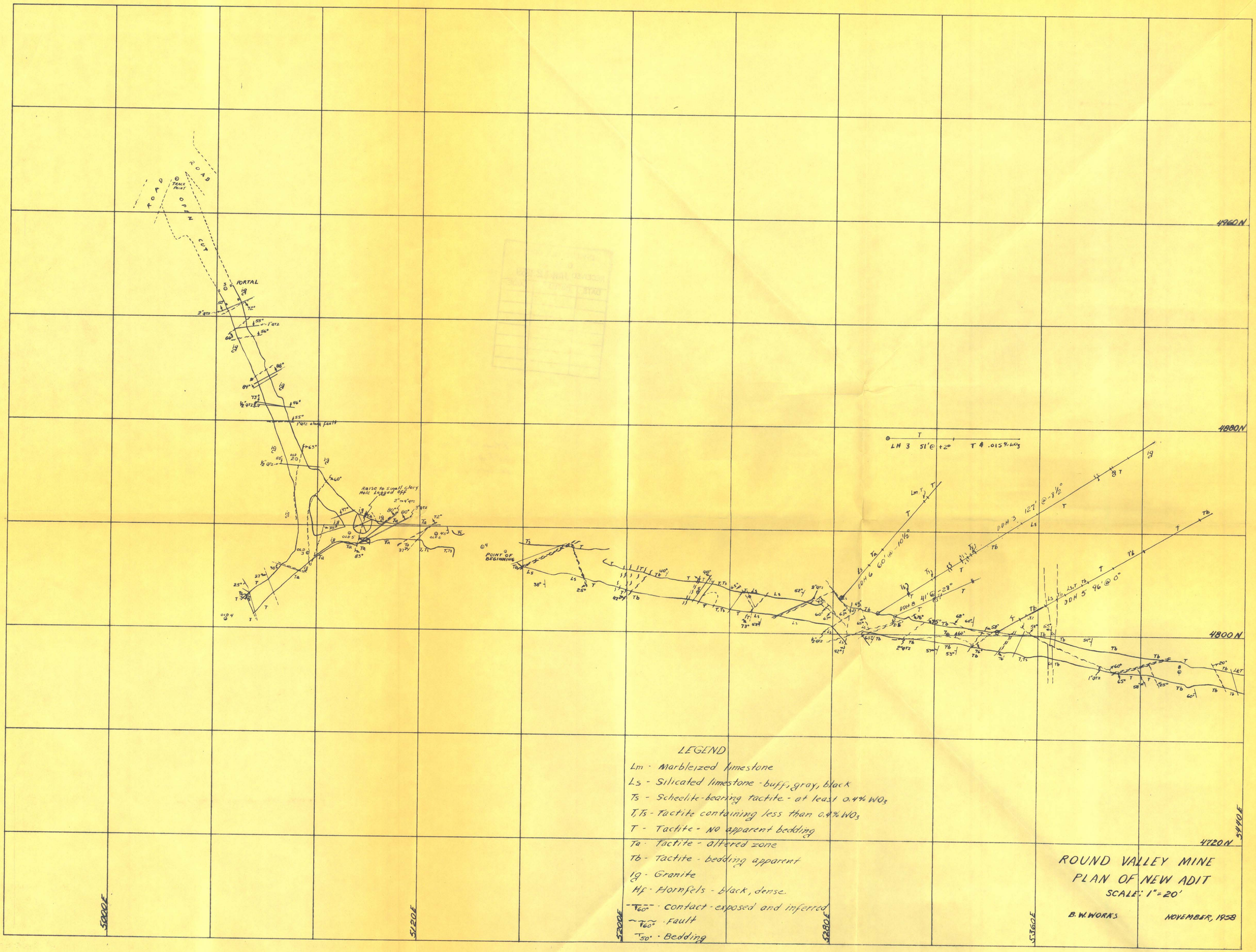
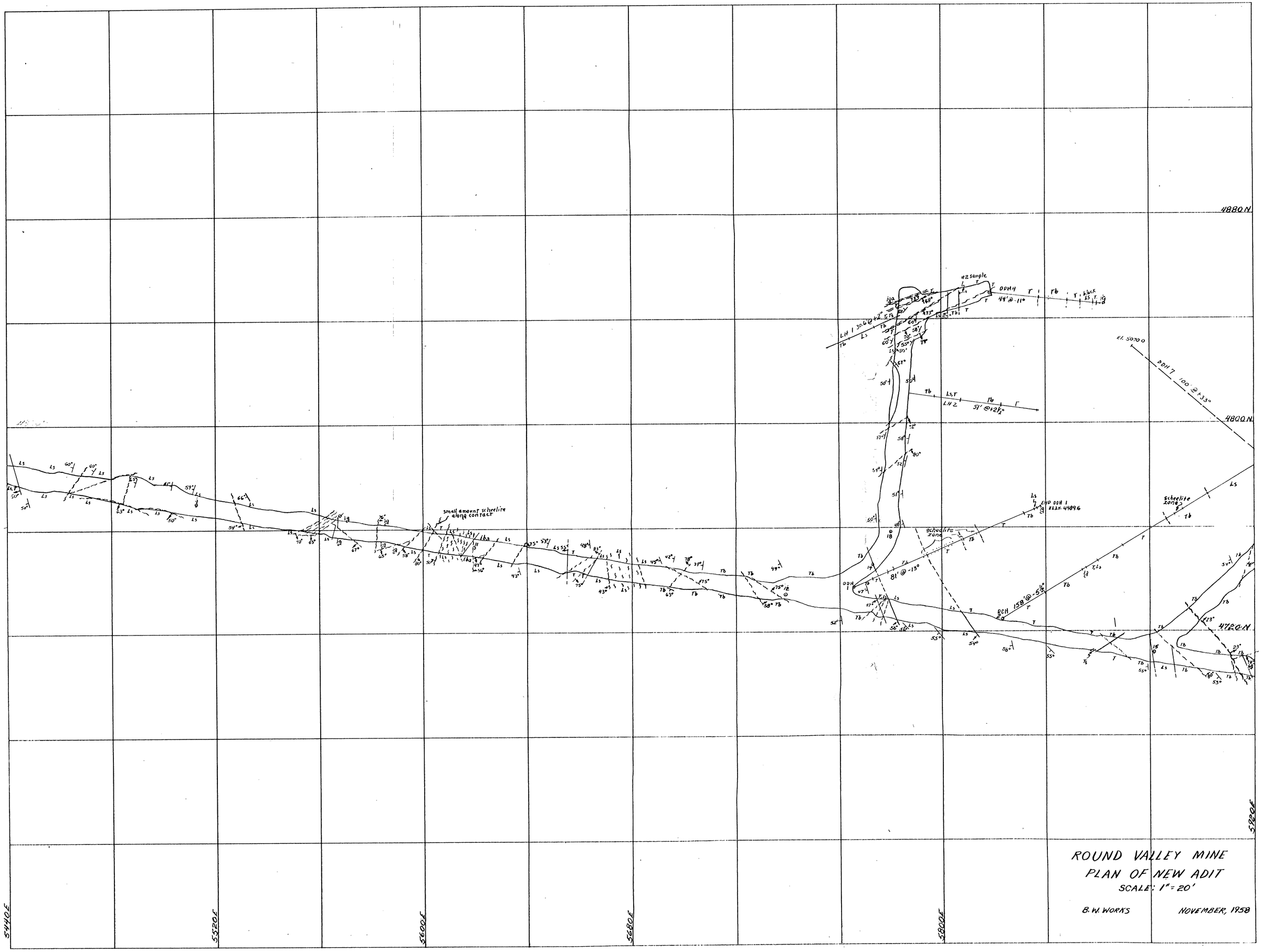


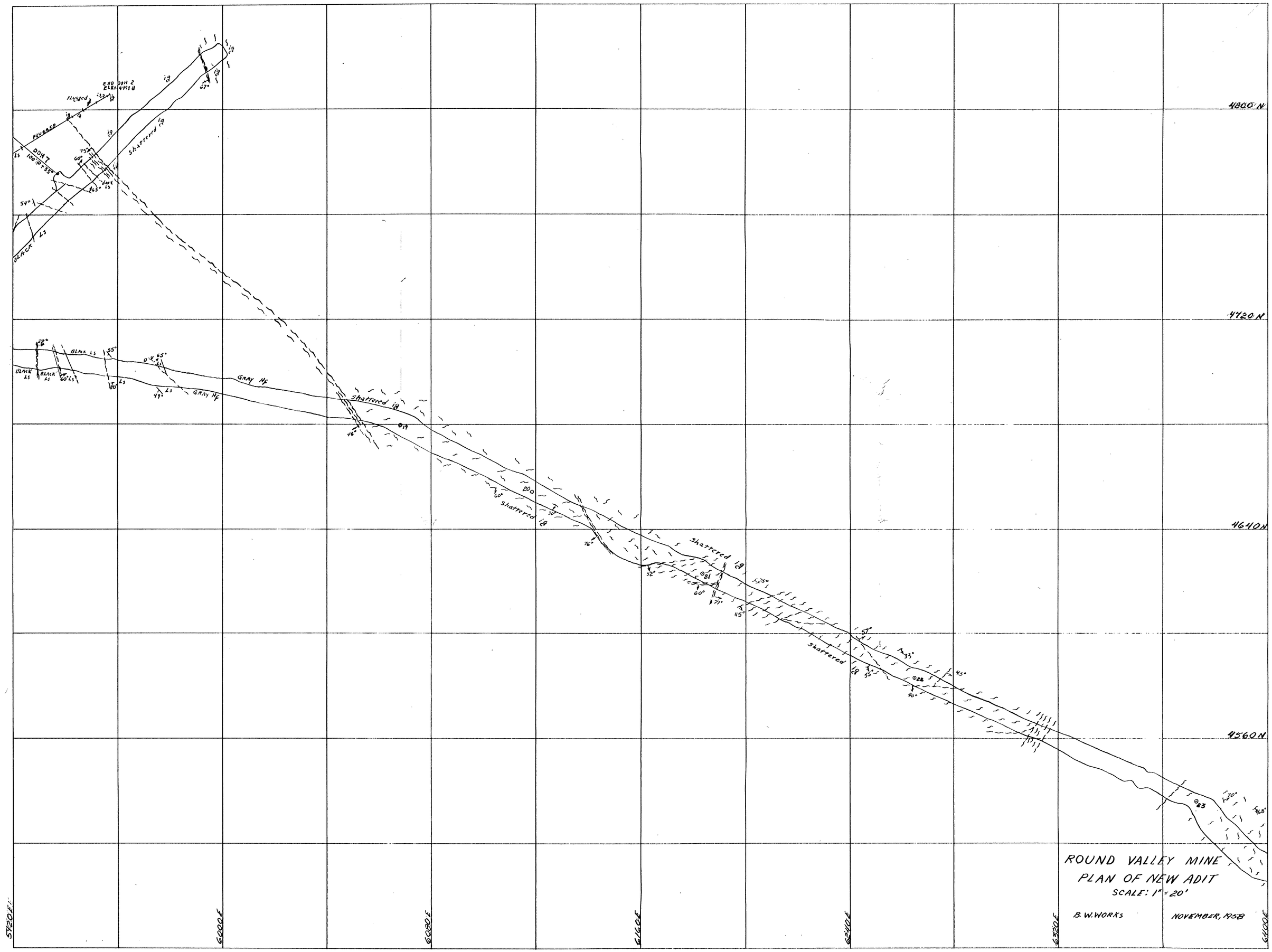
SALT LAKE BLUE



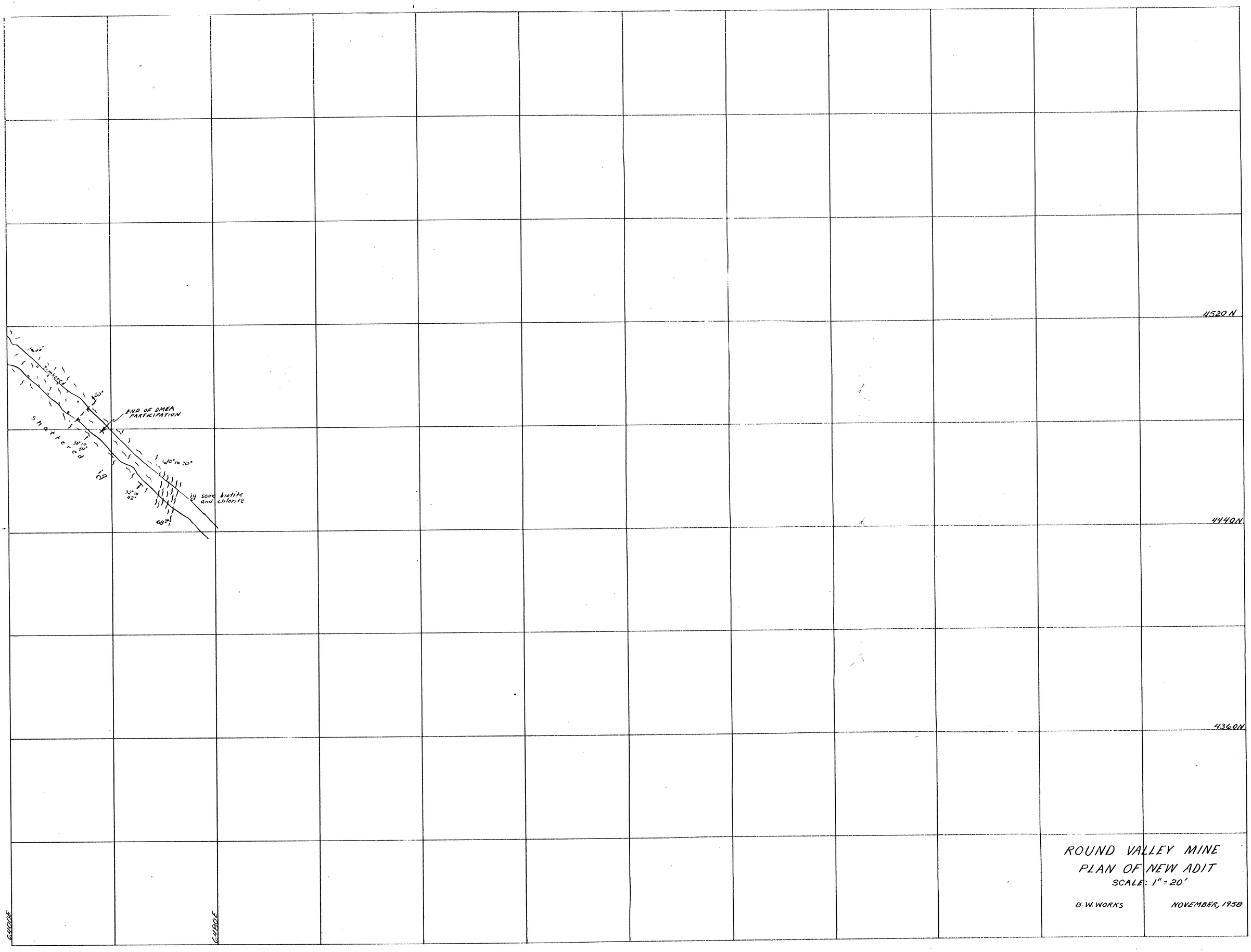
ROUND VALLEY MINE
PLAN OF NEW ADIT
SCALE: 1" = 20'

B. W. WORKS NOVEMBER, 1958

SALT LAKE BLUE



SALT LAKE BLUE



SALT LAKE BLUE