DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E NO. 1158

DMEA NO. 1795

Application
- [ ] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [x] Project summary (final)
- [x] Work Completed analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab)
- [x] Operator's Final Report (Tab)
- [x] Interim Field Team Reports
- [x] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

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

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

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

17963

Mr. Hoe +
225

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Office of Minerals Exploration, Washington, D. C. and the Acting Field Officer, OME Region II, San Francisco, California, pertaining to Contract No. Idm-E1158, Docket No. DMEA-4795 (Tungsten), dated December 3, 1957, with

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

for the purpose of determining the amount of royalty due the U. S. Government on sales of minerals from property referred to as Hilltop Mine located in Churchill County, Nevada, during the period December 3, 1957, through April 21, 1960.

A certification of discovery or development was issued on July 31, 1959, and, in accordance with Article 6 and Amendment No. 1 of the contract, royalty is payable on all minerals mined or produced from the land described in Article 2 of the contract for a period of 11 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. A Report of Review in lieu of final audit dated March 5, 1959, indicated accepted costs under the exploration contract amounting to $31,218.50 with the Government's contribution, on a 75 percent basis, being $23,415.87. In addition, an amount of $432.00 contributed by the Government toward exploration costs under Contract No. Idm-E707, Docket No. 3180, is subject to repayment in accordance with Article 10 of Contract No. Idm-E1158, making a total amount repayable of $23,845.87.

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

(1) Inspection reports by representatives of the Field Team, Region II, and other documents in the files do not indicate that any minerals were mined or produced from the land described in Article 2 of the contract on which royalty would be payable to the Government during the progress of the exploration work or subsequent thereto; and

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

C. E. Fisher

C. E. Fisher, OME Auditor

April 22, 1960

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

WSM

MAR 9 1959
O.M.E

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

pertaining to Exploration Project Contract No. Idm-E1158, Docket No. DMEA-4795, dated December 3, 1957, including Amendment No. 1, for the months of December 1957 to January 1959, inclusive, covering a project for the exploration of Tungsten, on property known as the Hilltop Mine, located in Churchill County, Nevada.

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 unit 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 Contractor		$31,218.50
Exceptions:		
Prior to this review	$-0-	
Herewith	-0-	
Total accepted Cost		$31,218.50

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 Twenty Three Thousand Four Hundred Thirteen and 87/100 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	$23,413.87
Amount paid to date	22,913.87
Balance due Operator	500.00

March 5, 1959

George Mavor
George Mavor, OME Auditor

Docket copy

Holt
Linsenmeyer
Talbut
Hoffman
App'd. Sep. Off.
Selfridge

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

To: Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Pursuant to the provisions of Exploration Project Contract No. Lds-21158, dated December 3, 1957, (Docket No. MRA-4795), as amended, hereinafter called the "Contract," between Tungsten Mountain Mining Company (a Nevada corporation) and the United States of America, hereinafter called the "Government", to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the contract, the Government considers and therefore certifies that a discovery or development from which production may be made has resulted from the exploration.

The nature of said discovery or development is described broadly or indicated as follows:

Drifting, crosscutting, and long-hole drilling on the No. 4 adit level of the Hilltop mine have indicated an appreciable tonnage of tungsten ore, with scheelite occurring disseminated in tactite, silicified limestone, and hornfels, and in thin veinlets along fractures and bedding planes in faulted segments of a limy member of a shale formation which has been tilted and intruded by granite and partly covered by volcanic rocks of probable Tertiary age.

Dated: JUL 31 1959

THE UNITED STATES OF AMERICA

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

SPHolt/gla 7-29-59
cc to: Director's Read.File
Mr. Johnson
Operating Committee
Div. of Contract Adm. & Audit
Field Team, Region II (2)
Finance Officer, Region II
R. W. Holliday, USBM
H. Kirkemo, USGS
C. A. Fredell, GSA
Mr. Holt
Docket
Chron

Pocket copy

CONFIRMATION BY THE UNITED STATES OF AMERICA
OF A TELEGRAM OF DISCLAIMER UNDER
AN EXPROPRIATION PROJECT CONTRACT

To: American Smelting Mining Company
111 Wenatchee Building
Seattle 1, Washington

Pursuant to the provisions of Exploration Project Contract No. 100-2110, dated December 3, 1957, (Docket No. XMM-4/75), as amended, hereinafter called the "Contract", between Hungarian Mining Company (a Soviet corporation) and the United States of America, hereinafter called the "Government", on behalf of the Government's proceeding to verify production and the loss which production may be now has resulted from the expropriation.

The status of mail discovery or development is described briefly or indicated as follows:

Existing, proven veins, and long-term drifting on the 4th level of the Sitjo mine are considered as prospectable [illegible] of Hungarian ore, which depositts concerning discovery [illegible] results, allocated locations, and "crucible", and in this relation [illegible] other [illegible] places in limited potential of a tiny [illegible] which has been called one [illegible] [illegible] the partly covered by volcanic rocks of probable military [illegible].

Dated: JUN 3 1959

THE UNITED STATES OF AMERICA

By: [illegible]
Acting Director, Office of
Strategic Operations Administration

SPMolt/gla 7-20-59
cc to: Director's Read File
Mr. Johnson
Operating Committee
Div. of Contract Adm. & Audit
Field Team, Region II (2)
Finance Officer, Region II
R. W. Holliday, USMM
H. Kirkemo, USGS
C. A. Tredell, USA
Mr. Holt
Docket
Chron

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
		120
		220

May 13, 1969

Memorandum

To: The File

From: Chief, Office of Minerals Exploration

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Under date of December 3, 1957, the Government entered into the subject contract with Tungsten Mountain Mining Company, owner, to explore four unpatented lode mining claims, located in T. 19 N., R. 37 E., Clan Alpine Mining District, Churchill County, Nevada. The object of the exploration program was to explore for tungsten ore in the downward continuation of tactite bodies that had been exposed as a result of exploration by the Operator, a small part of which had been done with Government assistance under Contract Idm-E707, Docket DMEA-3180.

The total accepted costs of the work under the contract, as amended, was $31,218.50, with the Government's contribution on a 75 percent basis being $23,413.87. In addition, $432.00 contributed by the Government toward exploration costs under Contract Idm-E707, Docket DMEA-3180, was subject to repayment in accordance with Article 10 of Contract Idm-E1158, making a total amount repayable of $23,845.87.

The exploration work, completed January 31, 1959, discovered scheelite-bearing tactite along several faulted segments of an ore body for 630 feet along the strike. A certification of discovery was issued accordingly.

After unsuccessful attempts to collect unpaid royalties from the Operator, a claim of $2,783.69 was referred to the Claims Division, General Accounting Office on June 29, 1965. On June 1, 1966, attorneys for the Tungsten Mountain Mining Company advised that Mr. Cecil Cole, Realty Building, Everett, Snohomish County, Washington, became the owner as trustee for the First Mortgage Bond Holders as a result of a foreclosure of the mortgage on February 22, 1966. A letter from GAO on November 21, 1968, stated that all assets of the Tungsten Mountain Mining Company were liquidated by foreclosure and the company was out of business, and that no part of the indebtedness had been collected as it was determined that further collection action was unwarranted.

There has been no payment of royalty under the contract. Reports received since June 1966 and information furnished by the U. S. Bureau of Mines indicate that no production was made from the property through December 3, 1968, the expiration of the royalty repayment period.

It is recommended that the amount of the Government's contribution to the cost of exploration under this contract be written off and the file closed.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
OME Region II
Branch of Budget and Finance
130

GLAult/a 5-13-69

Government's copy

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 10 1958
Adm. Sol. Off.

DATE	INITIALS	CODE

Holt
Martin
Chambers
Selfridge
Johnson

EXPLORATION PROJECT CONTRACT
TUNGSTEN MOUNTAIN MINING COMPANY
DOCKET NO. DMEA-4795

AMENDMENT NO. 1

It is agreed this 30th day of September 1958, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, and Tungsten Mountain Mining Company, that Exploration Project Contract No. Idm-E1158 (Docket No. DMEA-4795), dated December 3, 1957, is amended, effective August 3, 1958, as follows:

1. In Article 1 of the Contract the time for completion of the work is extended from "within 8 months from the date of the Contract" to "within 14 months from the date of the Contract."

2. In Article 6(b) of the Contract the period for payment of royalty is changed from ten years from the date of the Contract to eleven years from the date of the Contract.

This amendment shall not be construed to increase the estimated total cost of the project, to increase the aggregate amount which the Government shall be required to contribute, nor to increase 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 C. Mittenzwey
ACTING Director, Office of Minerals Exploration

TUNGSTEN MOUNTAIN MINING COMPANY

By Arthur Laber.

Title Engineer & Agent.

Government's Copy

MF-200A
(Rev. April 1956)

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 30 1957

DATE	INITIALS	CODE
	State	

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*	
4795	Tungsten	1158	Churchill	Nevada

It is agreed 3 DEC 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Tungsten Mountain Mining Company, a Nevada corporation

whose mailing address is 511 Securities Building, Seattle 1, Washington

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 January 3, 1958, and, subject to the provisions of Article 7 and Exhibit A, shall complete the work within 8 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 $32,200.00*. The Government will contribute 75 percent of the fixed unit cost of the work performed, not exceeding $24,150.00*, 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: None

(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:

(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

*See Article 10.

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. See Article 10.

(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.*—

Whereas--the parties to this contract were also parties to Contract Idm-E707 (Docket No. DMEA-3180), dated September 13, 1956, as amended, which was terminated by the Government because of the Operator's default. The Government contributed the sum of $432.00 to the costs of the terminated Contract, and repayment of said sum is a consideration to the Government for entering into this Contract. Now, therefore, it is agreed that in Article 6(b), the phrase "the total net amount contributed by the Government" includes the sum of $432.00 contributed under the terminated Contract.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C. Mittendorf
Administrator, Defense Minerals
Exploration Administration

Chapman
Martin
Chambers
Selfridge
Johnson

TUNGSTEN MOUNTAIN MINING CO.
(Operator)

By B. W. Porter

Title President

I, F. L. Mills, certify that I am the secretary of the corporation named as Operator herein; that B. W. Porter, who signed this contract on behalf of the Operator, was then President 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.

F. L. Mills

[CORPORATE SEAL]

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

OFFICIAL FILE
DMEA
RECEIVED DEC 30 1957

DATE	INITIALS	CODE

EXPLORATION PROJECT CONTRACT
TUNGSTEN MOUNTAIN MINING COMPANY
DOCKET NO. DMEA 4795

ANNEX I

The land referred to in Article 2 of the Contract is owned by the Operator. It consists of four unpatented lode mining claims, located in T. 19 N., R. 37 E., Clan Alpine Mining District, Churchill County, Nevada (outlined in green on the map, Figure 2A, described in Exhibit A), and Notices of Location of which are recorded in the official records of said county, as follows:

Claim Name	Book No.	Page No.
Hilltop	26	314
Porter No. 1	27	67
Artel No. 1	28	173
Hedi No. 1	27	142

EXPLORATION PROJECT CONTRACT
TUNGSTEN MOUNTAIN MINING COMPANY
DOCKET NO. DMEA 4795

EXHIBIT A

Description of the Work

"Figure 1. Index Map of Churchill and Pershing Counties, Nevada"

"Fig. 2A - Map of Hilltop and Adjoining Claims"

"Figure 2 - Geologic Map and Section of the Hilltop Mine Area, Churchill County, Nevada"

"Figure 3 - Geologic Maps of Tunnels 1, 2 and 3, Hilltop Mine, Churchill County, Nevada"

"Figure 4 - Face at Bulldozer Cut, Hilltop Mine, Churchill County, Nevada"

The project is divided into two stages. The Operator shall perform the Stage I work, and as much of the Stage II work as is approved by the Government, dependent upon the results of Stage I work. The operation shall be conducted on a two shift per day basis, when possible.

All drifts and/or crosscuts shall be not less than 5 feet by 7 feet in the clear and shall be timbered as necessary.

Mineralized zones in adit, crosscuts and/or long holes shall be sampled and the samples assayed for tungsten. Samples from long holes shall not exceed 5 feet in length.

The locations, directions, and extent of all work are subject to the approval of the Government, but no long hole shall be drilled closer than 100 feet to another long hole on the same side of the drift.

Stage I

An adit shall be started approximately at the point indicated on Figure 2 and driven not more than 600 feet on a course about south 20 degrees east.

The northeasterly and southwesterly sides of the adit shall be explored by long hole drilling at approximately right angles. The length of a drill hole will depend upon the geology of the structure; but no hole shall exceed 75 feet in length, and the total drilling for all holes shall not exceed 600 feet. The drill holes are tentatively indicated on Figure 2, and may be on one side or both sides of the adit.

Stage II

As approved by the Government: (a) the adit driven in Stage I may be extended not to exceed an additional 100 feet; and (b) ore zones indicated by the Stage I long hole drilling may be explored by not to exceed an aggregate of 200 feet of drifting, crosscutting, and raising.

Estimated Cost of the Project

Fixed Unit Costs

Stage I

Drifting 600 feet @ $32.00/ft.	$19,200.00	
Timbering 200 feet @ $7.00/ft.	1,400.00	
Long hole drilling 600 feet @ $1.50/ft.	900.00	
60 assays for tungsten @ $4.00 each sample	240.00	
Estimated cost of Stage I		$21,740.00

Stage II

Drifting, crosscutting, and raising, 300 feet @ $32.00/ft.	$ 9,600.00
Timbering 100 feet @ $7.00/ft.	700.00
40 assays for tungsten @ $4.00 each sample	160.00

Estimated cost of Stage II	$10,460.00
Estimated total cost of Project	$32,200.00
Government participation @ 75%	$24,150.00*

* See Article 10.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA-4795
(Tungsten)

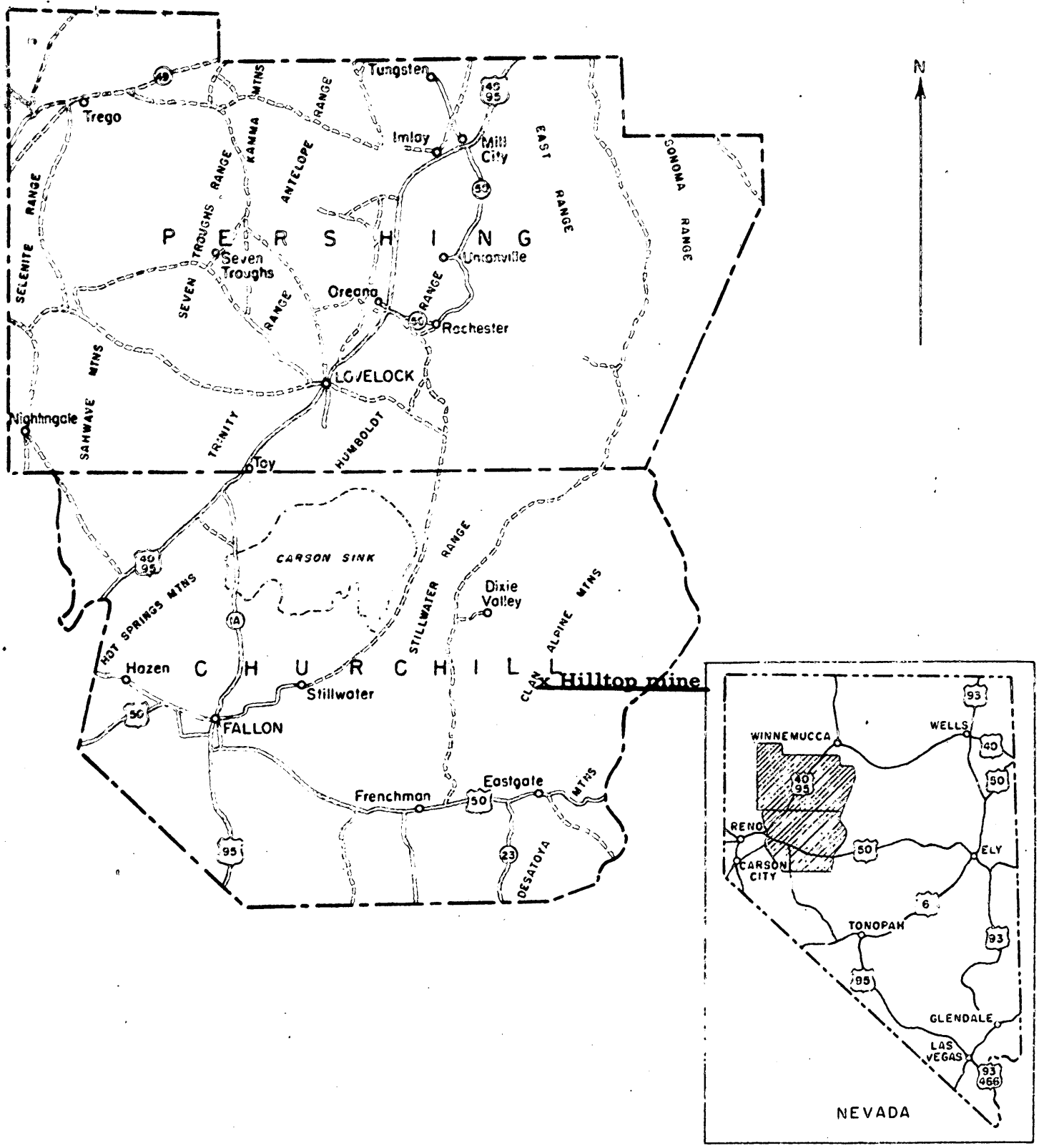

Figure 1. INDEX MAP OF CHURCHILL AND PERSHING COUNTIES, NEVADA

0 20 40 60 Miles

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RECEIVED DEC 30 1957

DATE	INITIALS	CODE

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DME A 4795
(TUNGSTEN)

EXPLANATION

Granite

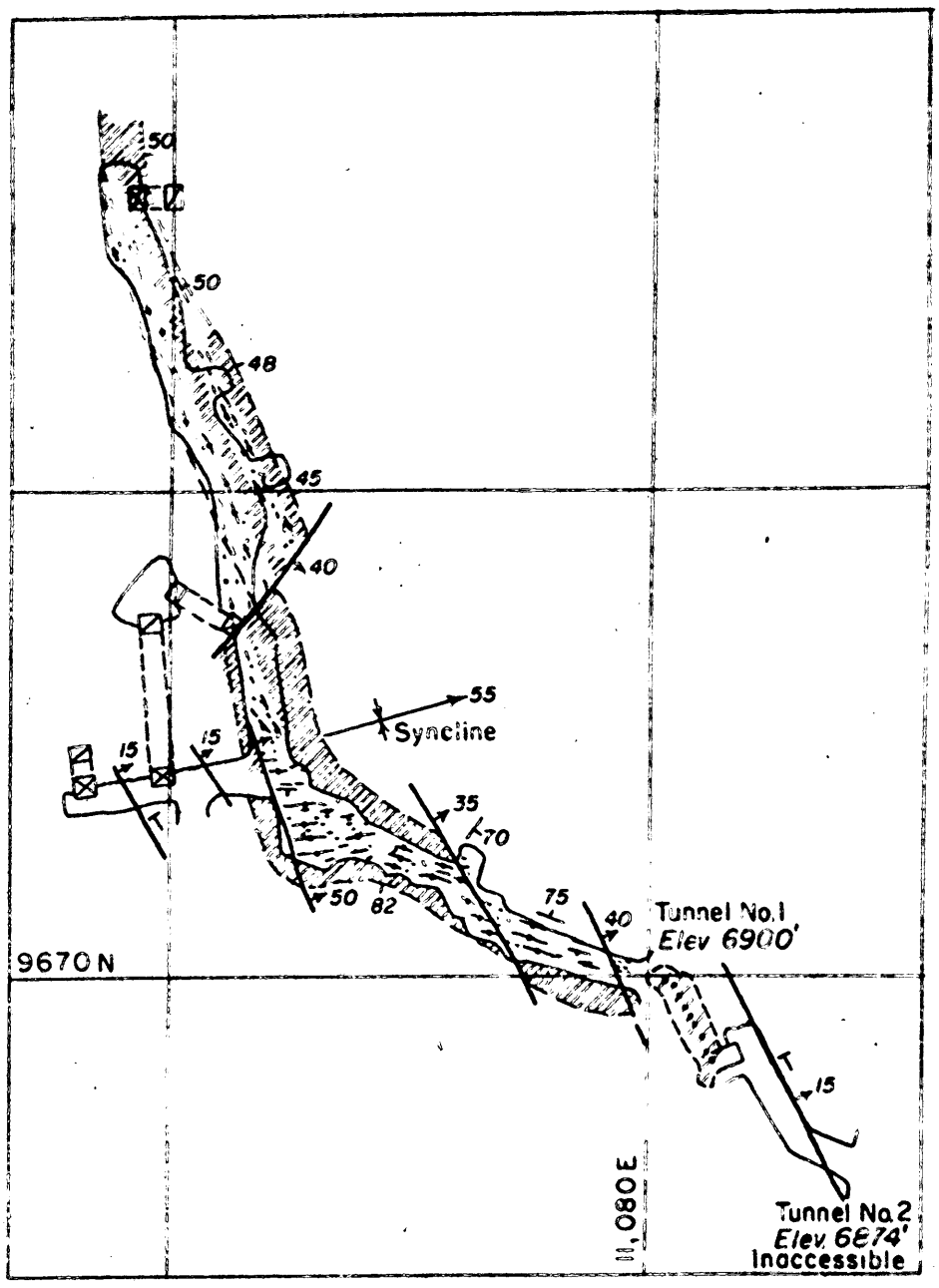
Limestone and/or limy shale

Mudstone, with interbedded thin, discontinuous tactite lenses

Sheelite, in fractures
Sheelite, disseminated

N

Note:
From Company maps, modified by R H. Campbell August 1957



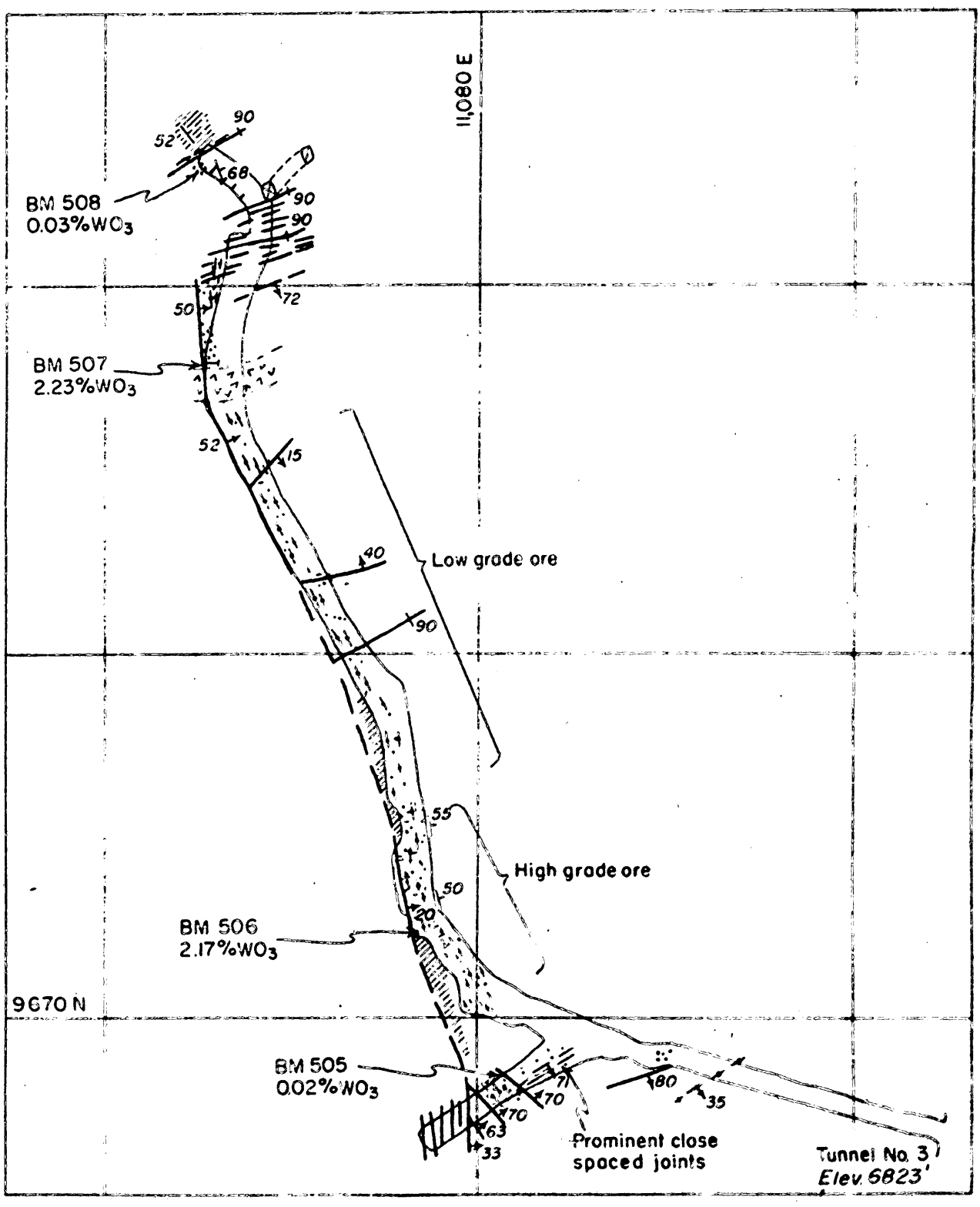
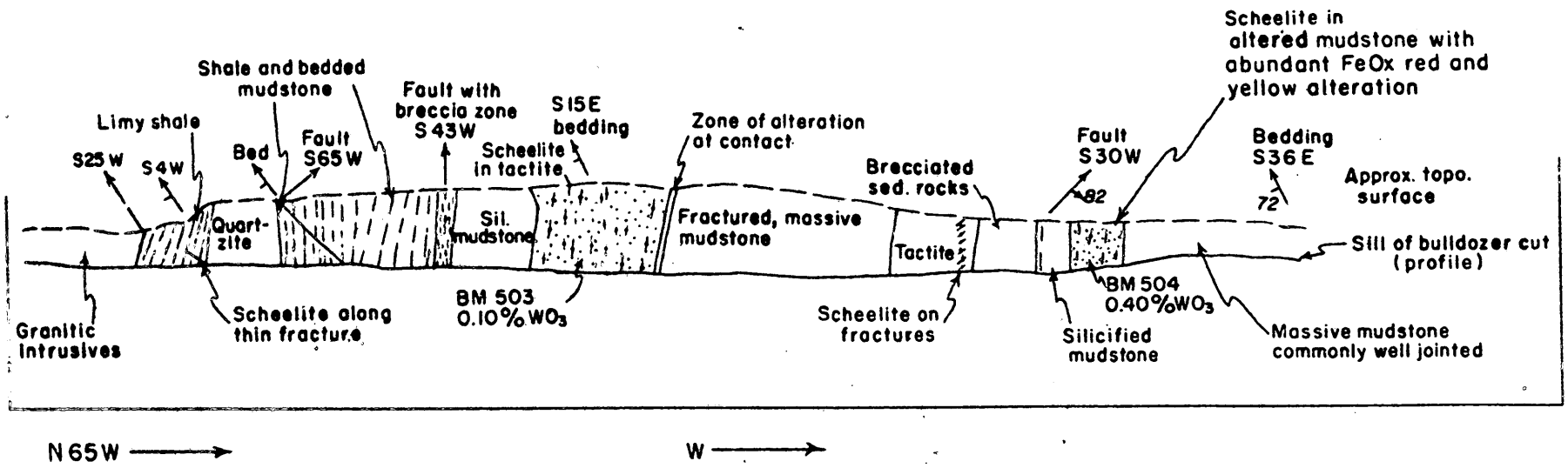


Figure 3. GEOLOGIC MAPS OF TUNNELS 1, 2, AND 3, HILLTOP MINE
CHURCHILL COUNTY, NEVADA

0 40 80 120 Feet



Geology by R. H. Campbell, August 1957

Figure 4. FACE AT BULLDOZER CUT, HILLTOP MINE
CHURCHILL COUNTY, NEVADA

0 20 40 60 Feet

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

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DMEA
RECEIVED JUL 25 1957

DATE	INITIALS	CODE

July 23, 1957

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Loan Application
Tungsten Mountain Mining Co.
Tungsten Mountain Mining Property
Churchill County, Nevada

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

John S. Warne
/for/ S. Ricker

Attachments

BUREAU OF MINES
WASHINGTON, D. C.
JUL 25 8 44 AM '57

Form MF–103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42–R1035.3
Approval expires June 30, 1958

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

NAME OF APPLICANT (Full legal name and mailing address as it should appear on contract if one is executed)

TUNGSTEN MOUNTAIN MINING CO.
511 Securities Bldg.,
Seattle 1, Washington.

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

APPLICANT NOT TO USE THIS BLOCK

Docket Number: 4795
Date Received: 7/25/57
Government Participation %:
Region: II
Division Code: 400

BUSINESS ORGANIZATION (Check one)

- Individual [ ]
- Corporation [x]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized: NEVADA

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
Bennett W. Porter	2801 42nd Ave. W. Seattle 99, Washington	President
Emil Mottman	Kelso, Washington	Vice-President
Raymond G. Rayne	5203 Wallingford Seattle, Washington	Treasurer
Freda Mills	2801 42nd Ave. W. Seattle 99, Washington	Secretary

Mineral(s) for which you wish to explore: Tungsten

Estimated Cost of Project: $ 41,144

LOCATION OF PROPERTY

Name	County	State
TUNGSTEN MOUNTAIN MINING PROPERTY	Churchill	Nevada

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order–I, Amended, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

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.

JULY 22 1957.
Dated

TUNGSTEN MOUNTAIN MINING CO.
BY (*Signature*)
Bennett W. Porter
Title PRESIDENT

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

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)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Amended.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 15539

1. APPLICANTS PROPERTY RIGHTS

(a) The property comprises nineteen unpatented mineral claims, 1-placer, and 1-millsite in T 21 N; R 38 E: MDM, recorded at Fallon, Churchill County, Nevada and shown on accompanying Map "B"

Claim	Recording date	Churchill County Records File #	Book	Page
Hilltop	Dec. 1, 1951	75220	26	314
Porter No 1	Oct. 18, 1953	78647	27	67
Porter No 2	" "	78648	27	67
Porter No 3	" "	78649	27	68
Porter No 4	" "	78650	27	68
Porter No 5	" "	78651	27	69
Hedi No 1	May 13, 1954	79759	27	142
Hedi No 2	" "	79760	27	143
Hedi No 3	" "	79761	27	144
Hedi No 4	" "	79762	27	145
Hedi No 5	July 21, 1954	80290	27	224
Hedi No 6	" "	80291	27	224
Artel No 1	Oct. 18, 1955	83588	28	173
Artel No 2	" "	83589	28	173
Garnet	Dec. 1, 1951	75221	26	315
Garnet No 2	" "	75222	26	315
Garnet No 3	July 1, 1952	76177	26	411
Garnet No 4	" "	76178	26	411
Garnet No 5	" "	76179	26	412
Jim Crowe Placer	Dec. 1, 1951	75219	26	314

The land Tungsten Mountain M. Co. wishes to explore comprises: Hilltop, Porter No. 1 and Artel No. 1 claims, shown on Map No. 1

(b) The property is known as "Hilltop" and/or "Tungsten Mountain"

(c) The claims, millsite and placer are owned by Tungsten Mountain Mining Co. 511 Securities Bldg. Seattle 1, Washington. The Byers Ranch campsite together with water and appurtenances is under three year lease from owner Thos. Armanchea, Fallon, Nevada. The company owns trailers, pumps, electric plant, etc.

(d) There are no liens or mortgages against the property

2. PHYSICAL DESCRIPTION

As of June 27, 1957 Tungsten Mountain exploration and mining operations totalled 795-lineal feet of underground workings on the Hilltop claim and 8,150-lineal feet of bulldozed exploratory cuts and roads crossing and exposing formation courses, shown on Map No.1 and detailed on Map No. 2 as follows:

Underground exploration

No. 1 Adit Tunnel (El. 6900) averaging 60-feet below surface:

Drifting on vein	220-feet	
Raising on vein	80	
Crosscut into footwall	40	340-feet

No. 2 Adit Tunnel (El 6870) on "Fault A"

Crosscut adit	18-feet	
Drift on Fault "A"	37	55-feet

No. 3 Adit Tunnel (El 6823) to and along vein

Crosscut to vein	120-feet new 48'	
Drifting on vein	220 new	
Crosscut SW to E-W structure	40 new	380-feet

Add stope over No. 2 tunnel to surface 20-feet high by 20-feet long — 20-feet

Total underground footage — 795-feet

Surface exploration

(1) Hilltop Showings on Hilltop claim Southeast down the mountain

Bulldozer cuts	1,050-lineal feet	
Roads across	2,500	3,550-feet

Hilltop showing to Northwest into gulch

Bulldozer cuts	700-lineal feet	
Roads across	800	1,500-feet

(2) "New Show" on Porter No. 1 claim across gulch

Bulldozer cuts across	2,100-feet new	
New road across	1,000	3,100-feet

Total surface exploration — 8,150-feet

All ore mined above No. 3 Tunnel was shipped to custom mills at Gabbs, Nevada and Bishop, California for concentration into salable WO3 products. All ore produced from No. 3 Tunnel has been stockpiled on the property for later shipment.

In addition to mining machinery, trucks, etc. detailed later in this statement, there is a 30-ton ore bin at mine workings and a 80-ton loading bin at the foot of the mountain 4-3/4-miles by road from the workings as shown on Map "B"

As described in later geologic description and shown on Maps No. 1 and No. 2, the ore showings form along a narrow limey bed

that curves into a synclinal trough (the formation's N 70° W strike, 80° north dip changing in its NW extension to N 15° W strike with 50 to 55° easterly dip).

No. 1 Tunnel progresses N 70° W for 80-feet along from 4-feet to 9-ft. thickness of ore formed along nearly vertical shearage along the limestone and its contact with hornfels on the north. This section returned the highest grade scheelite ore. The tunnel then turns (at sta 5) to an average N 15° W direction in lower grade mill ore bedded in limestone that dips easterly @ 50-55° for 140-feet to the tunnel's end. This ore averaged about 5-feet thickness and is bordered on east by limestone and on the west by hornfels. Another ore streak 2 to 3-feet wide parallels the main streak about 5-feet to the east, wholly enclosed in limestone as indicated by two cuts shown on Maps 1 & 2. A 30-foot raise was driven in ore and at 10-feet past the turn a 40-foot crosscut was driven westerly into the footwall hornfels disclosing Fault "A" at its face. Two upraises were driven to tap the ore as shown on Section A of Map 2.

The ore and enclosing rocks were greatly disturbed and intensely shattered in this horizon above Fault "A" and the tunnel had to be closely timbered. The workings are accessible for inspection to and beyond muck piles left in them.

No. 2 Tunnel penetrated Fault "A" which it followed 35-feet in N 24° W direction with 15° easterly dip as shown on Maps 1 & 2 Above this fault the ground was much shattered but below it the rock is firm. At the tunnel face a short upraise was driven into ore lying above Fault "A" which was stoped 20-feet long by 20-feet high to surface. This provided the mine's richest scheelite ore. This tunnel is mostly inaccessible by cave.

No. 3 Tunnel progressed N 75° W for 120-feet through hornfels to limey bed that courses N 20° W and dips 50-55° easterly. Ore is followed 170-feet along footwall (west) side of the limestone, bordered on west by hornfels. At 170-feet a small granodiorite dyke corsses, cutting off the ore and the last 40-feet of tunnel goes due north in hornfels indicating that the contact and possible ore extends out in left wall as indicated on Maps 1 & 2. The first 80-feet comprises high grade ore which lamps similarly to No. 1 Tunnel's best ore. Thereafter for 90-feet the ore is similar to the mill ore in beds at No. 1 Tunnel. A southwest crosscut was driven 40-feet at 90-feet in from portal to test easterly course of the structure that contains No. 1 Tunnel's richest ore. Thin streaks of high grade were cut.

About 500-tons of ore has been taken from the No. 3 Tunnel 7x5-ft. drift.

(b) Tungsten Mountain Mining Co. has exclusive interest in the above.

(c) During 1954-55 958.3-tons of development ore containing 1543 units WO3 were mined from No. 1 Tunnel and small stopes thereto, as shown on Section A of Map 2.

In the following table the ore grades are divided A-B-c. "A" is high grade from tunnel's 120-feet in from portal and around turn at synclinal axis and from 20-foot stope above No. 2 Tunnel. "B" represents 100-feet length of mill grade ore in bedding from turn to tunnel face and stope shown on Section A of Map 2. "C" represents test on low grade and dump ore.

	Mine Tons	Dry tons	Content units	Ore grade	Saved Units	Dollar returns	Dollar per ton	% return
"A"	600.64	571.51	1360.42	2.38%	1094.66	$45,304.56	$79.27	52.8
"B"	217.65	215.50	133.56	0.62	89.56	4,688.93	21.75	55.7
"C"	140.00	133.00	50.65	0.40	20.25	1,176.51	8.85	36.8
Total	958.29	920.01	1543.63	1.61%	1204.76	$51,170.00	$55.60	52.6

Of the above 384.95 dry tons containing 715.47 units (1.86%) were sold directly to Vanadium Cpn., Bishop, Calif. and Yaney mill, Gabbs, Nevada @ $38.20 per unit of contained WO3, returning $27,442.77 The mills absorbed mill losses, costs, marketing, etc. The balance 535.06 dry tons were custom milled at Inca mill, Gabbs, Nevada, El Diablo mill, Bishop, Calif., and Yaney mill, which latter appears to be best adapted to make good savings from Tungsten Mountain ore. The 535.06 dry tons, inclusive of high grade, low grade, and dump ore contained 828.16 units (1.55%) WO3 from which the mills saved 489.29 units, mill savings varying from 35% for dump ore to better than 67% for high grade ore and averaged 56.8%. After mill losses and costs the 535.06 dry tons returned $23,727.23 equal to $44.34 per ton and varied from $8.85 for dump ore, $21.76 for low grade, and $95.00 per ton for 79.5-tons of 4.78% ore taken mostly from stope above No. 2 tunnel.

(d) It is difficult to determine the amount of proved ore in area at and above No. 1 Tunnel because most of the ore block can only be seen on one or two sides or in No. 1 drift floor. However, judging from past production of No. 1 Tunnel area it seems reasonable to expect around 1200-tons above Fault "A" at an average grade equal to the past, or 1.61% WO3 which would total about 1930 units of WO3 for this unmined block.

The No. 3 Tunnel showings have not been assayed but they lamp closely with the upper level's highest grade ore for about 80-feet length and are comparable with No. 1 tunnel's lower grade mill ore for the 100-feet drift extension to igneous intrusion. The unexplored 60-feet heighth up to Fault "A" (See Sections of Map 2) would provide about 2400-tons of high grade possible ore and similar 2400-tons of lower grade mill ore possibilities. This obviously has to be proven.

(c) The immediate area surrounding Tungsten Mountain property consists of a fault block about 1-mile square, bounded on the east by Clan Alpine valley and on the three other sides by flow rocks that form most of Clan Alpine Range. The peak of the fault block is about 2500-feet higher than the valley floor, equal to all but the highest mountain peaks of the vicinity. The block consists of mudstone divided

into argillite, shale, slate and hornfels, with the hornfels margin massively intruded by granodiorite which forms the east face of the fault block. The hornfels formation is interbedded by narrow, irregular shaped limestone beds which appear to have originally represented accumulation of calcareous material on an undulating floor which results in rapid pinching and swelling of the beds, augmented by long history of stretching, strike faulting, crushing, and folding to which the structures have been subjected.

The indicated length of Hilltop bed exceeds 550-feet as exposed by surface trenching and tunnel workings and there is no indication that either extremity has been reached though the bed is offset in numerous places, pinches down and swells out in others. The southeast exposure of the bed and related ore is extremely broken, some sections showing only isolated blocks of limestone along shatter zone. The northwest section shows more regularity and has been less violently disturbed. The strongest ore appears to be in synclinal trough where the bed thickened by compression, whilst extension along the arms is thinner and less regular apparently due to stretching.

"New show" on Porter No. 1 claim exposes thicker limestone bed about 1000-feet farther north across the gulch. Its position does not line with Hilltop bed whose northerly extension in that vicinity would be obliterated by the granodiorite.

The limestone beds are important markers for ore which can be followed and developed easier than if unaccompanied by them. Surface exploration has been directed towards this end.

Hilltop limestone bed is crossed by numerous faults of small extent and shows strike faulting along its southeast member where the richest ore occurs within the bed and at its contact with hornfels.

(f) The recent disclosures at No. 3 Level prove existence of good WO_3 ore bodies and removes question as to downward ore continuance below Fault "A". The ore size and grade maintained, or exceeded, No. 1 Tunnel's good showings. Deeper exploration is based upon the genetic probability that the mineralizing agencies originated and traversed upward from underlying granitic magma and deposited in ore-favorable localities of limestone-hornfels sedimentaries that overlie the granodiorite.

Further surface exploration will be required to allocate downward extensions of the limestone beds projected from No. 3 level. As these structures are presently undisclosed no sampling can be done until the preliminary work has been accomplished.

3. <u>ACCESSIBILITY OF PROJECT</u>

(a) Arthur Lakes, 700 Forest Street, Reno, Nevada (Phone FA 3-8910) or Walter Deighton, 125 West Front Street, Fallon, Nevada (Phone HA 3-7154) will meet DMEA representatives on notification.

Tungsten Mountain property is in Clan Alpine District, Churchill County, Nevada about 60-airmiles NE from Fallon which is the County seat and chief supply point for the region.

From Fallon the route is (1) 59-miles easterly over paved U.S. Highway #50 to Eastgate, then (2) 28-miles northerly over County road to camp at Byers ranch, then (3) 7-miles northerly on dirt road across Clan Alpine valley and up Stone Gulch to (4) mountain road extending 2½-miles to Hilltop workings and prospect cuts at "New Show. The total route is 98½-miles.

Custom mills are at Gabbs, Nevada 75-miles via southerly highway shown on Map A. Employes reside at Byers camp 9½-miles from the Hilltop workings.

4. THE EXPLORATION PROJECT

The proposed exploration project comprises (1) about 500-lineal feet of buldozer trenching to expose lateral and downward extensions of the limey beds in the gulch that crosses Porter No. 1 and Artel No. 1 claims north of Hilltop workings. This work will consist of a series of trenches down into true bedrock along indicated northerly extensions of the limestone beds, the cuts being from 60 to 100-feet long by 6 to 8-feet bank depth. (2) Drive a 7-ft. by 5-ft. tunnel along ore-favorable limestone bed 150-vertical feet lower than No. 3 tunnel. This tunnel will approximate 1050-feet length to which be added 150-feet of exploratory crosscuts, total 1200-feet.

As previously described, the ore-favorable limestone bed forms a synclinal fold, the limestone of north arm being more continuous and better defined than along the steeply dipping south arm which, however, provides much richer ore at No. 1 tunnel than the north arm. Crosscut at No. 3 tunnel shows thin streaks of rich ore in projected position of this structure, not sufficiently accumulated to make mineable ore at the one exposed locality.

The above conditions provide choice of two alternate tunnel portals lettered "A" and "B" on Map No. 1 Location "A" is in gulch that crosses Porter No. 1 and Artel No. 1 claims north of Hilltop workings and is about 700-horizontal feet N 20° W from No. 3 tunnel portal. Location "B" is down the ridge 300-feet @ S 62° E from No. 3 tunnel portal.

Conditions favor portal at "A" whence the tunnel would progress S 15 - 20° E approximately 750-feet to synclinal axis, thence if the ore-favorable limestone structure of south arm is encountered would turn S 60 - 70° E about 350-feet to "B". Location "A" is also favored for better operational conditions and connection with new access road now under construction.

Portal location "A" is on Porter No. 1 claim 450-feet N 60° W from its NE corner. Portal location "B" is on Hilltop claim 300-feet N 61° W from its SE corner.

(b) New access road being built at Tungsten Mountain Co. expense not included in contract.

(c) In event of an exploration contract with DMEA the work will start in 30-days and will require about 7-months to complete.

EXPERIENCE

B. W. Porter has had more than 20-years active experience in mining business. Arthur Lakes has had more than 30-years successful experience as geologist and mining engineer in northwest United States and Nevada and in British Columbia (being co-discoverer of the Emerald Tungsten mine in southeast British Columbia which has been producing 500-units of WO3 per day for past five years. Walter Deighton, who will supervise the work at the property, has had more than 20-years experience as mine foreman and superintendent.

6. ESTIMATE OF COSTS

(a) The preliminary bulldozer surface exploration will have been performed by Tungsten Mountain Co. so there will be no independent contracts.

(b) Personal services

1-Foreman @ $500 per month	$3500.00
*4-miners 6½-days per week @ $17 per day	12380.00
2-Outisde men, compressor, truck, etc. 6½-days per week @ $17 per day	6190.00
1-Consulting engineer-geologist @ $400 per month	2800.00
**1-Part time cook @ $200 per month	1400.00
Add Jepp transportation to and from mine @ $2 per trip, $4 per day	600.00
Total	$26,870.00

* Labor @ $17 per day with 1½-tim for 6th. day
** Wife of one of men living in trailer cooks part time

(c) Operating materials & supplies

Figuring 1200-feet of 5-ft. by 7-ft. tunnel, 20# rails, 13-6 foot holes for 4-foot round and 91-sticks powder per round. Three hundred rounds:

Explosives

	Per round	Per 300-rounds		@ price	Total
Dynamite	91-sticks	27,300	(8950#)	$26.40/100#	$2,362.00
Fuse	70-feet	21,000		13.55/1000	285.00
Caps	13	3900		2.85/100	111.00
					$2,758.00

Track 1200-feet 20# rail.

1200-feet 20# rail 8-tons @ $213 - 10% $192	$1536.00		
400-fish plates & bolts @ $1	400.00		
400-ties @ 30¢	120.00	$2056.00	

Pipe

1200-ft. 2-in. compressed airpipe @ 84¢	$1010.00	
1200-ft. ½-in. water pipe @ 10¢	120.00	
Valves, 3 @ $6	18.00	
L's & plugs 13 @ 30¢	4.00	$1152.00

Ventillation

1000-ft. 8-in. vent pipe @ 50¢	500.00	
1-Copus blower	150.00	650.00
Deisel fuel @ 30-gal per shift @ 20¢ per gal	$1800.00	
Gas for blower @ 50¢ per shift x 300 shifts	150.00	
Oils & greases, estimated	150.00	2100.00

Steel & bits

3-sets 7/8-in. threaded steel @ $21.85 2-ft $5.50- 4-ft. $7.25- 6-ft. $9.10	$65.55	
3-sets Timpkins carbide bits @ $32.50 1½-in $15.45 - 1-5/8-in $16.70	196.45	162.00

Miscellaneous

Carbide @ $13.20/100#	700#	92.40		
Axes, timber @ $6.30	2	12.60		
Miner's picks 5.50	4	22.00		
Mine shovels 4.15	4	16.60		
Timber saw 8.70	1	8.70		
20-dwt spikes 14.20	200#	28.40		
First aid basket	1	50.00		
CO2 Fire protection	1	50.00		280.00
		Total		$9,158.00

OPERATING EQUIPMENT

(d) All following operating equipment is owned by the company and will be supplied by it.

Mine equipment	Estimated fair market value
1-315 c.f.m. Schramm Portable Deisel compressor	$3,500
1-315 c.f.m. Sullivan compressor belted to 6-cyl. Cummings Deisel engine	2,000

Mine equipment	Estimated fair market value	
Foreward	$5,500	
1-105 c.f.m. Davy gas driven portable compressor	1,850	
1-Air trammer & booster tank	2,000	
1-Mucking machine	1,750	
6-Coeur d'Alene mine cars 22-cu. ft. capacity	900	
2- Mine cars 18-cu. ft. capacity	250	
1- Mine car 16-cu. ft. capacity	100	
1-timber truck	20	
1-800-gal air tank	100	
1-500-gal air tank	75	
1-350-gal fuel tank	100	
2-Ingersoll Jack legs (new)	1530	
1-used Ingersoll plugger	50	
200-ft. 1-in. compressed air hose & couplings	100	
100-ft. water hose	75	$ 14,100
Transportation & Hauling		
1-48 Army 6 x 6 International dump truck (old)	2,500	
1- GMC driven 3 to 5-ton truck	2,000	
1-Jeep, 1956 model	2,000	
1-T.D. 14 International bulldozer (poor shape)	2,000	
1- 4 wheel John Deere farm wagon	100	8,600
Camp equipment		
1-10KVA deisel driven light plant	1,000	
1-10 KVA gas driven light plant	600	
3-house trailers: 14'-18'-22'	3,500	
4-refrigerators	400	
1-pressur pump water system	300	
1-1000 gal. fuel tank	200	
1-35 gal. fuel tank	100	5,100
Total		$27,800

(e) Initial rehabilitation and repairs: None

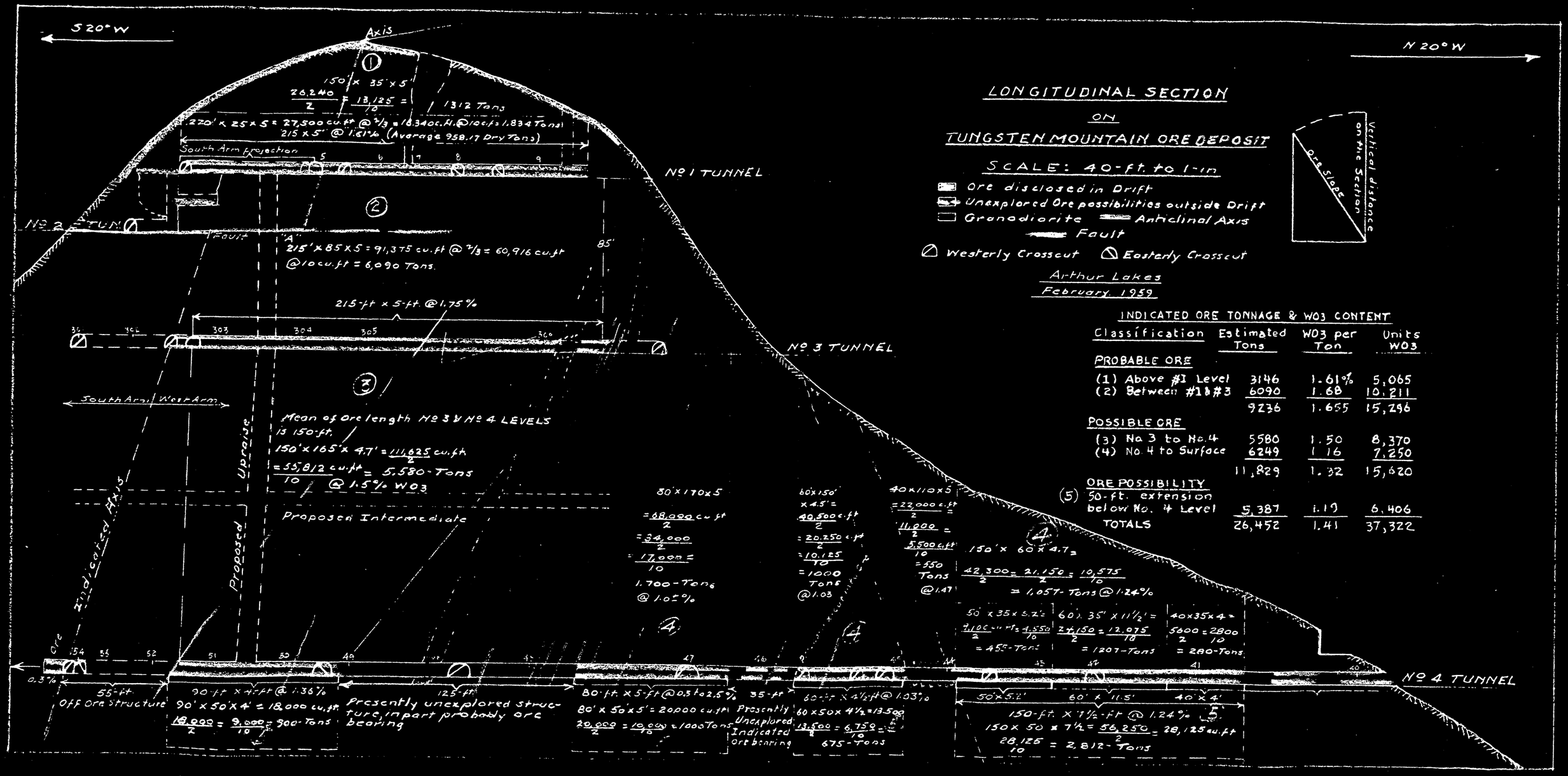
(f) New buildings, fixtures, installations: None

(g) Miscellaneous

Estimated cost of repairs & mainainance @ $110 per mo.	$700
Estimated cost of assays, etc. @ $50 per mo.	350
Workmen's compensation, employers liability, Payroll taxes @ 11.4% of $26,870	3063
Accounting & office management @ $150 per mo.	1050
Estimated haulage of materials	250
	$5,413

7. (a) Tungsten Mountain Mining Co. is prepared to furnish its share of cost of proposed project in accordance with regulations on Govennment participation stated in Sec. 7 of DMEA Order-1 Amended.

(b) The company will furnish its share by money



LONGITUDINAL SECTION
ON
TUNGSTEN MOUNTAIN ORE DEPOSIT

SCALE: 40-ft. to 1-in

- Ore disclosed in Drift
- Unexplored Ore possibilities outside Drift
- Granodiorite
- Anticlinal Axis
- Fault
- Westerly Crosscut
- Easterly Crosscut

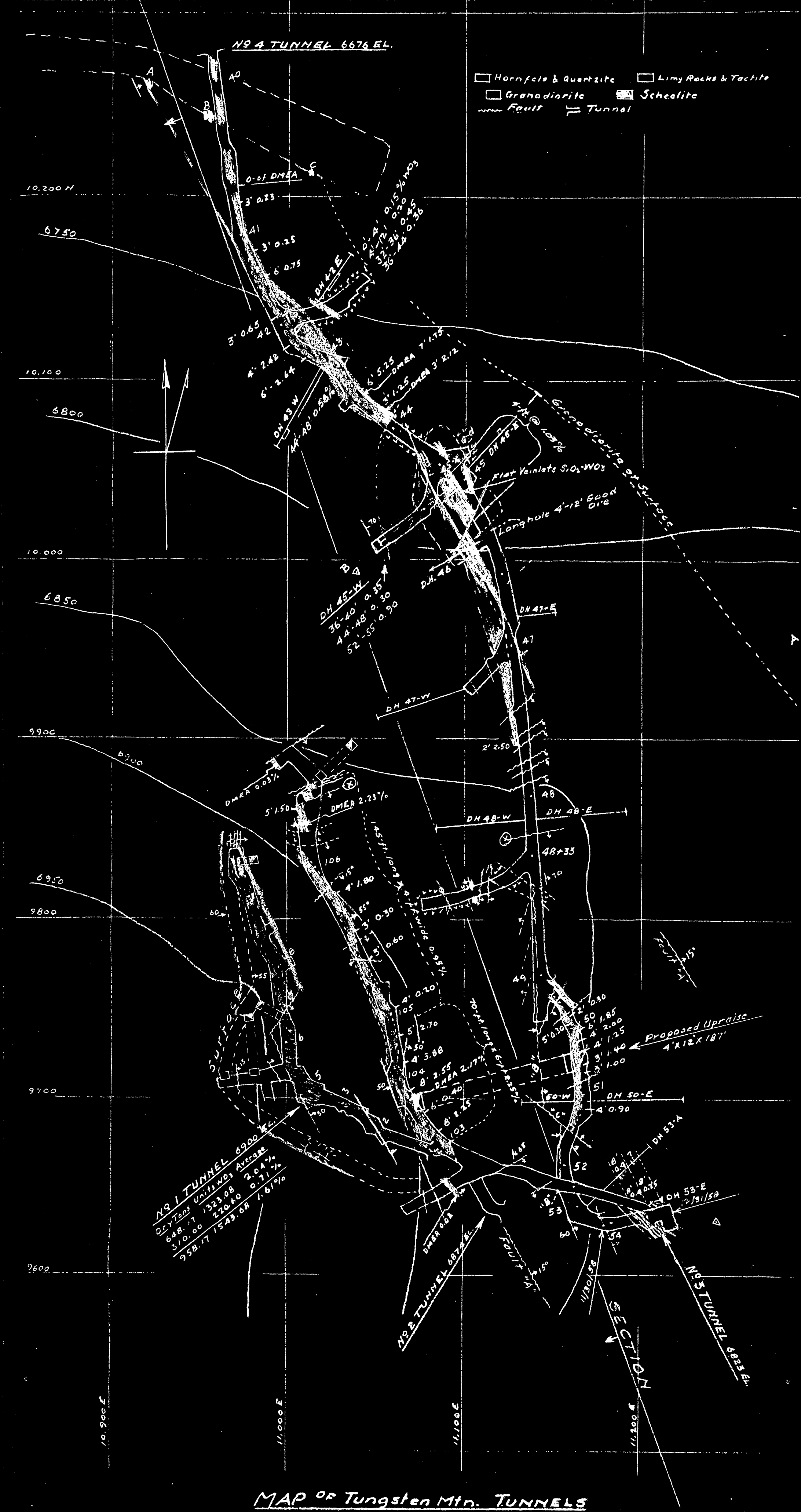
Ore Slope — Vertical distance on the Section

Arthur Lakes
February 1959

INDICATED ORE TONNAGE & WO3 CONTENT

Classification	Estimated Tons	WO3 per Ton	Units WO3
PROBABLE ORE			
(1) Above #1 Level	3146	1.61%	5,065
(2) Between #1 & #3	6090	1.68	10,211
	9236	1.655	15,296
POSSIBLE ORE			
(3) No 3 to No. 4	5580	1.50	8,370
(4) No. 4 to Surface	6249	1.16	7,250
	11,829	1.32	15,620
ORE POSSIBILITY			
(5) 50-ft. extension below No. 4 Level	5,387	1.19	6,406
TOTALS	26,452	1.41	37,322

MAP F



MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date Feb. 6 1959

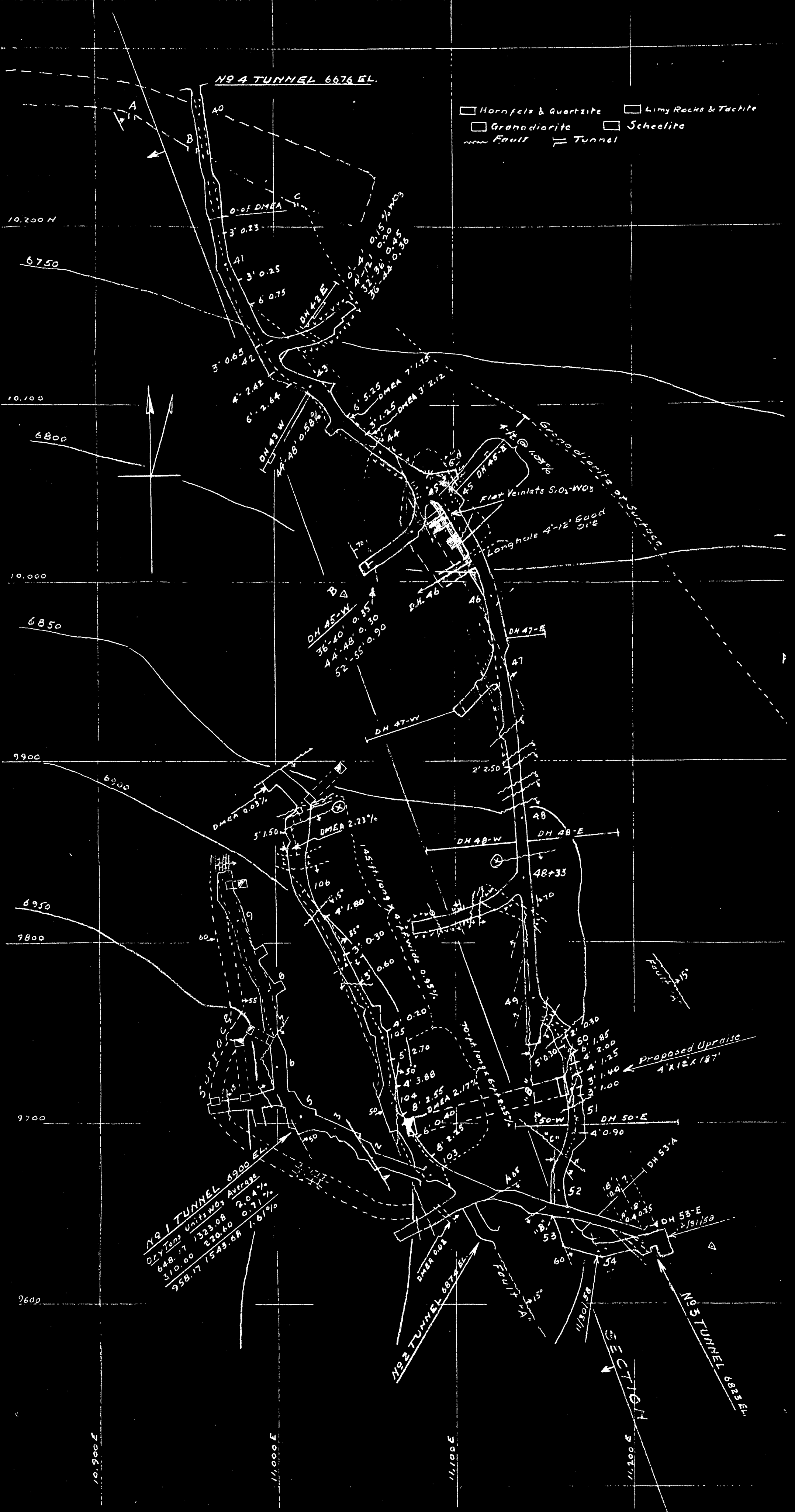
Arthur Lakes

D.M.E.A. Project Idm. E-1158

Company work at No 4 LEVEL

D.M.E.A. Final Report

MAP E



MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

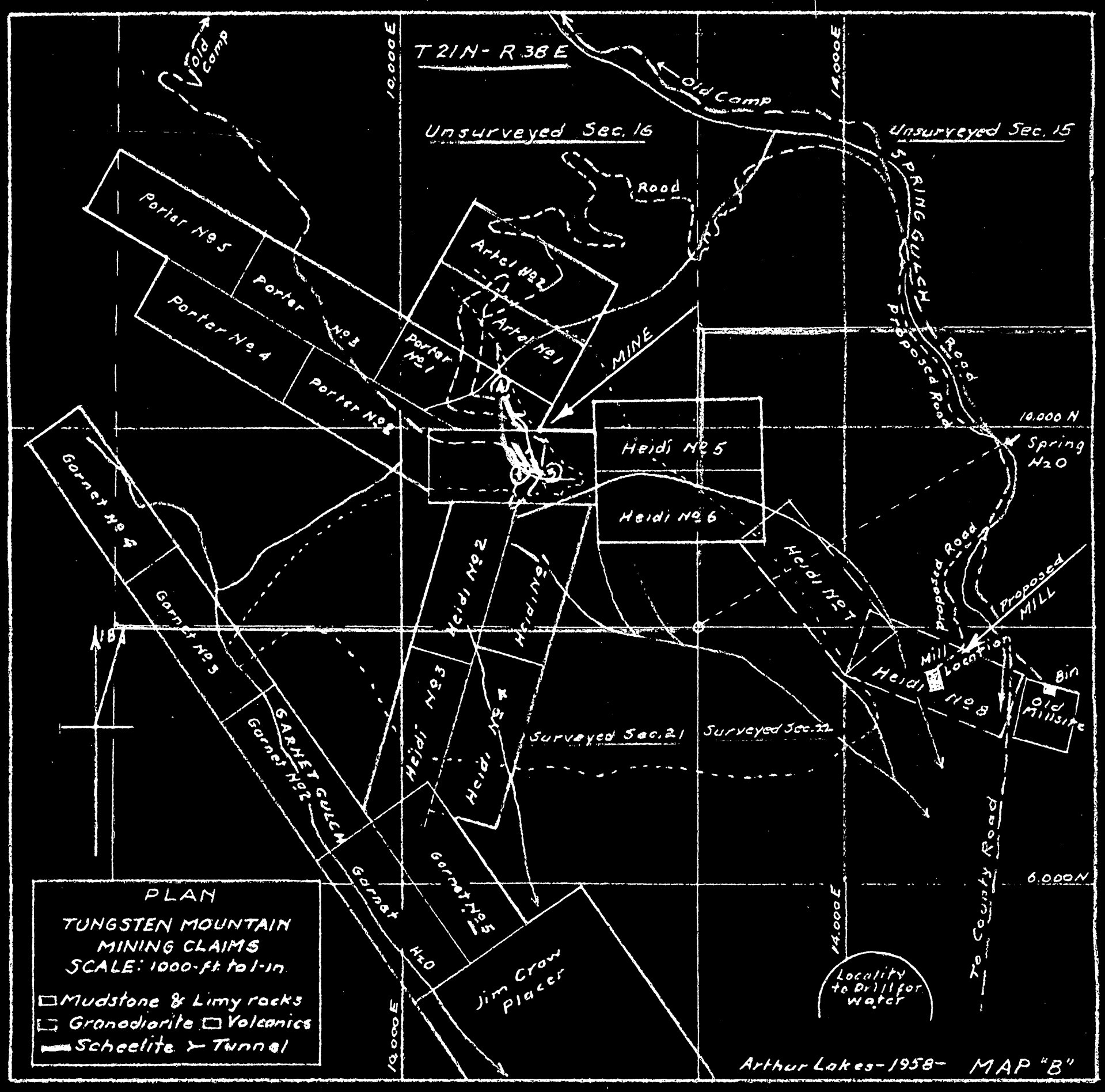
Report date Feb. 6 1959

Arthur Lakes

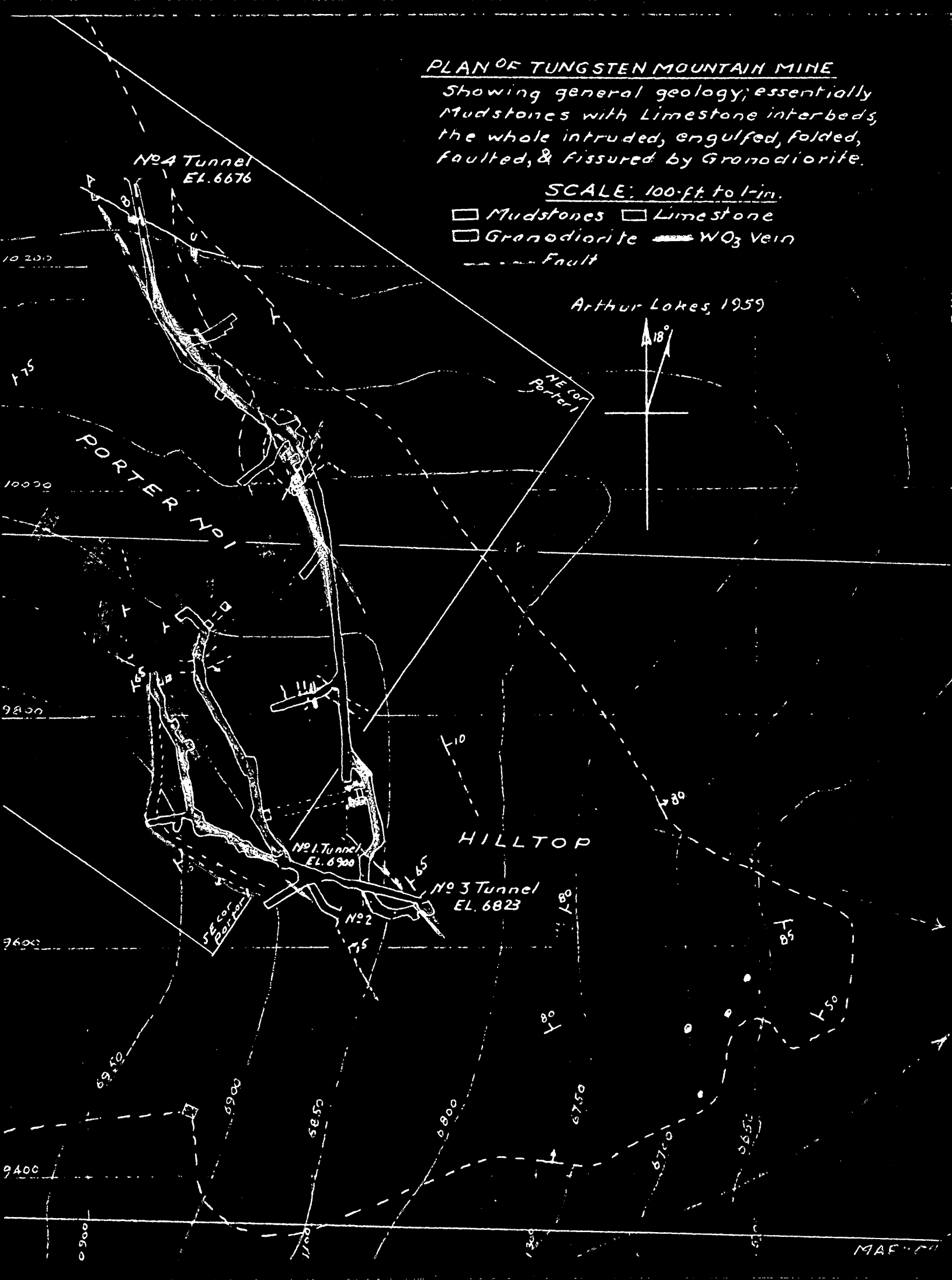
D.M.E.A. Project Idm. E-1158

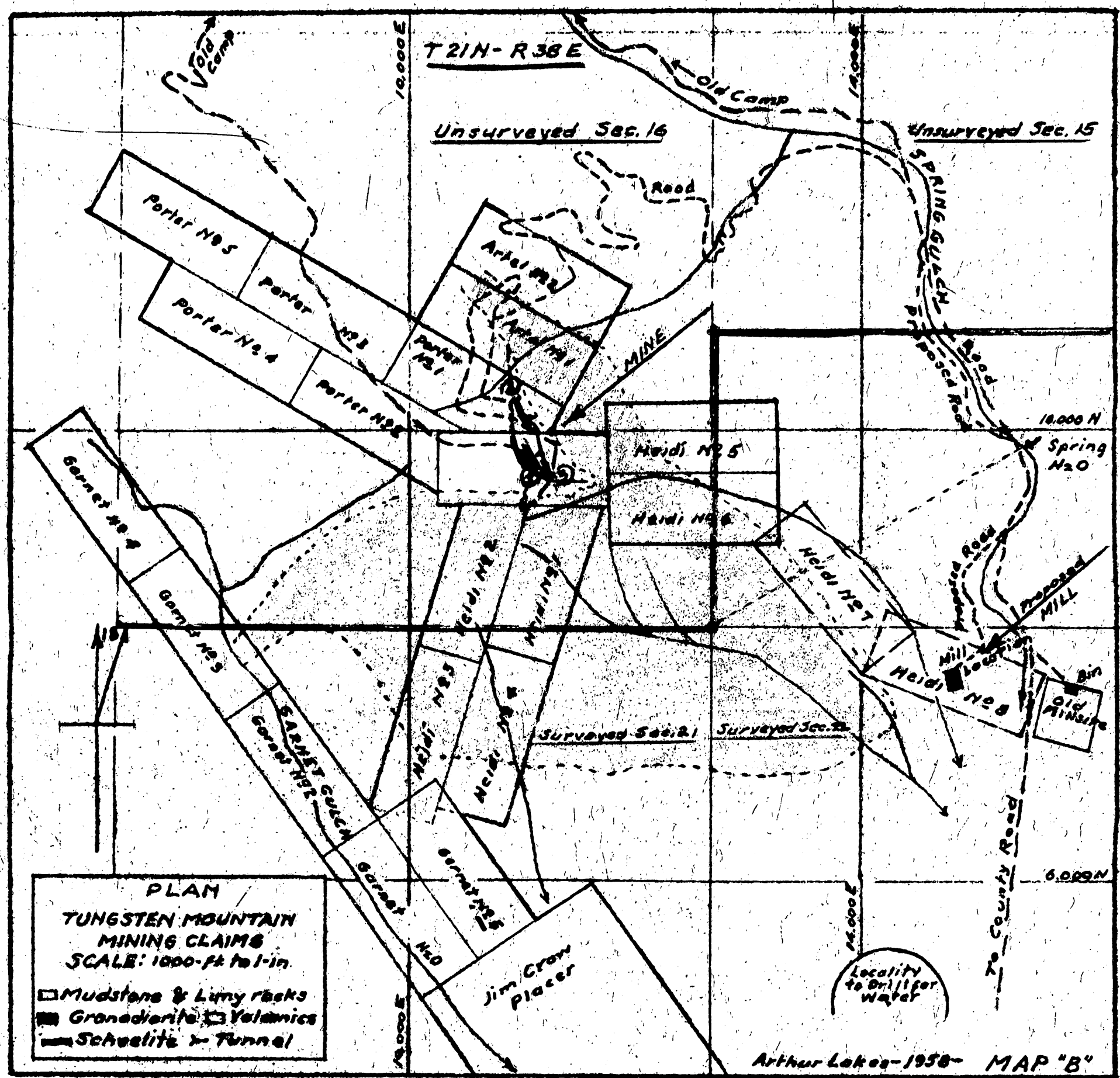
D.M.E.A. Final Report

MAP D


T 21 N - R 38 E
Old Camp
10,000 E
14,000 E
Unsurveyed Sec. 16
Unsurveyed Sec. 15
Road
SPRING GULCH
Proposed Road
Porter No 5
Porter No 4
Porter No 3
Porter No 2
Porter No 1
Artel No 2
Artel No 1
MINE
Heidi No 5
Heidi No 6
Heidi No 7
Heidi No 8
Heidi No 2
Heidi No 1
Heidi No 3
Heidi No 4
Garnet No 4
Garnet No 3
Garnet No 2
GARNET GULCH
Garnet No 1
Garnet No 5
Jim Crow Placer
10,000 N
Spring H2O
Proposed Road
Proposed MILL
Mill Location
Bin
Old Millsite
Surveyed Sec. 21
Surveyed Sec. 22
To County Road
6,000 N
14,000 E
Locality to Drill for water
10,000 E
PLAN
TUNGSTEN MOUNTAIN
MINING CLAIMS
SCALE: 1000-ft to 1-in
Mudstone & Limy rocks
Granodiorite
Volcanics
Scheelite
Tunnel
Arthur Lakes-1958-
MAP "B"

PLAT
Sheaville Location of Tungsten Occurrences
Nevada
Lovelock
Fernley
Reno
Carson City
Yerington
Dayton
Mina
Luning
Coaldale
Bishop
Camp
Gabbs
Hawthorne
Austin
Tonopah
Coleville
Nevada
NEVADA
CALIFORNIA


PLAN OF TUNGSTEN MOUNTAIN MINE
Showing general geology; essentially Mudstones with Limestone interbeds, the whole intruded, engulfed, folded, faulted, & fissured by Granodiorite.
SCALE: 100-ft to 1-in.
Mudstones
Limestone
Granodiorite
WO3 Vein
Fault
Arthur Lakes, 1959
18°
No 4 Tunnel
EL. 6676
NE cor Porter 1
PORTER No 1
HILLTOP
No 1 Tunnel
EL. 6900
No 3 Tunnel
EL. 6823
No 2
SE cor Porter
10200
10000
9800
9600
9400
6950
6900
6850
6800
6750
6700
6650
0900
1100
1300


T21N-R38E
Old Camp
Old Camp
10,000 E
14,000 E
Unsurveyed Sec. 16
Unsurveyed Sec. 15
Road
SPRING GULCH
Proposed Road
Porter No 5
Porter No 4
Porter No 3
Porter No 2
Porter No 1
Ariel No 2
Ariel No 1
MINE
Heidi No 5
Heidi No 6
Heidi No 7
Heidi No 8
Heidi No 1
Heidi No 2
Heidi No 3
Heidi No 4
Garnet No 4
Garnet No 3
Garnet No 2
Garnet No 1
Garnet No 5
Garnet No 6
GARNET GULCH
Surveyed Sec. 21
Surveyed Sec. 22
10,000 N
Spring No 0
Proposed Road
Proposed MILL
Mill Location
Bin
Old Millsite
To County Road
6,000 N
14,000 E
10,000 E
Jim Crow Placer
Locality to Drill for Water
PLAN
TUNGSTEN MOUNTAIN
MINING CLAIMS
SCALE: 1000-ft to 1-in.
Mudstone & Limy rocks
Granodiorite
Volcanics
Scheelite
Tunnel
Arthur Lakes-1958-
MAP "B"

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Show to whom, date, and address where delivered ☐ Deliver ONLY to addressee

(*Additional charges required for these services*)

RECEIPT

Received the numbered article described below.

REGISTERED NO.

CERTIFIED NO. 133242

INSURED NO.

(1) SIGNATURE OR NAME OF ADDRESSEE (*Must always be filled in*)

C. M. Cole

(2) SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

(Margaret Wright)

DATE DELIVERED JAN 10 1969

(3) SHOW WHERE DELIVERED (*only if requested*)

1548-10 GPO

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

POSTMARK OF DELIVERING OFFICE

INSTRUCTIONS: Show name and address below and complete instructions on other side, where applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article *RETURN RECEIPT REQUESTED.*

RETURN TO

NAME OF SENDER U. S. Geological Survey
Office of Minerals Exploration

STREET AND NO. OR P.O. BOX
Department of Interior Building

POST OFFICE, STATE, AND ZIP CODE
Washington, D. C. 20242

POD Form 3811 Apr. 1967 c55—16—71548-10

47-95-Cole

DMEA----4795 Tungsten Mountain Mining Company

No reply to Forms 63 sent 11/26/68 via Certified mail, nor Certified mail (receipt above) sent 1/6/69.

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

December 3, 1968

OFFICIAL COPY
D. M. E.
RECEIVED
DEC 5 1968
INITIALS | CODE
130
140
220

Memorandum

To: Chief, Office of Minerals Exploration
Washington, D. C.

From: Field Officer
Region II

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

In accordance with your memorandum of November 26, 1968, the following production data were obtained from the records of the U. S. Bureau of Mines:

Hilltop Mine - 1961 (months unknown)

Ore mined, short tons	5,000
Ore from dump, short tons	1,000
Ore treated, short tons	6,000
Concentrate, pounds	81,926 40,963 ST
Grade of concentrate	68.9% WO_3
Units recovered	2,821
Value of production	$63,473
Shipped to Nevada Scheelite	

1962-1968 inclusive - no production

Claim patented on this grid replaced by GMO - 6/29/65
on 11/2/65 5.90 [illegible]

RM Smith
for H. K. Stager

OFFICIAL FILE COPY

Date	Surname	Code
11/26/68		110
		220

NOV 26 1968

Memorandum

To: Field Officer, Region II

From: Chief, Office of Minerals Exploration

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-K1158

Please forward to us any information that may be available from U. S. Bureau of Mines records on possible production from the subject property from July 1961 through December 3, 1968, the expiration date of the royalty repayment period.

Enclosed is a copy of a letter dated November 21, 1968, from the General Accounting Office in response to our inquiry of November 1 concerning a claim in the amount of $2,783.69.

FRANK E. JOHNSON (gla)

Frank E. Johnson

Enclosure

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
130 (2)

GLAult/a 11-26-68

UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

RECEIVED U. S. GEOLOGICAL SURVEY

Nov 22 3 32 PM 1968

NOV 26 1968

OFFICE OF THE DIRECTOR

NOV 21 1968

CLAIMS DIVISION

IN REPLY PLEASE QUOTE

DW-Z 2297038

Department of the Interior
Geological Survey
Washington, D. C. 20242

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

Reference is made to your letter, dated November 1,1968, copy attached, relative to the captioned matter.

No part of the indebtedness has been collected by this Office and it has been determined that further collection action is unwarranted. For your information, all assets of the firm were liquidated by foreclosure under a mortgage and it is now out of business.

Very truly yours,

For the Acting Director,
Claims Division

F. W. Brandenburg

Adjudicator-Reviewer

Enclosure.

copy to R-II

CONTRACT COST
Co. No.
MAY 25 1973

gfa	130
	110
	120

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

NOV 1 1969

Claims Division
General Accounting Office
Washington, D. C. 20548

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

Reference is made to our letter of June 23, 1965, concerning a claim in the amount of $2,783.69 for royalty due the Government under the provisions of the subject contract. Please advise as to the status of this claim.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Docket copy

Project Summary Report

By: Stephen P. Holt July 29, 1959

1. Docket No.DMEA-4795 (Tungsten)
Contract No. Idm-E1158

Operator - Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Property - Hilltop Mine
Churchill County, Nevada

Operator's Property Rights -

The Operator owns four unpatented lode mining claims, Hilltop, Porter No. 1, Artel No. 1, and Hedi No. 1, situated in T. 19 N., R. 37 E., M.D.B. and M., Clan Alpine Mining District, Churchill County, Nevada.

2. Contract - dated December 3, 1957, on Short Form, MF-200A (Rev. April 1956).

Completion period: Work to commence on or before January 3, 1958, and to be completed within 8 months from the date of the contract.

Work authorized -

Fixed Unit Costs

Stage I

Drifting, 600 feet @ $32.00/ft.	$19,200.00	
Timbering drift, 200 feet @ $7.00/ft.	1,400.00	
Long-hole drilling, 600 feet @ $1.50/ft.	900.00	
Assaying 60 samples for tungsten @ $4.00/each	240.00	
Total, Stage I		$21,740.00

Stage II

Drifting, crosscutting and raising, 300 feet @ $32.00/ft.	$9,600.00

2. Contract - Work Authorized (continued) -

Fixed Unit Costs - Stage II (continued) -

Timbering, 100 feet of drift, crosscut and/or raise, $7.00/ft.	700.00	
Assaying, 40 samples for tungsten $4.00 each	160.00	
Total, Stage II		$10,460.00

Estimated Total Cost of the Project	$32,200.00
Government Participation @ 75%	$24,150.00

The contract contained a provision that the sum of $432.00, the amount of the Government's participation under a previous contract, No. Idm-E707 (Docket No. DMEA-3180), should be included in the amount repayable under this contract.

DMEA 3180

Amendments -

No. 1, dated September 30, 1958, extended the date of completion from 8 months to 14 months from the date of the contract, and also extended the royalty payment period from 10 years to 11 years.

Work Completed -

Drifts and crosscuts, 900 feet @ $32.00/ft.	$28,800.00	
Timbering drifts and crosscuts, 189.5 feet @ $7.00/ft.	1,326.50	
Long-hole drilling, 600 feet @ $1.50/ft.	900.00	
Assays for WO_3, 48 @ $4.00 each	192.00	
Total Accepted Cost of the Contract		$31,218.50
Government Participation @ 75%		$23,413.87

Work under the contract started December 3, 1957, and was completed January 31, 1959.

3. Audit Report of Review, dated March 5, 1959

Total cost as billed by Contractor	$31,218.50
Exceptions	-0-
Total Accepted Cost	$31,218.50
Government Participation @ 75%	$23,413.87

Reports -

The Operator's final report, dated February 28, 1959, was received by the Field Team March 2, 1959, and in this office March 6, 1959.

The final report of the Field Team, dated March 14, 1959, was received April 20, 1959.

Past Production -

Production from the property, during the period between 1953 and late 1955 is reported as 1,543.63 units of WO_3 from 920.01 tons of ore averaging 1.68 WO_3 (recovered). Development work by the Operator for his own account disclosed ore in the No. 3 adit. About 900 tons of ore was stockpiled.

Present Production -

No production has been reported from the property since the date of the contract, and no royalty has been paid or is known to be presently due the Government.

4. Certification, dated July 31, 1959.

In agreement with the recommendation of the Field Team, a certification of discovery or development was issued.

5. Comments -

The purpose of the project was to explore for tungsten in the Hilltop mine area, where it occurs as scheelite disseminated in tactite, silicified limestone, and hornfels, and in thin veinlets along fractures and bedding planes in faulted segments of a limy member of a shale formation which has been tilted and intruded by granite and partly covered by volcanic rocks of probable Tertiary age.

Reserves of tungsten ore discovered by project work are estimated as 8,000 tons of measured and indicated ore averaging about 1 percent WO_3.

Although the work was well done, and was successful, the target area has not yet been completely explored. Additional exploration on the same level for another faulted segment south of the present face of No. 4 adit is warranted; also, additional exploration below the No. 4 adit level. Further Government assistance for exploration, if requested, should be given favorable consideration.

SPHolt/gla
cc to: Dir. Read. File
Mr. Johnson
Mr. Holt
Docket

Stephen P. Holt
Stephen P. Holt

DMEA Form 17
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

WORK COMPLETED ANALYSIS

After final audit or review report is received, prepare original only and file in official docket

Operator: Tungsten Mountain Mining Company		Actual Cost	
State		Agreed Unit Cost	X
Final Report of Audit		Commodity	Docket No. DMEA 4795
Final Report of Review	X	Tungsten	Contract No. Idm-E1158

Operation	Authorized by Contract and Amendments		Completed		Net cost after sale of Government Property
	Units	Cost	Units	Cost	
Drifting & Crosscutting	900	28,800.00	900 1/	28,800.00	28,800.00
Raising					
Timber drifts, Xcuts, & Raises Shafts	300	2,100.00	189.5	1,326.50	1,326.50
Winzes					
Drilling (Specify) Long-hole	600	900.00	600.00	900.00	900.00
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Assays for WO_3		400.00		192.00	192.00
Totals		32,200.00		31,218.50	* 31,218.50

* Net cost total must agree with final report of audit or review.

1/ Raising authorized by contract, but none performed.

Prepared by Stephen P. Holt Date 8.4.59

31398

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/1/68		110
		220

NOV 1 1968

Claims Division
General Accounting Office
Washington, D. C. 20548

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

Reference is made to our letter of June 23, 1965, concerning a claim in the amount of $2,783.69 for royalty due the Government under the provisions of the subject contract. Please advise as to the status of this claim.

Sincerely yours,

FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
OME Region II
130

FEJohnson/gla 11-1-68

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Show to whom and date delivered ☐ Show to whom, date, and address where delivered ☐ Deliver ONLY to addressee

(*Additional charges required for these services*)

RECEIPT

Received the numbered article described below.

REGISTERED NO.

CERTIFIED NO. 133066

INSURED NO.

SIGNATURE OR NAME OF ADDRESSEE (*Must always be filled in*)

1 Carl M. Cole

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

2 Cynthia R. Royer

DATE DELIVERED

1-22

SHOW WHERE DELIVERED (*only if requested*)

055—10—71548-9 GPO

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300

EVERETT, WA
JAN 22
AM
1968
98201

POSTMARK OF
DELIVERING OFFICE

INSTRUCTIONS: Show name and address below and complete instructions on other side, where applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article *RETURN RECEIPT REQUESTED.*

RETURN TO

NAME OF SENDER U. S. Geological Survey
Office of Minerals Exploration

STREET AND NO. OR P.O. BOX
Department of the Interior Building

POST OFFICE, STATE, AND ZIP CODE
Washington, D. C. 20242
4795

POD Form 3811 June 1966

c65—16—71548-9

IN REPLY REFER TO:
Office of Minerals Exploration

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

January 17, 1968

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Mr. Cecil M. Cole
Peterson, Lorenz & Cole
Certified Public Accountants
First National Bank Building
P. O. Box 1006
Everett, Washington 98201

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 31 1968

INITIALS	CODE
	130
	110
	130
	220

Dear Mr. Cole:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cy to R-II w/o cy of
Lease Agreement

MME Form 63
Revised 7-65

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since **June 1966**, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes [X] No [ ]

   See letter enclosed

   Has the assessment work on the unpatented claims been kept up to date? If not, please give details. Yes [X] No [ ]

2. Since June 1966, has there been any production from the land subject to the contract? Yes [ ] No [X]

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since June 1966 has any production been transported through workings (see of contract)? Yes [ ] No [X]

   If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Cecil M Cole Title Trustee

Address Date 1/28/68

LEASE AGREEMENT

THIS INDENTURE made and entered into this _____ day of September, 1967, by and between CECIL M. COLE, Trustee for and on behalf of the owners of the leased premises hereinafter described, Party of the First Part, hereinafter referred to as "Lessor", and H. M. FLORMAN, JACK HARRIS, MICHAEL LEVIN and HENRY LEVIN of the County of Los Angeles, State of California, Parties of the Second Part, hereinafter referred to as "Lessees",

W I T N E S S E T H :

1. LEASED PREMISES: The Lessor hereby lets unto the Lessees that certain mill and mill site situate within the Clan Alpine Mining District, in the County of Churchill, State of Nevada, more particularly described as follows, to-wit:

NW 1/4, Section 22, Township 21, N.R. 38, E, MDB&M, together with the mill situate thereon.

The Lessees shall have the right to occupy the leased premises for the purpose of operating the mill located thereon and for no other purpose without the permission of the Lessor. It is further expressly understood that the Lessees do not have the right by this instrument to remove any minerals or ores from the various mining claims referred to in paragraph 2 below. Further, the Lessees do not have the right to remove any equipment or property affixed or annexed to the real estate constituting said mining claims. It is further understood that said mining claims are not part of the leased premises and are referred to herein only to identify the additional rental and

work to be performed by Lessees in satisfaction of the rent set forth in paragraph 2.

2. TERM, RENT AND ASSESSMENT WORK: The terms of this lease shall be for a period of three (3) years, and the Lessees agree to pay to the Lessor as and for rental of the said premises the sum of Six Thousand and no/100 ($6,000.00) Dollars each and every year, the sum of Four Thousand and no/100 ($4,000.00) Dollars to be paid to CECIL M. COLE, Trustee, upon the execution of this instrument, and the further sum of Two Thousand and no/100 ($2,000.00) Dollars to be paid on or before the 1st day of March, 1968, at the office of CECIL M. COLE, Trustee, 401 First National Bank Building, Everett, Washington, 98201, and the further sum of Six Thousand and no/100 ($6,000.00) Dollars as and for the yearly rental on or before the 1st day of September, 1968, and the further sum of Six Thousand and no/100 ($6,000.00) Dollars as and for the yearly rental on or before the 1st day of September, 1969, said payment to be made to CECIL M. COLE, Trustee, 401 First National Bank Building, Everett, Washington, 98201, and the Lessees shall, in addition to the payment of said rent, perform the annual assessment work upon those certain unpatented mining claims situate in the Clan Alpine Mining District in Churchill County, State of Nevada, more particularly described as follows, to-wit:

> Hilltop, Heidi No. 1, Heidi No. 2, Heidi No. 3, Heidi No. 4, Heidi No. 5, Heidi No. 6, Artel No. 1, Artel No. 2, Porter No. 1, Porter No. 2, Porter No. 3, Porter No. 4, Portner No. 5, Hattie No. 1, Hattie No. 2, Hattie No. 3, Garnet No. 1, Garnet No. 2, Garnet No. 3, Garnet No. 4, and Garnet No. 5,

which assessment work shall be completed by Lessees prior to July 31 of each calendar year. Lessee shall have the right to go upon the land constituting said mining claims

for the purpose of carrying out the annual assessment work in accordance with the usual standards of assessment practices.

3. LESSEES' OPTION TO TERMINATE AND LIQUIDATED DAMAGES: The Lessees shall have the right to terminate this lease on or before the 1st day of September, 1968, and vacate the premises herein leased, in which event the Lessees shall pay to the Lessor at the office of the CECIL M. COLE, the sum of Five Thousand and no/100 ($5,000.00) Dollars as and for liquidated damages. In the event the Lessees shall elect to terminate this lease on or before the 1st day of September, 1959, and vacate the premises herein leased, then and in that event, the Lessees shall pay to the Lessor the sum of Two Thousand Five Hundred and no/100 ($2,500.00) Dollars as and for liquidated damages; provided, Lessees shall notify Lessor in writing at least thirty (30) days before a rental payment in order to exercise such right, and upon the giving of such notice and the payment of the sums fixed in this paragraph 3, all rights of the parties hereunder shall cease and terminate, and the Lessees shall surrender the premises to the Lessor.

4. WELL: It is further understood and agreed that the Lessees shall have the absolute right and power to use any and all water necessarily required in the operation of said mill from that certain water well situate within the

SW 1/4 of Section 22, Township 21, N.R. 38 E, MDB&M, County of Churchill, State of Nevada, as evidenced by the State of Nevada Water Use Permit No. 23054.

The Lessor does not warrant the quantity or quality of the water in said well, nor has the Lessor made any representation whatsoever concerning the suitability of said well for Lessees' purposes.

5. ASSIGNMENT AND SUBLEASING:

(a) It is understood that Lessees may desire to assign Lessees' right under this instrument to a successor of the Lessees. Such assignment shall be valid without the consent of Lessor; provided, however, such assignment shall not relieve the Lessees hereunder jointly or severally from individual liability under the terms of this lease instrument, and provided further, no other assignment shall be made without the consent of Lessor. It is understood that the leased premises shall not be subleased in whole or in part without the consent of the Lessor.

(b) It is understood that the Lessor acquired legal title to the leased premises in that certain mortgage foreclosure action in the First Judicial District Court of the State of Nevada for the County of Churchill, under Cause No. 8209, and holds title to said leased premises free from any claim of redemption of the defendant therein named. The said CECIL M. COLE as Lessor, shall have the right to assign and transfer all rights of Party of the First Part, herein designated as Lessor under the terms of this agreement, to principals. Such assignment, if made, shall not relieve the said successors or assignees of the obligations of the Lessor hereunder.

6. TAXES: It is specifically understood and agreed that the Lessor shall pay any and all property taxes due to the County of Churchill as of the date of this agreement, and the Lessees shall assume and pay any taxes that may hereafter become due and owing to any governmental agency or division of any governmental agency for any purpose or use whatsoever, so long as the Lessees are in possession of the premises hereinabove described.

7. WARRANTIES: It is specifically understood and agreed that the Lessor makes no representation, express or implied, that the mill and/or water well referred to herein are in any other condition than "as is", and Lessor

does not represent that the mill and/or well or any part thereof are in a working condition. It is further understood that any and all costs or expenses incurred by the Lessees to put the mill and/or well into a working condition shall be borne by the Lessees, paid for by the Lessees, and the Lessees hereby expressly agree to save and hold the Lessor harmless for any costs thereby incurred.

8. EQUIPMENT:

(a) It is specifically understood and agreed that in the event the Lessees should elect to install or add any additional equipment to the mill, such additional equipment shall remain the property of the Lessees, and the Lessees shall have the right to remove any such equipment so installed at the termination of this lease, provided such removal is consummated within ninety (90) days from and after said termination or at the termination of any written extension thereof. In the event the equipment is not so removed, said equipment shall become the property of the Lessor, and the Lessees agree to execute any and all documents that might be required to convey title, it being understood that nothing may be removed which would damage, injure or harm the physical structure of the mill; however, no electrical alterations, repairs or additions shall be removed upon the termination of this lease.

(b) It is understood that there is located on the leased premises mill equipment and personal property of the Lessor. The parties agree that an inventory of said equipment will be taken forthwith and approved by each party in writing. The Lessees shall have the right to use said equipment during the term of this lease, and at the termination thereof agree to return such equipment in as good condition or better as the same is found on the date of taking such inventory.

9. STRUCTURES: It is specifically understood and agreed that in the event the Lessees shall erect any structure of any nature, sort or description upon said premises, said structure shall become the property of the Lessor without the right of removal by the Lessees, unless such removal be consented to in writing by the Lessor.

10. WATER PERMITS AND FEES: It is specifically

understood that the Lessees shall pay any and all fees and secure any and all water permits required by the State of Nevada or the United States Government as long as this lease shall continue.

11. LIENS: The Lessees hereby agree to forthwith pay and discharge any and all lien claims that may hereafter be filed for and against said property as the result of any act of the Lessees, their agents, servants, employees or assigns. Lessees further agree to save harmless Lessor and his successors in interest from any such claims, to defend, at their expense, any action brought to foreclose such claims, whether against the Lessees or the Lessor, or his successors, and pay all fees and costs incurred in such defense, and in the event any judgment is entered foreclosing such liens as referred to in this paragraph 11, to promptly satisfy and discharge such judgment and save the leased premises harmless from execution, or foresale of any sort in any such lien foreclosure proceeding.

12. NOTICES: All notices provided for hereunder shall be in writing signed by the parties giving the same, and shall be mailed in the United States Mails by certified mail enclosed in an envelope addressed as hereinafter set forth with postage prepaid, and if such notice is to the Lessor, to:

MR. CECIL M. COLE, Trustee
401 First National Bank Building
Everett, Washington 98201,

and if such notice is to the Lessees, to:

MR. H. M. FLORMAN
1100 Glendon Avenue, Suite 2112
Los Angeles, California 90024.

13. REMEDIES: In the event of default in the performance of any obligation to be performed hereunder by Lessees, it is understood and agreed that Lessor may give to Lessees written notice of such default, and in the event such default is not corrected within thirty (30) days from the date of mailing of such notice, then Lessees' rights hereunder shall terminate as though they had voluntarily terminated this lease under paragraph 3 above, in which event, Lessees shall pay the amounts set forth as liquidated damages therein, and vacate the premises. In the event of any action brought hereunder by the Lessor to enforce the provisions of this lease, it is agreed that the Lessees shall pay such sum as the court may adjudge reasonable as attorney fees, together with Lessor's costs actually incurred therein. Venue of any action hereunder shall be fixed in Churchill County, State of Nevada, at the option of the Lessor.

IN WITNESS WHEREOF, we have hereunto set our hands and seals the day and year first above written.

CECIL M. COLE, Trustee
Lessor

H. M. FLORMAN

JACK HARRIS

MICHAEL LEVIN

HENRY LEVIN
Lessees

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

On this day personally appeared before me CECIL M. COLE, to me known to be one of the individuals described in and who executed the within and foregoing instrument, and acknowledged to me that he signed the same as his free and voluntary act and deed for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this _____ day of September, 1967.

Notary Public in and for the State of Washington, residing at Everett.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/10		110
		220

MAY 1 0 1967

Mr. Cecil M. Cole
Peterson, Lorenz & Cole
Certified Public Accountants
First National Bank Building
P. O. Box 1006
Everett, Washington 98201

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Dear Mr. Cole:

Thank you for your letter of April 26, 1967, enclosing a copy of a Certificate of Sale covering the land under the subject contract and your check in the amount of $5.00 for duplicating and mailing available information relating to this contract.

In compliance with your request we are enclosing copies of the Operator's Final Report and accompanying maps prepared by Arthur Lakes, Consulting Engineer for the Operator.

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region II
120-M

FEJohnson/bih 5/10/67

Enclosures

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

23263

PAYEE: DETACH THIS STATEMENT BEFORE DEPOSITING CHECK.

PETERSON, LORENZ & COLE, Everett, Wash.

DATE	DESCRIPTION	AMOUNT	DISC'T. OR DEDUCTION	NET AMOUNT
4/26/67	Re: Tungsten Mountain Mining Company			

EMPLOYEE'S NAME

PETERSON, LORENZ & COLE, Everett, Wash.

PAY PERIOD			TOTAL EARNINGS	DEDUCTIONS						NET EARNINGS PAID
				F.I.C.A.	FED. W/H	GROUP INS.	SAL. INS.			

EMPLOYEE: THIS IS A STATEMENT OF YOUR EARNINGS AND DEDUCTIONS FOR THE PERIOD INDICATED. KEEP THIS FOR YOUR PERMANENT RECORD.

PETERSON, LORENZ & COLE

CERTIFIED PUBLIC ACCOUNTANTS
First National Bank Building
P.O. Box 1006
Everett, Washington

OFFICES IN
EVERETT
SEATTLE
SPOKANE
MT. VERNON
ANCHORAGE
JUNEAU
FAIRBANKS

OFFICIAL
COPY
O. M. E.
APR 28 1967

April 26, 1967

120 m
110

United States Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

ATTENTION: MR. FRANK E. JOHNSON, CHIEF, OFFICE OF MINERALS EXPLORATION

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

Pursuant to a letter received from you dated January 31, 1967, addressed to Mr.. Donald L. Anderson, I submit the attached Certificate of Sale in which I was awarded as Trustee the ownership of certain mining property formerly owned by Tungsten Mountain Mining Company. In as much as the redemption period expired on April 7, 1967 with no claim to the property other than myself as Trustee, it appears sufficient evidence that the Operator has no longer any interest in the property and that as Trustee I am sole owner.

Request is hereby made for the information previously requested by Mr. Anderson consisting of Operator's Final Report and maps prepared by Arthur Lakes, Consulting Engineer for Operator.

We are also enclosing a check in the amount of $5.00 for duplicating and mailing the material.

We thank you for your consideration in this matter.

Yours very truly,

PETERSON, LORENZ & COLE

By Clair M. Cole
Certified Public Accoutant

CMC/ww
Enc. 2

IN THE FIRST JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA,

IN AND FOR THE COUNTY OF CHURCHILL

CECIL N. COLE, for and on behalf of all First Mortgage Bondholders, Plaintiff, vs. TUNGSTEN MOUNTAIN MINING COMPANY, a Nevada corporation, Defendant.	No. 8209

CERTIFICATE OF SALE

Under and by virtue of a decree of foreclosure rendered in and by the above entitled Court in said action, on the 22nd day of February, 1966, entered on the 22nd day of February, 1966, and under the authority of an order of sale thereon, duly issued out of said Court, attested on the 22nd day of February, 1966, and to me, the undersigned, directed and delivered, as Sheriff duly appointed by the above entitled Court in said action, whereby I was commanded to sell the property in said decree and hereinafter described according to law, and to apply the proceeds of sale in satisfaction of the judgment in said action, amounting to ONE HUNDRED THOUSAND DOLLARS ($100,000.00), with interest and costs and attorneys' fees as specified in said decree; said real property is situate in the County of Churchill and the State of Nevada, and particularly described as follows, to wit:

> Those certain unpatented mining claims and millsite containing approximately 455 acres situated in the Clan Alpine Mining District, in Churchill County, State of Nevada, more particularly described and designated as follows:
>
> Hilltop, Heidi No. 1, Heidi No. 2, Heide No. 3, Heidi No. 4, Heidi No. 5, Heide No. 6, Artel No. 1, Artel No. 2, Porter No. 1, Porter No. 2, Porter No. 3, Porter No. 4, Porter No. 5, Hattie No. 1,

RAYMOND FREE
Attorney at Law
Suite 217
150 N. Center St.
Reno, Nevada
Phone 786-2309

Hattie No. 2, Hattie No. 3, Garnet No. 1, Garnet No. 2, Garnet No. 3, Garnet No. 4, and Garnet No. 5;

and the Placer claim;

together with all and singular the tenements, hereditaments and appurtenances thereunto appertaining and all and singular the equipment necessary in the operation of the defendant's business, to-wit:

At Mill:

1 Stearms Magnetic Separator - Serial No. 46 549
1 ore hopper and belt
2 ore acid baths
4 secondary ore tables
1 ore roaster
1 ball crusher
1 separator
1 electric welder
4 primary ore tables
1 ore auger (without motor)
1 flotation machine (Kraut) - Serial 1070 DIS
1 large cyclone
1 medium cyclone
1 primary crusher - needs repair
1 primary crusher - needs repair
75 drill bits
1 salamandar stove
12 assorted motors
6 truck tires
3 small tires
1 wood file cabinet
2 saw horses
2 wood closets
1 large rack (holding motors, etc.)
2 pick-up rims
2 truck springs (main leaf)
2 prop shafts
2 diesel storage tanks - diesel oil in one
1 large new bearing QD 10B 62 No. 1995
1 55-gal. drum solvent
5 lbs. rivets
1 rubber water pump
2 ore cars
1 gas generator and motor
1 old army truck Serial No. W 329796 1S
1 International army 4-wheel drive truck, Model FHA-45621-(AT 12S, Nev. 1954)

<u>No. 5 Hole</u>

26 - railroad ties long 24'
4 - railroad ties short 12'
8 - 6"x6"x16' lumber
4 - 6"x6"x 8' lumber
2 - railroad ties
2 - ore cars

RAYMOND FREE
Attorney at Law
Suite 217
150 N. Center St.
Reno, Nevada
Phone 786-2309

100 lineal feet 1-1/2" pipe
120 lineal feet 1/2" pipe
2 shovels
1 movable shed, 8'x10' (corrugated steel)
1 salamander stove
1 - 4"x10"x4' lumber

Half way to No. 4

8 - 8"x8"x18' lumber
6 - 3"x12"x18' planks
7 - 2"x12"x12' planks

No. 4

1 anvil
1 GM diesel motor
1 Sullivan air compressor
1 salamander stove
2 batteries
1 shed
5 AC oil filters
1 diesel tank and 2 water tanks
50-gal. drum turbine oil

Inside Mine

4 stopers
1 jack leg and hammer
1 jack hammer
1 auto drifter
5 cars
250' vent lines
1 diesel compresser on wheels
1 drum diesel oil
1 shovel & saddle
1 mucking car

Found at camp

1 Chambers gas stove
2 steel beds, mattresses and springs
1 Frigadaire refrigerator
1 table and 3 chairs
1 hot water tank (Rheem price still marked on side, $86.50)
1 Vitred shower
1 toilet
1 basin
1 sink in steel cabinet (Republic)
1 5-bedroom bunk house (steel)
2 gas electric water heaters
2 old washers and laundry tub
1 diesel generator
1 Dodge pick up truck
1 International stationary motor and water pump
1 oil barrel
2 Aurora Pumps - Serial No. 23342 and No. 23351 (4,000 gal. per min.)
1 barrel drum
1 GMC diesel, 640, Serial No. ADCR 641397

I, GEORGE W. WILKINS, Sheriff as aforesaid, do hereby certify

RAYMOND FREE
Attorney at Law
Suite 217
150 N. Center St.
Reno, Nevada
Phone 786-2309

that I duly sold the real property heretofore described, on the 5th day of April, 1966, at 3:00 o'clock P.M. of said day, at public auction, according to law, after due and legal notice given, on the front steps of the Court House in the City of Fallon, County of Churchill, State of Nevada, to W. R. STOCKER and MARTHA STOCKER for an on behalf of CECIL N. COLE as trustee for and on behalf of all bondholders for the sum of _____ _____ DOLLARS ($_____), said purchasers being the highest bidder, and that sum the highest bid therefor.

That said real property is subject to redemption pursuant to the judgment of foreclosure and sale heretofore entered in the above-entitled action.

WITNESS MY HAND this _____ day of June, 1966.

_____
GEORGE W. WILKINS, SHERIFF OF
CHURCHILL COUNTY, STATE OF NEVADA

AYMOND FREE
Attorney at Law
Suite 217
50 N. Center St.
Reno, Nevada
hone 786-2309

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
1/24	Johnson	110
	Shiberno	120
	Long	140
	[illegible]	120
1/31	Cal	220

3192
INTERIOR DEPT.
2-67-2243.11
JAN 26 1967
SOLICITOR

Mr. Donald L. Anderson
10715 Lakeside Avenue, N.E.,
Seattle, Washington 98125

RECEIVED
JAN 26 1967
Division of Mineral Resources
and General Legal Services

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Dear Mr. Anderson:

Your letter of January 18, 1967, to Mr. Harold K. Stager, U. S. Geological Survey, Menlo Park, California, concerning available information on the property under the subject contract, has been referred to this office.

Available information on this contract, comprising the Operator's Final Report and maps prepared by Arthur Lakes, Consulting Engineer for the Operator, may be released to you upon written authorization from the Operator, or from the owners of the property, if evidence is submitted that shows the Operator no longer has any interest in the property. There also would be a nominal charge of $5.00 for duplicating and mailing the available material.

Upon receipt of a letter of authorization from the owners, evidence that the Operator no longer has any interest in the property, and check or money order in the amount of $5.00, we will forward a copy of the available material to you.

Incidentally, the Government holds a lien on the property under the contract and any production therefrom until December 3, 1968. A claim in the amount of $2,783.69 against the property for unpaid royalties due on past production has been referred to the General Accounting Office for collection.

Sincerely yours,

FROM SOLICITOR
JAN 30 1967
FOR SIGNATURE

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
Mr. Long/SOL.Room 6546
OME file (Docket)
OME reading file
OME Region II

FEJohnson/bih 1/24/67

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICIAL COPY
O. M. E.
RECEIVED
JAN 23 1967
ADDRESS | CODE
1-20 MO
110

Memorandum January 19, 1967

To: Chief, Office of Minerals Exploration
Washington, D. C.

From: Field Officer
Region II

Subject: DMEA 3180 and DMEA 4795
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Enclosed is a letter from a Mr. Donald L. Anderson, consulting engineer, inquiring about available data on the subject mine. We have abundant data on this mine, including previous operators' Final Reports, etc., that would be of use to the new operators but because of the involved problems we have had over unpaid royalties, etc. I hesitate to reply to Mr. Anderson. My records show that the matter of unpaid royalties was turned over to the Claims Division of the General Accounting Office for collection on June 29, 1965, but do not indicate what action was taken. Will you make whatever reply you think proper under the circumstances.

H. K. Stager

H. K. Stager

Enclosure

~~Associate~~ Professor
Mining Engineering
University of Washington

Registered Professional
Mining Engineer
State of Washington

DONALD L. ANDERSON

Consulting Engineer

10715 Lakeside Ave. N. E.
Seattle, Washington 98125

January 18, 1967

Mr. Harold K. Stager
U. S. Geological Survey
345 Middlefield Road
Menlo Park, Calif. 94025

Dear Mr. Stager,

On behalf of the present owners I am seeking information on the Tungsten Mountain Mine, Churchill County, Nevada; hence I am taking the liberty to write and inqure whether you have anything pertaining to this mineral property that can be made available.

The Tungsten Mountain Mining Company of Seattle has been taken over by the bondholders who are now attempting to evaluate the property. You will note that DMEA loans No. 3180 and 4795 were granted during the 1950's. Maps that we have available show that some long-hole drilling was done on the 4th level. However, no assays or other data that may have been obtained from the drilling is recorded.

Will you please advise whether you have any information that you consider significant which may be of value in the current study.

Very Truly Yours,

Donald L. Anderson

RECEIVED
JAN 18 1967
OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY
MENLO PARK, CALIF.

Form 7
(63)

OFFICIAL FILE COPY

Date	Surname	Code
1/23	RMSmith	120B
1/25/67	Kirkemo	120K
		110
		220

Mr. Arthur E. Symons
Tungsten Mountain Mining Company
Bondholders Committee
1630 43rd Avenue East
Seattle, Washington 98102

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Dear Mr. Symons:

Your letter of January 13, 1967, to the U. S. Geological Survey in Menlo Park, California, has been referred to this office for reply.

We are pleased to assist Professor Andersen in every way possible, and we have, in fact, already prepared a reply to his recent request for information relating to the DMEA project on your property. If additional geologic information is needed, we understand that Professor Ben Page at Stanford University, Palo Alto, California, is familiar with the region and may also be of assistance.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Hal T. Morris
H. K. Stager

Director's Reading File
Division File
Econ. Geol. File
DMEA-4795
OME Reading File
Smith

RMSmith/mm (1/25/67)

23263

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Base and Ferrous Metals
345 Middlefield Road
Menlo Park, California 94025

January 20, 1967

Mr. Harold Kirkemo
Geologic Division
U.S. Geological Survey
Room 4457, Interior Building
Washington, D. C. 20242

Dear Kirk:

Hal Stager has informed me that the Tungsten Mountain Mining Company, mentioned in the enclosed letter, owes some $2300.00 in unpaid OME royalties, and that this inquiry probably should be answered by the OME staff.

Inasmuch as Mr. Symons represents the bondholders committee, perhaps he was not responsible in any way for the past shenanigans of the company. If so, his best source of information would be Roscoe Smith or Dwight Lemmon. I also understand that Professor Ben Page of Stanford University knows the country, and may be able to give some information to Professor Anderson.

With best regards.

Sincerely yours,

Hal

Hal T. Morris, Chief
Branch of Base and Ferrous Metals

Enclosure

Tungsten Mountain Mining Company
Bondholders Committee
1630 43rd Avenue East
Seattle, Washington 98102
January 13, 1967

		Reg Engr	
		Deputy RE	
		P & P	
		Adm Offer	
		Fld Sur	
		Photogram	
		Cartog	
		Geodetic	
		Photolab	
		M & F D	
File			

U.S. Geological Survey
345 Middlefork Road
Menlo Park, California 94025

Gentlemen:

The Bondholders Committee of the Tungsten Mountain Mining Company has asked Mr. Donald L. Anderson of the University of Washington to inspect and report on our mining property and mill located about twenty miles north of Eastgate, Nevada.

We would appreciate it very much if your office would assist him in making his report if he should ask you for information which you may have on this property or this locality.

Yours very truly,

Arthur E. Symons

ARTHUR E. SYMONS

AES-m

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☒ Show address where delivered

(Additional charges required for these services)

RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

W. B. Brooks

DATE DELIVERED	SHOW WHERE DELIVERED *(only if requested)*
5-31-69	

C55—16—71548-5—F GPO

4795

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

Seattle, Wash

PAYMENT OF POSTAGE, $300

POSTMARK OF DELIVERING OFFICE

31 1966

INTERNATIONAL

INSTRUCTIONS: Fill in items below and complete instructions on other side, if applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article RETURN RECEIPT REQUESTED.

RETURN TO

REGISTERED NO. 500491	NAME OF SENDER U. S. Geological Survey Office of Minerals Exploration
CERTIFIED NO.	STREET AND NO. OR P. O. BOX Dept. of the Interior
INSURED NO.	CITY, STATE, AND ZIP CODE Washington, D. C. 20242

POD Form 3811 Sep. 1963

DMEA 4795?

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

OFFICIAL COPY
IN REPLY REFER TO
RECEIVED
JUN 7 1966

INITIALS	CODE
6/7 Mg	120
YE	110
HK	120
HMB	120
	220

May 25, 1966

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Mr. F. J. Wettrick
Wettrick, Toulouse, Lirhus & Hove
Suite 805, Arctic Building
Seattle, Washington 98104

Dear Mr. Wettrick:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

As attorneys for Tungsten Mountain Mining Company, will you please try to secure for us the information requested on the back of this form.

Sincerely yours,

Frank E. Johnson

Frank E. Johnson
Chief, Office of
Minerals Exploration

MME Form 63
Revised 7-65

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since **August 1961**, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes [✓] No [ ]

   Has the assessment work on the unpatented claims been kept up to date? If not, please give details. Yes/✓/No/ /

2. Since **August 1961**, has there been any production from the land subject to the contract? Yes [ ] No [✓]

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since , has any production been transported through workings (see of contract)? Yes [ ] No [ ]

   If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name T. J. Patrick Title Attorney for Company

Address 865 Arctic Bldg Date June 1-66

Seattle 4 Washington

98104

Mr. Cecil Cole, as trustee for the First Mortgage Bond Holders is the present owner, which resulted from a foreclosure of the mortgage on February 22, 1966. The Trustee's address is

Realty Building
Everett, Snohomish County
Washington

I may add that efforts are being made looking toward ultimate rehabilitation and re-activation

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Miller	800
	Schmidt	120
6/29	[illegible]	110
	[illegible]	100

JUN 29 1965

Claims Division
General Accounting Office
Washington, D. C.

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

In accordance with 4 GAO 5000 and Comptroller General's decision B-136448, there is referred to you the matter of royalty amounting to $2,783.69 due to the Government under provisions of Defense Minerals Exploration Administration Contract No. Idm-E1158, Docket No. DMEA-4795 (Tungsten), dated December 3, 1957. The facts pertinent to this matter and the efforts of this office, as successor to Defense Minerals Exploration Administration, to effect collection of this amount follow.

The referenced contract provided for certain exploration for tungsten to be performed by Tungsten Mountain Mining Company, a Nevada Corporation, hereinafter referred to as the Operator, on certain mining property located in Churchill County, Nevada, as more fully described in the contract. This contract provided for Government participation to the extent of 75 percent of accepted exploration costs subject to refund to the Government through payment of royalty on the value of any production from the property during a period of eleven years from the date of the contract.

The exploration was completed in January 1959 with the Government's participation being $23,413.87. In addition, an amount of $432.00 contributed by the Government toward exploration costs under Contract No. Idm-E707, Docket No. DMEA-3180, was made subject to repayment by the Operator under provisions of Article 10 of Contract No. Idm-E1158, making a total amount repayable of $23,845.87. A certification of discovery or development was issued on July 31, 1959, and the Government is entitled to royalty on the value of production from the property for a period of eleven years from the date of the contract or until the amount of $23,845.87 is repaid without interest whichever occurs first.

23263

On November 19, 1962, a registered letter was sent to the Operator at his Seattle, Washington, address requesting information as to the current ownership status of the property and whether there had been any production from the land subject to the contract. Although the Post Office Department return receipt indicated delivery of the letter to Mr. B. W. Porter, the Operator's President, reply was not received to the letter.

Effort was then made to have Mr. E. A. Magill, supervisory mining engineer, U. S. Bureau of Mines, Seattle, Washington, attempt to contact Mr. Porter and to secure the desired information. Under dates of February 7, 1963, and October 22, 1963, Mr. Magill stated that he had been unable to contact Mr. Porter. Under date of April 20, 1964, Mr. Magill advised that he had contacted Mr. Fred Wettrick, Mr. Porter's attorney, from whom he learned that production had been made from the mine until about August 1961 when the property was shut down because of a flash flood and a break-down of certain mill machinery. He further advised that prior to this time concentrates had been shipped to Nevada Scheelite's plant in Fallon, Nevada.

By letter dated November 9, 1964, this office requested Nevada Scheelite Corporation to advise particulars with respect to any purchases they had made from the Operator applicable to Hilltop Mine during the period December 3, 1957, through August 1961. In a letter dated November 16, 1964, Nevada Scheelite advised that they had correspondence with the Operator during that month and suggested that the information be secured from that source.

On November 25, 1964, this office sent a registered letter to the Operator at the address furnished by Nevada Scheelite requesting an accounting for any production from the Hilltop Mine. Post Office Department return receipt indicated delivery of this letter on December 1, 1964. No reply was received to this letter and a follow-up letter was sent by registered mail on January 4, 1965.

A reply to the last mentioned letter was received from Mr. F. J. Wettrick, of the law firm Wettrick, Toulouse, Lirhus & Hove, Suite 805, Arctic Building, Seattle, Washington 98104, in a letter dated March 30, 1965. This letter set forth the difficulties being experienced by the Operator and requested that the collection of past due royalties be deferred until such time as mining operations were resumed.

By letter dated April 8, 1965, to Mr. Wettrick, this office requested production data by which the amount of the royalty obligation could be determined. With a letter dated May 6, 1965, Mr. Wettrick furnished a statement showing that sales aggregating $55,673.85 had been made by the Operator to Nevada Scheelite between November 26, 1960, and July 13, 1961.

By letter dated May 13, 1965, Mr. Wettrick was advised that the royalty due to the Government, at 5 percent of the sales value of the production sold, amounted to $2,783.69 and that unless such amount was paid, or an acceptable plan for the orderly liquidation of the obligation was received within 30 days, this office would have no alternative but to take what further action may be available for collection of amounts due to the Government.

In a letter dated June 15, 1965, Mr. Wettrick again discussed the financial condition of the Operator and the reasons therefor and asked for further indulgence by this Department. Under date of June 25, 1965, he was advised that we have no alternative but to refer the matter to your Division for further handling.

Two copies of each of the following documents, as referred to in the preceding paragraphs, are enclosed:

(1) Contract No. Idm-E1158, Docket No. DMEA-4795 (Tungsten), including Annex I, and Amendment No. 1, but excluding other attachments to the contract which are not pertinent to the matter of the indebtedness.

(2) Certification of discovery or development dated July 31, 1959.

(3) Letter to Operator dated November 19, 1962.

(4) Letter from Mr. E. A. Magill dated February 7, 1963.

(5) Memorandum from Mr. Magill dated October 22, 1963.

(6) Letter from Mr. Magill dated April 20, 1964.

(7) Letter to Nevada Scheelite dated November 9, 1964.

(8) Letter from Nevada Scheelite dated November 16, 1964.

(9) Letter to Operator dated November 25, 1964.

(10) Letter to Operator dated January 4, 1965.

(11) Letter from Mr. Wettrick dated March 30, 1965.

(12) Letter to Mr. Wettrick dated April 8, 1965.

(13) Letter from Mr. Wettrick dated May 6, 1965.

(14) Letter to Mr. Wettrick dated May 13, 1965.

(15) Letter from Mr. Wettrick dated June 15, 1965.

(16) Letter to Mr. Wettrick dated June 25, 1965.

Sincerely yours,

George Fumich, Jr. (gfa)

Acting Director

Enclosures

CEFisher:fh
6/28/65

cc: Region II
Director's reading file
Docket
CA&A Division

rm 7

OFFICIAL FILE COPY

Date	Surname	Code
	Fisher	800
	Selbridge	120
6/21	Johnson	110
	[illegible]	100
	Long	140
	App'g. Div. Chf.	
		220

JUN 25 1965

Mr. F. J. Wettrick
Wettrick, Toulouse, Lirhus & Hove
Suite 805, Arctic Building
Seattle, Washington 98104

F-65-2147.11

SOLICITOR

JUN 23 1965

INTERIOR DEPT.

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Dear Mr. Wettrick:

A review of our file relating to the subject contract has lead to the conclusion that nothing will be gained by further indulgence by this Department as requested in your letter dated June 15, 1965. We feel that we have no alternative, under effective Government regulations, but to refer this matter to the Claims Division of the General Accounting Office for further handling.

Copies of pertinent documents and correspondence, including your several letters outlining the financial conditions of the company, etc., will be furnished to the Claims Division for its information.

We trust that a mutually satisfactory arrangement may be reached between your client and the Claims Division.

Sincerely yours,

George Fumich, Jr.

Acting Director

FROM SOLICITOR

JUN 24 1965

FOR SIGNATURE
CEFisher:fh
6/21/65

RECEIVED
JUN 2[illegible] 1965
Division of Mineral Resources
and General Legal Services

cc: Director's reading file
Region II, w/copy of incoming ltr of 6/15/65
CA&A Div.
Docket

23263

FRED J. WETTRICK
GEORGE E. FLOOD (1954)
JOHN J. O'BRIEN (1956)
GEORGE J. TOULOUSE, JR.
CLARENCE A. LIRHUS
RALPH C. HOVE
ARNOLD J. BARER

SAMUEL J. WETTRICK
COUNSEL

LAW OFFICES OF
WETTRICK, TOULOUSE, LIRHUS & HOVE
SUITE 805 ARCTIC BUILDING
SEATTLE, WASHINGTON 98104
MAIN 3-7250

OFFICIAL COPY
O. M. E.
RECEIVED
JUN 21 1965
INITIALS | CODE
LEG | 900
| 120
| 120

June 15, 1965

United States,
Department of the Interior,
Office of Minerals Exploration,
Washington 25, D. C.

ATTENTION OF MR. GEORGE FUMICH, JR.
Acting Director

Dear Sir:

Re: DMEA-4795 (Tungsten)
Tumbsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

With reference to your recent letter re: the above matter, the writer has conferred with the officers of the company, who requested an appeal for your further indulgence concerning the payment due under the DMEA contract, for the reason that there are no funds available at the present time although effort is being made to restore the property to operation, which requires clearance of certain litigation. Since the closing down of the mining operations, due to disasters referred to in our previous correspondence, it has been most difficult to obtain funds with which to rehabilitate the mine and put it into operation; one of the reasons being the low market price of tungsten during the past few years. However, it appears that the rise in the tungsten market during the past few months has given the company encouragement and hope that the mine may again be put into operation after clearance of certain impediments and refinancing.

As you know, the cessation of the Government's stockpiling of tungsten and the resulting deterioration of the tungsten market caused all tungsten mining, as such, to close down. However, as stated above, the market has gradually strengthened during the past few months and if Chinese tungsten (the largest holder of tungsten concentrate reserves) does not again invade our market, via Russia and Britain, tungsten mining in the United States should gradually become profitable again.

The management of this company, therefore, - looking toward resumption of its mining operations - deem it essential that the company be granted time within which to work out this program. It is hoped, therefore, that further indulgence by your Department may be exercised.

Very truly yours,
WETTRICK, TOULOUSE, LIRHUS & HOVE

By F. J. Wettrick
F. J. Wettrick

FJW:RMG

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/13	Johnson	110
	Selfridge	120
		100
		220

JAN 14 1965

Memorandum

To: Acting Field Officer, Region II

From: Chief, Division of Exploration Operations

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-K1158

Enclosed is a self explanatory letter of this date to Kennametal Inc., Fallon, Nevada.

We had written to Kennametal Inc. previously on this subject, and they replied that they felt sure that we could obtain the necessary settlement data from the Operator.

However, the Operator has not replied to our several letters. Although we have again requested Kennametal Inc. to furnish these data, we believe that an informal visit by you to the Kennametal Inc. office might elicit the required settlement data on an "off the record" basis. It is suggested, therefore, that on your next trip to Nevada that you contact Kennametal Inc. in an effort to obtain these settlement data.

George C. Selfridge (gla)

Enclosure

FEJohnson/gla/bih
1/13/65

cc to: Files (Docket)
Dir. reading file
Review Committee
Mr. Johnson

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/13	Johnson	110
	Schlendorf	120
		100
		220

Mr. Ward W. Nichols
Office Manager
Nevada Scheelite Division
Kennametal Inc.
347 North Taylor Street
Fallon, Nevada

JAN 14 1965

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Dear Mr. Nichols:

Reference is made to your letter of November 8, 1964, and your reply of November 16, 1964, relating to the subject contract.

In accordance with your suggestion, we sent registered letters on November 24, 1964, and January 4, 1965, to the Tungsten Mountain Operating Corporation, but have not received any reply.

The failure of this Operator to cooperate in this instance makes it difficult for this office to fulfill its responsibilities in determining the amount of royalties that may be due the Government on its tungsten production. Under the circumstances, we would greatly appreciate your advice as to the quantities and settlement value of concentrates you may have purchased from the Tungsten Mountain Mining Company since December 3, 1957, together with two copies of each of the pertinent settlement sheets.

Sincerely yours,

George Fumich, Jr.

Acting Director

FEJohnson/gla/bih
1/13/65

cc to: Docket
Dir. reading file
Region II
Mr. Johnson

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Fisher	800
	Gilfedge	120
5/12	Johnson	110
	"	100

MAY 13 1965

Mr. F. J. Wettrick
Wettrick, Toulouse, Lirhus & Hove
Suite 805, Arctic Building
Seattle, Washington 98104

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Dear Mr. Wettrick:

Thanks for your letter dated May 6, 1965, and the accompanying statement showing production and sales from Hilltop Mine during 1960 and 1961 amounting to $55,673.85. This would indicate that royalty due to the Government amounts to $2,783.69 which should have been paid approximately four years ago.

As stated in our letter dated April 8, 1965, we do not have authority to indefinitely postpone the collection of royalty due to the Government, but that we are willing to entertain a proposal from your client for a definite arrangement to liquidate its obligation.

Unless payment of the royalty long past due is made, or an acceptable proposal for the orderly liquidation of the obligation is received within 30 days, we have no alternative but to take what further action may be available for collection of amounts due to the Government.

Sincerely yours,

George Fumich, Jr.

Acting Director

CEFisher:fh/5/12/65
cc: Docket
Region II, w/copy of ltr of 5/6/65 & attachment
Director's reading file
CA&A Div.

23263

FRED J. WETTRICK
GEORGE E. FLOOD (1954)
JOHN J. O'BRIEN (1956)
GEORGE J. TOULOUSE, JR.
CLARENCE A. LIRHUS
RALPH C. HOVE
ARNOLD J. BARER

SAMUEL J. WETTRICK
COUNSEL

LAW OFFICES OF
WETTRICK, TOULOUSE, LIRHUS & HOVE
SUITE 805 ARCTIC BUILDING
SEATTLE, WASHINGTON 98104
MAIN 3-7250

OFFICIAL
CITY
O. M. E.
RECEIVED
MAY 10 1965
INITIALS | CODE
668 | 800
120
120

May 6, 1965

United States Department
of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Attn. Mr. Smith

Dear Sir:

As attorneys for Tungsten Mountain Mining Company we are now able to send you the requested information which indicates "Report of Sales" indicating a total production and sales amounting to $55,673.85.

As indicated in our previous correspondence re the above dated March 30th last, the said misfortunes caused a shut-down of the operations during the month of August, 1961, and because of the suddeness of these unfortunate events causing the shut-down and the greatly depressed market of tungsten made it impossible to refinance the resumption of operations. However, now that the market has strenghtened somewhat, efforts are being made toward restoration of the property and probable production again. The company, being currently without funds, ? payment due under the DMEA contract it is hoped may be deferred pending reactivation.

Very truly yours,

WETTRICK, TOULOUSE, LIRHUS & HOVE

By F. J. Wettrick

F. J. Wettrick

FJW/MW
Encl.

TUNGSTEN MOUNTAIN SCHEELITE SHIPMENTS

TO NEVADA SCHEELITE CO.

Date	Tons	%WO3	Units WO3	Price per unit	Total
Nov. 26, 1960	3.0135	69.94%	210.6732	$23.00	$4,845.48
Jan. 3, 1961	3.1500	50.27% 14.73% below grade	158.3253	$20.00	3,174.42
Mar. 23, 1961	3.5460	60.77%	247.3695	$22.50	5,565.81
Apr. 20, 1961	4.9865	73.76%	367.7305	$22.50	8,273.94
May 11, 1961	4.8845	70.71%	345.3141	$22.50	7,769.57
May 26, 1961	2.6265	70.40%	184.8704	$22.50	4,159.58 *
June 12, 1961	1.4950	67.75%	101.2659	$22.50	2,278.48 *
June 30, 1961	3.6705	73.20%	268.6623	$22.50	6,044.90
July 7, 1961	4.4270	69.94%	310.2608	$22.50	6,980.87
July 13, 1961	4.1195	71.00%	292.449	$22.50	6,580.80 **
	35.928	68.22%	2,486.9211	$22.39	$55,673.85

* Accident reduced crew for 2-weeks (May 27th, 1961)

** Preliminary assay subject to a few dollars correction on final assay

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/8	Johnson	110
	Selfridge	120
		100
		220

APR 8 1965

Mr. F. J. Wettrick
Wettrick, Toulouse, Lirhus & Hove
Suite 805, Arctic Building
Seattle, Washington 98104

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Dear Mr. Wettrick:

This will acknowledge receipt of your letter of March 30, 1965, concerning royalties payable under the subject contract.

We deeply sympathize with your client in the losses incurred during the flash flood in August 1961 which caused the shutdown of its operations. However, we do not have authority to indefinitely postpone the payment of royalties due.

Your client has failed to cooperate with this office by not replying to our several letters or furnishing the information required under Article 5(d) "Report of Sales" of the exploration contract. If it has lost its production records, no doubt it could obtain copies of settlement sheets from the buyers of its concentrates. These should be furnished in duplicate to this office in accordance with the provisions of the contract.

Upon receipt of the settlement sheets copies, we would be in a position to entertain a proposal from your client for a definite arrangement to liquidate its royalty obligation to the Government.

Sincerely yours,

George Fumich, Jr.

Acting Director

FEJohnson/bih 4/8/65
cc to: Files
Dir. reading file
SOL
Region II w/cy inc.ltr.
120
800
FEJohnson

43683

FRED J. WETTRICK
GEORGE E. FLOOD (1954)
JOHN J. O'BRIEN (1956)
GEORGE J. TOULOUSE, JR.
CLARENCE A. LIRHUS
RALPH C. HOVE
ARNOLD J. BARER

SAMUEL J. WETTRICK
COUNSEL

LAW OFFICES OF
WETTRICK, TOULOUSE, LIRHUS & HOVE
SUITE 805 ARCTIC BUILDING
SEATTLE, WASHINGTON 98104
MAIN 3-7250

OFFICIAL
COPY
O. M. E.
RECEIVED
APR 6 1965
INITIALS CODE
110
120
120

March 30, 1965

Mr. Frank E. Johnson
Acting Director
Office of Minerals Exploration
Washington 25, D. C.

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company

Dear Sir:

As attorneys for Tungsten Mountain Mining Company ever since its organization, we have been requested to respond to your letter of January 4th referring to the royalties payable under the DMEA contract.

For your information this company operated a short time after setting up its mill and reduction plant and performance of considerable underground development work and during the month of August, 1961, by extraordinarly severe flash floods the mine to mill road was completely destroyed, the upper workings were partially filled with debris, all of which together with the cracking of the cone crusher compelled a complete shut-down and the company has been unable financially to resume operations, We are advised by the management that not until the last month before the disastrous flood did the company achieve any net profit and if the disaster had not ocurred the property would have been in full operation with subtantial gains enough to pay all obligations of the company, including the royalties to your department. As a result of the sudden disaster there were no funds accumulated or in reserve to meet the current obligations and royalties.

You may well recall that this obligation was begun and predicated upon the government's stock pile price of $62.00 plus per unit. However, shortly after completion of the mill and commencement of operation the government suddenly announced withdrawal of the stock pile purchases which depressed the market as low as $12.00 a unit, the result of which was all tungsten mining in the United States ceased and no tungsten has been produced since, except as a by-product.

Mr. Frank E. Johnson
March 30, 1965

This depressed market for tungsten made it impossible to restore Tungsten Mountain Mining Company into operation, but now that the market is up in the vicinity of 20 plus, efforts are being made to restore the property for operation. The Company is therefore compelled to ask your indulgence to extend payment of past due royalties until such time as the Company resumes mining.

Very truly yours,

WETTRICK, TOULOUSE, LIRHUS & HOVE

By

F. J. Wettrick

FJW/MW

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☐ Show address where delivered

(Additional charges required for these services)

RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

DATE DELIVERED	SHOW WHERE DELIVERED *(only if requested)*
JAN 14 1965	

C55—16—71548-5—F GPO

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

POSTMARK OF DELIVERING OFFICE

INSTRUCTIONS: Fill in items below and complete instructions on other side, if applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article RETURN RECEIPT REQUESTED.

RETURN TO

REGISTERED NO. 59802 9	NAME OF SENDER OFFICE OF MINERALS EXPLORATION
CERTIFIED NO.	STREET AND NO. OR P. O. BOX DEPARTMENT OF THE INTERIOR
INSURED NO.	CITY, ZONE AND STATE WASHINGTON, D. C. 20240

POD Form 3811 Apr. 1962

C55—16—71548-5—F

DMEA-4795 - E1158

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
12/28	Fisher	800
		120M
	Seidner	120
		110
1/4		100
		220
1/4	Long	140

JAN 4 1965

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Tungsten Mountain Operating Corporation
214 Securities Building
Seattle, Washington 98101

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

Reply has not been received to my registered letter dated November 25, 1964, wherein request was made for an accounting of any production and sales of minerals from the Hilltop Mine on which the Government is entitled to royalty under provisions of the subject contract since December 3, 1957.

Unless the requested information is received and an acceptable proposal is made for the orderly liquidation of the obligation to the Government within 10 days I will have no alternative other than to refer the matter to the proper authorities to take appropriate legal steps to protect the Government's interest.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

CEFisher/ama 12-28-64

cc:
Docket
Director's Reading File
CA & A Division
Region II

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
		120M
		120
		110
		100
	Long	140
	App'd. [illegible]	100
		220

December 28, 1964

Memorandum

To: Files

From: Contract Administration and Audit Division

INTERIOR DEPT.
DEC 30 1964
SOLICITOR

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

The matter of royalty due under this contract appears to be headed for the GAO Claims Division. Mr. Porter does not answer his mail and probably will ignore the now proposed letter.

In my opinion, the record of OME is not too good in this case and should be tidied up a bit before referral to the Claims Division. We can understand what has happened, but such understanding may not be so apparent to an outsider.

If Mr. Porter does not respond to our "last chance" letter we should again request the settlement sheets from Kennametal, Inc. If that company is still reluctant about furnishing the information, perhaps Mr. Fillo could obtain the information on an "off the record" basis. While these settlement sheets might include payments for some tungsten that was not subject to Government royalty, they would at least furnish a basis for computing a dollar demand and the burden of proving the exact amount due would then fall upon the Operator and we would be in position to present a much better case to the Claims Division.

CEFisher/ama 12-28-64

cc:
Director's Reading File
CA & A Division

FROM SOLICITOR

JAN 4 5

FOR SIGNATURE

23263

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☐ Show address where delivered

(Additional charges required for these services)

RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

DMEA - 4795

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

DATE DELIVERED

12-1-61

SHOW WHERE DELIVERED *(only if requested)*

C55—16—71548-5—F GPO

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

POSTMARK OF DELIVERING OFFICE

DEC

INSTRUCTIONS: Fill in items below and complete instructions on other side, if applicable. Moisten gummed ends, attach and hold firmly to back of article. Print on front of article RETURN RECEIPT REQUESTED.

RETURN TO

REGISTERED NO.	NAME OF SENDER
598499	U.S. Dept of Interior
CERTIFIED NO.	STREET AND NO. OR P. O. BOX OFFICE OF MINERAL EXPL, Washington
INSURED NO.	CITY, ZONE AND STATE DC

POD Form 3811 Apr. 1962

C55—16—71548-5—F

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/25	[illegible]	800
11/25	[illegible]	120M
	[illegible]	120
11/25	[illegible]	110
	[illegible]	100
"	[illegible]	220

NOV 25 1964

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Tungsten Mountain Operating Corporation
214 Securities Building
Seattle, Washington 98101

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

By the terms of a Certification of Discovery or Development dated July 31, 1959, issued by the Office of Minerals Exploration pursuant to the provisions of the referenced exploration project contract, the Government is entitled to a percentage royalty on the value of all mineral production from the land described in Article 2 of the contract from December 3, 1957, to December 3, 1968, or until the sum of $23,845.87 is repaid to the Government. No royalty payments have been received to this date.

The Operator's Final Report dated February 28, 1959, signed by Arthur Lakes, Consulting Engineer & Agent for Tungsten Mountain Mining Company, states that 1,050 tons (estimated) of ore containing 1,260 units of WO_3 on which the Government was entitled to royalty under provisions of this contract were stored on the No. 4 tunnel ore dump. The final report, under "Future Plans", stated that the company had acquired a gravity-flotation mill and was proceeding with mining operations.

We understand that your company was in operation and shipped concentrates to the Nevada Scheelite Division, Kennametal, Inc., Fallon, Nevada, at least until about August 1961 when a flash flood washed out large sections of road between the main highway and the mine and also filled part of the workings of the mine with debris.

This office is charged with the responsibility of collecting any royalty that may be due to the Government under provisions of Defense Minerals Exploration Administration contracts. Request is therefor made for an accounting of any production and sales of

23263

minerals from the Hilltop Mine on which the Government is entitled to royalty since December 3, 1957. This accounting should include copies of settlement sheets issued by the purchaser of the mineral showing quantity and grade of the product sold together with price at which sold and any charges by the purchaser which are allowable deductions from the gross proceeds in computing the royalty payable.

Your early attention to this matter is requested.

Sincerely yours,

George Fumich, Jr.
Acting Director

CEFisher/ama 11-25-64

cc:
Docket
Director's Reading File
CA & A Division
Region II

NEVADA SCHEELITE DIVISION

KENNAMETAL *Inc.*

TELEPHONE 423-3322
347 NORTH TAYLOR STREET
FALLON, NEVADA

November 16, 1964

Mr. George Fumich Jr.
U.S. Dept. of Interior
Office of Minerals Exploration
Washington 25, D.C.

Re: DMEA 4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract Idm - E1158

Dear Mr. Fumich:

In response to your letter of Nevember 9, 1964, concerning the above mentioned company.

We have had correspondence with the above mentioned during this month and feel sure that you can obtain the necessary information from them at:

Tungsten Mountain Operating Corporation
214 Securities Building
Seattle, Washington 98101

Yours very truly,

Ward W. Nichols

Ward W. Nichols
OFFICE MANAGER

WWN/fh

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 20 1964

DATE	INITIALS	CODE
11/23		

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/6	Fisher	800
11/6	Murphy	120M
	Selfridge	120
11/9	[illegible]	110
[illegible]	[illegible]	100
		220

NOV 9 - 1964

Nevada Scheelite Corporation
430 South Maine Street
Fallon, Nevada

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Gentlemen:

Under provisions of the referenced exploration project contract the Government is entitled to a percentage royalty on the value of production from Hilltop Mine for a period of 11 years subsequent to December 3, 1957.

Our efforts to contact Tungsten Mountain Mining Company have proven unsuccessful; however, we have been informed that the company was in operation and shipped concentrates to your company at least until August 1961 when their mining property became inaccessible due to a flash flood which washed out large portions of the road between the main highway and the mine.

Please advise the quantities and settlement value of concentrates you may have purchased from Tungsten Mountain Mining Company since December 3, 1957, together with two copies of each of the pertinent settlement sheets, to assist this office in fulfilling its responsibility of determining what amount of royalty may be due to the Government.

Sincerely yours,

George Fumich, Jr.

Acting Director

CEFisher/ama 11-6-64

cc:
Docket
Director's Reading File
CA & A Division
Region II

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/11	Murphy	120
11/9	[illegible]	110
1	[illegible]	100
		220
	Selfridge	

November 6, 1964

Memorandum

To: Files

From: Auditor, Contract Admin. and Audit Division E. E. Fisher

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

A review of this docket file indicates the probability that a substantial amount of royalty may be due to the Government.

This contract covering an exploration for tungsten was entered into approximately one year after the Government's purchase program for tungsten was terminated so it is apparent that the Operator was not relying on Government purchases as a primary consideration for undertaking the work.

The Operator's Final Report dated February 28, 1959, mentions 958 tons of ore produced and sold, 750 tons stockpiled from No. 3 Tunnel, and 1,050 tons stockpiled from No. 4 Tunnel. Review of the data filed with the Application for Aid in an Exploration Project discloses that the 958 tons of ore were produced and sold prior to the date of the exploration contract and that ore produced from No. 3 Tunnel was stockpiled when the exploration contract was made. Thus, it is apparent that 1,050 tons of ore containing 1.20% WO_3 or 1,260 units were secured from the No. 4 Tunnel during the exploration and were stored there when the exploration contract was completed.

There is nothing in the docket file indicating that there has ever been an inspection of the property by a Government representative since the exploration was completed. This was undoubtedly due to the remoteness of the project and lack of personnel to properly police the matter.

MME Form 63 dated September 26, 1962, was not answered by the Operator. Another form dated November 19, 1962, was sent by registered

mail. The Post Office Department returned a receipt indicating that this communication was received by B. W. Porter, the Operator's president; however, no reply has been received to this date.

Effort was then made to contact the Operator through E. A. Magill, Supervisory Mining Engineer, USBM, at Seattle, Washington. In a letter dated April 20, 1964, Mr. Magill stated that he had not been able to contact Mr. Porter but that he had contacted Mr. Fred Wettrick, Mr. Porter's attorney, who informed him that a flash flood in August 1961 had washed out a large section of the road between the main highway and the mine. This, coupled with a breakdown in the Operator's mill, caused a cessation of operations and shipping of concentrates to the Nevada-Scheelite plant in Fallon, Nevada.

On May 15, 1964, a copy of Mr. Magill's letter was sent to the Field Officer, OME Region II, with the suggestion that copies of settlements for the period December 3, 1957, to August 1961 be secured from Nevada-Scheelite. By letter dated May 26, 1964, the Acting Field Officer requested the Operator to furnish two copies of each settlement sheet subsequent to December 3, 1957. No reply has been received to the latter letter and there is no evidence in the docket indicating that the settlement sheets have ever been requested from Nevada-Scheelite.

While it is admitted that we have only hearsay evidence that there has been any production and sales on which the Government would be entitled to royalty, the inference is strong that there have been such sales. If the Operator worked the property for a year or more after the completion of the exploration project, possessed facilities for milling the ore, and was located only approximately 100 miles from a point where he had a market for his production, it would seem that he would have made sales to get funds for further exploration if for no other purpose. It would further appear to be natural that the stockpile would be disposed of as the mining costs for that ore had been previously incurred.

The 1,260 units WO_3 stockpiled at the No. 4 Tunnel might produce as much as $18,000 when sold depending, of course, upon the mill recovery rate and the market at the time of sale.

CEFisher/ama 11-6-64

cc:
Docket
Director's Reading File
CA & A Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
450 Golden Gate Avenue, Box 36012
San Francisco, California, 94102

OFFICIAL FILE COPY
RECEIVED MAY 28 1964

May 26, 1964

5/28 800 120 500 220

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm E-1158

Gentlemen:

In order to bring our files up to date, we should appreciate your providing us with two copies of each of the settlement sheets of any or all shipments subsequent to December 3, 1957.

Also, it is requested the date the contract work started to August 1961 from Nevada-Scheelite.

Your early reply to this request will be appreciated.

Sincerely yours,
PAUL V. FILLO

Paul V. Fillo
Acting Field Officer
OME, Region II

cc:
Chief, Division of Field Operations, OME, Washington, D. C.

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
5/15	Murphy	500
	[illegible]	500
5/15	Talbert	800
	GCS	130
5/15	Johnson	110
	[illegible]	100
		220
		500

MAY 1 5 1964

Memorandum

To: Acting Field Officer, Region II

From: Chief, Division of Field Operations

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Enclosed is a copy of a self-explanatory letter of April 20, 1964, from E. A. Magill to Region I. The Porter referred to in the letter is B. W. Porter, president of the subject company, whose address is 511 Securities Building, Seattle 1, Washington.

We have received no reports of production nor royalty payments from the Operator; hence, in view of Mr. Magill's letter, it is suggested that you request copies of settlements starting December 3, 1957, the date of the contract and also the date the contract work started, to August 1961, from Nevada-Scheelite.

George C. Selfridge (gla)

Enclosure

FMMurphy/mm
5/15/64
cc: Director's Reading File
Review Committee
Docket
Code 500

43683

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. Chief, Div. of Fld. Operations	4/27/64	
2.		
3.		
4.		
5. D. R. MacLaren		

D R MacLaren

FROM: Acting Field Officer, Reg. I

OFFICE RECEIVED DATE

FOR: Check items for action desired

____ Action ____ Reply for signature of ____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions X Your information

REMARKS: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Churchill County, Nevada
Contract Idm-E1158

Transmittal of two Thermo-Fax copies of a letter dated 4/20/64 from E. A. Magill in further reference to Mr. Porter and this property requested in your memo of 3/31/64.

INT.-DUP. SEC., WASH., D.C. M56300-62

file (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

AL FILE COPY
D. M. E
APR 29 1964

Region VII
Mineral Resource
Office

Seattle Nonmetallics Laboratory
215 Roberts Hall
University Campus
Seattle, Washington 98105

April 20, 1964

800
400
500

Mr. Don MacLaren
Office of Minerals Exploration
W. 157 Boyard Street
Spokane, Washington

RE: DMEA-4795 (Tungsten)
Tungsten Mountain Mining & Milling Co
Churchill County, Nevada
Contract Idm-E 1158

Dear Don:

Here is the latest information I have been able to find out in regard to Mr. Porter and the tungsten property in Nevada which you called about. I wasn't able to contact Porter, but I did contact Fred Wettrick, his attorney, here in town and whom I've known for many years. Here's what Fred had to tell me:

The last production from the property was in August 1961 when a flash flood washed out large sections of the road between the main highway and the mine. At about the same time the cone crusher in the mill broke and added to their problems. The flood also filled part of the upper workings of the mine with debris.

Prior to the flood they were shipping their concentrates to Nevada--Scheelite's plant in Fallon, Nevada.

Fred said that at present Porter is trying to raise sufficient money to extend No. 5 adit about 200 feet to intersect the downward extension of the orebody.

So if the OME records extend through August 1961 you have the production picture, if not there may be some unreported. Incidentally I was able to get Porter's home phone number, which is: Seattle AT 3-1055; you already have his office phone (MA 3-4435).

Let me know the outcome of this information, Don, and if necessary I will try further to run Porter down.

Yours truly,

R. A. Magill
Supervisory Physical Scientist

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

AREA VIII
Mineral Resource
Office

Seattle Nonmetallics Laboratory
215 Roberts Hall
University Campus
Seattle, Washington 98105

April 20, 1964

Mr. Don MacLaren
Office of Minerals Exploration
S. 157 Howard Street
Spokane, Washington

Re: DMEA-4795 (Tungsten)
Tungsten Mountain Mining & Milling Co.
Churchill County, Nevada
Contract Idm-E-1158

Dear Don:

Here is the latest information I have been able to find out in regard to Mr. Porter and the tungsten property in Nevada which you called about. I wasn't able to contact Porter, but I did contact Fred Wettrick, his attorney, here in town and whom I've known for many years. Here's what Fred had to tell me:

The last production from the property was in August 1961 when a flash flood washed out large sections of the road between the main highway and the mine. At about the same time the cone crusher in the mill broke and added to their problems. The flood also filled part of the upper workings of the mine with debris.

Prior to the flood they were shipping their concentrates to Nevada--Scheelite's plant in Fallon, Nevada.

Fred said that at present Porter is trying to raise sufficient money to extend No. 5 adit about 200 feet to intersect the downward extension of the orebody.

So if the OME records extend through August 1961 you have the production picture, if not there may be some unreported. Incidentally I was able to get Porter's home phone number, which is: Seattle AT 3-1055; you already have his office phone (MA 3-4435).

Let me know the outcome of this information, Don, and if necessary I will try further to run Porter down.

Yours truly,

/s/
E. A. Magill
Supervisory Physical Scientist

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane, Washington 99204
March 24, 1964

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contract Idm-E1158

This is in further reference to our March 11, 1964 memorandum.

Juan Munoz visited this office today to discuss the Pacific Minerals (OME-6141) project. I asked if he knew of any production from the subject property within the last few years. He did not know exactly when production ceased but is sure that there has been none since the big decline in the price of tungsten. For the last year or so work at the property has been limited to exploration, more of which is planned for next summer.

D. R. MacLaren

D. R. MacLaren

OFFICIAL FILE COPY
O. M. E
RECEIVE 26 1964

DATE		
3/26		800
		~~120~~
		~~500~~
		320

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/31	GCS	130
	Lawrence	500
3/31	Talbot	800
"	Johnson	110
	[illegible]	100
		220

MAR 31 1964

Memorandum

To: Acting Field Officer, Region I

From: Chief, Division of Field Operations

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contract Idm-E1158

In reference to your memorandum of March 24, 1964, we are wondering how Mr. Porter gets in touch with Juan Munoz or vice versa. Possibly Magill might be able to find Porter's home address in the Seattle directory. Before referring the matter to Fillo, as the mine is in a rather inaccessible area, we would like one more try in Seattle.

George C. Selfridge (gla)

GCSelfridge/gla (3-31-64)
cc to: Director's Reading File
Review Committee
Docket
Mr. Selfridge

P.S. We would be especially interested to know if the 1800 tons of stockpiled ore mentioned in the Operator's final report is still on the property.

23263

No. 157 Howard Street
Spokane, Washington 99204
March 24, 1964

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: [illegible]-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contract [illegible]-[illegible]

This is in further reference to our March 11, 1964 memorandum.

Jack Hines visited this office today to discuss the Pacific Minerals ([illegible]-[illegible]) project. I asked if he knew of any production from the subject property within the last few years. He did not know exactly when production ceased but is sure that there has been none since the big decline in the price of tungsten. For the last year or so work on the property has been limited to exploration, more of which is planned for next summer.

D. R. Hedlund

Marion
Thanks for the report

Official

Grswold

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane, Washington 99204
March 11, 1964

FILE COPY

3/19 800 120 500 220

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contract Idm-E1158

Upon receipt of your March 5th memorandum I tried to telephone B. W. Porter at the Seattle office of the above-cited company but could get no answer. I then telephoned Magill who has still been unable to get in touch with Porter or anyone at his office. However, he has been able to get from Juan Munoz some evidence that no work has been done at this property for some time.

Last summer Juan Munoz was in charge of the OME project at Lookout Mountain, Crook County, Oregon, OME-6141, Pacific Minerals & Chemical Co., Inc., Contract 2132. Porter has been trying to get Munoz to take a contract for drifting on a tungsten property in Nevada. Magill does not know the name or precise location of the property except that it is about 50 miles from Fallon. Munoz is certain that the property has been idle several years. The question is, of course, is this the property that was the subject of DMEA-4795?

All we really know is that Porter is or was contemplating work on a tungsten property 50 miles or so from Fallon. Possibly, with this as a start, Fillo may be able to find out something the next time he is in that area. I do not believe Munoz should be put on the spot by mail. However, Pacific Minerals people were in Spokane about a month ago and said they hope to have Munoz run things next summer. If so, I will get what I can from him orally.

D. R. MacLaren

D. R. MacLaren

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Drumell	500
3/5	Talbot	800
	GCS	130
3/5	Johnson	110
	[illegible]	100
		220

MAR 5 1964

Memorandum

To: Acting Field Officer, Region I

From: Chief, Division of Field Operations

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contract Idm-1158

Reference is made to your memorandum of January 14, 1964, on the subject docket. Please advise if there has been any success in reaching Mr. Porter of the referenced company.

George C. Seifridge (gfa)

MMerrithew/mm (3/5/64)
cc: Director's Reading File
Review Committee
Docket
Code 500

23263

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane, Washington 99204
January 14, 1964

OFFICIAL FILE COPY
O. M. E
RECEIVED JAN 16 1964

DATE	INITIALS	CODE
1/16	[illegible]	800
1/17	Murphy	~~120~~ 500
		520

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: DMEA-3180 and DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contracts Idm-E707 and Idm-E1158

In reference to your memorandum of October 16, 1963, I talked with Magill during the Northwest Mining Association Convention early in December.

He has continued at intervals to try and telephone Mr. Porter of the subject company and has called several times at the office but has been unable to get an answer or find anyone at the office. He will continue his efforts and will advise us immediately.

D. R. MacLaren

D. R. MacLaren

MME FORM 6 REFERENCE SLIP
REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:		DATE	INITIALS
1. Chief, Divn. of Field Operations		10/24/63	
2.			
3.			
4.			
5. D. R. MacLaren			

FROM: Act. Fld. Offr., Region I

OFFICIAL RECEIVED DATE 10/28

FOR: Check items for action desired

____ Action ____ Reply for signature of
____ Approval ____ Investigate ____ Surname
____ Comment ____ Recommendations ____ Signature
____ Conference ____ Rewrite ____ File
____ Instructions X Your information

REMARKS:

DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Transmittal of copy of memo 10/22/63 from E. A. Magill, USBM, Seattle, re. your memo 10/16/63.

INT.-DUP. SEC., WASH., D.C. M56300-62

XXXXXXXXX
AREA VII

Mineral Resource
Development

Seattle Nonmetallics Laboratory
217 Roberts Hall
University Campus
Seattle, Washington 98105

October 22, 1963

JMEA - 4795

Memorandum

To: Mary Smelser, Office of Mineral Exploration, Spokane, Washington

From: Supervisory Physical Scientist, Seattle Nonmetallics Laboratory

Subject: O & O Prospect, Clallam County, Washington

In reply to your note and attached copy of letter dated October 17, 1963 from Val Cameron. The property Cameron is talking about is the O & O Prospect located in the E ½ Sec. 4, and W ½ Sec. 3, T. 28 N., R. 4 W, Clallam County, Washington.

I was under the impression they had applied for an O.M.E. loan within the last year (since October 1, 1962) and that it had been turned down. However, I can find nothing in my file here about an application. As I remember Mac asked me about the property and I gave him a copy of a preliminary examination report I made for the Bureau.

In regard to Mr. Porter, Tungsten Mountain Mining Company, Churchhill County, Nevada, I have never been able to contact him here in town. I just tried to call him and no one answered the phone. However, I will try again in a few days.

E. A. Magill

cc: R. N. Appling

RECEIVED
OCT 24 1963

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/15	GCS	130
10/16	Murphy	500
10/16	Fielder	800
"	Johnson	110
"	Smith	100
		220

OCT 1 6 1963

Memorandum

To: Acting Field Officer, Region I

From: Chief, Division of Field Operations

Subject: MMRA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract Idm-E1158

Reference is made to E. A. Magill's letter of February 7, 1963, to you relative to the subject contract and Mr. Porter. Did he ever send you any additional information?

In checking with the Bureau of Mines to see if Mr. Magill still had the same address, they informed me that his address is 3437 North Mercer Way, Mercer Island, Washington.

George C. Selfridge (gla)

GCSelfridge/gla (10-15-63)
cc to: Director's Reading File
Docket
Mr. Selfridge
Review Committee
Region II (w/cy EAMagill's letr. 2/7/63)

23263

E FORM 6 REFERENCE SLIP
EV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. Chief, Divn. of Field Operations	2/11/63	
2.		
3.		
4.		
5. D R MacLaren		
FROM: D. R. MacLaren, Act. Fld. Offr.		

Region 1

FOR: Check items for action desired

____ Action ____ Reply for signature of _____
____ Approval ____ Investigate ____ Surname
____ Comment ____ Recommendations ____ Signature
____ Conference ____ Rewrite ____ File
____ Instructions X Your information

REMARKS: DMEA-3180 and DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contracts Idm-E707 and Idm-E1158

Reply to your memorandum of 1/21 and our letter of 1/28/63 to E. A. Magill.

INT.-DUP. SEC., WASH., D.C. M56300-59

3180
4795

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION I

Division
of
Mineral Resources

Seattle Nonmetallics Laboratory
217 Roberts Hall
University Campus
Seattle 5, Washington

February 7, 1963

OFFICIAL MAIL
O. M. E
RECEIVED FEB 14 1963

DATE	INITIALS	CODE
2/14	[illegible]	800
	[illegible]	500
		330

Mr. D. R. MacLaren
Field Officer, OME
Office of Minerals Exploration
South 157 Howard Street
Spokane 4, Washington

Dear Mac:

In reply to your memo on Tungsten Mountain Mining Company, Churchill County, Nevada, Contracts IDM-E707 and IDM-E 1158.

I went up to the office, 511 Securities Building on January 30 and no one was there. Telephone calls were made on February 1, 6 and 7 with no answer. I called the building manager on the 7th and he said that Mr. Porter still maintained an office there but was in and out and hard to contact.

Incidentally I noticed that 511 Securities Building is also the offices of the Goldstone Mining Company, War Eagle Mining Company in addition to the Tungsten Mountain Mining Company.

I will keep trying to get hold of Mr. Porter and let you know what I find out.

Yours truly,

Mac

E. A. Magill,
Supervisory Mining Engineer

3437 N [illegible] Way
[illegible]
Wash.

RECEIVED
FEB 11 1963
U. S. G. S.
SPOKANE, WASH.

MME FORM 6 REFERENCE SLIP
REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. 120		
2.		
3.		
4.		
5.		
FROM: 800		

FOR: Check items for action desired

____ Action ____ Reply for signature of ____
____ Approval ____ Investigate ____ Surname
____ Comment ____ Recommendations ____ Signature
____ Conference ____ Rewrite ____ File
____ Instructions ____ Your information

REMARKS: Re: DMEC-4795

Follow-up of Magill's 2/7/63 memo suggested. No info in Wash. files since final report in 1959. 900 tons ore stockpiled. Govt. has option to demand royalty.

Talbut 9/27/63

INT.-DUP. SEC., WASH., D.C. 455600-62

The subject should be only the DMEC-4795 docket. DMEC-3180 has been "stone" dead for years. The repayable amount was fully incorporated in the docket and contract for DMEC-4795.

Talbut
6/18/63

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
~~1/18~~	~~on leave~~	~~500~~
"	Holt	~~500~~
		~~800~~
1/21	GCS	~~130~~
"	Shaw	110
1/24	Smith	~~100~~
		~~220~~

JAN 21 1963

Memorandum

To: Acting Field Officer, Region I

From: Chief, Division of Field Operations

Subject: DMEA-3180 and DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Churchill County, Nevada
Contracts Idm-E707 and Idm-E1158

On September 26, 1962, we sent two copies of MME Form 63, Request For Information On Certified Project And Project Under Royalty Agreement, addressed to the Operator under the subject contracts:

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Having received no reply to our request for information, on November 19 we sent two more copies of the form to the same address by registered mail, return receipt requested. The receipt was returned by the Seattle post office, completed to show that our letter had been delivered on November 26 to the Tungsten Mountain Mining Company, and signed for by B. W. Porter. (Bennett W. Porter signed the applications and the contracts as president of Tungsten Mountain Mining Company.) To date, no further reply, and no completed Form 63 have been received.

As the company was the owner of the property, there were no signers of Owner's Consent to Lien or Subordination Agreements. Therefore, our list of possibilities is exhausted. It will be appreciated if when you or any of your Bureau of Mines or Geological Survey friends happen to be in Seattle, you will contact Mr. Porter or the Tungsten Mountain Mining Company in an effort to secure information concerning possible recent activity and present status of the property.

SPHolt/mm
1-18-63

George C. Selfridge (gla)

cc: Director's Reading File
Region II (2)
Review Committee
Dockets 3180 and 4795
Code 500

43683

S.P.H.
~~Holt~~
220

DMEA-4795

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

November 19, 1962

Re: DMEA-3100 (Tungsten)
DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract Idm-2707
Contract Idm-21190

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Tungsten Mountain Mining Co.
311 Securities Building
Seattle 1, Washington

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

MME Form 63
Revised 3-62

DMEA-3180
I6a-E707
DMEA-4795
I6a-E1158

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since March 10, 1959, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☐

2. Since March 10, 1959, has there been any production from the land subject to the contract? Yes ☐ No ☐

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value
_____	_____	_____
_____	_____	_____

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore	_____	Tons	_____	_____
Concentrates	_____	Tons	_____	_____
Other	_____	Tons	_____	_____

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☐

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value
_____	_____	_____

Submitted by:

Name _____ Title _____

Address _____ Date _____

4511

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

September 26, 1962

Re: DMEA-4795 (Tungsten)
Tungsten Mountain
Mining Company
Hilltop Mine
Churchill County, Nev.
Contract Idm-E1158

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

MME Form 63
Revised 3-62

DMMA-4795
Idm-81158

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since March 18, 1959, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☐

2. Since March 18, 1959, has there been any production from the land subject to the contract? Yes ☐ No ☐

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value
_____		
_____	_____	_____

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore	_____	Tons	_____	_____
Concentrates	_____	Tons	_____	_____
Other	_____	Tons	_____	_____

3. Since _____, has any production been transported through _____ workings (see _____ of contract)? Yes ☐ No ☐

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value
_____	_____	_____

Submitted by:

Name _____ Title _____

Address _____ Date _____

4511

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
(7/29) 7/31	Holt	500
	Griswold	500
		140
		140
7/30	Talbert	800
		800
7/31	Selbridge	130
7/31	Lamb	
7/31	Kirkham	
		~~110~~
8-3	gad	220
		500

JUL 31 1959

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Re: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E1158

Gentlemen:

Enclosed is a certification of discovery or development that covers all the land described in Article 2 of the contract.

By the terms of the Exploration Project Contract, as amended, and of the certification, all minerals mined or produced from December 3, 1957, to December 3, 1968, are subject to the Government's percentage royalty as set forth in the contract until the sum of $23,845.87 is repaid to the Government. This sum includes $432.00 which was the Government's contribution under a previous contract, No. Idm-E707 (Docket No. DMEA-3180), and is so provided for in Article 10 of the subject contract.

Royalty payments should be made to the Executive Officer, OME Field Team, Region II, 420 Custom House, 555 Battery Street, San Francisco 11, California, by the purchaser with checks drawn payable to the Office of Minerals Exploration (the successor to the Defense Minerals Exploration Administration). The purchaser should be advised to deduct royalties from the amount due on each shipment and send the check directly to the Executive Officer. Each check should be accompanied by suitable sales evidence - such as copies of settlement sheets - showing the name of the purchaser, the quantity and grade of the products sold, and the price and charges, certified to be correct by the purchaser.

You are requested to notify the Executive Officer of any changes in ownership or production rights that may have any effect on the Government's right to its percentage royalty. Your attention is called particularly to Article 2(c) of the contract relating to

43683

the Government's right to a percentage royalty on production. Also when production starts, please notify the Executive Officer. Thereafter, if production ceases for any extended period, please notify him accordingly at six-month intervals.

Sincerely yours,

Frank E. Johnson

Acting Director

Enclosure

SPHolt/gla 7-29-59

cc to: Director's Reading File
Operating Committee
Division of Contract Adm. & Audit
OME Field Team, Region II (2)
R. W. Holliday, USBM
H. Kirkemo, USGS
Mr. Holt
Docket DMEA-3180
Docket DMEA-4795
Chron
Mr. Johnson

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
7/29	Holt	500
	Brand	500
		140
		140
7/30	Talbot	800
		130
		110
		220
		500

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Re: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E1158

Gentlemen:

Enclosed is a certification of discovery or development that covers all the land described in Article 2 of the contract.

By the terms of the Exploration Project as amended and of the certification, all minerals mined or produced from December 3, 1957, to December 3, 1968, are subject to the Government's percentage royalty as set forth in the contract until the sum of $23,845.87 is paid. This sum includes $432.00 which was the Government's contribution under a previous contract, No. Idm-E707 (Docket No. DMEA-3180), and is so provided for in Article 10 of the subject contract.

Royalty payments should be made to the Executive Officer, OME Field Team, Region II, 420 Custom House, 555 Battery Street, San Francisco 11, California, by the purchaser with checks drawn payable to the Office of Minerals Exploration (the successor to the Defense Minerals Exploration Administration). The purchaser should be advised to deduct royalties from the amount due on each shipment and send the check directly to the Executive Officer. Each check should be accompanied by suitable sales evidence - such as copies of settlement sheets - showing the name of the purchaser, the quantity and grade of the products sold, and the price and charges, certified to be correct by the purchaser.

You are requested to notify the Executive Officer of any changes in ownership or production rights that may have any effect on the Government's right to its percentage royalty. Your attention is called particularly to Article 2(c) of the contract relating to

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
7/29	Holt	500
	Friend	500
		140
		140
7/30	Talbut	800
7/31	Lefferdz	130

JUL 31 1959

Mr. C. A. Fredell, Director
Technical Research and Development Division
Defense Materials Service
General Services Administration
6018 GSA Building
Washington 25, D. C.

Re: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E1158

8-3 gad ~~110~~ 220 500

Dear Mr. Fredell:

Enclosed is a copy of a certification of discovery or development issued under the subject contract.

Contract No. Idm-E1158 for the exploration of the Hilltop mine property was executed December 3, 1957. Expenditures up to $32,200.00 were authorized by the contract as amended, of which the Government's share, at 75 percent, was $24,150.00. Cost of the work completed was $31,218.50, of which the Government's share was $23,413.87. Under a special provision of the contract, $432.00, the Government's share of the cost of work done under a previous contract, No. Idm-E707 (Docket No. DMEA-3180), was added, making the total amount due the Government under the two contracts $23,845.87.

purport?

The object of the exploration program was to test for possible tungsten occurrences of scheelite disseminated in tactite, hornfels, and silicified limestone, and in thin veinlets along fractures and bedding planes in faulted segments of a limy member of a shale formation which has been tilted and intruded by granite and partly covered by volcanic rocks of probable Tertiary age. The program employed drifting, crosscutting, and long-hole drilling on the No. 4 adit level of the Hilltop mine to explore the mineralized zone.

The contract provided for 900 feet of drifting, crosscutting, and raising, 300 feet of drift, crosscut, and raise timbering, 600 feet of long-hole drilling, and assaying 100 samples for tungsten. Work completed comprised 900 feet of drifting and crosscutting, 189.5 feet of drift and crosscut timbering, 600 feet of long-hole drilling, and assaying 48 samples for WO_3 (tungsten trioxide).

43683

Tungsten ore discovered by project work is estimated as about 8,000 tons of measured and indicated ore averaging about 1 percent tungsten trioxide.

Sincerely yours,

Frank E. Johnson (for)

Acting Director

Enclosure

SPHolt/gla 7-29-59

cc to: Director's Reading File
Mr. Johnson
Operating Committee
Div. of Contract Adm. & Audit
OME Field Team, Region II (2)
R. W. Holliday, USBM
H. Kirkemo, USGS
Mr. Holt
Docket
Chron

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

SEATTLE
NOV 26
10 PM
9 1962
WASH.

POSTMARK OF DELIVERING OFFICE

INSTRUCTIONS: Fill in items below and complete #1 on other side, when applicable. Moisten gummed ends and attach to back of article. Print on front of article RETURN RECEIPT REQUESTED.

RETURN TO

REGISTERED NO.	NAME OF SENDER
598440	Minerals Exploration, Dept. of Intr
CERTIFIED NO.	STREET AND NO. OR P. O. BOX
	WASHINGTON, D.C.
INSURED NO.	CITY, ZONE AND STATE

POD Form 3811 Jan. 1958

C55—16—71548-4

#1-INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☐ Show address where delivered

(Additional charges required for these services)

RETURN RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

DATE DELIVERED	ADDRESS WHERE DELIVERED *(only if requested in item #1)*
NOV 26 1962	

C55—16—71548-4 GPO

4795

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

April 16, 1959

OFFICIAL FILE COPY
O M E
RECEIVED APR 20 1959

DATE	INITIALS	CODE
4/20	C	220
4/21		150
4/24		130
4/27		220
		110
4/30		800
		400

Memorandum

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

From: Executive Officer, OME Field Team, Reg. II

Subject: Docket No. DMEA-4795 (Tungsten)
Contract No. Idm-E 1158
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

Enclosed are three copies of our final report on subject contract by B. H. Sheahan, Bureau of Mines, and R. M. Smith, Geological Survey. I agree with the recommendation that a Certification of Discovery is in order.

S. Ricker

Attached

Reviewed by
OME OPERATING COMMITTEE
4-21-59
(date)

Dodat 4795 -
Tungsten Mtn Mng. Co

New system requires us to tell someone about the Ore reserves - Chamberlin ?

Told Wingie
8,000 tons, meas. + Indicated
Av. 1% WO_3
= 8,000 units
S. Pitt
3/10/59

APR 20 10 52 AM '59

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 20 1959

DATE	INITIALS	CODE
4/21	JB	130
		220

F.T. Final Report

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

FINAL REPORT

DMEA-4795, Contract Idm-E1158 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

by

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

R. M. Smith
U. S. Geological Survey

March 14, 1959

Reviewed by
OME OPERATING COMMITTEE
4-21-59
(date)

INTRODUCTION

Summary:

The Hilltop mine or Tungsten Mountain mine, Churchill County, Nevada, was explored by Tungsten Mountain Mining Company, 511 Securities Building, Seattle 1, Washington in cooperation with the Defense Minerals Exploration Administration, Docket DMEA-4795, under Contract Idm-E1158, dated December 3, 1957. A provision of the contract provided for repayment of Government participation under Contract Idm-E707 (Docket DMEA-3180), dated September 13, 1954.

The purpose of the project was to explore for tungsten ore in the downward continuation of tactite bodies that had been exposed as a result of exploration by the Operator, a small part of which had been done with Government assistance (DMEA-3180, Contract Idm-E707).

Exploration was started December 3, 1957 and was completed January 31, 1959. The Operator's final report was received February 28, 1959. Expenditures under this contract were $31,218.50, of which Government participation at 75% was $23,418.88. Under the prior contract, expenditures were $576.00 and the Government's participation at 75% was $432.00.

An examination of the property to evaluate the exploration was made March 18, 1959 by B. H. Sheahan, U. S. Bureau of Mines and R. M. Smith, U. S. Geological Survey, accompanied by Arthur Lakes, agent and consultant for the Operator.

last exam of record

Work completed under the contract consists of 900 feet of drifting and crosscutting, and 600 feet of long hole drilling on the No. 4 adit level. Scheelite bearing tactite was discovered by the work which partly delineated several faulted segments of an ore body for 630 feet along the strike. Ore reserves discovered by the project are estimated to be 8,000 tons averaging 1 percent WO_3. Production may not be economically feasible in the near future because of the low price of scheelite concentrates.

note SP

Recommendations:

Certification of a discovery is recommended.

Although the work was successful and was well done, the target area has not yet been completely explored. Additional exploration on the same level for another faulted segment of ore south of the No. 4 adit is warranted. Additional exploration below the No. 4 adit is also warranted, and further Government assistance, if requested, should be given favorable consideration.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The Hilltop mine is in the Clan Alpine mining district, near the summit of the east flank of the Clan Alpine range at altitudes of 6,600 to 6,900 feet in Sec. 16, T. 21N., R. 38E., M. D. B. & M., Churchill County, Nevada.

To reach the property from Fallon, Nevada, travel east 58 miles on paved U. S. Highway 50 to Eastgate, then north 28 miles on an improved county road in Edwards Creek Valley, turn left near the Byers ranch and follow the Stone Gulch road 7 miles northwesterly to the mine. The last 3 miles of this access road has 15% grades. Snow storms often block travel to the mine area during winter months.

A small cabin and a trailer house at Byers ranch were used to accommodate the exploration crew of six men. Labor, supplies, and equipment are available at Fallon or at Reno, Nevada. Water is available at Stone Gulch and at the ranch. Power is supplied by diesel and gasoline driven engines.

THE PROPERTY

History and Ownership:

The initial tungsten discovery was made by G. G. Staggs and A. J. Quilici and the Hilltop claim was located November 25, 1951.

It was sold to Bennett W. Porter in the spring of 1953. An overriding 5% royalty, which had been retained by one of the owners, was purchased by Mr. Porter on August 25, 1955.

An application, DMEA-3180, submitted in November, 1953, requested assistance to construct 9,050 feet of roadway, surface trenching, and drifting. A field examination disclosed that most of the proposed work was already completed. An amended application dated April 21, 1954 requesting exploration assistance was approved and resulted in Contract Idm-E707, which was terminated July 23, 1956.

Tungsten Mountain Mining Company was incorporated in Nevada in 1954. Officers of the company are: Bennett W. Porter, President; Emil Mottman, Vice President; Raymond G. Rayne, Treasurer; and Freda Mills, Secretary. The corporation owns 21 unpatented lode mining claims, one unpatented placer claim, and one mill site.

Land included in the contract area was confined to four unpatented lode mining claims:

Name of Claim	Book	Page
Hilltop	26	314
Porter No. 1	27	67
Artel No. 1	28	173
Heidi No. 1	27	142

Development:

The mine is developed to a depth of 275 feet by four adits. Total footage of drifts, crosscuts, and raises amount to 1,800 feet. Surface trenches total about 8,500 feet in length.

The main workings include the No. 1 adit, elevation 6,900 feet; No. 2 adit, elevation 6,875 feet; No. 3 adit, elevation 6,823 feet; and No. 4 adit, elevation 6,676 feet. All workings are accessible and in good condition except No. 2 adit. Most of the workings have required very little timber for ground support.

Production:

Mining was started in 1953 after completion of an access road to the No. 1 adit. Several shipments of high-grade tungsten ore were made to custom mills in Nevada and California. Shipment records compiled by the Operator follow:

Dry Tons Sold	Net Units WO_3	Grade Percent WO_3
384.95	715.47	1.86
535.06	828.16	1.86

There has been no ore shipped from the property since late 1955. Development work during the 1957 season disclosed ore in the No. 3 adit. About 900 tons of ore that was mined has been stockpiled.

GEOLOGY

Geologic Setting:

The Hilltop mine is near the crest of a prominent spur on the east side of the Clan Alpine range. In this area the oldest and most abundant rock is a shale unit, limy near the top, that has been tilted and intruded by granite and partly covered by volcanic rocks which have been completely eroded in the immediate vicinity of the mine.

The shale unit occupies the center of the range, is 2,000 feet or more thick, thin-bedded near the base, but is thick-bedded to massive mudstone near the top. In the upper part of the mudstone, a stratum 75 feet or less thick contains limy shale and a few lenticular limestone beds. These beds are a few feet thick, a few tens of feet

long, are discontinuous and en echelon, but are confined to the 75 foot stratum. The granite crops out on the east flank of the range east of the shale in an irregular stock about 4,000 feet across. It ranges in composition from granite to granodiorite.

North and west of the mine area the sedimentary and intrusive rocks in the center of the range are overlain by andesite and rhyolite tuffs, flows, and agglomerates in strata that strike north and dip gently west. From their attitude the volcanic rocks are inferred to be Tertiary in age.

Near the contact of the sedimentary rocks with the granite, the shales are metamorphosed to argillite and hornfels, and the limy beds are marbelized, silicified, or metasomatized to tactite, the host rocks of the tungsten minerals.

The sedimentary rocks have been tilted 40° - 70° E. and comprise a large homocline which strikes generally north. They are cut by faults, more numerous near the granite contact, along which the strata are rotated. Bedding faults are common, but steep northeast-trending normal faults of 1-60 feet displacement are prominent underground because the mineralized strata are offset by them.

One reverse fault that strikes N 30° W and dips about 15° NE, and has a dip slip of about 60 feet, displaces the limy strata in the mine area. This fault is exposed only in Adit No. 2. In the hanging wall of this fault, in Adit No. 1, and on the surface, the sedimentary rocks have been folded, or faulted, into an open syncline which plunges eastward. Below this fault (fault A, Fig. 2) in Adits No. 3 and No. 4 there is no evidence of this fold.

The limy stratum crops out for a strike length of about 900 feet in an embayment in the granite. As the stratum dips east and the contact dips west, the stratum is inferred to be cut off at depths ranging from 50 feet near the north end to 800 feet near the center.

Ore Deposits:

The ore bodies are faulted segments of scheelite-bearing tactite lenses from a few inches to 15 feet wide along several bedding planes in a limy stratum 75 feet wide and 900 feet long that may extend down the dip as much as 800 feet. A little ore occurs also in thin discontinuous stringers in hornfels adjacent to tactite.

By far the most abundant gangue mineral in the tactite is quartz, but pyrite is common, especially in the better grade ore. Garnet and epidote are locally abundant. Molybdenite in small amounts is commonly in tiny fractures with pyrite.

The ore minerals are scheelite and small amounts of powellite which occur principally disseminated in tactite, silicified limestone, and hornfels, but occur also as thin veinlets along fractures in all of these rocks. Individual crystals of scheelite range in size from microscopic to half an inch across, but the most abundant size is about 1/16th inch. The ore averages about 1 percent WO_3 but contains as much as 4 percent WO_3.

Several parallel or en echelon mineralized beds within the limy zone are indicated by the drifts, crosscuts, and drill holes, but in only one of these beds has ore in commercial widths been found. The largest ore body is explored by the upper levels - Adits No. 1 and No. 3 - where its indicated size is about 200 feet in diameter and 5 feet thick. It averages about 1.6 percent WO_3. Three other ore bodies, each in a different fault segment of the mineralized stratum, are explored by Adit No. 4 and were found to have strike lengths of 120, 150, and 70 feet. Because the fault segments rake steeply, (see longitudinal section, Operator's final report) the dip length is inferred to exceed the strike length, but the ore bodies have not been delineated in the dip direction. On the No. 4 level they average 3 to 4 feet thick and about 1.1 percent WO_3.

Other ore bodies are inferred south of the No. 4 adit along the strike of the mineralized stratum, and still others are inferred below the No. 4 adit along the dip of the stratum.

None of the ore bodies have been mined. The ore that was shipped or stockpiled was derived from exploratory workings.

Ore Reserves:

In preparing his final report (February 28, 1959), the Operator estimated reserves of all classes between the surface and a plane 50 feet below the No. 4 (DMEA) adit to be 26,000 tons, averaging 1.4% WO_3. This estimate has been carefully checked and found to be reasonable. Of this reserve 8,000 tons of measured and indicated ore averaging 1% WO_3 was discovered directly by the DMEA work in three blocks, each partly above and partly below the No. 4 adit. It is the DMEA work also that suggests that of the entire mineralized zone only half the area can be inferred to be ore.

The Operator did not estimate the reserves more than 50 feet below the No. 4 (lowest) adit because there are no exploratory openings in that part of the ore-bearing stratum. The actual limits of ore at depth are not known, but judging from the geometry of the geologic setting, the entire ore-bearing zone may contain reserves on the order of 70,000 tons that averages about 1% WO_3. These reserves

are in fault segments of the diamond-shaped ore-bearing stratum. The segments are inferred to total 1,000 feet long, about 800 feet along the dip and to average 4 feet thick, half of which may be ore. A factor of 12 cubic feet per ton was used in making this estimate.

800 1000
800,000
4
2) 3,200,000
12) 1,600,000
133,000 Tons

THE DMEA PROJECT

The purpose of the project was to explore for additional scheelite-bearing tactite bodies at an elevation 147 feet below the No. 3 adit. Stage I of a two stage project consisted of 600 feet of drifting from a site northwest of the main workings. Stage I also authorized 600 feet of long hole drilling at approximately right angles to the drift. Results of exploration under the first stage warranted work under the Stage II consisting of 300 feet of drifting, crosscutting, or raising.

A starting point for the DMEA work in No. 4 adit was established 70 feet from the portal as of December 3, 1957 and the project was completed January 31, 1959. Exploration work under the contract is shown on attached map (fig. 3) and is summarized as follows:

Stage I	Authorized	Completed
Drifting size 5' x 7' in clear	600 feet	600 feet
Timbering	200 feet	189.5 feet
Long hole drilling	600 feet	600 feet
Assays for WO_3	60	48
Stage II		
Drifting and crosscutting size 5' x 7' in clear	300 feet	300 feet
Timbering	100 feet	0
Assays for WO_3	40	

Amendment No. 1, dated September 30, 1958, provided additional time for completion of the work. The time of the contract was extended from 8 months to 14 months from the date of the contract. The period for payment of royalty was changed to eleven years from the date of the contract or until December 3, 1968.

The company did 17 feet of crosscutting at its own expense.

Expenditures

Estimated total amount of contract	$32,200.00
Estimated Government participation at 75 percent	$24,150.00

Units, unit costs and total expenditures

Drifts and crosscuts	900 feet	@ $32/ft.	
Long hole drilling	600 feet	@ $ 1.50/ft.	
Timbering	189.5 feet	@ $ 7.00/ft.	
Assays for WO_3	48	@ $ 4.00 each	
Total expenditures:			$31,218.50
Government's share at 75 percent			$23,413.87
Government's share of expenditures Idm-E707			$ 432.00
Total amount of Government lien			$23,845.87

Unexpended funds	$ 981.50
Government's share of unexpended funds at 75 pct.	$ 736.12
Value of production during operations, subject to DMEA royalty	none

Equipment

Work performed under the contract was on a unit-cost basis and all equipment was furnished by the Operator.

Sampling:

Thirty-three check samples were taken by the Bureau of Mines engineers during the period of the contract. In addition, nine check samples were taken of stockpiled ore and exposures prior to the start of exploration work under the contract. Of samples taken by the Operator only 48 were charged to the contract.

The location of check samples by the Bureau of Mines are indicated on attached map (fig. 3) and a description of the sample assays follow:

Sample Number	Feet Width	% WO_3	Description and remarks
500	grab	1.46	Represents 160 tons in lower stockpile
501	grab	1.75	Represents 85 tons in lower stockpile
502	grab	0.20	Represents 650 tons in stockpile near portal of No. 3 tunnel
503	6.0	0.10	Tactite in lower road cut at No. 4 portal site
504	4.0	0.40	Tactite and argillite near No. 4 portal site
505	3.0	0.02	25-28 ft. point stub drift, No. 3 tunnel
506	6.0	2.17	Sulphide zone in tactite No. 3 tunnel
507	3.0	2.23	Tactite, south of raise No. 3 tunnel
508	3.0	0.03	Left wall end of No. 3 tunnel
563	6.0	0.85	Tactite No. 4 adit, Sta. 42 plus 23 ft.
564	7.0	0.32	Tactite No. 4 adit, Sta. 43 plus 9 ft.
565		0.46	Tactite No. 4 adit, Sta. 43 plus 16 ft.
569	7.0	1.73	Tactite No. 4 adit, Sta. 43 plus 30 ft.
570	3.0	2.12	Tactite No. 4 adit, Sta. 43 plus 36 ft.
573	4.0	0.17	Tactite No. 4 adit, Sta. 41 plus 10 ft.
574	5.0	0.79	Tactite No. 4 adit, Sta. 42 plus 17 ft.
575	2.5	0.09	Tactite No. 4 adit, Sta. 47 plus 20 ft.
576	2.0	0.01	Tactite, No. 4 adit, Sta. at P. O. B.
604	4.0	<0.01	Long hole 45 W, interval 36 to 40 feet. Sludge

Sample Number	Feet Width	% WO_3	Description and remarks
605	3.0	0.93	Long hole 45 W., interval 52-55 feet. Sludge.
606	4.0	<0.01	Long hole 43 E., interval 0-4'. Sludge.
745	4.0	0.05	Tactite at face No. 4 adit at P.O.B. plus 584 ft.
746	grab	1.96	Muck pile from face at 580 ft.
751	1.0	0.01	Tactite, west side of face at P.O.B. plus 615 ft.
752	2.0	1.39	Tactite, west side of drift at P.O.B. plus 590 feet.
753	2.0	1.32	Tactite, west side of drift at P.O.B. plus 602 ft.
754	1.0	0.03	Tactite, southwest side of drift at P.O.B. plus 552 ft.
755-766	48	<0.01	Twelve samples of sludge from Long hole 53A 4.0 ft. intervals. Scheelite reported by Operator.
767	2.0	2.49	Tactite. West side of drift at Survey Sta. 47 plus 45 ft.
768	2.0	1.26	Tactite. West side of drift at Survey Sta. 47 plus 10 ft.
769	2.0	4.10	Tactite and scheelite east side of drift, Survey Sta. 43 plus 45 ft.
770	2.0	0.03	Tactite with sparse scheelite east side of drift at P.O.B. plus 65 ft.

Sample Number	Feet Width	% WO_3	Description and remarks
827	grab	0.37	East half of dump No. 4 adit, tactite, limestone, etc.
828	grab	0.06	West half of dump No. 4 adit, tactite, limestone, etc.

Log of Long Hole Drilling

Drill hole locations are shown on attached map. The following is a summary of the results of the drilling.

Hole Number	Feet Depth	Remarks
42E	53	mostly meta sediments and granodiorite
43 W 2	52	meta sediments and limy rock
43 W 1	32	lost drill rods - meta sediments
45 E	56	mostly hornfels, sparse scheelite 27-28 feet. Bottom in granodiorite
45 W	55	meta sediments with sparse scattered scheelite and pyrite in tactite
46 W	32	tactite 0 to 12 feet with sparse scheelite, 12 to 21 feet hornfels, and 21 to 32 feet granodiorite
47 E	(22)	Lost drill rods. Hard meta sediments. Work not charged to contract
47 W	52	Soft meta sediments
48 E	50	Shattered mudstone. No scheelite
48 W	50	Shattered mudstone. No scheelite

Hole Number	Feet Depth	Remarks
50 E	50	Limestone and meta sediments
50 W	32	Meta sediments and fault gouge
53 E	38	Meta sediments. Sparse scheelite in fault gouge at 38 feet
53 A	48	Meta sediments. Sparse scheelite
	600 feet	

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA-4795
(Tungsten)
Idm-E1158

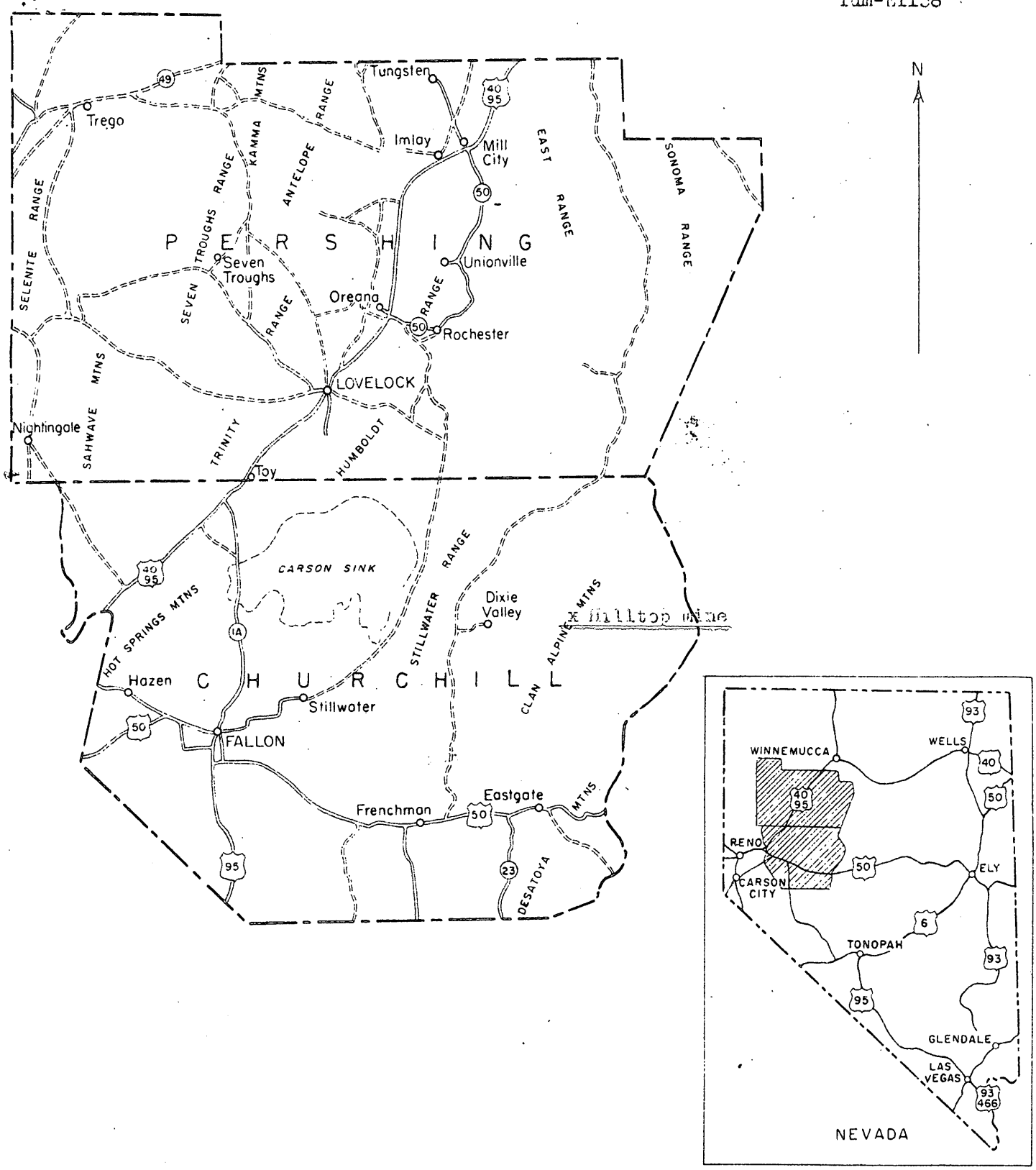


Figure 1. INDEX MAP OF CHURCHILL AND PERSHING COUNTIES, NEVADA

0 20 40 60 Miles

EA Form 7
2-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/16	G. McCarthy	800
3/16	Fallwell	800
3/16	C	220
3/17	WSM	400

MAR 16 1959

Via Air Mail

Memorandum

To: George Never, CMF Auditor

From: Jay L. Chambers
Contract Administration and Audit Division

Subject: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Contract No. Idm-E1158

Your Report of Review on the above referenced contract is acceptable and normal distribution is authorized.

(Signed) J. L. Chambers

GMcCarthy/GMcC
March 16, 1959

cc: Docket
Director's Reading File
Mr. Chambers

8623

OMSA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/9	Talbert	800
3/10	C	220
3/10	WSay	400

MAR 9 1959

Via Air Mail

Memorandum

To: George Mavor, OFE Auditor

From: Jay L. Chambers
Contract Administration and Audit Division

Subject: Docket No. DMA-4795 (Tungsten)
Tungsten Mountain Mining Company
Contract No. Idm-E1158

The three copies of your March 5, 1959, Report of Review on the subject project are returned herewith for further review and revision as may be required.

The last paragraph of your report states that $22,913.87 had been paid to the Operator. Our records indicate that only $21,982.87 has been paid.

By memorandum dated February 12, 1959, Mr. Ricker forwarded the Operator's final MF-104 to Mr. Sjolander with a request that $500.00 be withheld from payment pending release of your report of review. However, payment of this voucher, exclusive of the $500.00 withheld, is not listed in the Region II Finance Officer's February "Supporting Schedule for Monthly Report" submitted to the Bureau of Mines.

Accordingly, if the accepted costs of the project are correctly stated in your report, the amount paid to date and the balance due the Operator apparently should be $21,982.87 and $1,431.00, respectively.

Enclosures

EDTalbert/ama
March 9, 1959

Copy to: Docket
Director's Reading File
Mr. Chambers
Mr. Spangler Ricker

8623

OME

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

March 3, 1959

Memorandum

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

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

Enclosed are three copies of the Operator's final report on subject contract. The report was received on March 2, 1959 and fulfills the terms of the contract.

noted S.P.H.

S. Ricker

Attachments

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 6 1959

DATE	INITIALS	CODE
3/6	C	220
3/6	[illegible]	800
3/9	WSG	400

OPERATOR'S FINAL REPORT

ON

DMEA No. 4795 - Contract No. Idm E-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Arthur Lakes

February 28, 1959

Oper's Final Report

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 6 1959
DATE | MATERIAL | CODE

OPERATOR'S FINAL REPORT
ON
DMEA No. 4795 - Contract No. Idm E-1158
TUNGSTEN MOUNTAIN MINING COMPANY

This report is accompanied by following Maps:

Map "A" showing locality of property, access roads, other properties, towns. Scale 30-mi. to 1-in.

Map "B" showing claims and camp, Location in T21-N R 38-E MDM. Scale 1000-ft. to 1-in.

Map "C" General Geology and workings, Scale 100-ft. to 1-in.

Map "D" Plan showing work performed under Contract No. Idm E-1158 (yellow) and company work (blue) 40-ft. to 1-inl

Map "E" Plan showing details of showings, ore structures, faults, formations, assays. Scale 40-ft. to 1-in.

Map "F" Longitudinal Section showing ore disclosures, average assays, indicated ore tonnages. Scale 40-ft. to 1-in.

Property The property, known as Tungsten Mountain, comprising 21-unpatented mineral claims, 1-placer claim, and 1-millsite is located in northeast part of Churchill County, Nevada. The claims are in Secs. 21-22 and unsurveyed Secs. 15-16 of Township 21-North, Range 38-East, Mount Diablo Meridian. Contract Idm E-1158 concerns only Hilltop and Porter No. 1 claims which include workings and exploration project at No. 4 Tunnel as shown on Map "B".

Map "A"shows location of the property with relation to improved highways, supply sources, other scheelite sources, etc. The mine workings are 94-miles easterly from supply point at Fallon and are reached via: (1) 59-miles over U. S. Highway #50 to Eastgate, thence (2) 28-miles gravelled County road to camp at Byers ranch, thence (3) 4-miles over County road to millsite whence (4) it is 3-miles up good mountain road to main mine workings at No. 4 Tunnel.

Progress Exploration work under the Contract was confined to No. 4 Tunnel as mapped (Map "D"). Work began December 3rd. 1957 and was completed February 3rd. 1959 at termination of 14-months allowed by the contract.

The following work was completed:

(1)	Drifting	643-feet	@ $32	$20,576.00
(2)	Crosscutting	257-feet	$32	8,224.00
(3)	Longhole drill'g	600-feet	$1.50	900.00
(4)	Timbering	189½-feet	$7.00	1.326.50
(5)	Assays	48	$4.00	192.00
	Total			$31,218.50

Total authorized by the contract was $32,200. The $981.50 difference in the $31,218.50 expended is represented by 110½-feet of timbering @ $773.50 and 52-assays @ $208 which were unused.

Geology The area comprises a series of steeply tilted mudstones containing thin, lenselike, interbeds of limestone, the whole intruded by later granodiorite mass with dike "fingers" out and upwards into the older sedimentary rocks. The granodiorite deeply underlies the sedimentary rocks and engulfs them south and east as shown on Map "C".

The granitic intrusion folded and crumpled the overlying rocks and formed numerous faults, fissures, and shearage zones. In places the limey rocks have been altered to tactite thereby forming host rock for ore deposition, with a late phase of the granitic intrusion representing the source rock from which mineralizing solutions progressed upward and laterally to deposit scheelite in certain ore favorable localities shown on Maps "C" and "E".

The sedimentaries within the granodiorite "bay" form a syncline with undulating arms to NW and SE as shown on Map "C". The West arm extends north and northwest and contains most of present workings and most extensive ore tonnage. The South arm extends southeast towards east "bay" of the granodiorite and contains the richest ore extracted from No. 1 Level (See Map "E"). The West arm dips 55-70° in easterly direction whilst the South arm dips 75-80° northerly.

Faulting (Map "E") Faulting caused by the granitic intrusion and its later shrinkage has caused many minor strata displacements coursing and dipping in various directions from flat lying slips athwart formation dip, faults nearly parallel with formation bedding, and a series of crossing faults in central part of No. 4 Tunnel extending upward into No. 3 Level and north surface (Map "E"). Apparent ore enrichment under flat slips and ore clusters along northwesterly faulting indicates that they are both premineral. Ore vein offsetting by NE striking, south dipping cross faults proves them to be post mineral. The offset by individual post mineral faults amounts to a foot or more but the cumulative effect of the series disclosed in central No. 4 Level could amount to 60-feet of more.

The most prominent fault so far disclosed is "Fault A" opened at No. 2 Tunnel and extending @ 15° NE dip in a northwest direction between No. 1 and No. 3 Levels. It appears to have shifted area above to the west and north so that the possibly ore bearing South arm of the syncline will be farther south than areas presently penetrated by No 3 and No. 4 Tunnels (See Longitudinal Section "F").

Ore Occurrence (Refer to Map "E") As stated the most ore favorable host rocks are the limey formations comprising (a) Limestone altered to tactite, (b) silicified limestone, (c) altered limey argillite. Best ore grades have occurred (1) along steep shearage formed along South arm of syncline at No. 1 Level (2) the ore enriches where ore favorable host nears granodiorite (sta. 42 to 44 and between sta. 45 and 46 at No. 4 Level as shown on Map "E") Flat lying cross slips also locally enrich the ore though they apparently interfere very slightly with its upward (or downward) continuation.

Larger, but lesser grade, ore occurs along ore favorable limey rock bedding at contact with underlying, softer, barren argillite or hornfels. Increased ore width is also indicated by mergence of Structure "A" into Structure "B" followed by No. 4 Tunnel (See Map "E").

The best tungsten ore is liberally accompanied by iron pyrites whose sulphur content is detrimental to finished tungsten concentrates and has to be removed by roasting and magnetic separation. Abundant pyrites, whilst indicative of mineralization, is not sure indication of commercial scheelite occurrence. It is believed that the iron pyrites is a later mineralization into pre-existing scheelite vein or into localities barren of scheelite.

Description of Tungsten Mountain ore occurrences (Maps "C" & "E")

Surface on both arms of the syncline about 400-feet west from the outcrop of granodiorite. The ore occurs where hard tactite and altered limey rock host for the ore contacts softer underlying barren argillite or mudstone.

No. 1 Tunnel Ore occurs along both South and West arms of the syncline about 300-feet west from granodiorite outcrop. (1) For 80-feet NW along steep shearage coursing with formation of the South arm. Ore is very rich scheelite, high in silica and pyrite, in tactite wholly enclosed in limestone. (2) for 150-feet in northerly direction along ore favorable limey rock and tactite contacting softer barren argillite in West arm. Larger but lesser grade ore which extends beyond tunnel face.

No. 3 Tunnel Ore occurs about 270-feet west from granodiorite contact for 215-feet northerly along West arm of the syncline (in downward extension of No. 1 orebody interrupted by Fault "A"). The ore is rich and forms in ore favorable limey rock an tactite underlain by softer barren argillite or mudstone. At north part the vein is crossed by 10-foot granodiorite dike with rich ore beyond to the north 30-feet to where tunnel was turned off the vein. A series of cross post mineral faults starts here and extends down to central part of No. 4 Tunnel, 147-vertical feet below. Ore indicated to extend past north Tunnel face.

No. 4 Level where Contract Idm E-1158 started at 70-feet in from tunnel portal. This tunnel was preceeded by three ore showings, A-B-C, in cut 25-feet higher than tunnel floor. Cut A shows 4-feet of scheelite bearing, iron oxidized rock. Cut B shows 8-feet width of scheelite bearing, highly oxidized rock. Cut C shows about 1-foot of scheelite bearing rock close to granodiorite contact. It was decided to drive the tunnel on the largest central ore showing of "B" Structure and to longhole and crosscut "A" and "C" respectively.

In this respect it is timely to state that, though longhole drilling into both "A" and "C" presumed southerly extensions returned scheelite cuttings as noted on Map "E" subsequent crosscuts into these indicated showings failed to prove their existence: (1) 42-East Crosscut crossed wide ore from collar in, cut 4-feet of scheelite at 25-feet in, thence was in granodiorite that had two blobs of rich WO3 quartzy ore but no structure where the Hole 43-E indicated. (2) 45-X Crosscut driven

west under Drillhole 45-W entered granodiorite and provided only meagre sprinkling of scheelite at contact with granodiorite and barren argillite where cuttings from the hole indicated best WO3 values. It is believed that these scheelite cuttings came from one of the numerous flat lying 3 to 4-inch scheelite rich quartz stringers that cross main tunnel. However 45-X Crosscut encountered scheelite ore about 5-feet from its portal which subsequently (after termination of Contract) led the company to slab off west side of the original tunnel and run three crosscuts west. This work has disclosed from 3 to 8-feet widths of very good ore as shown on Map "E". Assays of five samples returned 1.03% WO3 average but later work lamps even better.

The drillholes indicated existence of southerly extensions of three ore structures (A-B-C). The subsequent crosscutting proves nonexistence of three structures and that (1) "A" Structure merges into "B" where the ore widens to 15-feet near sta. 42. Some additional exposure to prove "A" Structure's strike proves this contention. The puzzling occurrence of scheelite cuttings from 44-48 feet in Drillhole 43-W is probably due to intersection of a narrow scheelit rich quartz stringer similar to those exposed around sta. 45. (2) "C" structure does not exist where cuttings from Drillhole 42-E indicated but the crosscut shows good ore at contact with granodiorite (see Map "E") and some blobs or bunches of high grade scheelite (too restricted for commercial consideration) occurred in granodiorite away from the contact.

Ore disclosures at No. 4 Tunnel comprise an aggregate of 505-feet length out of 713-feet drift tunnel length, a very good showing and encouraging for consistent continuity upwards and below the tunnel level. The recent crosscut work at 45-X has proven noncontinuity of "A" Structure and that these ore disclosures are along "B" Structure as mapped on Map "E". The occurrences are as follows:

(1) 240-feet length from tunnel portal to crossing dike at sta. 44. Of this 160-feet length contains ore values varying from 0.23% to 5.5% scheelite, averaging 7½-feet width @ 1.26% WO3.

(2) 150-feet length newly disclosed ore from dike to cross fault series in central part of the tunnel (see Map "E"). Ore values vary from 0.25% to 2.5%, averaging 5-feet width @ 1.2% WO3.

(3) Thence 130-feet of barren tunnel that is off the vein to

(4) 90-feet length of ore varying from 0.2% to 2% WO3 averaging 4-feet width @ 1.36% WO3. The upraise being driven in this ore to connect with No. 3 Tunnel advanced 15-feet (@ company expense) with 5-feet rich ore at north and 4-feet rich ore at south, no assays yet. At the tunnel face is 20-feet length of 0.3% WO3 ore @ 5-feet width. This will be followed later.

"B" Structure starts at No. 4 Tunnel portal about 40-feet west of granodiorite contact and angles toward it until the structure is in close proximity of granodiorite from sta. 42 to sta. 47, a distance of 220-feet. The good ore in southern part of the tunnel between sta. 49 and midway stas. 51 and 52 is in exact downward projection of southern part of No. 3 ore structure and is indicated to be 150-feet or more west of downward projection of main granodiorite mass.

Ore values Average WO3 tenor of various ore blocks shown on Longitudinal Section "F" were determined by:

(1) Actual production and sale of 958-dry tons of ore that returned 1543-units WO3 @ less than 70% average mill saving. These returns represent 1.61% WO3 net or about 2.3% gross millhead value. The 1.61% WO3 represents a very conservative figure for calculating ore averages above and below No. 1 Tunnel Level.

(2) Sampling southern 70-feet of No. 3 Level returned 6-feet average width @ 2.25% WO3 and 145-feet northern extension returned average 4-feet width @ 0.95% WO3, making total 215-feet of ore length @ 5-feet average width @ 1.75% WO3. No. 3 orebody lamped closely with No. 1 orebody.

(3) No. 4 Tunnel's northern ore disclosures under unexplored surface to north of both No. 1 and No. 3 tunnel faces returned

(a) 150-feet length from 70-feet inside tunnel portal to cross dike at sta. 44 averaged 7½-feet width @ 1.24% WO3 and
(b) the next 155-feet returned an average 4-feet width @1.02% WO3. Recent work has shown wider ore with higher values, assays not yet received.

The next 130-feet of tunnel is off the vein. This area will be tested for ore in the indicated downward projection of No. 3 Tunnel's northerly ore extension.

(c) The southern part of the tunnel (sta. 49 past sta. 51) discloses 90-feet length averaging 4-feet width @ 1.36% WO3 in diwnward extension of No. 3 Tunnel's southern ore exposures. Fifteen feet of upraise started to connect No. 4 tunnel to No. 3 tunnel provided an average 4½-feet ore width of high grade not yet assayed.

(d) At south end of No. 4 Tunnel ore assaying 0.3% WO3 was encountered in SE extension of ore opened @ 0.25 to 0.4% WO3 by drillholes.

ORE ESTIMATE

Longitudinal Section "F" shows details of method to arrive at following preliminary estimate of ore tonnage probabilities and possibilities that should considerably increase when upraise connections and sublevel are run. Tonnage calculations have been modified by usual deductions where vein is disclosed at only one or two faces.

(1) Ore tonnage at surface dumps	From No. 3 Tunnel	From No. 4 Tunnel
	* 750-tons @ 1.75% WO3	1050-tons @ 1.20% WO3

* Probably stored before date of contract

Probable Ore
(Longitudinal Section "F") Between No. 3 Tunnel and surface

	Estimated tons	WO3 per ton	Units WO3
	9,236-tons	1.655%	15,296
Possible Ore			
(1) No. 3 to No. 4 Level	5,520-tons	1.50%	8,370
(2) No. 4 Level to surface	6,249	1.16	7,250
	11,829	1.32%	15,620
Ore Possibility			
To 50-feet below No. 4	5,387-tons	1.19%	6,400
Total Estimate	20,452-tons	1.41%	37,322-units
Ore on dumps	1,800	1.43%	2,572
TOTAL	28,250-tons	1.412%	39,894-units

Tonnage and values disclosed by Contract Idm E-1158 in which DMEA participates @ 5% royalty until repaid

	Estimated tons	WO3 per ton	Units WO3
(1) On No. 4 Tunnel ore dump	1,050	1.20%	1,260
(2) Possible Ore			
(a) No. 4 Level north	6,249	1.16	7,250
(b) No. 3 to No. 4 Level	5,580	1.50	8,370
(c) Ore possibility to 50-feet under No. 4 Level	5,387	1.19	6,406
Totals	18,266-tons	1.28%	23,286-units

Mining Methods The ore and enclosing rock between surface and No. 1 Tunnel has been widely disrupted by disturbance from Fault "A" which is located closely beneath No. 1 Tunnel floor. It is considered that this ground will be too unstable for underground method hence this block will be mined from surface down.

The ground between No. 1 and No. 4 Tunnels is stable with hard, steeply dipping (55° to 75°) hangingwall over softer footwall and most ore disclosed in No. 3 and No. 4 Tunnels stands without timber. The conditions provide satisfactory conditions for "shrinkage stoping" whereby most broken ore is left in the stope until the latter has been completed when all broken stope filling is withdrawn. Stee dips and firm hanginwall permit this stoping method with minimum dilution by slaughs. Shrinkage stoping is cheapest mining method and will be generally applied at Tungsten Mountain.

Contract Idm E-1158 progress in No. 4 Tunnel at 5-days per week was mostly on 1-shift basis due to limitations of ventillation in the dead end tunnel. Progress was also slowed by the procedure's exploratory nature into undetermined conditions ahead. Deeper level exploration would not be handicapped because of the information gained at No. 4. The work proceeded efficiently with results that have been eminently satisfactory as described herein.

Future Plans (1) The Company is proceeding with Upraise connecting No. 4 to No. 3 Level as shown on Map "E". The objective is for access, transportation, ventillation and it is expected that the upraise and subsequent intermediate levels will materially add to tonnage estimate. (2) The Company purchased a complete modern gravity-flotation mill designed to treat tungsten ore and to eliminate sulphur by roasting and magnetically treating concentrates. The plant, including steel building, was purchased at bargain and has been delivered to millsite 3-miles by road from No. 4 Tunnel portal as shown on Map "B". (3) The Company has located site for well for mill water supply and now is preparing Application to State of Nevada Engineer, Water Right Division.

The above about covers pertinent data relative to progress and results of Contract Idm E-1158 but we will furnish any additional data that may be required.

Reno, Nevada.
February 28, 1959

Arthur Lakes
Consulting Engineer & Agent
for TUNGSTEN MOUNTAIN MINING COMPANY

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 6 1959

DATE		CODE
3/6	C	220
		400

March 3, 1959

Memorandum

To: George Mavor, OME Auditor, Region II

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4795 (Tungsten)
Contract No. Idm-E 1158
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

Exploration authorized under the contract was completed in January, 1959. The contract expired February 3, 1959.

A final examination of the project will be scheduled as soon as weather and road conditions permit. A final report by B. H. Sheahan, Bureau of Mines, and Roscoe Smith, Geological Survey, is now in process and certification of discovery will be recommended.

Payment of $500.00 has been withheld from the Operator's vouchers of January 1959 until audit confirms allowable expenditures.

The Operator's final report was received and forwarded to the Operating Committee on February 3, 1959. Mar. 3, 1959 S.P.H.

Work completed in accordance with terms of the contract is:

Stage I:

Item	Authorized	Completed
Drifting-size 5 ft. x 7 ft.	600 ft.	600 ft.
Timbering	200 ft.	189.5 ft.
Long hole drilling	600 ft.	600 ft.
Assays for tungsten	60	48

Stage II:

Item	Authorized	Completed
Drifting and crosscutting	300 ft.	300 ft.
Timbering	100 ft.	0 ft.
Assays for tungsten	40	0

Work under the contract, not done by the Operator, consists of 110.5 ft. of timbering and 52 assays. This work was not considered essential by the Operator or the Field Team. The purpose of the project was achieved.

Under the prior contract, Idm-E 707, Docket No. DMEA-3180, 550 linear feet of surface trenches were excavated.

It is now in order for you to issue your Report of Review.

S. RICKER

S. Ricker

cc: Opr. Com., OME, Wash., D.C.
Finance Office, Reg. II
RMSmith
File
Chron

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 16 1959

DATE	INITIALS	CODE
2-16	C	220
2/17	EW	800
2/17	WSM	400

February 12, 1959

Memorandum

To: Lloyd Sjelander, Finance Officer, Region II

From: Executive Officer, OME Field Team, Region II

Subject: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

Enclosed are the final MF-104-MF-104A vouchers on subject contract. Please withhold $500.00 from payment until you are advised that the Operator's final report has been received and final audit report of review has been released.

S. Ricker

Attachments

SRicker:ft
cc: Opr. Com., OME, Wash., D.C.
GeoMavor
RMSmith
File
Chron

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

MAR 6 1959 OMEA

FEB 13 1959

Month of January, 1959 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash
Contract Amount, $ 32,200 Government Participation: 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY WSMy 9/59		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Longhole	$48	$852	$900			
Bulldozing						
Crosscutting 57½	1840	6,384	8,224			
Drifting		20,576	20,576			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timbering		1,326.50	1,326.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	20	172	192			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1908	$29,310.50	$31,218.50			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Feb 6, '59 Payee Tungsten Mountain Mining Co

Per Arthur Lakes Title Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

1431.00
500.00 HOLDBACK
$ 931.00

Signature Lloyd H. Solander
(Authorized Certifying Officer)
Authorized Certifying Officer

Date FEB 27 1959 Vou. No. SF-0415-23

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Km-E1158 accordance with the terms of the contract.

Signature B. H. Sheahan Title Mining Engineer Date Febr. 12, 1959

B. H. Sheahan

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date Febr. 12, 1959

S. Ricker

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form [illegible]104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1959 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Ft			$20,576		$32		
Crosscutting	Ft	$1840	57½	8,224	900	32	900	$28,800
Raising								
Shafts								
Winzes								
Drilling: ~~Exx~~ Longhole	Ft	48	32	900	600	$1.50	600	900
Churn								
Auger								
~~Sampling~~ Assaying		20	5	192	48	$4.00	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft			1,326.50	189½	$7.00	300	2,100
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$1908	94½	$31,218.50				

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

REMARKS:

Date Feb. 6, 1959 Operator Tungsten Mountain M Co

Per Arthur Lakes Title Eng. & Agent

NOTE.—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.

(Instructions on reverse)

(For Government use only) B. H. Shahan

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

January 1st. through January 31st. 1959

EXPLORATION CONTRACT PROJECT Idn P-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

Twenty three days work was performed from January 1st. through 31st. Tungsten Mountain's No. 4 Tunnel advanced 61-feet along 45-X Crosscut which advance exhausted the 57½-feet balance on DMEA authorization. Hole 46-W was drilled 32-feet SW from point 40-feet past sta. 45, thereby completing full longhole authorization.

The total authorized 900-feet tunnel footage and total authorized 600-feet longhole drilling was completed in January. Fifty two assays and 110½-feet of timbering were unused. These total $773.50 which deducted from authorized $32,200 leaves $31,218.50 total expended under Contract No. Idn P-1158. Full details will be included in Final report to DMEA which follows in a few days.

The 45-X Crosscut was driven under Hole 45-W to verify findings by cuttings from 36-ft. to 55-feet hole depth. The crosscut proved non-existence of WO3 rich structure in locality indicated by the hole cuttings. Sprinklings of WO3 (non commercial) were found in granodiorite under the hole. The following was disclosed by crosscut 45-X:

From	To	Disclosures
0-ft	6-ft	Tactite with some WO3 at 3 to 6-ft.
6	24	Black hornfels with few sprinklings of WO3, particularly at 14 to 16-ft. on west side of strong fault shearage striking S 30° E across crosscut at 10-ft. to 14-ft.
24	58	Granodiorite across the crosscut as shown on map Some sprinklings of WO3 in softened oxidized granodiorite from 53-ft. to 58-ft.
58	61	Black, massive hornfels, barren of WO3, strike S 30° E with 70° dip east.

The 45-X Crosscut results prove:

(1) That Structure "A" does not exist in ore in this vicinity despite assay returns from 0.3% to 0.9% by 45-W Hole cuttings. The sides and roof of crosscut and main tunnel in this vicinity show some flat lying WO3 rich veinlets. It is probable that Hole 45-W may have encountered and followed one of these (presently unexposed above crosscut roof) and that this veinlet salted the hole cuttings giving misleading results.

(2) However, the WO3 disclosures encountered in first 6-feet of 45-X crosscut and again west side of the strong fault at 14-foot point, provide important indications for continuation of Structure "B" that subsequent work described here has already proven important additions to Structure "B's" ore extensions and contents averaging 1.03% WO3.

(3) Indications are aht Structure "A" possibly junctured Structure "B" between sta. 41 and 42! In this event the WO3 cuttings

obtained from 44 to 48-feet points of Hole 43-W may represent an isolated WO3 occurrence of may also be "salted" by flat lying WO3 rich veinlets similar to those exposed in vicinity of 45-X and sta. 45.

The WO3 exposures at beginning of 45-X crosscut and just west of the fault that crosses this tunnel warranted further work by the company comprising (1) slabbing off the right hand wall of the tunnel from sta. 45 towards sta. 46 (see map). (2) driving a 9-foot crosscut across good ore opposite sta. 45 with following results:

Assays of ore exposures southerly from 45-x Crosscut

Width	WO3	Multiplied	
3-ft	1.6%	4.8	at sta. 45-X plus 5-ft southerly
6-ft.	1.5	9.0	Sta. 45-X plus 10-ft. southerly
8-ft.	1.2	9.6	Crosscut opposite 45 sta.
4-ft	0.25	1.0	27-ft. southerly from 45-X
3-ft	0.15	0.45	34-feet southerly from sta. 45-X

$\frac{24\text{-ft}}{5}$ equals 5-ft. $\frac{24.85}{24}$ equals 1.03%

This gives an average about 5-feet width @ 1.03% WO3

Hole 46-W located 38-feet southerly from sta. 45 was drilled 32-feet: 0 to 4-ft. tactite, very hard, 4-12 ft. tactite with cuttings good in WO3 (assays not yet received); 12-ft. to 21-ft. hornfels; 21-ft. contact with granodiorite which extends to 32-ft. end of hole.

The tunnel exposures and Hole 46-W prove previous suggestion that WO3 ore clusters along the strong fault that leads through 45-X Crosscut to and beyond vicinity of sta. 47 where strong ore was encountered in crosscut #47 and extends 55-feet along right side of the tunnel drift to faulted area shown on the map.

Full details of Project Idm E-1158 follow in Final Report which will follow in a few days and will include Maps, sections, ore estimates, and other pertinent data disclosed by the project.

Reno, Nevada
February 6, 1959

Arthur Lakes
Consulting Engineer for Tungsten Mtn.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

JAN 23 1959 O.M.E.

Month of December, 1958 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Washington
Contract Amount, $ $32,200 Government Participation: 75 % Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY (WSM 1/26/59)		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Longhole	0	$852.00	$852.00			
Bulldozing						
Crosscutting	$1216.00	5168.00	6,384.00			
Drifting	128.00	20448.00	20,576.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timbering	98.00	1228.50	1,326.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis		172.00	172.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1,442.00	27,868.50	$29,310.50			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Jan. 8, '59 *Payee Tungsten Mountain Mng. Co.,
Per Arthur Lakes Title Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$1081.50

Frances S. Horton
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date JAN 19 1959 Vou. No. SF-DMEA-19

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1158 in accordance with the terms of the contract.

Signature S. H. Sheahan Title Mining Engineer Date Jan. 8, 1959

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date Jan. 8, 1959

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 872893

Form MF-10A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

JAN 23 1959 M.E.

Month of December 1958 Docket No. DMEA 4795 Contract No. Idm E-1150
Operator's Name Tungsten Mountain Minigg Company Minerals Tungsten
Address 511 Securities Bldg. Seattle 1, Washington

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Ft	$128	4	$20,576	842½	$32	900	$28,800
Crosscutting	Ft	1216	38	6,384	"	"		
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole	Ft		0	852	568	$1.50	600	900
Churn								
Auger								
~~Stripping~~ Assays			0	172	43	$4	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft	98	14	1,326.50	189½	$7	300	2,100
TOTAL DISTRIBUTED COSTS		$1,442	56	$29,310.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

Date January 8 '59 Operator Tungsten Mountain M. Co.

Per Arthur LaBels Title Eng. & Agent

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only) B. H. Sheahan

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

December 1st. through December 31st. 1958

EXPLORATION CONTRACT PROJECT Idm. E 1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

Fifteen days work was performed from December 1st. through December 31st. because the mine was closed down December 19th. for the Holidays. Tungsten Mountain's No. 4 Tunnel advanced 42-feet along #49-54 drift-crosscut as shown on accompanying map. Fourteen feet of timbering, no drilling, no assays.

Total tunnel footage under DMEA Project was 842½-feet at end of December. Of this footage, 600-feet comprises drift sequence of Stage I and 242½-feet applies to drift and crosscut sequence of Stage II. This leaves for future exploration to be terminated February 3, 1959:

	Units	Dollars
Drilling	32	$48.00
Drift & crosscut	57½	1840.00
Timbering	110½	773.50
Assays	57	228.00
	257	$2,889.50

The 57½-ft. crosscut-drift balance is being applied to crosscut SW at Sta. 45 to test WO3 disclosures of Drillhole #45-W. This will extend 50-feet or more. If any balance left over will apply to proposed 20-feet extension of crosscut #45-E to permit longhole drilling to the granodiorite contact which objective was out of reach at Drillhole #45 E. It is proposed to use the 32-feet Longhole drilling balance to short test holes into NE wall of ore between sta. 43 and sta. 44. where very rich ore extends out into the drift wall.

The No. 49-54 crosscut advanced 38-feet past December 1st. face through hornfels, limy, and faulted rock, cutting across 12-feet of WO3 ore which is southerly extension of the WO3 disclosures of Holes #53-A and #53-E as shown on the accompanying map. The significance and importance of these disclosures was fully detailed in November report. They promise important WO3 additions by future development in No. 4 Tunnel and are , therefore, important for the future of this mine.

Reno, Nevada.
January 8, 1959

Arthur Lakes
Consulting Eng. for Tungsten Mtn. M. Co.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 15 1958

DATE	INITIALS	CODE
12/15	C	220
12/16	[illegible]	110
12/16	[illegible]	800
12/18	WSM	400

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date Dec. 11, 1958

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are three copies of Interim Report on

Docket No. DMEA-4795

Contract No. Idm-E 1158

Commodity Tungsten

Operator Tungsten Mountain Mining Company

Property Hilltop Mine

By B. H. Sheahan,
Mining Engineer

Dated Dec. 10, 1958

S Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: R. M. Smith, USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 15 1958

DATE	INITIALS	CODE

INTERIM REPORT

Dec. 10, 1958

Docket No. DMEA-4795 (Tungsten)
Contract No. Idm-E 1158
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

The project was inspected December 5, 1958 by B. H. Sheahan accompanied by Arthur Lakes, the Operator's agent and consultant. A crew of three men are now employed and the Operator plans to complete the exploration next month.

Since the previous inspection, October 8, 1958, the face of the adit was advanced 76.5 feet in nearly barren hornfels. Two long holes, 53A and 53E, were drilled eastward and intersected a segment of scheelite-bearing tactite from eight to sixteen feet thick which averaged 0.3 percent WO_3. The Operator is now crosscutting eastward to explore this tactite zone. The face of crosscut 42East was advanced 40 feet in tactite, hornfels, and granodiorite. Attached map shows work completed under the contract.

The status of the exploration work is tabulated:

Item	Work completed	Work remaining
Drifting	639 feet	88.5 ft. drift, dross-cut, or raise
Crosscutting	172.5	

(continued):

Item	Work completed	Work remaining
Long hole drilling	568 feet	32 feet
Timbering	175.5 ft.	124.5 ft.
Assays	43 for WO_3	57 for WO_3

Estimated expenditures to date $28,220.50
" Goat. Rch. " " 21,165.87

Twelve check samples were taken of cuttings from long hole 53A and four check samples were taken of scheelite-bearing tactite exposed by previous exploration. Results will be included with the next interim report.

At some time in the future, depending upon a favorable tungsten market, the company plans to construct a mill at a site three miles east of the mine near the mouth of Stone Gulch. Several second-hand pieces of milling equipment have been purchased and are stored at the mill site. Present reserves are probably insufficient to justify construction of a mill plant.

B. H. Sheahan

B. H. Sheahan,
Mining Engineer

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED DEC 10 1958 O.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1958 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle, Washington
Contract Amount, $ 32,200 Government Participation: 75 % Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	$129	$723	$852			
Bulldozing						
Crosscutting	1,328	3,840	5,168			
Drifting		20,448	20,448			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timbering	175	1,053.50	1,228.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	24	148	172			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1,656	$26,212.50	$27,868.50			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Dec. 4 1958 *Payee Tungsten Mountain M. Co.,

Per Arthur Lahey Title Eng. & Agt.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1242.00

Francis S. Horton
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date DEC 11 1958 Vou. No. 2F-0 mca-17

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 1m-E1158 in accordance with the terms of the contract.

Signature B. H. Sheahan Title Mining Engineer Date Dec. 4, 1958

B. H. Sheahan

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date Dec. 4, 1958

S. Ricker

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MR-101A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED DEC 16 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1958 Docket No. DMEA 4795 Contract No. Ion E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Washington

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Ft			$20,448	639	$32		
Crosscutting	Ft	$1,328	41.5	5,168	161.5	32	900	$28,800
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole	Ft	12 9/8	86	852	568	$1.50	600	900
Churn								
Auger								
~~Supply~~ Assays		24	6	172	43	4.00	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft	175	25	1,228.50	175½	7.00	300	2,100
TOTAL DISTRIBUTED COSTS		$1,656	158.5	$27,868.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

Date Dec. 4, 1958 Operator Tungsten Mountain M Co

Per Arthur Cohen Title Eng. & Agt

→ NOTE.—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.

REMARKS:

(Instructions on reverse)

(For Government use only) B. H. Shahan, Mining Engineer

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

November 1st. through November 30th. 1958

EXPLORATION PROJECT CONTRACT Idm. E - 1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From November 1st. through November 30th. in 18-days work Tungsten Mountain's No. 4 Tunnel advanced 41½-feet along 49-53 drift-crosscut. Twentyfive feet were timbered and 86-feet drilled in two holes (53-E for 38-feet, and 53-A for 48-feet) at south end of the drift-crosscut as shown on accompanying map. Six assays were made.

Total footage under DMEA project was 800.5-feet as of November 30th., of which 600-feet drift sequence of Stage I ad 200.5 feet applies to drift and crosscut sequence of Stage II. This leaves for future exploration allocated by Project Idm E-1158:

	Units	Dollars
Drilling	32-ft.	$48.00
Crosscutting & drift	99½-ft	3,184.00
Timbering	124½-ft	871.00
Assays	57	228.00
Total	313	$4,331.00

No. 49-53 drift-crosscut was advanced 41½-feet in mudstones striking generally S 45° E and dipping 65-70° NE apparently starting into south arm of the syncline that bends to S 65° E as shown at surface and No. 1 Tunnel (see map). At No. 1 tunnel this southern arm held much of the highest grade ore included in the 958-dry tons produced therefrom. As previously reported this section of the 49-53 working is on under (south) side of a cross fault "C" and the tunnel advanced in barren ground, mostly mudstone with two thin beds of limy rock.

Two drillholes were run easterly from the tunnel to test the possible extension of ore zone on the underside of Fault "C". Results were as follows: (See map for location of holes)

Hole No. 53-E advanced 38-feet to fault (?) gouge:

0-4-ft.	Fine grey, some LS no WO3
4-8	Coarse dark mudstone "
8-12	" " " "
12-16	" " " "
16-20	Dark Limy rock, some indication WO3
20-24	" " hard 0.3% WO3
24-28	" " " 0.5% WO3
28-32	" " " 0.25% WO3
32-36	" " " 0.25% WO3
36-38	Soft gougy material could not drill farther.

WO3 average from drill duttings 16-feet @ 0.33% WO3

Hole 53-A drilled alternately for farther test advanced 48-feet.

0-4-ft.	Coarse grey, chalky rock no WO3
4-8	Coarse black, slightly limy no ore
8-12	" "c " " " "
12-16	Coarse grey rock
16-20	" " "
20-24	Fine grey somewhat limy rock
24-28	" " " " " specks WO3 0.35% WO3
28-32	" " " " " 0.45% WO3
32-36	" " " " " some WO3 (to be sampled)
36-40	" " " " " " " "
40-44	" " " " " specks WO3 (to be sampled)
44-48	" " " " " fair WO3 indications to be sampled.

Eight feet thickness (24-32) averaged 0.4% WO3.

The drill holes indicate wider scheelite coursing about S 35° E on under side of Fault "C" about the same course as at southern part of No. 3 ore showing. These hole results fully warrant extending the crosscut into the ore to make it accessible for view and for further development. As previously reported there is strong reason for belief that the sludge samples from the drill holes reflect lower ore tenor than probably occurring in the ore beds but they are important in proving the existence of ore encouraging further exploration and development. The above results, subject to the previously described limitations, are considered highly important for the future of this No. 4 Tunnel level, as they have proven expetancies included in the October 1958 report.

Reno, Nevada
December 4, 1958

Arthur Lakes

Consulting Eng. for Tungsten Mtn. Co.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED NOV 20 1958

Month of October, 1958 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash. O.M.E.
Contract Amount, $ 32,200 Government Participation: 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY 11/24/58 WSG: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Longhole		723.00	723.00			
Bulldozing						
Crosscutting	1664.00	2176.00	3840.00			
Drifting	768.00	19,680	20,448.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber Lng		1053.50	1053.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis		148.00	148.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 2432.00	$23,780.50	$26,212.50			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov 6 '58 *Payee Tungsten Mountain M. Co.,

Per Arthur Lahey Title Eng. & Agt.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$1824.00

Frances S. Norton
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date NOV 1958 Vou. No. SF-DMEA-13

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1158 in accordance with the terms of the contract.

Signature B. H. Sheehan Title Mining Engineer Date Nov. 10, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature E. Ricker Title Executive Officer Date Nov. 10, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED NOV 20 1958 O.M.E.

Month of October 1958 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg. Seattle 1, Washington

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Ft	768	24	20,448	639	$32 (		
Crosscutting	Ft	1664	52	3,840	120	32 (	900	$28,800
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole	Ft			723	482	$1.50	600	900
Churn								
Auger								
~~Stripping~~ Assays				148	37	4.00	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft			1053.50	150½	7.00	300	2,100
TOTAL DISTRIBUTED COSTS		$2432	76	$26,212.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

REMARKS:

Date Nov. 6, 1958 Operator Tungsten Mountain M. Co.

Per Arthur Lakes Title Eng. & Agt.

→ NOTE.—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.

(Instructions on reverse)

(For Government use only) B. H. Shahan, Mining Engineer

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO. 872894

PROGRESS REPORT

October 1st. through October 31st. 1958

EXPLORATION PROJECT CONTRACT Idm. E-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From October 1st. through October 31st. Tungsten Mountain's No. 4 Tunnel advanced 76-feet, divided (1) 52-feet in crosscut No. 42-East and (2) 24-feet advance of Drift No. 49-50 (see Map). No samples were taken, no timbering and no longhole drilling.

Total tunnel footage under DMEA project was 759-feet to October 31st. of which 600-feet drift sequence of Stage I and 159-feet applies to drift & crosscut sequence of Stage II. This leaves for future exploration allocated by Project Idm E-1158:

141-feet of crosscut & drift
118-feet of longhole drilling
150½-feet of timbering if required
63 samples if required.

No. 42-East Crosscut This was extended 52-feet with following showings: 0-ft. to 10-ft. WO3 ore (to be sampled): 10-ft. to 18-ft. barren hornfels on left (north) with granodiorite on right (south): 18-ft. to 24-ft. WO3 on left (north) in sedimentary rock contacting granodiorite. The WO3 streak extends S 60° E across crosscut narrowing down to about 2½-feet in the granodiorite into which it extends. This ore extends NW in the sedimentary rock-granodiorite contact. From 24-ft. to face @ 52-ft. the tunnel is entirely enclosed in granodiorite in which occur some bunches of WO3 ore that lack indication of sufficient continuity for commercial possibilities. The tunnel was continued to the 52-foot length in chance that the granodiorite might be a dike with some sedimentary rock between it and main granodiorite mass. The indications are that the granodiorite showing in the tunnel represents downward continuation of the main mass exposed at surface.

The 32-44-foot points of Hole 42-E were not cut by the crosscut and the WO3 shown therein would be about 7-feet north and 4-5 feet higher than the crosscut roof as shown on Map. As stated this locality in the crosscut is entirely granodiorite hence the drill hole showing may be (1) one of the WO3 bunches noted in granodiorite or (2) it may represent contact of sedimentary "nose" obtruding into the granodiorite. A test hole will be run to prove whether this may be southerly end of a WO3 ore body of commercial possibilities in its noetherly extension.

No. 42-East Crosscut has proven up about 15-feet ore thickness at vicinity of # 42 station. It has also proven that the granodiorite's downward extension from surface protrudes westerly nearly to the main tunnel. A short drill hole should be run easterly from Sample # 7 locality to test (1) locality of contact with reference to the wide crossing granodiorite at sta. 44 (2) possibility that ore may here also widen. Conditions may prove that the ore showing from sta. 41 to sta. 44 is considerably wider than indicated by the drift where the NE wall shows WO3.

No. 49-50 Drift This advanced 24-feet from September 30th. face. Ore with limy east wall extends 6-feet to where cut off by a cross fault ("C") striking S 50° E and dipping 55° in NE direction. Thence under this fault for 18-feet to the face the ground comprises blocky black hornfels heavily mineralized by iron pyrites but devoid of WO3. The ore-favorable limy rocks extend along the east wall of drift to Fault "C" then give way to the hornfels. This, together with additional occurrence of Fault "B", suggests a shift to the east of the under side or southerly extension beyond the Fault "C". The hornfels have partings coursing S 30° E with dips 65° to NE. Work has not yet progressed far enough to determine if this course represents true bedding which could be turning towards the S 60° E course of southern synclinal arm at surface (see Map).

At 15-feet a strong fault gouge courses S 6° E and dips 40-50° easterly through the tunnel face. It is believed to be southerly extension of Fault "B" followed by main drift through sta. 49 and also coursing southerly about 20-feet west from ore drift 49-50 (see map). Its occurrence in the drift is believed to represent Fault "B" segment shifted about 9-feet easterly by Fault "C". If the Fault "B" relation to the ore showings from sta. 49 to Fault "C" the area about 20-feet east from the tunnel face should provide ore-favorable limy rock and WO3. The tunnel is turning easterly and a short drill hole will be driven to test the locality. Drillhole # 50-E continued in limy rock its entire 50-feet length hence is is probable that proposed exploration will encounter limy rock and hoped for WO3.

Reno, Nevada.
November 6, 1958

Arthur Lakes

Consulting Eng. for Tungsten Mountain Co.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date Oct. 10, 1958

OFFICIAL FILE COPY O. M. E. RECEIVED OCT 15 1958		
DATE	INITIALS	CODE
10-15	C	220
4	[illegible]	110
		800
10/16	WZM	400

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are three copies of Interim Report on

Docket No. DMEA-4795

Contract No. Idm-E 1158

Commodity Tungsten

Operator Tungsten Mountain Mining Company

Property Hilltop Mine

By B. H. Sheahan,
Mining Engineer

Dated Oct. 9, 1958

S. Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: R. M. Smith, USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 15 1958

DATE	INITIALS	CODE

INTERIM REPORT

Oct. 10, 1958

Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

The exploration from No. 4 adit was inspected October 8, 1958 by S. Ricker and B. H. Sheahan, Bureau of Mines, accompanied by Arthur Lakes, the operator's agent and consultant. A crew of three men are employed. Work under Stage II of the contract is now in process.

Amendment No. 1, dated September 30, 1958, extends the period of the contract to March 8, 1959. The operator expects to complete most of this work in a few months.

The status of exploration under the contract is tabulated:

	Work Authorized		
	Stage I	Stage II	Work to date
Drifting	600 ft.	300 ft.	615 ft.
Crosscutting	0		80
Raising	0		0
Long Hole Drilling	600	0	482
Timbering	200		150.5
Assays	60		28

Expenditures through September, 1958: $23,780.50.

Scheelite-bearing tactite exposed by 31 feet of recent drifting was sampled and results will be included with the next interim report. Samples from the No. 4 adit are listed:

Sample No.	Width feet	Percent WO_3	Remarks
563	6.0	0.85	
564	7.0	0.32	
569	7.0	1.73	
570	3.0	2.12	
573	4.0	0.17	
574	5.0	0.79	
575	2.5	0.09	
576	2.0	0.01	
S - 745	4.0	0.05	Face at 584 feet.
S - 746	Grab	1.96	Muck Pile
S - 751	2.0	-	Rt. side, Face at 615 ft.
S - 752	2.0	-	Rt. side 590 ft.
S - 753	2.0	-	Rt. side 602 ft.
S - 754	1.0	-	Rt. side 552 ft.

Exploration is being done in a satisfactory manner and results to date are encouraging.

B. H. Sheahan
Mining Engineer

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 10 1958

DATE	INITIALS	CODE
10/10	C	220
10/13	EEF	800
10/14	WSM	400

Oct. 7, 1958

Mr. B. W. Porter
Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Re: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

Dear Mr. Porter:

Enclosed is the operator's copy of Amendment No. 1 to subject contract. The amendment extends the completion date, which had expired on August 3, 1958. It was executed by your agent, Arthur Lakes.

Very truly yours,

S. Ricker
Executive Officer
OME Field Team, Region II

Attachment

SRicker:ft
cc: Opr. Com., OME, Wash., D.C. (2)
Finance Office, Region II
GeoMavor
RMSmith
File
Chron

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

Oct. 7, 1958

OME

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 10 1958

DATE	INITIALS	CODE
10/10	C	220
10/13	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-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

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

S. Ricker

Attachments

BUREAU OF MINES
WASHINGTON, D. C.
OCT 9 9 49 AM '58

Form MF-104 (Rev.)
(April 1959)

RECEIVED O.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1958 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg. Seattle 1, Wash.
Contract Amount, $ 32,200 Government Participation: 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling		$723	$723			
Bulldozing						
Crosscutting	1536	640	2,176			
Drifting	128	19,552	19,680			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber ing	35	1,018.50	1,053.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	32	116	148			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1,731	$22,049.50	$23,780.50			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Oct. 6 '58 *Payee Tungsten Mountain Mining Co

Per Arthur Rabes Title Eng. & Agt.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$1298.25

Frances S. Horton
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date Vou. No. SF-DMEA-10

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E 1158 in accordance with the terms of the contract.

Signature Benjamin H. Sheahan Title Mining Engineer Date October 6, 1958

Benjamin H. Sheahan

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date October 6, 1958

S. Ricker

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Sept 195 8 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Washington

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting		$128	4	$19,680	615	$32	900	
Crosscutting		1,536	48	2,176	68	32		$28,800
Raising								
Shafts								
Winzes								
Drilling: ~~Sorg~~ Longhole				723	482	1.50	600	900
Churn								
Auger		32	8	148	37	4.00	100	400
~~Stripping~~ ~~Assaying~~								
Trenching								
Test Pits								
Roads and Trails								
Timbering		35	5	1,053.50	150½	7.00	300	2,100
TOTAL DISTRIBUTED COSTS		$1,731	65	$23,780.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

Date October 6 '58 Operator Tungsten Mountain M. Co.

Per Arthur Lakes Title Eng. & Agt.

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only) Benjamin A. Shuhan, Mining Engineer

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

September 1st. through September 30th. 1958

EXPLORATION PROJECT CONTRACT Idm. E-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From September 1st. through September 30th. Tungsten Mountain's No. 4 Tunnel advanced 52-feet: (1) 48-feet in westerly Crosscut #48-32 and (2) 4-feet southerly extension of Drift #49-50 in continuation of good WO3 ore. Eight samples were taken on the ore showing in this drift, as detailed below. One timber set was put in at Crosscut #48-32.

Total tunnel footage under DMEA project was 682-feet up to September 30th., of which 600-feet completed drift sequence of Stage I and 82-feet applies to drift, crosscut & raising sequences of Stage II.

In accord with stipulations of Stage II an easterly crosscut has been started between stas. 42 & 43 to expose the ore shown by Longhole #43-E at two places: (1) 12-feet additional width of ore opened in the main tunnel drift and (2) an additional 12-feet of ore 20-feet farther in, presumed to be southerly extension of structure "C" as shown on map. The crosscut will approximate 50-feet length and the first "slab off" showed good ore considerably richer in WO3 than the drillhole cuttings.

Work in #49-50 drift, along downward extension of No. 3 Tunnel structure, was temporarily interrupted in order to extend Crosscut #48-32 which was run to explore possible northerly extension of the ore vein as indicated by downward extension of the strong No. 3 Tunnel structure. Two granodiorite masses were encountered about where this structure should be and possibly obscured it because only small low grade WO3 was found, none of which would be commercial. Further exploration will be conducted later but it was thought more important to resume drifting along the good ore at #49-50 drift where the following assays were gotten:

Sample #	Location	Width	WO3 %	Multiplied
491	sta. 49 plus 28'	2.5 ft.	0.30	.75
492	32'	5.0	0.30	1.50
493	38'	6.0	1.85	10.50
994	43	4.0	2.00	8.00
495-6	50	4.0	1.25	5.00
497	56	2.0	1.40	2.80
498	60 (L)	3.0	1.00	3.00
499	80	4.0	0.90	3.60
		30.5 / 8		35.15

3.8-feet width @ 1.15% WO3.

The face continues in good ore.

Reno, Nevada
October 6, 1958

Arthur Lakes
Consulting Engineer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-29	Holt	400
9-29	Martin	400
9-30	Chamber	800
9/30	GCS	130
"	Johnson	110
"	Stillwater	100
10/1	C	220
/		400

SEP 30 1958

Mr. Spangler Ricker
Executive Officer
OME FIELD TEAM, REGION II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4795 - Tungsten
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E1158

Dear Mr. Ricker:

In accordance with your recommendation of September 12, 1958, enclosed are the original and four copies of a proposed Amendment No. 1 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 this proposed amendment 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 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
ACTING Chairman, Operating Committee (SHB)

APPROVED:

Frank J. Cservenyak (SHB)
Member, Bureau of Mines

N. E. Nelson (SHB)
Member, Geological Survey

SPHOLT:foc 9-29-58
cc to: Director's Read. File
Oper. Comm.
FT. REG. II
R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

Enclosure

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-22	Holt	400
9-22	Martin	400
		140
		140

September 22, 1958

INTERIOR DEPT.
SEP 23 1958
SOLICITOR

MEMORANDUM

TO: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys, OME

Subject: Preparation of Amendment
Docket No. DMEA 4795 - Tungsten
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Ids-E1158

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, Chief
Division of Iron and Ferro-Alloys

Attachment

SPHOLT:foc
9-22-58
cc to: Chron File
Docket

RECEIVED
SEP 23 1958
ASSOC. SOLICITOR
MINERAL RESOURCES

8623

EXPLORATION PROJECT CONTRACT
TUNGSTEN MOUNTAIN MINING COMPANY
DOCKET NO. IMEA 4795

AMENDMENT NO. 1

HCB
9/25

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 Tungsten Mountain Mining Company, ~~hereinafter called the "Operator"~~, that Exploration Project Contract No. Idm-E1158 (Docket No. DMEA 4795), dated December 3, 1957, is amended, effective August 3, 1958, as follows:

1. In Article 1 of the contract the time for completion of the work is extended from "within 8 months from the date of the contract" to "within 14 months from the date of the contract."

2. In Article 6(b) of the contract the period for payment of royalty is changed from ten years from the date of the contract to eleven years from the date of the contract.

This amendment shall not be construed to increase the estimated total cost of the project, to increase the aggregate amount which the Government shall be required to contribute, nor to increase 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

TUNGSTEN MOUNTAIN MINING COMPANY

By_____

Exploration project Contract
Tungsten Mountain Mining Company
Docket No. DMEA 4795

AMENDMENT NO. 1

Justification

Mr. Spangler Ricker, Executive Officer, DMEA Field Team, Region II, in his memorandum of September 12, 1958, recommended that the time for completion of the work be extended from 8 months to 14 months from the date of the contract.

This Amendment No. 1 has been prepared to extend the time for completion of the work, and also extend the royalty repayment period from 10 years to 11 years.

This is no justification
give real reasons for
necessity of Tungsten
will show # in the
footer inclusive

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9-22	Holt	400
9-22	Martin	400
9/22	SCS	130
9/22	Johnson	110
"	Hollandsworth	100
9/23	C	220
		400

SEP 22 1958

T E L E F A X

Call Letters H C Q Charge to: 1490108, Salaries & Expenses, Office of Minerals Exploration, Interior 1959.

MR. SPANGLER RICKER, EXECUTIVE OFFICER, OME FIELD TEAM, REGION II
1605 EVANS AVENUE, RENO, NEVADA

WE ACCEPT YOUR MEMORANDUM OF SEPTEMBER 12, 1958, DOCKET NO. DMEA 4795, TUNGSTEN MOUNTAIN MINING COMPANY, AS CONCURRENCE IN B. H. SHEAHAN'S RECOMMENDATION OF AUGUST 15 THAT STAGE II BE APPROVED. PLEASE ADVISE OPERATOR WE ARE APPROVING AMENDMENT EXTENDING COMPLETION DATE AND REPAYMENT PERIOD.

George C. Selfridge
(esy)
CHAIRMAN, OPERATING COMMITTEE

SPHOLT:foc
9-22-58
cc to: Code 400
Director's Read. File
Operating 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

DMEA

9-15	C	220
		130
9/15	WSM	400

Sept. 12, 1958

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

Completion date on subject contract expired on August 3, 1958. This was inadvertently overlooked by this office.

The project has been very successful thus far and we recommend that the completion date, under Article I (a) of the contract, be changed to read "within 14 months from the date of the contract." This should be retroactive to cover work done in August.

During the winter months, appreciable working time was lost on account of inaccessibility to the property and difficulty in procuring miners.

S. Ricker

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Memorandum

Date: Sept. 26, 1958

1605 Evans Avenue
Reno, Nevada

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Operator's Monthly Progress Reports - Forms MF-104 and MF-104A

Attached are two copies of each of the subject report (s) received from the Operator as listed below. The report (s) has (have) been audited and passed to the Treasury for payment.

Contract No.	Operator	Report dated	Period covered
DMEA-4795 Idm-E 1158	Tungsten Mt. Min. Co.	9/5/58	August, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 30 1958

DATE	INITIALS	CODE
9-30	C	220
"	RG	110
10/1	WSG	400

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

cc: Regional Office, Region II
R. M. Smith
File

BUREAU OF MINES
WASHINGTON, D. C.

SEP 29 9 56 AM '58

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED SEP 30 1958 D.M.E.A.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August 1958 Docket No. DMEA 5795 Contract No. Ion D-1153
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511-Securities Bldg. Seattle 1, Wash.
Contract Amount, $32,200 Government Participation: 75 % Amount, $24,150

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Contracts: Short Form						
Drilling 71-ft	$106.50	$616.50	$723.00			
Bulldozing						
Crosscutting 22-ft	640.00		640.00			
Drifting 40	1200.00	18,272.00	19,552.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber Ing 10-ft	70.00	943.50	1,013.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment	28.00	88.00	116.00			
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2124.50	$19,925	$22,049.50			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Sept. 5'58 *Payee Tungsten Mountain Mining Co.

Per Arthur Lake Title Engineer & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1593 37

Frances S. Horton
Signature Authorized Certifying Officer
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-8

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1158 in accordance with the terms of the contract.

Signature Henry W. Jones Title Mining Engineer Date Sept. 5, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature E. Richard Title Executive Officer Date Sept. 5, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-101A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED SEP 30 1958 DMEA

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1958 Docket No. DMEA-795 Contract No. Idn-B-1153
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Ft	$1,280	40	$19,552	611	$32	900	$28,800
Crosscutting	Ft	640	20	640	20	32		
Raising								
Shafts								
Winzes								
Drilling: Core	Ft	106.50	71	723	482	$1.50	600	900
Churn								
Auger								
Assays		28.00	7	116	29	$4.00	100	400
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft	70.00	10	1,018.60	145	$7.00	300	2,100
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$2124.50	148	$22,049.50				

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

Date Sept. 5, 1958 Operator Tungsten Mountain M. Co.

Per Arthur Lakes Title Eng. & Agent

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

August 1st. through August 31st. 1958

EXPLORATION PROJECT CONTRACT Idm E-1158

Docket No. DMEA 4795

TUNGSTEN MOUNTAIN MINING COMPANY

From August 1st. through August 31st. Tungsten Mountain's No. 4 Tunnel advanced 60-feet, 40-feet southerly along drift #49-50 in rich WO3 ore, and 20-feet westerly in crosscut at sta. 48 plus 33-ft. as shown on accompanying map. Seventyone feet of longhole drilling, 10-feet of timbering and 7-samples complete DMEA project work for the month.

The total tunnel footage under DMEA project was 631-feet up to August 31st. of which 600-feet completed drift sequence of Stage I and 31-feet applies to drift, crosscut, upraise sequence of Stage II.

DMEA Team inspected the mine August 5th. and confirmed disclosure of downward ore extension in No. 4 Tunnel's #49-50 drift. At that time the drift was mostly in the hangingwall (east) of the vein and subsequent work provided additional ore to that shown in the face August 5th. Since then the tunnel has advanced along an average 4½-feet width of rich WO3 ore that lamps similarly to the high grade southerly part of No. 3 ore showing. A sample taken across 2-feet at July 31st. face assayed 4.7% WO3 with lower grade extension to 4½-feet vein width. Eleven samples along the drift have not yet been assayed and will be included in September Progress report. Obviously it remains for the assay results to confirm the No. 4 tunnel ore grade.

As previously reported, the most important exploration comprises determination of downward extension of the important No. 3 Tunnel ore structure at No. 4 Tunnel. The Drift #49-50 has so far disclosed about 65-feet ore length in downward projection of southerly part of No. 3 ore structure. These showings fall very close to locality projected down the observed dips at No. 3 Tunnel and it is indicated that the northerly ore extension beyond Fault "C" may occur in close vicinity of projected position.

On the above premise and in order to get away from disruptive conditions along Fault "C" a crosscut was driven westerly at 33-feet south from sta. 48 (see map) This is between cross fault "X" and cross dyke "Y" hence any mineralization encountred will represent downward extension of ore disclosed at north end of No. 3 Tunnel where high grade was encountered. The crosscut progressed in sheared mudstone, barren of iron or WO3 mineralization. It encountered northerly extension of cross dyke "Y" where some limy rock at August 31st. face shows FeS and specks of WO3, previously missing in the tunnelled formation. Whilst the showing is far from commercial possibilities, it is the first indication of WO3 in this vicinity and may indicate that the tunnel face is nearing downward extension of No. 3 Tunnel's northerly ore exposure. If and when the ore structure may be encountered it should be drifted NW and SE.

Fault "C", which is so strongly represented at No. 4 Tunnel, is apparently represented at No. 3 Tunnel by a narrow fault shearage

cutting obliquely across No. 3 Tunnel's strong high grade ore at sta. 104 (see map) This appears to offset the ore's northerly extension about 4 or 5-feet easterly but does not disrupt ore or rock in contrast with conditions at No. 4 Tunnel, if it is the same structure as indicated by its dip position.

When more data has been provided by extensions of No. 49-50 drift along southerly continuation of the ore, possibly into turn to the SE as at No. 1 Level (see map) and Crosscut #48 plus 33, an upraise should be started to connect No. 4 with No. 3 Tunnel. This raise will extend 165-feet up vein slope from No. 4 roof to No. 3 floor. It will serve four important benefits (1) Provide much needed ventillation to expedite work in No. 4 Level presently constricted by air blown in by vent fan, insufficient for adequately serving 2-shift operations at tunnel ends. (2) provide main access and passageway from No. 1 and No. 3 tunnels down to No. 4. (3) Importantly add to ore tonnage estimate. (4) Drift sublevel along the ore structure at 85-feet above No. 4 tunnel to facilitate subsequent stoping operations. Obviously wish to locate this upraise as near center of ore shoot as possible so as to run drifts both ways.

In addition to the above described work the following longhole drilling would be advantageous. (1) Two or more short holes westerly between sta. 45 and sta. 47 to test ore extension possibilities between drillhole #45-W and sta. 47, dotted on the map. (2) Drillhole NE from sta. 43 and possibly another from Sample #7 locality to test extension possibilities of ore encountered in NE part of Drillhole #43 E, indicated to be thick SE extension of weak "C" surface showing. Other work would comprise crosscut testing ore showings of Drillholes #43-W and #45-W as previously recommended.

Work precedence should be given to the two projects now underway by extending Drift #49-50 southerly to full limits of ore showing and by exploring the conditions west of main tunnel for ore occurrence and extensions NW and SE of crosscut #48 plus 33.

The success of Stage I fully justifies proceeding with Stage II with expectancy that the program will prove highly successful fully justifying the project.

Reno, Nevada
September 5, 1958

Arthur Lakes
Consulting Engineer for Tungsten Mtn.

COPY

NEVADA MINERAL LABORATORIES
336 Merrill Phone Reno 21001
Reno, Nevada
ASSAY CERTIFICATE

Tungsten Mountain Mining Company
By Arthur Lakes

August 28, 1958

No. Mark	WO3 Percent
8/7/58 50	4.70%
8/22/58	
51-E 16-20	None
50.D.D. 1-4	None
51-E 1-4	None
51-E 8-12	Trace
51-E 4-8	Trace
51-W 1-28	Trace.

Charges $47.00

Charles H. Young

Note By Arthur Lakes- The sampled parts of both drillholes were entirely in limey rock. Holes drilled to test thickness anf possible ore content of limey rock. No samples yet of 51-E between 20 and 43-feet where indicated another contact.

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date August 19, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 22 1958

DATE	INITIALS	CODE
8/25	J.J.G.	225
25	Com	100
"		100
8/26		800
8/26	WSM	460

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are three copies of Interim Report on

Docket No. DMEA-4795

Contract No. Idm-E1158

Commodity Tungsten

Operator Tungsten Mountain Mining Company

Property Hilltop Mine, Churchill County, Nev.

B. H. Sheahan, Bureau of Mines
By R. M. Smith, Geological Survey

Dated August 15, 1958

S. Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: R. M. Smith, USGS (~~w/copy of report~~)
Finance Officer, Region II (w/copy of report)
File

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINERAL DEPOSITS BRANCH
4 HOMEWOOD PLACE
MENLO PARK, CALIFORNIA

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 22 1958

DATE	INITIALS	CODE

August 15, 1958

INTERIM REPORT

To: S. Ricker, Executive Officer, DMEA Field Team, Region II

From: B. H. Sheahan, mining engineer, U.S. Bureau of Mines
R. M. Smith, geologist, U.S. Geological Survey

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop mine
Churchill County, Nevada
Contract Idm-E1158

The exploration project was inspected August 5, 1958 by B. H. Sheahan, U. S. Bureau of Mines, and R. M. Smith, U. S. Geological Survey. Work was discussed with Mr. Arthur Lakes, the operator's agent and consultant, who has requested that Stage II be approved. His maps which accompanied his July narrative were checked and found to be reliable.

The status of the project under Stage I of the contract is tabulated:

	Drifting (ft.)	Long-hole drilling (ft.)	Timbering (ft.)	Assays
Exploration authorized:	600	600	200	60
Work to date:	584	411	135.5	22

Expenditures through July 1958 . . . . . $19,925.00

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION II
RECEIVED

1953 AUG 13 AM 10:28

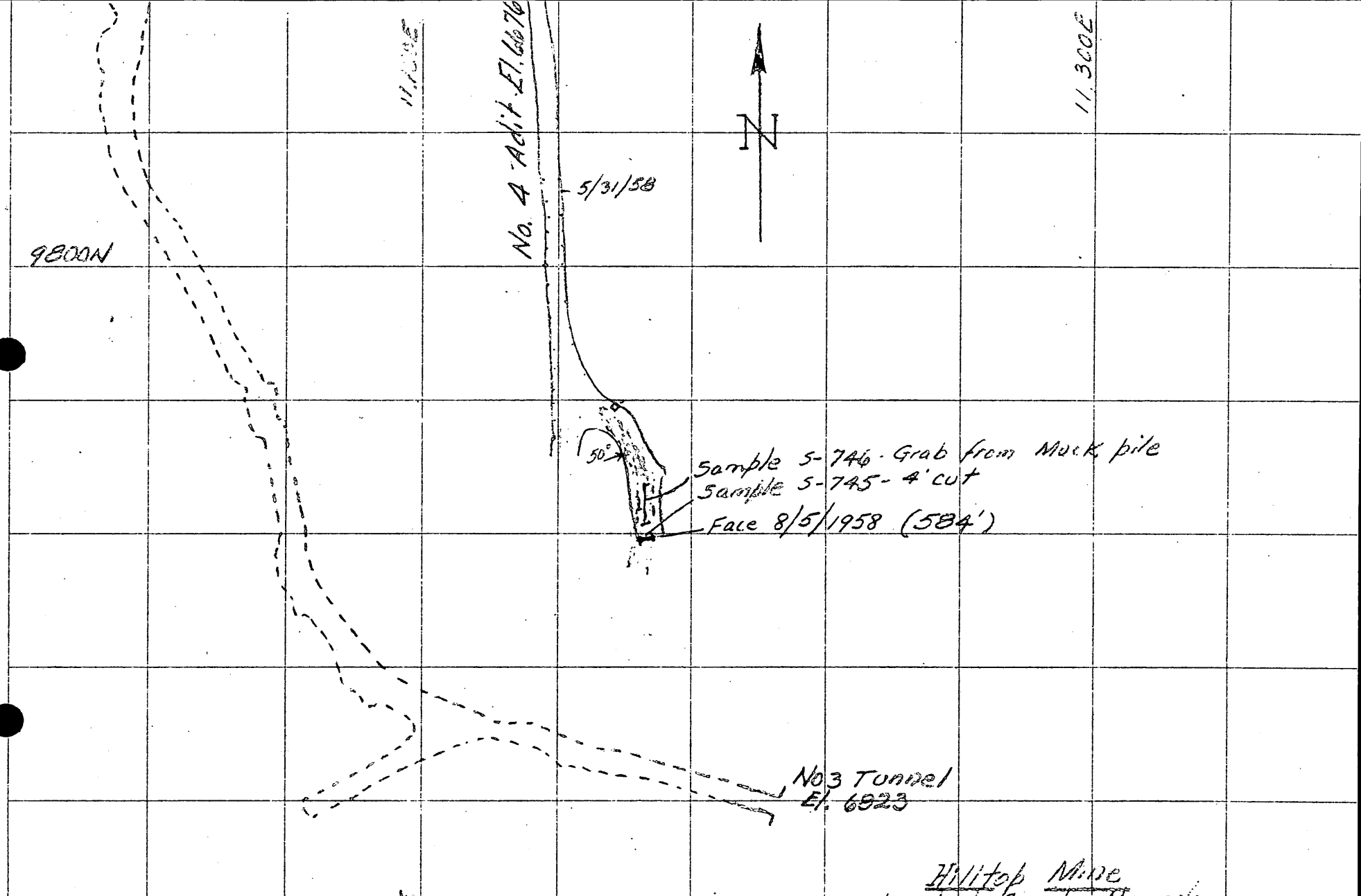
RENO, NEVADA

The target of the project is the downward continuation of scheelite-bearing tactite in a mineralized limestone bed exposed in No. 3 adit. The work in Stage I has discovered three faulted segments of this bed each of which contain ore bodies as indicated on the operator's July map. Two other smaller ore bodies in parallel beds were discovered by long-hole drilling. The last 40 feet of the work is along the third segment where the ore is from 1 to 5 feet wide as shown in the accompanying sketch. One sample was cut from the face and another was taken of the freshly blasted muck pile from the last round. Assays of these two samples have not been received but they are expected to confirm lamping estimates of 0.5 to 1.00 percent WO_3.

Exploration under Stage I has been successful and warrants proceeding with the second stage. We recommend that Stage II be approved.

B. H. Sheahan, mining engineer

Encl.



Note
Base from Company Map

Hilltop Mine
Churchill County, Nevada
DMEA 4795 (Tungsten) - Contract Idm E 1158

Sketch Map Showing Sample Locations
B.H. Shearer & R.M. Smith Aug 14, 1958
Scale 1" = 40'

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DMLA
RECEIVED AUG 22 1988

DATE	INITIALS	CODE

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED AUG 22 1958 D.M.E.A.

AUG - 8 1958

Month of July, 1958 Docket No. DMEA 4935 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash.
Contract Amount, $ 32,200 Government Participation: 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM 8/25: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	none	$616.50	$616.50			
Bulldozing						
Crosscutting						
Drifting 73½-ft	$2352.00	$15,920	$18,272			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timbering 40-ft.	280.00	668.50	948.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	none	88.00	88.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2632.00	$17,293.00	$19,925.00			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date August 5 1958 Payee Tungsten Mountain M. Co.

Per Arthur Stokes Title Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1974.00

Frances S. Horton
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date AUG 14 1958 Vou. No. SF-DMEA-2

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1158 in accordance with the terms of the contract.

Signature Glenn G. Gentry Title Mining Engineer Date Aug. 5, 1958

Glenn G. Gentry

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date Aug. 5, 1958

S. Ricker

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Oper[illegible] Un[illegible] and Progress Report.*—This is a stati[illegible]tures which shows costs for the [illegible] ty[illegible]eration; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED AUG 22 1958 D.M.E.A.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1958 Docket No. DMEA 4795 Contract No. Dom. E-1158

Operator's Name Tungsten Mountain Mining Company Minerals Tungsten

Address 511 Securities Bldg., Seattle 1, Wash.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Ft	$2352	73½	$18,272	571	$32	900	$28,800
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole	Ft	none	none	616.50	411	$1.50	600	900
Churn								
Auger								
~~Stripping~~ Assays		none	none	88.00	22	$4	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft	$280	40	948.50	135½	$7	300	2100
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$2632	113½	$19,925				

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

REMARKS:

Date August 5 '58 Operator Tungsten Mountain M. Co.

Per Arthur Jones Title Eng. & Agent

NOTE.—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.

(Instructions on reverse)

(For Government use only)

Glenn E. Fenton

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

July 1st. through July 31st. 1958

EXPLORATION PROJECT CONTRACT Idm E-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From July 1st. through July 31st. Tungsten Mountain's No. 4 Tunnel advanced 73½-feet of drift, 40-feet of which had to be timbered. The drift extended 33½-feet along strong N-S, 64° east dipping fault and 40-feet along S 32° E, 50° easterly dipping ore structure as shown on accompanying Map and Cross Section. This ore, starting as small patches near the fault, progressively improved to 5-feet width of good WO3 ore at July 31st. face. It is too soon to get assay result but our lamping experience indicates that this ore will exceed 1% with about 1-foot that should exceed 3% WO3. The ore is very hard-tough tactite heavy in iron sulphide. Tactite is listed under "limy rocks" in our various reports and on the maps and sections though it has been so much altered that it no longer gives reaction to acid. The ore occurs along contact of mudstone with overlying limestone, typical of the ore occurrences at No. 1, No. 3, and No. 4 (north) tunnels.

This disclosure is most important because it is the first exposure of No. 4 Tunnel's main objective into downward extension of the strong-rich No. 3 Tunnel ore structure. This No. 4 Tunnel ore falls within a few feet of where No. 3 Tunnels ore structure was projected on previous maps (shown in yellow on accompanying Plan map).

The tunnel has advanced a total of 571-feet under DMEA Stage I, therefore has 29-feet to go before Stage II. This should be reached the first week of August. The July 31st. ore face is 617½-feet from No. 4 Tunnel portal @ 170-slope feet depth below No. 3 Tunnel's ore.

The ore occurrence at, or in immediate locality of, contact between mudstone and overlying limy rock suggests that other known limy beds may have WO3 ore. This is indicated by occurrence of WO3 ore in longholes drilled into "A" and "C" structures (see Plat). As previously reported it is strongly indicated that WO3 ore widens and enriches within strata bends and particularly where the ore structure approaches granodiorite dikes extending up from and westerly from the main granodiorite mass (see Plat).

It is suggested that Stage II permit (1) drift extension along the recently exposed ore at south end of No. 4 Tunnel, both to the SE on presently exposed showings and to contact and drift on the NW ore extension in downward projection from No. 3 Tunnel ore body. (2) The NW extension possibly has been faulted somewhat from the SE showing hence it is recommended that (3) a westerly crosscut be run about midway May 31 and June 30 faces to get away from the disturbed fault zone followed in the main drift. Then longhole drill to the SW to cut the probable NW extension of the ore structure followed SE from sta. 49. It is believed that this work will be in more competent ground and expedite future exploration of the NW ore extension. (4) That crosscuts be run into the ore showings of longholes #43- and #43W to disclose the good ore indications and possibly considerably expand the ore showings of

No. 4 Tunnel (north). (5) Drill two or three holes westerly into ore indications suggested between Longhole #45W and station 47.

Reno, Nevada.
August 5, 1958

Arthur Lakes.

Consulting Engineer for Tungsten Mtn.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED JUL 23 1958

Month of June, 1958 Docket No. DMEA 4795 Contract No. Idm. E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg. Seattle 1, Washington
Contract Amount, $ 32,300 Government Participation: 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling 100-ft	$150	$466.50	$616.50			
Bulldozing						
Crosscutting						
Drifting 50-ft.	1600	14,320.00	$15,920.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber ing 45-ft.	315	353.50	668.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis 4	$16	$72.00	$88.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2081.00	$15,212	$17,293			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date July 5 *Payee Tungsten Mountain M. Co.
Per Arthur Dobbs Title Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$1560.75

Francis S. Norton
Authorized Certifying Officer
Signature (Authorized Certifying Officer)

Date JUL 17 1958 Vou. No. SF-DMEA-1

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1158 in accordance with the terms of the contract.

Signature Henry W. Jones Title Mining Engineer Date July 9, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date July 9, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 5 195 8 Docket No. DMEA 4795 Contract No. Idm E-1158

Operator's Name Tungsten Mountain Mining Company Minerals Tungsten

Address 511 Securities Bldg., Seattle 1, Washington

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Ft	$1600	50	$15,920	497½	$32	900	$28,800
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole	Ft	150	100	616.50	411	$1.50	600	900
Churn								
Auger								
~~Stripping~~ Assays	1	16	4	88.00	22	$4	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft	315	45	668.50	95½	$7	300	2,100
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								~~$32,000~~
Initial Rehabilitation and Repairs								$32,200
New Buildings, Improvements, etc.								
TOTAL COSTS		$2081.00	199	$17,293.00				

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

REMARKS:

Date July 5, 1958 Operator Tungsten Mountain M. Co.

Per Arthur Lebes Title Eng. & Agent

NOTE.—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.

(Instructions on reverse)

(For Government use only)

Henry W. Jones

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

June 1st. through June 30th. 1958

EXPLORATION PROJECT CONTRACT Idm E-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From June 1st. through June 30th. Tungsten Mountain's No. 4 Tunnel advanced 50-feet of drift along limy-argillite formation. Fortyfive (45) feet had to be timbered and roof lagged due to west dipping slips abutting into east dipping structure thereby forming an inverted "V" requiring timber support. Some water seeping down the structure added to cavy condition. June 30th. conditions showed improvement.

The tunnel has advanced 497½-feet under DMEA Stage I, therefore has 102½-feet to go before Stage II. The June 30th. face is 567½-feet from tunnel portal and is about center of downward projection of area containing No. 3 ore structure about 170-slope feet below No. 3 Level.

Longhole drilling totalled 100-feet in Holes #48-East and #48-West. Both holes progressed through shattered mudstone with some limy elements but failed to disclose observable WO3.

Showings The drift followed southerly along limy argillite and at 5-feet south of June 1st. face encountered a crossing granitic dyke about 8-feet wide, thence came in a strong sath striking, east dipping fault structure with some water but, to June 30th., no WO3. Branching out from this fault are SW striking, west dipping slips through blocky argillite. The inverted "V" juncture of these slips with the fault provided conditions requiring timbering as outlined.

During the month No. 3 Tunnel was mapped in detail and sampled at 15-foot intervals. Whilst this does not come under DMEA project the findings are contributory to conditions at DMEA project at No. 4 Tunnel as follows:

The assays showed: 215-feet length, 5-feet width @ 1.75% WO3 of which the northerly 145-feet by 4-feet width averaged 0.95% WO3 and southerly 70-feet by 6-feet average width returned 2.25% WO3. Whilst company funds permitted sampling only at 15-foot intervals, the results give a fair idea of ore at this No. 3 Level. Tungsten Mountain samples compare closely with results of the few samples taken by DMEA team last fall.

The mapping (@ 20-ft. per inch) showed: (1) That the ore occurs in tactite and altered limy rock overlying contact with softer mudstone (argillite and hornfels). The contact varies from N 25° W to North and is generally about 20° W. Contact dip varies from 45° to 55° in easterly direction, averaging 50°. Formational strike turns to about S 45-50° E at southern tunnel exposure thereby forming a synclinal fold similar to that prominently displayed at and over No. 1 Tunnel above the

flat Fault "A" that separates No. 1 Tunnel horizon from No. 3 Tunnel horizon. This southern arm dips about 70° northerly. (2) The north end of No. 3 Tunnel is crossed by an east-west granitic dike (marked "Y" on map) that fingered westerly off from the main granodiorite mass coursing SE through vicinity of No. 4 Tunnel horizon (see map). At 15-feet north from dike "Y" occurs the first (southernmost) of a series of east-west cross faults dipping from 65° to 85° in southerly direction. The series continues for 30-feet to tunnel face and indications at No. 4 level suggest that the series maintains an additional 40-feet or so crossing unexplored ground beyond the tunnel face. The faulting appears to premineral because good ore occurring between various fault members is firm and undisturbed. However the faulting would have offset the ore-favorable limy rocks. On presumption that the faulting is normal, the offset of ore and ore-favorable belt would be to the right or to west on the faults' upper sides. On this basis the ore extending 50-feet southerly from No. 4 Tunnel's sta. 47 (apparently top of rich ore lense) would be offset progressively to the west (right) as it progresses southerly between the various fault members. This would put the looked for ore farther to the right of tunnel face.

Fault "X" at No. 3 Tunnel falls exactly into position of the southernmost cross fault at No. 4 Tunnel also marked "X". The granitic dike at No. 3 level is 15-feet south of this fault and at No. 4 level is 25-feet south of this fault "X". I tentatively connect these dike structures into the same. On this basis the 215-feet length of ore at No. 3 Tunnel is bordered on the north (so far as exposed) by Fault "X" and presumably associated with dike "Y". The relative position of these structures at No. 3 and No. 4 tunnels gives a down ore rake to the south, whereby the downward projection of No. 3 ore structure would lie ahead to the south of Fault "X" at No. 4.

As noted the strata at No. 3 Tunnel averages 50° dip to the east. As previously noted, the strata and ore dips at No. 4 tunnel are from 70° to 85° in easterly direction. This would indicate a slight arch roll between the two levels. Average of 50° No. 3 dip with 70° No. 4 dip gives 60° downward projection of No. 3 ore structure to locality marked in red on accompanying map which would bring it west of June 30th. face. Obviously the dip down from No. 3 tunnel could roll steeper, in which case the vein at No. 4 would be farther to the west. On the other hand (in view of the marked horizontal folding of strata) the dip might roll flatter and thereby the vein projection would be east of June 30th. face.

Longhole drilling was designated to test the country each side of the tunnel. This has proven less than satisfactory despite that Tungsten Mountain got good WO_3 disclosure in 3 out of 8 holes drilled. The difficulty of recognizing WO_3 in the cuttings, its sliming characteristics accenuated by the hard enclosing tactite, etc. handicap sampling. Obviously crosscut tunneling would be much more favorable and provide data needed at this stage of ore search in the unexplored horizon.

Tungsten Mountain has about 100-feet of "drift" left under Stage I. Stage II calls for 300-feet of crosscut, drift, raise. Present conditions obviously call for east-west crosscuts across bedding and across strike of ore favorable structure. Whilst it is possible, of course, that southerly continuance of the drift would bring it into ore on basis of the down projection @ 60° dip, any steepening would lengthen the distance. It would better serve the exploration purpose if Tungsten Mountain could arrange to drive cross-cut tunnels at, or near, the next longhole locality 100-feet south of #48 drill holes or about 15-feet past June 30th. face.

Reno, Nevada
July 5, 1958

Arthur Lapes.
Consulting Engineer for Tungsten Mtn. Co.

Form MR-101 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

JUN 13 1958

Month of May, 1958 Docket No. DMEA 4795 Contract No. Idm. E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsgen
Address 511 Securities Bldg., Seattle 1, Washington
Contract Amount, $ 32,000 Government Participation 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY WSM		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Longhole	$316.50	$150	$466.50			
Bulldozing						
Crosscutting						
Drifting 50-ft.	$1600	$12,720	$14,320			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timbering 8-ft.	$56	$297.50	$353.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis 6	$24	$48	$72			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1996.50	$13,215.50	$15,212.00			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date June 5 '58 *Payee Tungsten Mountain M. Co.
Per Arthur Lakes Title Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1497.38

Frances S. Horton
Authorized Certifying Officer
Signature
(Authorized Certifying Officer)
Date JUN 16 1958 Vou. No. SF-DMCA-30
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E 1158 in accordance with the terms of the contract.

Signature John A. Maine For Henry W. Jones Title Mining Engineer Date June 11, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date June 11, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

m MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JUN 19 1958 D.M.E.A.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 195 8 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals
Address 511 Securities Bldg., SEattle 1, Washington

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Ft.	$1600	50	$14,320	447½	$32	900	$28,000
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole	Ft	$316.50	211	$466.50	311	$1.50	600	900
Churn								
Auger								
~~Stripping~~ Assays	1	$24.	6	$72.00	18	$4	100	400
Trenching								
Test Pits								
Roads and Trails								
Timboring	Ft	~~$52~~ 56.00	8	$353.50	50½	$7	300	2,100
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$1996.50	275	$15,212.00				

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

REMARKS:

Date June 5 '58 Operator Tungsten Mountain M. Co.

Per Arthur Lakes Title Eng. & Agent

NOTE.—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.

(Instructions on reverse)

(For Government use only)

John A. Maine

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A; it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

May 1st. through May 31st. 1958

EXPLORATION PROJECT CONTRACT Idm E01158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From May 1st. through May 31st., Tungsten Mountain No. 4 Tunnel advanced 50-feet of drift, 8-feet of which had to be timbered and roof lagged due to loose ground by cross faulting. It is planned to advance 20-feet farther into more stable rock, then resume long hole drilling which amounted to 211-feet during May.

The tunnel has advanced 447½-feet under Stage I of DMEA Contract to total 517½-feet from tunnel portal. Tunnel advanced 50-feet in 12-shifts inclusive of 2-timber sets.

Longhole drilling totalled 211-feet as follows:

Holes	#+3 East	53-feet in mudstones, limy rock, granodiorite
	#+3 West	32-feet, lost
	#+3 West	52-feet redrilled in mudstone & limy rocks
	#+7 East	22-feet lost in very hard rock
	#+7 West	52-feet in soft mudsontes.
		211-feet total

Showings The drift advanced through limy rock and mudstones. The first 30-feet was disrupted by cross faulting, last 20-feet the rocks are more stable and getting herder. The cross faulting is downward continuation of extensive fault zone occurring in, and beyond, northerly part of No. 3 Tunnel as shown on accompanying Map. Thus the ore bearing area presently opened in No. 4 Tunnel represents unexplored ground in sloped ground ahead of No. 3 Tunnel. A strong fault, 27-feet back from No. 4 tunnel's May 31st. face is parallel to and falls into position of downward extension of strong fault encountered between stas. 106 and 107 at No. 3 tunnel. The fault is marked "X" on the map and is indicative that No. 4 tunnel may have finally penetrated through the fault zone. Longhole drilling will start June 9th. to aid in determining position of expected downward continuation of No. 3 Tunnel's very good ore structure into No. 4 Tunnel horizon.

Longhole drilling @ 12° up slope has been limited to about 54-feet. The steel weighs 3.35# per foot length hence 54-feet would weigh about 180# which weight with friction of revolving sleeves against rock puts too much load on the drill ratchet to permit farther advance.

The longhole drilling produced following gratifying results:

Hole #+3-East drilled 52-feet, provided results as follows: first 12-feet extended "B" structure an additional 12-feet to total 16-feet width; drill results averaging 12-feet @ 0.18% WO3 which averaged with average 4-feet width of Samples #4 and #5 @ 1.77% WO3 gives 16-feet @ o.86% WO3 indicated average. The surprising 12-foot width of

ore averaging 0.38% WO3 from 32-44-feet hole length shows rapid and important thickening of "C" structure from 1-foot surface exposure 70-feet to the north into 12-feet of ore. Obviously another hole should be drilled easterly from vicinity of Sample #7 to test "C" structure in its SE extension near the large granodiorite cross dyke found at sta. 44 (See Map).

Hole #43 West passed through soft mudstones. The first hole was lost (with bit and drill rods) at 32-feet. A second hole advanced 52-feet, mostly through mudstone, encountering some limy rock with 0.58% WO3 from 40-44-feet, indicating southerly extension of "A" structure between surface exposure 210-feet north and indicated "A" structure encountered in #45 West hole, 90-feet southerly from #43 W hole.

Hole #47 East was lost at 22-feet in very hard rock. Bit and drill rods are still in hole. Another attempt will be made later but more important drill localities took precedence for time being.

Hole #47 West was drilled 50-feet through soft mudstone with no limy indications and no WO3 showings. This hole extended from face of No. 47 crosscut hence penetrated 70-feet westerly from ore believed to be in "B" structure. The negative limy rock and WO3 occurrences would indicate (a) lack of "A" structure in this vicinity but (b) the hole might have crossed through a pinch of ore-favorable limy rock (by pinch of lenticular limestone occurrences described in previous report) or (c) might have passed through a soft barren structure along "A" structure course which would only be evidenced by color change of discharge water, not noted by drillers.

The lack of WO3 showings or ore favorable limy rock in Hole #47 W poses presumption that the southeasterly extension of "B" structure (on which tunnel was driven from portal to granodiorite cross dike at sta. 44) might have been offset southerly at vicinity of the dike and that "B" structure's continuation southerly from the dike may be represented by (a) WO3 showings at 36 to 55-feet of #45 West drillhole, previously allocated to "A" structure, and (b) its farther SE extension from #45-W be allocated into the WO3 ore streaks encountered in No. 47 crosscut and thence by good ore grades disclosed along the west wall of No. 4 Tunnel for 40-feet south from sta. 47 to cross fault zone. This presumption is feasible except for the ore showing at 40-44-feet of #43 W hole. Another hole should be drilled westerly between #43-W and the dike's SW extension and still another drilled SW midway between sta. 45 and sta. 47.

Sampling As a commentary to sampling discussion of April report a sample of slime mud contained in water decanted from drill cuttings was assayed @ 0.15% WO3. It is the contention that the cutting assays fall short of the actual ore grades penetrated by the respective holes.

FURTHER PROCEDURE Primary attention during first part of June will apply to longhole drilling in endeavor to locate downward extension of No. 3 Tunnel ore structure. Good ore showings of No. 4 Tunnel and drill holes therefrom, and extension of high grade ore to cross fault zone all give reasonable expectancy that downward continuation of No. 3 Tunnel very good ore structure will be encountered, probably before the date of next report.

Reno, Nevada
June 5, 1958

Arthur Lakes
Consulting Engineer for Tungsten Mtn.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED MAY 20 1958 D.M.E.A.

Month of April, 1958 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash
Contract Amount, $ 32,000 Government Participation: 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Longhole	$150	None	$150.00			
Bulldozing						
Crosscutting						
Drifting 47-feet	$1504	$11,216	$12,720			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timbering 42½-ft	297.50	None	297.50			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis 4	16.00	32.00	48.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1967.50	$11,248	$13,215.50			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date May 6, '58 *Payee Tungsten Mountain M. Co.,
Per Arthur Lakes Title Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:
$1475.62

Signature Bernard S. Morton
(Authorized Certifying Officer)

Date MAY 21 1958 Vou. No. SF-DMEA-28

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm E 1158 in accordance with the terms of the contract.

Signature Henry W. Jones Title Mining Engineer Date May 9, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Licker Title Executive Officer Date May 9-1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED MAY 26 1958 D.M.E.A.

Month of April 195 8 Docket No. DMEA 4705 Contract No. Idm. E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting 47-ft	Ft	$150½	47	$12,720	397½	$32	900	$28,000
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole	Ft	$150	100	150	100	$1.50	600	900
Churn								
Auger								
~~Stripping~~ Assays	1	16	4	48	12	$4	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering	Ft	$297.50	42½	297.50	42½	$7	300	2,100
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								$32,000
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$1967.50	193½	$13,215.50				

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

REMARKS:

Date May 6 1958 Operator Tungsten Mountain M. Co
Per Arthur Lakes Title Eng. & Agent

NOTE.—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.

(Instructions on reverse)

(For Government use only)

Henry W. Jones

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

April 1st. through April 30th. 1958

EXPLORATION PROJECT CONTRACT Idm. E-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From April 1st. through April 30th. Tungsten Mountain's No. 4 Tunnel advanced 47-feet of drift-45-feet of which had to be timbered and roof lagged due to cross faulting. In addition 100-feet of Longhole drilling was accomplished in two holes; #45-E and #45-W shown on the accompanying Map together with results thereof.

The tunnel has advanced 397½-feet under DMEA contract to a total of 467½-feet from tunnel portal.

Thaw conditions and compressor repairs interferred with continuous underground operations hence only 12-rounds were blasted at average 4-feet per round in hornfels and limy rocks disrupted by a series of cross faults (shown on Map and accompanying Sections). Ground disturbance by the faulting necessitated 45-feet length of timbering from which we have deducted 2½-feet and put in for 42½-feet for DMEA participation because first set is a stull with no posts and second set has only 1-post.

The longhole drilling averaged 50-feet per 8-hour shift but was interrupted April 30th. by drill failure requiring replacement of minor parts before work resumption. The drilling is by a DB-30 piston drill for 1-1/8-inch steel.

SHOWINGS The drift was advanced in hornfels and limy rock. Thirtyfive feet drift length shows WO3 at floor and up for about 2-feet as dotted on Map. A sample to show better ore was taken at sta. 47 plus 54-feet. This assayed 2½% WO3 which is probably above the average at this section. The cross faulting in southerly continuation of the drift is downward extension of faults found at northerly face of No. 3 Tunnel as shown on accompanying Sections. Face is in disturbed limey rock that presently shows no WO3.

The April 30th. face is still 20-feet short of the 100-foot hole interval stipulated by Stage I of DMEA contract. It is further desitable to advance the tunnel past the ravelly ground of fault zone and thereby insure better longhole drilling. As previously noted,and depicted on accompanying Map, the downward dip extension of No. 3 Tunnel's ore structure would be from 35 to 40-feet west from No. 4 Tunnel's present face. This will be tested by longhole drilling and if found the tunnel will be swung into the projected position, leaving "B" structure which thereafter will be tested by long hole drilling east from the "A" structure. As previously stated there is possibility that presently undisclosed faulting between No. 3 and No. 4 levels might have offset No. 3 Tunnel ore structure into locality of "B" structure. However results of #45-W hole suggests likelihood that No. 3's downward extension will be in southerly extension of "A" structure.

Longhole Drilling @ 12° upwards provided the following results:

Hole #45-E, drilled 56-feet easterly from sta. 45 penetrated hard

quartzitic rock with slight limy reaction for 15-feet; thence to 28-ft. limy rock, thence 28 to 35-ft. mudstone, and from 35 to 55-feet grey to white limestone. At 55 yellowish gounge encountered and drill would not advance farther, believed to be at contact with granodiorite that extends to east. At 27-28-ft. some specks of WO3 indicate an ore streak. Not sampled for assay.

Hole #45-W drilled 55-feet westerly from sta. 45 towards projection of "A" structure. From 0-4-ft. some low grade WO3 part of thinly disseminated ore in tunnel. At 7-ft. soft gougy material. From 7-32-feet mudstones with slight limy reaction, From 32-36-ft. much iron sulphide and specks WO3 in limy mudstone. From 36-40-ft. limy mudstone, considerable iron sulphide and cuttings glow slightly under UV lamp (assay 0.35% WO3). From 40-44 limy rock with specks of WO3 and considerable iron sulphide (not assayed). From 44-48-ft. much iron sulphide and cuttings glow slightly under UV lamp, (assay 0.30% WO3) in limy rock. From 48-52-ft. harder rock brownish colore with limy reaction much iron sulphide some specks WO3 (not sampled for assay). From 52-55-ft. (where lost water and drill failed to advance farther) redish brown cuttings, limy reaction, much iron sulphide and golws under UV lamp. Assay 0.90% WO3. The WO3 showings of Hole #45-W fall within the southerly projection of "A" structure which will be further tested by holes from sta. 43, from near sta. 41, from end of crosscut 47, and ahead of April 30th face as described. The assays are considered highly encouraging as all indications are that the assays of drill cuttings will fall short of true WO3 content of material intersected which should run from one half more to twice the assay.

Sampling Longhole cuttings: In order to catch all cuttings a drain hole is drilled up into the test hole and a hose therefrom directs all cuttings into catch basin. Obviously the cuttings are chief objective of the drilling, hence speed is made secondary to uninterrupted hole progress, proper collection of cuttings, etc. The drill changes are at 4-foot lengths, hence the sampling etc. is divided into 4-foot sections and so reported. This is not absolutely accurate but is best procedure commensurate with expediency and it is held that 4-foot widths show workable size.

WO3 saving is deficient to an amount that cannot presently be calculated but could exceed 25% and might reach 50%. The following are reasons for this deficiency: (1) The tactite enclosing much of the better ore is quite hard and tough requiring a lot of drilling to make advancel The enclosed scheelite is much softer, very friable and disintegrates into powder form quite readily by abrasion. Thus the following product is made up of coarser rock cuttings accompanied by much finer powdery WO3 cutting @ 100-mesh or finer compared with possibly 15 to 30-mesh of enclosing rock, The tendency is for the scheelite to slime into a "milk" of WO3 particles @ 200-mesh or less held in suspension in water and lost by decanting the water from the solids. Some coarser WO3 might remain in the hole and not be washed out to sample.

The above explains failure of panning to determine possible WO3 content of cuttings. The damp cuttings glow faintly under UV lamp where WO3 is present and samples dumped onto drain board sometimes show a thin white halo around their base (under UV lamp). Whether this is iddicative

indicative of WO_3 content, partially settled from water, has not yet been determined because of time delay in getting assay returns.

FURTHER PROCEDURE Longhole drilling will continue at the 100-foot intervals stipulated under Stage I of CMEA contract. The southerly face of No. 4 Tunnel will be advanced until well out of the disruptive influences of the cross faults. Then long hole drilling will be conducted to the West to search out downward extension of No. 3 Tunnel ore structure as described.

The Longhole drilling is essentially to determine locality and existence of ore bearing structure. Similarly to most exploratory drilling it is not a sampling device and it is quite possible that holes might reasonably locate structure without providing any assayable WO_3 in view of the variety of ore disseminations even in the best of showings.

The assay returns from #+5-W Hole are considered very encouraging as indicative of ore that contains good commercial grade, probably exceeding the assay results.

Reno, Nevada.
May 7, 1958

Arthur Lakes
Consulting Engineer for Tungsten Mountain Co.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date April 15, 1958

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are three copies of Interim Report on

Docket No. DMEA-4795

Contract No. Idm-E 1158

Commodity Tungsten

Operator Tungsten Mountain Mining Co.

Property Hilltop Mine

OFFICIAL FILE COPY
DMEA
RECEIVED APR 18 1958

DATE		AMOUNT
4/18	C	220
4/21	Com	100
4	JH	110
4/21	WOJ	200
	WSM	400

By H. W. Jones, USBM
R. H. Campbell, USGS

Dated April 14, 1958

S. Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments —

Copy to: R. M. Smith, USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Mineral Deposits Branch
4 HOMEWOOD PLACE
MENLO PARK, CALIFORNIA

OFFICIAL FILE COPY
DMEA
RECEIVED APR 18 1958

April 14, 1958

INTERIM REPORT

To: DMEA Field Team, Region II

From: R. H. Campbell, geologist, U.S. Geological Survey

Subject: DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop mine
Churchill County, Nevada
Contract Idm-E1158

An interim inspection of the mine was made on March 13, 1958 by H. W. Jones, U.S. Bureau of Mines, and R. H. Campbell, accompanied by Mr. Arthur Lakes, the operator's agent and consultant.

Completed work consists of 309 feet of drifting within the favorable stratigraphic zone at a slight angle to the strike of the bedding so that the drift has crossed the zone to a point near its inferred hanging wall.

Work remaining in Stage I consists of 291 feet of drifting along the southeastward continuation of the zone, and 600 feet of long-hole drilling. At the time of the examination the operator had not yet acquired a drill suitable for drilling the long holes but anticipated having one soon. The examiners

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
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1958 APR 15 PM 11 : 34

RENO, NEVADA

suggested that it would be advantageous to start long-hole drilling at the earliest possible date to obtain mineralogic and structural data that would enable the operator to drive the drift in the most favorable part of the stratigraphic zone.

With minor exceptions all of the rocks exposed by the new workings are mineralized with scheelite, chiefly as disseminated crystals in the limy metasediments. Most of the material is marginal or sub-ore grade. Starting about 80 feet south of the start of the DMEA drifting an ore body is exposed for a length of approximately 80 feet and for a width of from a few inches to as much as 7 feet. The first 40 feet of the ore body ranges from a few inches to as much as 7 feet wide and is estimated to average about 0.5 percent WO_3. The remaining 40 feet of the ore body ranges from about 2 feet to about 7 feet in width, averaging about 4 feet wide, and is estimated to average nearly 2 percent WO_3. Measured and indicated reserves for this ore body consist of approximately 1,000 tons of material of which half is expected to average 0.5 percent WO_3 and half is expected to average 2 percent WO_3. The computation is based on the assumption that ore continues up and down the structure for

as much as 80 feet, as it does along the strike. A few additional tons of ore are indicated in scattered mineralized areas exposed elsewhere in the mine which locally may contain as much as 1 percent WO_3.

The work appears to be progressing in a reasonably sound and efficient manner but the operator should begin long-hole drilling as soon as possible for the reasons suggested above. The results of the work to date are encouraging in that ore has been discovered in the DMEA drift even though the heading has not yet reached the main target area. An additional 50 to 100 feet of drifting remains to be done in order to reach the down structure projection of the ore bodies exposed in the No. 3 adit.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1958 Docket No. DMEA 4795 Contract No. Idm E-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash.
Contract Amount, $ 32,000 Government Participation 75% Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY NSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent / Short Form Contracts:						
Drilling Longhole @$1.50	none	none	none			
Bulldozing						
Crosscutting						
Drifting 75-feet	$2,400	$8,816	$11,216			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	none	$32	$32			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2,400	$8,848	$11,248			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date April 4 '58 Payee Tungsten Mountain M. Co.
Per Arthur Lisbe Title Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1800 00

Signature [illegible] Contracting Officer
(Authorized Certifying Officer)

Date APR - 9 1958 Vou. No. SF-DMEA-23

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. dm-E1158 in accordance with the terms of the contract.

Signature Henry W. Jones Title Mining Engineer Date April 7, 1958

Henry W. Jones

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date April 7, 1958

S. Ricker

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED APR 4 1958 D.M.E.A.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1958 Docket No. DMEA 4795 Contract No. Idm E01158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Wash.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting 75-ft	Ft	$2,400	75	$11,216	350½	$32	900	$28,000
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Longhole	Ft	none	none	none	none	$1.50	600	900
Churn								
Auger								
Stripping Assaying	1	none	none	$32	8	$4.00	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering						$7.00	300	2,100
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								$32,000
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$2,400	75	$11,248				

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

REMARKS:

Date April 4 '58 Operator Tungsten Mountain M. Co.

Per Arthur Lakes Title Eng. & Agent

NOTE.—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.

(Instructions on reverse)

(For Government use only)

Henry W. Jones

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

March 1st. through March 31st. 1958
EXPLORATION PROJECT CONTRACT Ico. E-1158
TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

From March 1st. through March 31st. Tungsten Mountain's No. 4 Tunnel advanced 108-feet, comprising: (1) 75-feet of drift allowable by DMEA contract, plus (2) 33-feet crosscutting, not allowable under DMEA contract. Thus the attached Forms 104 & 104A call for DMEA participation in only the 75-feet of drift.

The tunnel face has advanced 350½-feet under DMEA contract to a total of 420½-feet from No. 4 Tunnel portal as shown on Maps 1 & 2 herewith which have been corrected by transit survey check made in March.

Twentyseven rounds were blasted @ average 4-ft. per round. Of this 19-rounds were in the drift, about half of which was in very hard silicified limy rock, the last half in softer limy rock and hornfels encountered on west side of strong southerly striking, steeply easterly dipping gouge as shown on Maps 1 and 2. The hard limy rock provided a few scattered WO3 disseminations between sta. 45 and 46 from which 12-cars of ore were put in ore dump. The softer limy rock west of the gouge (encountered and crossed 33-feet by crosscut) exposed two scheelite strands, 3 and 2½-feet respectively, from which 24-cars of ore were put on ore dump. Traversing this crosscut is a series of scheelite rich quartz veinlets up to 4-inches thick that dip flatly west, indicating possibility that their source may be in that direction toward projected extension of "A" structure. Pending arrival of longhole equipment, a 12-foot hole had been drilled as of March 31st., the cuttings being dried for lamping on next inspection trip. This hole will be extended to 20-feet which is limit of the presently provided sectional steel and capacity of Jackleg.

Maps 1 & 2 show strike attitude of bedding as determined along "B" structure at No. 4 Tunnel. From No. 4 portal to March 31st. face that strata formed (1) a synclinal roll from sta. 40 to sta. 44, thence (2) apparently folded back into an anticlinal fold from sta. 44 to March 31st. face where the indicated strata strike is about due south. The strata dip throughout is between 70 and 80° easterly as compared with an average 55° of No. 3 Tunnel ore structure.

The March 31st. face is 130-horizontal feet due west, and 147-vertical feet below the north face of No. 3 Tunnel (see Map 1). Projecting No. 3 Tunnel ore structure @ average 55° easterly dip would bring it to No. 4 Level at about 100-feet easterly from No. 3 Tunnel showings at about locality of southerly projection of structure "A" on Map 1. The No. 4 Tunnel's steeper dips would put the downward extension of No. 3 ore structure farther to the west. Those downward projections do not take into account (1) possibility of flat fault offset between No. 3 and No. 4 levels, (2) the probability of dip divergences to be expected similarly to those indicated along the strike.

The above indicates that structure "A" may be downward extension of No. 3 Tunnel ore structure and that No. 4 Tunnel has followed previously undisclosed "B" structure (found WO_3 rich where followed in the tunnel). If this proves to be the case, the lack of disclosure of "B" structure, and also of "C" structure farther east, at No. 3 Tunnel is explainable by the possibile strike swing to the SE which would take their upward extensions away from No. 3 crosscut into unexplored surface of that vicinity.

Map 2 indicates that No. 4 tunnel from sta. 45 to 46 plus 20-ft. may be from 5 to 15-feet east of possible ore extension of "B" structure. This condition can be tested by short drill holes into the tunnel's west wall. Similarly a possible ore zone following along easterly side of the hard limy rock has not been explored between these stations. These conditions emphasize necessity for long hole drilling equipment which Tungsten Mountain is making definite effort to procure.

The No. 4 Tunnel showings that where the ore structure folds into a syncline the ore widens and is enriched to noticeable degree as shown by sample resulted noted on Map 2. Whether this will also occur along anticlinal fold remains for further exploration to prove. There is possibility that the straighter strikes will provide smaller and lesser ore showings. These conditions are illustrated at No. 1 Tunnel and, to lesser degree, at No. 3 Tunnel as previously described.

Reno, Nevada
April 4, 1958

Arthur Lakes
Consulting Engineer for Tungsten Mtn.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date April 7, 1958

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

OFFICIAL FILE COPY
DMEA
RECEIVED APR 9 1958

DATE	INITIALS	CODE
4/9	C	220
10	Com	100
"	[illegible]	110
4/10	[illegible]	800
	WSM	400

Attached are three copies of Interim Report on

Docket No. DMEA-4795 (Tungsten)

Contract No. Idm-E 1158

Commodity Tungsten

Operator Tungsten Mountain Mining Company

Property Hilltop Mine

By Henry W. Jones

Dated March 20, 1958

S. Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: R. M. Smith, USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

OFFICIAL FILE COPY
DMEA
RECEIVED APR 9 1958
DATE | INITIALS | CODE

INTERIM REPORT

March20, 1958

Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

The mine was visited March 13, 1958, in company with R. H. Campbell, geologist, and Arthur Lakes, Operator.

The heading was changed to S. 25° E. for 65 feet then S. 15° E. for 24 feet to explore the footwall. Occasional small areas of scheelite enrichment were observed in the hard silicified limestone but not in sufficient quantities to constitute ore. Total distance from the DMEA starting point to the face was 309 feet. The Operator claimed 8 feet of crosscutting from two small dogholes at the 136-foot point and at the 211-foot point. No crosscutting was provided for in the Stage I part of the program and these costs were disallowed.

The Operator was unable to find long hole drill equipment to be used for exploring the hanging and footwall sides of the drift. He now plans to use a small portable diamond drill, with the extra cost of operation to be borne by the mining company.

In view of the more complete results obtained by a diamond drill, we believe the change is justified and should be allowed. Amendment 7.

Footage allowed under Stage I	600
Footage completed to date	309
Remaining in Stage I	291 ft.

Henry W. Jones

Henry W. Jones,
Mining Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date March 3, 1958

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C. ✓

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 5 1958

DATE	INITIALS	CODE
3/5	C	220
6	Com	100
"	JH	110
3/6	[illegible]	800
	WSM	400

Attached are three copies of Interim Report on

Docket No. DMEA-~~4819~~ 4795

Contract No. Idm-E 1158

Commodity Tungsten

Operator Tungsten Mountain Mining Co.

Property Hilltop Mine

By Henry W. Jones

Dated March 3, 1958

S. Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: R. M. Smith, USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

BUREAU OF MINES
WASHINGTON, D. C.
MAR 5 12 20 PM '58

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DMEA
RECEIVED MAR 5 1958
DATE | INITIALS | CODE

March 3, 1958

4795

Docket No. DMEA-~~4819~~ (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

The mine was inspected February 19, 1958. The drift was advanced 220 feet from the point of beginning for an advance of 105 feet since January 17, 1958.

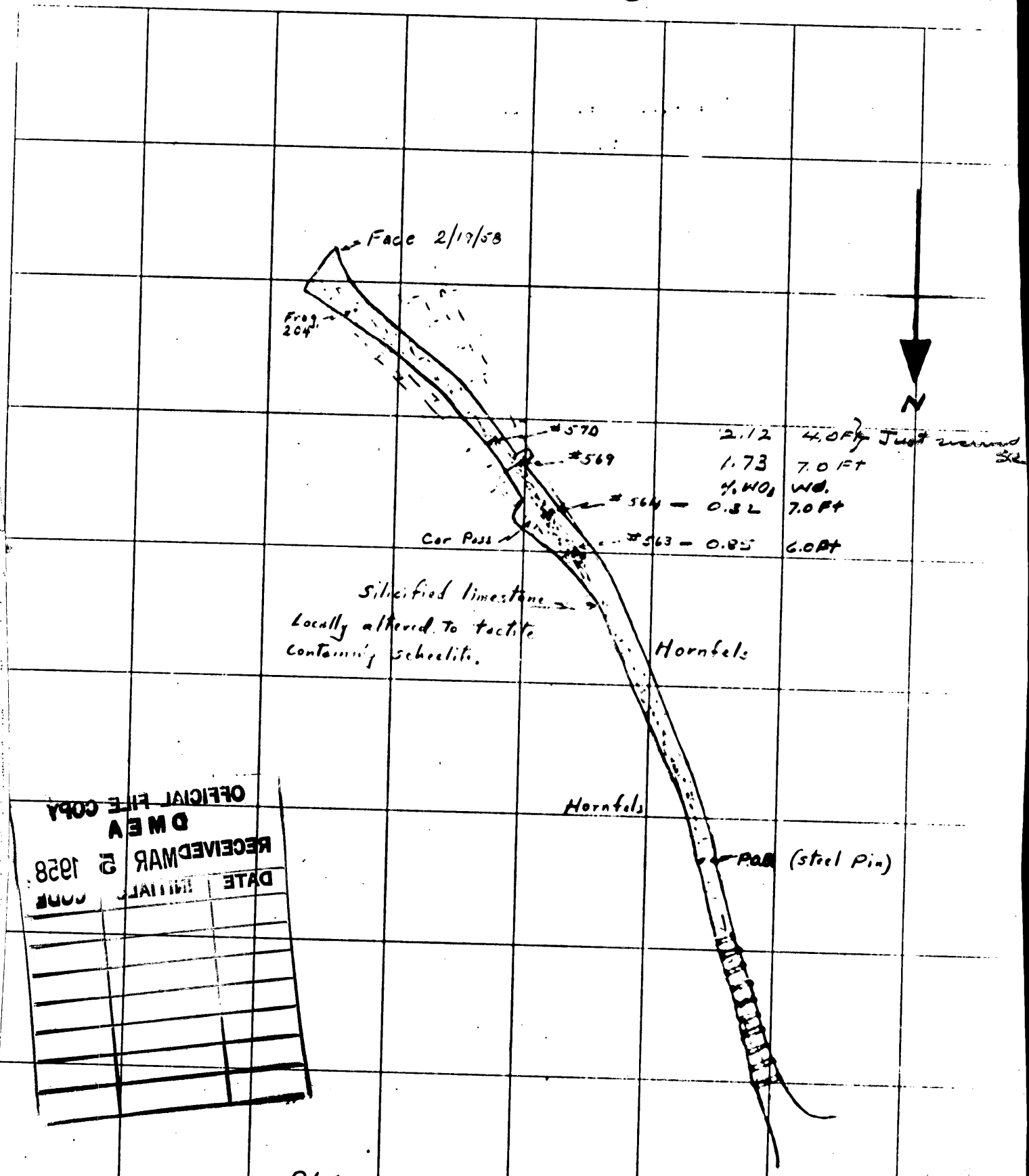
A lens of scheelite-rich tactite was encountered at the 100-foot mark and continued to the 136-foot point. From there to the face, scheelite crystals were found sparodically throughout the silicified limestone mass. The silicified limestone member widened beyond the 100-foot point and the drift was swung southeast to the hanging wall side. Very little scheelite was found, so the Operator had the heading changed to cut back to the footwall side. Slab rounds, started at 204-foot point, had progressed to the old face. The extra space, to be used as a car pass, was completed at company expense.

The Operator anticipates completing 300 feet of drift before starting long hole drilling.

All sample results have not been received. Attached map shows locations. Shows 2 good assays

Henry W. Jones

Henry W. Jones
Mining Engineer



OFFICIAL FILE COPY
DMEA
RECEIVED MAR 5 1958
DATE INITIAL CODE

PLAN MAP
Hilltop Mine Idm-E 1158
Churchill County, Nevada
scale 1" = 40'

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 5 1958

DATE	INITIALS	CODE

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February 195 8 Docket No. DMEA 475 Contract No. Idm E-1156
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg. Seattle 1, Wash.
Contract Amount, $ 32,000 Government Participation: 75 % Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling: Longhole $1.50	none	none	none	-0-	-0-	-0-
Bulldozing				-0-	-0-	-0- *
Crosscutting: 8-ft @ 32	$256		$256.00			
Drifting: 99-ft "	3,168	$5,648	8,816.00	3,168.00	5,648.00	8,816.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis @ $4	32		32.00	32.00	-0-	32.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$3456.00	$5,648.00	$9,104.00	3200.00	5648.00	8848.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date March 5 '58 Payee Tungsten Mountain M. Co.

Per Arthur Lopes Title Eng & Agent.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

* See Notice of Suspension attached.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2400 00

Frances S. Horton
Authorized Certifying Officer

Signature
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-19
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1158 in accordance with the terms of the contract.

Signature Henry W. Jones Title Mining Engineer Date March 7, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature C. Ricker Title Executive Officer Date March 7, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED MAR 17 1958

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1958 Docket No. DMEA 4755 Contract No. Idm R-1158
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg. Seattle 1, Wash

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting 99-ft @ $32	Ft	$3,168	99	$8,816	275½	$32	900	$28,000
Crosscutting	Ft	256	8	256	8	$32		
Raising								
Shafts								
Winzes								
Drilling: Core Longhole	Ft	none	none	none	none	$1.50	600	900
Churn								
Auger								
~~SUMMARY~~ Assaying	24/1	$32	8	32	8	$4.00	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering						$7.00	300	2,100
Less 8' Crosscutting		-256.00		-256.00				
TOTAL DISTRIBUTED COSTS		3200.00		8848.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								$32,000
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		~~$3,056~~ $3200.00	~~115~~	~~$8,104.00~~ $8848.00				

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

Date March 5 '58 Operator Tungsten Mountain M Co

Per Arthur Labes Title Eng. & Agent

REMARKS:

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

Henry W. Jones

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

Date: March 12, 1950
Payee's Reference: Contract Ida B-1158
Docket DMA 4759 95
February MF-104

Tungsten Mountain Mining Company
511 Securities Bldg.
Seattle 1, Washington

Gentlemen:

Upon examination of the above Payee's Reference, a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$ 3456.00	(Feb. MF-104)
Difference	$ 256.00	
Amount Approved	$ 3200.00	

The reason for the difference was due to: Crosscutting is not an allowable cost under Stage I of Contract Ida B-1158. Any change in work performed not in accordance with the contract must have prior approval of the Government before payment can be made. It is necessary for this Office to suspend 8 feet of crosscutting at $32.00 a foot or $256.00 claimed on your MF-104 (Operator's Monthly Report and Voucher) for the Month of February.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

L. H. Sjolander
Chief, Budget and Finance Branch
Region III

PROGRESS REPORT

February 1st. through February 28th. 1958

EXPLORATION PROJECT CONTRACT Idm. E-1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4759 95

From February 1st. through February 28th. the No. 4 Tunnel (Expl. Project Contract E-1158) advanced 99-feet drifting and 8-feet cross-cutting, making 107-feet on contract to face 345½-feet from tunnel portal or 275½-feet advance under DMEA contract as shown on the accompanying Map 1 and Map 2.

Thirtytwo rounds were blasted @ average 3.35-feet per round through exceptionally hard and tough rock. Time comprised 80-man shifts (2-men per drill shift) with 16-man shifts lost by sickness and labor turnover.

January 31st. face was in granodiorite that crosses tunnel course. This granodiorite continued 10-feet past the January 31st. face to a total 20-feet width. Thence the tunnel progresses 88-feet in very hard, tough, silicified limestone with thin bands of quartzite, which wore down the gauge of carbon bits and made throw away bits useless. This effect on the tungsten carbon bits makes long hole drilling impossible in this rock character, hence the obvious desirability for crosscut drilling into parallel structures "A" and "C" makes it important to get satisfactory drilling equipment. For this reason Tungsten Mountain Co. is making effort to secure a small underground diamond drilling machine in order to perform the highly, money saving, test drilling outlined in the DMEA contract.

The hard, silicified limestone contains scattered disseminations of scheelite but insufficient for economic exploitation. The best ore at No. 1, No. 3, and No. 4 tunnels occurs not entirely enclosed in the limestone but along the more sheared and penetrable structure at and near contact of limestone with hornfels. A "doghole" was driven 3-feet west at "S7". This encounters the contact striking S 35° E with 80° dip to the east as shown on Map 2. The contact's SE projection brings it near to the February 28th. face. At time of examination (March 3rd.) a 5-ft. hole was drilled ahead from the face's SW corner (See Map 2) where WO_3 appeared. This hole started in whitish cuttings and at 3-feet changed to black with showings of WO_3. This indicates that the face is near the contact zone and directions were given to turn the tunnel to left to test contact and its WO_3 content.

Eight chipped samples were taken in February with results shown on Map 2. At sample location "S7" the SE striking vein is crossed by seams of high grade. It is possible that the 5.25% WO_3 assay at this point includes some of the high grade cross veining material. Whilst it is probable that sampling would be improved by use of an air chipper to cut uniform groove across the vein, it is believed that the chipped samples give fair representation.

Map 4 shows location of downward projection of No. 3 ore @ average dip therein. The average formation and structural dips at No. 4 level are between 75 and 80° east which mean s that the formation has steepened in depth into an anticlinal roll and that the downward continuation of No.

3 ore would be farther west than its marked No. 4 level position @ 53° dip. This brings up the question whether the tunnel on middle structure "B" is locality of downward extension of No. 3 tunnel ore, or whether this downward extension may be structure "A". No. 4 Tunnel face is in line with NW end of No. 4 tunnel and is 45-feet farther east than the downward projection of No. 3 ore @ 53° east dip into this lower level. The projected position (eliminating the fact that formation has steepened in depth) would line exactly with SE extension of structure "A" whose SE extension would have to swing westerly to enter into the steepened dip of No. 3 ore.

The question comes up "what has happened to structure "B" that it does not cross No. 3 crosscut tunnel"? It is to be born in mind that that limestone rock and structure at No. 1 and surface turns into a synclinal which applied to structure "B" would turn it away from No. 3 tunnel before it reached that locality.

With the above question in mind, the company is making effort to secure immeidate delivery of a small diamond drill to perform the important drill exploration. The conditions found in southerly part of No. 4 tunnel preclude possibility that long hole drilling with carbon bits will work.

Reno, Nevada
March 5, 1958

Arthur Lakes.
Consulting Engineer for Tungsten Mtn. Co.,

COPY

NEVADA MINERAL LABORATORIES
336 Morrill Phone FA 2-1001

Reno, Nevada.

ASSAY CERTIFICATE

Tungsten Mountain Mining Co., 2-28-58

We have assayed your samples and find they contain (Per ton of 2000#)

	WO_3 Per cent
No. 1	2.50
2	0.25
3	0.75
4	0.65
5	2.92
6	2.64
7	5.25
8	1.25

Charges $60.00

(Signed) J. Benj. Parker

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

FEB 24 1958

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1958 Docket No. DMEA 4795 Contract No. Tor 2253
Operator's Name Tungsten Mountain Mining Company Minerals Tungsten
Address 511 Securities Bldg., Seattle 1, Washington
Contract Amount, $ 32,300 Government Participation: 75 % Amount, $ 24,150

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY (WJG): Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Langhole No. 90	none	none	none			
Bulldozing						
Crosscutting						
Drifting 1,191 ft @ $32 per foot	4,464	1,184	5,648			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber 2.07 per ft.	none	none	none			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis 24/1	none	none	none			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	4,464	1,184	5,648			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Feb. 3 1958 *Payee Tungsten Mountain Mining Co.
Per Arthur Lakes Title Pres.

RECEIVED FEB 24 1958

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$3348.00

Signature [illegible] Authorized Certifying Officer
(Authorized Certifying Officer)
Date FEB 19 1958 Vou. No. DF-DMEA-16
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E1158 in accordance with the terms of the contract.

Signature Henry W. Jones Title Mining Engineer Date Febr. 3, 1958

Henry W. Jones

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature D. Ricker Title Executive Officer Date Febr. 3, 1958

D. Ricker

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 31 1958 Docket No. DMEA 4759. Contract No. Idm E 1158

Operator's Name Tungsten Mountain Mining Company Minerals Tungsten

Address 511 Securities Bldg. Seattle 1, Washington

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Ft	$4,464	139½	$5,648	176½	$32	900	$28,800
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: ~~Core~~ Longhole						$1.50	600	900
Churn								
Auger								
~~Stripping~~ Assaying						$4.00	100	400
Trenching								
Test Pits								
Roads and Trails								
Timbering						$7.00	300	2,100
TOTAL DISTRIBUTED COSTS		$4,464	139½	$5,648				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								$32,200
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4,464		$5,648				

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

REMARKS:

Date Feb. 3, 1958 Operator Tungsten Mountain M. Co

Per Arthur Lakes Title Cons. Eng & Agent

NOTE.—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.

(Instructions on reverse)

(For Government use only)

Henry W. Jones

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

January 1st. through January 31st. 1958
EXPLORATION PROJECT CONTRACT DMA-S 1158
TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4259

From January 1st. through January 31st. the No. 4 Tunnel (Project Contract Idn. S-1158) advanced 139½-feet, making total of 176½ feet on DMEA contract which starts 70-feet in from Tunnel portal, thus the face January 31st. was 246½-feet from portal as shown on accompanying map.

As previously reported January 6th. the tunnel progressed 107-feet on WO3 disseminations and high blobs in a limy bed striking S 11° E, dipping very steeply easterly. (This direction was previously reported S 16° E by compass survey but is here corrected by transit survey of January 20th. tying in the upper tunnels with this No. 4 tunnel). This showing courses under a 10-foot width of low grade WO3 opened at the road, 15-feet higher than the tunnel floor.

At the 107-foot point a strong fault shearage, barren of WO3, comes in from the NW and the tunnel turns S 25° E for 50-feet along it. From here the tunnel and fault turn in general S 48° E direction to face. From station 41 (see map) to station 2 the tunnel appears to be in the footwall (SW) side of the limy rock that contains disseminations of WO3, whereas the tunnel is mostly barren footwall hornfels. At sta. 42 plus 25-feet a 6 to 8-inch vein crosses @ S 50° W, dipping 23° NW. From this vein the tunnel continues on average S 48° E in a hangingwall and separate footwall streak with some very good WO3, both indicated to be in limy rocks.

It will be noted that the limy rock bed and its contained ore parallels the projected strike of granodiorite mass 65 to 70-80 feet northeasterly from the tunnel. Continuation of this strike would take No. 4 ore showings and limy bed away from the general N 25° W course of the ore veins opened at No. 1 and No. 3 tunnel. There is possibility that the showings of SE part of No. 4 tunnel may swing back as a slight anticlinal nose as progress is made farther SE.

The DMEA contract calls for long hole drilling both ways from No. 4 tunnel to test possible SE extensions of the two surface showings, one 40-feet along road to the NW and the other, near contact zone with granodiorite, 60-feet SE along the road from the showing followed by the tunnel. The proposal is for long hole drilling each way at not less than 100-foot intervals. So far Tungsten Mountain has been unable to acquire large drill and sectional steel to do this job but has made contact with J. H. Thaldo who is using equipment on a project but when he finishes will arrange for Tungsten Mountain to use it. Subject to DMEA agreement it is Tungsten Mountain's proposal to advance the tunnel about 300-feet from DMEA starting point, then set up and drill 6-holes (1 each way at each 100-foot point). When this drilling is underway the tunnel advance will cease because drill bar will block the tunnel.

Sampling the tunnel at 10-foot intervals will be undertaken next week and assay results reported to DMEA and in the next report.

Reno, Nevada.
February 2, 1958

Arthur Lakes

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED FEB 10 1958

4795

Month of December, 1957 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Mining Company Minerals Fluorspar
Address [illegible] Contract Amount, $ [illegible] Government Participation: 75% Amount, $ [illegible]

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY WSM: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling long hole	none	none	none			
Bulldozing						
Crosscutting						
Drifting [illegible]						
[illegible] unit cost	119.	none	119.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber	none	none	none			
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	none	none	none			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	119.	none	119.00			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Dec. 6, 57 *Payee [illegible] Mining Co

Per Arthur Lopez Title Cons. Eng. & Agent

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 888.00

Frances S. Horton
Authorized Certifying Officer

Signature
(Authorized Certifying Officer)

Date 2 [illegible] Vou. No. SF-DMEA-14

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E 1158 in accordance with the terms of the contract.

Signature Henry W. Jones Title Mining Engineer Date Jan 8, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date 1/8/58

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED FEB 10 1958

Month of December 1957 Docket No. DMEA 4759 Contract No. Idm-E 1158

Operator's Name Tungsten Mountain Mining Company Minerals Tungsten

Address 511 Securities Bldg. Seattle 1, Washington

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
#3 Drifting unit cost	37-ft	$1184	37	$1184	37	$32	900	$28,800.00
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Ore Long hole						[illegible]	600'	900.00
Churn								
Auger						[illegible]	100	400.00
Stripping Assaying								
Trenching								
Test Pits								
Roads and Trails						[illegible]	300'	2,100.00
Timbering								
Total Distributed Costs								Total Costs Authorized by Contract $32,200.00
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$1184.00	37	$1184.00				

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

Date January 6 1958 Operator Tungsten Mountain M Co.,

Per Arthur Lakes Title Cons. Eng & Agent

Remarks:

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

Henry W. Jones

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

PROGRESS REPORT

December 3rd. through December 31st. 1957

EXPLORATION PROJECT CONTRACT Idm-E 1158

TUNGSTEN MOUNTAIN MINING COMPANY

Docket No. DMEA 4795

Up to December 31st. 1957 the No. 4 Tunnel, 147-vertical feet lower than the ore productive No. 3 Tunnel had advanced 107-feet from timbered portal as shown on accompanying map. Exploration along No. 4 level constitutes the Project Contract Idm-E 1158.

This No. 4 Tunnel had advanced 70-feet at company expense prior to granting of DMEA loan, December 3rd. 1957. Therefore this 70-feet is eliminated from the loan and the starting point from which to measure tunnel advance under the loan has been extablished at the 70-foot point by an iron rod inserted in the east tunnel wall.

On basis of DMEA allowable advance, No. 4 tunnel drift was 37-feet (difference between the 107-feet total length less 70-feet starting locality. No other contractural expenditures were involved in this December 3-31 operation hence cost items refer only to the 37-feet drifting as follows:

37-feet at $32/ft. unit cost by contract	$1184.00
DMEA's 75% participation	$888.00

Most of the month was expended in outstide preparation and in building shelter for compressor, dry, etc. and the holiday season further delayed footage advance.

The tunnel courses S 17° E along steeply east dipping contact of limestone on the east (hangingwall) side with hornfels on the west (footwall) side. The limy rocks show disseminations of WO3 with blobs of more concentrate material. The fist 46-feet of tunnel roof is timbered, hence not visible for check but is reported to have fair scheelite showings. From 45-ft. to 65-ft. in from portal some concentrate scheelite occurs up to 4-feet width. From 65-ft. to December 31st. face (107-feet) the limey rocks contain scattered WO3 disseminations. In accord with ore occurrences at No. 1 and No. 3 levels (reported in the Loan Application) it is to be expected that ore occurrences along the structure's SE extension will be more or less intermittent until it nears the synclinal turn (shown on accompanying map) where the wider and higher grade ore concentrated.

As reported in Loan Application, there are three ore structures at No. 4 level's surface and it was decided to follow the strongest central structure by drift and test therefrom by drilling into the east and west structures. No holes were drilled in December.

Reno, Naveda
January 6, 1958

Arthur Lakes
Consulting Engineer & Agent

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/6	Chapman	400
2/6	Martin	400
2/10	Johnson	110
1/6	Com	100

February 6, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Summary and Justification of Contract No. Idm-E1158
Docket No. DMEA 4795 - Tungsten
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

The Tungsten Mountain Mining Company applied for exploration assistance on the above-noted property on July 22, 1957, at an estimated cost of $41,144.00. The proposed work included about 500 feet of bulldozer trenching and 1,200 feet of drifting and crosscutting.

A prior contract Idm-E707 (Docket No. DMEA 3180) was issued to the same Applicant on September 13, 1954, The work was to consist of road-building, trenching, drifting, crosscutting and diamond drilling, Only a small portion of the road-building and trenching was completed at a cost of $576.00, of which Government participation was 75 percent or $432.00. The failure of the Operator to carry out the work was apparently due to illness of the President of the Company (Bennett W. Porter). The project was terminated on July 23, 1956.

Since the termination of the above contract the Company completed 1,000 feet of road building, 2,100 feet of trenching, 380 feet of crosscutting and drifting. This new work exposed additional ore and mineralized zones.

On August 27 and 28, 1957, a field examination was made by H. W. Jones, Bureau of Mines, and R. H. Campbell, Geological Survey, accompanied by Mr. Arthur Lakes, consulting engineer, representing the Company.

The examining team concluded that the recent work by the Company had improved the ore showings and possibilities of the property. They, therefore, recommended a new contract consisting of 900 feet of drifting and crosscutting and 600 feet of long hole drilling, at an estimated cost of $32,025.00. A unit cost, short form contract was executed on December 3, 1957. The work was to be carried out in two stages, Stage I to consist of 600 feet of drifting and 600 feet of long

cc to: Mr. Johnson
Mr. Selfridge

TLCHAPMAN/foc 2-6-58
cc to: Docket
Admr. R. File

hole drilling and Stage II (as approved by the Government) to consist of 300 feet of drifting, crosscutting and raising. The total project was estimated to cost $32,200.00 with Government participation of 75 percent or $24,150.00. The Government participation of $432.00 in the prior contract to be subject to repayment from royalty.

Past production of the property, from area exempt from royalties, was as follows:

Dry tons sold	Net units WO_3	Percent WO_3	Value
384.95	715.47	1.86	$27,442.77
535.06	828.16	1.55	$23,727.23
920.01	1,543.63	1.68	$51,170.00

Indicated and inferred ore reserves are estimated to be 3,700 tons, averaging 1.6 to 2.0 percent WO_3. Also investigation with the ultra-violet light indicates that northwesterly and downward extensions of the favorable stratigraphic beds may contain 6,000 tons plus, of ore averaging 0.5 percent WO_3. About 900 tons of ore have been stockpiled from the late operations.

Summary and Justification.

Past work and production indicates that the ore on the property is of a good grade and the possibilities of finding a substantial tonnage of ore of a comparatively high grade are good. Although it may be possible to selectively mine and ship a relatively small tonnage of ore that will pay at the present metal prices, indications are that the main ore bodies would not pay. These main ore bodies, however, could be mined at a moderate increase in metal prices or in an emergency and a significant number of units of WO_3 would be produced.

The geological conditions indicate that the possibilities of finding significant ore bodies are good and that further exploration is warranted.

This Division concurs in the conclusions and recommendations of the Field Team. It is believed that under the conditions set up by the Defense Minerals Exploration Administration that exploration of this property is warranted.

The property was last inspected on January 17, 1958, and Interim Report of January 20, 1958, advises that the Operator had completed 70 feet of drifting prior to December 3, 1957 (the date of Contract) and this was marked as the starting point of Contract. The drift has been advanced 116 feet from this point at time of inspection. Slight scheelite mineralization was observed along the entire length of drift. A 5.0 foot width of scheelite ore (estimated to contain $1\frac{1}{2}$-2 percent WO_3 was encountered at the 100 foot point and continued to the face.

W S Martin

W. S. Martin, Director
Iron and Ferro-Alloys Division

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date Jan. 22, 1958

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are three copies of Interim Report on

Docket No. DMEA ~~4819~~ 4795

Contract No. Idm-E 1158

Commodity Tungsten

Operator Tungsten Mountain Mining Co.

Property Hilltop Mine

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 24 1958

DATE	INITIALS	CODE
1/24	C	220
1/24	[illegible]	100
	WSM	400

By Henry W. Jones

Dated Jan. 20, 1958

S Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments —

Copy to: R. M. Smith, USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 24 1958
DATE | INITIALS | CODE

INTERIM REPORT

January 20, 1958

Docket No. DMEA-~~4819~~ 4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

The contract, dated December 3, 1957, was submitted and signed by the Operator.

An inspection was made December 9, 1957 and again on January 17, 1958. The Company started the drift on their own account, from a site selected by the Field Team, prior to signing the contract.

The drift had advanced 70 feet by December 3, 1957 where a point of beginning for DMEA work was marked with a steel pin driven into the wall. The drift was advanced 116 feet from this point at the last inspection.

The drift is being driven on a silicified limestone bed, locally altered to tactite between hornfels foot and hanging walls. Slight scheelite mineralization was observed along the entire length of drift. A 5.0-foot width body of scheelite ore (estimated to contain $1\frac{1}{2}$-2% WO_3) was encountered at

the 100-foot point and continued to the face. Three samples were taken.

Drifting is on a two-shift basis, with five men being employed.

Henry W Jones

Henry W. Jones,
Mining Engineer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/22	Chapman	400
	Martin	400
23	Mittendorf	100
		~~220~~
		110
		220

January 22, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys

Subject: Justification of Contract
Docket No. DMEA 4795 - Tungsten
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E1158

The above-noted contract was issued on December 3, 1957, at an estimated cost of $32,200.00, Government participation 75 percent, $24,150.00 (Application prior to October 22, 1957), for 900 feet of drifting, crosscutting and raising. The December Report of the Field Team of Region II, advises that work has been started and an advance of 25 feet has been made.

A contract was issued to the same Operator on September 13, 1954, Contract No. Idm-E707 (Docket No. DMEA 3180). The work was to consist of road-building, trenching, drifting, crosscutting and diamond drilling. Only a small portion of the road-building and trenching was completed and the project was terminated on July 23, 1956. The failure of the Operator to carry out the work was apparently due to the illness of the President of the Company, Bennett W. Porter. The cost of the road-building and trenching completed amounted to $576.00, Government participation 75 percent $432.00.

Since the termination of the above contract considerable bulldozing, crosscutting and drifting had been completed by the Applicant. As the new work improved the ore possibilities of the property and conditions otherwise remained as noted in the former examination, the Field Team recommended a new contract.

Indicated and inferred ore reserves on the property are estimated to be 3,700 tons, averaging 1.6 to 2.0 percent WO_3. Also investigation with the ultra-violet light indicates that northwesterly and downward extensions of the favorable stratigraphic beds may contain 6,000 tons plus of ore averaging 0.5 percent WO_3.

The property shows a good grade of ore and, although operation would not be profitable under the present metal market, with a small increase in metal prices or in an emergency a significant amount of tungsten could be produced.

Article 10 of the new contract includes the $432.00 participation in the former contract as liable for royalties.

Past production of the property, from area exempt from royalties, was as follows:

Dry Tons sold	Net Units WO_3	Percent WO_3	Value
384.95	715.47	1.86	$27,442.77
535.06	828.16	1.55	23,727.23

About 900 tons of ore have been stockpiled, taken from work completed in 1957.

The Field Team believed that the new work by the Applicant had improved the conditions on the property and a new contract was justified.

This Division concurred in the conclusions of the Field Team and a contract was written with only small variations from that proposed by the Applicant and recommended by the Field Team.

W. S. MARTIN

W. S. Martin, Director
Division of Iron and
Ferro-Alloys

TLCHAPMAN:foc
1-22-58
cc to: Docket
Admr. (2)
Code 400

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

January 22, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys

Subject: Justification of Contract
Docket No. DMEA 4795 - Tungsten
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E1158

The above-noted contract was issued on December 3, 1957, at an estimated cost of $32,200.00, Government participation 75 percent, $24,150.00 (Application prior to October 22, 1957), for 900 feet of drifting, crosscutting and raising. The December Report of the Field Team of Region II, advises that work has been started and an advance of 25 feet has been made.

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The property shows a good grade of ore and, although operation would not be profitable under the present metal market, with a small increase in metal prices or in an emergency a significant amount of tungsten could be produced.

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About 900 tons of ore have been stockpiled, taken from work completed in 1957.

The Field Team believed that the new work by the Applicant had improved the conditions on the property and a new contract was justified.

This Division concurred in the conclusions of the Field Team and a contract was written with only small variations from that proposed by the Applicant and recommended by the Field Team.

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 DEC 30 1957

DATE	INITIALS	CODE
12/30	C	220
12/30	B	215
	WSQ	400

December 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-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

Reference is made to your letter of December 3, 1957, transmitting to this office the original and four copies of subject contract.

The contract has been executed by the Operator and one copy retained by him... The Government's and Audit copies are enclosed and the remaining copies have been distributed in the usual manner.

/for/ S. Ricker

Attachments

BUREAU OF MINES
WASHINGTON, D. C.
DEC 30 9 24 AM '57

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 1957

DATE		CODE
12/18	gb	220
12/20	[illegible]	800
	WSM	400

1605 Evans Avenue
Reno, Nevada

December 16, 1957

Tungsten Mountain Mining Co.
511 Securities Building
Seattle 1, Washington

Re: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada
Contract No. Idm-E 1158

Gentlemen:

We have just received, via registered mail from your office, the Government's, Finance Office, and Field Team copies of the above-referenced contract, which were mailed to you for signature on December 6, 1957. However, you failed to return the Audit copy which is necessary to complete our files. We would appreciate your prompt attention in returning this copy to us.

Very truly yours,

/for/ Roscoe M. Smith
Acting Executive Officer
DMEA Field Team, Region II

ft
cc: Opr. Com., DMEA, Wash., D.C.
Finance Office, Reg. II
GeoMavor
RMSmith
File
Chron

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 10 1957

DATE	INITIALS	CODE
12/10	gb	220
12/10	WSM	400

1605 Evans Avenue
Reno, Nevada

December 6, 1957

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Re: Docket No. DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop Mine
Churchill County, Nevada

Gentlemen:

Enclosed are the original and four copies of a proposed contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Annex I (one page), Exhibit A (three pages), and five maps.

If the terms and conditions of the proposed contract are satisfactory to you, all copies should be signed, the copy marked "Operator's copy" retained, and all other copies returned to this office.

If any part of the proposed contract does not have your approval, the original and all copies should be returned to this office together with your suggested changes for consideration.

Very truly yours,

Roscoe M. Smith
Acting Executive Officer
DMEA Field Team, Region II

Attachments
RMS:ft
cc: Opr. Com., DMEA, Wash., D.C. ✓ Finance Office, Region II
RMSmith File Chron GeoMavor

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/20	Chapman	400
11/20	Martin	400
11-20	Chamberlin	800
12/2	GCS	130
"	Johnson	110
3	Gilleard	100
12/4	gb	230
		400

DEC 3 1957

11-21

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4795 - Tungsten
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

Dear Mr. Ricker:

Enclosed are the original and four copies of a proposed contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Annex I (1 page), Exhibit A (3 pages), and 5 maps. Two extra copies of Exhibit A and the Annex and maps are enclosed for the use of the Field Team.

If the terms and conditions of the 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 this 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 of the proposed contract has been left blank and is to be filled in when the contract is signed by the Operator. Please also obtain and fill in Book No. and page No. for the Hilltop claim, in Annex I.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

APPROVED:

Frank D. Lamb (HB)
Member, Bureau of Mines

Thor H. Kiilsgaard (HB)
Member, Geological Survey

Enclosures

TLCHAPMAN:foc 11-20-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

Operating Committee
This is same company who failed to complete contract
no. E-707
Docket Dm 3A3180.
432 [illegible] of work
from contract [illegible]
for [illegible]. 11/20/57
Holes intentionally undrilled
in [illegible] of 100' intervals.

Dmen - 41795.

Stage I

An adit shall be started approximately at the point indicated on Figure 2 and driven ~~approximately but~~ not more than 600 feet on a course about south 20 degrees east.

The northeasterly and southwesterly sides of the adit shall be explored by long hole drilling at approximately right angles. The length of a drill hole will depend upon the geology of the structure; but no hole shall exceed 75 feet in length, ~~on one side of the adit~~, and the total drilling for all holes shall not exceed 600 feet. The drill holes are tentatively indicated on Figure 2, and may be on one side or both sides of the adit.

Stage II

As approved by the Government: (a) the adit driven in Stage I may be extended not to exceed an additional 100 feet; and (b) ore zones indicated by the Stage I long hole drilling may be explored by not to exceed an aggregate of 200 feet of drifting, crosscutting, and raising.

Estimated Cost of the Project

Fixed Unit Costs

Stage I

Drifting 600 feet @ $32.00/ft.	$19,200.00	
Timbering 200 feet @ $7.00/ft.	1,400.00	
Long hole drilling 600 feet @ $1.50/ft.	900.00	
60 assays for tungsten @ $4.00 each sample	240.00	
Estimated cost of Stage I		$21,740.00

Stage II

Drifting, crosscutting, and raising, 300 feet @ $32.00/ft.	$9,600.00
Timbering 100 feet @ $7.00/ft.	700.00
40 assays for tungsten @ $4.00 each sample	160.00

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

NOV 18 1957

TO: Administrator, DMEA
Attention: Director, Division of Iron and Ferro-Alloys

FROM: Associate Solicitor, Division of Mineral Resources

SUBJECT: Preparation of Contract
Docket No. DMEA 4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

WSM

As requested in a memorandum dated November 4, 1957, from Mr. Martin, we have prepared the attached Contract.

It should be noted that the proper recording data for the Hilltop claim must be inserted in Annex I, by the Field Team.

In reviewing Docket 4795 in connection with this docket, we noted that the Prior Contract, terminated by Notice of the Government for default, initially required drifting at a fixed lower rate than is specified for drifting in the subject Contract, without any additional allowance for timbering as is provided in this Contract. It appears that some of the drifting set forth in this Contract is substantially the same as that set forth for the terminated Contract. If Amendment No. 1 to the terminated Contract had not deleted the drifting work, we would find the increased estimated cost for said work objectionable here.

In any event, a special provision in this Contract includes under the royalty provision the amount of the Government's contribution under the terminated Contract.

Robert P. Dwyer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-4	Chapman	400
11-4	Martin	400
		140

November 4, 1957

MEMORANDUM

To: Associate Solicitor, Division of Mineral Resources

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Preparation of Contract
Docket No. DMEA 4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

Attached is a rough draft of a proposed 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/dlm 11-4-57
cc to : Code 400
Reading File

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.*	*County*	*State*
4795	Tungsten	*Idm–E*	Churchill	Nevada

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 Tungsten Mountain Mining Company

whose mailing address is 511 Securities Building, Seattle 1, Washington

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 8 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 $32,776.00. The Government will contribute 75 percent of the fixed unit cost of the work performed, not exceeding $24,582.00, 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: .....

(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: .....

(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.*—

.....

.....

.....

.....

.....

.....

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

.....
(Operator)

By .....

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
TUNGSTEN MOUNTAIN MINING COMPANY
DOCKET NO. DMEA 4795

EXHIBIT A

Description of the Work

Figure 1 - Index Map of Churchill and Pershing Counties, Nevada

Figure 2A - Map of Hilltop and Adjoining Claims

Figure 2 - Geologic Map and Section of the Hilltop Mine Area, Churchill County, Nevada

Figure 3 - Geologic Maps of Tunnels 1, 2 and 3, Hilltop Mine, Churchill County, Nevada

Figure 4 - Face of Bulldozer Cut, Hilltop Mine, Churchill County, Nevada

The project shall be divided into two stages. Stage II shall be dependent upon the results obtained in Stage I and shall have the approval of the Government. The operation shall be carried out on a two shift per day basis, when possible.

All drifts and/or crosscuts shall be not less than 5 feet by 7 feet in the clear and timbered as necessary.

Mineralized zones in adit, crosscuts and/or long holes shall be sampled and assayed for tungsten. Samples from long holes shall not exceed 5 feet in length.

Stage I

An adit shall be started approximately at the point indicated on Figure 2 and shall be driven on a course about south 20 degrees east for 600 feet.

From the sides of the adit at approximately right angles the area northeasterly and southwesterly shall be explored by long holes. The length of hole shall be dependent on the structure. Holes as

indicated on Figure 2 shall not exceed 75 feet in length and the total shall not exceed 600 feet.

Stage II

With the approval of the Government the adit in Stage I may be extended an additional 100 feet. Ore zones indicated by long holes shall be explored by an additional 200 feet of drifting and/or crosscutting, or raising, with Government approval.

ESTIMATED COST OF THE PROJECT
Fixed Unit Costs

Stage I

Drifting 600 feet at $32.00/ft.	$19,200.00	
Timbering 200 feet at $7.00/ft.	1,400.00	
Long hole drilling 600 feet at $1.50/ft.	900.00	
60 assays for tungsten at $4.00 each	240.00	
Estimated cost of Stage I		$21,740.00

Stage II

Drifting, crosscutting and/or raising 300 feet at $32.00/ft.	$9,600.00	
Timbering 100 feet at $7.00/ft.	700.00	
40 assays for tungsten at $4.00 each	160.00	
Estimated cost of Stage II		$10,460.00
Estimated total cost of project		$32,200.00
Government participation 75 percent		$24,150.00

Whereas the Tungsten Mountain Mining Company by Contract No. Idm-E707 (Docket No. IMEA-3180), prosecuted work on this property, in which $576.00 was expended, Government participation 75%, $432.00.

This cost shall be included in the costs of this contract and the Tungsten Mountain Mining Company shall be liable for royalties to the extent of Government participation.

Amount expended on project	$ 576.00	
Government participation 75%		$ 432.00
Total estimated costs of projects	$32,776.00	
Government participation, 75%		$24,582.00

EXPLORATION PROJECT CONTRACT
TUNGSTEN MOUNTAIN MINING COMPANY
DOCKET NO. DMEA 4795

ANNEX I

The land referred to in Article 2 of the contract form and outlined in green on the attached figure 2A, is owned by the Operator. The property consists of four unpatented lode mining claims, located in T. 19 N., R. 37 E., Clan Alpine Mining District, Churchill County, Nevada, and recorded as follows:

Claim Name	Book No.	Page No.
Hilltop		
Porter No. 1	27	67
Artel No. 1	28	173
Hedi No. 1	27	142

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DATE	INITIALS	CODE
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10/22	WSay	400

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Washington 25, D. C.

Date October 21, 1957

DMEA Docket No. 4795
DMEA Contract No.
Commodity Tungsten
Name of applicant Tungsten Mountain Mining Co.
Name of property Hilltop Mine
Location of property Churchill Co., Nev.
Estimated cost of project

Memorandum

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals and Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Report of Examination by Field Team
(Application, Field Team Report, etc.)

1. Date of subject document: Oct 2, 1957 2. Date received by reviewer: Oct 15, 1957

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 needing special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [ ]
   f. Alternate exploration method [ ]
   g. Costs [ ]
   h. [ ]

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [ ]
   c. Denial [ ]
   d. Agree with Field Team [X]
      i. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [X]

10. Remarks: (Use back of page if necessary) I concur in the Field Team recommendation of a program consisting of 900 feet of cross cutting and drifting and 600 feet of long hole drilling.

R. W. Holliday

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

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RECEIVED OCT 14 1957

DATE	INITIALS	CODE
		220
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October 11, 1957

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4795 (tungsten), Tungsten Mountain Mining Company, Hilltop mine, Churchill County, Nevada

The examining team report that geologic conditions on the applicant's property are favorable for the presence of undiscovered tungsten ore bodies. Ore is believed by the examiners to exist in a steeply-dipping, 75-foot wide, favorable stratigraphic zone that extends north from the Hilltop mine. The potential ore zone is well located between a granite-granodiorite stock to the east and a shale-mudstone sedimentary series to the west.

To explore for the tungsten ore the examiners propose a two-stage project consisting of adit drifting, long-hole drilling, and crosscutting at a total estimated cost of $32,025. I am in agreement with the recommendations of the Field Team on the grounds that the proposed project has a good chance of discovering new ore reserves.

W. P. Williams

W. P. Williams

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

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DATE	INITIALS	CODE
10/8	C	220
10/11	JB	130
10/14	C	220
10/14	WSM	400

October 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-4795 (Tungsten)
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada
(Your letter, August 2, 1957)

Enclosed are three copies of a report on subject property by R. H. Campbell, Geological Survey, and H. W. Jones, Bureau of Mines, recommending participation by DMEA in an exploration project.

Roscoe Smith and I concur in the recommendation.

S. Ricker

Attachments

Reviewed by
DMEA OPERATING COMMITTEE
10-11-57
(date)

Oct 7 3 44 PM '57

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10/11	JHB	130
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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

On-Site Report

DMEA-4795 (Tungsten)
Tungsten Mountain Mining Co.
Hilltop (Tungsten Mountain) mine
Churchill County, Nevada

by

H. W. Jones
U. S. Bureau of Mines

R. H. Campbell
U. S. Geological Survey

October 2, 1957

Reviewed by
DMEA OPERATING COMMITTEE
10-11-57
(date)

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Figure 1 . . . . . Index map

2 . . . . . Surface geologic map and section

3 . . . . . Geologic maps of workings

4 . . . . . Section at bulldozer cut

INTRODUCTION

The Tungsten Mountain Mining Co., 511 Securities Building, Seattle 1, Washington, applied to the Defense Minerals Exploration Administration, docket DMEA-4795, for Government assistance in a $41,144.00 program to explore for tungsten at the Hilltop or Tungsten Mountain mine, Churchill County, Nevada. A previous exploration project, DMEA-3180, contract Idm-E707, granted to the applicant September 13, 1954, was not completed and was terminated July 23, 1956 by mutual consent of the operator and the Government. Since that time considerable bulldozing, crosscutting, and drifting has been completed by the applicant and additional ore and mineralized ground has been exposed.

yes — noted

A field examination was requested by the Operating Committee and was made by H. W. Jones, U. S. Bureau of Mines, and R. H. Campbell, U. S. Geological Survey, on August 27 and 28, 1957, accompanied by Mr. Arthur Lakes, the applicant's representative. The new workings and bulldozed roads and trenches were examined and nine samples were taken.

CONCLUSIONS AND RECOMMENDATIONS

The tungsten ore bodies in the area of the Hilltop mine consist of irregular lenses of tactite and limy mudstone containing scheelite in fractures and disseminated in tactite and mudstone. Discontinuous beds of tactite and limy mudstone a few inches to several feet thick occur in a stratigraphic zone approximately 75 feet thick.

Indicated and inferred reserves for the ore bodies exposed in the existing workings are 3,700 tons estimated to be 1.6 to 2.0 percent WO_3, and 6,000 tons estimated to contain approximately 0.5 percent WO_3. An investigation with ultra-violet light indicates that the northwesterly and downward extensions of the favorable stratigraphic zone contain mineralized tactite beds and several thousand tons of ore-grade material is inferred in the ground to be explored.

The applicant's proposed program to explore for additional ore bodies and continuations of known ore bodies by 500 feet of trenching and 1,200 feet of drifting and crosscutting has been partly completed and is larger than needed to explore the target area. Discussions with Mr. Lakes resulted in a revised program consisting of 900 feet of drifting and crosscutting and 600 feet of long-hole drilling estimated to cost $32,025.00.

We recommend that a unit-cost contract be approved for the revised program.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The unpatented Hilltop mine claims are in T. 19 N., R. 37 E., Clan Alpine mining district, Churchill County, Nevada. They are near the summit on the east flank of the Clan Alpine range at altitudes of 6,000 to 7,500 feet.

To reach the area from Fallon, Nevada, the main supply point of the region and the county seat of Churchill County, travel east along paved U. S. Highway 50 for 58 miles to Eastgate, then north along an improved county road for 28 miles to the mine camp at Byers Ranch. Continue north on the mine road, past a large ore bin at the mouth of Stone Gulch, and up a progressively steeper road for 9 miles to the mine.

The latter part of the road has grades of 34 percent and is negotiable with extreme difficulty in standard gearshift cars. Winter storms block travel to the mine area for short periods, but generally are not severe enough to impede mining operations. A new access road with a gentler grade is under construction.

Trailer houses, capable of accommodating 10 men, are currently being used at the mine camp. Necessary equipment, supplies, and personnel may be obtained at Fallon or at Reno.

A spring at the mine camp furnishes 100 gallons of water per minute for domestic and mine use. Power is supplied by diesel- and gasoline-driven engines.

HISTORY AND PRODUCTION

The initial tungsten discovery was made by G. G. Staggs and A. J. Quilici and a claim was located November 25, 1951. It was sold to Bennett W. Porter in the spring of 1953. A five percent over-riding royalty, which had been retained by one of the owners, was purchased by Mr. Porter August 25, 1955.

An application, DMEA-3180, submitted November 1953, requested assistance to construct 9,050 feet of roadway, trench the area by bulldozer, erect an ore bin, drift 100 feet, and establish a small mine plant and camp. A field examination disclosed that most of the proposed work had been completed by the applicants and therefore no recommendations were made.

An amended application, dated April 21, 1954, resulted in contract Idm-E707 and a revised two-stage program. Stage I consisted of bulldozing surface trenches 200 feet east of the lower outcrop to explore for a favorable mineralized bed and to strip overburden from it if located. Stage II consisted of driving an adit 850 feet northwest if results of Stage I were favorable.

Bulldozing under Stage I was unsuccessful and Stage II was not started. Under Amendment No. 1 funds were re-allocated to diamond drill not in excess of 1,000 feet of holes to intersect the projected faulted segment of the ore body. Two holes were started but were abandoned at shallow depths due to drilling difficulties. The contract was terminated July 23, 1956.

Mining started at the outcrop and No. 1 adit shortly after completion of the road in 1953 and several shipments of high-grade ore were made.

The applicant reported the shipment data and proceeds as follows:

Dry tons sold	Net units WO_3	Grade, percent WO_3	Value
384.95	715.47	1.86	$27,442.77
535.06	828.16	1.55	$23,727.23

Shipment records were compiled by the applicant from returns from several custom mills in Nevada and southern California.

There has been no ore shipped from the property since late 1955; however, work completed during the summer and fall of 1957 disclosed additional ore reserves in a lower level. About 900 tons of ore taken from the tunnel has been stockpiled.

PROPERTY AND OWNERSHIP

General supervision will be by Mr. Arthur Lakes, geologist and mining engineer, who has had 30 years mining experience. Immediate supervision will be by Mr. Walter Deighton, who has more than 20 years experience as a mine foreman and superintendent. The company will furnish its share of expenses by money and amortization on equipment used.

The property consists of 19 lode claims and one placer claim, owned by the Tungsten Mountain Mining Co., recorded at the Churchill County Courthouse at Fallon, Nevada. They are listed in the application by book and page number.

Exploration work is proposed on the following claims:

Claim name	Date recorded	File No.	Book	Page
Hilltop	12/1/51	75220	26	314
Porter No. 1	10/18/53	78647	27	67
Artel No. 1	10/18/53	83583	28	173

We believe the claim Hedi No. 1, adjoining the Hilltop claim to the south, should be included in the project in the event scheelite mineralization should extend into that area. The Hedi No. 1 is recorded in book 27, page 142.

The applicant requested that the other claims and all ore mined and stockpiled prior to the date of the application be excluded from the contract repayment terms. This is a reasonable request and should be granted.

DEVELOPMENT

The mine area is developed from three adits that total 810 feet in length, and bulldozer cuts that total 8,150 linear feet. The work from No. 1 portal consists of about 340 feet of crosscuts, drifts, and raises. The No. 2 has 55 feet of workings, and the No. 3 has 415 feet of crosscuts and drifts. All workings are in good condition except those in No. 2 adit which are inaccessible.

A bulldozed road to the north portal site explored an additional 350 feet of the mineralized stratigraphic zone.

GEOLOGY

In the area of the Hilltop claims the Clan Alpine Mountains consist of shale, argillite, and limestone that have been intruded by a stock of granite and partly covered by volcanic rocks. The sedimentary rocks have been folded, faulted, and are locally intensely fractured.

The principal sedimentary rock is a shale unit about 2,000 feet thick that strikes generally north and dips 40° - 70° E. It is thin-bedded near the base but becomes thicker bedded generally toward the upper part where it is locally a massive- to thick-bedded mudstone. Near the upper part of the mudstone unit there is a stratigraphic zone, 75 feet or less thick, in which there are a few limestone interbeds in the shale and local limy facies of the shale. The limestone beds and limy shale facies are generally thin discontinuous lenticular bodies en echelon with one another at slightly different stratigraphic horizons, but essentially confined to the 75-foot stratigraphic zone. Some of the rocks have been silicified and small bodies of tactite have been formed in limestone and limy shale.

The intrusive stock ranges in composition from granite to granodiorite and is about 4,000 feet in diameter. The mine area is on a hilltop near the west edge of the stock. West of the mine area the sedimentary and intrusive rocks are overlain by andesite and rhyolite tuffs, flows, and agglomerates of probable Tertiary age which strike north and dip gently west. Locally, near the contact of the sedimentary rock with the granite, the shales are metamorphosed to argillite and hornfels, the limy beds are marbleized, and the beds are rotated in blocks having divergent strikes.

Near the top of the hill two limbs of the limy stratigraphic zone outline a syncline with an axis which plunges N. 80° E. about 55 degrees. The north limb strikes generally north to N. 20° W. and dips 40° to 70° NE; and the south limb strikes generally N. 60° W. and dips vertically to 75° NE. Bedding faults are common, particularly along the contacts of mudstone with the more competent limestone and limy shale. Northwest- and northeast-trending vertical cross fractures are prominent in the mine workings. Several sets of joints are well developed and in places are closely spaced.

A low-angle reverse fault, striking about N. 30° W. and dipping about 15° NE, cuts the favorable stratigraphic zone between the upper and lower adits of the present workings (Tunnels No. 1 and No. 3 respectively; figs. 2 and 3). The upper block has moved west over the lower block with a dip slip component of about 60 feet. The upper block has also moved north with respect to the lower block, and the synclinal axis is displaced an unknown distance to the south in the lower block where only the N. 20° W. limb has been found.

ORE DEPOSITS

The tungsten ore bodies consist of scheelite and minor amounts of powellite which occur disseminated in tactite and limy shale, and in thin discontinuous stringers along bedding planes or coating fracture surfaces in mudstone adjacent to tactite and limy shale beds. The

grade of the ore is variable, from slightly higher than two percent WO_3 to 0.4 percent or less WO_3. The grade appears to be controlled largely by variations in the local abundance of tactite and limy shale, and in Tunnel No. 1 high-grade ore is locally associated with close-spaced vertical fractures in a zone trending about N. 70° W. in massive- to thick-bedded mudstone. In Tunnel No. 3 the grade of ore is reported to increase at the intersections of a N. 20° W. trending zone of tactite in limy shale with northeast-trending cross fractures.

The operator has classified the ore in two categories: "bedded ore" in tactite and limy shale, and "fissure ore" in close-spaced, steeply-dipping fractures in shale and mudstone. The bedded ores occur in individual beds of tactite and altered limy mudstone locally as much as 10 feet thick but more commonly from 1 to 5 feet thick. Judging from the distribution of the exposures, these individual bedded layers are discontinuous and probably do not exceed 100 feet in length, but one or more is generally present within the 75-foot thick stratigraphic zone. Parallel mineralized beds are separated by 10-50 foot thicknesses of barren mudstone. The fissure ores are found only in Tunnel No. 1 but most exposures are now obscured by

lagging. The ore occurs chiefly as coatings on fracture surfaces and the grade appears to be principally a function of the number and spacing of fractures within the zone, and of the continuity of scheelite veinlets within the individual fractures.

Between the surface and the low-angle reverse fault (fig. 2, cross section) the highest grade ore is in the trough of the syncline which is also the intersection of a N. 60° W. trending zone of close-spaced vertical fractures with a N. 20° W. trending mineralized tactite bed. The synclinal axis has been displaced to the south in the lower block and the workings of Tunnel No. 3 expose only the N. 20° W. striking limb.

The exposures in Tunnels 1 and 3 demonstrate the downward continuity of ore in the favorable stratigraphic zone. Exposures of mineralized beds to depths 137 feet below Tunnel No. 3 along the northward continuation of the favorable zone indicates that ore may continue to equivalent depths below the level of Tunnel No. 3. The absence of good marker beds, however, and the multiplicity of individual mineralized beds within the favorable stratigraphic zone indicates that exploration of ground below the level of Tunnel No. 3 should be carefully planned to explore the entire zone rather than merely one or two mineralized beds within it.

SAMPLING

Nine samples were taken of the stockpiled ore and of exposures in the mine area to arrive at the probable grade of the ore. Except for the high-grade stockpiles, the locations are shown on figures 2, 3, and 4.

Sample No.	Width, feet	Percent WO_3	Descriptions
500	grab	1.46	Represents 160 tons in lower stockpile.
501	grab	1.75	Represents 85 tons in lower ore bin.
502	grab	0.20	Represents 650 tons in stockpile near portal of No. 3 tunnel.
503	6.0	0.10	Tactite in lower road cut at No. 4 portal site.
504	4.0	0.40	Tactite and argillite near No. 4 portal site.
505	3.0	0.02	25-28 ft. point stub drift, No. 3 tunnel.
506	6.0	2.17	Sulfide zone in tactite main tunnel.
507	3.0	2.23	Tactite, just south of raise.
508	3.0	0.03	Left wall end No. 3 tunnel.

ORE RESERVES

There are no measured reserves at the Hilltop mine, because the exposed ore has not been systematically sampled. Approximately 900 tons of ore from Tunnel No. 3 has been stockpiled in the vicinity of the mine. As there has been virtually no stoping in the workings of Tunnel No. 3 this ore is principally the by-product of

development and exploration work. This ore has been sorted into high-grade and low-grade fractions and separated into three piles. There are two stockpiles of high-grade ore totaling 250 tons of material, reported by the operator to have a grade of 2 percent WO_3 or more. In addition, 650 tons of low-grade material reported to assay up to 0.5 percent WO_3 is stockpiled about 300 feet north of the portal of Tunnel No. 3.

In Tunnel No. 1 the applicant estimates reserves of 1,200 tons of ore, which on the basis of past production may average 1.61 percent WO_3, for the block of "fissure ore" above the low-angle reverse fault. This estimate appears to be a reasonable figure for that block of indicated and inferred reserves. Most of the material in the two high-grade stockpiles is reported to have come from the high-grade ore body at the southern end of the N. 40° W. drift in Tunnel No. 3. This part of the ore body is approximately 70 feet long and 6 feet wide. If the body is assumed to extend 20 feet up dip and 20 feet down dip, for a total dip length of 40 feet, it contains an additional 1,400 tons of indicated reserves at a grade of approximately 2 percent WO_3. If a total dip length of 70 feet is assumed for the body, indicated and inferred reserves are 2,500 tons of two percent ore. To the north of the high-grade ore body in Tunnel No. 3 there is a block of low-grade

ore approximately 120 feet long and 5 to 15 feet wide. A total of about 650 tons of this material has been stockpiled as low-grade ore reported to contain about 0.5 percent WO_3. If a total dip length of 40 feet is assumed, a total of 2,000 tons of low-grade ore is indicated. If a total dip length of 120 feet is assumed, indicated and inferred reserves total 6,000 tons of low-grade ore. It seems probable that one or more additional shoots of high-grade ore may be found along this or parallel mineralized horizons within the 75-foot thick favorable stratigraphic zone. Surface exposures along the northern extension of this zone show mineralized areas to be relatively abundant at several horizons and it seems reasonable to infer ore bodies aggregating several thousand tons of ore-grade material.

EXPLORATION

The applicant's proposed program consists of about 500 linear feet of bulldozer trenching to expose northern and downward continuations of the ore-bearing beds, 1050 feet of crosscutting or drifting from one of two alternative portal sites on the north and east slopes 150 feet below the No. 3 tunnel, and 150 feet of exploratory crosscuts, for a total of 1,200 feet of crosscutting and drifting.

Subsequent to submitting the application, the applicant has done considerable bulldozing at his own expense and has exposed mineralized beds in the northerly continuation of the favorable stratigraphic zone near the proposed portal site on the north slope.

As the underground project appeared to be larger than necessary, modifications of the program were discussed with Mr. Lakes who expressed his willingness to carry out a revised program in two stages. Stage I is to consist of 700 feet of drifting and 600 feet of long-hole drilling, and Stage II of 200 feet of crosscutting, drifting, and raising. Stage II is to be contingent upon Stage I and subject to the prior approval of the Government.

Stage I

An adit is proposed with a portal on the north slope, as shown on figures 2 and 4. A minimum of 600 feet of drifting in a direction approximately S. 20° E. from that portal site is necessary to explore the ground directly down dip from exposures in Tunnel No. 3. An additional 100 feet along the same line should be allowed to permit exploration of the southeastern extensions of the N. 20° W. syncline, and/or to determine the offset position of the N. 65° W. striking limb of the syncline. The operator should have the option, subject to the prior approval of the Government, to transfer this last 100 feet to Stage II.

Approximately 600 feet of long-hole drilling should be adequate to explore for parallel, en echelon ore bodies. Long-hole drilling should be done at approximately 100-foot intervals starting at a point approximately 100 feet from the proposed portal. The proposed portal site (fig. 4) appears to be in the center of the favorable zone and the long-hole drilling should consist, at each 100-foot interval point, of approximately 50 feet of horizontal drilling into each rib. If, however, subsequent evidence indicates that the adit is to one side or another of the favorable stratigraphic zone the operator should have the option to adjust the lengths of the long-hole drill holes accordingly.

Stage II

Stage II is to consist of exploratory crosscutting and drifting for a total linear distance of 200 feet. The purpose of such supplemental work would be to continue exploration of parallel, en echelon mineralized bodies and their horizontal extensions, to follow up favorable indications from the long-hole drilling. Stage II should be subject to the prior approval of the Government.

EXPLORATION COSTS

It is estimated that the project will take six months to complete by working on a two-shift basis.

Equipment

The operator will furnish the necessary equipment for mining activities. It is suggested that depreciation costs be allowed on

equipment in lieu of rental. In order to arrive at a justified depreciation cost, only those items which might apply to the exploration program are listed.

Equipment owned by the applicant		Estimated value
1	Portable diesel compressor, 315 c.f.m. capacity	$3,500.00
1	Air trammer and booster tank	2,000.00
1	Mucking machine	1,750.00
6	Mine cars, 22-ft. capacity	900.00
1	Timber truck	20.00
1	Air tank, 800-gal. capacity ?	100.00
2	Jack leg hammers (new)	1,530.00
200 ft.	air hoses and couplings	100.00
100 ft.	water hoses and couplings	75.00
1	GMC truck, 5-ton (part-time use)	2,000.00
1	Jeep, 4-wheel drive (new)	2,000.00
1	Copus blower	150.00
	Total:	$14,025.00

$$\frac{\$14,025}{60 \text{ mos.}} = \$233.75/\text{mo. depreciation}$$

Costs

		Cost/ft.
Labor and Supervision		
Drifting and crosscutting, 900 ft. @ 48 ft./6-day wk.		
2 miners @ $260.00/wk.		
2 trammers @ $234.00/wk.		
total labor, $494.00/wk., 20 wks.	$9,880.00	
Cook, bunkhouse etc.	1,000.00	
Supervision:		
1 foreman @ $600.00/mo.		
1 consulting engineer, geologist, (part-time) @ $400.00/mo. work board.		
total supervision, $1,000.00/mo., 5 ~~6~~ mos.	5,000.00 ~~$6,000.00~~	
Total labor and supervision.	$ 15,880.00	$17.64
Operating Materials and Supplies		
Explosives (powder, caps, fuse), based on average 4-ft. round/shift		$ 2.98 2.98
Track, fishplates, bolts, and crossties 1000 track. 16# and 35# rails		1.78 1.28
Airline, waterline, valves, vent tubing 3 3 3 air		1.72 1.36
Power, diesel, gasoline fuel, oil		1.99 2.00
Drill steel, ~~long hole steel,~~ and bit replacement		1.31 1.61
Carbide, picks, shovels, axes		0.31
		~~10.09~~ 9.70
Operating Equipment		
Depreciation on equipment owned by operator, $233.75/mo.		$1.56 1.32
Miscellaneous		
Maintenance and repairs		$ 1.00 1.00
Payroll taxes, insurance, etc.		2.47 2.47
		32.13
Total cost per foot		$32.76
		(rounded to $32.75)

Summary of Costs

Stage I

Drift southeasterly 700 ft. @ $32.75/ft. (adit to be driven 5 ft. by 7 ft. in cross section)	$22,925.00
Long-hole drill 600 ft. @ $1.50/ft. (75 ft. maximum length hole)	$ 900.00
Total cost of Stage I	$23,825.00

Stage II

Crosscut, drift, and/or raise 200 ft. @ $32.75/ft. (locations to be approved by Field Team)	$ 6,550.00
Total, Stage II	$ 6,550.00
Timbering 150 ft., as needed, @ $7.00/ft.	$ 1,050.00
Assay 150 samples, for WO_3, @ $4.00/ea.	$ 600.00
Total estimated cost of the project	$32,025.00
Government participation at 75 percent	$24,018.75

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/2	Chapman	400
8/2	Martin	400
8/2	Martin	130
"	Osmon	110
"	Northcutt	10
8/2	C B	225

400

AUG - 2 1957

Mr. Spangler Pieker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA-4795, Tungsten
Tungsten Mountain Mining Company
Hilltop Mine
Churchill County, Nevada

Dear Mr. Pieker:

The above-docketed application for exploration assistance is being referred to your office for a field examination of the property.

Copies of memoranda dated July 26 and 31, 1957, by N. E. Nelson, Geological Survey, and R. W. Holliday, Bureau of Mines, respectively, relating to the project are enclosed. Also enclosed is an extra copy of the application for the use of the Field Team.

This property was the subject of Contract No. Ida-4707 (Docket No. DMEA-3180), dated September 13, 1954. After bulldozing work amounting to $576.00, and a recess period, the project was terminated unilaterally by a Notice of Termination dated July 23, 1956, for failing to prosecute work pursuant to the terms of the contract. The new application shows that subsequent bulldozing, crosscutting and drifting have been carried on by the Applicant, and consequently another examination is warranted.

The final report of the Field Team advised as follows:

"No ore was discovered as a result of the small amount of work performed with Government assistance. This does not preclude the probability of finding additional ore by further exploration."

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (24B)

APPROVED:

P. F. Yopes (24B)
Member, Bureau of Mines

Thor H. Kiilsgaard (24B)
Member, Geological Survey

Enclosures

cc to: FT REG II
Messrs. RWHolliday, USBM
THKiilsgaard, USGS

TLChapman/esf - 7/31/57
cc to: Docket
Code 400
Admr. R. File
Oper Comm.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/2	Chapman	400
8/2	Martin	400
8/2	Martin	130
"	Johnson	110
"	Mittendorf	100
		225

8/2 Kilogaard 130
8/2 Yoges 138

AUG - 2 1957

Tungsten Mountain Mining Company
511 Securities Building
Seattle 1, Washington

Re: Docket No. DMEA-4795, Tungsten
Hilltop Mine
Churchill County, Nevada

Gentlemen:

The above-docketed application for exploration assistance for tungsten ores has been reviewed by the Division of Iron and Ferro-Alloys, Defense Minerals Exploration Administration, and referred to Mr. Spangler Rieker, Executive Officer, DMEA Field Team, Region II, 1605 Evans Avenue, Reno, Nevada, for a field examination of the property.

Any assistance that you can give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

TLChapman/eaf - 7/31/57
cc to: Docket
Code 400
Admr. R. File
Oper. Committee
Messrs. FMHolliday, USBM
THKilagaard, USGS
FT REG II

8623

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

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DMEA
RECEIVED AUG 2 1957

DATE	INITIALS	CODE
8/2	PK	220
		400
July 31, 1957		

Memorandum

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals and Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Docket No. DMEA 4795 (Tungsten)
New Application
Tungsten Mountain Mining Company
Hilltop and/or Tungsten Mountain
Fallon, Churchill County, Nevada

Subject application is a revision, based on additional work, of Docket No. DMEA 3180. Only a small part of the earlier project was completed and results were inconclusive. Considerable new work appears to have been done by the present applicant. Tungsten concentrate has been shipped from the property.

Recommendations of the Field Team are needed for appraisal. Particular attention should be given to the evidence of mineralization below Fault "A" and to the feasability of the proposed method of exploration.

R W Holliday
R. W. Holliday

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

OFFICIAL FILE COPY
IN REPLY REFER TO:
DMEA
RECEIVED JUL 29 1957

DATE	INITIALS	CODE
7/29	C	220
7/29	WSM	400

July 26, 1957
Re: DMEA 4795
~~Tungsten Mtn. Mining Co.~~
Tungsten Mtn. Mining Property
Churchill County, Nevada
$44,144 - 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 bulldozing, and tunnel drift, the downward and lateral extension of a productive synclinal, steeply dipping altered limestone-hornsfels scheelite-bearing ore structure. The sedimentary rocks, of which the limestone and hornsfels are parts, occupy a reentrant in an irregular granite stock.

The trough of the syncline pitches steeply toward the granite and in depth is probably truncated by the granite, but, as mapped, the cutoff point is at least 200 feet, perhaps considerably more, below the level of the proposed tunnel drift. The best ore, as known, occurs in the trough of the syncline and a fault-shear zone which transects the bedding of the sedimentary rocks.

Data concerning the findings of the 2 drill holes shown, No. 1 and No. 3, should be helpful when judging the validity of the inferences of the applicant. However, the trenching proposed should give telling information. If the No. 4 tunnel is warranted, the extra footage in the No. 5 tunnel should be justified.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

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

July 25, 1957

Tungsten Mountain Mining Co.
511 Securities Bldg.
Seattle 1, Washington

Subject: DMEA 4795

Gentlemen:

Your application for exploration assistance, dated July 22, 1957 submitted to our office at Reno, Nevada has been assigned Docket Number 4795 and referred to the Division of Iron & Ferro Alloys in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

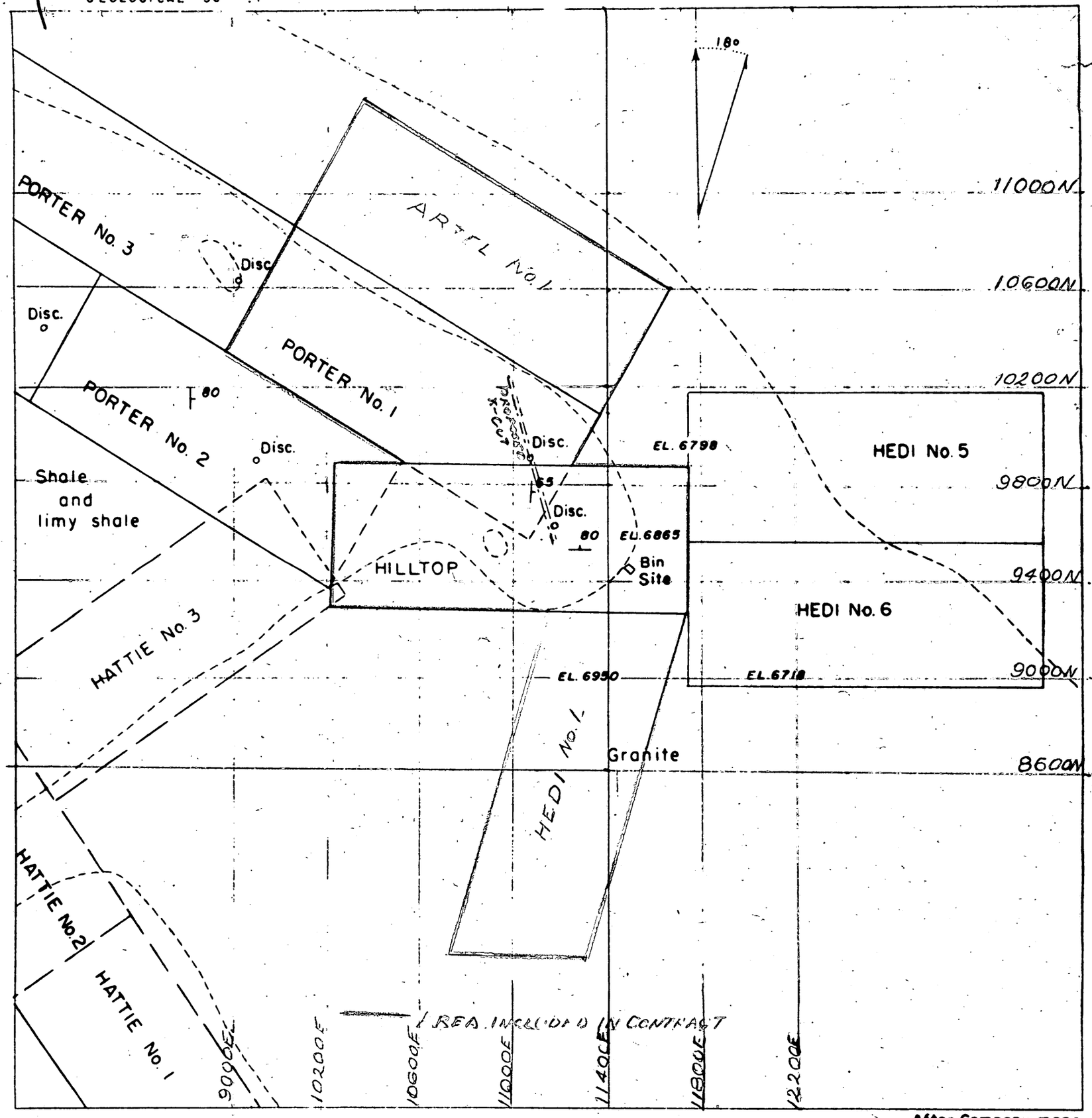
Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:
Division II

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENCE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 4795



After Company maps

FIG. 2 A

MAP OF HILLTOP AND ADJOINING CLAIMS

0 500 1000 FEET

OFFICIAL FILE COPY.
OMEA
RECEIVED DEC 30 1987

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

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(PMGC)

Mr. Johnson

(Letter of [illegible])

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W. W. N. Chamberlain D. M. E.A.	RUN STOP		RUN STOP
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	RUN STOP		RUN STOP

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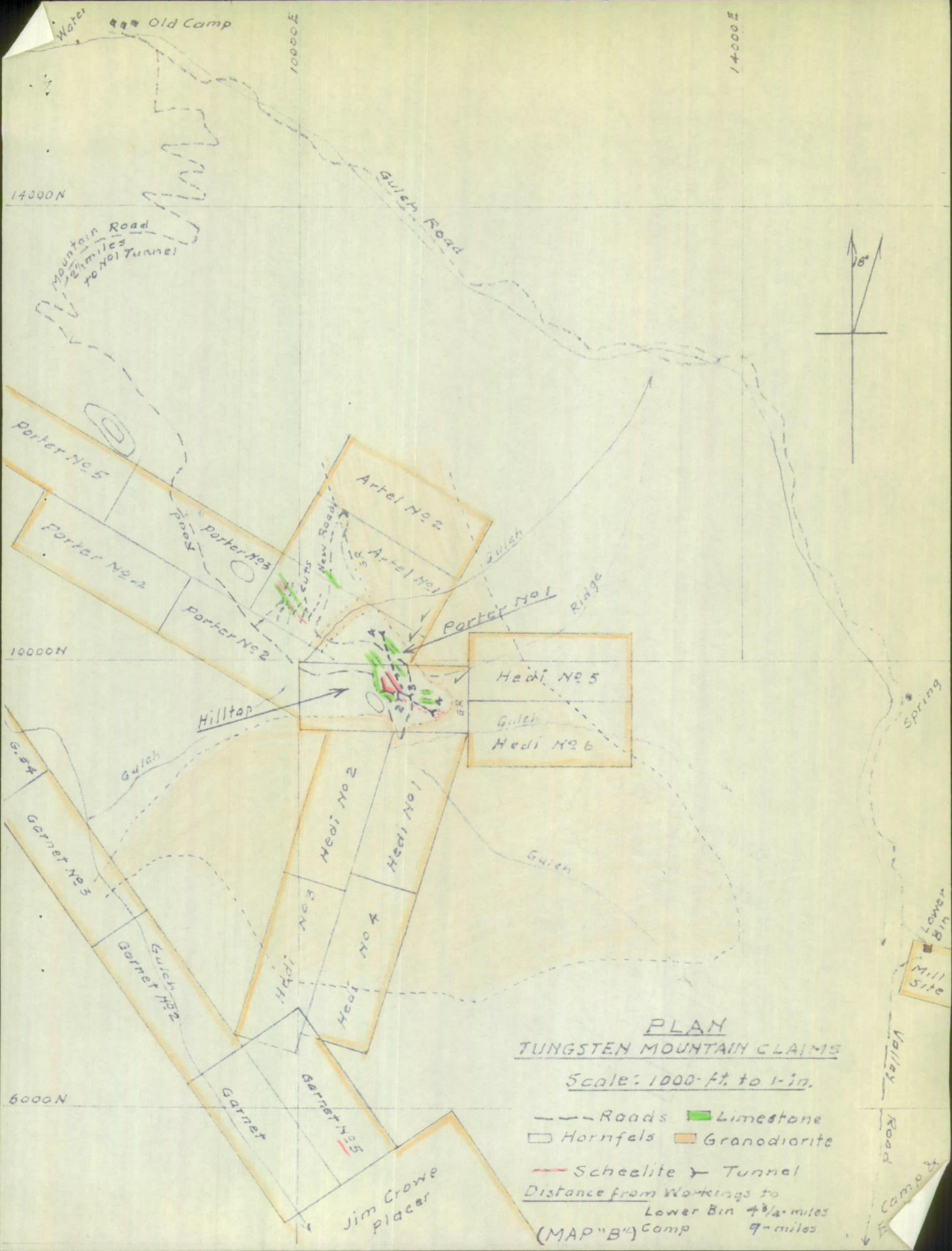
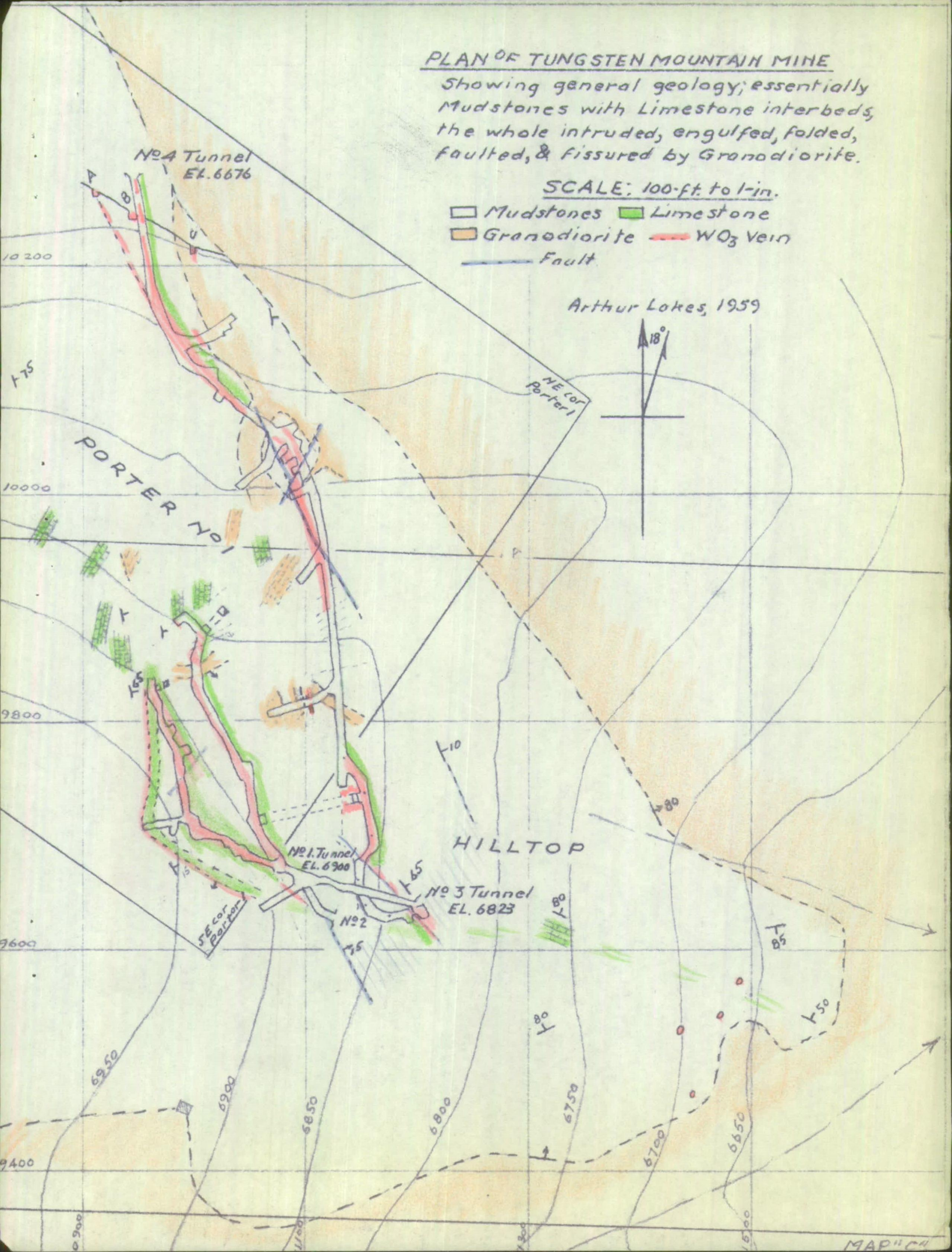

Water
Old Camp
10000E
14000E
14000N
Gulch Road
Mountain Road
2½ miles
to No1 Tunnel
Porter No 5
Porter No 4
Porter No 3
Porter No 2
Porter No 1
Artel No 2
Artel No 1
Cuts
New Road
Gulch
Ridge
10000N
Hedi No 5
Hedi No 6
Hillton
Gulch
Spring
G. #4
Garnet No 3
Hedi No 2
Hedi No 1
Hedi No 3
Hedi No 4
Gulch
Garnet No 2
Garnet
Garnet No 5
6000N
Jim Crowe
placer
Lower
Bin
Mill
Site
Valley
Road
Camp #
PLAN
TUNGSTEN MOUNTAIN CLAIMS
Scale: 1000-ft. to 1-in.
Roads
Limestone
Hornfels
Granodiorite
Scheelite
Tunnel
Distance from Workings to
Lower Bin 4¾ miles
Camp 9 miles
(MAP "B")

OFFICIAL FILE COPY.
D M E A
RECEIVED JUL 25 1957

DATE	INITIALS	CODE


PLAN OF TUNGSTEN MOUNTAIN MINE
Showing general geology; essentially Mudstones with Limestone interbeds, the whole intruded, engulfed, folded, faulted, & fissured by Granodiorite.
SCALE: 100-ft. to 1-in.
Mudstones
Limestone
Granodiorite
WO3 Vein
Fault
Arthur Lakes, 1959
18°
No 4 Tunnel
EL. 6676
NE cor Porter 1
PORTER No 1
HILLTOP
No 1 Tunnel
EL. 6900
No 3 Tunnel
EL. 6823
No 2
SE cor Porter
10200
10000
9800
9600
9400
6950
6900
6850
6800
6750
6700
6650

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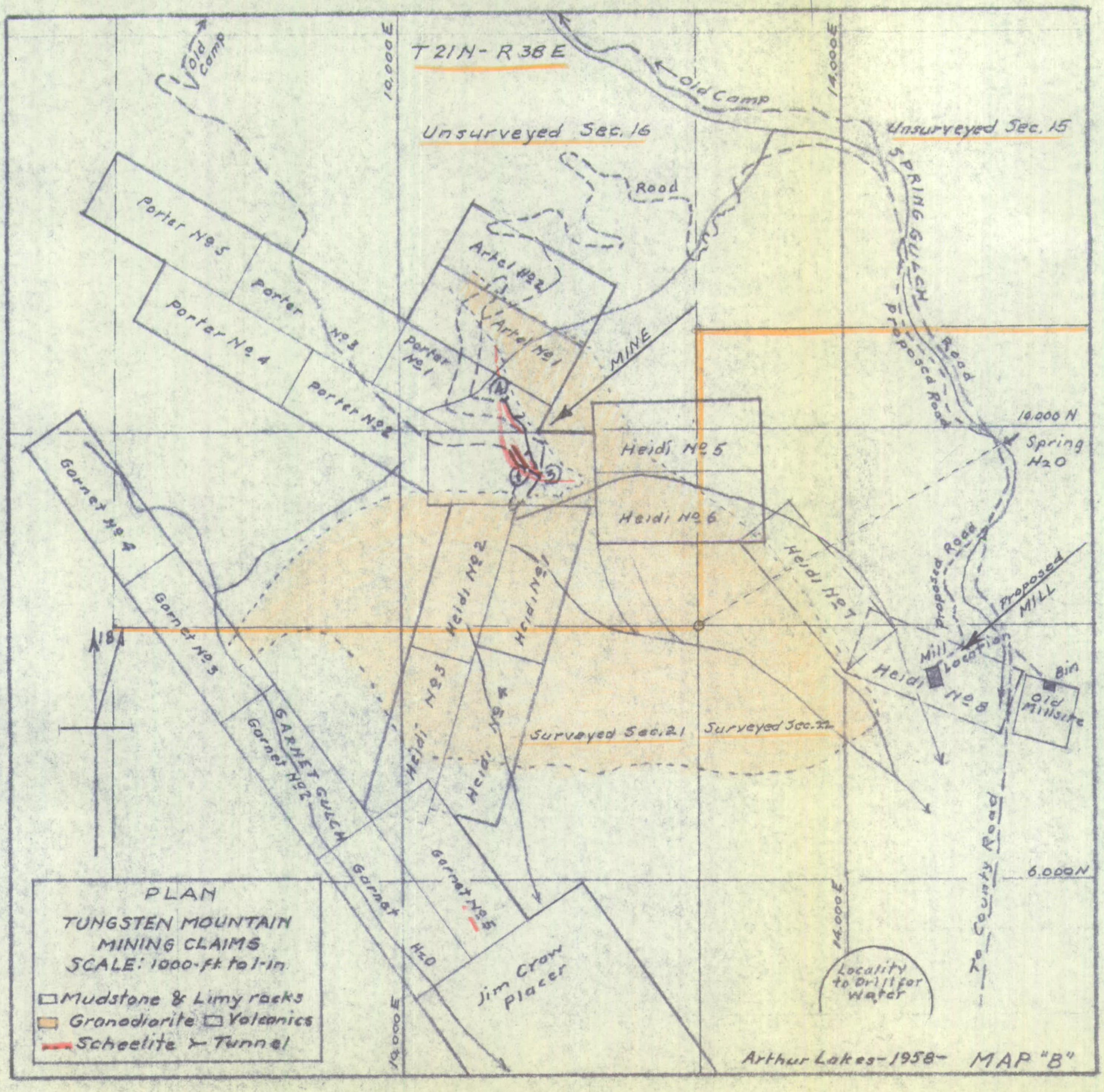
O M E
RECEIVED MAR 6 1959
DATE INITIALS


T 21 N - R 38 E
Old Camp
Old Camp
10,000 E
14,000 E
Unsurveyed Sec. 16
Unsurveyed Sec. 15
Road
SPRING GULCH
Proposed Road
Porter No. 5
Porter No. 4
Porter No. 3
Porter No. 2
Porter No. 1
Arbel No. 2
Arbel No. 1
MINE
10,000 N
Spring H2O
Heidi No. 5
Heidi No. 6
Heidi No. 7
Heidi No. 8
Heidi No. 2
Heidi No. 3
Heidi No. 4
Garnet No. 4
Garnet No. 3
Garnet No. 2
GARNET GULCH
Garnet No. 1
Garnet No. 5
Proposed Road
Proposed MILL
Mill Location
Bin
Old Millsite
Surveyed Sec. 21
Surveyed Sec. 22
To County Road
6,000 N
14,000 E
Locality to Drill for Water
Jim Crow Placer
H2O
10,000 E
PLAN
TUNGSTEN MOUNTAIN
MINING CLAIMS
SCALE: 1000-ft to 1-in
Mudstone & Limy rocks
Granodiorite
Volcanics
Scheelite
Tunnel
Arthur Lakes - 1958 -
MAP "B"

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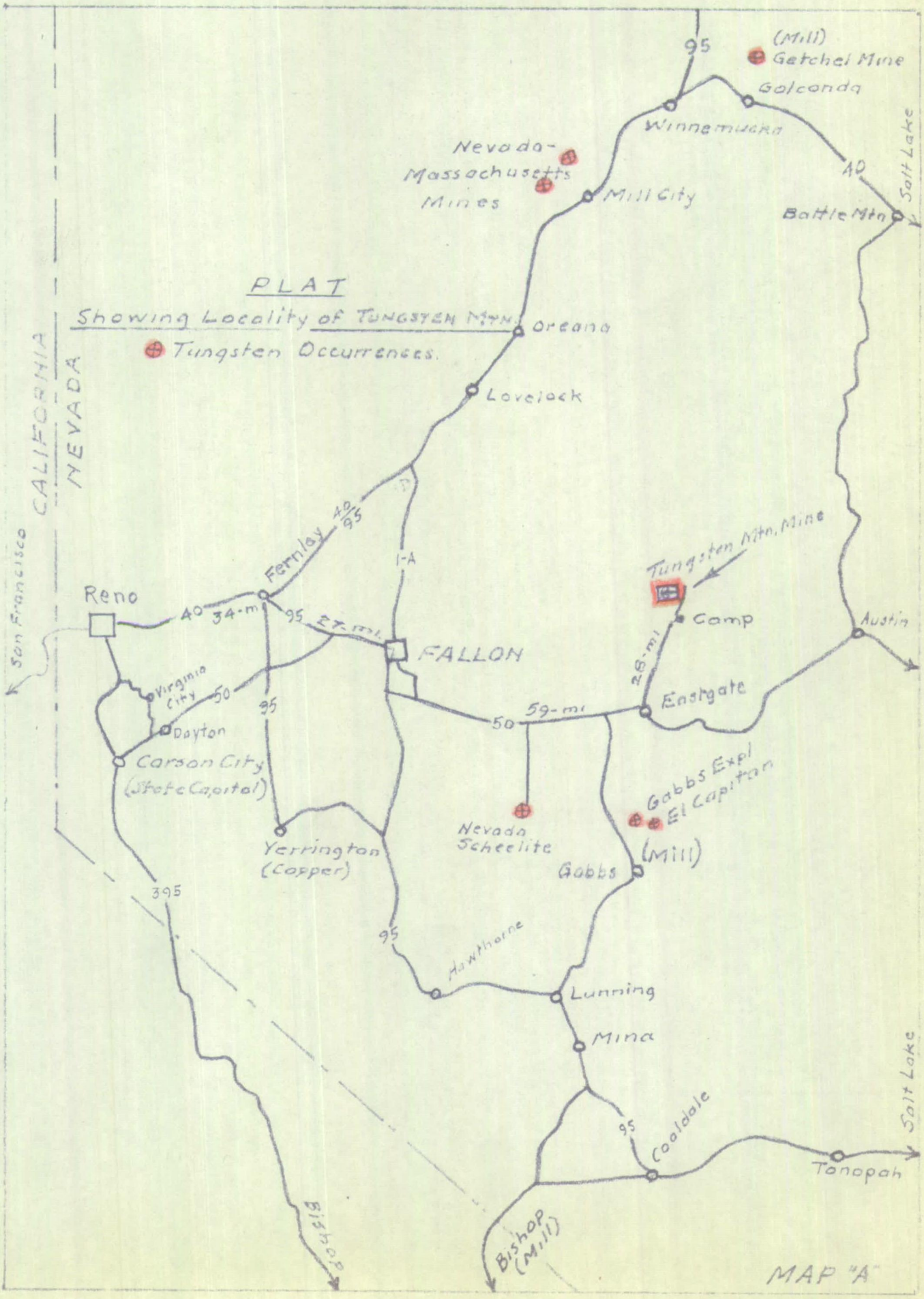
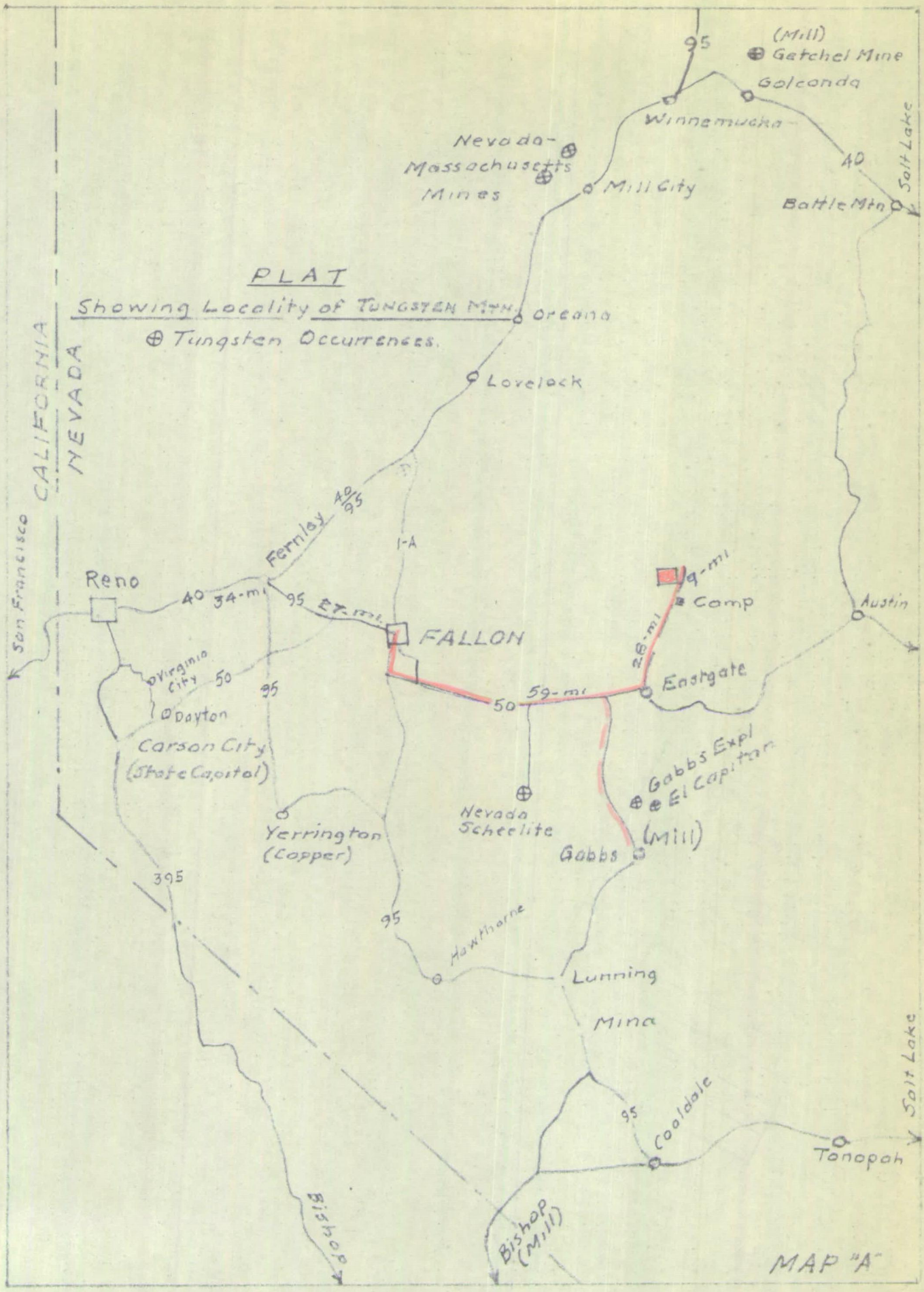
DATE	INITIALS	CODE


PLAT
Showing Locality of Tungsten Mtn.
Tungsten Occurrences.
CALIFORNIA
NEVADA
San Francisco
Salt Lake
Salt Lake
Bishop
Bishop (Mill)
Reno
Virginia City
Dayton
Carson City (State Capital)
Yerrington (Copper)
FALLON
Fernley
Lovelock
Oreana
Mill City
Nevada-Massachusetts Mines
Winnemucca
Golconda
(Mill) Getchel Mine
Battle Mtn
Austin
Tungsten Mtn. Mine
Camp
Enstgate
Nevada Scheelite
Gabbs Expl
El Capitan
(Mill)
Gabbs
Hawthorne
Luning
Mina
Coaldale
Tonopah
95
40
50
395
1-A
34-m
27-mi
59-mi
28-mi
MAP "A"

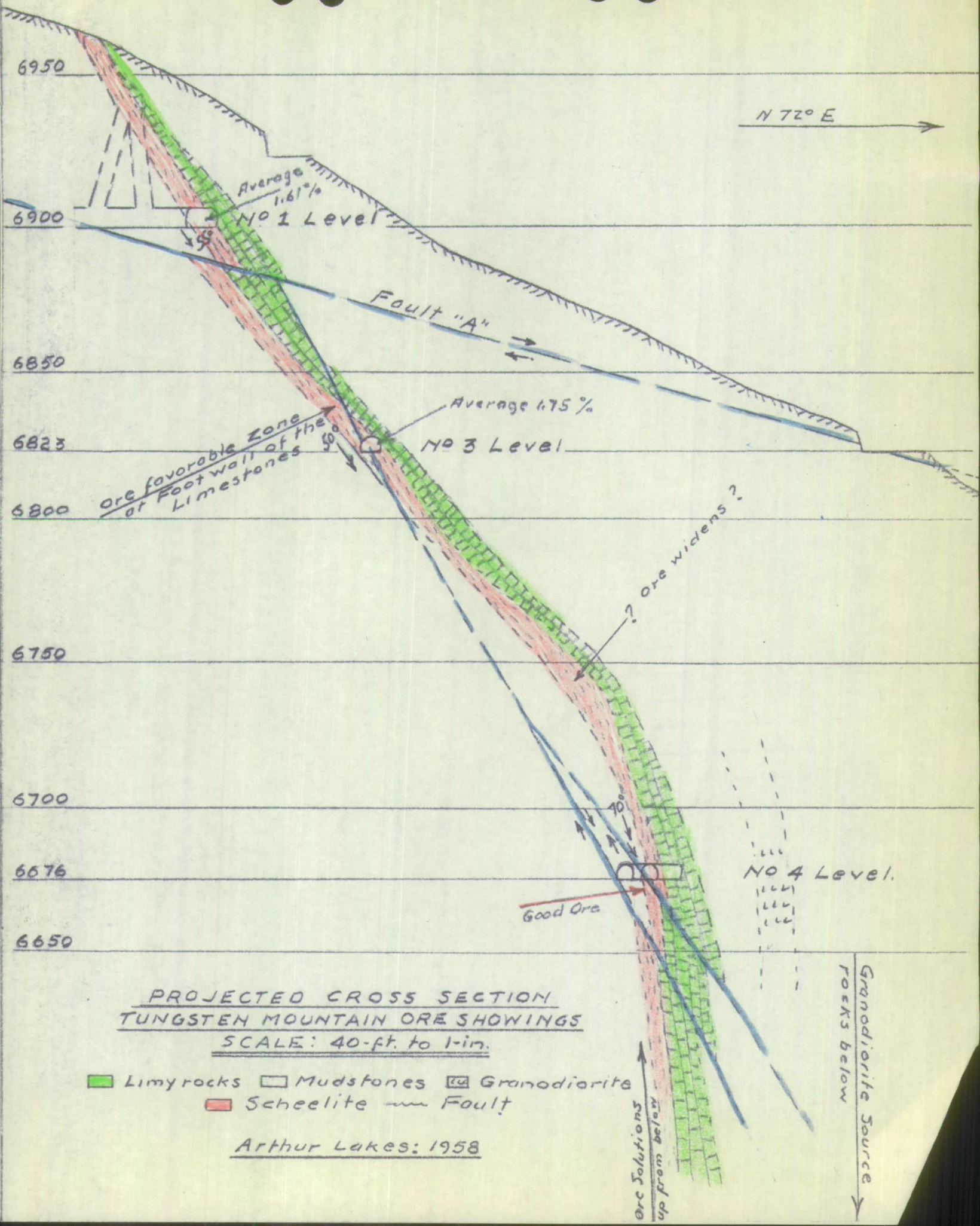
OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 6 1959

DATE	INITIALS	


PLAT
Showing Locality of TUNGSTEN MTN.
⊕ Tungsten Occurrences.
CALIFORNIA
NEVADA
San Francisco
Salt Lake
(Mill)
Getchel Mine
Golconda
Winnemucca
Nevada-Massachusetts Mines
Mill City
Battle Mtn
Orcana
Lovelock
Fernley
40/95
1-A
Reno
40
34-mi
95
27-mi
FALLON
9-mi
Comp
Austin
26-mi
Enstgate
Virginia City
50
95
Dayton
Carson City (State Capital)
50
59-mi
Gabbs Expl
El Capitan
Nevada Scheelite
Yerrington (Copper)
Gabbs
(Mill)
395
95
Hawthorne
Lunning
Mina
95
Coaldale
Tonopah
Bishop
Bishop (Mill)
MAP "A"

OFFICIAL FILE COPY
D M E A
RECEIVED JUL 25 1957

DATE	INITIALS	CODE


6950
6900
6850
6823
6800
6750
6700
6676
6650
N 72° E
Average 1.61%
No 1 Level
Fault "A"
Average 1.75 %
No 3 Level
Ore favorable zone at Foot wall of the Limestones
? ore widens ?
No 4 Level.
Good Ore
Ore Solutions up from below
Granodiorite Source rocks below
PROJECTED CROSS SECTION
TUNGSTEN MOUNTAIN ORE SHOWINGS
SCALE: 40-ft. to 1-in.
Limy rocks
Mudstones
Granodiorite
Scheelite
Fault
Arthur Lakes: 1958

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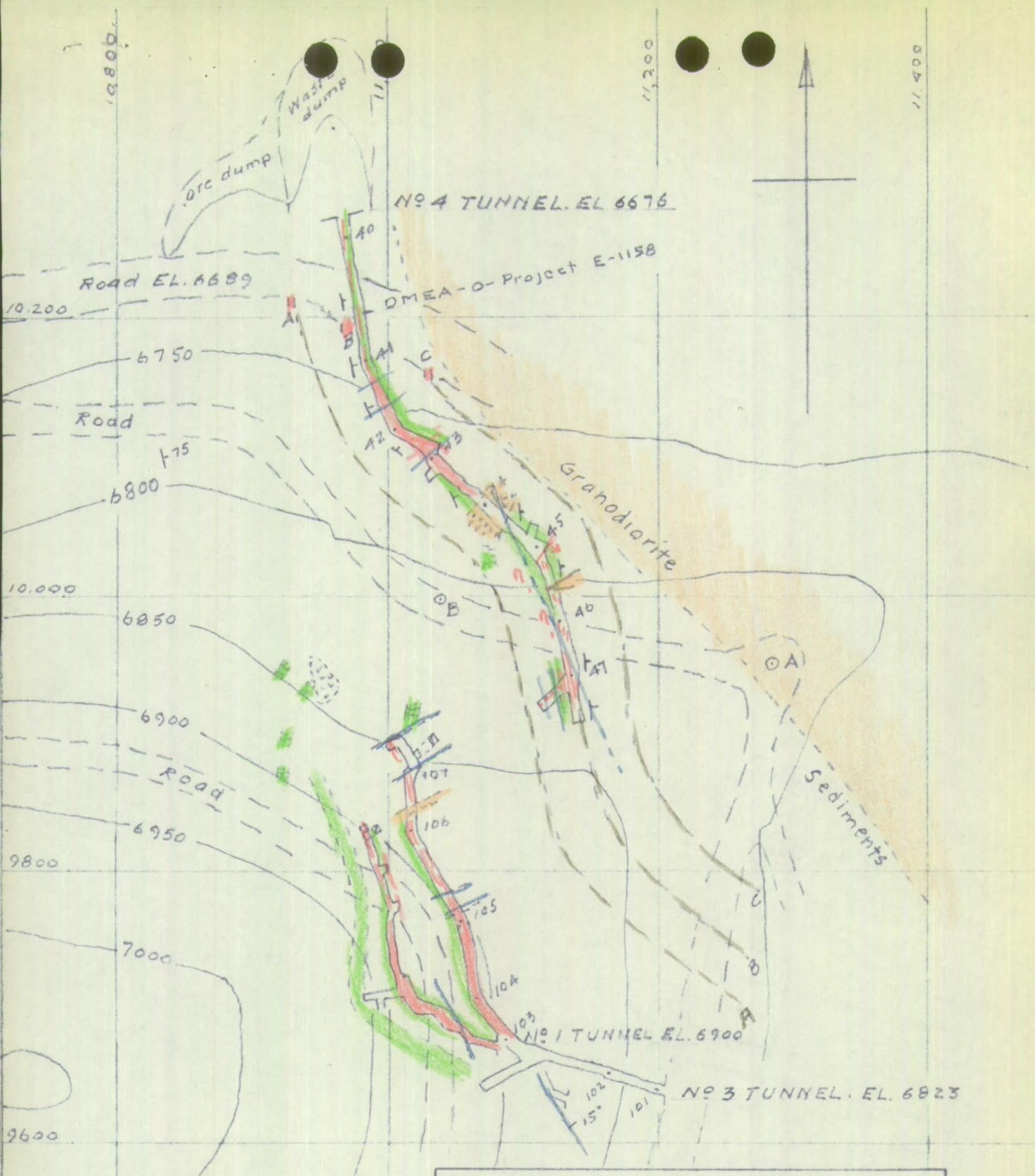
RECEIVED AUG 22 1958

DATE	INITIALS	CODE



TUNGSTEN MTN. WORKINGS

SCALE: 100-Ft. to 1-in.

Hornfels & Argillite — Limy rock

Granodiorite — Scheelite

Fault — Tunnel — Road

Map #1

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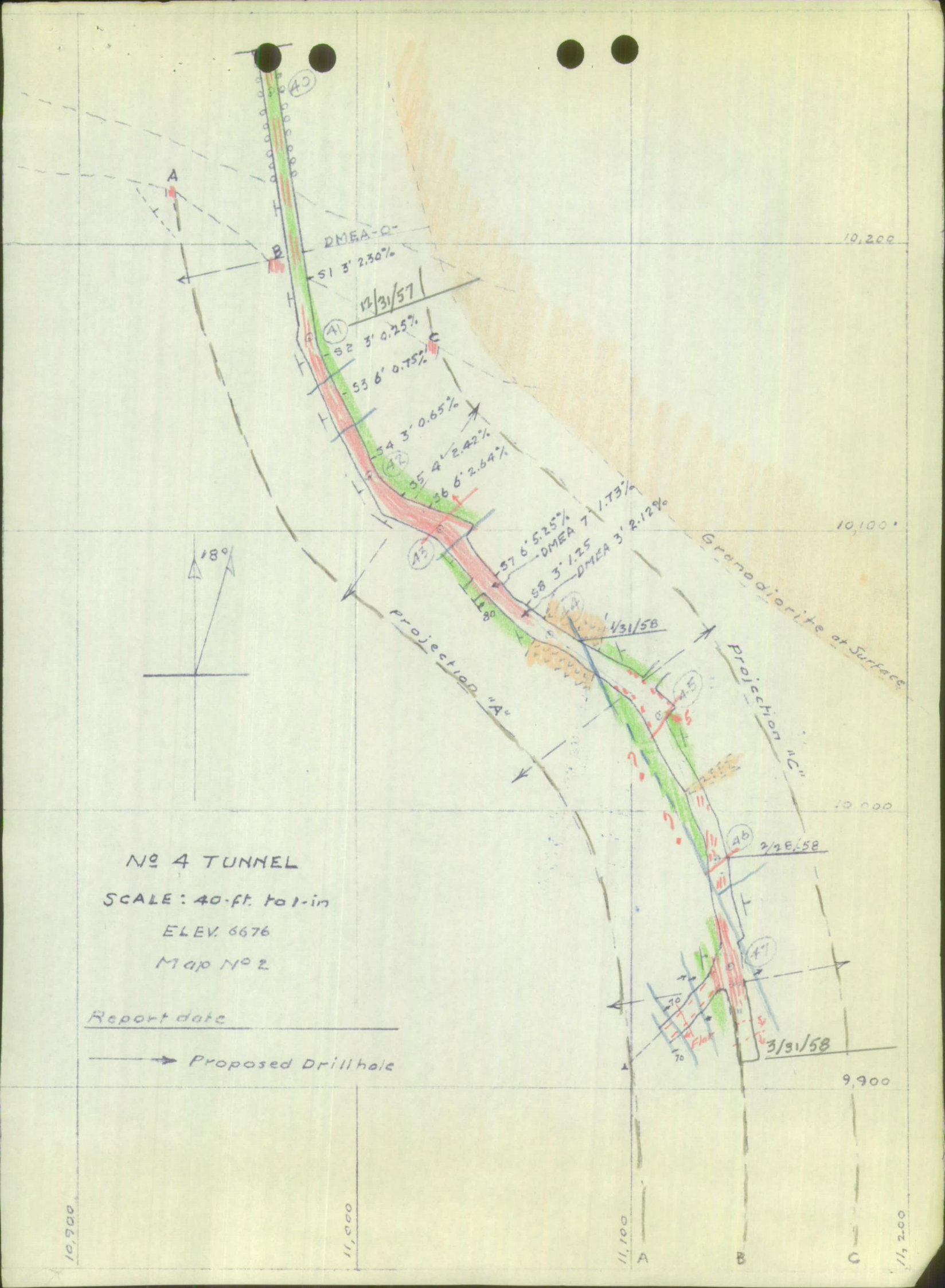
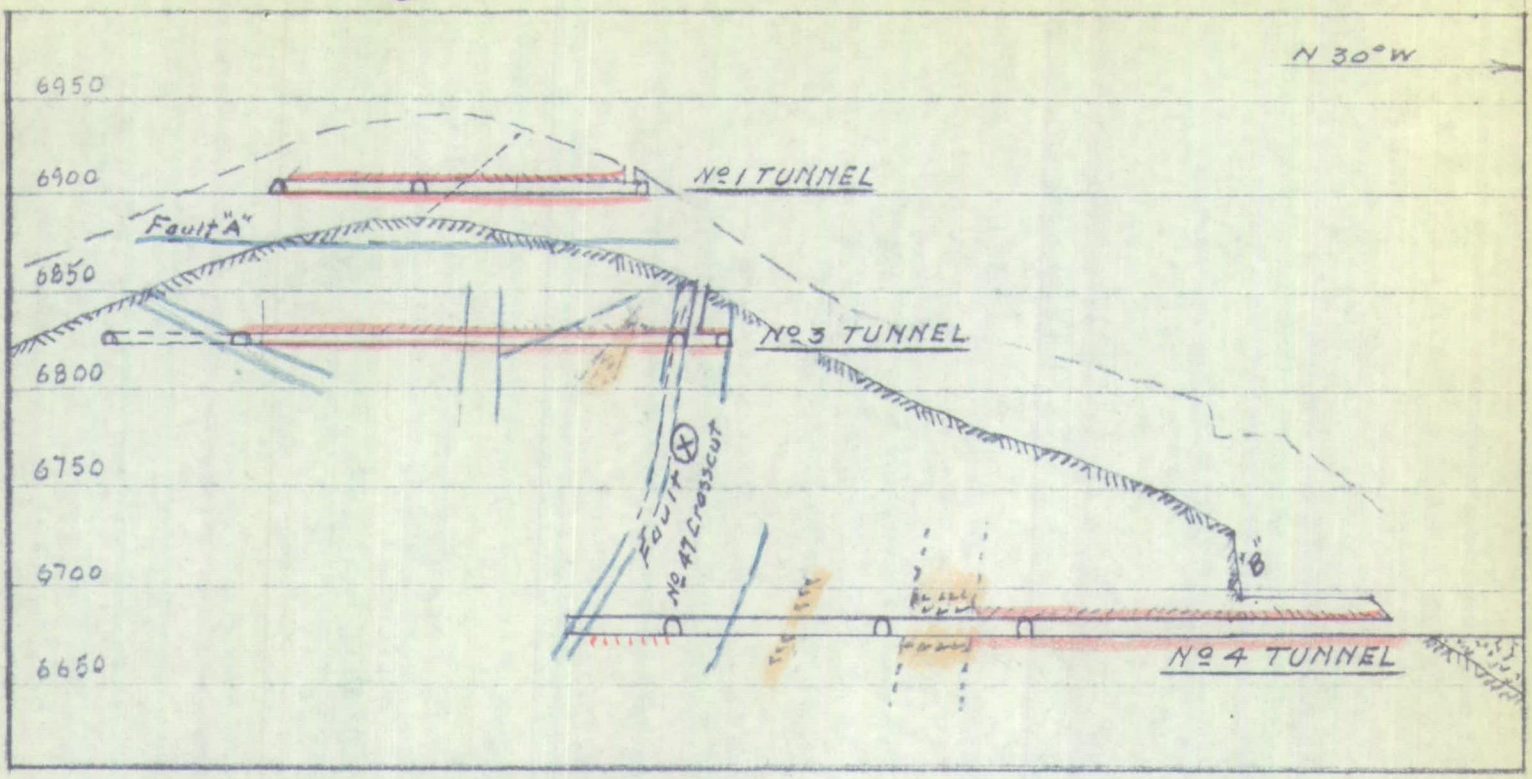
DMEA
RECEIVED APR 14 1958

DATE	INITIALS	CODE

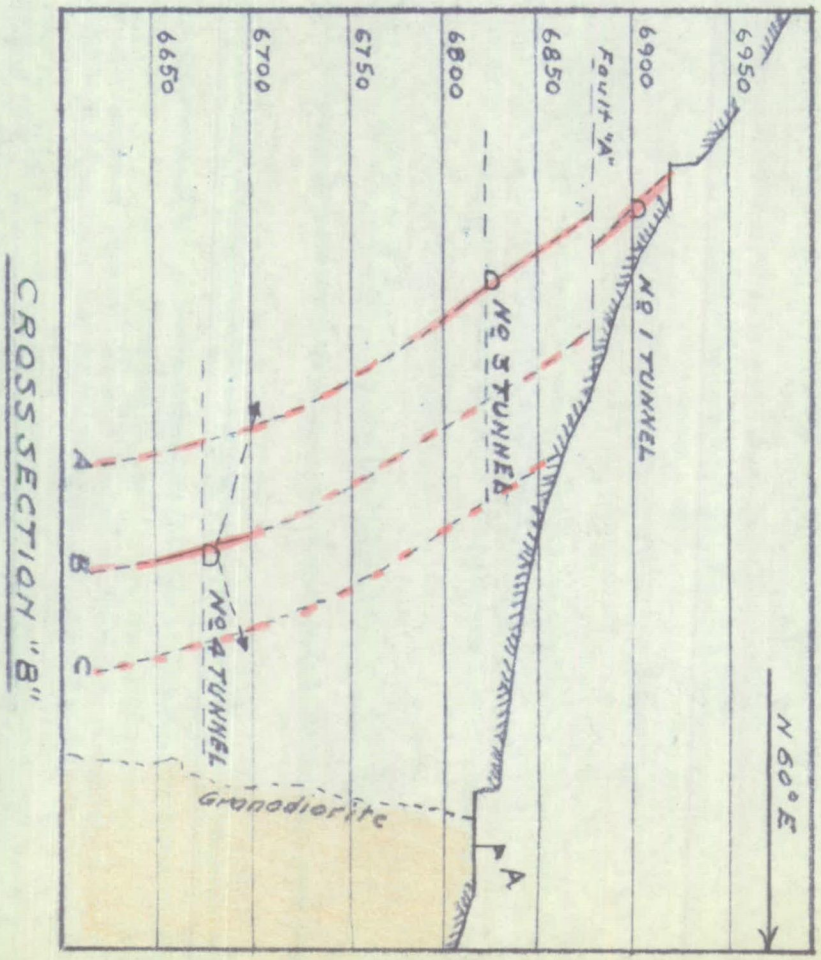

No 4 TUNNEL
SCALE: 40-ft. to 1-in
ELEV. 6676
Map No 2
Report date
Proposed Drillhole
Projection "A"
Projection "C"
Granodiorite at Surface
DMEA-Q-
S1 3' 2.30%
12/31/57
S2 3' 0.25%
S3 6' 0.75%
S4 3' 0.65%
S5 4' 2.42%
S6 6' 2.64%
S7 6' 5.25%
DMEA 7' 1.73%
S8 3' 1.25
DMEA 3' 2.12%
1/31/58
2/28/58
3/31/58
Flat
18°
10,200
10,100
10,000
9,900
10,900
11,000
11,100
11,200
A
B
C

OFFICIAL FILE COPY
DMEA
RECEIVED APR 14 1958

DATE	INITIALS	CODE



LONGITUDINAL SECTION "A" SCALE: 100-ft. to 1-in.



CROSS SECTION "B"

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D M E A
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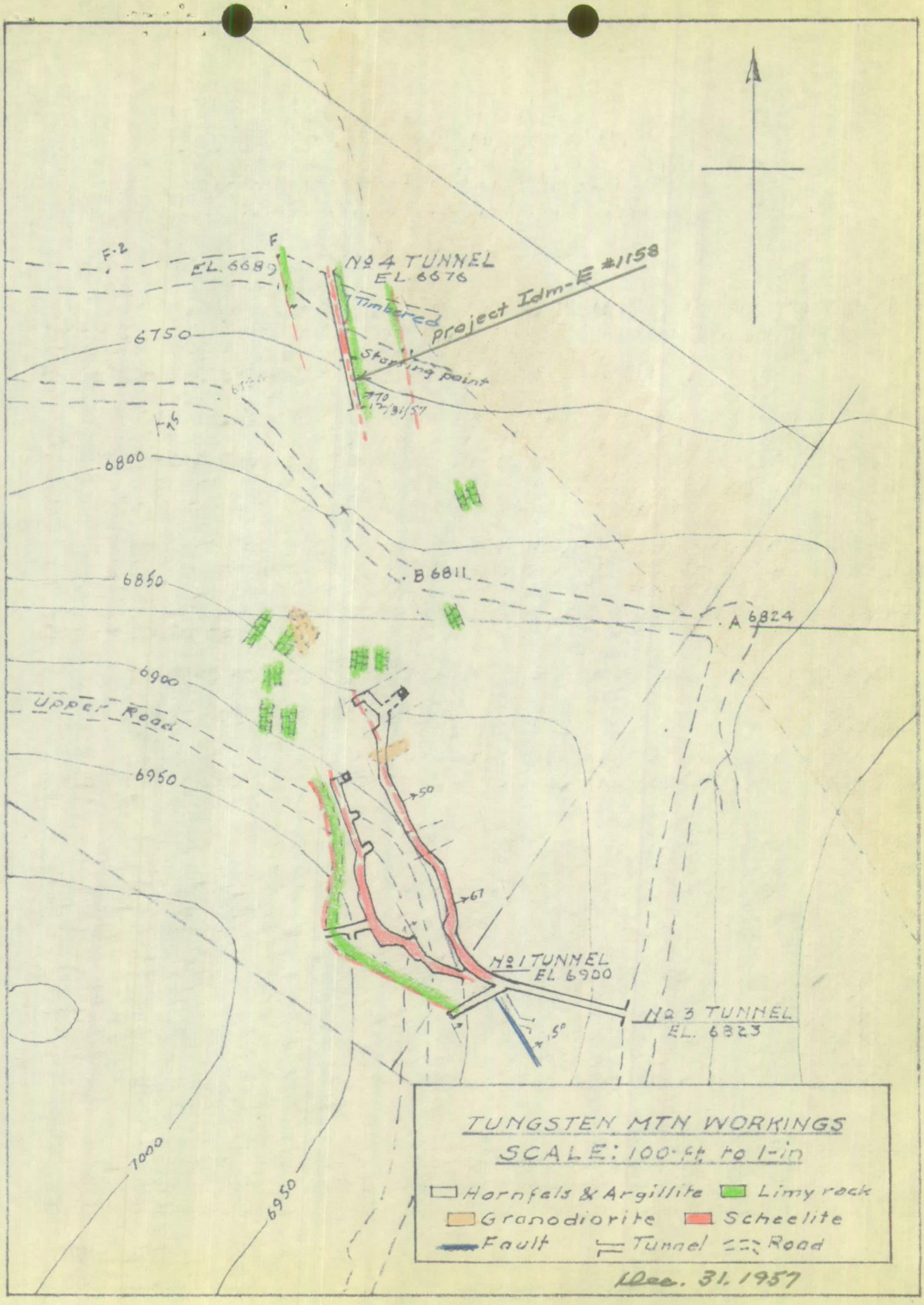
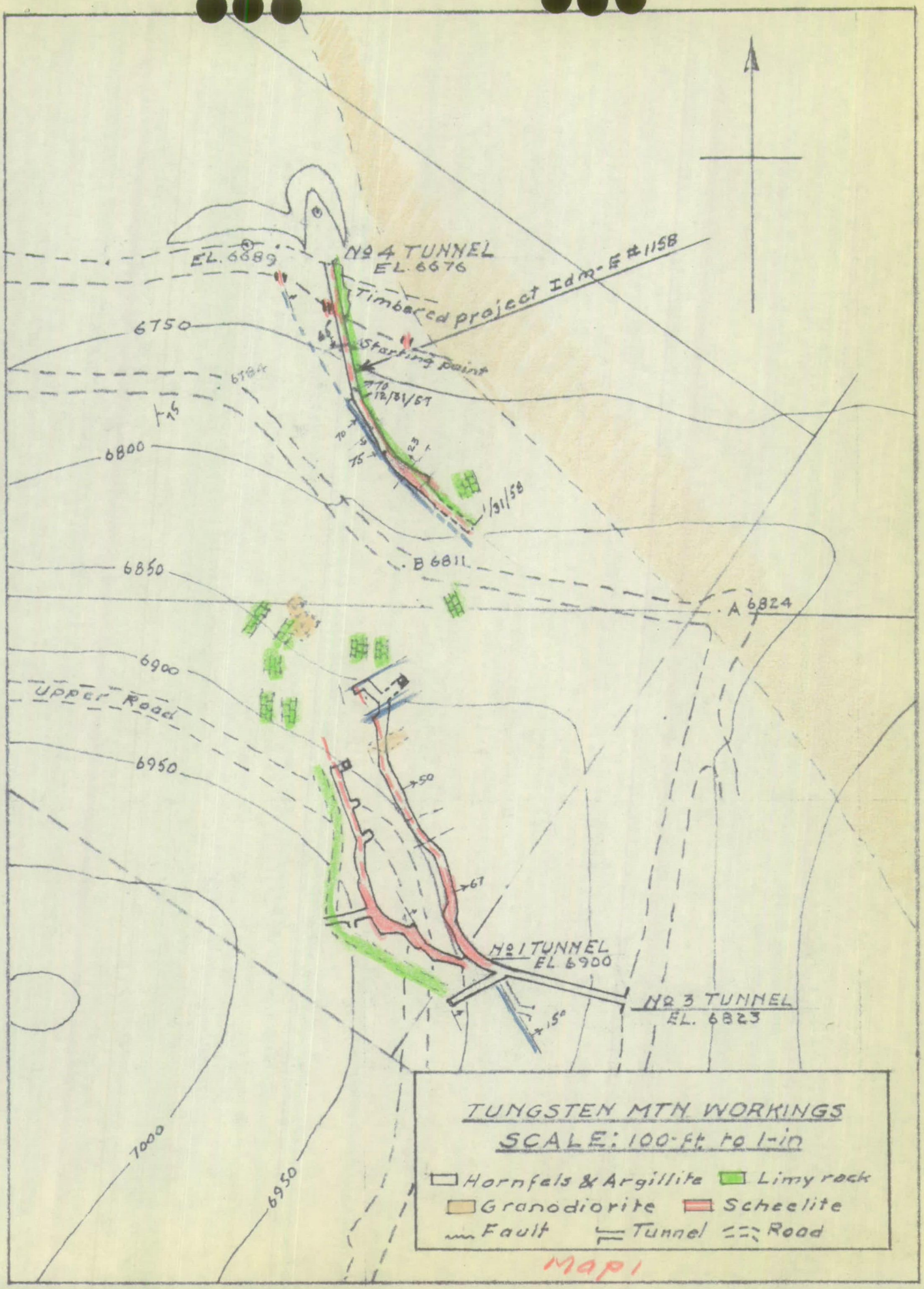
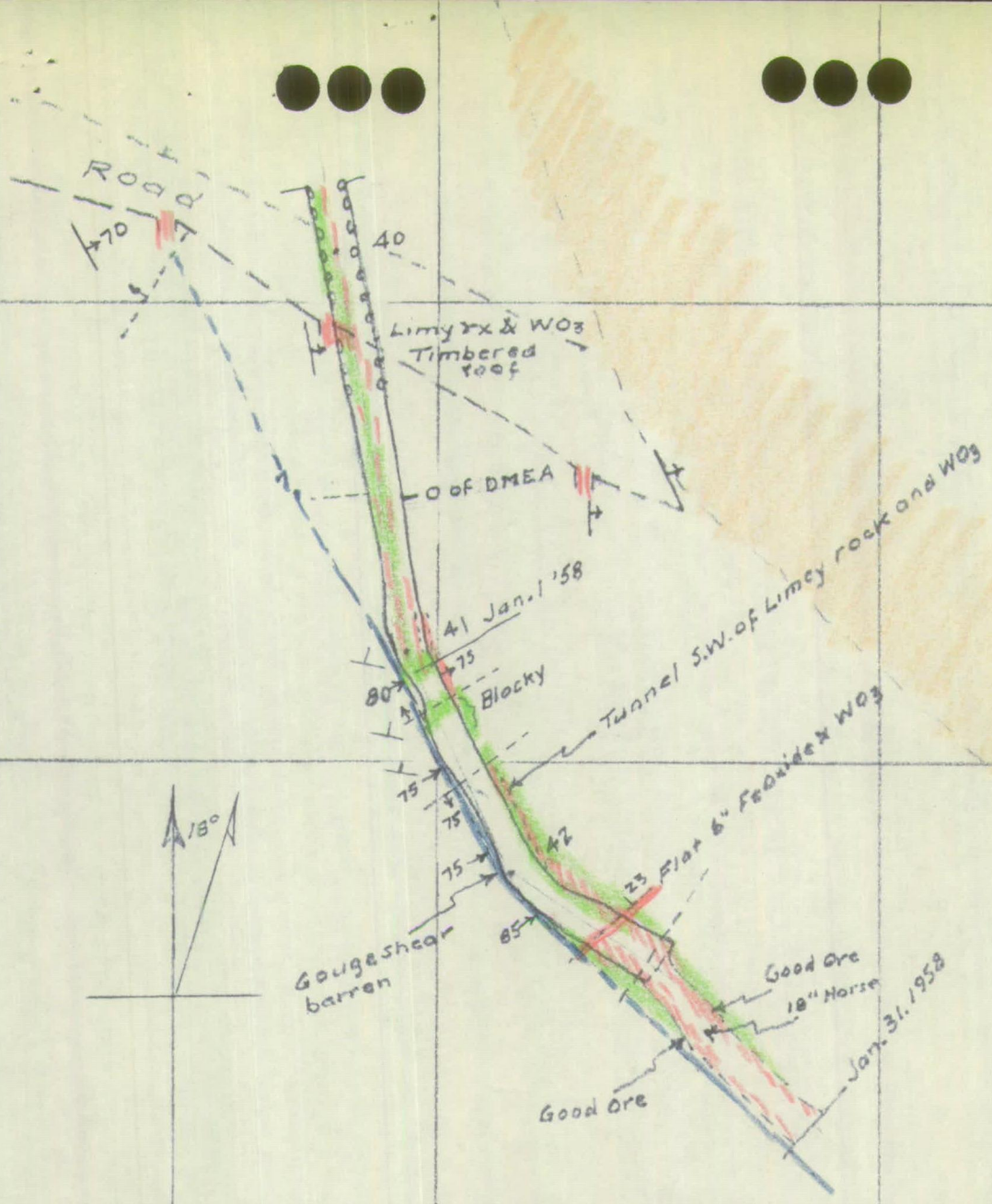
DATE	INITIALS	CODE


F-2
F
EL. 6682
Nº 4 TUNNEL
EL. 6676
Timbered
project Idm-E #1158
Stopping point
770
12/31/57
6750
6800
6850
B 6811
A 6824
6900
Upper Road
6950
50
67
Nº 1 TUNNEL
EL 6900
Nº 3 TUNNEL
EL. 6823
15°
7000
6950
TUNGSTEN MTN WORKINGS
SCALE: 100 ft to 1-in
Hornfels & Argillite
Limy rock
Granodiorite
Scheelite
Fault
Tunnel
Road
Dec. 31. 1957

EXTRA COPY
D M E A
RECEIVED FEB 10 1958

DATE	INITIALS	CODE


TUNGSTEN MTN WORKINGS
SCALE: 100-ft to 1-in
Hornfels & Argillite
Limy rock
Granodiorite
Scheelite
Fault
Tunnel
Road
Nº 4 TUNNEL
EL. 6676
EL. 6889
Timbered project Idm-E #1158
Starting point
12/31/57
1/31/58
6750
6800
6850
6900
6950
7000
B 6811
A 6824
Upper Road
Nº 1 TUNNEL
EL 6900
Nº 3 TUNNEL
EL. 6823
Map 1



NO. 4 TUNNEL

TUNGSTEN MOUNTAIN

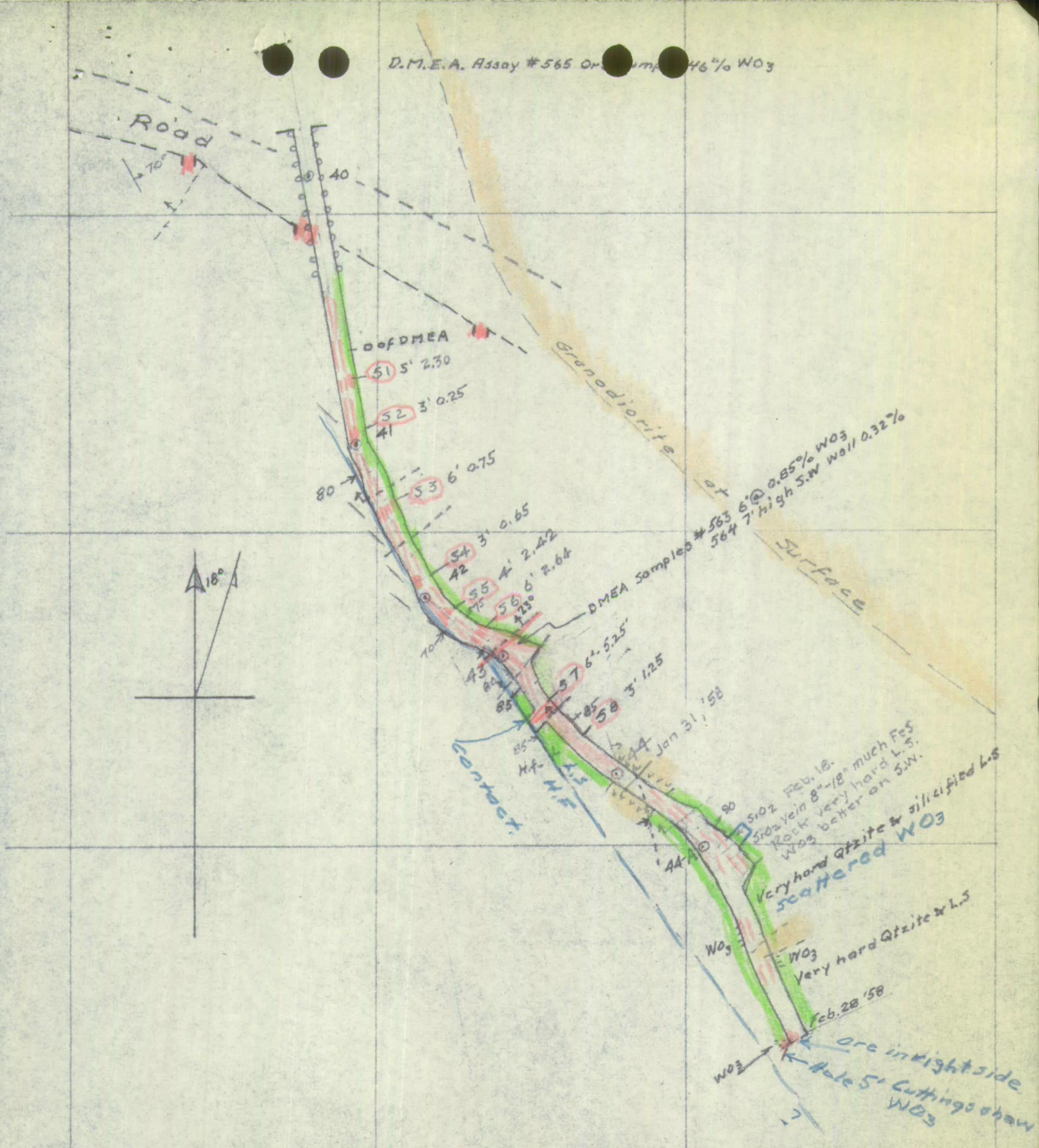
SCALE: 40-ft to 1-in

Argillite & Hornfels — Limy rock

Intrusive Granodiorite — Ore mineral

Map 2.

Report date Jan. 31 '58



NO. 4 TUNNEL

ELEV. 6676

SCALE: 40-ft. to 1-in.

MAP 2

Feb. Advance 107-ft. inclusive 8-ft. x-cuts

Report date 2/28/58

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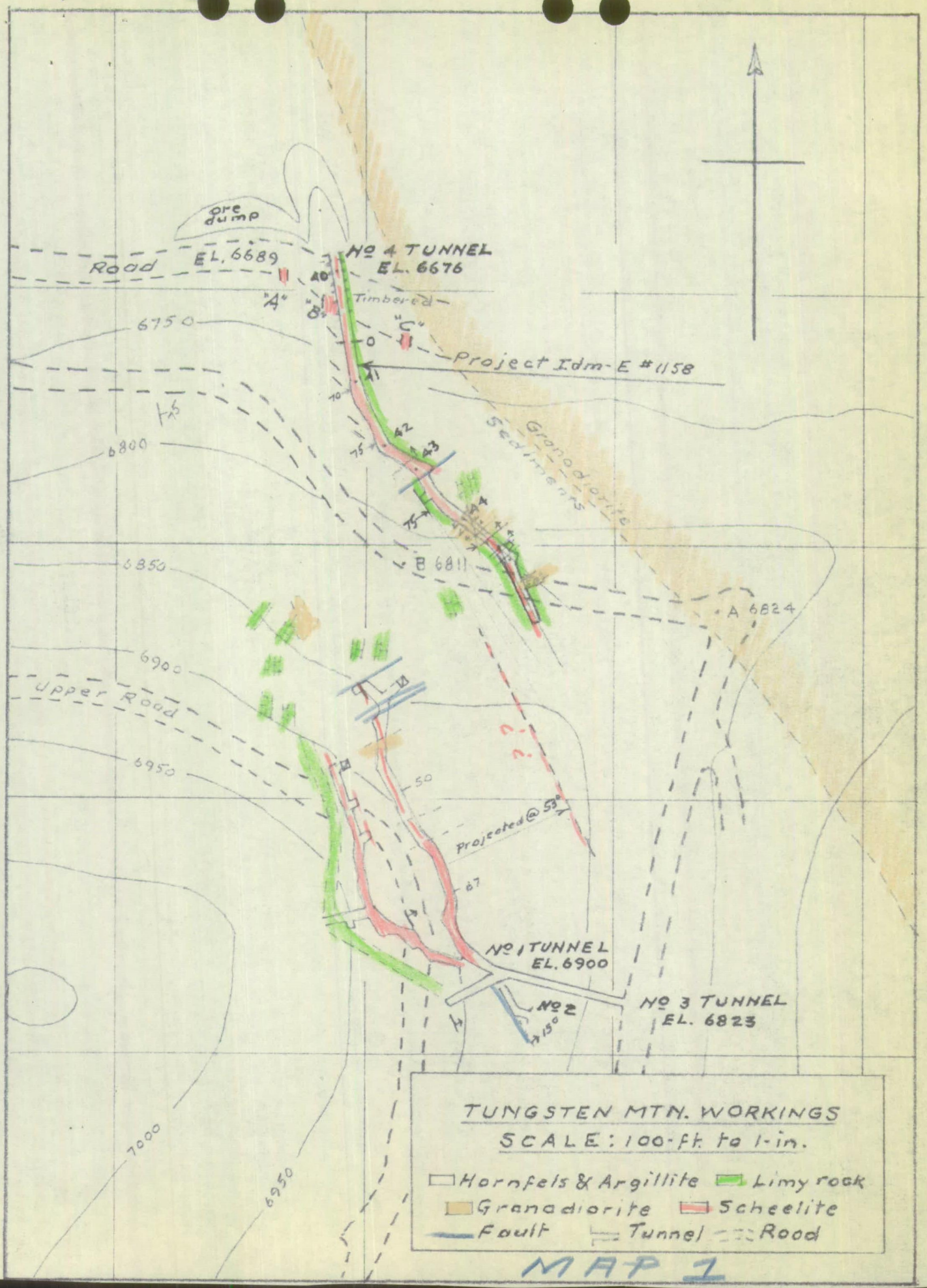
D M E A
RECEIVED MAR 17 1958

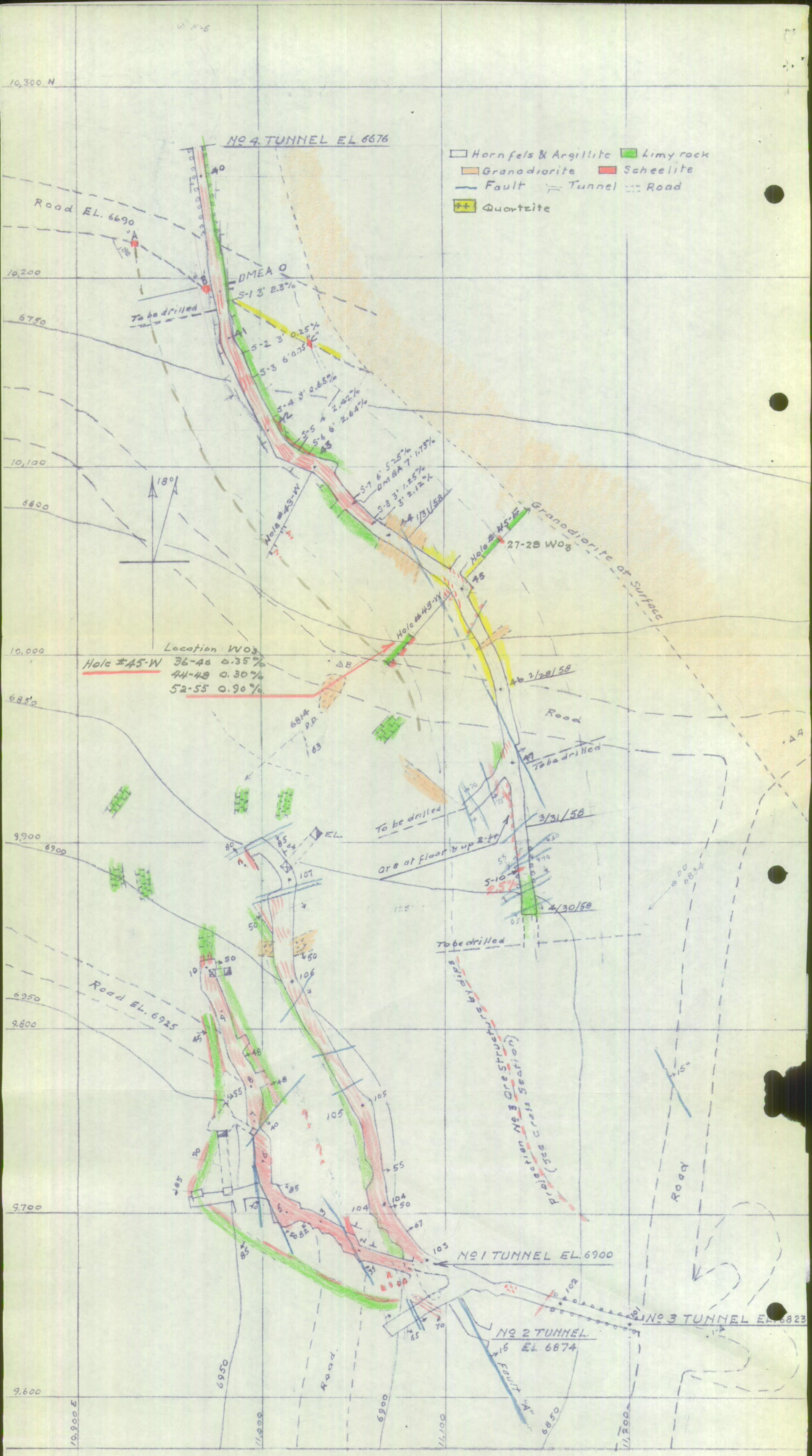
DATE	INITIALS	CODE


ore dump
Road
EL. 6689
No 4 TUNNEL
EL. 6676
"A"
"B"
"C"
Timbered
6750
Project Idm-E #1158
6800
Granodiorite
Sediments
B 6811
A 6824
6850
6900
Upper Road
6950
Projected @ 53°
No 1 TUNNEL
EL. 6900
No 2
15°
No 3 TUNNEL
EL. 6823
7000
6950
TUNGSTEN MTN. WORKINGS
SCALE: 100-ft. to 1-in.
Hornfels & Argillite
Limy rock
Granodiorite
Scheelite
Fault
Tunnel
Road

MAP 1

EXTRA COPY
D M E
RECEIVE 17 58

DATE		CODE



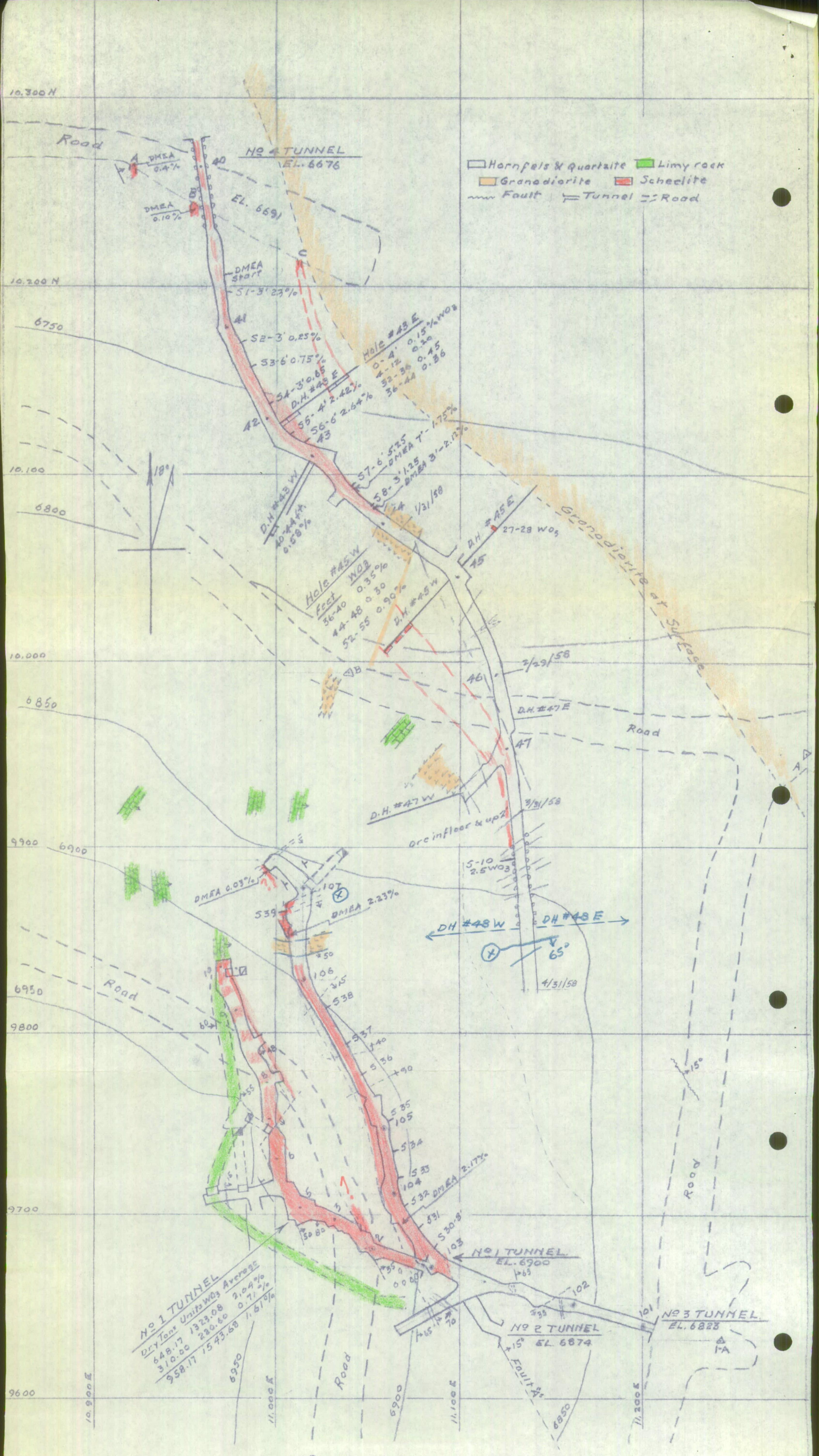
MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date (For April 1958)

EXTRA COPY
DMEA
RECEIVED MAY 26 1958

DATE	INITIALS	CODE



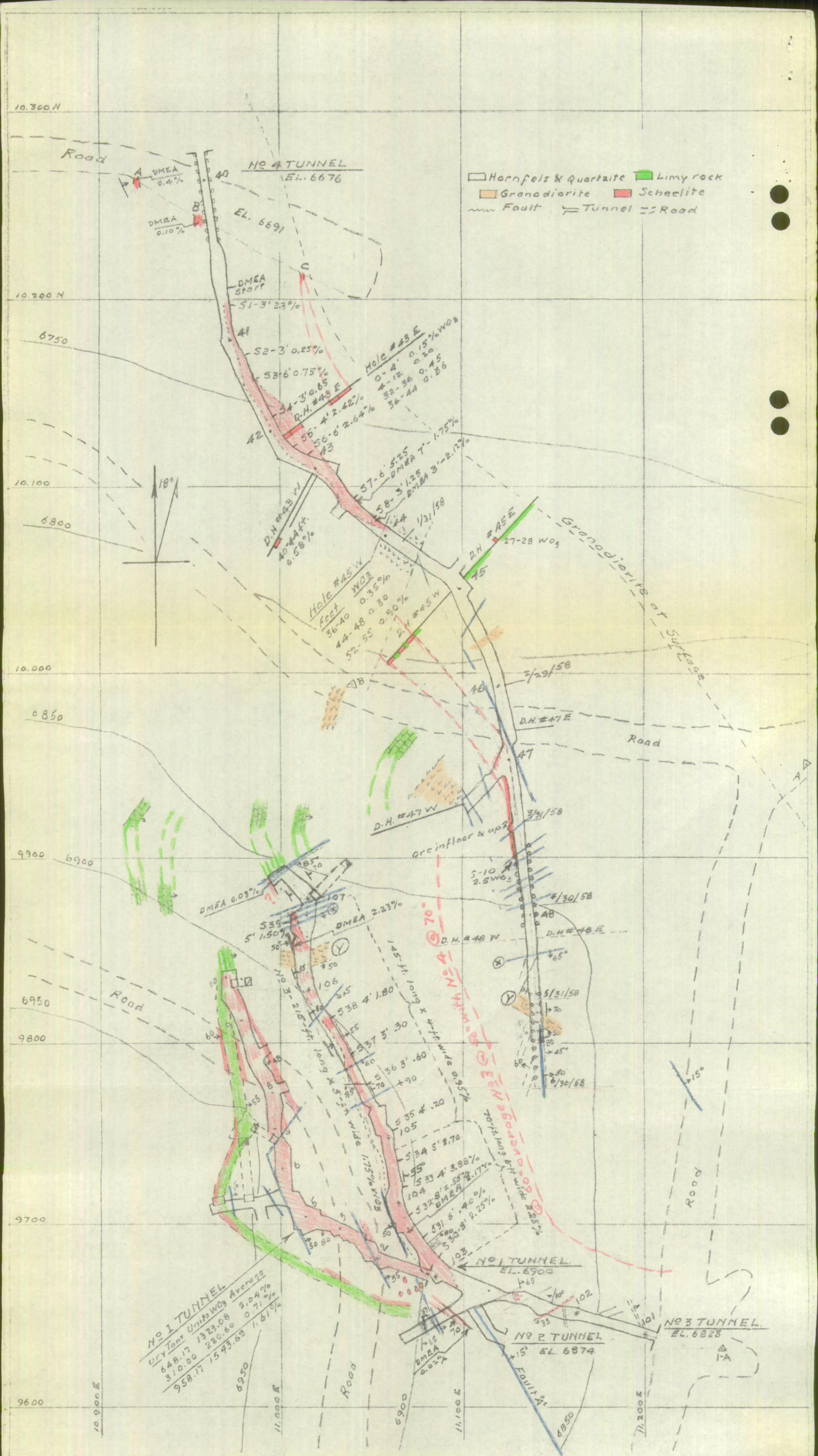
MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date June 5 '58

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 19 1958

DATE	INITIALS	CODE



MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date 7/5/58

EXTRA COPY
D M E A
RECEIVED JUL 23 1958

DATE	INITIALS	CODE

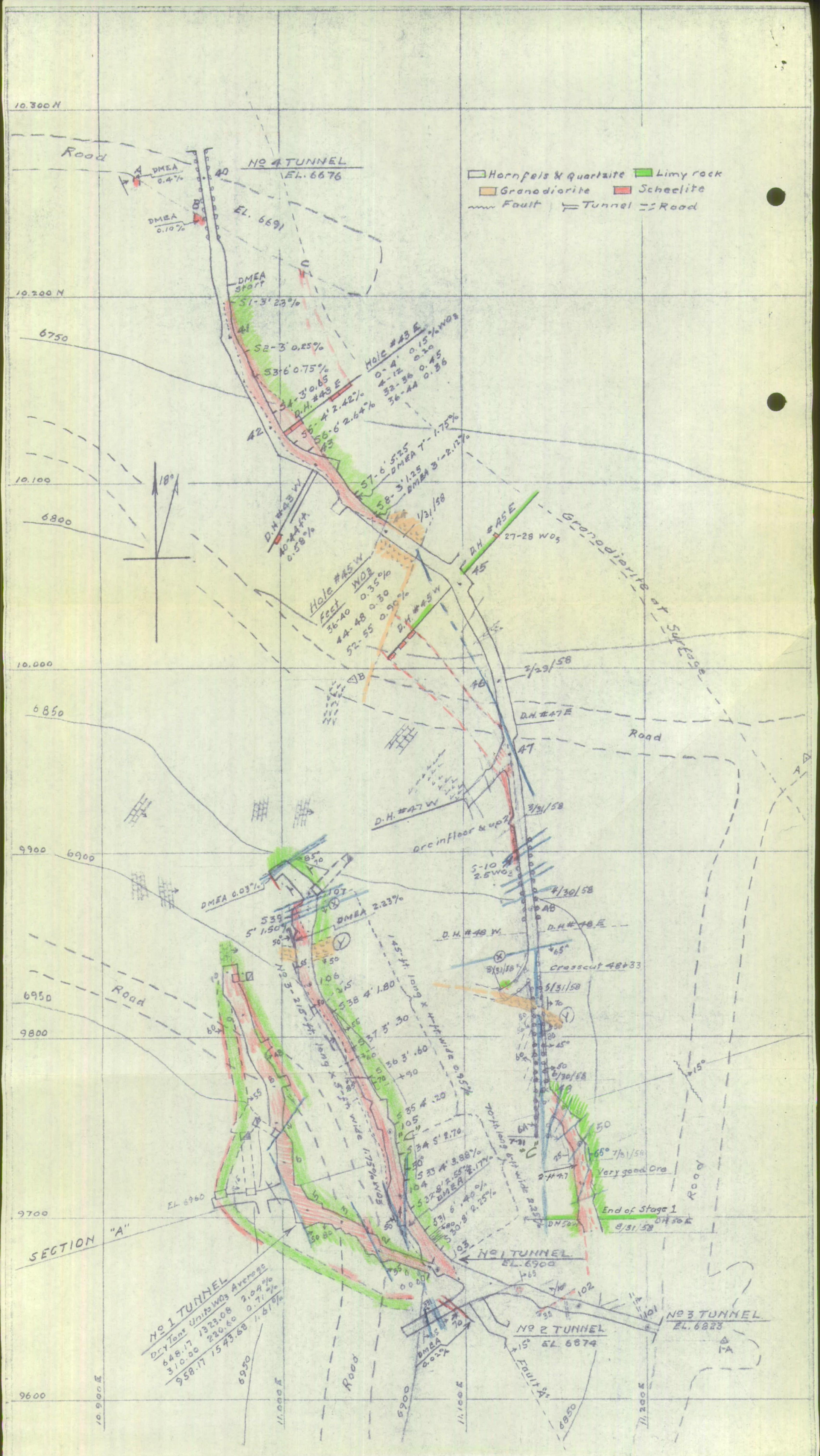
MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date 8/5/58

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 22 1958

DATE	INITIALS	CODE



MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date 8/31/58

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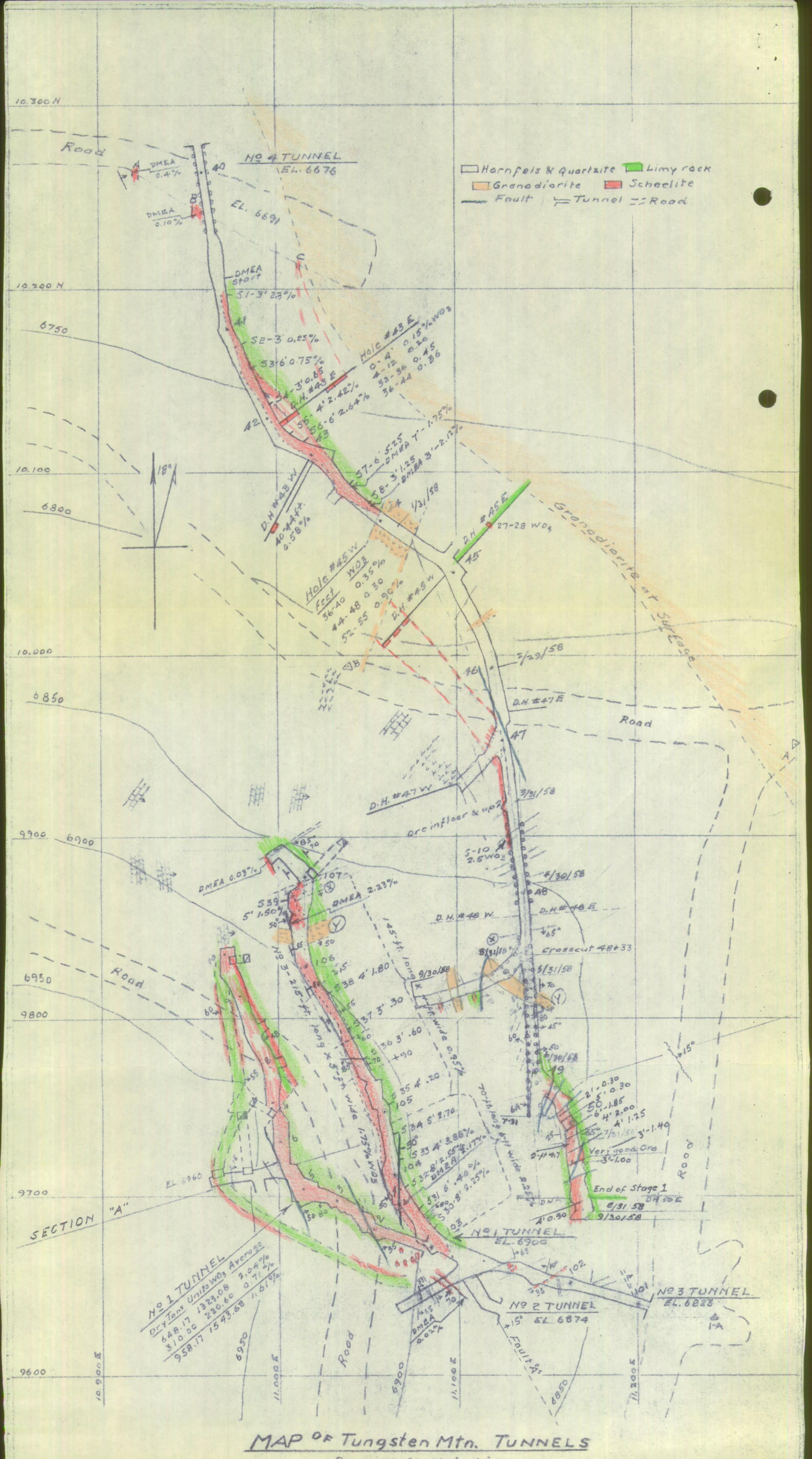
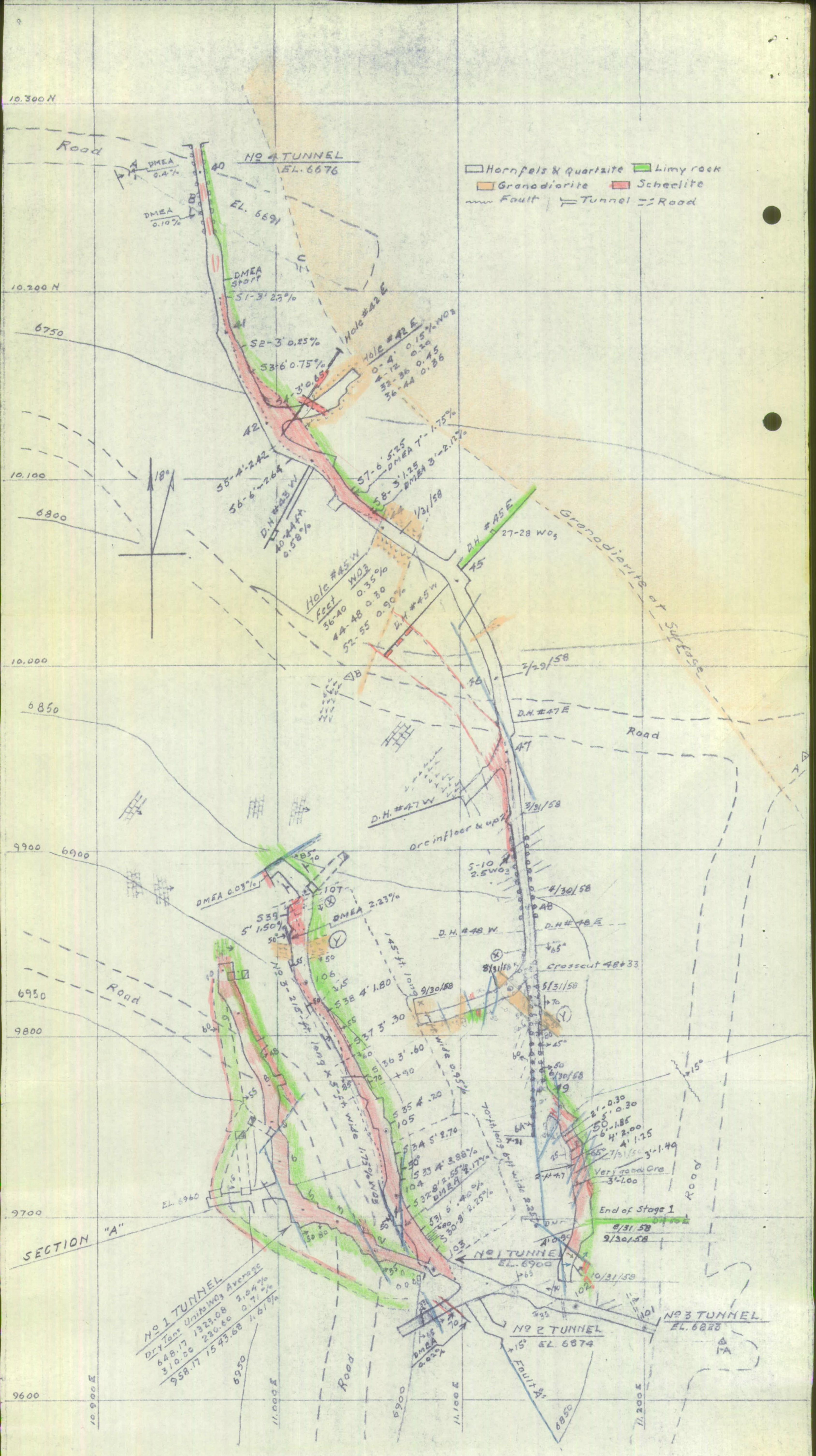


MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date 9/30/58



MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date 10/31/58

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RECEIVED NOV 20 1958

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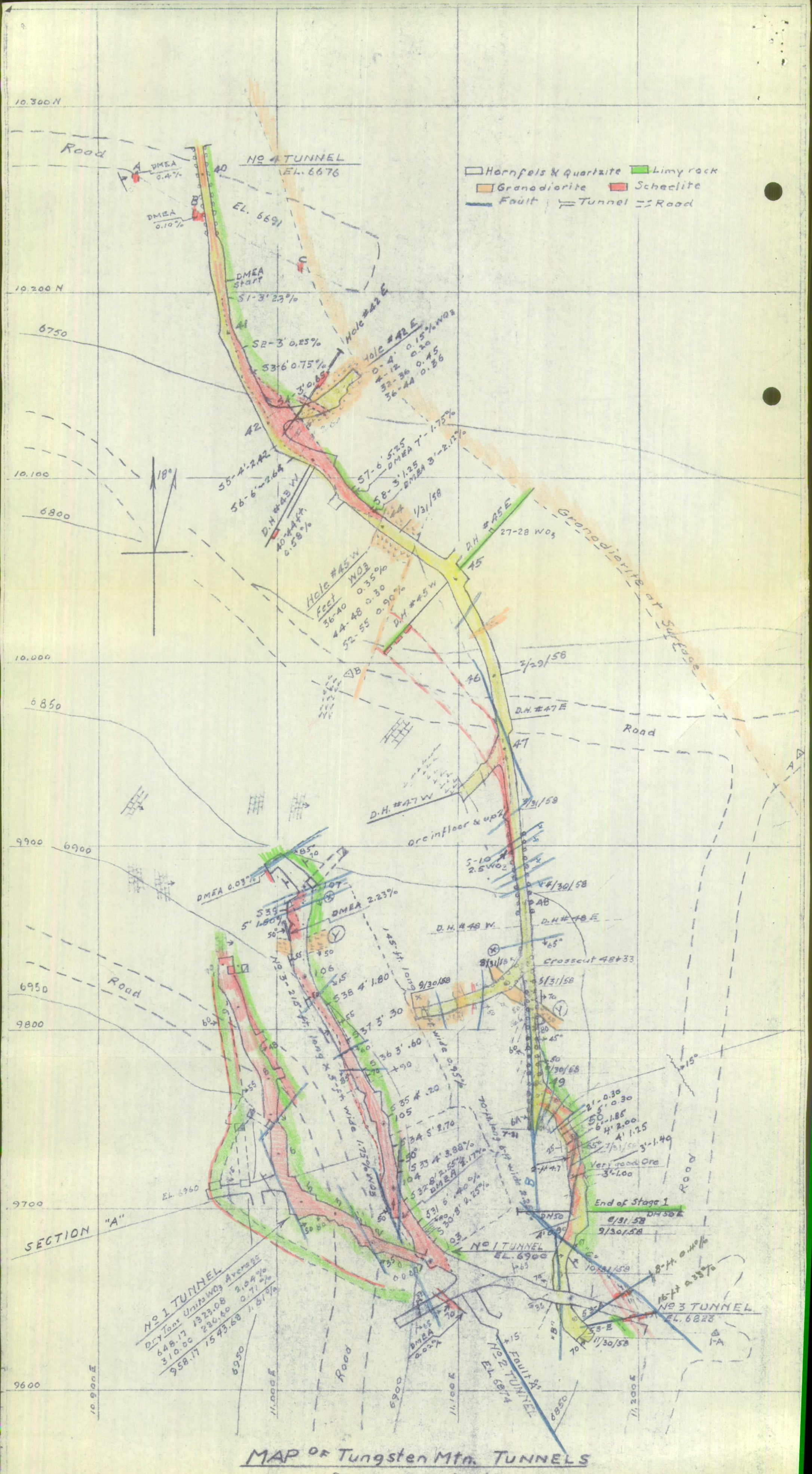

MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date 11/30/58

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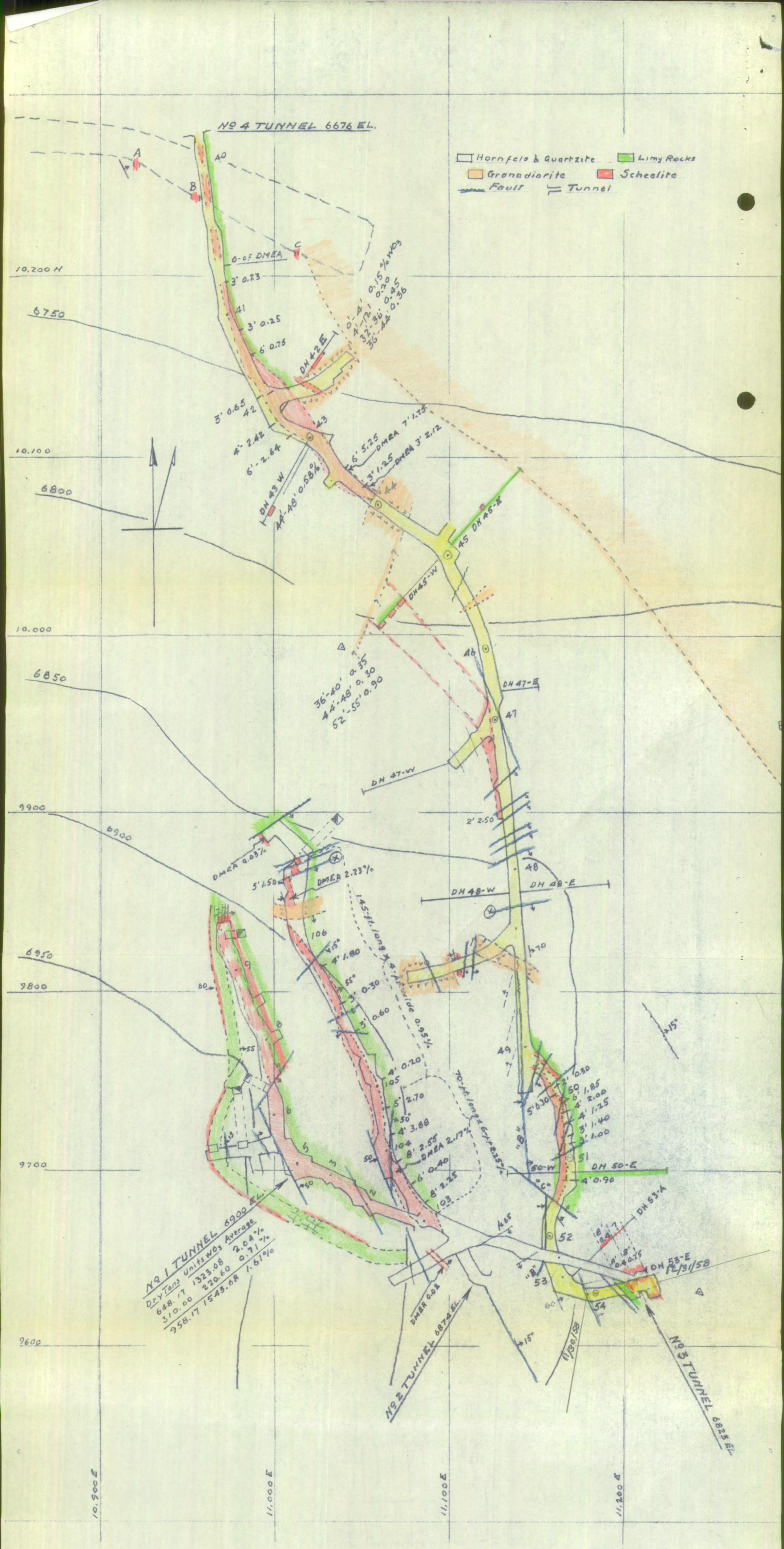
DATE	INITIALS	CODE



MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date 1/7/59

Arthur Lakes

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DATE	INITIALS	CODE

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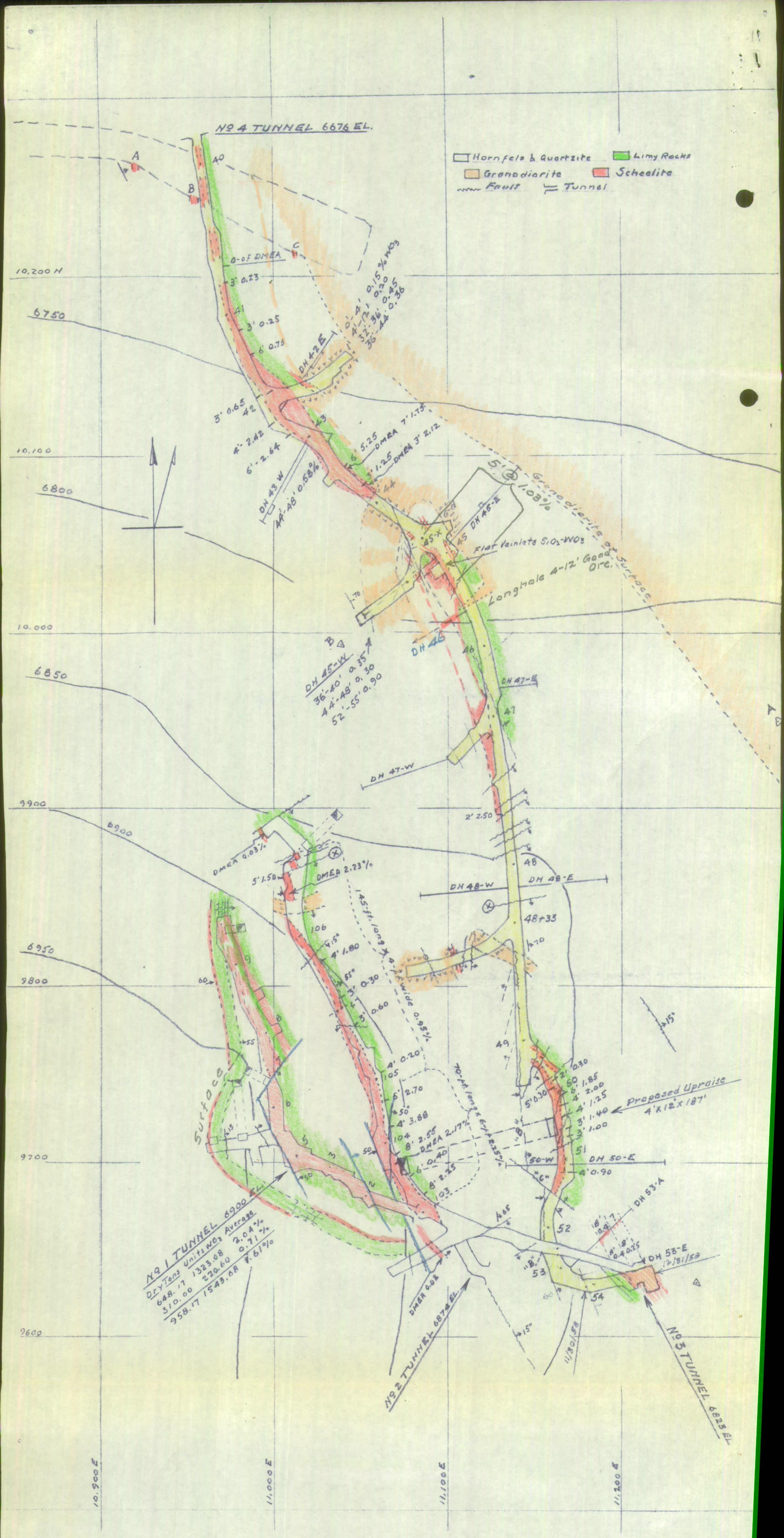


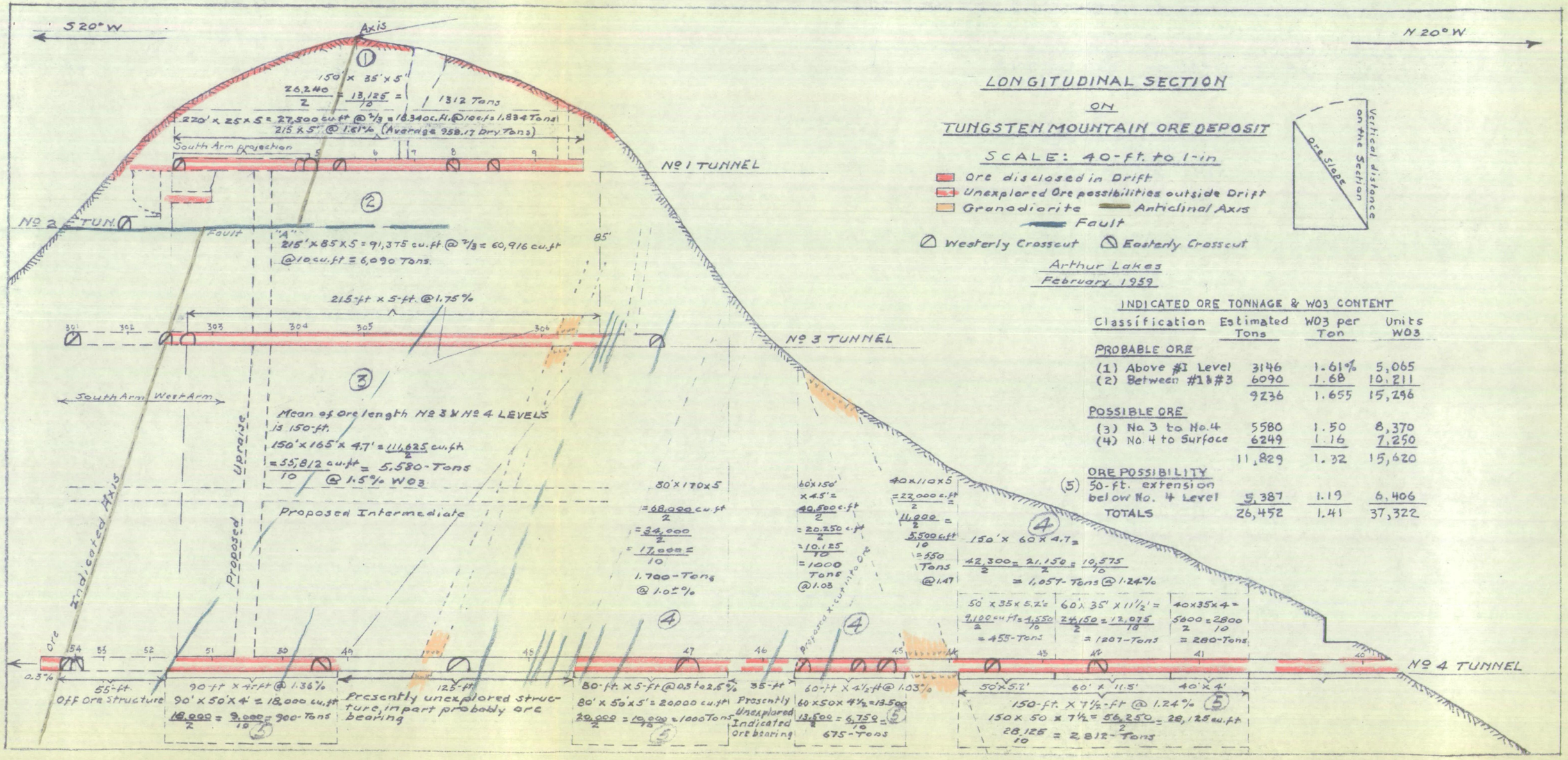
MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date Feb. 6 1959

Arthur Lakes

MAR 6 1959
O.M.E.


S 20° W
N 20° W
Axis
150' x 35' x 5'
26,240 / 2 = 13,125 / 10 = 1312 Tons
220' x 25 x 5 = 27,500 cu.ft @ 2/3 = 18,340 cu.ft @ 100 cu.ft = 1,834 Tons
215 x 5' @ 1.61% (Average = 958.17 Dry Tons)
South Arm projection
No 1 TUNNEL
No 2 TUN.
Fault
"A"
215' x 85 x 5 = 91,375 cu.ft @ 2/3 = 60,916 cu.ft
@ 10 cu.ft = 6,090 Tons.
85'
215-ft x 5-ft @ 1.75%
No 3 TUNNEL
South Arm West Arm
Mean of Ore length No 3 & No 4 LEVELS is 150-ft.
150' x 165' x 4.7' = 111,625 / 2 cu.ft
= 55,812 cu.ft / 10 = 5.580-Tons @ 1.5% WO3
Upraise
Proposed Intermediate
Indicated Axis
Proposed
80' x 170 x 5 = 68,000 cu.ft / 2 = 34,000 / 2 = 17,000 / 10 = 1,700-Tons @ 1.0±%
60' x 150' x 4.5' = 40,500 cu.ft / 2 = 20,250 cu.ft / 2 = 10,125 / 10 = 1000 Tons @ 1.03
40 x 110 x 5 = 22,000 cu.ft / 2 = 11,000 / 2 = 5,500 cu.ft / 10 = 550 Tons @ 1.47
150' x 60 x 4.7 = 42,300 / 2 = 21,150 / 2 = 10,575 / 10 = 1,057-Tons @ 1.24%
50' x 35 x 5.2' = 9,100 cu.ft / 2 = 4,550 / 10 = 455-Tons
60' x 35' x 11½' = 24,150 / 2 = 12,075 / 10 = 1207-Tons
40 x 35 x 4 = 5600 / 2 = 2800 / 10 = 280-Tons
Proposed x-cut into Ore
No 4 TUNNEL
Ore
0.3%
55-ft. Off Ore Structure
90-ft x 4-ft @ 1.36%
90' x 50' x 4' = 18,000 cu.ft
18,000 / 2 = 9,000 / 10 = 900-Tons
125-ft
Presently unexplored structure, in part probably ore bearing
80-ft. x 5-ft @ 0.3 to 2.5%
80' x 50' x 5' = 20,000 cu.ft
20,000 / 2 = 10,000 / 10 = 1000 Tons
35-ft
Presently Unexplored Indicated Ore bearing
60-ft x 4½-ft @ 1.03%
60 x 50 x 4½ = 13,500
13,500 / 2 = 6,750 / 10 = 675-Tons
50' x 5.2'
60' x 11.5'
40' x 4'
150-ft. x 7½-ft @ 1.24%
150 x 50 x 7½ = 56,250 / 2 = 28,125 cu.ft
28,125 / 10 = 2,812-Tons
LONGITUDINAL SECTION
ON
TUNGSTEN MOUNTAIN ORE DEPOSIT
SCALE: 40-ft. to 1-in
Ore disclosed in Drift
Unexplored Ore possibilities outside Drift
Granodiorite
Anticlinal Axis
Fault
Westerly Crosscut
Easterly Crosscut
Ore Slope
Vertical distance on the Section
Arthur Lakes
February 1959
INDICATED ORE TONNAGE & WO3 CONTENT
Classification | Estimated Tons | WO3 per Ton | Units WO3
PROBABLE ORE
(1) Above #1 Level 3146 1.61% 5,065
(2) Between #1 & #3 6090 1.68 10,211
9236 1.655 15,296
POSSIBLE ORE
(3) No 3 to No.4 5580 1.50 8,370
(4) No 4 to Surface 6249 1.16 7,250
11,829 1.32 15,620
ORE POSSIBILITY
(5) 50-ft. extension below No. 4 Level 5,387 1.19 6,406
TOTALS 26,452 1.41 37,322

MAP F

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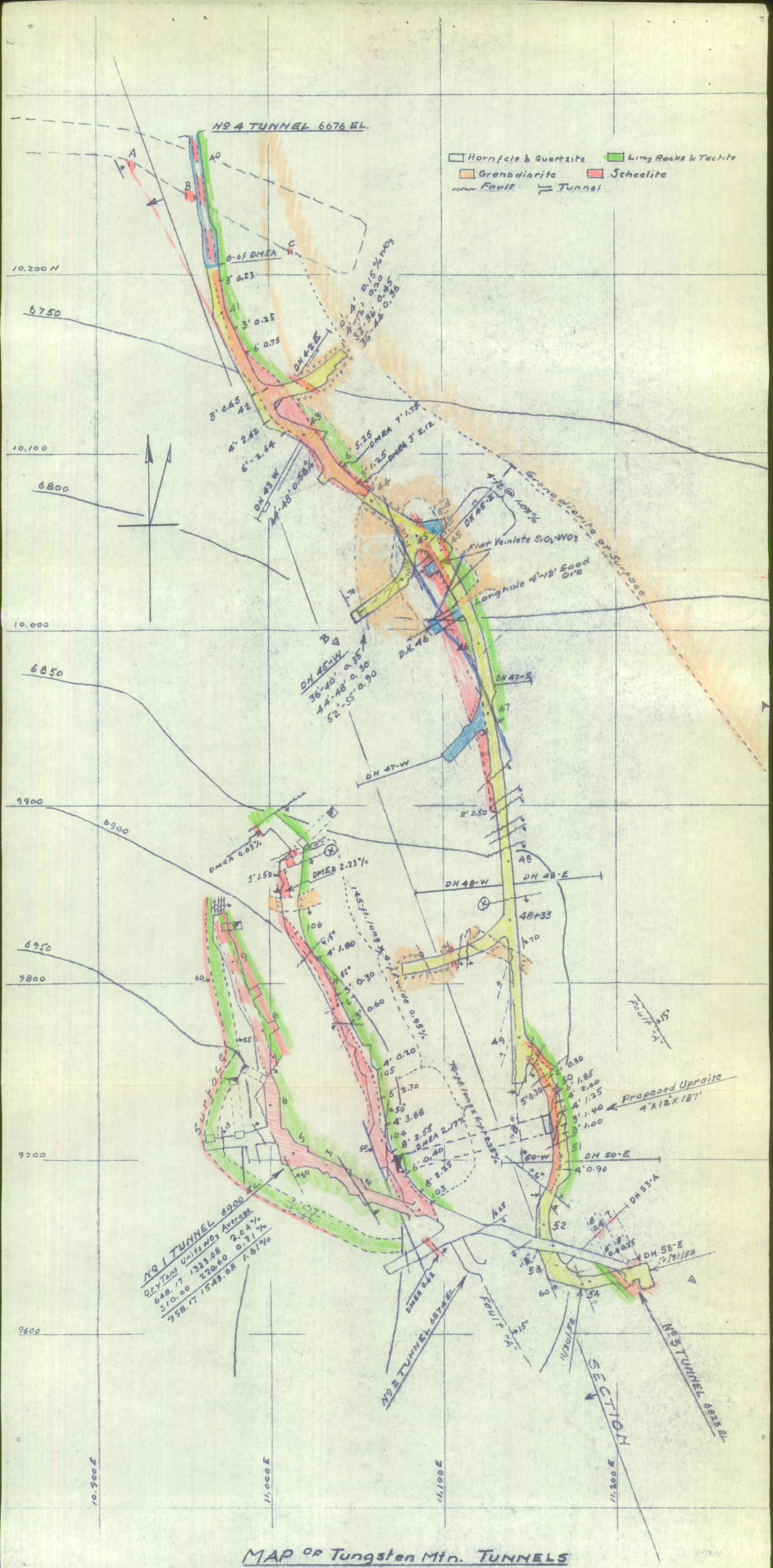

MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date Feb. 6 1959

Arthur Lakes

D.M.E.A. Project Idm. E-1158

Company work at No 4 LEVEL

D.M.E.A. Final Report

MAP E

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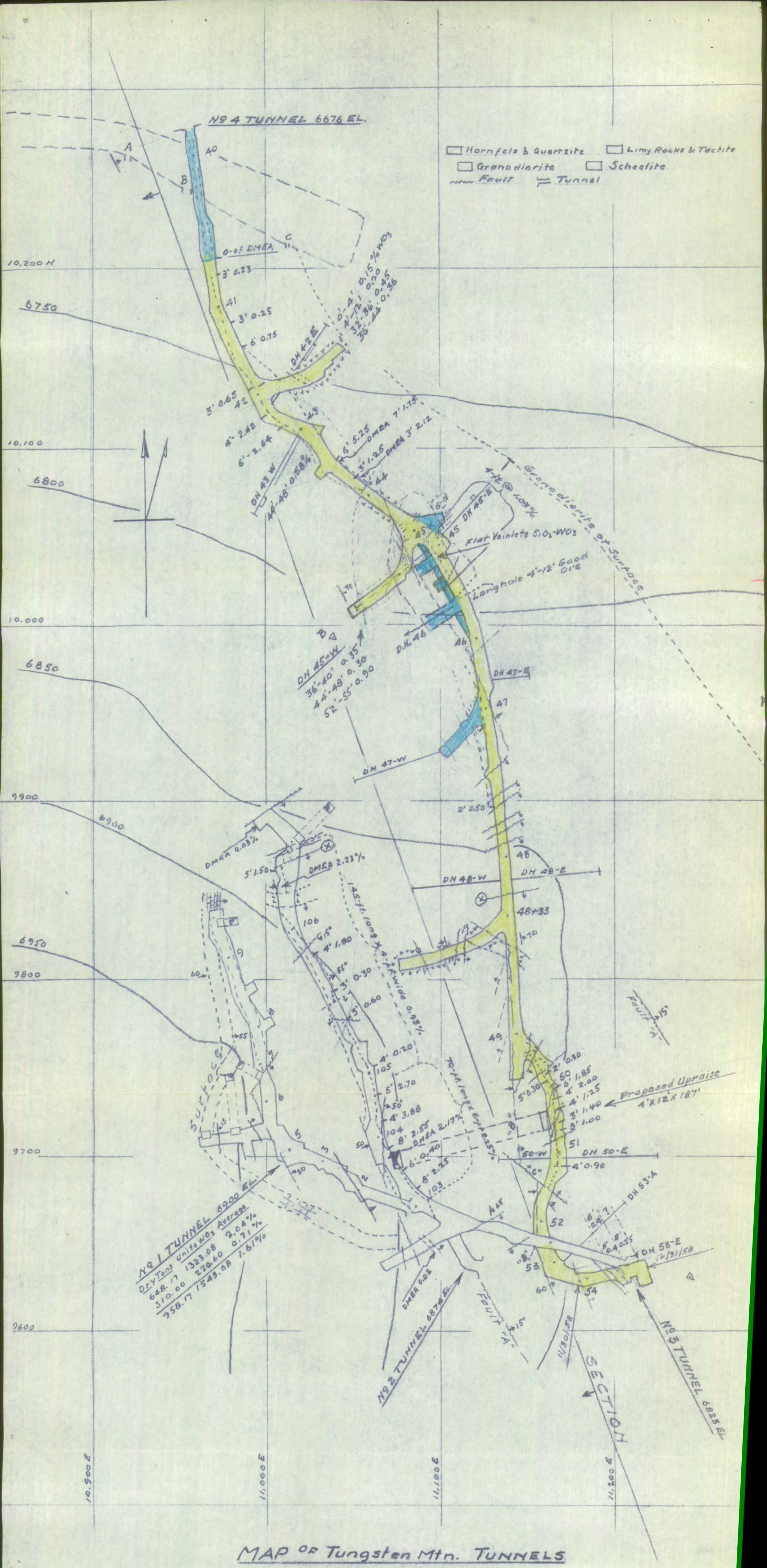

MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Report date Feb. 6 1959

Arthur Lakes

D.M.E.A. Project Idm. E-1158

D.M.E.A. Final Rep

MAP D

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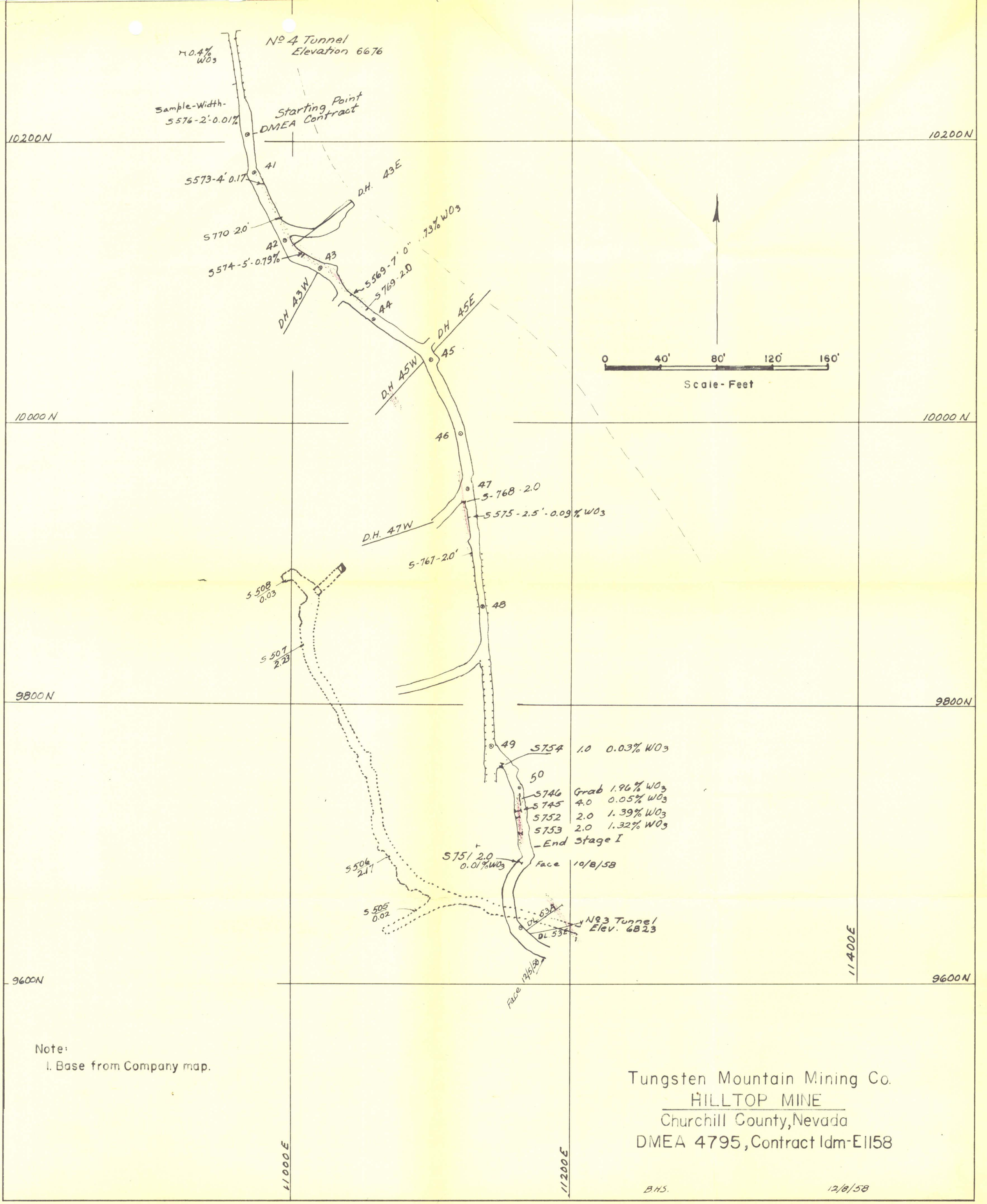
MAR 6 1959
INITIALS CODE

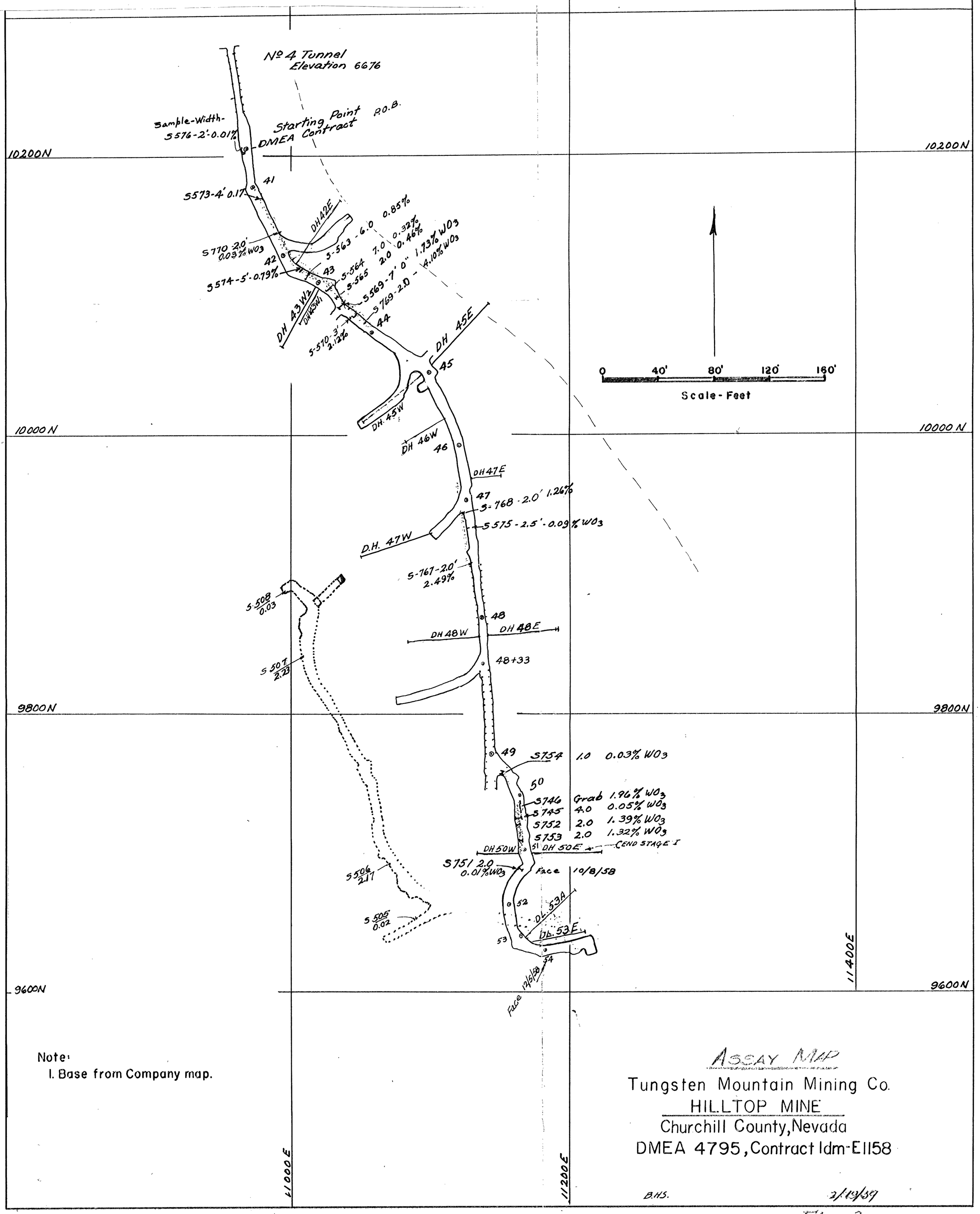
RECEIVED
DATE



Note:
1. Base from Company map.

Tungsten Mountain Mining Co.
HILLTOP MINE
Churchill County, Nevada
DMEA 4795, Contract Idm-E1158

B.H.S. 12/8/58



Note:
1. Base from Company map.

ASSAY MAP

Tungsten Mountain Mining Co.

HILLTOP MINE

Churchill County, Nevada

DMEA 4795, Contract Idm-E1158

B.H.S. 2/19/59

Fig. 3

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 4795
(TUNGSTEN)

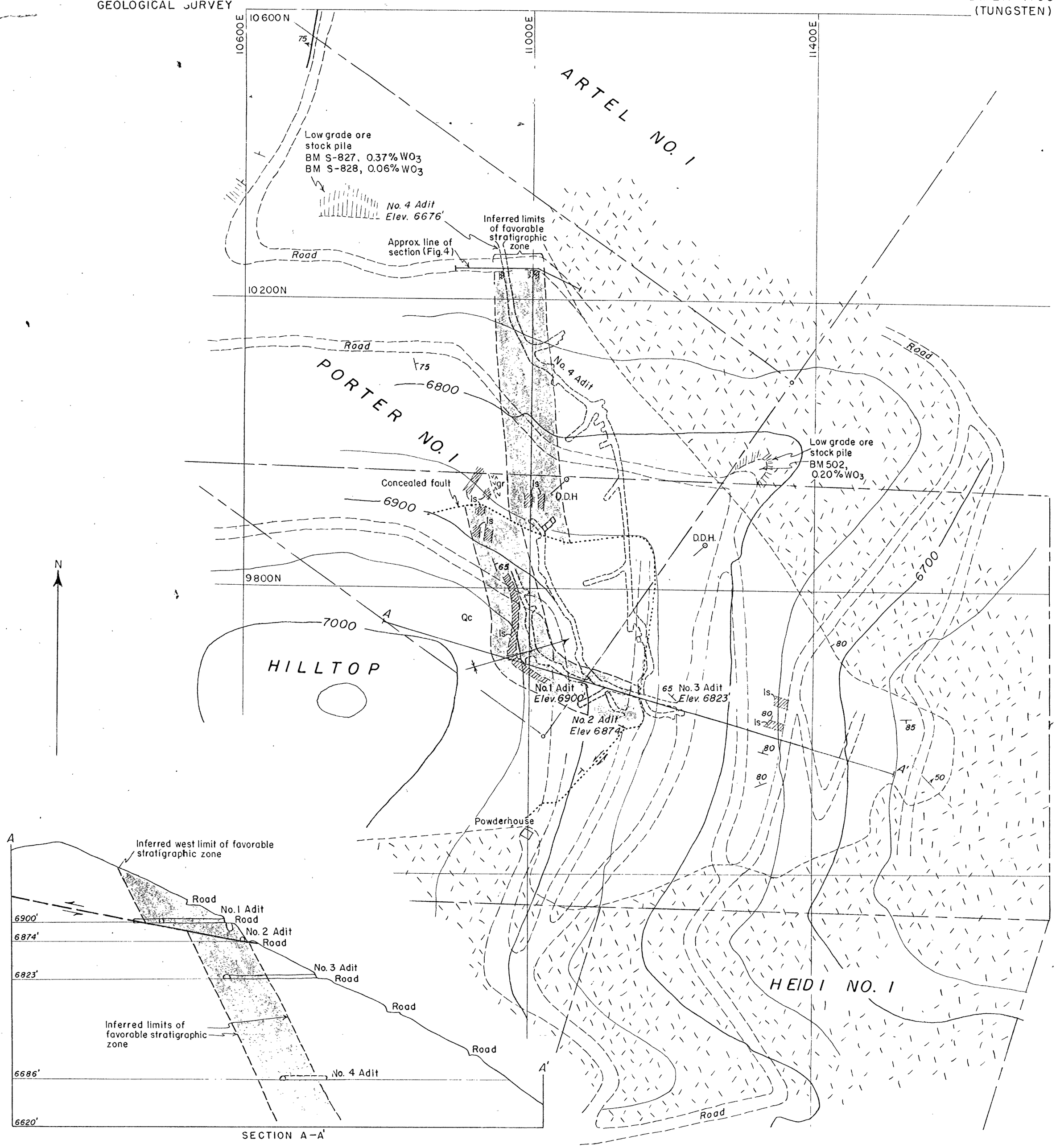
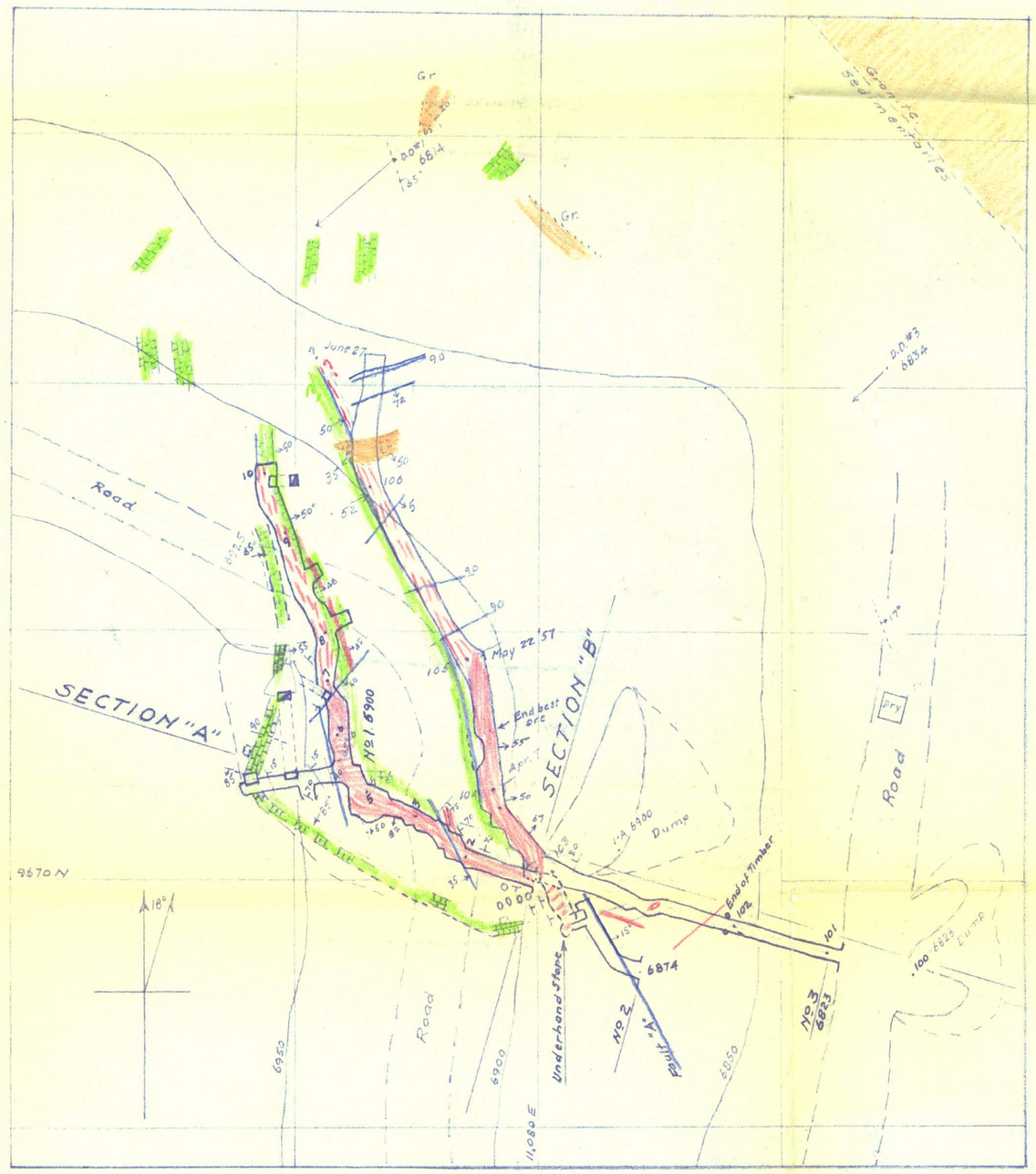


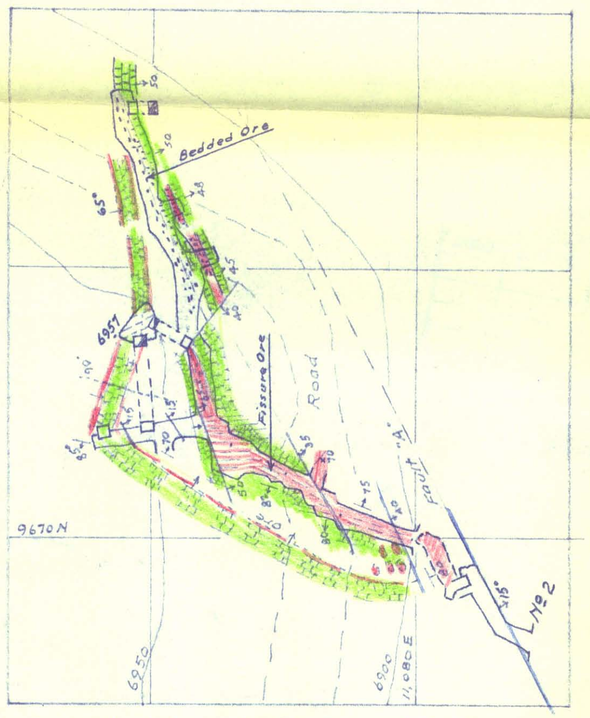
Figure 2. GEOLOGIC MAP AND SECTION OF THE HILLTOP MINE AREA
CHURCHILL COUNTY, NEVADA



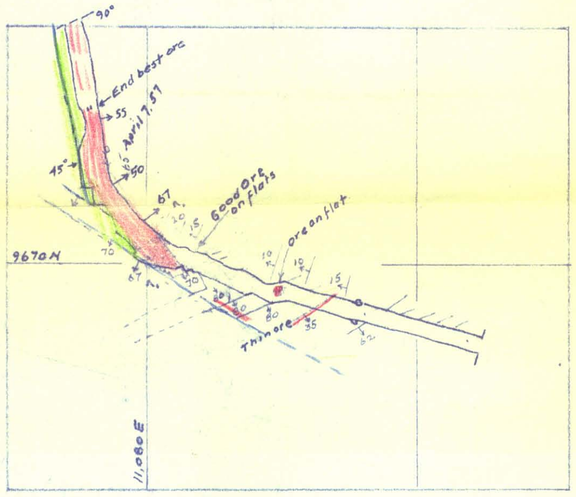
MAP OF Tungsten Mtn. TUNNELS

SCALE: 40-ft. to 1-in.

Arthur Lakes, April 7, 1957



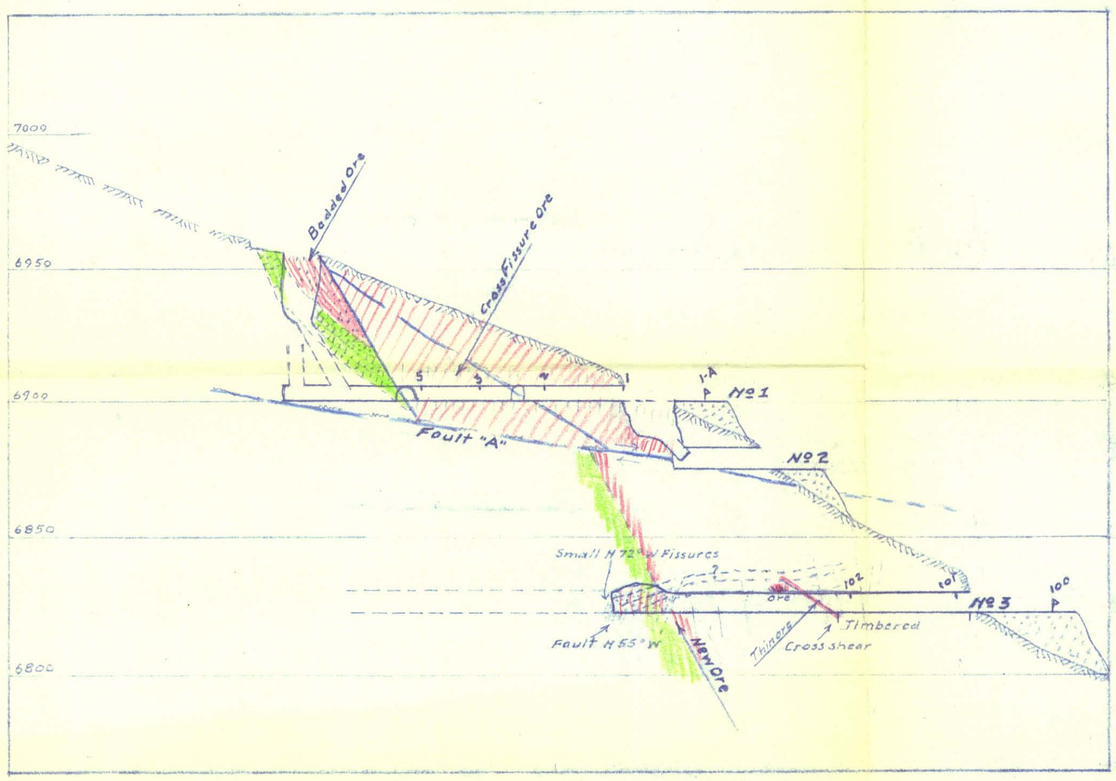
Geologic Plan of No. 1 Tunnel & Surface



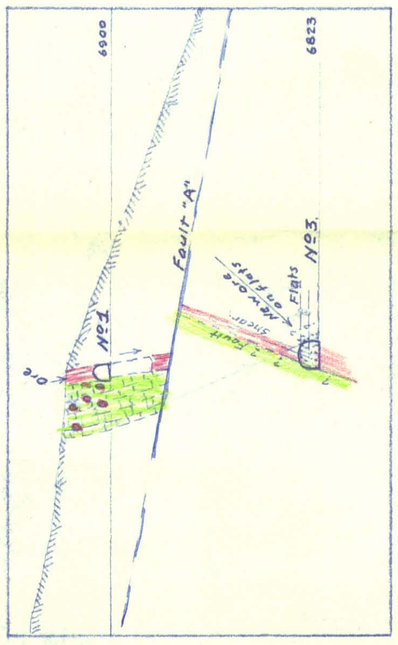
Geologic Plan of No. 3 Tunnel

Bedded Ore Fissure Ore Fault

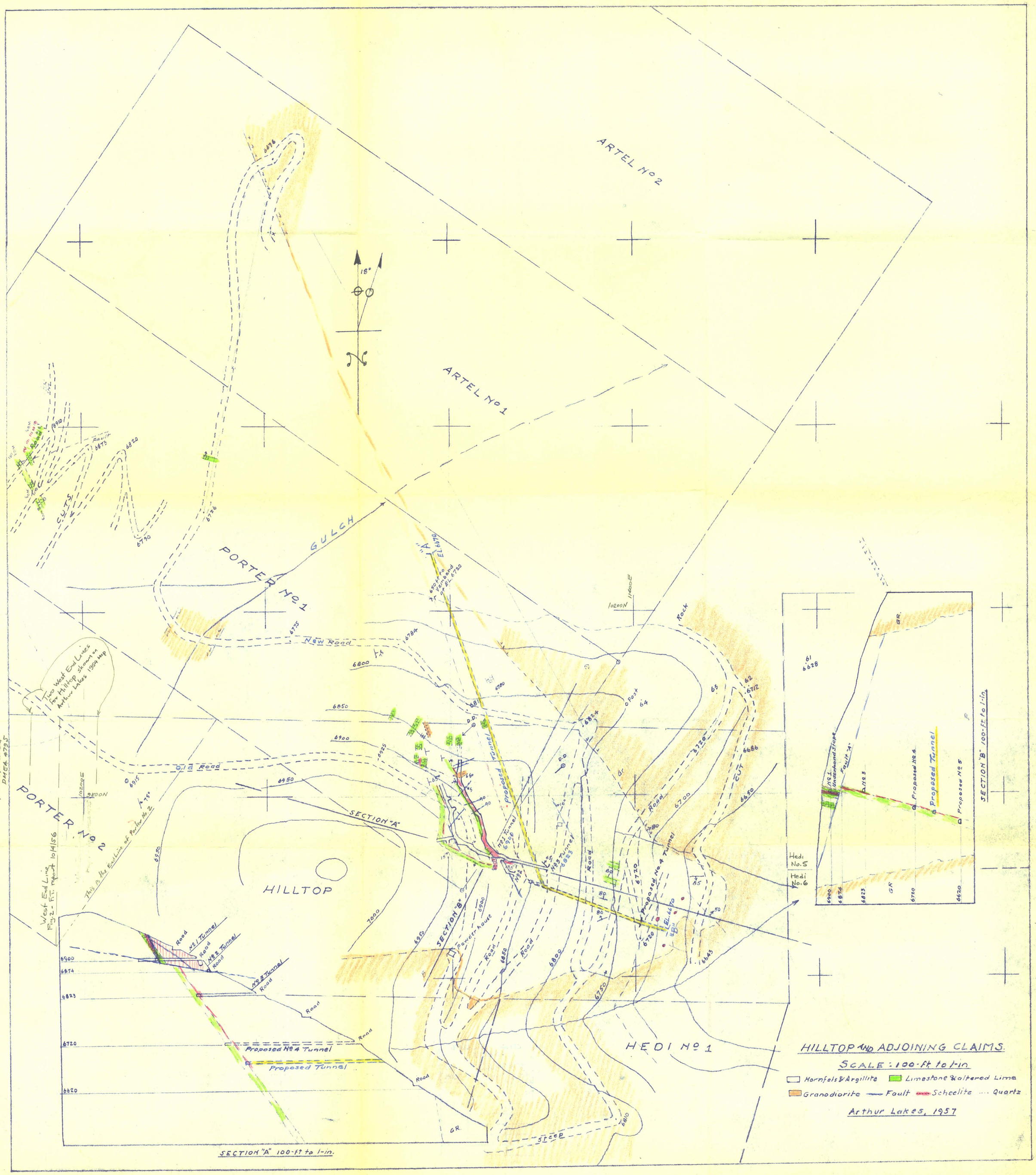
Limestone Hornfels



SECTION "A"



SECTION "B"


ARTEL No 2
ARTEL No 1
PORTER No 1
GULCH
PORTER No 2
HILLTOP
HEDI No 1
CUTS
New Road
Old Road
Road
SECTION "A"
SECTION "B"
Proposed Tunnel
Proposed No 4 Tunnel
No 1 Tunnel
No 2 Tunnel
No 3 Tunnel
No 4 Tunnel
No 5 Tunnel
Powerhouse
Hedi No.5
Hedi No.6
Two West End Lines for Hilltop shown on Arthur Lakes 1959 map
This is the End Line of Porter No. 2
West End Line Fig. 2 - F.T. report 10156
West End Line 10000E Map B Application DMCA 4795
Steep
GR.
HILLTOP AND ADJOINING CLAIMS.
SCALE: 100-ft to 1-in
Hornfels & Argillite
Limestone & altered Lime
Granodiorite
Fault
Scheelite
Quartz
Arthur Lakes, 1957
SECTION "A" 100-ft to 1-in.
SECTION "B" 100-ft to 1-in.

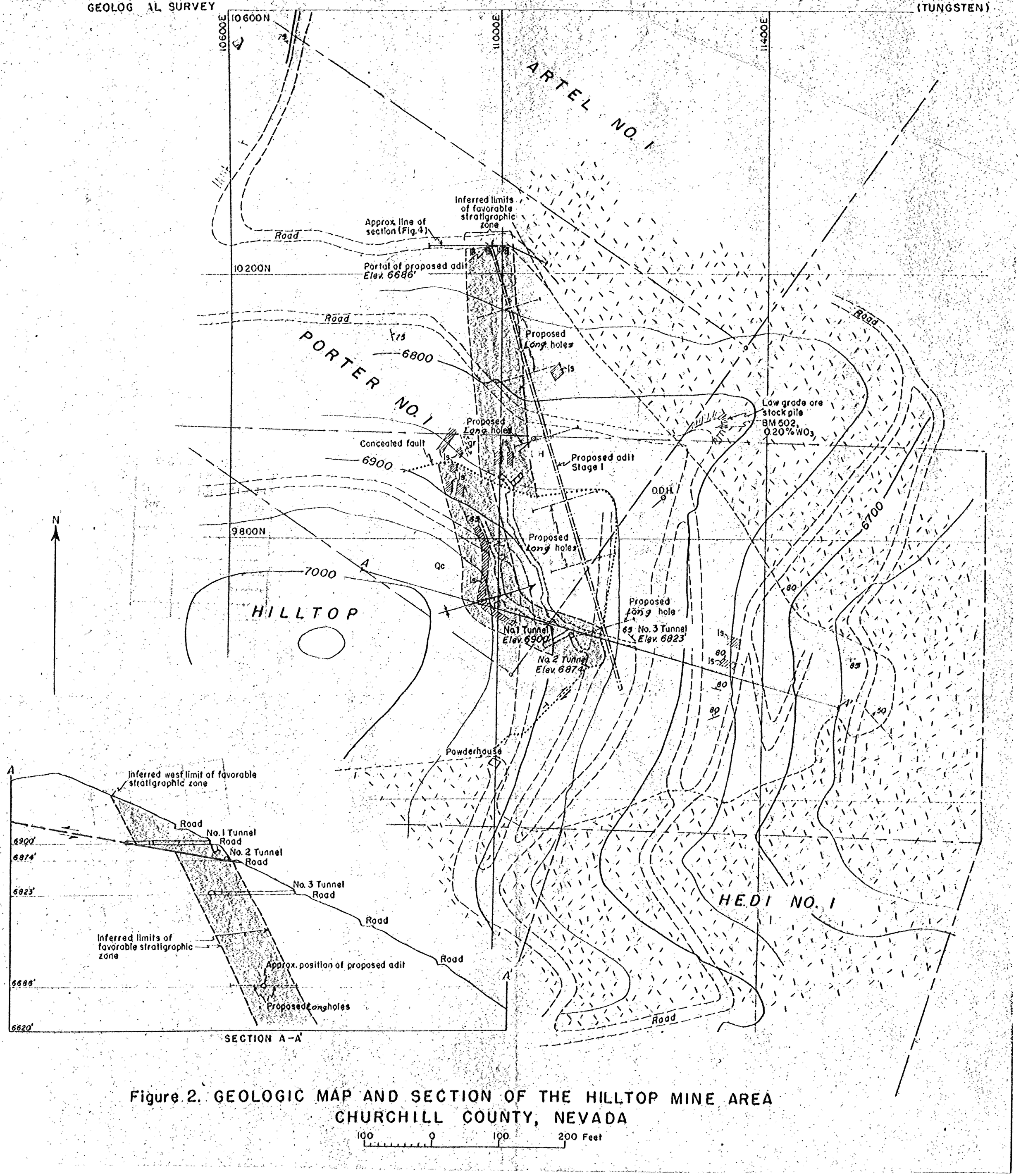


Figure 2. GEOLOGIC MAP AND SECTION OF THE HILLTOP MINE AREA
CHURCHILL COUNTY, NEVADA