Docket No. DMEA 3010 (tungsten)

Defense Minerals Administration
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FEB 8 1954

AMENDMENT NO. 2

DOCKET COPY

Bulin 4/7/54

It is agreed this 13th day of January 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, and Bradley Mining Co. (Springfield Prospect), 425 Crocker Bldg., San Francisco, Calif.

each acting in consideration of the agreement of the other to the terms hereinafter set forth, that the Exploration Project Contract Idm-E 531 of May 26 1953 between the parties hereto be modified and amended as described in Exhibit "F" attached hereto, which, with any maps or drawings attached thereto, is made a part of this agreement. The effective date of this amendment shall be August 1 1953.

This amendment is made by authority granted the Executive Officer, DMEA Field Team, Region II, in Order No. 2684 by the Acting Secretary of the Interior.

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "Allowable Maximum."

Executed in sextuplicate the day and year first above written.

BRADLEY MINING COMPANY
(Operator)

By John D. Bradley

THE UNITED STATES OF AMERICA

By A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
DMEA Field Team, Region II

BRADLEY MINING COMPANY
Springfield Prospect
Exploration Project Contract Idm-8531
Docket No. DMEA 3010 (temporary)

AMENDMENT NO. 2

Exhibit "I"

1. In Exhibit "A" of the contract under Estimated Costs of the Project and before section (1) insert a subheading as follows:

Arrest Unit Costs

Diamond Drilling

600 feet of AX size diamond drilling @ $5.35/ft.* (plus $200.00 allowance for cost of moving in equipment)	$3,410.00*	
350 feet of reaming and casing @ $2.65/ft.*	927.50*	
30 feet of drive pipe @ $9.90/ft.*	297.00*	
Bulldozing site @ $8.00/hr.* - 16 hrs.*	128.00*	$4,762.50*

2. In Exhibit "A" of the contract under section (1) Independent Contracts delete everything and substitute the word "None."

BRADLEY MINING COMPANY
Springfield Prospect
Exploration Project Contract Idm-2531
Docket No. DMEA 3010 (tungsten)

Justification of Amendment No. 2

The Springfield Prospect is located in an isolated area approximately 8 miles, airline, south of Stibnite, Idaho, on Springfield Creek, a tributary of Little Pistol Creek. Access to the drilling site is via a primitive, rough forest road, and it is necessary to travel approximately 18 miles in a 4-wheel drive car from the main highway.

Because of the location of the drilling site and its relative inaccessibility it was found difficult to negotiate an Independent Contract under an allowable maximum of $5.35/ft. for drilling plus $200 allowance for cost of moving in equipment.

Therefore, it is to the advantage of the Government to approve this amendment of an Agreed Unit Cost in substitution for an Independent Contract, at no increase in cost to the Government.

J. A. Bowsher

Docket Copy

BRADLEY MINING COMPANY
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA-3010

AMENDMENT NO. 1

It is agreed this 16th day of November, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration (hereinafter called the "Government"), and Bradley Mining Company (hereinafter called the "Operator"), as follows:

WHEREAS, these parties have heretofore entered into a certain Exploration Project Contract, dated May 3, 1953, Docket No. DMEA-3010, Contract No. Idm-K531; and

WHEREAS, these parties entered into this Exploration Project Contract with the understanding and belief that production resulting from treatment of the talus would not be subject to the royalty provisions of Article 9 of the contract form, but no express provision exempting it therefrom was made.

NOW THEREFORE, Annex I of the aforesaid contract is modified by adding the following paragraph:

> "All production resulting from treatment of the talus shall be exempt from the royalty provisions of Article 9 of the contract form."

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum."

Executed in sextuplicate the day and year above written.

THE UNITED STATES OF AMERICA

By C A Mutteson
Administrator, Defense Minerals Exploration Administration

BRADLEY MINING COMPANY

By John D Bradley

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET NO. DMEA 301

COMMODITY Tungsten

UNITED STATES OF AMERICA Docket Copy
DEPARTMENT OF THE INTERIOR IDM-E 531
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

IT IS AGREED this 26th day of May, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Bradley Mining Company, a corporation duly organized and existing under and by virtue of the laws of the State of California, having its principal office at 425 Crocker Building, San Francisco 4, California hereinafter called the "Operator," as follows: and as set forth in Annex I.

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Idaho, County of Valley, described as follows:[3] Three unpatented lode claims White Mare, White Mare 1 and 2, in Section 23, T. 17 N., R. 9 E., Boise Meridian, recorded in the office of the County Recorder of Valley County, Cascade, Idaho, Book 11, Pages 423 and 424 and 425, respectively the Operator represents and undertakes:[4]

(*a*) That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the following claims: Payment of 1-1/2 percent royalty to Mr. and Mrs. Cafe Cox, Yellow Pine, Idaho, on the net proceeds of ores extracted and sold. The Guaranty by Bradley Mining Company is attached hereto

(*b*) ~~That the Operator is a lessee in possession and entitled to possession and the Owner's [illegible]~~
The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 90 days from the date of this contract shall commence work on a project of exploration for[5] Tungsten in or upon the described land; and shall bring the project to completion within a period of nine (9) months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following:

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related ~~initial~~ allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—Repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance and payroll taxes.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) The Government's payments in [illegible]ases will be based on actual, necessary co[illegible] (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) 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 this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

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

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 75 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $[illegible], which is 75 percent of $[illegible], the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows: See Annex I, substituted for that part of paragraph (a) preceding the colon

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *Title to and disposition of property.*—All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

ARTICLE 12. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.* _____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Bradley Mining Company
(Operator)

By John D. Bradley

By C. O. Mitteendorf
Administrator, Defense Minerals Exploration Administration
acting Robert Talbert

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 16—66328-1

EXPLORATION PROJECT CONTRACT
BRADLEY MINING COMPANY
DOCKET NO. DMEA-3010

ANNEX I

The following provisions are in lieu of all of paragraph (a) of Article 9 which precedes the colon:

If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account required by the exploration project contract, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development. The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land which is the subject of the exploration project contract, 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 of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, as follows:

EXPLORATION PROJECT CONTRACT
BRADLEY MINING COMPANY
DOCKET NO. DMEA-3010

EXHIBIT "A"

Description of the Work

The exploration work on this project is indicated in part on the map attached hereto, entitled "Bradley Mining Co. - Springfield Prospect - Sheet No. 1 of 3, DMEA-3010".

Time Schedule: 0 - 6 months

Prepare drill site with bulldozer and drill four (4) AX-size diamond drill holes not in excess of 600 feet to explore a tungsten-bearing quartz vein at the Springfield mine. The drill holes shall be reamed and cased, where necessary, but not in excess of 350 feet, and not in excess of 30 feet of drive pipe may be set. The location, inclination, and bearing of the drill holes are to be determined by the Operator subject to the approval of the Government.

Estimated Costs of the Project
(*Indicates allowable maximum)

(1)	Independent Contracts		
	600 feet of AX-size diamond drilling @ $5.35/ft.* (plus $200 allowance for cost of moving in equipment)	$3,410.00 *	
	350 feet of reaming and casing @ $2.65/ft.*	927.50 *	
	30 feet of drive pipe @ $9.90/ft.*	297.00 *	
	Bulldozing site @ $8.00/hr.* 16 hrs.	128.00 *	$4,762.50 *
(2)	Labor, Supervision, Consultants		
	1 Geological consultant @ $50.00/day* plus $15.00/day* for expenses -2 days	130.00 *	
	1 Engineer @ $20.00/day*, 10 days	200.00	330.00
(3)	Operating Materials and Supplies		
	Core boxes and sample supplies		80.00

(4) Operating Equipment

None

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

None

(7) Miscellaneous

Analytical work, 120 tungsten analyses @ $2.00/each	$240.00	$ 240.00
(8) Contingencies		187.50

* * * * * * * *

Total Estimated Cost of Project	$5,600.00*
Government Participation @ 75%	$4,200.00*

G U A R A N T Y

In consideration of the waiver by the United States of America of the requirement with reference to the property referred to in Article 2 of the attached Exploration Project Contract, of a subordination agreement for the lien against the property, the undersigned hereby guarantees the payment to the United States of America of royalties, as specified in said Contract and any amendment thereof, upon any and all ore discovered or developed as a result of said Contract and any amendment thereof, which is mined within 10 years from the date of said Contract, whether or not the undersigned has any interest in the property, covered by the said Contract, or any part in the mining operations at the time said ore is mined. If for any reason the net smelter returns or other net amounts, from operations that would be subject, under said Contract and any amendment thereof, to such payments to the United States of America, are not available as a means of measuring the amount of such payment, then the undersigned agrees and undertakes to make such payment according to the best estimates of the amount that can reasonably be made, and in the event of dispute as to such estimate, the undersigned agrees that the determination thereof by either the Administrator of Defense Minerals Exploration Administration, or his designee, shall be final and binding upon the undersigned.

Dated 6/18, 1953.

BRADLEY MINING COMPANY

By John D. Bradley

I, E. A. GRIFFEN, certify that I am the Secretary of the corporation named as Guarantor herein; that JOHN D. BRADLEY who signed this guaranty, was then Exec. Vice-Pres. of said corporation; that said guaranty 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.

E. A. Griffen

[Corporate Seal]

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3010

DO NOT DETACH THIS SLIP

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

This document has been recorded as

Exploration Assistance

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

Copies to USBM, USGS, AND RETAINED IN REG. II

Routing Slip

To:	Code 400, Rm. 3538	Date	4/30/53
To:	Open Com	Date	5-25-53
To:	Open Com	Date	11-16-53
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CONTROLLED DOCUMENT

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

IN REPLY REFER TO:

RECEIVED NOV 28 1956 D.M.E.A.

November 27, 1956

Re: DMEA 3010 Idm-E531
Bradley Mining Co.
Springfield Mine
Valley County, Idaho
Approved $5,600.00
Expended $3,761.67 Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Final Report

The contract, dated May 26, 1952, approved the expenditure of $5,600.00 on diamond drilling pyrrhotite-scheelite bearing tactite bodies.

Six drill holes totalling 593 feet were drilled at a cost of $3,761.67. The drilling extended the drilling program of the applicant, which had indicated some low grade material. The drilling done under the contact failed to find material of ore grade. The presence of enough float in the talus below the outcrops to warrant mining, suggests that the material now in place represents the 'roots' of higher grade ore bodies.

The examiners and the Field Team recommend that no certification of discovery be made.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

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

RECEIVED
OCT 24 1955

October 19, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (tungsten)
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

The enclosed memorandum dated October 12, 1955, by John D. Bardill, Mining Engineer, Bureau of Mines, will answer questions asked in your letter of September 22, 1955, about the Springfield tungsten prospect.

The map and section attached to Mr. Bardill's memorandum is particularly informative. The ore body being mined was overlain by talus that contained scheelite. The talus was excluded from royalty payments as it had been prospected and sampled before the start of the contract. The deposit itself is thin and conforms roughly to the slope of the hillside. DMEA Drill Holes No. SP-7 and SP-9 were drilled under the deposit. Hole No. SP-7 actually cut a small portion of the ore body from 20 to 40 feet. This 20-foot section averaged about 0.30 percent WO_3. This was the only ore-grade material cut by the DMEA diamond drill holes, although Holes No. SP-1 and SP-2, drilled by the Bradley Mining Company before the start of the contract, picked up small amounts of scheelite-bearing tactite (see section A-A' of final report).

Work by the Operator since the completion of the contract has shown that in the area prospected, only a "skin" of ore-bearing tactite remains -- the remnants of a much larger body now mostly removed by erosion. This is also the conclusion reached in the Field Team Final Report.

There is a question as to whether the magnetometer survey, recommended in our letter of February 11, 1954, would have picked up the ore body in question as it was overlain by pyrrhotite- and scheelite-bearing talus. There is, however, a chance that a magnetometer survey might pick up other ore bodies not covered by pyrrhotite talus.

By Field Team, Region I, NW Dist.

A. E. Weissenborn

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

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
Nickelson

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

1201 N. Division St.
Spokane 2, Washington
October 12, 1955

RECEIVED
OCT 24 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: John D. Bardill, Mining Engineer, Bureau of Mines

Subject: Inspection of Springfield Tungsten Mine, Bradley Mining Co., Valley County, Idaho, Docket No. DMEA 3010 (tungsten), Contract No. Idm-E531 (completed)

A letter dated September 22, 1955 from Mr. George C. Selfridge, chairman, DMEA Operating Committee, to Mr. A. E. Weissenborn, Executive officer, DMEA Field Team, Region I, NW District, requested confirmation of the information that the Bradley Mining Company was mining and concentrating approximately 170 tons of ore per day from a vein outcropping from the Springfield mine open pit.

The mining and concentrating operations at the Springfield mine were inspected October 7, 1955, accompanied by Mr. K. G. Wallace, assistant manager.

According to Mr. Wallace, approximately 20,000 tons of scheelite-bearing talus was mined from the hillside during the summers of 1953 and 1954. The material was sized in a trommel screen. The plus 3/8"-rock was discarded to waste and the minus 3/8"-rock, amounting to approximately 10,000 tons and averaging approximately 0.35 percent WO_3, was upgraded in a mill at the mine by jigging, classification, and tabling. The jig and table concentrates were trucked to the mill at Stibnite where they were further beneficiated to marketable products on a Dings multiple cross-belt magnetic separator.

Removal of the talus uncovered an irregular wedge-shaped scheelite-bearing tactite deposit about 150 feet long, estimated to contain approximately 10,000 tons averaging about 0.35 percent WO_3. Subsequent to the DMEA diamond drilling project the Company drilled a number of holes aggregating 1200 feet and drove four adit tunnels prospecting for downward and horizontal extensions of the deposit. None of this work increased the size of the orebody, according to Mr. Wallace.

Six diamond drill holes were drilled under the DMEA contract to delineate the scheelite orebody. Only hole SP-7 showed significant amounts of scheelite, assaying from 0.28 to 0.33 percent WO_3 between 20 and 40 feet. The attached sketch map in section indicates that hole SP-7 intercepted the deposit where it is pinching out. Holes SP-8 and SP-9 have been projected into the plane E-E' and shows that these holes were drilled below the deposit.

At the time of my visit, Mr. Wallace stated that approximately 8,900 tons had been mined and crushed of which 7,700 tons had been milled and 1,200 tons were stockpiled to be milled. He estimated approximately 1,000 tons remained in the deposit which he hoped could be mined before the close of the season.

The deposit has been mined from two small benches and pushed over the bank onto a working bench below, where it was picked up by a dozer equipped with a bucket and transported about 100 yards to the crushing plant. The ore was crushed in a jaw crusher and further reduced in a set of rolls. The crushed ore, about minus 3/8-inch in size, was trucked about 100 yards back to the mill and dumped into the fine ore bin. The fine ore was transported to the trommel by belt conveyor. From the trommel the ore was discharged into a Pan American jig. Jig tailings were discharged to waste. The hutch product was classified in a classifier into four sizes and each size tabled separately. Jig bed concentrates were cleaned up each shift. Table tailings were discharged to waste. No middlings were made. Table concentrates, ranging from about 10 to 18 percent WO_3, were trucked to Stibnite and concentrated in a Dings multiple cross-belt magnetic separator. The concentrates, assaying in excess of 70 percent WO_3 and representing 95 percent of the feed, were being sold to GSA. The magnetic separator tailings, assaying from 2 to 4 percent WO_3, were being sold to Minerals Engineering Company at Salt Lake City, Utah.

About 175 tons per day were being mined on two shifts and milled on three shifts. Ore has averaged about 0.35 percent WO_3 and mill tailings 0.15 percent WO_3, representing mill recovery of approximately 57 percent. Poor recovery is due to inability to grind finer because the mill is not equipped with a rod mill. Roughly, 2-3/4 tons of concentrates are recovered from 175 tons of mill feed.

The possibility of installing a rod mill to grind and mill the tailings next summer is being considered.

See attached photos.

John D. Bardill

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
JDB/he

Granite Outcrop

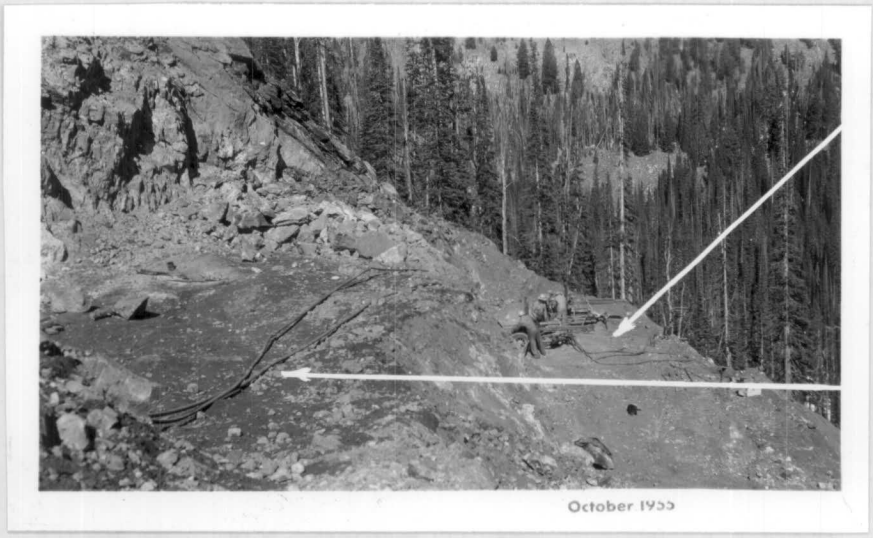
Upper Ore Bench

Lower Ore Bench

No. 4 Tunnel

Working Bench

Broken Ore



Lower Ore Bench

Upper Ore Bench

Tailings

Crushed Ore

Mill

Mill

Fine Ore Bin

DOCKET
Surname:
Holt
Martin
Selfridge

400

SEP 22 1955

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I - NW District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Weissenborn:

The attached copy of an article from the Mining Record of September 15, 1955, reports 170 tons production per day from open pit operations at the subject property.

It will be appreciated if you will confirm the information given in the article. On the basis of the results of this project, we decided not to issue a certification of discovery or development. Consequently, nothing can now be done about collecting any royalty for the Government, but we would like to have, for the record, accurate information on this reported discovery.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosure

APPROVED:

/s/ Robert W. Geehan

Member, Bureau of Mines

N. E. Nelson

Member, Geological Survey

cc: Docket
FT, Reg. I-Spokane
Code 400
Oper. Comm.
Admin. Reading File
Thor Kiilsgaard, USGS
Robt. Holliday, USBM

SPHolt/WSMartin/ls
9/20/55

R.C.S.

COPY

THE MINING RECORD
Thursday, September 15, 1955

BRADLEY COMPANY
TUNGSTEN OUTPUT

Salmon, Idaho Bradley Mining Company is now mining and milling about 170 tons of ore daily from the new open pit operation at its Spring field tungsten property in Valley county near Stibnite, according to John D. Bradley, executive vice president.

The open-pit work was started on a vein outcropping about a month ago and since August 20 the mill has been processing ore from this source, he said. Prior to that date, the mill had been treating talus material for several years.

Bradley said about 30 men are employed at the Springfield operations.

Scheelite concentrates are trucked to Stibnite for roasting and magnetic separation in company facilities there, he added.

Production at the company's Ima mine in Lemhi county, about 70 miles south of Salmon, is averaging about 200 tons of hubnerite tungsten ore per day, with about 100 men employed.

WORTHEN BRADLEY
PRESIDENT

JOHN D. BRADLEY
EXECUTIVE VICE PRESIDENT

JAMES P. BRADLEY
VICE PRESIDENT

E. A. GRIFFEN
SECRETARY

BRADLEY MINING CO.

1022 ~~425~~ CROCKER BUILDING
SAN FRANCISCO 4, CALIFORNIA
TELEPHONE SUTTER 1-0414

ANTIMONY
TUNGSTEN
VIRGIN QUICKSILVER

Defense Minerals Administration
RECEIVED
APR 11 1955

April 5, 1955

No reply necessary
WSM
4/12/55

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
U. S. Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3010 - Tungsten
Springfield Project
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Mittendorf:

We acknowledge and thank you for your letter of March 31st advising that you do not intend to make a certification of discovery or development covering the Springfield project, and have noted the same on our records.

We also very much regret that the exploration work conducted in cooperation with the Defense Minerals Exploration Administration did not confirm our hopes that a large tungsten ore body did exist on the property.

Yours very truly,

BRADLEY MINING CO.

By G O Ston
Assistant Secretary

GCO:MV

DOCKET
SURNAME
Chapman
Martin
Holliday
Newcomb
Jeffrey
Johnson

400

MAR 31 1955

Bradley Mining Company
1021 Crocker Building
San Francisco 4, California

Re: Docket No. [illegible] - Tungsten
Springfield Project
Valley County, Idaho
Contract No. [illegible]

Gentlemen:

This is with reference to the subject Exploration Contract between you and the Government.

It is not our intention to make a certification of discovery or development which would create a lien against the subject property. We will, therefore, closing our books and records with respect to this project. Your attention is called, however, to the provisions of the contract which requires the operator to keep and preserve certain records for the period indicated.

We regret that the exploration work performed did not result in a certification of discovery or development. Your participation in the exploration program, however, is sincerely appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

TLChapman:foc
3-21-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. I - MDIST.
Robert Holliday, USBM
Thor H. Kiilsgaard, USGS

Docket Surname
Chapman
Martin
Holliday
Newcomb

March 21, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Memorandum of Non-Discovery
Docket No. DMEA 3050 - Tungsten
Bradley Mining Company
Springfield Property
Valley County, Idaho
Contract No. Ida-8531

This Division hereby concludes that the work done on the subject property, as described under the contract, has resulted in no discovery or development from which commercial production may be made.

The description of the property, the work done, and the results obtained, follows:

1. Operator - Bradley Mining Company
1022 Crocker Building
San Francisco 4, California

2. Property rights - The Operator has a lease on the following unpatented lode mining claims:

Name of Claim	Book No.	Page No.
White Mare	11	423
White Mare No. 1	11	424
White Mare No. 2	11	425

Recorded at the Court House, Cascade, Valley County, Idaho

3. Contract dated May 26, 1953, called for 600 feet of diamond drill holes at a total cost of $5,600.00 of which the Government's participation at 75 percent was $4,200.00. Six drill holes were completed for a total of 593 feet at a total cost of $3,761.67 of which the Government's participation at 75 percent is $2,821.25. A request by the Operator for a magnetometer survey and additional drilling was denied.

4. The mineralization occurred in tactite which has been altered from limestone and sedimentaries by a granitic intrusion. No ore of a minable grade was found by the drilling, the maximum assay from the cores being 0.33 percent WO_3, and most of the samples showed less than 0.01 percent WO_3.

A talus slope that has been eroded from the above mineralized area contains good scheelite values and it is being screened, jigged and tabled by the Operator. By Amendment No. 1, this talus was exempted from royalty payments.

As one of the contained minerals is pyrrhotite, 4 samples were assayed for nickel and cobalt with negative results.

5. Comments: Prior to the work done on the contract the operator had drilled 6 diamond drill holes, which showed scheelite mineralization, but no minable ore. The Field Team recommended consideration of the operator's application for additional work, which was denied by this Division as the 12 holes drilled did not show any minable ore, and there was no indication that work over an extended area would give any better results. Also, it is indicated by the values in the talus that any some of better ore has been eroded away. The final Field Team report advised that further work to the north might be warranted, but Wing Agnew, Bureau of Mines did not concur.

6. The work was completed on a unit basis by Amendment No. 2, and no supplies or equipment in which the Government had an interest were purchased.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

TLChapman:fec
3-21-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.

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

March 21, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Memorandum of Non-Discovery
Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield Property
Valley County, Idaho
Contract No. Idm-E531

This Division hereby concludes that the work done on the subject property, as described under the contract, has resulted in no discovery or development from which commercial production may be made.

The description of the property, the work done, and the results obtained, follows:

1. Operator - Bradley Mining Company
1022 Crocker Building
San Francisco 4, California

2. Property rights - The Operator has a lease on the following unpatented lode mining claims:

Name of Claim	Book No.	Page No.
White Mare	11	423
White Mare No. 1	11	424
White Mare No. 2	11	425

Recorded at the Court House, Cascade, Valley County, Idaho

3. Contract dated May 26, 1953, called for 600 feet of diamond drill holes at a total cost of $5,600.00 of which the Government's participation at 75 percent was $4,200.00. Six drill holes were completed for a total of 593 feet at a total cost of $3,761.67 of which the Government's participation at 75 percent is $2,821.25. A request by the Operator for a magnetometer survey and additional drilling was denied.

4. The mineralization occurred in tactite which has been altered from limestone and sedimentaries by a granitic intrusion. No ore of a minable grade was found by the drilling, the maximum assay from the cores being 0.33 percent WO_3, and most of the samples showed less than 0.01 percent WO_3.

A talus slope that has been eroded from the above mineralized area contains good scheelite values and it is being screened, jigged and tabled by the Operator. By Amendment No. 1, this talus was exempted from royalty payments.

As one of the contained minerals is pyrrhotite, 4 samples were assayed for nickel and cobalt with negative results.

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6. The work was completed on a unit basis by Amendment No. 2, and no supplies or equipment in which the Government had an interest were purchased.

W S Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

1201 N. Division St.
Spokane 2, Washington
January 26, 1955

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 31 1955

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3010 (tungsten)
Bradley Mining Company
Springfield Mine
Valley County, Idaho
Contract Idm-E531

Dear Mr. Selfridge:

The Bureau of Mines does not concur with the conclusions expressed under "Summary" of the enclosed Field Team final report, namely, "Exploration by diamond drilling for the downward continuation of the deposit along an east-west line about 75 feet north of the water tank would be warranted."

The Bureau of Mines believes that the small islands of metamorphics within the granite are too small and shallow to warrant Government participation in further diamond drilling. The lack of alignment of structural features, where they could be noted, would indicate that the metamorphics might be xenoliths or at best the remnants of roof pendants, the exploration of which would be very risky if covered by overburden.

Sincerely yours,

Wing G. Aghew

Wing G. Aghew, Member
DMEA Field Team, Region I
Northwest District

cc: USGS (2)

Reviewed by
DMEA OPERATING COMMITTEE
2-4-55
(date)

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

Defense Minerals Administration
RECEIVED
JAN 31 1955

January 24, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (tungsten)
Bradley Mining Co.
Springfield Tungsten Mine, Valley Co., Ida.
Contract Idm-E531

Dear Mr. Selfridge:

Enclosed are four copies of the Field Team final report on the above-captioned contract which has been prepared by Margaret R. Hickes, mining engineer, Bureau of Mines, and Howard B. Nickelson, geologist, Geological Survey.

As stated by the authors, the project was unsuccessful in finding ore, and they recommend that no Certification of Discovery or Development be issued. The Field Team concurs with the recommendation of the authors.

By Field Team, Region I, NW District

Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

John S. Vhay, Acting Member
U. S. Geological Survey

Enclosures
cc: USBM(2)
Nickelson

Reviewed by
DMEA OPERATING COMMITTEE
2-4-55
(date)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 31 1955

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD TEAM, REGION I

FINAL REPORT

Contract Idm-E531

by

Margaret R. Lickes
Mining Engineer
U. S. Bureau of Mines

Howard B. Nickelson
Geologist
U. S. Geological Survey

BRADLEY MINING COMPANY
425 Crocker Building
San Francisco 4, California

Docket No.:	DMEA-3010
Commodity:	Tungsten
Contract date:	May 26, 1953
Completion date:	October 15, 1953

SPRINGFIELD TUNGSTEN MINE
Yellow Pine Mining District
Valley County, Idaho

Reviewed by
DMEA OPERATING COMMITTEE
2-4-55
(date)

Spokane, Washington

January 1955

FINAL REPORT

BRADLEY MINING COMPANY
Springfield Tungsten Mine
Yellow Pine Mining District
Valley County, Idaho

Contract Idm-E531

* * * *

INTRODUCTION

This final report describes a surface diamond drilling project for tungsten along the West Fork of Springfield Creek in Valley County, Idaho, conducted by the Bradley Mining Company under Defense Minerals Exploration Administration project contract No. Idm-E531.

Summary

The purpose of the project was to explore what was believed to be a steeply-dipping pyrrhotite-scheelite-bearing quartz vein by means of a maximum of 600 feet of diamond drilling.

Four of the six holes drilled intersected the deposit; only SP-7 encountered significant amounts of scheelite. Sludge assays from 5 feet to 40 feet ranged from 0.09 to 0.33 percent WO_3. Core assays from 5 feet to 20 feet ranged from 0.02 to 0.15 percent WO_3. (Refer to the drill logs of DMEA holes which are included with this report.)

The project drilling failed to discover ore, but information gained by the drilling and surface mapping shows that the deposit in the area drilled has been eroded away except as thin remnants and what is believed to be an irregular trough-shaped portion in the vicinity of the drill station, shown on Sec. A-A' of the enclosed map, which extends down the hill through a point approximately 50 feet east of the water tank. The deposit appears to be striking and dipping similar to the present slope of the hill.

Exploration by diamond drilling for the downward continuation of the deposit along an east-west line about 75 feet north of the water tank would be warranted.

Recommendations

The project was unsuccessful; therefore, it is recommended that no Certification of Discovery or Development be issued.

An application by the Bradley Mining Company for further exploration by means of a magnetometer survey to aid in the location of additional diamond drill holes was recommended by the Field Team but denied in Washington.

LOCATION AND ACCESSIBILITY

The group of three unpatented mining claims is in sec. 28, T. 17 N., R. 9 E., Boise Meridian, Valley County, Idaho. The claims cover a talus deposit and adjacent territory on the West Fork of Springfield Creek in the primitive area of central Idaho. It is approximately 8 airline miles south of Stibnite, Idaho, and can be reached from Stibnite through Yellow Pine and over Trappers Flat via Old Thunder Mountain road.

The topography is steep and rugged, and the region is sparsely timbered. Altitude of the deposit is about 7,800 feet.

Snowfall is usually heavy, and the property is accessible only during the summer and autumn months. A very rough road, serviceable only during these seasons and only for 4-wheel drive vehicles, traverses Trappers Flat to the property. The summers are mild with little rainfall.

PROPERTY

The property comprising the group of claims included in the exploration project is tabulated below:

Name of Claim	Book No.	Page No.
White Mare	11	423
White Mare No. 1	11	424
White Mare No. 2	11	425

These claims are owned by the Bradley Mining Company which pays the former owners, Mr. and Mrs. Lafe Cox, 1-1/2 percent royalty on all ore extracted and sold. All claims are recorded at the Valley County Courthouse, Cascade, Idaho.

There are no mine workings, but a small gravity mill to treat talus fines is located on the property.

History

The White Mare group of claims was located in 1946 by Mr. and Mrs. Lafe Cox. The Bradley Mining Company secured the property soon afterward under a 1-1/2 percent royalty agreement with the Coxes.

The Bradley Mining Company partially explored the deposit by six diamond drill holes, totaling 814 feet. The company also dug 28 test pits in the talus, which covered an area of 50,000 square feet, to determine the reserve and grade of the minus one-half inch material which would not require crushing in a gravity mill. Pit location and assays of this material are shown on the enclosed map. These determinations proved a reserve of 16,000 tons of material averaging 0.40 percent WO_3.

A DMEA application for diamond drilling was submitted in April 1953, and a contract for 600 feet of diamond drilling was approved on May 26. This contract was completed about the middle of October of the same year.

During the summers of 1953 and 1954, the minus three-eighths inch portion of the talus was treated by gravity separation; namely, trawmeling, jigging and tabling. Concentrates from this operation were upgraded at Stibnite by roasting and magnetic separators. The high grade portion of the concentrates were sold to a GSA buying depot.

GEOLOGY

There has been no areal geologic mapping in this area. It is probable that the geology of the area is somewhat similar to that of the Stibnite area to the north where there are a number of roof pendants in the Idaho batholith and some major north-striking faults.

The Springfield deposit is in a roof pendant. A block of sedimentary rock, including limestone, has been disrupted and thermally metamorphosed by the intrusion of the Idaho batholith. The resulting tactite and some of the adjacent granite were then pervaded by tungsten-bearing solutions.

Metamorphic rocks of the area include white marble, tactite, and schists. These rocks and the granite have been intruded by aplite and lamprophyre dikes.

The deposit was explored under the assumption that it was a steeply-dipping quartz vein. Subsequent mapping and diamond drilling have shown that the deposit is in a tactite body which forms only a thin skim conformable with the slope of the hill. The original dimensions of the deposit are unknown because a large portion of it appears to have been eroded and now exists as talus on and below the outcrops. The length of the deposit may have been of a magnitude of 400 feet. The greatest remaining thickness, as seen in DDH SP-1, is about 50 feet. Nothing is known about possible down-dip extensions, but they may well exist.

The tactite is composed of carbonate, quartz, silicate minerals, scheelite, pyrrhotite, and minor amounts of other sulfides. The occurrence of pyrrhotite with scheelite offers an opportunity to search for the downward continuation of this body and other tactite bodies in the area by magnetometer. Unfortunately, not all pyrrhotite is accompanied by scheelite. As with most tactite deposits the distribution of tactite is very irregular, as is the distribution of scheelite in the tactite. The scheelite occurs on a few outcrops and was found in only two of the 12 diamond drill holes, but it is widespread throughout the talus. Of considerable interest is the fact that the scheelite-bearing talus has been successfully mined as a placer deposit. It is possible that tactite underlies the talus and such a body may well be exposed during placer operations.

Ore Reserves

Drilling by the Bradley Mining Company before the start of the contract had yielded the following results:

DDH No. 2 assayed 0.34 percent WO_3 between 16 and 46 feet. DDH No. 1 assayed 0.26 percent WO_3 from 5 to 10 feet, 0.33 percent WO_3 from 10 to 15 feet, 0.61 percent WO_3 from 15 to 20 feet. (These results could not be used in calculating reserves.)

No scheelite concentration of ore grade was cut in the DMEA diamond drill holes. One 5-foot sludge sample from DDH No. SP-7 assayed 0.33 percent WO_3 and sludge assays covering 20 consecutive feet in this hole averaged 0.30 percent WO_3, but no core assayed higher than 0.15 percent WO_3.

At the suggestion of the Operating Committee four samples were analyzed for nickel and cobalt with negative results. The same four samples were analyzed for columbium and tantalum on the company's initiative, also with negative results.

During the November 1953 inspection (near the end of that year's placer operation) it was estimated by the examiners that approximately 10,000 tons of oversized material from the placer operation was stockpiled. The 1954 operation would certainly double this amount; thus, 20,000 to 25,000 tons of material is stockpiled that is believed to be the same grade as the minus one-half inch material. This grade estimate is based on a verbal statement by the assistant manager and on lamping of the 1953 stockpile by the field examiners.

THE PROJECT

On April 20, 1953, the Bradley Mining Company applied for a DMEA exploration contract to cover partially the costs of 600 feet of diamond drilling and subsidiary work which were estimated at $5,945.50.

DMEA Contract Idm-E531, dated May 26, 1952, allowed $5,600 to perform the work as proposed in the application, of which the Government's share was $4,200. The Bradley Mining Company, owner, signed a guaranty in order that Mr. and Mrs. Lafe Cox, who receive 1-1/2 percent royalty on the sale of ore, need not be involved.

Diamond drill equipment was moved into the area during the latter part of August 1953, and the drilling of 593 feet of diamond drill hole was completed about the middle of October 1953.

Two amendments to the contract were necessary. Amendment No. 1, dated November 16, 1953, exempted royalty payments from all proceeds from treatment of the talus. The company had not understood that wording of the contract was such as to require royalty payments on production from the entire property including the talus. The talus mining was in progress before the start of the contract, and the DMEA funds for exploration had contributed nothing to its discovery nor to its evaluation. Because there had been a misunderstanding on the part of the company in signing the contract, the Field Team recommended Amendment No. 1 which exempted placer mining from royalty payments.

Amendment No. 2, dated January 13, 1954, changed the contract to an agreed unit cost type of agreement. The original intention had been to subcontract the diamond drilling, but the Bradley Mining Company could not find an independent driller who would accept a contract for the small footage involved in such an inaccessible location.

Logging and sampling results by Mr. Keith Wallace of the Bradley Mining Company accompany this report as part of the Annex.

A total of 593 feet was drilled in six holes at a cost of $3,761.67. The Government's share, which was 75 percent of the total cost, was $2,821.25.

The Report of Review, dated May 3, 1954, and the operator's final report, received June 28, 1954, have been accepted as satisfactory and the final settlement has been made.

Exploitation Possibilities

Assays of the samples of both the company's previous diamond drilling and the DMEA diamond drilling showed tungsten, as scheelite, insufficient to classify as ore. Four assays for cobalt, nickel, columbium, and tantalum were negative.

Talus beneficiation was carried on during the summer months in 1952 and 1953. The mill consists of a three-eighths inch mesh trommel screen, jig cells, and a Wilfley table. It handled 60 to 75 tons per day, and made an average of 1,100 pounds of concentrate averaging 10 to 20 percent WO_3. This concentrate was sent to the Bradley mill at Stibnite for further beneficiation.

Summary of Factual Data

The accepted costs and items upon which they were based are as follows:

Items	Accepted Costs
Diamond drilling - 593 feet at $5.25/ft.	$3,172.55
Move-in allowance	179.41
Geological consultant at $50/day, plus $15/day expenses - 2 days	130.00
Engineer at $20/day - 10 days	200.00
Core boxes	37.71
Sampling and analysis	42.00
Total accepted costs	$3,761.67
Government's share at 75 percent	$2,821.25

Because the contract was on a unit cost basis there was no jointly-owned equipment or supplies to be disposed of.

Discussion of Conclusions

The contract was easily administered, and the detailed information presented to the Government by the Bradley Mining Company greatly aided in the interpretation of results obtained by this small drilling project.

Although the drilling results were disappointing, the considerable amount of tungsten recovered from the talus suggests that the grade of the deposit before erosion may have been appreciably higher than that of the remnant of the orebody remaining in place.

Although some scheelite is in granite, it may be said that the best geologic guide to exploration of the general area is the occurrence of metamorphic rock inclusions (roof pendants) in the granite. These inclusions crop out on hill tops, and tactite bodies can be expected to be associated with them. Of particular value, in this immediate area, is the association of pyrrhotite with scheelite in the tactite bodies.

Because pyrrhotite is ferromagnetic, pyrrhotite-bearing bodies should be easily identified, even though considerable overburden, by magnetometer surveys.

It is possible that unrecognized tactite bodies are in the area. The ground underlying the talus deposit at depth would be the most logical place to explore first.

Enclosures (2)

Distribution:
IMEA (4)
USBM (5)
USGS (SRO)
Docket
Nickelson

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

January 18, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3010 (Tungsten)
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

In reply to your inquiry of January 10, 1955, the Field Team's final report on the Springfield project is being typed and will be sent to you during the week of January 24, 1955.

Sincerely yours,

A. E. Weissenborn/O.A.

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

cc: USBM(2)
Nickelson

DOCKET
SURNAME

400 Rutledge
Martin
Selfridge
Johnson
Mittendorf

JAN 10 1955

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Weissenborn:

Reference is made to the subject docket and your letter of October 15, 1954, which indicated that the Field Team's final report on the exploration at the Springfield prospect might be completed sometime in November.

Please advise when we may expect to receive this report.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

APPROVED:

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

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

FARUTLEDGE:foc
1-6-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. II
R. W. Geehan, USBM
T. H. Kiilsgaard, USGS

R.C.S.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON~~
So. 157 Howard Street
Spokane 4, Washington

October 15, 1954

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (tungsten)
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

In reply to your letter of September 27, 1954, asking us when the Field Team final report may be expected, we believe that it will be possible to have this completed some time in November.

Sincerely yours,

A. E. Weissenborn

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

cc: USBM (2)
Nickelson

400
DOCKET
SURNAME
Rutledge
Martin
Selfridge
Johnson

SEP 27 1954

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Weissenborn:

Exploration under the subject contract was completed in October 1953. A report of review by the audit division was made May 3, 1954, and the Operator's final report is dated June 22, 1954.

It will, therefore, be appreciated if we may be advised when the Field Team's final report may be expected.

Sincerely yours,

George C. Selfridge (by ESJ)
Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FARutledge:foc
9-24-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. II
R. W. Geehan, USBM
Thor H. Kiilsgaard, USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 29, 1954

Certifying Officer, DMEA
Field Team, Region II
1201 North Division
Spokane 2, Washington

Re: Docket No. DMEA-3010 (Tungsten)
Bradley Mining Co.
Springfield Tungsten Mine
Valley County, Idaho
Contract No. Idm-3531

Dear Sir:

This will advise you that the final report of work done under DMEA Contract Idm-3531 by the Bradley Mining Co. at the Springfield mine, Valley County, Idaho, has been received and accepted. As there is no equipment to dispose of, there is no obstacle to final settlement of the contract account as soon as the final audit is made.

Sincerely,

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

cc: USBM(2)
DMEA(2)

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

June 29, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (Tungsten)
Bradley Mining Co.
Springfield Tungsten Mine
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

Enclosed are the original and two copies of the operator's final report on the Springfield Tungsten Mine, Valley County, Idaho, which has been accepted as satisfactory by the Executive Officer.

Sincerely yours,

A. E. Weissenborn

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

Enclosures
cc: USBM(2)

FINAL REPORT

By The

BRADLEY MINING CO.

To The

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Docket No. DMEA 3010 (Tungsten)
Springfield Tungsten Mine
Valley County, Idaho
Contract No. Idm-E 531

Scope of Work

The exploration contract provided for 600 feet of diamond drilling to explore for tungsten, and such subsidiary work as was necessary to complete the drilling project, such as pipe driving, consultant's services, analytical work, etc. The total contract estimated costs were $5,600.00.

Drilling under the contract started in the latter part of August, 1953 and was completed in October, 1953. Six holes totaling 593 feet were drilled. The total actual cost was $3,761.67, of which the government's share was $2,821.25.

Location of Work

The drilling was done at the Springfield Mine, located in the primitive area of Central Idaho eight miles south of the Village of Stibnite, Valley County. The Springfield Mine is owned and operated by the Bradley Mining Co. Scheelite production from a talus deposit on the property started in 1953.

Exploration Results

The diamond drill holes are shown on geologic maps and sections on file at the Region II DMEA Field Team offices in Spokane, Washington; additional copies are not included with this report. Also, detailed logs of the individual drill holes have been previously submitted and will not be repeated here.

The purpose of the diamond drilling was to explore a zone of scheelite mineralization described as follows in the contract application:

> "The scheelite is associated with abundant pyrrhotite and minor other sulfides in a quartz vein near the base of a sheer granite bluff. The vein, which has a width of perhaps

RECEIVED
JUN 28 1954
U. S. G. S.
SPOKANE, WASH.

fifteen to twenty feet, strikes parallel to the bluff at about north 30° west. The dip of the vein is unknown, but is probably steep.

"Surface evidence indicates the vein has a known length of 150 to 200 feet along the strike, with the highest tungsten values occurring at the south end of the vein.

"Although the general country rock is granite, the vein is apparently more closely associated with a zone of metamorphic rocks, specifically marble and tactite. In addition to occurring in the vein described above, scheelite is found in lesser quantities in the tactite mineralization and to some extent in altered granite."

Six holes were drilled to test the vein below the outcrop. Four of the holes (SP-7, SP-8, SP-9 and SP-10) were drilled southwesterly from locations a short distance below the outcrop. Each of these holes cut a zone of strong sulfide mineralization near the collar, varying in indicated width from 5 to 25 feet; however the scheelite content was extremely spotty. The sludge samples assayed from zero to 0.33% WO_3, with the majority of samples carrying little better than traces of WO_3.

The results of the above four holes suggested that the mineralized zone or vein had a fairly flat dip, perhaps only slightly steeper than the slope of the hillside. For this reason two holes (SP-11 and SP-12) were drilled southwesterly from locations down-slope and down the suspected dip from the first four holes. Neither of these holes penetrated mineralized rock.

Conclusions

Diamond drilling results were not encouraging, but neither were they conclusive.

The assumption, stated in the contract application, that the scheelite occurs in a vein striking north 30° west has probably been proved incorrect. Based on the drill hole information and recent detailed surface mapping it seems more likely that the scheelite occurs in a highly irregular contact metamorphic zone of tactite mineralization, the outlines of which can be projected but a few feet, if at all.

Recognition of the nature of the mineralization as stated above leads to the following conclusions:

1. The width of the contact zone may be expected to vary greatly within a short distance along the highly irregular trend of the zone.

2. The scheelite content of the zone may also be expected to vary widely -- perhaps from none up to rich pockets carrying several percent WO_3.

3. Diamond drilling is useful to locate the tactite zone, but has little value in determining the grade of scheelite present because of the erratic scheelite distribution. Similarly, scheelite is usually associated with extremely heavy pyrrhotite mineralization within the tactite zone, but not everywhere does the presence of pyrrhotite assure the presence of scheelite.

4. Successful exploration of the area requires delineating the irregular contact zone at depth, which can only be done by drilling many closely-spaced diamond drill holes.

Ore Reserves

No ore reserves were developed as a result of this exploration project.

Some of the diamond drill cores were analyzed for nickel, cobalt, columbium and tantalum. Results in all instances were negative.

BRADLEY MINING CO.

K. G. Wallace

K. G. Wallace
Assistant Manager

KGW/ja

6/22/54

FINAL REPORT

By The

BRADLEY MINING CO.

To The

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Docket No. DMEA 3010 (Tungsten)
Springfield Tungsten Mine
Valley County, Idaho
Contract No. Idm-E 531

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U. S. G. S.
SPOKANE, WASH.

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Some of the diamond drill cores were analyzed for nickel, cobalt, columbium and tantalum. Results in all instances were negative.

BRADLEY MINING CO.

K G Wallace

K. G. Wallace
Assistant Manager

KGW/ja

6/22/54

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

June 17, 1954

Mr. G. C. Orton, Assistant Secretary
Bradley Mining Co.
1022 Crocker Building
San Francisco 4, California

Re: Docket No. DMEA-3010 (tungsten)
Springfield project
Valley County, Idaho
Contract No. Idm-2531

Dear Mr. Orton:

Reference is made to your letter of May 13, in which you acknowledge receipt of a check for $2,082.69, covering exploration work on the cited project for the month of September 1953, and in which you call attention to the fact that work for the month of October, amounting to $738.56, remains unpaid.

We have been instructed by our Washington office to withhold an amount of contract payment, which may be as much as 10 percent of the total amount of the contract, until all contract obligations have been complied with. This amount is to cover the Government's equity in equipment or material and supplies used by project work and is to be released only when the operator has purchased the Government's equity or has sold it to the best interests of the Government. In your instance, however, we are withholding payment for the October invoice until we have received the final report specified under Article 7 of the cited contract. This report need not be extensive, but it should describe the results of the project and should give an accounting of what has been accomplished. We had assumed that your final report would be submitted after you had been notified that your request for additional contract work, submitted under cover of a letter dated January 26, 1954, had been denied by DMEA. Quite probably your report is in preparation, but we must advise that we cannot release this money until the report has been submitted.

By Field Team, Region II

Wing G. Agnew, Acting Executive Officer
U. S. Bureau of Mines

Thor H. Kiilsgaard, Acting Member
U. S. Geological Survey

cc: DMEA (2)
USBM (2)
Cert. Officer; Nickelson

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

Department of the Interior
Defense Minerals Administration
RECEIVED
JUNE 7 1954

May 28, 1954

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3010 (tungsten)
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

You will recall that on March 11, 1954, you wrote that in reviewing this docket you noted that certain sections of the drill holes were logged as heavy sulfides in quartz and you wished to be informed if any of the samples from these sections were analyzed for nickel.

It seemed that this would be worthwhile to follow up and, consequently, I wrote the Bradley Mining Company suggesting that they make some assays. They assayed four samples for cobalt, nickel, columbium and tantalum. The description of the samples and the results are given in the ozalid copy of the Bradley Mining Company's letter of May 15 to me reporting these results. As you will see, they were negative.

It is too bad they had no better luck but, in any event, the information even if negative is of value.

Sincerely yours,

A. E. Weissenborn, JHK.

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

Enclosure - 1 (in dup.)

cc: USBM (2)

HEAD OFFICE:
435 CROCKER BLDG.
SAN FRANCISCO 4

BOISE, IDAHO OFFICE:
BRADLEY FIELD,
P. O. BOX 638

BRADLEY MINING CO.

YELLOW PINE MINE AND SMELTER

STIBNITE, IDAHO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN - 7 1954

May 15, 1954

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region II
So. 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 (Tungsten)
Springfield Tungsten Prospect
Valley County, Idaho
Contract No. Idm-E 531

Dear Mr. Weissenborn:

We have received the results of the nickel, cobalt, columbium and tantalum determinations run on the Springfield samples mentioned in my letter of March 30th.

The following four samples were submitted for spectrographic analyses to the Sullivan Electrolytic Zinc Plant:

No. 1 - Diamond drill hole No. Sp-7, 10-15 ft., core. Heavy pyrrhotite, some scheelite.

No. 2 - Diamond drill hole No. Sp-9, 10-15 ft., core. Tactite mineralization, only moderate sulfides.

No. 3 - Springfield scheelite concentrate. Approximately 60% WO_3.

No. 4 - Springfield magnetic separator rejects. Mainly pyrrhotite and garnet.

The following results were reported:

	Co	Ni	Cb	Ta
Sample No. 1	0.0006	0	0	0
Sample No. 2	0	0	0	0
Sample No. 3	0	0	0	0
Sample No. 4	0	0	0	0

(0 = not detected)

Very truly yours

BRADLEY MINING CO.

K. G. Wallace
Assistant Manager

RECEIVED
MAY

KGW/ja

Talbert
Chambers

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

MAY 4 - 1954

Mr. Robert M. Hull
DMEA Auditor
1201 North Division Street
Spokane 2, Washington

Re: Idm-E531, DMEA-3010
Bradley Mining Company

Dear Mr. Hull:

The Monthly Work Load Report, as transmitted by your letter of April 30, 1954, indicates that you contemplate issuing a Report of Review covering the referenced Exploration Project Contract.

It is noted, however, that by letter dated April 28, 1954 addressed to the Operator by the Acting Executive Officer, DMEA Field Team, Region II, the requirement for documentary support of the Operator's Monthly Report and Voucher (Form MF-104) was waived. This waiver was issued under the authority granted to the Executive Officer by DMEA Circular 19, which further provides that, in any case where such waiver of documentation is issued, a site audit of the Operator's records is mandatory. Accordingly, as the matter now stands a Report of Review in lieu of a final audit is not acceptable.

This is a relatively small contract, being in the total amount of $5,600.00 with the major portion thereof ($4,762.50) on an agreed unit cost basis (per Amendment No. 2). The only items on an actual cost basis are the allowable maximums for an engineer and consultant and the estimates for analyses, all of which the Operator probably can adequately support. Accordingly, it is suggested that you consult with the Field Team as to the necessity for an audit and the possibility of rescinding the waiver of documentation.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/wb
May 4, 1954

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.S.G.

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

RECEIVED
- 5 1954

March 31, 1954

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3010 (tungsten)
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

With reference to a recent letter from you asking whether analysis for nickel had ever been made on any of the Springfield diamond drill hole cores, I wrote Mr. J. D. Bradley concerning this and I am enclosing a self-explanatory letter dated March 25 which was sent to me in reply. As soon as the results are received, we will forward them to you.

The Bradley people are naturally quite disappointed in the denial of their application for further exploration at the Springfield property; however, Mr. Bradley stated to me that in this coming summer they expect to do an extensive amount of mining of the talus on the property and they hope that as a result of this mining they may cover enough exposure so that there would be more favorable evidence on which to plan further exploration. If this is so they will resubmit an application.

Sincerely yours,

A. E. Weissenborn

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

Enclosures

cc: USBM (2)
Nickelson

P. S. Since writing the above, we received another letter from the company dated March 30, which is also self-explanatory.

A. E. W.

WORTHEN BRADLEY
PRESIDENT

JOHN D. BRADLEY
EXECUTIVE VICE PRESIDENT

JAMES P BRADLEY
VICE PRESIDENT

E. A. GRIFFEN
SECRETARY

BRADLEY MINING CO.

425 CROCKER BUILDING
SAN FRANCISCO 4, CALIFORNIA
TELEPHONE BUTTER 1-0414

ANTIMONY
TUNGSTEN
VIRGIN QUICKSILVER

March 25, 1954

Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II
So. 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3010 (Tungsten)
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Al:

In reply to your letter of March 16th asking whether or not we have had any nickel or cobalt determinations run on our recent Springfield diamond drill holes, my reply is that I am quite certain not. On the original drilling performed several years ago, this was done, with not very encouraging results. However, I am sending copies of your letter to Keith Wallace, who will not only check the results of the older holes and advise you, but also will send samples of the latest cores out for nickel, cobalt, columbium and tantalum analyses - which samples we may send to the Sullivan Zinc Plant for their spectographic examination; as soon as these latest results are available, Keith will advise you.

Hoping to see you in the near future, I am

Sincerely yours,

John D. Bradley
Executive Vice President

JDB:MV

HEAD OFFICE:
425 CROCKER BLDG.
SAN FRANCISCO 4

BOISE, IDAHO OFFICE:
BRADLEY FIELD
P. O. BOX 638

BRADLEY MINING CO.

YELLOW PINE MINE AND SMELTER

STIBNITE, IDAHO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 5 1954

March 30, 1954

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region II
So. 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3010
(Tungsten)
Springfield Tungsten
Prospect, Valley County,
Idaho, Contract No.
Idm-2 531

Dear Mr. Weissenborn:

With reference to your letter of March 16th to Mr. Bradley and his reply of March 25th, I have reviewed our Springfield assay records and will summarize them below.

A spectrographic analysis of a scheelite-bearing sample from Springfield was made in 1947 and the following results were reported:

Major constituents:	Fe, W
Present:	Al, Si, Cu
Trace:	Mg, Ca
Not detected:	Na, Sr, Ba, Be, Ga, B, Mn, Co, Ni, Au, Ag, In, Cd, Zn, Tl, Pb, Bi, F, As, Sb, Ge, Sn, Te, Ti, V, Ta, Cr, Mo

Apparently in this sample, at least, nickel, cobalt and tantalum were not present. Columbium was not reported.

Wet assays were run on cores from the mineralized parts of diamond drill holes SF-1, SF-2 and SF-3 (drilled in 1946) with the following results:

Au	Trace to 0.030 oz/ton
Ag	Trace to 0.40 oz/ton
WO_3	Nil to 0.61%
Cu	Nil to 0.35%
Pb	Nil
Zn	Nil
Sn	Nil
Bi	Nil

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MAR 31 1954
U. S. G. S.
SPOKANE, WASH.

From the above results we concluded that the mineralized zones were mineralogically rather simple, with the minerals of interest being scheelite, pyrrhotite, pyrite, chalcopyrite and bornite in a quartz gangue. Pyrrhotite is by far the major sulfide constituent of the ore zones.

As a further check on the possible presence of unsuspected values, we have the settlement assays for the scheelite concentrates produced from our talus operation last summer. These averaged as follows:

Cu	0.06%
Pb	0.01%
Zn	0.03%
Sn	Tr
Bi	Tr
As	Nil
Sb	Nil
Mo	0.04%
Mn	0.10%

Any heavy, non-magnetic minerals in the ore should have appeared in the scheelite concentrate.

From the above summary, it is evident that your suggestion of checking the heavy sulfides for nickel and cobalt is a good idea -- only one sample has been so checked, and the nature of that sample (whether or not it was pyrhhotite-rich) is not known.

We will have the latest cores analyzed, and also the scheelite concentrate and magnetic rejects checked for nickel, cobalt, columbium and tantalum.

Very truly yours

BRADLEY MINING CO.

L. G. Wallace
Assistant Manager

LGW/je

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

March 16, 1954

Mr. J. D. Bradley
Bradley Mining Company
425 Crocker Building
San Francisco 4, California

Re: Docket No. DMEA-3010 (Tungsten)
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-8531

Dear Jack:

We wonder whether any nickel or cobalt analyses were ever made of those parts of Springfield drill holes which were logged as containing heavy sulfides, mostly pyrrhotite. If this has not been done, we wonder whether this might not be a good idea to do so as a matter of routine.

Perhaps you have already given thought to this and have decided against it for some good reason. Not having seen the drill cores, I would have no basis for judging.

Sincerely yours,

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

cc: DMEA (2)
USBM (2)
Nickelson

Re Operating Committee letter of March 11 to Executive Officer, Region II, same subject.

400

Rutledge
Martin
Selfridge
Weissenborn
Mittenbergs

MAR 11 1954

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Weissenborn:

Reference is made to the geologic logs of the diamond drill holes contained in the subject docket.

In reviewing this case it was noted that certain sections of the drill holes were logged as heavy sulfides (75% mainly pyrrhotite) in quartz. Please advise if any of the samples from these sections were analyzed for nickel.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/6)

Approved:

J. H. Hedges

Member, Bureau of Mines (2/6)

D. M. Larrabee

Member, Geological Survey (2/6)

cc: DOCKET
FT, REG. II
CODE 400
OPER. COMM.
ADM. READ. FILE
R. W. GEEHAN, USBM
T. P. THAYER, USGS

FARutledge/ls
3-9-54

R.C.A.
3-11-54

400
SURNAME
DOCKET
Rutledge
Martin
Geehan
Guild
Hedges
Stoffridge
Johnson

MAR 8 1954

Mr. John D. Bradley
Bradley Mining Company
425 Crocker Building
San Francisco 4, California

Re: Docket No. DMEA 3010 - Tungsten
Springfield Prospect
Valley County, Idaho
Contract No. Ida-2531

Dear Mr. Bradley:

Reference is made to your request by letter dated January 26, 1954, to the Executive Officer, DMEA Field Team, Region II, for an amendment to the referenced contract to allow additional exploration at the subject property.

Careful study of the work suggested by Roger H. McCosmell in the report transmitted by your letter of request and review of all our information indicate to us that Government participation in your proposed program is not justified. Under these circumstances, we regret to advise you that your request for additional exploration under the subject contract is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Program and for bringing your proposals to our attention.

Sincerely yours,

C. O. Mitchell (fw)
Administrator

FARutledge:fec
3-2-54
cc: Docket
Code 400
Adm. Read. File
Oper. Comm.
FT. Reg.2
R. W. Geehan, USBM
T. P. Thayer, USGS

R.C.B. 3-8-54

400
DOCKET
SURNAME
Rutledge
Martin
Gehan
Guild

March 2, 1954

Memorandum

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of request for additional work and funds under amendment to Contract No. Idm-8531
Docket No. DMEA 3080 - Tungsten
Bradley Mining Company
Springfield Tungsten prospect
Valley County, Idaho

The denial of the subject request by this Division is based on the following information:

1. The Applicant has proposed a two-stage program to complete the exploration of the Springfield Tungsten prospect at an estimated cost of $21,455.00.

   Stage I was to be composed of a magnetometer survey covering approximately 80 acres around the presently known deposit: cost $2,000.00. If the results of this survey were favorable, Stage II consisting of 2,000 feet of diamond drilling was to follow. The estimated cost of Stage II is $19,455.00.

2. The Field Team recommends that favorable consideration be given the Operator's request for additional exploration. In its letter of transmittal, the Field Team stated that: "All DMEA holes except Nos. SP-11 and SP-12 have encountered some tungsten mineralization although the assay values have been low." However the results of lamping and analytical work have shown that only Hole No. SP-7 contained more than a trace of tungsten.

3. The Operator drilled six (6) diamond drill holes in exploring the referenced prospect area prior to execution of the subject contract. Four of these holes were collared at one location and the other two were collared about 150 feet down the dip slope. Only two of the holes from the first location, D.D. Holes No. 1 and No. 2 (both in the same vertical section), exposed any appreciable values.

R.C.G.
3-15-54

4. Based on the results of the discovery under the exploration completed prior to the DMEA contract, an estimated 10,000 tons of 0.35 percent WO_3 has been inferred. The surface exposure representing this estimate measures 50 feet by 50 feet and is located approximately at the apex of the talus deposit of tungsten now being mined by the Operator.

5. Six (6) additional diamond drill holes were drilled under the referenced contract. Only one of these drill holes, Hole No. 7, revealed concentrations of scheelite of particular interest. Hole No. 7 cut a zone of heavy sulfides and quartz from 8 to 18 feet. The grade of this section based on the sludge was approximately 0.13 percent WO_3. The sludge from the next twenty feet of the hole, from 20 to 40 feet, averaged 0.30 percent WO_3, but this must have been the result of salting. The core from 20 feet to 30 feet contained only a trace of scheelite and from 30 feet to 40 feet presumably registered nil by lamping; core and sludge were lamped thoroughly and this section would almost certainly have been run if the lamping had indicated any scheelite.

6. Diamond drill Holes No. 8 and No. 9 penetrated below Hole No. 1 with negative results.

7. There was no discovery under the DMEA program.

8. The isolated location of this deposit, the size and grade of the occurrence explored by the Operator's exploration prior to the DMEA contract, the negative results of the exploration under the referenced contract, and the indications that any additional occurrences in the area would be of slight importance, do not warrant further participation by the Government. The subject request, therefore, is being denied.

9. The Commodity Divisions of the Bureau of Mines and the Geological Survey concur in this denial.

FARutledge:fcc
cc to: Adm. Reading File
Docket
Code 400
Oper. Comm.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

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

March 2, 1954

Memorandum

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of request for additional work and funds under amendment to Contract No. Idm-E531
Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield Tungsten prospect
Valley County, Idaho

The denial of the subject request by this Division is based on the following information:

1. The Applicant has proposed a two-stage program to complete the exploration of the Springfield Tungsten prospect at an estimated cost of $21,455.00.

   Stage I was to be composed of a magnetometer survey covering approximately 80 acres around the presently known deposit: cost $2,000.00. If the results of this survey were favorable, Stage II consisting of 2,000 feet of diamond drilling was to follow. The estimated cost of Stage II is $19,455.00.

2. The Field Team recommends that favorable consideration be given the Operator's request for additional exploration. In its letter of transmittal, the Field Team stated that: "All DMEA holes except Nos. SP-11 and SP-12 have encountered some tungsten mineralization although the assay values have been low." However the results of lamping and analytical work have shown that only Hole No. SP-7 contained more than a trace of tungsten.

3. The Operator drilled six (6) diamond drill holes in exploring the referenced prospect area prior to execution of the subject contract. Four of these holes were collared at one location and the other two were collared about 150 feet down the dip slope. Only two of the holes from the first location, D.D. Holes No. 1 and No. 2 (both in the same vertical section), exposed any appreciable values.

4. Based on the results of the discovery under the exploration completed prior to the DMEA contract, an estimated 10,000 tons of 0.35 percent WO_3 has been inferred. The surface exposure representing this estimate measures 50 feet by 50 feet and is located approximately at the apex of the talus deposit of tungsten now being mined by the Operator.

5. Six (6) additional diamond drill holes were drilled under the referenced contract. Only one of these drill holes, Hole No. 7, revealed concentrations of scheelite of particular interest. Hole No. 7 cut a zone of heavy sulfides and quartz from 8 to 18 feet. The grade of this section based on the sludge was approximately 0.13 percent WO_3. The sludge from the next twenty feet of the hole, from 20 to 40 feet, averaged 0.30 percent WO_3, but this must have been the result of salting. The core from 20 feet to 30 feet contained only a trace of scheelite and from 30 feet to 40 feet presumably registered nil by lamping; core and sludge were lamped thoroughly and this section would almost certainly have been run if the lamping had indicated any scheelite.

6. Diamond drill Holes No. 8 and No. 9 penetrated below Hole No. 1 with negative results.

7. There was no discovery under the DMEA program.

8. The isolated location of this deposit, the size and grade of the occurrence explored by the Operator's exploration prior to the DMEA contract, the negative results of the exploration under the referenced contract, and the indications that any additional occurrences in the area would be of slight importance, do not warrant further participation by the Government. The subject request, therefore, is being denied.

9. The Commodity Divisions of the Bureau of Mines and the Geological Survey concur in this denial.

W S Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

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

Defense Minerals Administration
RECEIVED
FEB 18 1954

February 18, 1954

Memorandum

To: W. S. Martin, DMEA

From: R. W. Geehan

Subject: DMEA 3010 (Tungsten)
Bradley Mining Company
Springfield Prospect
Valley County, Idaho

The Springfield mine was productive in August, September, and October of 1953. Total output was 2,000 units of WO_3.

The operator's request for additional exploration, as outlined in the Field Team memo of February 10, 1954, should be approved.

Robert W. Geehan
Robert W. Geehan

Geehan has withdrawn this memo as of 2-23-54
Rutledge

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

Department of the Interior
Defense Minerals Administration
RECEIVED
FEB 15 1954

February 10, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (Tungsten)
Bradley Mining Company
Springfield Prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

Enclosed are three copies of a letter dated January 5, 1954, from Mr. Roger H. McConnel to Mr. John D. Bradley, and three copies of a letter dated January 26, 1954, from Mr. Bradley to the Field Team. These letters request that the referenced contract be amended to provide additional funds for an extended exploration program. The operator believes that exploration to date has not adequately tested the deposit and that more work is needed to determine its extent and tenor.

Results of DMEA project work are summarized in Nickelson's and Bowsher's inspection report of October 19, 1953, Bowsher's report of November 18, 1953, and the operator's report of January 12, 1954, with which was submitted diamond drill data of project holes. Copies of all these reports should be available in DMEA files in Washington, D. C.

Six diamond drill holes have been completed by the project. These holes are labeled SP-7, SP-8, SP-9, SP-10, SP-11, and SP-12. All except hole SP-12 are located on the map accompanying Nickelson's and Bowsher's report of October 19, 1953. With reference to this map, hole SP-12 was collared at coordinates 8463.3N-8158.4E, and drilled on a bearing of S. 49° W. at an inclination of -30 degrees.

All DMEA holes except Nos. SP-11 and SP-12 have encountered some tungsten mineralization although the assay values have been low. Assay information on these holes is contained in the operator's report of January 12.

At the deposit, tungsten occurs as scheelite in pyrrhotite gangue, the zone of mineralization following a sedimentary-granitic rock contact. The greater part of the overlying sedimentary rocks as well as much of the deposit itself appears to have been eroded away. South of coordinate 8000N--as shown on the aforementioned map--the deposit does not outcrop. As this area is quite free of surface mantle and appears to be underlain by granite, it can be assumed that it does not warrant further exploration. North of coordinate 8000N, the deposit appears to be blanket-like conforming in part to topography, which, in this area, is a steep hillside sloping to the northeast. On the hillside and especially near the foot of the hill the outcrop is obscured by talus, although much of the talus is tungsten-bearing and is being mined. Drilling in the area between coordinates 8000N and 8400N indicates the deposit trends slightly east of north, but the exact attitude is unknown.

The best part of the deposit is shown on the map as being near and north of coordinate 8400N. In this area, drill holes SP-1 and SP-6 indicate the blanket-like deposit may be upwards of 60 feet thick. It is presumed that the deposit does not extend to the south, and as indications are that it does not continue to any depth, there remains for exploration only the northern and northeastern areas. If the deposit does not continue into these areas the property must be considered as too small to be of much importance. As outcrops in the northern area are largely obscured by overburden, it would be prudent to first conduct a magnetometer survey of the northern area to outline the pyrrhotized contact zone. Drilling can then be done more effectively and less expensively.

During the recent summer months the Bradley Mining Company had a small mill in operation on the property. This mill consisted of a three-eighths inch mesh trommel screen, jig cells and a Wilfly table. Talus was fed to the mill from the outcrop area by a slusher and bulldozer. It is believed that at peak operations the mill handled roughly 60 tons per day, making about 1,100 pounds of 10 to 20 percent WO_3 concentrate. This concentrate was upgraded in the Bradley mill at Stibnite. Reports are that the slusher-fed mill can continue to operate on talus for the summer season of 1954, after which it must either obtain ore from the deposit itself or shut down. The Bradley Mining Company is understandably anxious to further delineate the deposit to determine the available tonnage. From this information they hope to decide either to increase the size of the mill and make necessary improvements so that mine ore can be treated or to abandon the property.

The operator has proposed a two-stage program to further test the deposit. The first stage would consist of a magnetometer survey covering approximately 80 acres, whose purpose would be to test the extension of the pyrrhotized zone under the talus and

overburden. The second stage would consist of 2,000 feet of drilling, this drilling to be dependent upon the results of the magnetometer survey.

The program proposed by the operator is the most feasible way of further exploring the subject property. The cost of the proposed drilling is based on rates in the current contract and is believed fair and equitable.

The Field Team recommends that favorable consideration be given the operator's request for additional exploration. It is believed that further exploration stands to benefit not only the operator but the Government as well. If exploration is successful it will enable the operator to expand his milling facilities and to extend his mining operations to the deposit itself, thereby giving more assurrance that Government participation in exploration will be repaid. On the other hand, if exploration were to stop at this stage, it might be that milling operations would continue to be devoted solely to working the outcrop talus and that when this was finished the property would be abandoned, thereby erasing any prospect of royalty repayment to the Government. Our only objection to the proposed program is that 80 acres may be more of an area than need be explored by magnetometer survey. This point can undoubtedly be settled with the operator and in any event is of trivial consequence as the survey will start at the outcrop and work outwards until no anomolous magnetic readings are obtained. The magnetometer work would be done by a geophysical exploration company and we understand that the price quoted in the application represents an actual bid.

If the amendment allowing this proposed work is effected, the completion period of the contract should be extended from a period of nine months to a period of 18 months or through November 1954.

By Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Acting Member
U. S. Bureau of Mines

Enclosures
cc: USBM (2)
Nickelson
Hindman

WORTHEN BRADLEY
PRESIDENT

JOHN D. BRADLEY
EXECUTIVE VICE PRESIDENT

JAMES P. BRADLEY
VICE PRESIDENT

E. A. GRIFFEN
SECRETARY

BRADLEY MINING CO.

425 CROCKER BUILDING
SAN FRANCISCO 4, CALIFORNIA
TELEPHONE SUTTER 1-0414

ANTIMONY
TUNGSTEN
VIRGIN QUICKSILVER

REFER TO	ACTION	NOTED	DATE
Al			
Nick			
Thor			
ANSWERED			

RECEIVED
JAN 15 1954

AIR MAIL

January 26, 1954

DMEA Field Team, Region II
So. 157 Howard Street
Spokane 4, Washington

Attention: Mr. A. E. Weissenborn

Re: Docket No. DMEA-3010 (Tungsten)
Bradley Mining Co.
Springfield Tungsten Prospect
Valley County, Idaho
Contract No. Idm-E531

Gentlemen:

Attached please find 5 copies of this letter of transmittal and 6 copies of our report (prepared by Roger H. McConnel) covering additional work at our Springfield Tungsten Prospect.

Please consider this as our request for an amendment to our present contract in order to accomplish the work outlined in Mr. McConnel's report.

Yours very truly,

John D Bradley

John D. Bradley
Executive Vice President

JDB:NR
Encs.

air mail

Kellogg, Idaho
January 5, 1954

Mr. John D. Bradley
Bradley Mining Company
425 Crocker Building
San Francisco 4, California

Dear Jack:

In response to your request, Keith Wallace and I have carefully considered the need for further drilling and other exploration at the Springfield property.

We have agreed that the complex geology of the deposit is so little understood that drilling should be guided by a magnetometer survey covering about 80 acres around the presently known deposit.

The presence of considerable pyrrhotite in the scheelite-bearing zones now known leads us to believe that any magnetic highs revealed by a magnetometer survey will indicate the trend of mineralization and, hence, will very materially assist in locating additional drill holes.

It is my understanding that you prefer to have the magnetometer work accomplished by some geophysical firm.

Accordingly, we present herewith the following program:

Phase I - Magnetometer Survey

Conduct a magnetometer survey covering approximately 80 acres of the Springfield mine area, beginning the survey in the mineralized area now known and working outward from the zone.

The survey should be made on a grid of stations at 100 foot centers, magnetometer readings being made at each station, and results plotted. In some areas it may be necessary to reduce the spacing to 50 foot centers.

The results of the survey are to be used as a guide by the Operator and the Government in determining the location of subsequent diamond drilling provided under Phase II.

Estimated cost of such geophysical consulting work is ..... $ 2,000.00

Phase II - Diamond Drilling

1. <u>Independent Contracts</u>

2000 feet of Ax size diamond drilling at $5.35 per foot $10,700.00

400 feet of reaming and casing, or cementing and drilling cement at $2.65 per foot 1,060.00

600 feet of drive pipe through overburden at $9.90 per foot	$ 5,940.00
Bulldozing drill sites, 40 hours at $8.00 per hour.....	320.00

2. Labor, Supervision, Consultants

One geological consultant at $50.00 per day, plus $15.00 per day for expenses - 6 days	390.00
One engineer at $20.00 per day - 20 days	400.00

3. Operating Materials and Supplies

Core boxes and sample supplies	100.00

4. Operating Equipment

None.

5. Rehabilitation & Repairs

None.

6. New Buildings, Improvements, Installations

None.

7. Miscellaneous

Analytical work, 200 tungsten analyses at $2.00 each	400.00

8. Contingencies	145.00
Total estimated cost of additional drilling, Phase II	$19,455.00
Total, Phase I and II	$21,455.00

Maps of the Springfield area showing geology of the outcrops and drill holes are already in the hands of the DMEA Field Team, Region II in Spokane, Hence, additional maps are not necessary.

This information will, I hope, be adequate for preparation of the application for amendment to the Springfield Tungsten project, Docket No. DMEA-3010 (tungsten), Contract No. Idm-E531.

Very truly yours,

Roger H. McConnel

Roger H. McConnel

RHMcC:cl

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

RECEIVED
FEB 8 1954

February 3, 1954

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (tungsten)
Bradley Mining Company
Springfield Prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

Attached are the original and two signed copies of Amendment No. 2 to the subject contract, with attached justification.

Distribution of this amendment is being made in the usual manner.

Sincerely yours,

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

Attachment as indicated

cc: Finance Office w/encl.
USBM (2)
Nickelson

RECEIVED
MAR 18 1954
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

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

Department of the Interior
Defense Minerals Administration
RECEIVED
JAN 18 1954

January 14, 1954

Mr. J. D. Bradley
Bradley Mining Company
425 Crocker Building
San Francisco, California

Re: Docket No. DMEA-3010 (tungsten)
Springfield Prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Bradley:

Enclosed are the original and six copies of Amendment No. 2 to the above contract.

If the terms and conditions of this amendment meet with your approval, please see that all copies are signed, retaining that copy marked for the Operator and return the remaining copies to this office.

Sincerely yours,

A. E. Weissenborn, Exec. Officer
DMEA Field Team, Region II

Enclosures

cc: DMEA (2)
[illegible] (2)
Nickelson

COPY

BRADLEY MINING CO
YELLOW PINE MINE AND SMELTER
STIBNITE, IDAHO

January 12, 1954

Defense Minerals Exploration Administration
1201 North Division Street
Spokane 2, Washington

WSM

Re: Docket DMEA 3010
Contract Idm-S 531

Gentlemen:

Enclosed are five copies each of logs of the following Springfield diamond drill holes:

SP-7
SP-8
SP-9
SP-10
SP-11
SP-12

These holes were drilled under the subject contract in September and October, 1953.

Yours very truly

BRADLEY MINING CO.

K G Wallace

K. G. Wallace
Assistant Manager

KGW/js

SPRINGFIELD MINE
Bradley Mining Co.

COORDINATES: 8,350.2 N
7,963.2 E

DIAMOND DRILL HOLE NO. SP-7

BEARING: S 50° 15' W

INCLINATION: Minus 23°

ELEVATION: 7,788.4

Footage	Mineralogy	% Recovery	% WO3 Sludge	% WO3 Core	Size Core
0 - 5	Altered granite with fine-grained sulfides to 3', aplite with fine-grained sulfides to 5'	50	No sludge		BX
5 - 10	Aplite with fine-grained sulfides to 8', heavy sulfides in quartz (75% mainly pyrrhotite), some scheelite to 10'	50	" "	0.08	"
10 - 15	Heavy sulfides (75% mainly pyrrhotite) in quartz. Some scheelite	85	0.09	0.02	AX
15 - 20	Heavy sulfides (75% mainly pyrrhotite) in quartz. Some scheelite to 18'; altered granite to 20'	55	0.18	0.15	"
20 - 25	Marble (pure white calcite) to 21'; white quartz to 22'; altered granite to 25'	20	0.29	Tr	"
25 - 30	Altered granite. Some fine-grained sulfides	20	0.31	0.01	"
30 - 35	Aplite, some altered granite. Some fine-grained sulfides	75	0.33		"
35 - 40	Aplite. Some fine-grained sulfides	80	0.28		"
40 - 45	Aplite, minor altered granite to 43'. Fine-grained schistose granite to 45'	65	Tr		"
45 - 50	Fine-grained schistose granite, some aplite	35	Nil		"
50 - 55	" " " "	55	Nil		"
55 - 60	Aplite to 57'; fine-grained schistose granite to 60'	85	Nil		"
60 - 65	Fine-grained schistose granite to 63'; aplite to 65'	35	Nil		"
65 - 70	Aplite	50	Nil		"
70 - 75	Fine-grained schistose granite	35	Nil		"
75 - 80	Aplite	70	Nil		"
80 - 85	"	40	Nil		"
85 - 90	Aplite, some essentially fresh granite	70	Nil		"
90 - 95	Aplite with abundant muscovite (sericite?)	65	Nil		"
95 -100	" " " " "	100	Nil		"
100-105	" " " " " Some schistose granite 103 to 105'	65	Nil		"
105-110	Schistose granite	75	Tr		"
110-115	" "	100	Nil		"
115-120	" "	100	Nil		"
120-125	" " , some aplite	60	Nil		"

Footage	Mineralogy	% Recovery	% WO3 Sludge	% WO3 Core	Size Core
125-130	Schistose granite, some aplite	60	Tr		AX
130-135	" " " "	55	Nil		"
135-140	" " " "	60	Nil		"
140-145	" " " "	65	Nil		"
145-150	" " " "	40	Nil		"

End of hole at 150 feet

Note: Trace and Nil values of WO3 determined by lamping; numerical values determined by ~~lamping~~ assay. All core and sludges lamped.

DIAMOND DRILL HOLE NO. SP-7

Driller's Notes

Date Start: 8/24/53 Driller: Manning

Finish: 9/4/53 Helper: Barkell

Footage	Remarks
0 - 10	Hole deflected, cemented and redrilled.
10 - 16½	Iron and quartz. Black sludge.
16½-30	Aplite. Milky sludge.
30 - 45	" " " Very hard.
45 - 50	Aplite with garnet. Softer. Blue and red sludge.
50 - 55	Aplite with garnet. Harder. Milky blue sludge.
55 - 65	" " " Bluish grey sludge.
65 - 70	Fresh granite. Milky sludge.
70 - 75	Aplite and garnet. Grey sludge.
75 - 85	Aplite and fresh granite. Milky sludge.
85 -100	Fresh granite, lots of mica. Fairly soft. Milky sludge.
100-105	Aplite, not much mica. Milky sludge.
105-120	Aplite and granite with greenish stain. Some mica. Medium hard. Greyish sludge.
120-125	Fresh granite and aplite. Grey sludge.
125-135	Fresh granite and aplite with seams of gouge. Milky blue-grey sludge.
135-139	Aplite with a few seams of yellow iron. Hard and brittle. Milky grey sludge.
139-144½	Aplite with garnet and pyrite. Some mica. Milky reddish-grey sludge.
144½-150	Aplite with garnet. Softer. No pyrite. Milky reddish-grey sludge.

End of hole

SPRINGFIELD MINE
Bradley Mining Co.

COORDINATES: 8,414.6 N
7,934.6 E

DIAMOND DRILL HOLE NO. SP-8

BEARING: S 44° 14' W
INCLINATION: Minus 25°

ELEVATION: 7,773.9

Footage	Mineralogy	% Recovery	% WO_3 Sludge	% WO_3 Core	Size Core
0 - 5	Severely weathered & altered granitic rock with sulfides	40	No sludge		BX
5 - 10	" " " " " " " "	40	" "		"
10 - 15	" " " " " " " " to 11', heavy sulfides (75%, mainly pyrrhotite) in quartz to 15'. Occasional very minor specks of scheelite from 11 to 33'	100	" "		"
15 - 20	Heavy sulfides (75%, mainly pyrrhotite) in quartz	65	Nil		BX
20 - 25	" " " " " " "	90	Nil		"
25 - 30	" " " " " " "	100	Nil		"
30 - 35	" " (50% " " " " to 33', altered granite with sulfides to 35'	90	0.01		"
35 - 40	Aplite and altered granite	75	Tr		"
40 - 45	" " " "	45	Tr		"
45 - 50	" " " " to 47', fresh granite and aplite to 50'	95	Nil		"
50 - 55	Fresh fine-grained granite	100	Nil		"
55 - 60	" " " "	100	Nil		"
60 - 65	" " " " to 63', aplite to 65	45	Nil		"
65 - 70	Aplite to 69', altered granite to 70'	50	Nil		"
70 - 75	Altered granite to 71', aplite with abundant muscovite (sericite?) to 75'	55	Nil		"
75 - 80	Aplite with abundant muscovite (sericite?). Minor granite	75	Nil		"
80 - 85	" " " " "	15	Nil		"
85 - 90	" " " " "	50	Nil		"
90 - 95	Aplite.	30	Nil		"
95 -100	Schistose granite, some aplite	35	Nil		"
100-105	Schistose granite.	100	Nil		"
105-110	" "	35	Tr		"
110-115	" "	75	Tr		"
115-120	Aplite, some altered granite	35	Nil		"
120-125	Aplite and fresh granite	30	Nil		"
125-130	" " " "	30	Nil		"
130-135	" " " "	60	Nil		"
135-138	" " " "	70	Nil		"

End of hole at 138 feet.

Note: All assays are sludge assays. Trace and Nil values of SO_3 determined by lamping. All core and sludges lamped.

DIAMOND DRILL HOLE NO. SP-8

Driller's Notes

Date Start: 9/5/53

Finish: 9/9/53

Driller: Manning

Helper: Berkell

Footage	Remarks
0 - 10	Broken granite. Lost water - no sludge recovery
10 - 15	Heavy sulfides and quartz. No sludge recovery
15 - 35	Sulfides and quartz. Black sludge.
35 - 48	Aplite, very little mineralization. White sludge.
48 - 85	Aplite and fresh granite. White sludge. Lost water at 72½ ft. Ground up the core from 80 to 85 ft.
85 - 95	Aplite, fresh granite & quartz. Milky sludge.
95 -100	Aplite, fresh granite and quartz. Milky grey sludge.
100-115	Schist and aplite, with garnet. Grey sludge.
115-120	Aplite and gouge. Grey sludge.
120-130	Aplite, fresh granite and gouge. Grey sludge. Hit water seam at 122 ft.
130-138	Aplite and fresh granite. Grey sludge.
	End of hole

SPRINGFIELD MINE

COORDINATES: 8,416.4 N — Bradley Mining Co. — BEARING: S 44° 14' W

7,936.1 E — DIAMOND DRILL HOLE NO. SP-9 — INCLINATION: Minus 60°

ELEVATION: 7,773.0 — Page 1

Footage	Mineralogy	% Recovery	% WO3 Sludge	% WO3 Core	Size Core
0 - 5	Intensely altered and weathered granitic rock with tactite mineralization and sulfides. Some scheelite.	30	No sludge	0.02	BX
5 - 10	Intensely altered and weathered granitic rock with tactite mineralization and sulfides. Some scheelite.	35	" "	0.05	"
10 - 15	Altered granitic rock, tactite mineralization, quartz. Rather heavy sulfides 10 - 13'.	45	0.01		AX
15 - 20	Altered granitic rock, tactite mineralization, quartz. Some sulfides.	20	0.01		"
20 - 25	Altered granitic rock, tactite mineralization. Fewer sulfides. Speck of scheelite at 25'	20	Tr		"
25 - 30	White marble (calcite) to 27', fine-grained tactite mineralization to 30'	35	Tr		"
30 - 35	Fine-grained tactite mineralization to 32', rather fresh aplite and granite to 35'	80	0.01		"
35 - 40	Predominantly fresh granite and aplite	70	0.06		

End of Hole at 40 feet

Note: Trace and Nil values of WO3 determined by lamping; numerical values determined by assay. All core and sludges lamped.

DIAMOND DRILL HOLE NO. SP-9

Driller's Notes

Date Start: 9/10/53 Driller: Manning

Finish: 9/11/53 Helper: Barkell

Footage	Remarks
0 - 10	Quartz and altered granite. No sludge recovery.
10 - 15	Quartz and iron. Very broken and soft. Black and grey sludge.
15 - 20	Altered granite, some iron. Grey sludge.
20 - 25	Altered granite, some iron. Milky sludge.
25 - 31	Quartz and altered granite. Lots of garnet and gouge.
31 - 40	Aplite and fresh granite. Much harder. Milky grey sludge.
	End of hole

SPRINGFIELD MINE
Bradley Mining Co.

COORDINATES: 8,231.0 N
8,018.6 E

DIAMOND DRILL HOLE NO. SF-10

ELEVATION: 7,793.2

BEARING: S 50° W

INCLINATION: Minus 30°

Footage	Mineralogy	Recovery	% WO_3 Sludge	Size Core
0 - 5	Completely altered granite	45	No Sludge	NX
5 - 10	" " "	45	" "	"
10 - 15	" " " and aplite	80	Nil	BX
15 - 20	" " " " " to 17½'; heavy sulfides 17½ to 20'; small specks of scheelite in core from 16 to 20'	80	0.04	"
20 - 25	Heavy sulfides to 22'; altered granite to 25'. Minor specks of scheelite	45	0.10	AX
25 - 30	Altered fine-grained granite and aplite	30	Nil	"
30 - 35	Aplite, some fine-grained granite	40	Nil	"
35 - 40	" " " " "	45	Nil	"
40 - 45	Fine-grained granite, schistose in places	50	Nil	"
45 - 50	Schistose granite. Some aplite.	80	Nil	"
50 - 55	Fresh granite, occasionally schistose character	70	Nil	"
55 - 60	Fresh granite and aplite. Schistose 56-57'	75	Nil	"
60 - 65	Fresh granite	65	Nil	"
65 - 70	" " and aplite	40	Nil	"
70 - 75	" " " "	20	Nil	"
75 - 80	" "	20	Nil	"
80 - 85	Dark colored granite, metamorphosed	45	Nil	"
85 - 90	Fresh granite and aplite	55	Nil	"
90 - 95	Schist to 93'; fresh granite to 95'	60	Nil	"
95 -100	Fresh granite	70	Nil	"

End of hole at 100 feet

Note: All assays are sludge assays. Trace and Nil values of WO_3 determined by lamping. All core and sludges lamped.

DIAMOND DRILL HOLE NO. S7-10

Driller's Notes

Date Start: 9/26/53 Driller: Manning

Finish: 9/29/53 Helper: Berkell

Footage	Remarks
0 - 10	Slightly altered granite. No sludge recovery.
10 - 15	" " " Milky sludge.
15 - 20	Altered granite, with sulfides. Sludge varied from milky to blue and black.
20 - 25	Scattered sulfides. Soft and broken. Blue-black to white sludge.
25 - 30	Altered granite and aplite, some sulfides. Very soft. Heavy sludge - grey and milky brown.
30 - 33½	Aplite, soft. Milky grey sludge.
33½-39	Soft aplite and fresh granite. Grey sludge.
39 - 44	Medium hard schist and aplite. Sludge varied in color from blue-grey to milky white.
44 - 50	Harder schist and aplite. Sludge varied from blue-grey to milky brown.
50 - 54½	Schist and fresh granite. Milky blue-grey sludge.
54½- 65	Schist, fresh granite, and aplite. Milky sludge.
65 - 75	Softer fresh granite and aplite. Some mica. Milky sludge.
75 - 80	Fresh granite and aplite. Soft and broken. Milky sludge.
80 - 85	Schistose granite, some garnet. Soft and broken. Reddish blue-grey sludge.
85 - 90	Fresh granite and aplite with some mica flakes. Medium hard. Milky sludge.
90 - 94	Fresh granite, schist and aplite. Reddish blue-grey and milky sludge.
94 -100	Aplite and schist. Harder. Reddish blue-grey sludge.

End of hole

SPRINGFIELD MINE
Bradley Mining Co.

COORDINATES: 8,291.7 N
8,098.5 E

ELEVATION: 7,732.3

DIAMOND DRILL HOLE NO. SP-11

BEARING: S 50° W

INCLINATION: Minus 29°

Footage	Mineralogy	% Recovery	% WO3 Sludge	Size Core
0 - 5	Overburden -- no core	0	No sludge	NX
5 - 10	Weathered granite	40	" "	"
10 - 15	Fresh granite	45	0.11	BX
15 - 20	" "	60	Tr	"
20 - 25	" "	75	Nil	AX
25 - 30	" " to 21'; Basic dike (lamprophyre?) 21-25'	75	Nil	"
30 - 35	Basic dike (lamprophyre?) to 29'. Fresh granite 29-30'	50	Nil	"
35 - 40	Fresh granite to 34'. Aplite 34 to 35'	25	Nil	"
40 - 45	Aplite	12	Nil	"
45 - 50	Aplite to 49'. Basic dike (lamprophyre?) 49 to 50'	55	Nil	"
50 - 55	Basic dike (lamprophyre?)	100	Nil	"
55 - 60	" " " to 56'. Fresh aplite 56 to 60'	65	Nil	"
60- 65	" " "	80	Nil	"
65 - 70	" " " to 66'. Aplite 66 to 70'	20	Nil	"
70 - 75	Aplite	20	Nil	"
75 - 80	Alternating aplite and schist. Schist at 80'	30	Nil	"

End of hole at 80 feet

Note: Trace and Nil values of WO3 determined by lamping. Numerical values determined by assay. All core and sludges lamped.

DIAMOND DRILL HOLE NO. SP-11

Driller's Notes

Date Start: 10/1/53 Driller: Manning

Finish: 10/3/53 Helper: Barkell

Footage	Remarks
0 - 5	Overburden. No core, no sludge.
5 - 10	Granite. No sludge.
10 - 20	Granite. Milky grey sludge.
20 - 21	Aplite and gouge. Grey and blue sludge.
21 - 29	Dike and gouge streaks. Very hard. Blue sludge.
29 - 34½	Medium hard fresh granite and aplite. Milky sludge.
34½-40	Hard aplite. Milky sludge.
40 - 49	Soft and broken aplite. White sludge.
49 - 56	Dike and gouge. Blue sludge. Hit water at 50 feet.
56 - 60	Aplite. White sludge.
60 - 66	Dike. Blue sludge.
66 - 75	Very soft and broken aplite. White sludge.
75 - 80	Soft and broken aplite and schist. Sludge varied from white to grey.
	End of hole

BAKINGFISH MINE
Bradley Mining Co.

COORDINATES: 8,463.3 N
8,158.4 E
ELEVATION: 7,654.3

DIAMOND DRILL HOLE NO. BF-12

BEARING: S 49° W
INCLINATION: Minus 30°
Page 1

Footage	Mineralogy	% Recovery	% WO3 Sludge	Size Core
0 - 5	Chips and fragments of weathered granite, some sulfides. Probably overburden.	3	Nil	BX
5 - 10	Chips and fragments of weathered granite, some sulfides. Probably overburden.	10	"	AX
10 - 15	Chips and fragments of weathered granite and schist. Probably overburden.	8	"	"
15 - 20	Chips and fragments of weathered granite to 19'. Basic dike (lamprophyre?) 19-20'. Not possible to determine where bedrock was entered	12	"	"
20 - 25	Basic dike (lamprophyre?)	35	"	"
25 - 30	" " " to 26'. Aplite and fresh granite to 30'	55	"	"
30 - 35	Essentially fresh fine-grained granite to 34½'. Basic dike 34½ to 35	55	"	"
35 - 40	Basic dike (lamprophyre?) to 38'. Fresh granite 38-40'	35	"	"
40 - 45	Aplitic granite, fresh	75	"	"
45 - 50	" " "	80	"	"
50 - 55	" " "	50	"	"
55 - 60	" " " to 56'. Basic dike (lamprophyre?) 56 to 60'	50	"	"
60 - 65	Basic dike (lamprophyre?) to 62'. Fresh aplitic granite 62 to 65'	70	"	"
65 - 70	Fresh aplitic granite	35	"	"
70 - 75	" " "	40	"	"
75 - 80	Fresh granite and schistose granite	40	"	"
80 - 85	Fresh aplitic granite to 83'. Schistose granite to 85'	60	"	"

End of hole at 85 feet

Note: Nil values of WO3 determined by lamping. All core and sludges lamped.

DIAMOND DRILL HOLE NO. SP-12

Driller's Notes

Date Start: 10/4/53 Driller: Manning

Finish: 10/6/53 Helper: Barkell

Footage	Remarks
0 - 10	No core. Could not tell if bedrock or not. Very soft and decomposed.
10 - 15	Same as above. Sludge was grey, with a yellowish-brown cast. Cemented 6 foot of hole.
15 - 19½	Very soft and broken. Yellowish-grey sludge.
19½ - 25	Dike and gouge. Yellowish-grey sludge.
25 - 28	Dike and aplite. Grey and milky sludge.
28 - 30	Aplite. Milky sludge.
30 - 34½	Aplite, fresh granite, and dike. Milky to blue sludge.
34½ - 40	Dike and fresh granite. Blue to milky sludge.
40 - 43½	Aplite with gouge. Milky sludge.
43½ - 46	Much harder aplite. Milky sludge.
46 - 49	Hard and broken aplite. Milky sludge.
49 - 56	Very hard aplite. Milky sludge.
56 - 61½	Dike. Blue sludge.
61½ - 62	Aplite. Milky sludge.
62 - 80	Aplite and fresh granite. Milky sludge.
80 - 85	Aplite, fresh granite, and schist. Sludge varied from milky to grey.
	End of hole

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

December 11, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (tungsten)
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

Attached are the original and two signed copies of Amendment No. 1 to the subject contract.

Distribution of this amendment is being made in the usual manner.

Sincerely yours,

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

Attachment

cc: Finance Office w/encl.
USBM (2)
Nickelson

12-14

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

November 25, 1957

Mr. J. D. Bradley
Bradley Mining Company
Boise, Idaho

Re: Docket No. DMEA-3010 (tungsten)
Bradley Mining Company
Springfield Tungsten Prospect
Valley County, Idaho
Contract No. Idm-8531

Dear Mr. Bradley:

It has come to our attention that by a strict interpretation of the contract royalties are due on all production from the land involved in the Springfield contract. This would include royalties from all tungsten concentrate recovered from the talus of the Springfield deposit.

Inasmuch as the talus deposits were known before the start of the contract and recovery of tungsten from the talus was going on concurrently and independently of the exploration, it was our thought that the intent of the contract was not to exact royalty from the talus production. After conferring with the Washington office of the DMEA, we have obtained the attached Amendment No. 1 signed by the Administrator which excludes the talus from the royalty provisions of Article 9 of the contract.

If this amendment meets your approval, will you kindly sign all copies, retain the one marked "Operator's Copy" for your files, and return the remainder to the Executive Officer.

By DMEA Field Team, Region II

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

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

Enclosure

cc: USBM (2)
DMEA (2)
Nickelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

November 24, 1953

Mr. Roger McConnell
Geology Department
Bunker Hill & Sullivan Mining Company
Kellogg, Idaho

Re: Docket No. DMEA-3010 (Tungsten)
Bradley Mining Company
Springfield Tungsten Prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Roger:

I should like to refer to our telephone conversation of a few days ago in which we discussed a possible magnetometer survey on the Bradley Mining Company's Springfield project.

Upon Al Weissenborn's return from Washington, D. C., we discussed your proposal in some detail and decided that it would be impossible for Survey personnel to make the proposed magnetometer survey. Such a study is beyond the limits established for Survey personnel in working on DMEA projects. We are afraid that were we to engage in such a study we could justifiably be accused of favoritism. The only other way we could do such work would be as a regular Survey project and quite probably, by the time we got such a project approved in Washington, the Springfield property would be mined out.

We agree that your suggestion of a magnetometer study is excellent and we would suggest that you present your suggestion to the Bradleys. If they should prove to be in agreement, they might find it possible to put some of their own technical men to work on such a study, or might engage a consultant to do the job for them.

DMEA could participate in the costs of a magnetometer survey. We would therefore suggest that you formulate a plan, complete as to costs, time needed, purpose, etc., and present that plan to this office. We could then present this information to Washington for their consideration and possibly either amend the contract to grant more funds to do the work, or else to draw a new contract for such work.

Looking forward to seeing you at the Northwest Mining Convention, I remain,

Yours very truly,

Thor H. Kiilsgaard
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

cc: DMEA (2)
USBM (2)
Nickelson

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

1201 N. Division St.
Spokane 2, Washington
November 18, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: Interim inspection, DMEA Docket No. 3010 (tungsten), Bradley Mining Co., Springfield Prospect, Valley County, Idaho, Contract Idm-E531

This interim inspection was made Saturday, November 7, 1953. The site of the project has been temporarily abandoned because the company has recessed the activity during the forthcoming adverse weather conditions; all personnel returned to Stibnite the latter part of October. The site was not visited and this inspection was merely one of discussion at Stibnite with Keith Wallace, Asst. Mgr.

The previous and last visit to the project was made October 2 and 3, 1953, in company with Howard B.Nickelson, geologist, U. S. Geological Survey, and Keith Wallace.

The DMEA project was completed about the middle of October 1953, before the termination date of February 26, 1954. The contract units completed were 6 diamond drill holes totaling 588 feet (sch. 4 holes not in excess of 600 feet). The Operator to date has not submitted a voucher, and it is probable that a complete file of vouchers, final report, drill logs, assays, etc. will be submitted in the near future. The DMEA project activities began August 26, 1953 with the collaring of the first of the 6 holes.

In general, the core from each of the 6 holes was fine-grained tactite, aplite and granite carrying considerable garnet. Two zones of heavy pyrrhotite mineralization were encountered, from 8 to 18 feet in DDH No. DMA-SP7 and from 10 to 25 feet in DDH No. DMA-SP9. Under a lamp the scheelite indication of Hole SP7 was fair.

No further exploration has yet been decided on by the Operator. The exploration to date will be evaluated by the Operator and it is probable that representatives of the Operator will meet in the near future with the Field Team in Spokane.

John A. Bowsher

John A. Bowsher

Orig. & 3 cys--Wash.
USGS (2)
DMEA
M/D
AD
JAB/he

FILE COPY
SURNAME:

400

Rutledge
Martin
Selbert
Selfridge
Fitzmaurice

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

NOV 17 1953

Mr. A.E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Weissenborn:

Reference is made to the subject contract. Confirming arrangements made during your recent conversations here, an amendment exempting from royalty all production from the talus deposit is attached.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

A. R. Kinkel, Jr.
Member, Geological Survey

FARutledge:foc
11-16-53
cc: Docket
Code 400
FT. Reg. II
Operating Comm.
Admr. Reading File
R. W. Geehan, USBM
T. P. Thayer, USGS

Enclosure

140

FILE COPY
SURNAME:

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

H. S. in R.R.

November 13, 1953

Memorandum

To: The Administrator

Through: W. S. Martin

From: Chief Counsel

Subject: Bradley Mining Company - Docket No. DMEA-3010

The attached Amendment, exempting all production resulting from treatment of the talus from the royalty provisions of Article 9 of the contract form, was drawn at the request of the Division.

Production from the talus appears to be so great that it is thought that royalties therefrom may be sufficient completely to repay the Government for its contribution to the cost of the project. If there was actually a mutual mistake of fact and it was not intended that the Operator pay royalties on such production, that mistake can be corrected by this Amendment.

Albert E. Kane

for J. L. Hofflund
Chief Counsel

Attachments

AEKane/ema
Copy to : Docket
W. S. Martin
A. E. Kane
J. L. Hofflund
Chron.

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

November 13, 1953

Memorandum

To: The Administrator

Through: W. S. Martin WSM

From: Chief Counsel

Subject: Bradley Mining Company - Docket No. DMEA-3010

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Albert Kane
for J. L. Hofflund
Chief Counsel

Attachments

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

November 13, 1953

Memorandum

To: The Administrator

Through: W. S. Martin

From: Chief Counsel

Subject: Bradley Mining Company - Docket No. DMEA-3010

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Albert E. Kane

for J. L. Hofflund
Chief Counsel

Attachments

FILE COPY
SURNAME:

Martin

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

N.S. in R.R.

November 10, 1953

MEMORANDUM

To: Chief Counsel, DMEA

From: Iron and Ferro-Alloys Division

Subject: Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Reference is made to our letter of October 27, 1953, filed in the subject docket, and concluding that if no ore had been found by the same project, the royalty paid to the Government by the Operator would have been refunded.

Counsel advises that the contract must be interpreted otherwise. It is, therefore, recommended that an amendment, on the basis of mutual misunderstanding of the facts of the case, be prepared, as recommended in the Region II Field Team's letter of October 15, 1953.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

WSMartin/ls

cc: Docket
Adm. Read. File
Code 400

400

FILE COPY
SURNAME:

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

OCT 27 1953

Martin
Selfridge
Thayer
Weissenborn

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region III
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-3531

Dear Mr. Weissenborn:

This will acknowledge receipt of your letter of October 15, 1953, advising us about royalty payments at the subject project.

We note that, because of production from the talus, such royalty payments will equal the payments to the Operator under the contract. It is a satisfaction to learn that this is one more project where the Government will recover 100 percent of its contribution.

We cannot agree with you, however, that " . . . there is of course very little point in the Bradley Mining Company having had the contract." If the DMEA project drilling had not resulted in finding ore showings that justified certification of a discovery, the Government would have absorbed three-quarters of the cost of the unsuccessful drilling. We believe that many successful mining companies share our opinion that an arrangement by which they pay for only one-quarter of the cost of their unsuccessful exploration is far from pointless.

See DMEA Circular Supplement No. 2 Jan 26, 1953

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

Copy to: Docket
FT, Reg. 2
Code 400
Oper. Comm.
Adm. Read. File
R. W. Geehan, USBM
T. P. Thayer, USGS

WSMartin/ls
10/23/53

R. C. 10-27-53

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

1201 N. Division St.
Spokane 2, Washington
October 20, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Subject: Docket No. DMEA 3010 (tungsten)
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

This follows up on the Field Team letter of October 15, 1953 on the above docket and contract, in which the following statement appears in the second paragraph:

> "On the other hand, the Field Team was not aware at the time the contract was signed, that the company was contemplating mining the talus during the time the contract was going on."

In reviewing the file of correspondence under this docket we find a copy of a letter dated May 14, 1953 from Mr. K. G. Wallace, Assistant Manager, Bradley Mining Company, to Mr. C. O. Mittendorf, received by the Field Team on May 20, in which the following statement appears in the third paragraph:

> "This summer we will concentrate the talus scheelite by gravity methods -- jigs and tables -- without crushing."

To keep the records clear we want to bring this retraction of statement to your attention, whether or not it will have any bearing upon your decision with respect to the advisability of an amendment to the contract excluding royalties from the production of talus ore.

By Field Team, Region II

M. E. Volin, Acting Exec. Officer
U. S. Bureau of Mines

J. J. Quinlan, Acting Member
U. S. Geological Survey

cc: USGS(2)

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

October 19, 1953

Memorandum

To: DMEA Field Team, Region II

From: Howard B. Nickelson, Geologist, U. S. Geological Survey, and John Bowsher, Mining Engineer, U. S. Bureau of Mines

Subject: Routine inspection, Docket No. DMEA-3010 (tungsten) Contract Idm-E531, Springfield Tungsten prospect, Bradley Mining Company, Valley County, Idaho

The property was visited on October 2 and 3, 1953, by the writers, accompanied by Mr. Keith Wallace, assistant manager, Bradley Mining Company. The Survey member of the team spent part of September 29 and 30 copying geological maps and drill hole data at the Stibnite office which are part of this report.

Placer operations were continuing on two 10-hour shifts. The operation is dependent upon the water supply which was replenished by a fall of snow and rain a few days before the inspection.

A total of five holes have been drilled using 508 feet of the allowed 600 feet. The last hole (SP-12) was located by Mr. Wallace and Mr. Nickelson on the date of the inspection.

The operation will be closed down some time between October 15 and November 1 because winter operations in this area are not feasible.

The logs of the DMEA drilling are as follows:

DDH No. SP-7 Coordinates N8350.2, E7963.2; Elevation 7788.4 feet; Bearing S50°15'W; Inclination -15°.

0-3'	Altered granite with fine-grained pyrrhotite.
3-8'	Aplite with fine-grained pyrrhotite - end of BX.
8-18'	Heavy pyrrhotite (75 percent), quartz, some scheelite. 50 percent core recovery 0'-10'; 85 percent core recovery 10'-15'.

DDH No. SP-7 (Continued)

18-20'	Altered granite.
20-21'	Pure white calcite.
21-22'	White quartz, 55 percent core recovery 15-25'.
22-25'	Altered granite, assayed 0.29 percent WO_3; no scheelite.
25-30'	Altered granite, some fine-grained pyrrhotite. 20 percent core recovery 25-30'. Assayed 0.31 percent WO_3.
30-35'	Aplite, some altered granite, some fine-grained pyrrhotite; 75 percent core recovery; assayed 0.33 percent WO_3.
35-40'	Aplite, some fine-grained pyrrhotite; 80 percent core recovery; assayed 0.29 percent WO_3.

Note: The assays from 22-40' are very doubtful, as expressed by Mr. Wallace, but they will be rechecked and similar material assayed from other holes to confirm the above assay reports.

40-43'	Aplite, minor altered granite.
43-55'	Fine-grained schistose granite with some aplite; 65 percent core recovery 40-45', 35 percent core recovery 45-50', 55 percent core recovery 50-55'.
55-57'	Aplite, 55 percent core recovery 55-60'.
57-63'	Fine-grained schistose granite.
63-70'	Aplite, 35 percent core recovery 60-65', 50 percent core recovery 65-70'.
70-75'	Fine-grained schistose granite, 35 percent core recovery.
75-85'	Aplite, 70 percent core recovery 75-80', 40 percent core recovery 80-85'.
85-90'	Aplite, some rather fresh granite, 70 percent core recovery.
90-103'	Aplite with abundant muscovite-sericite(?), 65 percent core recovery 90-95', 100 percent core recovery 95-100', 65 percent core recovery 100'-105'.
103-150'	Schistose granite, core recovery ranges between 40 to 100 percent.

DDH No. SP-8	Coordinates N8414.6, E7934.6; Elevation 7773.9 feet; Bearing S44°14'W; Inclination -25°.
0-11'	Weathered and altered granite with pyrrhotite; 40 percent core recovery.
11-33'	Pyrrhotite and quartz (75 percent pyrrhotite) minor specks of scheelite. BX to 15'. 100 percent core recovery 11-15'; 65 percent core recovery 15-20'; 90 percent core recovery 20-35'.
33-35'	Altered granite with sulphides.
35-47'	Aplite and altered granite, 75 percent core recovery 35-40'; 45 percent core recovery 40-45'.
47-50'	Fresh granite and aplite, 95 percent core recovery 45-50'.
50-63'	Fresh fine-grained granite; 100 percent core recovery.
63-69'	Aplite, 45 percent core recovery 60-65'; 50 percent core recovery 65-70'.
69-71'	Altered granite.
71-90'	Aplite with abundant muscovite and sericite, 55 percent core recovery 70-75'; 75 percent core recovery 75-80'; 15 percent core recovery 80-85'; 50 percent core recovery 85-90'.
90-95'	Aplite; 30 percent core recovery.
95-115'	Schistose granite, 30 percent core recovery 90-95'; 35 percent core recovery 95-100'; 100 percent core recovery 100-105'; 35 percent core recovery 105-110'; 75 percent core recovery 110-115'.
115-120'	Aplite, some altered granite; 35 percent core recovery.
120-138'	Aplite and fresh granite, 30 percent core recovery 120-130'; 60 percent core recovery 130-138'.
138'	End of hole.
DDH No. SP-9	Coordinates N8416.4, E7936.1; Elevation 7773.0 feet; Bearing S44°14'W; Inclination -60°.
0-10'	Intensely altered and weathered granitic rock with tactite and pyrrhotite with some scheelite. End of BX at 10'. 30 percent core recovery 0-5'; 35 percent core recovery 5-10'.

DDH No. SP-9 (Continued)

10-15'	Altered granite, tactite, quartz with rather heavy sulphides 10-13'; 45 percent core recovery.
15-25'	Altered granite, tactite, quartz with some decreasing amounts pyrrhotite that ends at 25'. Speck of scheelite at 25'. 20 percent core recovery.
25-27'	White calcite.
27-32'	Tactite, fine-grained; 35 percent core recovery 25-30'.
32-40'	Fresh granite and aplite, 80 percent core recovery.
40'	End of hole.

DDH No. SP-10 Approximate coordinates E8020, N8234; Elevation (approx.) 7795 feet; Bearing S50°W; Inclination -30°.

0-17'	Aplite; zone between 10-21' lamps scheelite.
17-24'	Fine-grained granite with pyrrhotite.
24-39'	Aplite.
39-58'	Fine-grained granite with biotite mica.
58-61'	Aplite.
61-84'	Fine-grained granite with biotite mica.
84-85'	Dark green rock with pyrrhotite.
85-90'	Fine-grained granite.
90-92'	Mica schist.
92-96'	Granite.
96-100'	Biotite mica schist.

DDH No. SP-11 Approximate coordinates N8292, E8100; Elevation (approx.) 7740 feet; Bearing S50°W; Inclination -30°.

0-21'	Granite.
21-29'	Black lamprophyre dike.
29-49'	Aplite and fine-grained granite.

DDH No. SP-11 (Continued)

49-57'	Black lamprophyre dike.
57-60'	Aplite.
60-66'	Black lamprophyre dike.
66-77'	Aplite soft zones.
77-80'	Schist.

Hole No. SP-12 was not surveyed, but the general location is in an area 250 feet NE of a point between SP-10 and SP-7. The hole will be collared in what appears to be the ore zone.

The enclosed map and section was compiled by the Survey member of the examining team from maps prepared by the Bradley Mining Company's engineers.

The company will submit at a later date the assays of the sludges and possible core assays of the ore zones. A more complete log of SP-10, SP-11, and SP-12 will no doubt be included.

The point of royalty payment on the placer concentrate was discussed with Mr. Wallace, and the writers told Mr. Wallace this point would be discussed with the Field Team.

If the royalty payments must be made on the concentrate produced this season, the amount involved in the contract will probably be forthcoming when the concentrates are all sold, which amounts to an unnecessary exchange of money between the Government and the Bradley Mining Company with an added expense to both parties.

It was the opinion of Mr. Wallace that the royalty would be paid on any ore mined by future hard rock methods and he stated the contract might as well have not been entered into if the company had to pay royalties on placer concentrates. He also stated these placer sands and gravels had been known and were expected to be utilized for a number of years. Placer operations preceded the DMEA work.

It appears that half or more of the pyrrhotite-scheelite body has been removed by erosion by the amount of talus evident at the base of the ore zone outcrop. The present diamond drilling program has explored the limits of the body down to the heavy talus and further exploration seems warranted in the talus area in the vicinity of the camp area. Mr. Wallace and the Survey field examiner discussed the use of a dip needle type magnatometer to determine the

downward extension of the magnetic pyrrhotite ore body by running magnatometer traverses across the area in the camp vicinity to determine if the body exists at this depth before later diamond drilling exploration is planned. This idea was only discussed as a future exploration possibility.

Good drilling advance has been accomplished with a fair core recovery in all of the holes. The drilling has been done by the company drill and their employees.

Enclosure

Distribution:
DMEA (Orig. & 3)
USBM (2)
Docket
Nickelson

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

1201 N. Division St.
Spokane 2, Washington
September 22, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: John A. Bowsher, Mining Engineer, Bureau of Mines

Subject: First USBM Interim Report, DMEA Docket No. 3010 (tungsten)
Bradley Mining Co., Springfield Prospect, Valley County, Idaho
Contract No. Idm-E531

This first USBM interim inspection was made Wednesday, September 2, 1953, in the company of John D. Bradley, Executive Vice-Pres., and Keith G. Wallace, Assistant Manager, of the Bradley Mining Co. It was necessary to make an over-night visit to the prospect which is in an isolated area approximately 8 miles, airline, south of Stibnite on Springfield Creek, a tributary of Little Pistol Creek. The only auto route into the area is via Stibnite, Yellow Pine, and thence over Trappers Flat. It is imperative to travel in a four-wheel drive car from the Yellow Pine-Cascade highway over Trappers Flat to the camp site.

The total contract units completed are 65 feet of diamond drilling (max. 600). The termination date is February 26, 1954.

The first hole, DDH No. DMA-SP7, was collared on August 26, 1953. Ten feet of pipe was driven in preparation of coring and the first 8 feet of drilling was cemented and redrilled. In general, the core is fine-grained tactite, aplite and granite carrying considerable garnetization. There was only one zone of mineralization, 8-18 feet, in the first 65 feet of coring. The 8-18 foot zone was heavy with pyrrhotite and garnet and slight indication of other sulfides. Under a lamp the scheelite indication was fair. This hole is located near the top of the talus and about 100 feet below the top of the precipitous outcrop. The direction of the hole is normal to the strike of the outcrop, and it dips about normal to the dip of the outcrop. The hole will bottom at 150 feet, total depth. The second hole will be located at the same elevation and horizon as the first and be the same in bearing and dip with respect to the outcrop and bottom at the same total depth. The Operator tentatively plans to drill the balance of 300 feet in one long hole from a lower elevation, or a series of shorter holes along the strike to determine the width of the outcrop under overburden; however, the rest of the footage depends wholly upon the results from the first two holes drilled.

The Operator has established a tent camp to house and feed about 16 men who are active in processing the talus deposit. A small jig-and-table gravity plant is handling about 60-75 tons per 24 hours (3 shifts) and producing a concentrate running about 15-30 percent tungsten; recovery and assays not available as yet.

The working season will be short, dependent upon weather conditions, and it is unlikely that the camp will be maintained after November 1st.

John A. Bowsher

John A. Bowsher

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
JAB/he

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Department of the Interior
Defense Minerals Exploration
RECEIVED
OCT 22 1953

October 15, 1953

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3010 (tungsten)
Bradley Mining Company
Springfield tungsten prospect
Valley County, Idaho
Contract No. Idm-E531

Dear Mr. Selfridge:

There has recently come to our attention a rather anomalous situation with respect to the above-mentioned contract. Five holes have been drilled on the property and the sixth and probably last is being started. The cores of the holes have not been assayed as yet, but they have been inspected and the lamping indicates that three of them do have scheelite in enough quantity to make ore or a reasonable facsimile thereof. The results are somewhat difficult to interpret. We know that we have tungsten mineralization; we still are not entirely certain of the attitude and continuity of the ore body. We expect to receive within a short time a complete geologic map with drill hole sections which should assist in clearing up some of the uncertainties; however, the information probably will be insufficient to indicate whether we have a minable ore body, although it appears quite likely that we do. Available evidence suggests that a good part of the ore body, perhaps one-half to three-quarters of it, has been eroded away and much of it now is found as talus at the foot of a steep slope, the presence of which was known before the start of the exploration. Coincident with exploration of the solid rock, recovery of tungsten from the talus is in process; two shipments have been made and the third is pending. The ore is jigged on the property and is taken to Stibnite for final concentration at the Stibnite plant. At the moment, we do not have available the exact amount of the shipments, but the amount is substantial and it is probable that 5 percent of the net returns will be considerably in excess of the Government's share of the amount that has been expended on the exploration to date.

Since the contract is about to terminate, we will, of course, have to hold back 10 percent of the contract funds; as a matter of fact, as soon as we make any further payment whatsoever, the company will

immediately owe us that money back in royalties. Under an arrangement like this, there is of course very little point in the Bradley Mining Company having had the contract. We feel that the contract should be amended to provide for payments only from the ore in place and exclude payment from the talus ore, as this was already known before the start of the work and has not benefited by the DMEA drilling. The Bradley Mining Company should have been aware of the provisions of the contract, but they did not realize that production from the talus would be subject to royalty as this is lying on the surface and has been in no sense "discovered" or benefited by DMEA work. On the other hand, the Field Team was not aware at the time the contract was signed, that the company was contemplating mining the talus during the time the contract was going on. If you agree, we would appreciate your drawing up the necessary amendment and sending it to us for the operator's signature.

We are not worried that this is going to put the Bradley Mining Company on the rocks. The chief reason for suggesting this amendment is that it seems somewhat ridiculous that as a result of production not benefited by the DMEA work, accrued royalties on shipments made will probably total more than the Government's share of the contract. If, as soon as the Bradley Mining Company receives a contract check, an equivalent amount becomes due in royalties, the whole transaction seems a little pointless.

By Field Team, Region II

A. E. Weissenborn

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

M. E. Volin

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

cc: USBM (2)
Nickelson

Docket File

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION
XXXXXXXXXXXXXXXXXX
WASHINGTON 25, D. C.

So. 157 Howard Street
Spokane 4, Washington

June 12, 1953

Mr. John D. Bradley
Executive Vice President
Bradley Mining Co.
P. O. Box 638
Bradley Field
Boise, Idaho

Re: Docket No. DMEA-3010 (Tungsten)
Springfield Tungsten Prospect
New contract No. Idm-E531

Dear Mr. Bradley:

We are in receipt of your letter of June 9, 1953 enclosing the original and four copies of the subject contract. However, the guaranty form following Exhibit "A" was overlooked, consequently the original and four copies are returned herewith.

Would you please execute the form and return it to this office as soon as possible? Thank you.

Very truly yours,

Eva M. Raymond
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure

cc: DMEA (2)
USBM (2)

Copy retained 400

Cal

FILE COPY
SURNAME:

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

400

Rutledge
Montgomery
Selfridge
Hedges
Kinkel

JUN 25 1953

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho
Contract No. Ida-5511

Dear Mr. Weissenborn:

We are enclosing an extra copy of the above-referenced contract for use of your field representatives in making their examinations and reports.

J.H. 6-25-53

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

APPROVED:

FARutledge/esf (6/23/53)
cc: Docket
Oper. Committee
Code 400
Admr. Reading File

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

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

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

June 19, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3010 (Tungsten)
Bradley Mining Company
Springfield Tungsten Prospect
Valley County, Idaho
Contract Idm-E531

Dear Mr. Selfridge:

Attached are the original and two signed copies of subject contract with attachments thereto.

The delay in returning the contract to you resulted from an oversight on the part of the Operator to sign the Guaranty forms, thus they had to be sent back to him for signature and only today were returned to this office.

Distribution of this contract is being made in the usual manner.

Sincerely yours,

A. E. Weissenborn

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

Attachment

cc: USBM (2)
Finance Officer w/encl.
Puffett

6/22

WORTHEN BRADLEY
PRESIDENT

JOHN D. BRADLEY
EXECUTIVE VICE PRESIDENT

JAMES P. BRADLEY
VICE PRESIDENT

E.A. GRIFFEN
SECRETARY

BRADLEY MINING CO.

425 CROCKER BUILDING
SAN FRANCISCO 4, CALIFORNIA
TELEPHONE SUTTER 1-0414

ANTIMONY
TUNGSTEN
VIRGIN QUICKSILVER

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 2 1953

May 29, 1953

WSM

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
U. S. Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Dear Mr. Mittendorf:

Thank you very much for your letter of May 25th advising me that the DMEA contract covering the exploration at our Springfield property is presently being prepared and that it will shortly be forwarded to your Spokane office.

With kindest regards, I am

Sincerely yours,

John D. Bradley

John D. Bradley
Executive Vice President

JDB:MV

FILE COPY
SURNAME:

Rutledge
Martin
Geehan
Selfridge
Johnson

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

R. W. Geehan, USBM
D. M. Lemmon, USGS
Copy to: Docket
Field Team, Reg. 2
Code 400
Oper. Committee
Adm. Reading File

MAY 26 1953

Mr. A. B. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Dear Mr. Weissenborn:

We are enclosing the original and five copies of the above-referenced contract signed by the Administrator for the Government, together with Exhibit "A" (2 pages), Annex I (1 page), Guaranty in lieu of subordination agreement, and one map.

If the terms and conditions of this contract are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made.

If any part of this contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, the original and all copies of the contract are to be returned to this office, together with the proposed changes for consideration.

Please note that, as you suggested, the items of operating materials and supplies in excess of the core boxes and sample supplies were eliminated. This decreased the amount of the proposed contract from $5,945.50 to $5,600.00.

Under Article 3, the starting date has been left blank and is to be filled in when the contract is signed by the Operator.

For your information, two copies of a memorandum by D. M. Lemmon, Geological Survey, are enclosed.

Sincerely yours,

George C. Selfridge (GCS)

Chairman, Operating Committee

Enclosures

APPROVED:

J. H. Hedges (JHH)

Member, Bureau of Mines

A. R. Kinkel, Jr. (ARK)

Member, Geological Survey

FARutledge/ls 5/25/53

Mailed 5-26-53

FILE COPY
SURNAME:

400

Rutledge
Martin
Geehan

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

MAY 2 5 1953

Mr. John D. Bradley
Executive Vice President
Bradley Mining Co.
425 Crocker Building
San Francisco 4, California

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Dear Mr. Bradley:

This will acknowledge receipt of your letter of May 15, 1953, notifying us that the data requested in our letter of May 7th were being forwarded by Mr. K. G. Wallace, Assistant Manager, Yellow Pine Mine, Stibnite, Idaho. These data were received on May 14.

We are pleased to advise that a contract is being prepared and will be forwarded immediately to the Executive Officer, DMEA Field Team, Region II.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

S.H.
5-25-53

FARutledge:foc
5-21-53
cc: Docket
Code 400
FT. Reg. II
Adm. Redd. File
R. W. Geehan, USBM
D. M. Lemmon, USGS

WORTHEN BRADLEY
PRESIDENT

JOHN D. BRADLEY
EXECUTIVE VICE PRESIDENT

JAMES P. BRADLEY
VICE PRESIDENT

E.A. GRIFFEN
SECRETARY

Docket

BRADLEY MINING CO.

425 CROCKER BUILDING
SAN FRANCISCO 4, CALIFORNIA
TELEPHONE SUTTER 1-0414

ANTIMONY
TUNGSTEN
VIRGIN QUICKSILVER

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 19 1953

May 15, 1953

WSM

Mr. C. O. Mittendorf, Administrator,
Defense Minerals Exploration Administration,
U. S. Department of the Interior,
Washington 25, D. C.

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Dear Mr. Mittendorf:

This is to acknowledge receipt of your letter of May 7th regarding our application for exploration assistance at our Springfield tungsten prospect.

I have asked Mr. K. G. Wallace, our assistant manager at the Yellow Pine Mine, Stibnite, Idaho, to forward the requested information directly to you. We are all hopeful that this application can be processed so that the diamond drilling can be conducted while we are in operation at the property this summer.

With kindest regards, I am

Sincerely yours,

John D. Bradley

John D. Bradley
Executive Vice President

JDB:MV

HEAD OFFICE:
425 CROCKER BLDG.
SAN FRANCISCO 4

BOISE, IDAHO OFFICE:
BRADLEY FIELD
P. O. BOX 638

BRADLEY MINING CO.

YELLOW PINE MINE AND SMELTER
STIBNITE, IDAHO

Docket

AIRMAIL

May 14, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 18 1953

WSM

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA 3010 (Tungsten)

Dear Mr. Mittendorf:

Your recent letter to Mr. John D. Bradley regarding our application for diamond drilling at the Springfield Prospect has been referred to me.

The talus deposit below the vein outcrop has been extensively sampled by means of 28 test pits dug to bedrock. The depths of the pits ranged from 3 to 9.4 feet; the average depth was 6.6 feet. The assay results of the samples from the pits are shown on the enclosed map. The assays noted at each test pit on the map are for the minus 1/2-inch material from the pit.

This summer we will concentrate the talus scheelite by gravity methods -- jigs and tables -- without crushing. Thus for the purpose of estimating the available scheelite it was assumed the plus 1/2-inch material is barren, as any scheelite in the larger pieces of rock cannot be recovered in our gravity plant.

In computing the overall grade of the talus deposit, the assays for the minus 1/2-inch material were distributed over the total weight of rock from the pits in the ratio of weight of minus 1/2-inch rock to the total weight of rock, always assuming the plus 1/2-inch rock to be barren. We believe the result is a conservative estimate of the tungsten content of the talus: 16,000 tons averaging about 0.40 per cent WO_3.

To provide you with more complete information on previous work that has been done on the property, we are enclosing a print on which we have plotted diamond drill holes 1, 2 and 3, showing rock types and tungsten values where assayable amounts of scheelite were present in the cores. These holes were collared directly above the northern end of the vein and, as stated in our application, passed out of the mineralized zone as they went down. The highest tungsten values occur in the southern end of the vein; this end was apparently the source of most of the talus scheelite.

Hole No. 4, not shown on the enclosed print, was drilled northwest from the same collar location as holes 1, 2 and 3, and was drilled in dacite and altered granite with only traces of scheelite present.

Holes 5 and 6, collared down slope from the outcrop and drilled parallel to the vein, disclosed only minor amounts of scheelite although areas of abundant pyrrhotite and other sulfides were found.

We trust the above brief account will provide the information not adequately covered in our application, and we will gladly supply any further information that may be requested.

Very truly yours

BRADLEY MINING CO.

K G Wallace

K. G. Wallace
Assistant Manager

KGW/ja

Encl.

cc: Mr. A. E. Weissenborn, Spokane

BRADLEY MINING CO.
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA 3010

EXHIBIT "A"

DESCRIPTION OF THE WORK

The exploration work on this project is indicated in part on the map attached hereto, ~~and made a part hereof~~ entitled "Bradley Mining Co. ~~"Sheet No. 1, DMEA-3010,~~ Springfield Prospect" Sheet No. 1 of 3, DMEA-3010"

Time Schedule: 0-6 months

Prepare drill site with bulldozer and drill ~~by contract~~ four (4) AX-size diamond drill holes not ~~to exceed a total of~~ in excess of 600 feet to explore a tungsten-bearing quartz vein at the Springfield mine. The location, inclination, and bearing of the drill holes are to be determined by the Operator subject to the approval of the Government.

The drill holes shall be reamed and cased, where necessary, but not in excess of 350 feet, and not in excess of 30 feet of drive pipe may be set

ESTIMATED COST OF PROJECT
*Indicates allowable maximum

(1) Independent Contracts

600 feet of AX-size diamond drilling @ $5.35/ft.*	$3,210.00
350 feet of reaming and casing ~~[illegible]~~ @ $2.65/ft.*	927.50
30 feet of drive pipe @ $9.90/ft.*	297.00
~~Contractor's move-in cost~~	~~[illegible]~~
~~Drill site preparation~~ Bulldozing site 16 hours ~~of bulldozer work~~ @ $8.00/hr.*	128.00
	$4,762.50

(2) Labor, Supervision, Consultants

1 - Geological consultant @ $50.00/day* plus $15.00/day* for expenses, 2 days	130.00
1 - Engineer @ $20.00/day*, 10 days	200.00
	330.00

(plus ~~[illegible]~~ $200 allowance for cost of moving in equipment)

(3) Operating Materials and Supplies

Core boxes and sample supplies	$ 80.00

(4) Operating Equipment

None

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

None

(7) Miscellaneous

Analytical work, 120 tungsten analysis @ $2.00 ea.	$ 240.00
(8) Contingencies	187.50
TOTAL ESTIMATED COST FOR PROJECT	5,600.00
GOVERNMENT PARTICIPATION AT 75 PERCENT	4,200.00

G U A R A N T Y

In consideration of the waiver by the United States of America of the requirement with reference to the property referred to in Article 2 of the attached Exploration Project Contract, of a subordination agreement for the lien against the property, the undersigned hereby guarantees the payment to the United States of America of royalties, as specified in said Contract and any amendment thereof, upon any and all ore discovered or developed as a result of said Contract and any amendment thereof, which is mined within 10 years from the date of said Contract, whether or not the undersigned has any interest in the property, covered by the said Contract, or any part in the mining operations at the time said ore is mined. If for any reason the net smelter returns or other net amounts, from operations that would be subject, under said Contract and any amendment thereof, to such payments to the United States of America, are not available as a means of measuring the amount of such payment, then the undersigned agrees and undertakes to make such payment according to the best estimates of the amount that can reasonably be made, and in the event of dispute as to such estimate, the undersigned agrees that the determination thereof by either the Administrator of Defense Minerals Exploration Administration, or his designee, shall be final and binding upon the undersigned.

Dated _____, 1953.

BRADLEY MINING CO.

By _____

I, _____, certify that I am the _____ of the corporation named as Guarantor herein; that _____ who signed this guaranty, was then _____ of said corporation; that said guaranty 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/

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET NO. DMEA 3010

COMMODITY Tungsten

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Bradley Mining Co., a corporation duly organized and existing under and by virtue of the laws of the State of California, having its principal office at 425 Crooker Building, San Francisco 4, California

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Idaho, County of Valley, described as follows: [3] Three unpatented lode claims in Section 28, T. 17 N., R. 9 E., Boise Meridian, recorded in the office of the County Recorder of Valley County, Cascade, Idaho, ~~as follows: White Mare, Book 11, Page 423, White Mare No. 1, Book 11, Page 424, and the White Mare No. 2, Book 11, Page 425.~~ specifically White Mare, White Mare #1 & 2

the Operator represents and undertakes: [4]

(*a*) That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the ~~following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:~~ Payment of 1-1/2 percent royalty to Mr. and Mrs. Lafe Cox, Yellow Pine, Idaho on the net proceeds of ores extracted and sold. Guarantee by Bradley Mining Co. is attached hereto. ~~in lieu of subordination agreement.~~

~~(*b*) That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien is attached.~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within _____ days from the date of this contract shall commence work on a project of exploration for [5] _____

in or upon the described land; and shall bring the project to completion within a period of nine (9) months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following:

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related initial allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—Repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance and payroll taxes.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) The Government's payments [illegible]ll cases will be based on actual, necessary [illegible]ts (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) 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 this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

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

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 75 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $4,200.00, which is ---------- percent of $5,600.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *Title to and disposition of property.*—All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

ARTICLE 12. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *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 16—66328-1

FILE COPY
SURNAME:

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

Rutledge
Martin

Chief Counsel, DMEA

May 13, 1953

Iron and Ferro-Alloys Division, DMEA

Review and preparation of contract
Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Transmitted herewith is the rought draft of a proposed contract for your use in preparing the contract in final form.

A Guaranty by the Bradley Mining Co. is enclosed for use in place of a subordination agreement as well as a map for attachment to the contract.

W. S. Martin, Acting Chief
Iron and Ferro-Alloys Division

Enclosures

FARutledge:foc
5-13-53

Copy to: Docket
Code 400
Admr. Reading File

BRADLEY MINING CO.
EXPLORATION PROJECT CONTRACT
DOCKET NO. DMEA 3010

EXHIBIT "A"

DESCRIPTION OF THE WORK

The exploration work on this project is indicated in part on the map attached hereto and made a part hereof entitled "Sheet No. 1, DMEA - 3010, Springfield Prospect."

Time Schedule: 0-6 months

Drill by contract four (4) AX-size diamond drill holes not to aggregate over 600 feet to explore a tungsten-bearing quartz vein at the Springfield mine. The location, inclination, and bearing of the drill holes are to be determined by the Operator subject to the approval of the Government.

ESTIMATED COST OF PROJECT
*Indicates allowable maximum

(1) Independent Contracts

600 feet of AX-size diamond drilling @ $5.35/ft.*	$3,210.00
350 feet of reaming and casing where required @ $2.65/ft.*	927.50
30 feet of drive pipe @ $9.90/ft.*	297.00
Contractor's move-in cost	200.00
Drill site preparation, 16 hours of bulldozer work @ $8.00/hr.*	128.00
	$4,762.50

(2) Labor, Supervision, Consultants

1 - Geological consultant @ $50.00/day* plus $15.00/day* for expenses, 2 days	130.00
1 - Engineer @ $20.00/day*, 10 days	200.00
	330.00

(3) Operating Materials and Supplies

Core boxes and sample supplies	$ 80.00

(4) Operating Equipment

None

(5) Rehabilitation and Repairs

None

(6) New Buildings, Improvements, Installations

None

(7) Miscellaneous

Analytical work, 120 tungsten analysis @ $2.00 ea.	$ 240.00
(8) Contingencies	187.50
TOTAL ESTIMATED COST FOR PROJECT	5,600.00
GOVERNMENT PARTICIPATION AT 75 PERCENT	4,200.00

DMEA 3010

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

1201 N. Division St.
Spokane 2, Washington
May 7, 1953

WSM

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

dmea 3010 MAY 11 1953

Subject: Bradley Mining Company
Springfield Mine
Valley County, Idaho
Application for DMEA project
(tungsten)

Dear Mr. Selfridge:

Enclosed are the original and 3 copies of a memorandum from S. W. Zoldak, Mining Engineer, Bureau of Mines, regarding the applicant's estimate of costs for the work proposed in the subject application.

Our recommendations were included in our letter of April 23, 1953, forwarding the application.

By Field Team, Region II

Harold Kirkemo
for A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

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

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
1201 North Division Street
Spokane 2, Washington

May 4, 1953

MEMORANDUM

To: DMEA Field Team, Region II

From: Stephen W. Zoldok, Mining Engineer, Bureau of Mines

Subject: Cost analysis of Bradley Mining Company diamond drilling project at Springfield Mine, Sec. 28, T. 17 N., R. 9 E., Boise Meridian, Valley County, Idaho

The only exception taken to the costs submitted in the subject application are those appearing under paragraph 6 (c) Operating Materials and Supplies. The drill contractor normally supplies all drill supplies with the exception of core boxes. The applicant has requested 25 core boxes, costing $4.00 each or $100.00. The indicated need is 15 - 5 foot core boxes with sheet metal dividers for 600 feet of AX core. It is recommended that all items under paragraph 6 (c) be disallowed and substitute 15 core boxes costing $60.00. This would reduce the total estimated cost from $5,945.50 to $5,692.50.

Stephen W. Zoldok
Stephen W. Zoldok

Orig. & 3 - Wash.
USGS - 2
DMEA
M/D
SWZ/vf

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

400

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Dear Mr. Weissenborn:

Your letter of April 23, 1953, transmitting the subject application indicated that an analysis of the project costs would follow. Because of the need for expediting the processing of this application if a program is to be started this summer, it will be appreciated if you will give this matter priority.

For your information, two copies of a memorandum by D. M. Lemmon, Geological Survey, are enclosed.

Sincerely yours,

Chairman, Operating Committee

Enclosure

APPROVED:

Requested data rec'd

Member, Bureau of Mines

Member, Geological Survey

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Dear Mr. Weissenborn:

Your letter of April 23, 1953, transmitting the subject application indicated that an analysis of the project costs would follow. Because of the need for expediting the processing of this application if a program is to be started this summer, it will be appreciated if you will give this matter priority.

For your information, two copies of a memorandum by D. M. Lemmon, Geological Survey, are enclosed.

Sincerely yours,

Chairman, Operating Committee

Enclosure

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

FARutledge:foc
5-12-53

cc: Docket
Code 400
Field Team, Reg.2
Admr. Reading File
Operating Committee
R. W. Geehan, USBM
D. M. Lemmon, USGS

FILE COPY
SURNAME:

Rutledge
Martin

400

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

MAY 7 1953

Mr. John D. Bradley
Bradley Mining Co.
425 Crocker Building
San Francisco 4, California

Re: Docket No. DMEA 3010 - Tungsten
Bradley Mining Co.
Springfield tungsten prospect
Valley County, Idaho

Dear Mr. Bradley:

Reference is made to your application for exploration assistance at the Springfield tungsten prospect.

In reviewing the data contained in the referenced docket, the only indication of tungsten mineralization is the statement: "Proved reserves of talus scheelite ore - 16,000 tons @ 0.40 percent WO_3." This statement should be supported with the sampling results of the test pitting program indicated on the sketch map of the deposit, sheet 1. When these data are received, we will continue to process your application.

Sincerely yours,

C. O. Mittenderf (for)

Administrator

FARutledge:foc
5-6-53

cc: Docket
FT, Reg. 3
Code 400
Adm. Reading File
R. W. Geehan, USBM
D. M. Lemmon, USGS
Operating Comm.

F.H.
5-7-53

IN REPLY REFER TO:

G-MD-DML

Docket

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

May 4, 1953

Memorandum

To: W. S. Martin, DMEA

WSM

From: D. M. Lemmon, USGS

Subject: Exploration application $5,945.50 DMEA-3010
Bradley Mining Company Tungsten
Springfield tungsten prospect
Sec. 28, T. 17 N., R. 9 E., Boise Meridian
8 miles south of Stibnite
Valley County, Idaho

Proposal:

It is proposed to drill 4 diamond drill holes, total 600 feet, in search of a tungsten-bearing quartz vein presumed to be the source of scheelite in talus. The applicant states that the talus amounts to 16,000 tons averaging 0.40 percent WO_3, but the details are not given upon which this estimate is based. Six holes totalling 814 feet were drilled by the company without success; apparently the strike of the vein is not clearly defined at the surface.

The Geological Survey has no firsthand information about this deposit. The Field Team (letter of April 23rd) states that it "probably would be willing to accept Hulin's recommendations especially since the amount of drilling to be done is small and an examination probably cannot be made for another month or six weeks".

Recommendation:

I suggest that, in order to expedite the project, a contract be drawn for the 600 feet of drilling requested by the applicant, with the proviso that the location of the holes be approved by the Field Team before the project is started. This restriction seems advisable because the geologic information submitted is sketchy and the examining geologist may be able to contribute guidance.

D. M. Lemmon

D. M. Lemmon

Copy retained 400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

April 23, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 30 1953

Dear Mr. Selfridge:

Enclosed is an application by the Bradley Mining Company for the Springfield Tungsten deposit in Valley County, Idaho, some eight miles from Stibnite, Idaho. The applicant claims that test drilling has proved 16,000 tons of scheelite ore averaging 0.40 percent WO_3. Six drill holes to explore the vein failed to find it. It is now believed that the vein strikes at nearly right angles to its formerly presumed strike. It is proposed to drill a maximum of 4 holes involving 600 feet of diamond drilling.

No one from the Field Team office has seen this property although it was tentatively discussed with the Executive Officer briefly last summer by C. D. Hulin, geologist, and J. D. Bradley. The area is presently inaccessible and will continue to be so for at least another month. In addition, the exposures are reported to be so poor that very little can be seen. Inasmuch as the amount of scheelite-bearing talus shown on the applicant's map is impressive, and further efforts to find its source seem justified, the Field Team probably would be willing to accept Hulin's recommendations especially since the amount of drilling to be done is small and an examination probably cannot be made for another month or six weeks. We will, however, make a field investigation if it seems desirable.

In any event, an analysis of the project costs will follow.

By Field Team, Region II

A. E. Weissenborn

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

M. E. Volin

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

cc: USBM (2)
Puffett

April 30, 1953

Mr. John D. Bradley
Bradley Mining Company
425 Crocker Building
San Francisco 4, California

Subject: DMEA-3010
Re: Exploration Assistance
Springfield Mine

My dear Mr. Bradley:

The receipt of your application dated April ~~30~~ 17, 1953 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3010 and referred to the Iron and Ferro-Alloy Division.

Kindly refer to DMEA-3010 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operation's Control
and Statistics Division

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

April 30, 1953

Memorandum

To: Executive Officer, DMEA Field Team, Region II

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region II.

DMEA - 3010 - Bradley Mining Company

ROBERT E. ADAMS

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

38226

WORTHEN BRADLEY
PRESIDENT

JOHN D. BRADLEY
EXECUTIVE VICE PRESIDENT

JAMES P. BRADLEY
VICE PRESIDENT

E. A. GRIFFEN
SECRETARY

REFER TO	ACTION	NOTED	DATE
ANSWERED			

BRADLEY MINING CO.

425 CROCKER BUILDING
SAN FRANCISCO 4, CALIFORNIA
TELEPHONE SUTTER 1-0414

ANTIMONY
TUNGSTEN
VIRGIN QUICKSILVER

April 17, 1953

Mr. A. E. Weissenborn, Exec. Officer
Field Team, Region II
Defense Minerals Exploration Administration
South 157 Howard Street
Spokane 8, Washington

Re: Application for Diamond Drilling on Springfield Tungsten Prospect

Dear Al:

Attached hereto are six copies with maps of our application for a diamond drilling program on our Springfield Tungsten Prospect located about eight air miles from Stibnite.

You will note that the application as prepared by Keith Wallace at Stibnite adheres to and follows your Form MF-103.

Naturally, we would like to have this application approved before June 30, 1953, so that we can coincide the diamond drilling program with our placer operations at the Springfield property during the open summer months of this year.

We will, of course, sign the usual royalty agreement which supersedes the necessity of having Mr. Cox (who is to receive a 1-1/2% royalty on the net proceeds) be involved or subordinate his rights.

With kindest regards, I am

Sincerely yours,

John D. Bradley

John D. Bradley
Executive Vice President

JDB:NR
Encs.

RECEIVED
APR 20 1953
U. S. G. S.
SPOKANE, WASH.

RECEIVED
APR 20 1953
U. S. G. S.
SPOKANE, WASH.

1(a) Bradley Mining Co.
425 Crocker Bldg.
San Francisco 4, Calif.

(b) Not applicable

(c) Officers:

Worthen Bradley	President	425 Crocker Bldg., S.F.
John D. Bradley	Exec. Vice Pres.	do
James P. Bradley	Vice Pres.	do
E. A. Griffen	Secty. & Treas.	do
G. C. Orton	Asst. Secty.	do

(d) Not applicable

3(a) Unpatented Lode Claims as follows, all in Section 28, Township 17 North, Range 9 East, Boise Meridian.

White Mare
White Mare No. 1
White Mare No. 2

(b) Springfield Mine

(c) Owner

(d) Not applicable

(e) Only condition in connection with ownership of the property is the payment of a 1-1/2% royalty to Mr. and Mrs. Lafe Cox, Yellow Pine, Idaho, on ores extracted and sold.

(f) Book and Page Numbers for unpatented claims involved. Filed in the office of the County Recorder of Valley County, Cascade, Idaho.

Claim	Book	Page
White Mare	11	423
White Mare No. 1	11	424
White Mare No. 2	11	425

4(a) The property is situated along the West Fork of Springfield Creek in the primitive area of Central Idaho at an elevation of 7800 feet. It is about eight airline miles south of the Yellow Pine Mine and Smelter of the Bradley Mining Co. at Stibnite, Idaho. Severe snow conditions generally prevail from the first part of November until May. A road was constructed to the property in 1951.

The area was first located in 1946. A small camp has been established, and 814 feet of diamond drilling has been done. The drill holes, six

in number, were laid out on the assumption that the scheelite-bearing vein trends northeast and directly under the talus deposit. (see enclosed map.) This is nearly at right angles to the actual strike of the vein. Four holes were collared at one location, almost directly above the vein. The holes from this location straddled the vein, and thus immediately passed out of the mineralized zone as they went down. Two holes were collared about 150 feet down slope from the outcrop, and were drilled parallel to the strike of the vein.

Twenty-eight test pits have been dug in the talus rock below the vein. This work has proved the commercial value of the talus deposit, and active mining of the talus is scheduled to begin in the spring and summer of 1953.

(b) There has been no production from the property. Proved reserves of talus scheelite ore: 16,000 tons @ 0.40% WO_3.

(c) The mineral of most interest in the area is scheelite. The scheelite is associated with abundant pyrrhotite and minor other sulfides in a quartz vein near the base of a sheer granite bluff. The vein, which has a width of perhaps 15 to 20 feet, strikes parallel to the face of the bluff at about north 30° west. The dip of the vein is unknown, but is probably steep.

Surface evidence indicates the vein has a known length of 150 to 200 feet along the strike, with the highest tungsten values occurring at the south end of the vein.

Although the general country rock is granite, the vein is apparently more closely associated with a zone of metamorphic rocks, specifically marble and tactite. In addition to occurring in the vein described above, scheelite is also found in lesser quantities in the tactite mineralization and to some extent in altered granite.

Detailed geologic mapping of the region is incomplete, so the relationship between the scheelite vein and the surrounding rock types is not known. Similarly, structural control, if present, is an unknown factor.

Indicative of the possible tenor of the vein is the talus material directly down slope from the outcrop. This talus, which covers an area of some 50,000 square feet, contains at least 16,000 tons averaging about 0.40% WO_3. As the talus scheelite undoubtedly has suffered considerable dilution from barren rock from the bluff above, it is believed the source vein must run considerably higher than 0.40% WO_3.

(d) There is a road to the property. The railhead is at Cascade, Idaho, a distance of approximately 80 miles. The supply center is Boise, a distance of approximately 160 miles. As stated above, a small camp has been established at the property.

(e) All are readily available except electric power.

5(a) Tungsten

(b) Proof of the continuity of the scheelite-bearing vein below the outcrop would open up a sizable tonnage of good tungsten ore that could be easily extracted from short underground workings.

A very little diamond drilling will serve to test the vein. It is proposed that 600 feet of diamond drilling be done. Two holes, each having a maximum length of 150 feet, should be drilled to cut the vein approximately 80 feet vertically below the outcrop. Owing to the uncertainty about the dip of the vein the holes should be fairly flat. These two holes are shown on the enclosed map and sections.

After completion of the above holes, two more holes totaling 300 feet in length should be drilled to locate lateral extensions and to test the vein at greater depth. The location and attitude of these holes will depend upon the results from the first two holes.

The diameter of the drill holes will depend on the character of the ground, but will at all times be sufficient to provide the geologic information required. Sites for the location of the drill for all holes will be prepared by bulldozer.

(c) Project will be started within 60 days, provided that contract is approved before winter weather begins, and be completed within 4 months.

(d) The Bradley Mining Co. has operated the nearby Yellow Pine Mine and other properties for many years, and retains a competent staff of engineers.

6. Estimate of Costs

(a) Independent Contracts

(AX cyl)

600 feet of drilling @ $5.35	$ 3,210.00	
350 feet of reaming and casing @ $2.65	927.50	
30 feet of driving pipe @ $9.90	297.00	
contractor's move-in cost	200.00	
		$4,634.50

(b) Labor, Supervision, Consultants

One geological consultant, 2 days @ $115.00	$ 230.00	
One engineer, 10 days @ $20.00	200.00	
		430.00

(c) Operating Materials and Supplies

500 feet 1-inch water pipe @ $0.20	$ ~~100.00~~	
1,000 board feet lumber @ $0.075	~~75~~.00	
200 feet 1/2-inch cable @ $0.19	38.00	
15 ~~25~~ core boxes @ $4.00	~~100.00~~	60.00
		~~313.00~~

(d) Operating Equipment — None

(e) Rehabilitation and Repairs — None

(f) New Buildings, Improvements, Installations

Drill site preparation consisting of 16 hours tractor work @ $8.00	128.00

(g) Miscellaneous

Analytical Work 120 tungsten assays @ $2.00	240.00

(h) Contingencies — 200.00

Total Estimated Cost — $5,945.50

7. (a) Yes

(b) Monthly costs will be paid by applicant and proper percentage charged monthly to D.M.E.A.

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

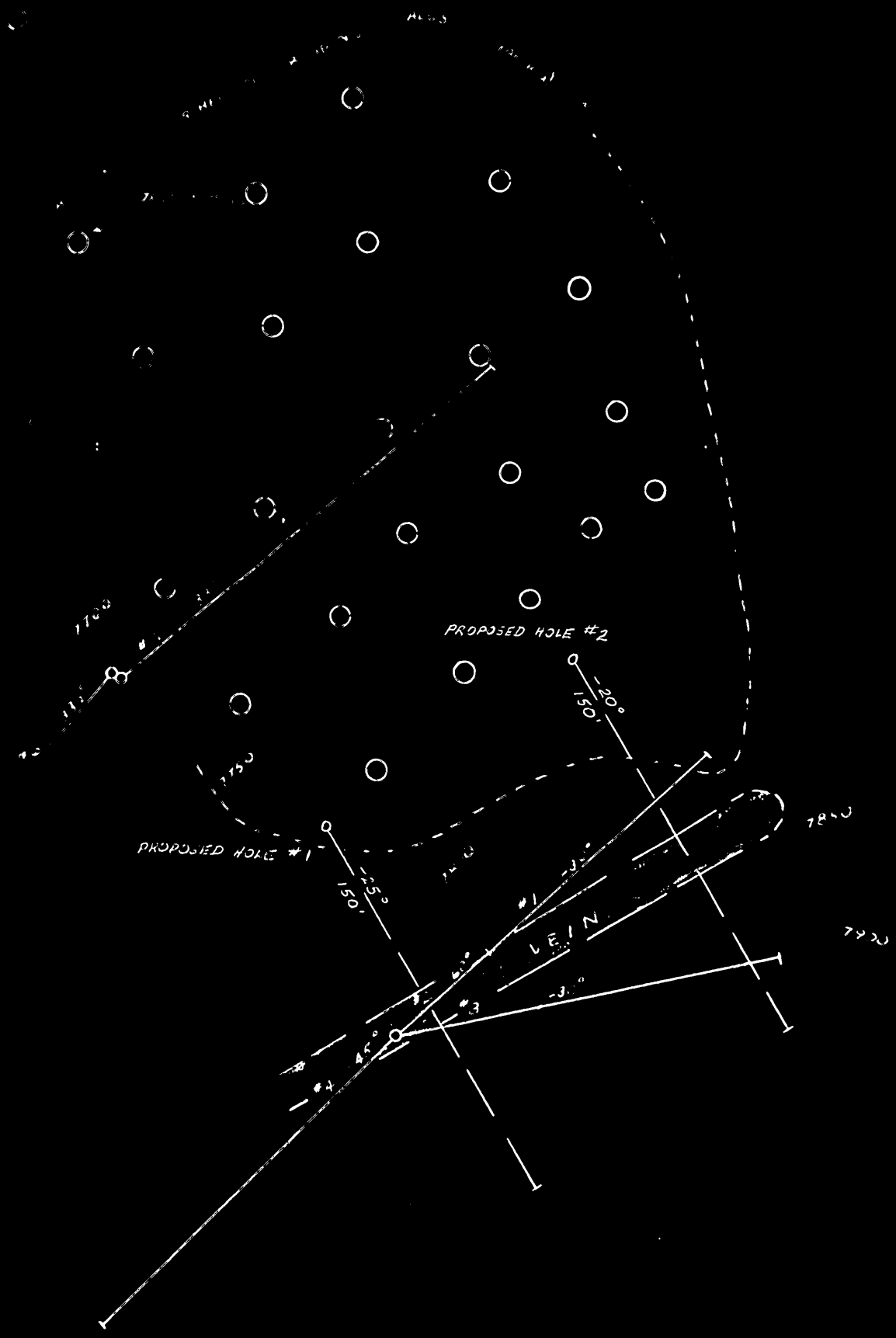
OFFICIAL BUSINESS

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

SPOKANE, WASH.
AP 9 7 30PM
1953

Mr. George C. Selfridge
Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

DMEA-3010


PROPOSED HOLE #2
PROPOSED HOLE #1
-20°
150'
-35°
150'
#1
#3
#4
VEIN
7800
7900

COORDINATES: 6,359.2 N
7,963.2 E

ELEVATION: 7,733.4

DEERFIELD MINE
Bradley Mining Co.

DIAMOND DRILL HOLE NO. 61-7

BEARING: S 50° 15'

INCLINATION: minus 23°

Page 1

Footage	Mineralogy	% Recovery	% WO3 Sludge	% WO3 Core	Size Core
0 - 5	Altered granite with fine-grained sulfides to 3', aplite with fine-grained sulfides to 5'	50	No sludge		BA
5 - 10	Aplite with fine-grained sulfides to 8', heavy sulfides in quartz (75% mainly pyrrhotite), some scheelite to 10'	50	" "	0.08	"
10 - 15	Heavy sulfides (75% mainly pyrrhotite) in quartz. Some scheelite	85	0.09	0.02	BX
15 - 20	Heavy sulfides (75% mainly pyrrhotite) in quartz. Some scheelite to 18'; altered granite to 20'	55	0.18	0.15	"
20 - 25	Marble (pure white calcite) to 21'; white quartz to 22'; altered granite to 25'	20	0.29	Tr	"
25 - 30	Altered granite. Some fine-grained sulfides	20	0.31	0.01	"
30 - 35	Aplite, some altered granite. Some fine-grained sulfides	75	0.33		"
35 - 40	Aplite. Some fine-grained sulfides	80	0.28		"
40 - 45	Aplite, minor altered granite to 43'. Fine-grained schistose granite to 45'	65	Tr		"
45 - 50	Fine-grained schistose granite, some aplite	35	Nil		"
50 - 55	" " " " "	55	Nil		"
55 - 60	Aplite to 57'; fine-grained schistose granite to 60'	85	Nil		"
60 - 65	Fine-grained schistose granite to 63'; aplite to 65'	35	Nil		"
65 - 70	Aplite	50	Nil		"
70 - 75	Fine-grained schistose granite	35	Nil		"
75 - 80	Aplite	70	Nil		"
80 - 85	"	40	Nil		"
85 - 90	Aplite, some essentially fresh granite	70	Nil		"
90 - 95	Aplite with abundant muscovite (sericite)	65	Nil		"
95 -100	" " " " "	100	Nil		"
100-105	" " " " " Some schistose granite 103 to 105'	65	Nil		"
105-110	Schistose granite	75	Tr		"
110-115	" "	100	Nil		"
115-120	" "	100	Nil		"
120-125	" " , some aplite	60	Nil		"

Footage	Mineralogy	% Recovery	% WO_3 Sludge	% WO_3 Core	Size Core
125-130	Schistose granite, some aplite	60	Tr	Nil	
130-135	" " " "	55	Nil	"	
135-140	" " " "	60	Nil	"	
140-145	" " " "	65	Nil	"	
145-150	" " " "	40	Nil	"	

End of hole at 150 feet

Note: Trace and Nil values of WO_3 determined by lumping; numerical values determined by ~~lumping~~ assay. All core and sludges lumped.

DIAMOND DRILL HOLE NO. 51-7

Driller's Notes

Date Start: 8/24/53 Driller: Manning

Finish: 9/4/53 Helper: Barnell

Footage	Remarks
0 - 10	Hole deflected, cemented and redrilled.
10 - 16½	Iron and quartz. Black sludge.
16½-30	Aplite. Milky sludge.
30 - 45	" " " Very hard.
45 - 50	Aplite with garnet. Softer. Blue and red sludge.
50 - 55	Aplite with garnet. Harder. Milky blue sludge.
55 - 65	" " " Bluish grey sludge.
65 - 70	Fresh granite. Milky sludge.
70 - 75	Aplite and garnet. Grey sludge.
75 - 85	Aplite and fresh granite. Milky sludge.
85 -100	Fresh granite, lots of mica. Fairly soft. Milky sludge.
100-105	Aplite, not much mica. Milky sludge.
105-120	Aplite and granite with greenish stain. Some mica. Medium hard. Greyish sludge.
120-125	Fresh granite and aplite. Grey sludge.
125-135	Fresh granite and aplite with seams of gouge. Milky blue-grey sludge.
135-139	Aplite with a few seams of yellow iron. Hard and brittle. Milky grey sludge.
139-144½	Aplite with garnet and pyrite. Some mica. Milky reddish-grey sludge.
144½-150	Aplite with garnet. Softer. No pyrite. Milky reddish-grey sludge.

End of hole

COORDINATES: 8,414.6 N
7,934.6 E

ELEVATION: 7,773.9

SPRINGFIELD MINE
Bradley Mining Co.

DIAMOND DRILL HOLE NO. SP-8

BEARING: S 44° 14' W

INCLINATION: Minus 25°

Footage	Mineralogy	% Recovery	% WO_3 Sludge	% WO_3 Core	Size Core
0 - 5	Severely weathered & altered granitic rock with sulfides	40	No sludge		BX
5 - 10	" " " " " " " "	40	" "		"
10 - 15	" " " " " " " " to 11', heavy sulfides (75%, mainly pyrrhotite) in quartz to 15'. Occasional very minor specks of scheelite from 11 to 33'				
15 - 20	Heavy sulfides (75%, mainly pyrrhotite) in quartz	100	" "		"
20 - 25	" " " " " " "	65	Nil		AX
25 - 30	" " " " " " "	90	Nil		"
30 - 35	" " (50% " " " " to 33', altered granite with sulfides to 35'	100	Nil		"
35 - 40	Aplite and altered granite	90	0.01		"
40 - 45	" " " "	75	Tr		"
45 - 50	" " " " to 47', fresh granite and aplite to 50'	45	Tr		"
50 - 55	Fresh fine-grained granite	95	Nil		"
55 - 60	" " " "	100	Nil		"
60 - 65	" " " " to 63', aplite to 65	100	Nil		"
65 - 70	Aplite to 69', altered granite to 70'	45	Nil		"
70 - 75	Altered granite to 71', aplite with abundant moscovite (sericite?) to 75'	50	Nil		"
75 - 80	Aplite with abundant muscovite (sericite?). Minor granite	55	Nil		"
80 - 85	" " " " "	75	Nil		"
85 - 90	" " " " "	15	Nil		"
90 - 95	Aplite.	50	Nil		"
95 -100	Schistose granite, some aplite	30	Nil		"
100-105	Schistose granite.	35	Nil		"
105-110	" "	100	Nil		"
110-115	" "	35	Tr		"
115-120	Aplite, some altered granite	75	Tr		"
120-125	Aplite and fresh granite	35	Nil		"
125-130	" " " "	30	Nil		"
130-135	" " " "	30	Nil		"
135-138	" " " "	60	Nil		"
		70	Nil		"

End of hole at 138 feet.

Note: All assays are sludge assays. Trace and Nil values of WO_3 determined by lamping. All core and sludges lamped.

DIAMOND DRILL HOLE NO. SP-8

Driller's Notes

Date Start: 9/5/53 Driller: Manning

Finish: 9/9/53 Helper: Barkell

Footage	Remarks
0 - 10	Broken granite. Lost water - no sludge recovery
10 - 15	Heavy sulfides and quartz. No sludge recovery
15 - 35	Sulfides and quartz. Black sludge.
35 - 48	Aplite, very little mineralization. White sludge.
48 - 85	Aplite and fresh granite. White sludge. Lost water at 72½ ft. Ground up the core from 80 to 85 ft.
85 - 95	Aplite, fresh granite & quartz. Milky sludge.
95 -100	Aplite, fresh granite and quartz. Milky grey sludge.
100-115	Schist and aplite, with garnet. Grey sludge.
115-120	Aplite and gouge. Grey sludge.
120-130	Aplite, fresh granite and gouge. Grey sludge. Hit water seam at 122 ft.
130-136	Aplite and fresh granite. Grey sludge.
	End of hole

SPRINGFIELD MINE

Brecley Mining Co.

DIAMOND DRILL HOLE NO. 82-9

COORDINATES: 8,416.4 E
7,936.1 N

ELEVATION: 7,773.0

BEARING: S 44° 14' W

INCLINATION: Minus 60°

Page 1

Footage	Mineralogy	% Recovery	% WO3 Sludge	% WO3 Core	Size Core
0 - 5	Intensely altered and weathered granitic rock with tactite mineralization and sulfides. Some scheelite.	30	No sludge	0.02	BX
5 - 10	Intensely altered and weathered granitic rock with tactite mineralization and sulfides. Some scheelite.	35	" "	0.05	"
10 - 15	Altered granitic rock, tactite mineralization, quartz. Rather heavy sulfides 10 - 13'.	45	0.01		BX
15 - 20	Altered granitic rock, tactite mineralization, quartz. Some sulfides.	20	0.01		"
20 - 25	Altered granitic rock, tactite mineralization. Fewer sulfides. Speck of scheelite at 25'	20	Tr		"
25 - 30	White marble (calcite) to 27', fine-grained tactite mineralization to 30'	35	Tr		"
30 - 35	Fine-grained tactite mineralization to 32', rather fresh aplite and granite to 35'	20	0.01		"
35 - 40	Predominantly fresh granite and aplite	70	0.05		

End of Hole at 40 feet

Note: Trace and Nil values of WO3 determined by panning; numerical values determined by assay. All core and sludges logged.

DIAMOND DRILL HOLE NO. SP-9

Driller's Notes

Date Start: 9/10/53 Driller: Manning

Finish: 9/11/53 Helper: Harrell

Footage	Remarks
0 - 10	Quartz and altered granite. No sludge recovery.
10 - 15	Quartz and iron. Very broken and soft. Black and grey sludge.
15 - 20	Altered granite, some iron. Grey sludge.
20 - 25	Altered granite, some iron. Milky sludge.
25 - 31	Quartz and altered granite. Lots of garnet and gouge.
31 - 40	Aplite and fresh granite. Much harder. Milky grey sludge.
	End of hole

COORDINATES: 6,231.0 N
8,018.6 E

ELEVATION: 7,793.2

SPRINGFIELD MINE
Bradley Mining Co.

DIAMOND DRILL HOLE NO. SP-10

BEARING: S 50° W

INCLINATION: Minus 30°

Footage	Mineralogy	Recovery	% WO_3 Sludge	Size Core
0 - 5	Completely altered granite	45	No Sludge	NX
5 - 10	" " "	45	" "	"
10 - 15	" " " and aplite	80	Nil	NX
15 - 20	" " " " " to 17½'; heavy sulfides 17½ to 20'; small specks of scheelite in core from 16 to 20'			
20 - 25	Heavy sulfides to 22'; altered granite to 25'. Minor specks of scheelite	80	0.04	"
25 - 30	Altered fine-grained granite and aplite	45	0.10	NX
30 - 35	Aplite, some fine-grained granite	30	Nil	"
35 - 40	" " " " "	40	Nil	"
40 - 45	Fine-grained granite, schistose in places	45	Nil	"
45 - 50	Schistose granite. Some aplite.	50	Nil	"
50 - 55	Fresh granite, occasionally schistose character	80	Nil	"
55 - 60	Fresh granite and aplite. Schistose 56-57'	70	Nil	"
60 - 65	Fresh granite	75	Nil	"
65 - 70	" " and aplite	65	Nil	"
70 - 75	" " " "	40	Nil	"
75 - 80	" "	20	Nil	"
80 - 85	Dark colored granite, metamorphosed	20	Nil	"
85 - 90	Fresh granite and aplite	45	Nil	"
90 - 95	Schist to 93'; fresh granite to 95'	55	Nil	"
95 -100	Fresh granite	60	Nil	"
		70	Nil	"

End of hole at 100 feet

Note: All assays are sludge assays. Trace and Nil values of WO_3 determined by lamping. All core and sludges lamped.

DIAMOND DRILL HOLE NO. SP-10

Driller's Notes

Date Start: 9/26/53 Driller: Manning

Finish: 9/29/53 Helper: Barkell

Footage	Remarks
0 - 10	Slightly altered granite. No sludge recovery.
10 - 15	" " " Milky sludge.
15 - 20	Altered granite, with sulfides. Sludge varied from milky to blue and black.
20 - 25	Scattered sulfides. Soft and broken. Blue-black to white sludge.
25 - 30	Altered granite and aplite, some sulfides. Very soft. Heavy sludge - grey and milky brown.
30 - 33½	Aplite, soft. Milky grey sludge.
33½-39	Soft aplite and fresh granite. Grey sludge.
39 - 44	Medium hard schist and aplite. Sludge varied in color from blue-grey to milky white.
44 - 50	Harder schist and aplite. Sludge varied from blue-grey to milky brown.
50 - 54½	Schist and fresh granite. Milky blue-grey sludge.
54½- 65	Schist, fresh granite, and aplite. Milky sludge.
65 - 75	Softer fresh granite and aplite. Some mica. Milky sludge.
75 - 80	Fresh granite and aplite. Soft and broken. Milky sludge.
80 - 85	Schistose granite, some garnet. Soft and broken. Reddish blue-grey sludge.
85 - 90	Fresh granite and aplite with some mica flakes. Medium hard. Milky sludge.
90 - 94	Fresh granite, schist and aplite. Reddish blue-grey and milky sludge.
94 -100	Aplite and schist. Harder. Reddish blue-grey sludge.

End of hole

COORDINATES: 8,291.7 N

6,028.5 E

ELEVATION: 7,732.3

SHERCOFIELD MINE
Bradley Mining Co.

DIAMOND DRILL HOLE NO. DF-11

BEARING: S 50° E

INCLINATION: Minus 29

Page 1

Footage	Mineralogy	% Recovery	% WO_3 Sludge	Size Core
0 - 5	Overburden -- no core	0	No sludge	NX
5 - 10	Weathered granite	40	" "	"
10 - 15	Fresh granite	45	0.11	NX
15 - 20	" "	60	Nil	"
20 - 25	" "	75	Nil	NX
25 - 30	" " to 21'; Basic dike (lamprophyre?) 21-25'	75	Nil	"
30 - 35	Basic dike (lamprophyre?) to 29'. Fresh granite 29-30'	50	Nil	"
35 - 40	Fresh granite to 34'. Aplite 34 to 35'	25	Nil	"
40 - 45	Aplite	12	Nil	"
45 - 50	Aplite to 49'. Basic dike (lamprophyre?) 49 to 50'	55	Nil	"
50 - 55	Basic dike (lamprophyre?)	100	Nil	"
55 - 60	" " " to 56'. Fresh aplite 56 to 60'	65	Nil	"
60- 65	" " "	80	Nil	"
65 - 70	" " " to 66'. Aplite 66 to 70'	20	Nil	"
70 - 75	Aplite	20	Nil	"
75 - 80	Alternating aplite and schist. Schist at 80'	30	Nil	"

End of hole at 80 feet

Note: Trace and Nil values of WO_3 determined by panning. Numerical values determined by assay. All core and sludges bagged.

DIAMOND DRILL HOLE NO. DP-11

Driller's Notes

Date Start: 10/1/53 Driller: [illegible]

Finish: 10/3/53 Helper: Berkell

Footage	Remarks
0 - 5	Overburden. No core, no sludge.
5 - 10	Granite. No sludge.
10 - 20	Granite. Milky grey sludge.
20 - 21	Aplite and gouge. Grey and blue sludge.
21 - 29	Dike and gouge streaks. Very hard. Blue sludge.
29 - 34½	Medium hard fresh granite and aplite. Milky sludge.
34½-40	Hard aplite. Milky sludge.
40 - 49	Soft and broken aplite. White sludge.
49 - 56	Dike and gouge. Blue sludge. Hit water at 50 feet.
56 - 60	Aplite. White sludge.
60 - 66	Dike. Blue sludge.
66 - 75	Very soft and broken aplite. White sludge.
75 - 80	Soft and broken aplite and schist. Sludge varied from white to grey.

End of hole

SPRINGFIELD MINE
Bradley Mining Co.

DIAMOND DRILL HOLE NO. SP-12

COORDINATES: 8,463.3 N
8,156.4 E

ELEVATION: 7,654.3

BEARING: S 49° W

INCLINATION: Minus 30°

Footage	Mineralogy	% Recovery	% WO_3 Sludge	Size Core
0 - 5	Chips and fragments of weathered granite, some sulfides. Probably overburden.	3	Nil	BX
5 - 10	Chips and fragments of weathered granite, some sulfides. Probably overburden.	10	"	AX
10 - 15	Chips and fragments of weathered granite and schist. Probably overburden.	8	"	"
15 - 20	Chips and fragments of weathered granite to 19'. Basic dike (lamprophyre?) 19-20'. Not possible to determine where bedrock was entered	12	"	"
20 - 25	Basic dike (lamprophyre?)	35	"	"
25 - 30	" " " to 26'. Aplite and fresh granite to 30'	55	"	"
30 - 35	Essentially fresh fine-grained granite to 34½'. Basic dike 34½ to 35	55	"	"
35 - 40	Basic dike (lamprophyre?) to 38'. Fresh granite 38-40'	35	"	"
40 - 45	Aplitic granite, fresh	75	"	"
45 - 50	" " "	80	"	"
50 - 55	" " "	50	"	"
55 - 60	" " " to 56'. Basic dike (lamprophyre?) 56 to 60'	50	"	"
60 - 65	Basic dike (lamprophyre?) to 62'. Fresh aplitic granite 62 to 65'	70	"	"
65 - 70	Fresh aplitic granite	35	"	"
70 - 75	" " "	40	"	"
75 - 80	Fresh granite and schistose granite	40	"	"
80 - 85	Fresh aplitic granite to 83'. Schistose granite to 85'	60	"	"

End of hole at 85 feet

Note: Nil values of WO_3 determined by lamping. All core and sludges lamped.

DEPARTMENT OF THE INTERIOR
Administration
JAN 31 1955

DIAMOND DRILL HOLE NO. SP-12

Driller's Notes

Date Start: 10/4/53 Driller: Manning

Finish: 10/6/53 Helper: Barnell

Footage	Remarks
0 - 10	No core. Could not tell if bedrock or not. Very soft and decomposed.
10 - 15	Same as above. Sludge was grey, with a yellowish-brown cast. Cemented 6 foot of hole.
15 - 19½	Very soft and broken. Yellowish-grey sludge.
19½ - 25	Dike and gouge. Yellowish-grey sludge.
25 - 28	Dike and aplite. Gray and milky sludge.
28 - 30	Aplite. Milky sludge.
30 - 34½	Aplite, fresh granite, and dike. Milky to blue sludge.
34½ - 40	Dike and fresh granite. Blue to milky sludge.
40 - 43½	Aplite with gouge. Milky sludge.
43½ - 46	Much harder aplite. Milky sludge.
46 - 49	Hard and broken aplite. Milky sludge.
49 - 56	Very hard aplite. Milky sludge.
56 - 61½	Dike. Blue sludge.
61½ - 62	Aplite. Milky sludge.
62 - 80	Aplite and fresh granite. Milky sludge.
80 - 85	Aplite, fresh granite, and schist. Sludge varied from milky to grey.

End of hole

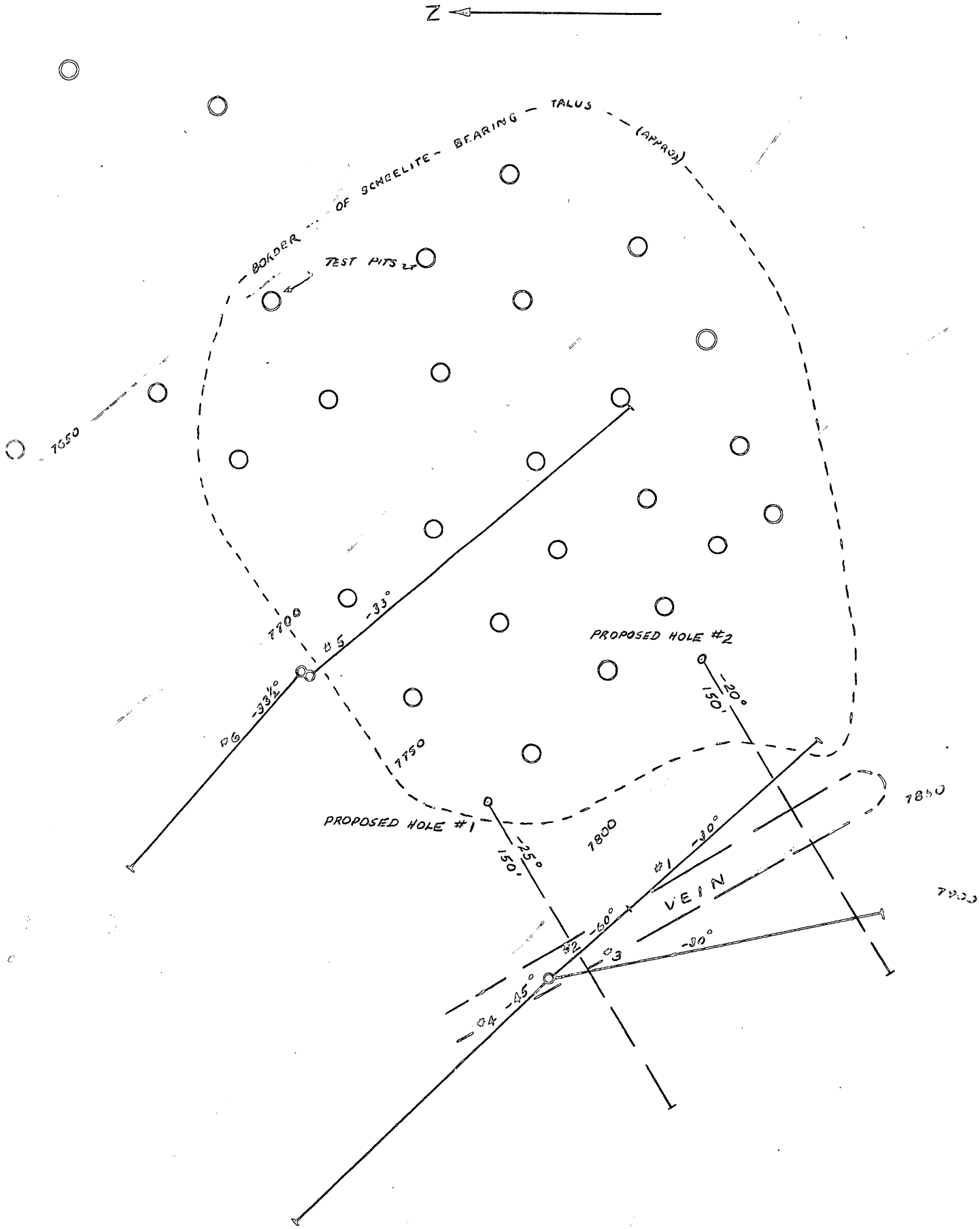
CONSULT ORIGINAL

BRADLEY MINING CO. SUBJECT SPRINGFIELD PROSPECT SHEET NO. 1 OF 2

BY KGH DATE 11/17/52 SCALE 1" = 50' JOB NO.

CHKD. BY DATE CONTOUR INTERVAL 10'

DMEA-3010

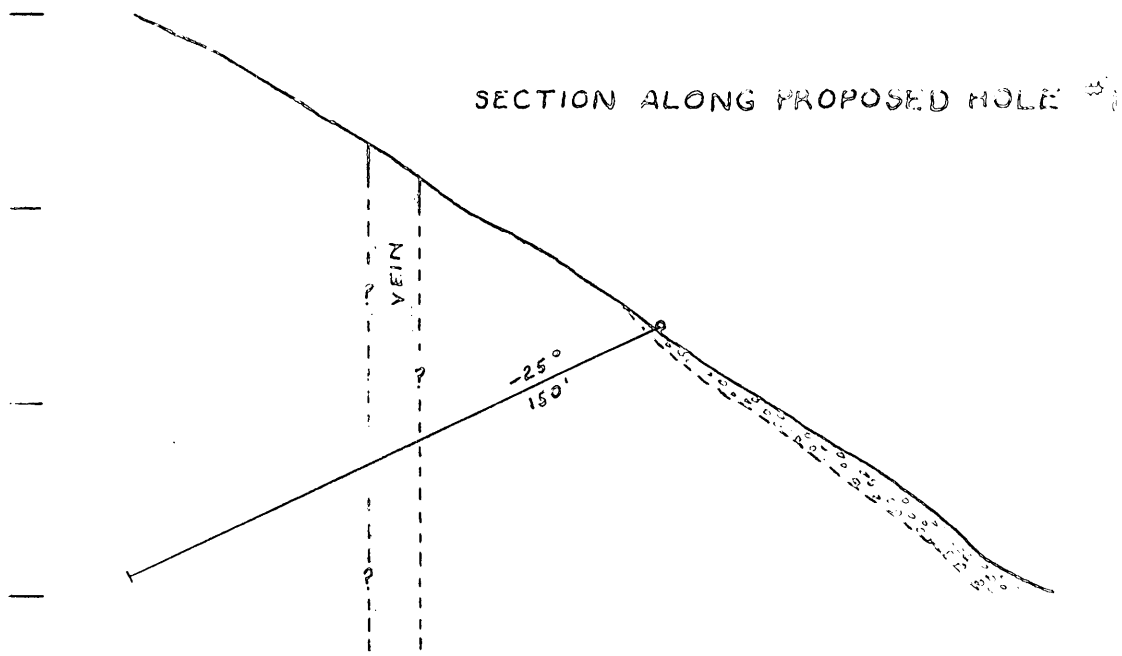


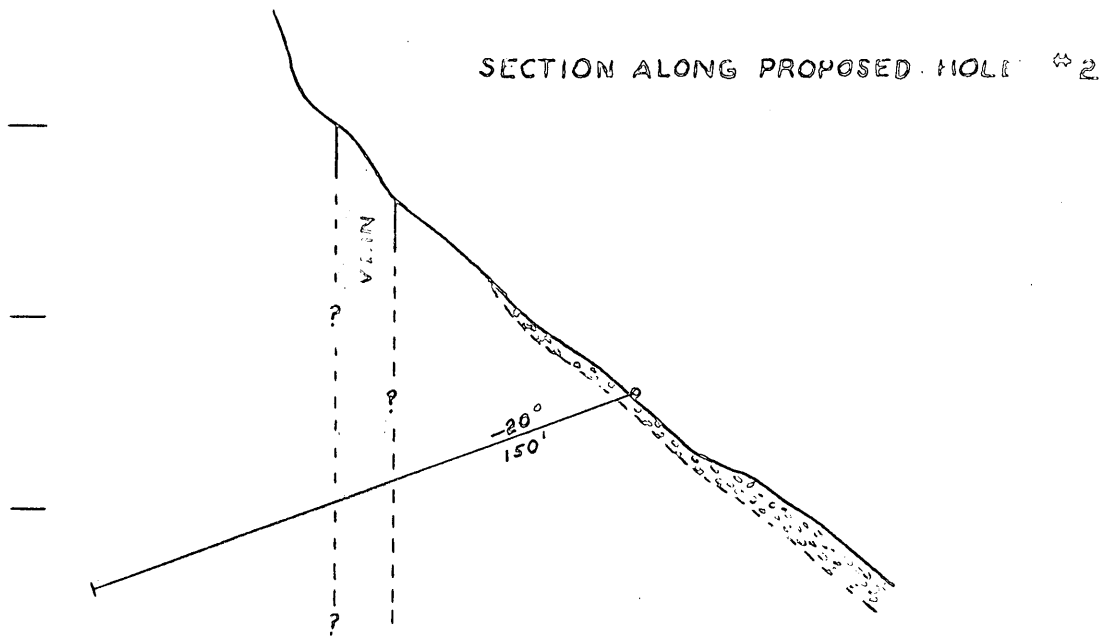
BRADLEY MINING CO. SUBJECT SPRINGFIELD PROSPECT SHEET NO. 2

BY KGW DATE 11/17/52 SCALE: 1" 50' JOB NO.

CHKD. BY DATE

DMEA-3010



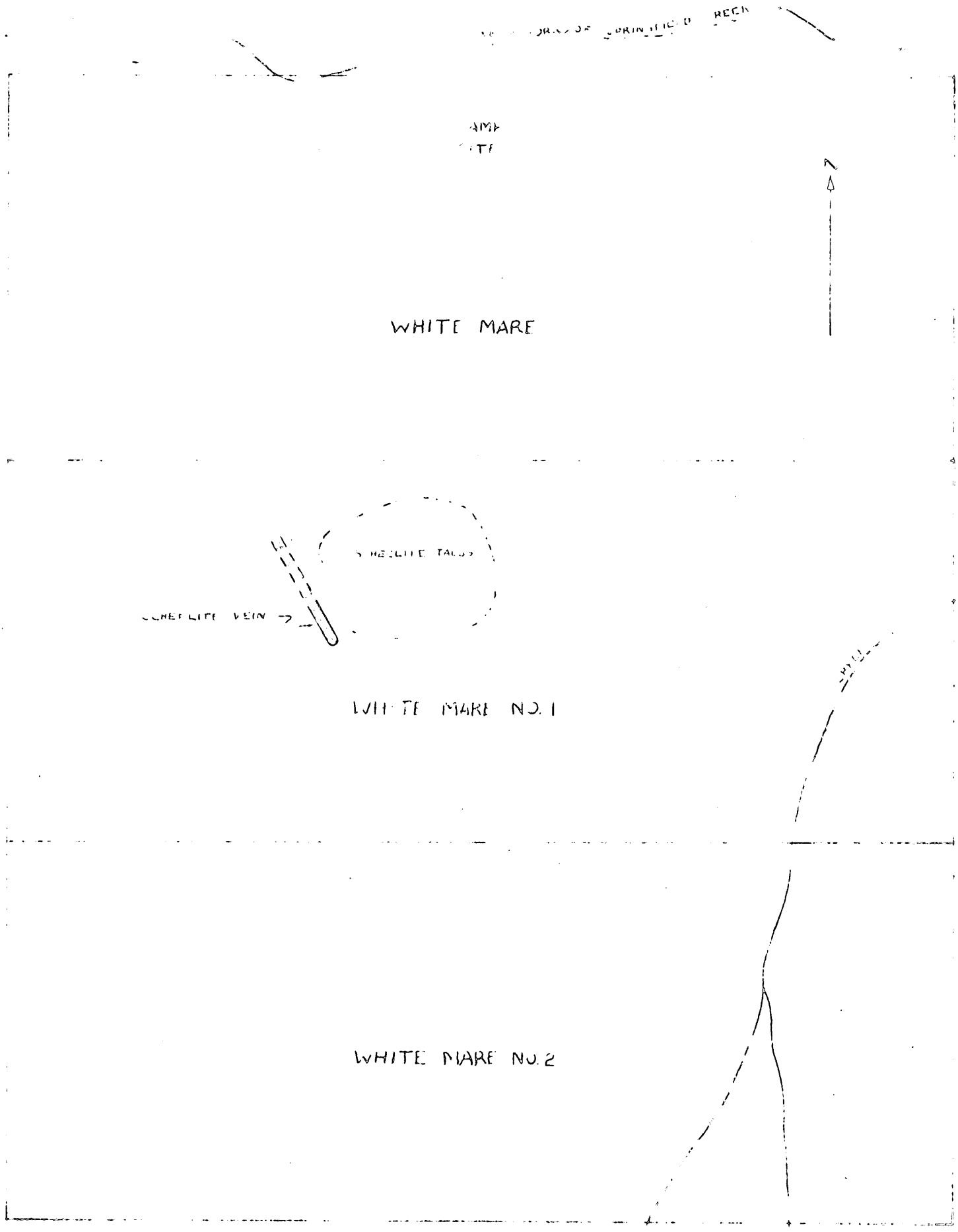


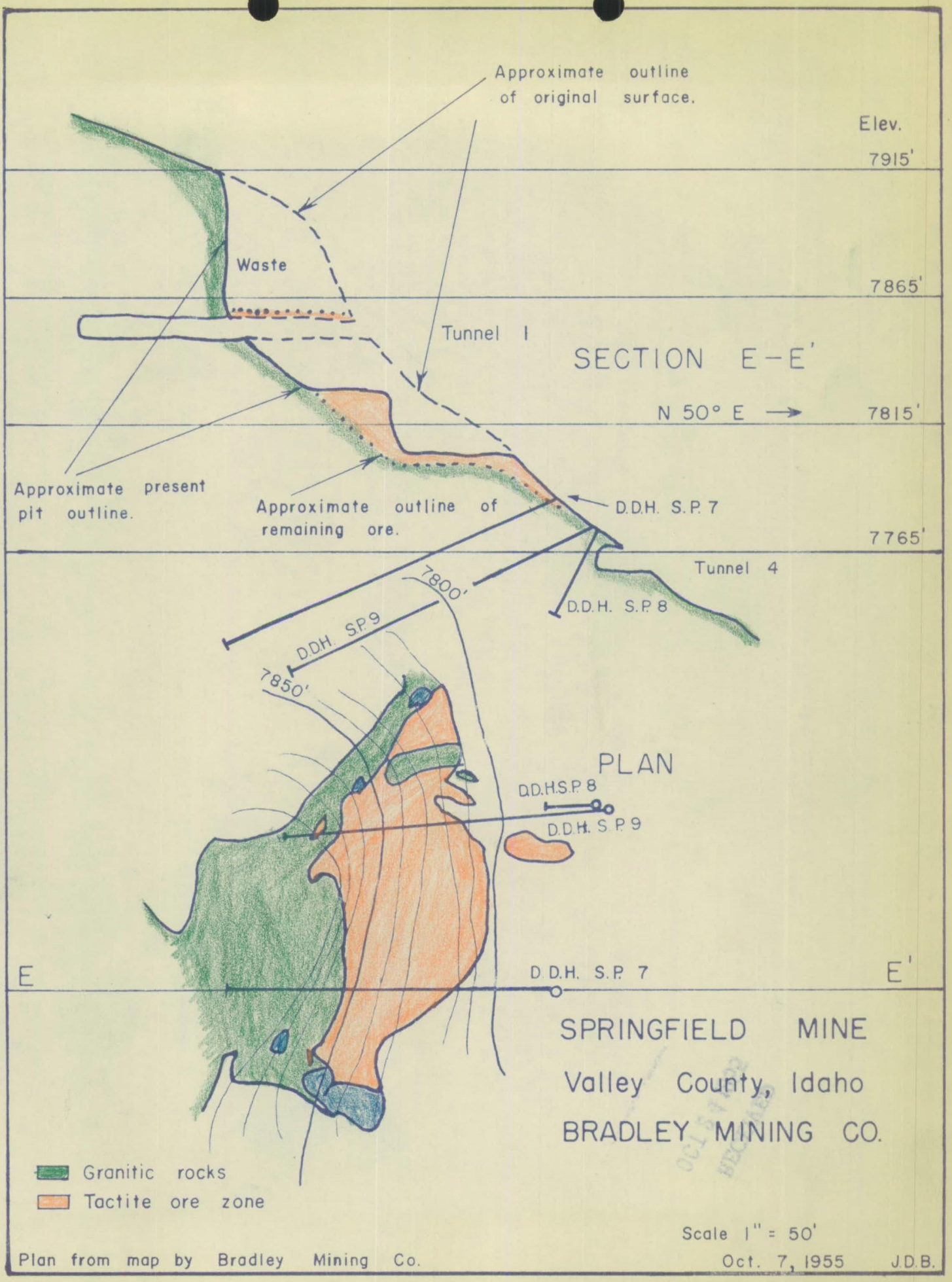
BRADLEY MINING CO. WHITE PROSPECT

BY KAIN DATE 4/6/50 MAP

BY DATE 1 200'

DMEA - 3010




Approximate outline of original surface.
Elev.
7915'
Waste
7865'
Tunnel 1
SECTION E-E'
N 50° E →
7815'
Approximate present pit outline.
Approximate outline of remaining ore.
D.D.H. S.P. 7
7765'
Tunnel 4
7800'
D.D.H. S.P. 8
D.D.H. S.P. 9
7850'
PLAN
D.D.H.S.P. 8
D.D.H. S.P. 9
E
D.D.H. S.P. 7
E'
SPRINGFIELD MINE
Valley County, Idaho
BRADLEY MINING CO.
Granitic rocks
Tactite ore zone
Scale 1" = 50'
Plan from map by Bradley Mining Co.
Oct. 7, 1955
J.D.B.

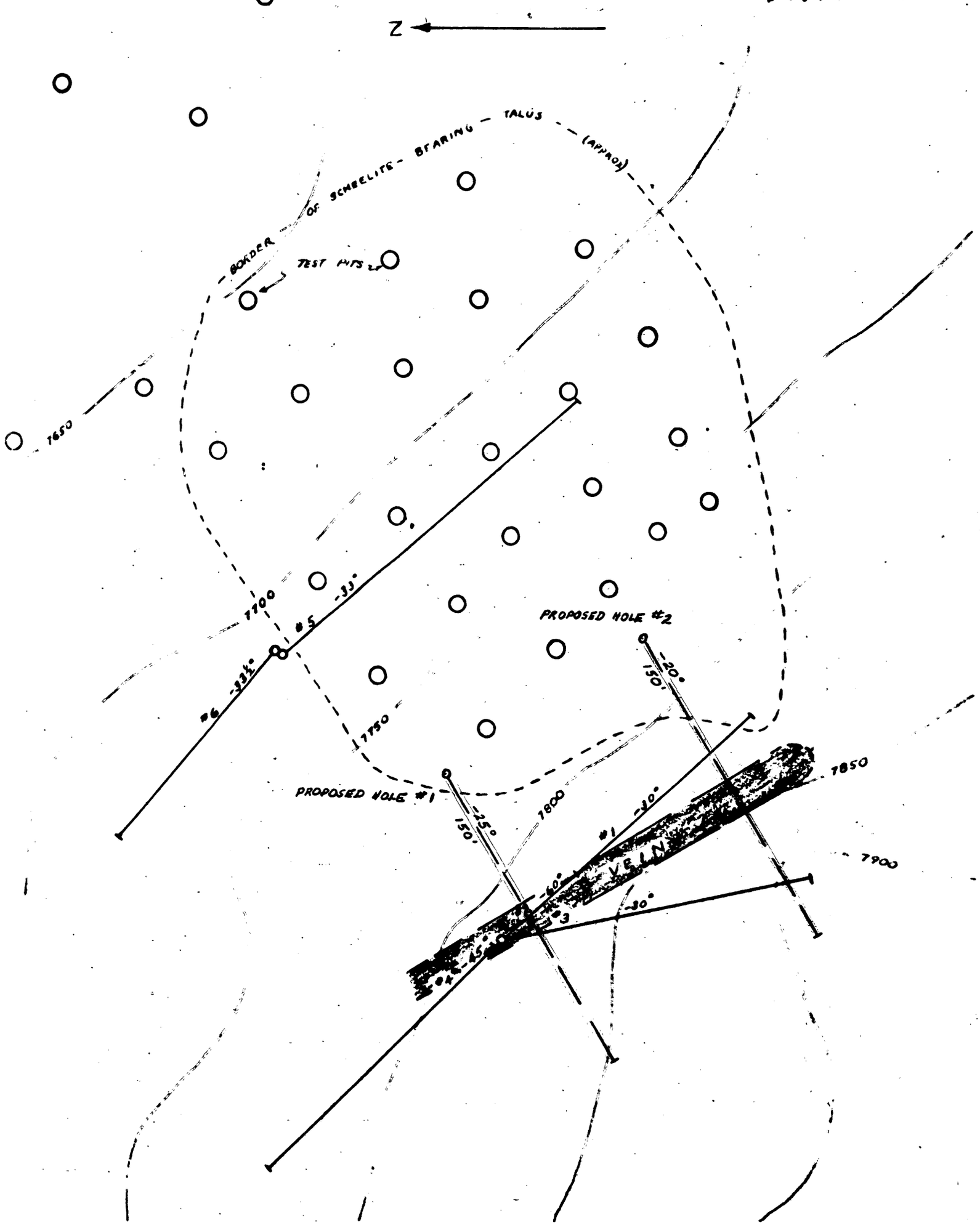
RECEIVED
OCT 24 1955

BRADLEY MINING CO. SUBJECT SPRINGFIELD PROSPECT SHEET NO. 1 OF

BY KGH DATE 11/17/52 SCALE 1" = 50' JOB NO.

CHKD. BY DATE CONTOUR INTERVAL 10'

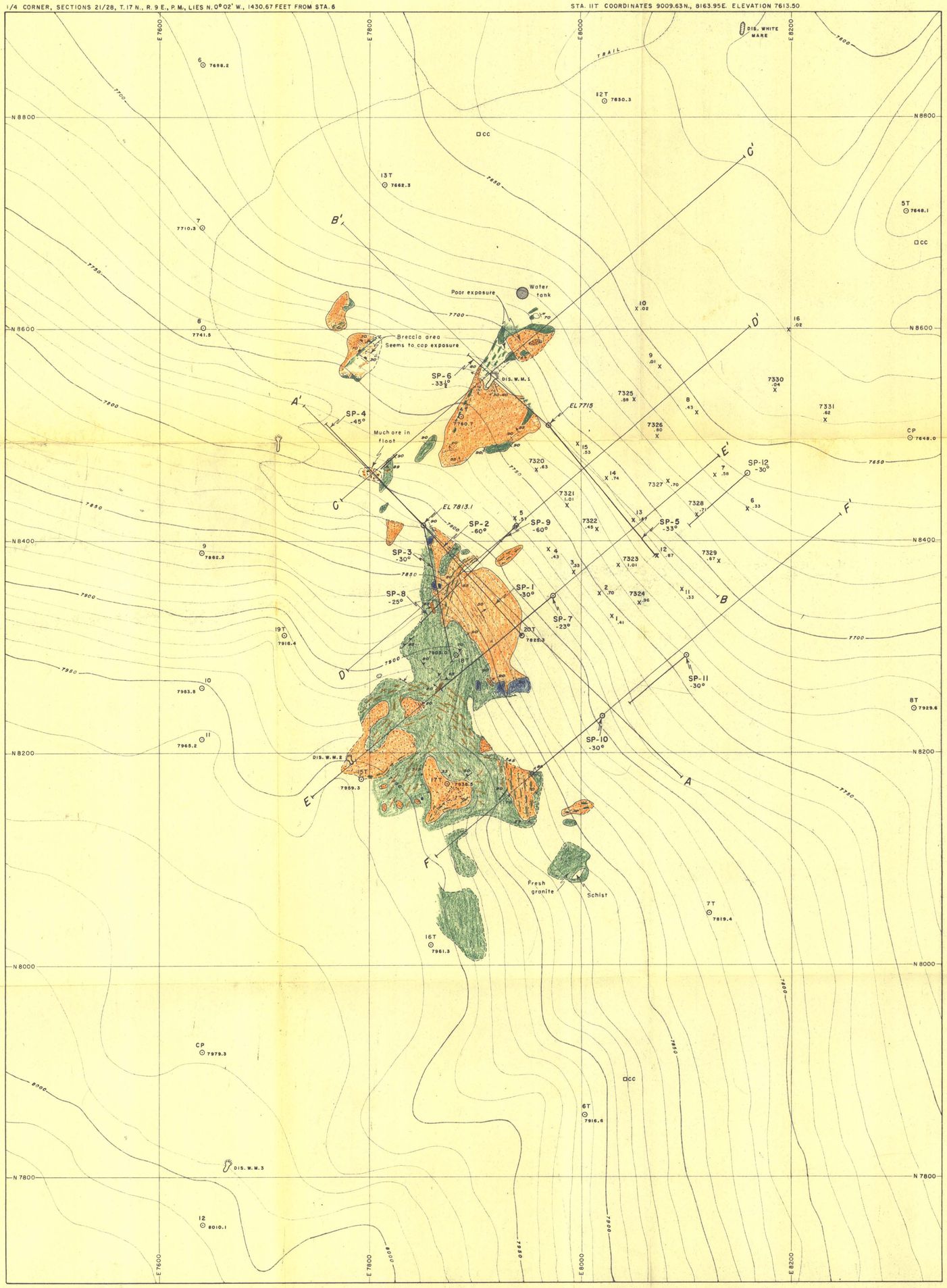
DMEA-3010



1/4 CORNER, SECTIONS 21/28, T.17 N., R. 9 E., P.M., LIES N. 0°02' W., 1430.67 FEET FROM STA. 6

STA. 11T COORDINATES 9009.63N., 8163.95E. ELEVATION 7613.50

DOCKET DMEA 3010



Elevation of station 11T by aneroid from Pistol Rock

Control survey: E. C. De Moss
Topography: Russ Wood

Traverse station elevation at nail ⊙ 7654.3
Claim corner □ CC

Geology and drill data, 1953

EXPLANATION

Granitic rocks — aplite, granite

Iron-stained gossan area

Iron-stained granitic rocks

Marble or limestone

Pit, showing number and percentage WO_3 assay

Survey station, showing number and elevation

Diamond drill hole, showing number and inclination

TRUE NORTH
MAGNETIC NORTH
20½°

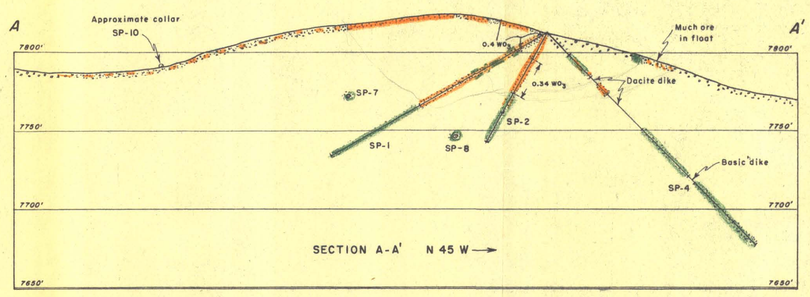
GEOLOGIC MAP OF THE SPRINGFIELD MINE

VALLEY COUNTY, IDAHO

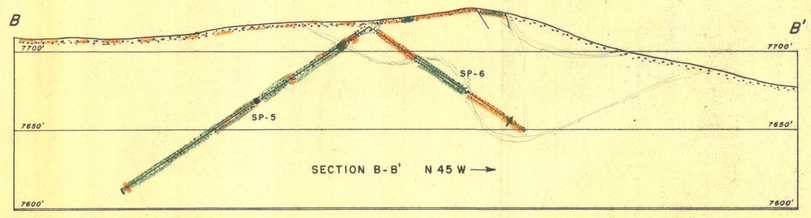
BRADLEY MINING COMPANY

50 0 50 100 FEET

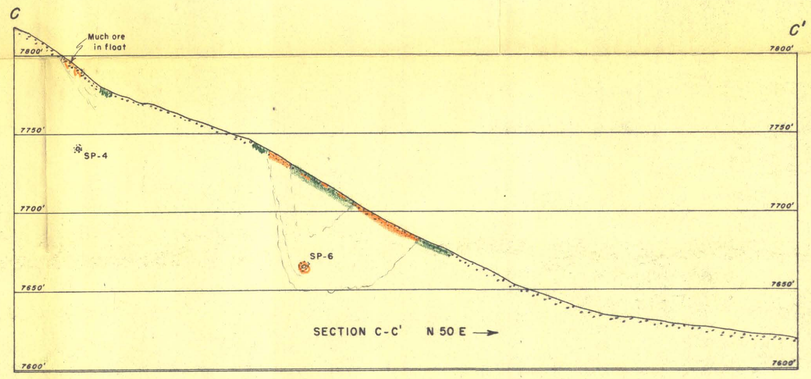
Contour interval 10 feet



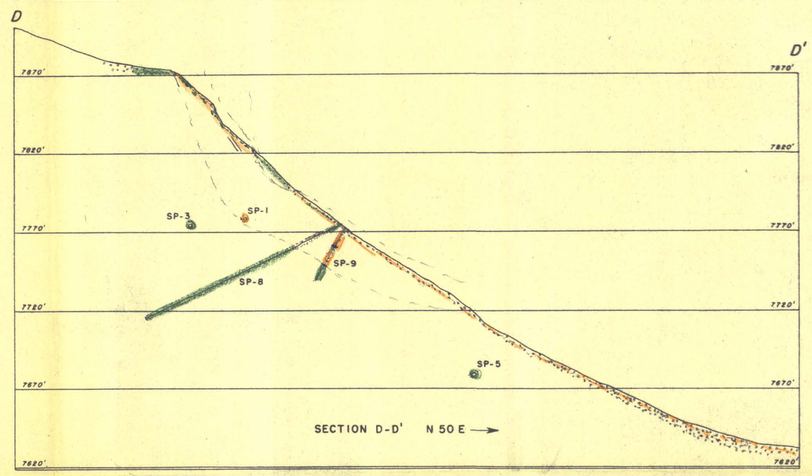
SECTION A-A' N 45 W →



SECTION B-B' N 45 W →



SECTION C-C' N 50 E →



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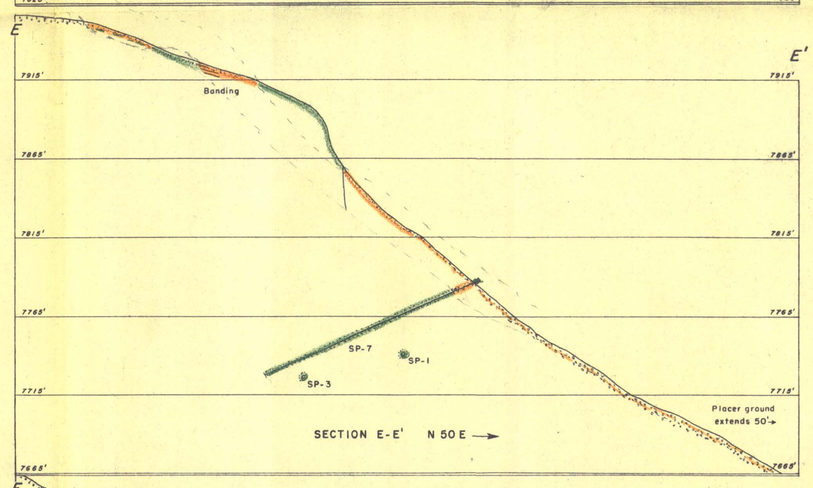

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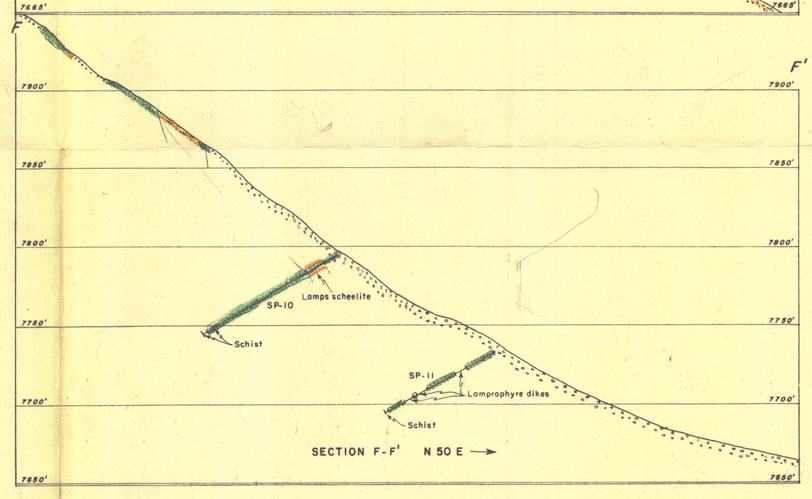
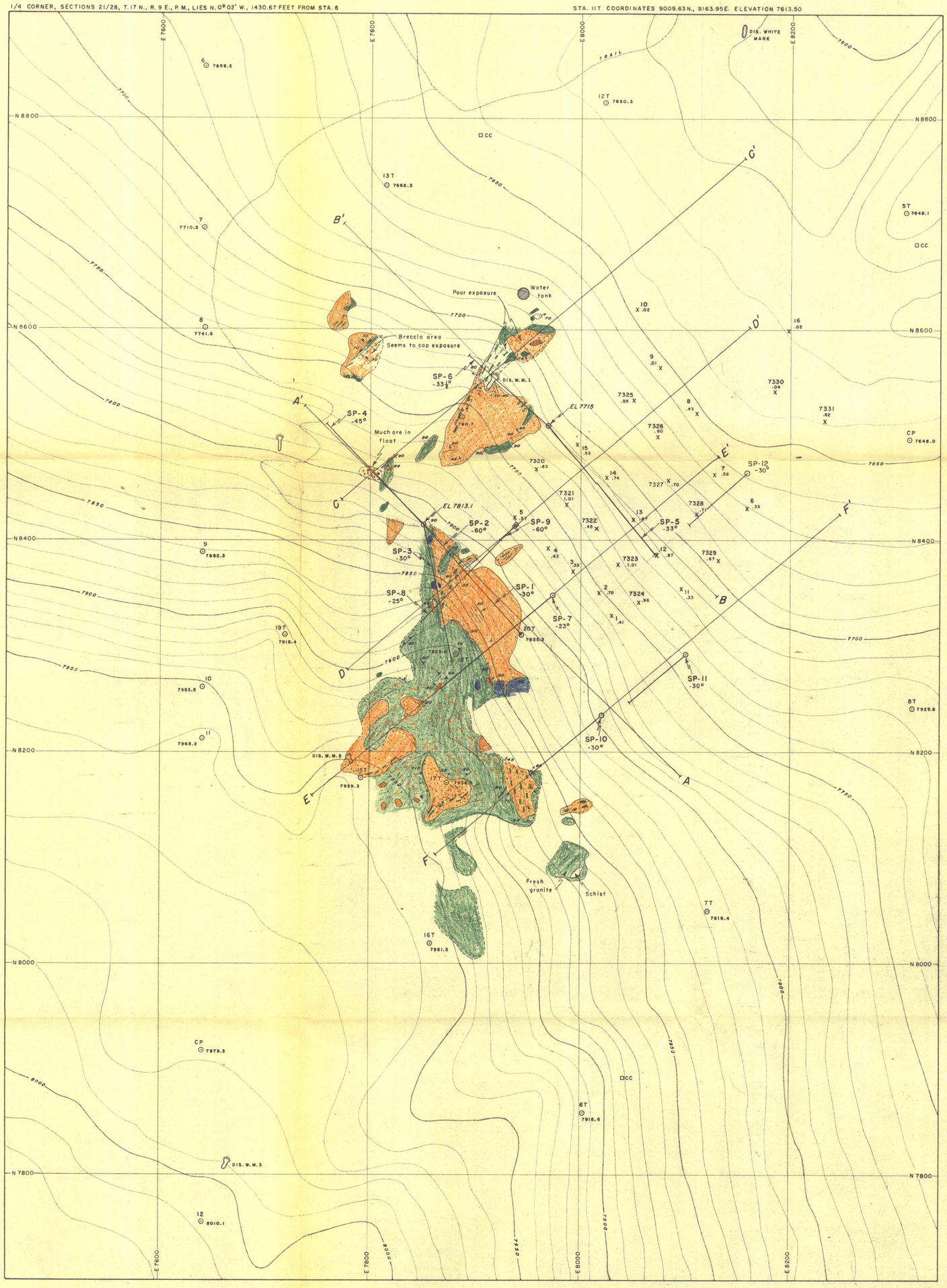


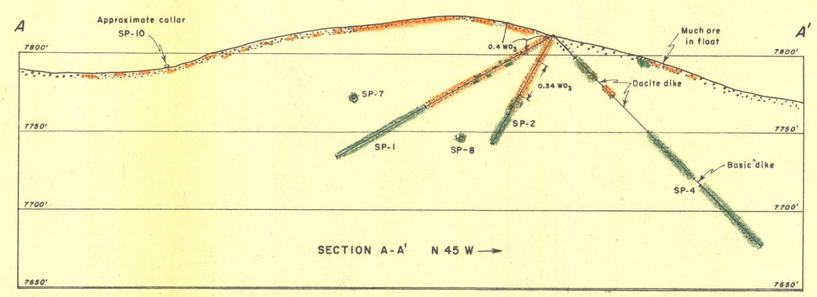
SECTION F-F' N 50 E →

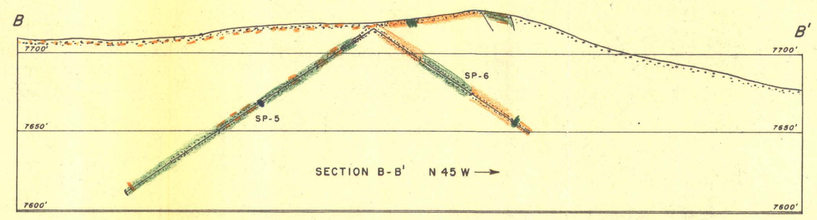
1/4 CORNER, SECTIONS 21/28, T.17 N., R. 9 E., P.M., LIES N.0°02' W., 1430.67 FEET FROM STA. 6

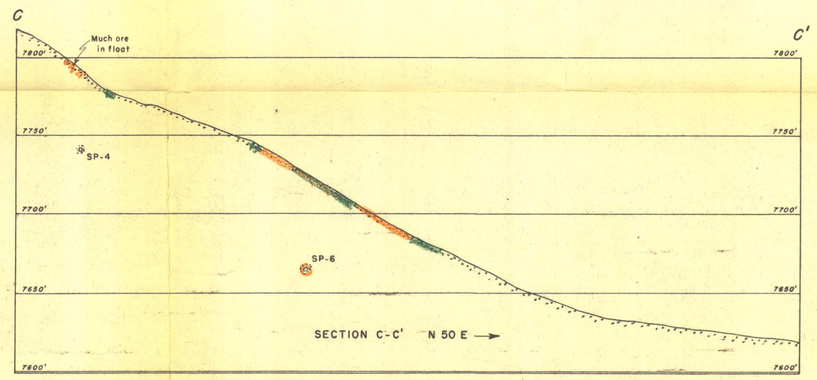
STA. 11T COORDINATES 9009.63N., 8163.95E. ELEVATION 7613.50

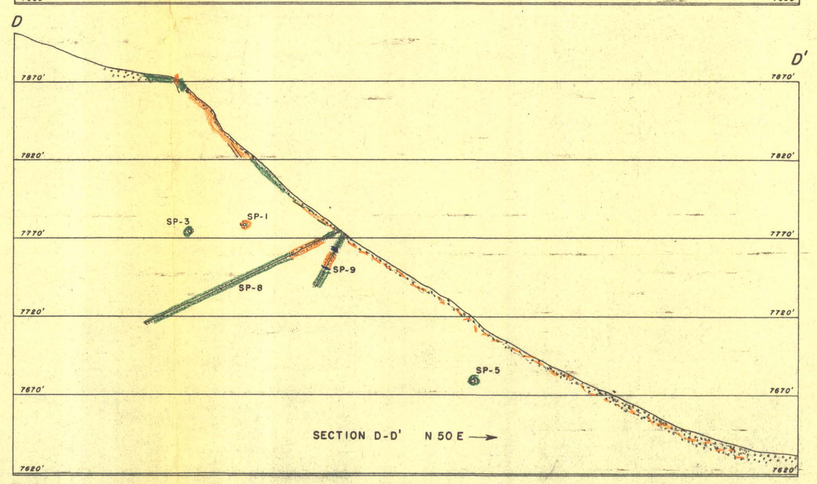
DOCKET DMEA 3010

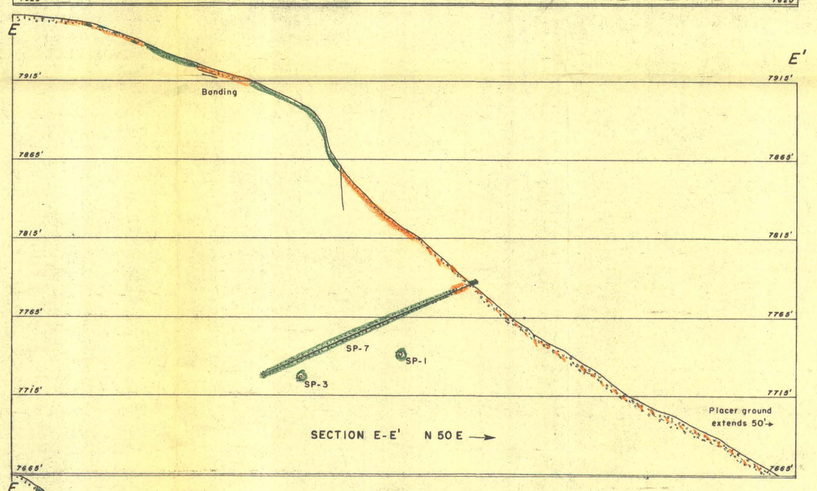


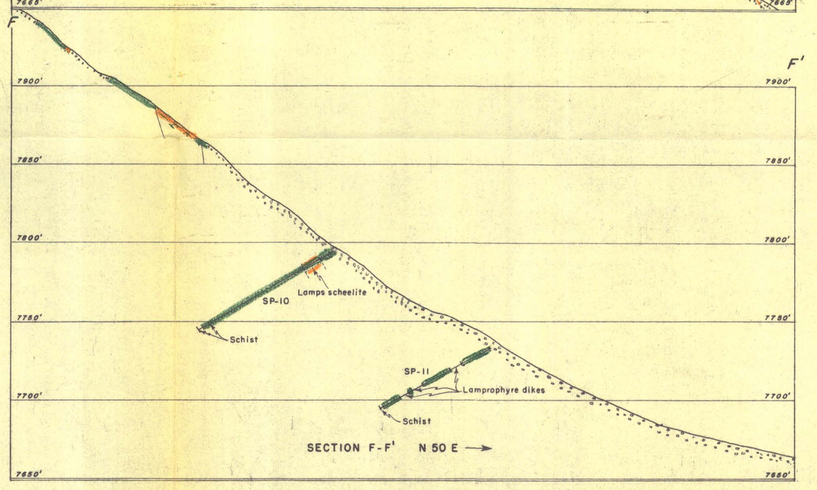












Elevation of station 11T by aneroid from Pistol Rock

Control survey: E. C. De Moss
Topography: Russ Wood

Traverse station elevation at nail ⊙7654.3
Claim corner □CC

EXPLANATION

Granitic rocks — aplite, granite

Iron-stained gossan area

Iron-stained granitic rocks

Marble or limestone

X.57 — Pit, showing number and percentage WO_3 assay

⊙7T 7819.4 — Survey station, showing number and elevation

SP-9 -60° — Diamond drill hole, showing number and inclination

Geology and drill data, 1953

20½°
TRUE NORTH
MAGNETIC NORTH

GEOLOGIC MAP OF THE SPRINGFIELD MINE

VALLEY COUNTY, IDAHO

BRADLEY MINING COMPANY

50 0 50 100 FEET

Contour interval 10 feet

1/4 CORNER, SECTIONS 21/28, T.17 N., R. 9 E., P.M., LIES N. 0°02' W., 1430.67 FEET FROM STA. 6

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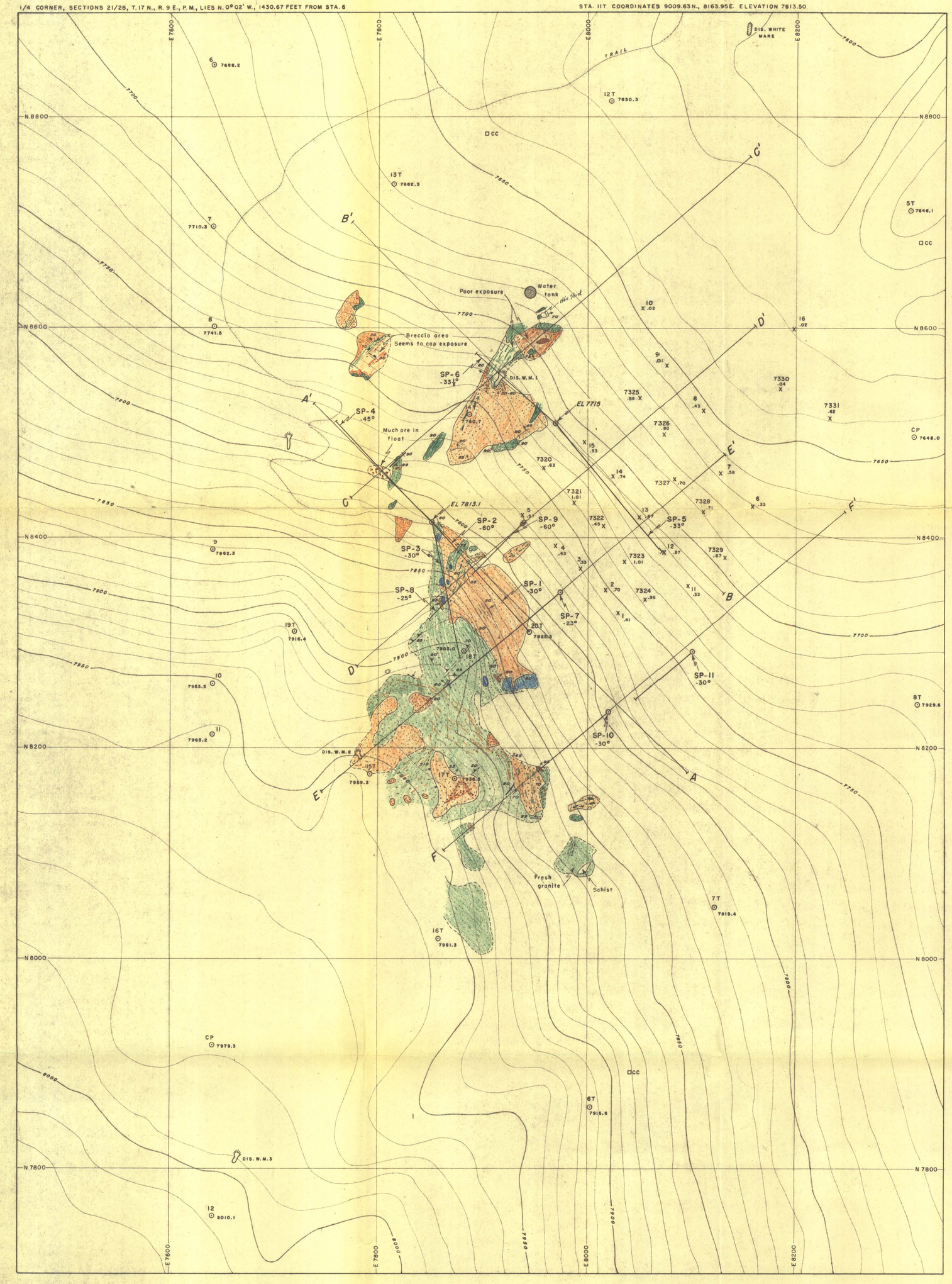

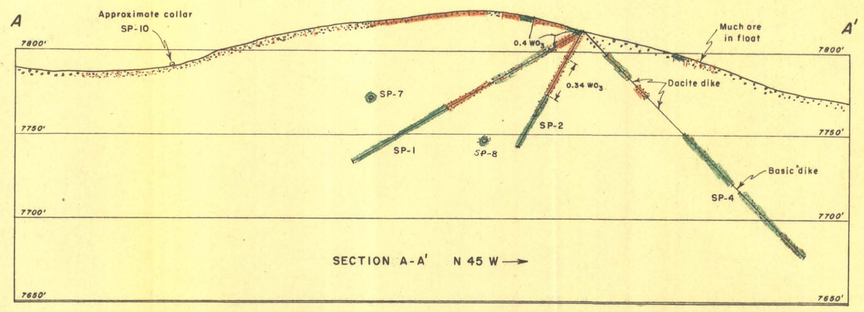

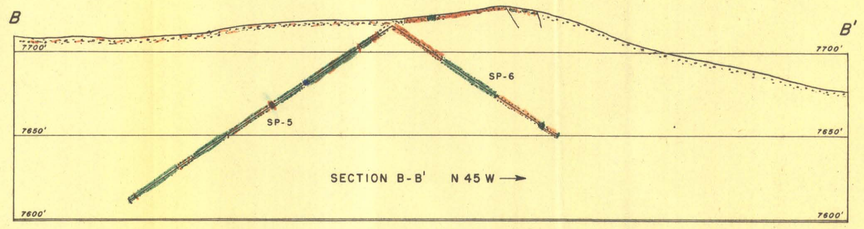

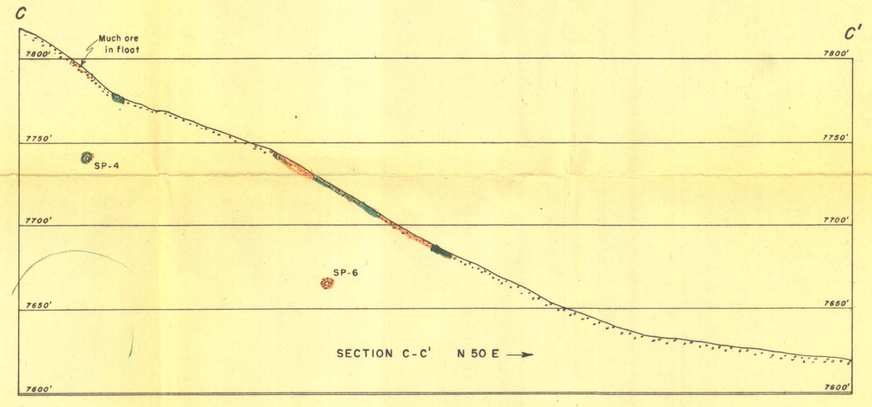

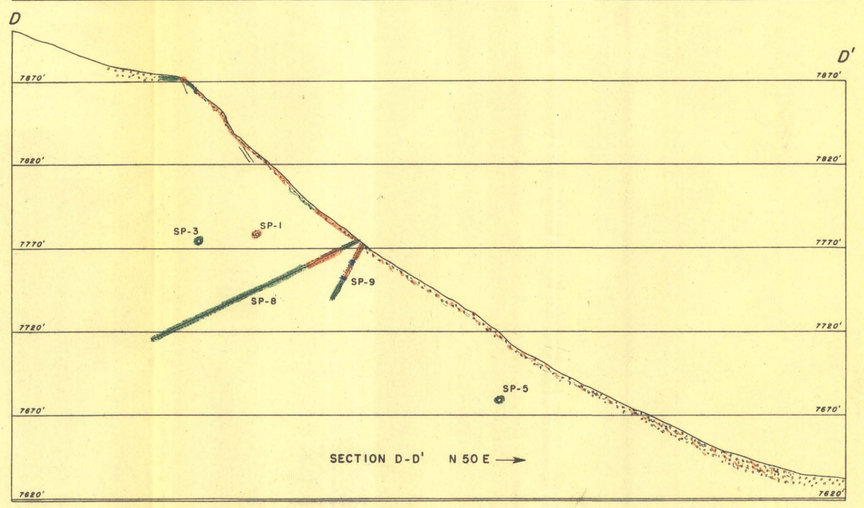

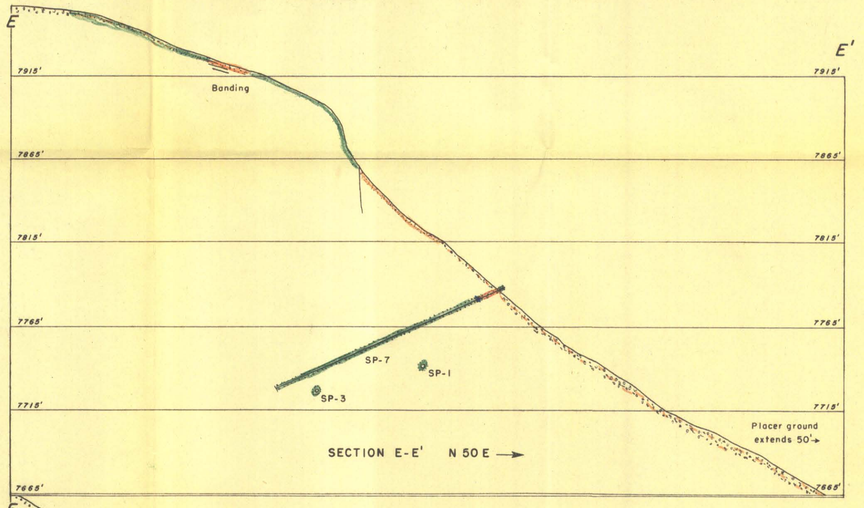

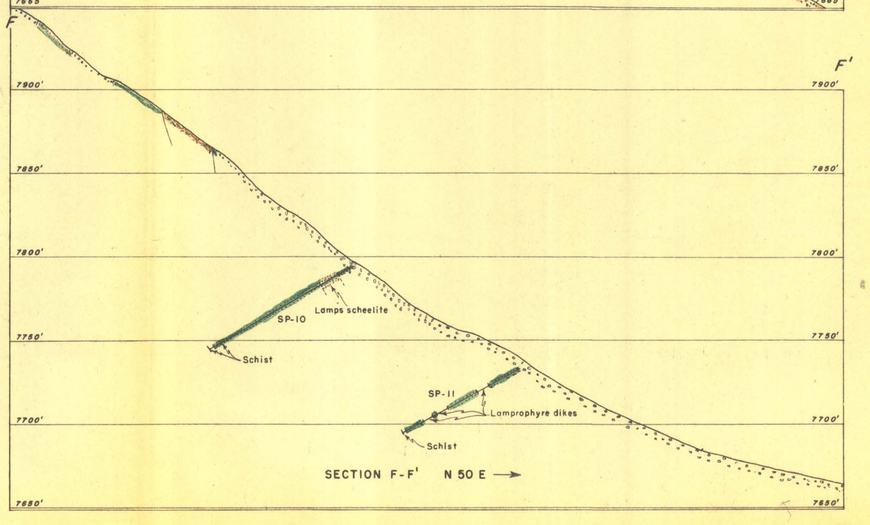

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Traverse station elevation at nail ⊙ 7854.3
Claim corner □ CC

Geology and drill data, 1953

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Iron-stained gossan area

Iron-stained granitic rocks

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$X^{5}_{.57}$ Pit, showing number and percentage WO_3 assay

$\odot^{7T}_{7819.4}$ Survey station, showing number and elevation

SP-9 -60° Diamond drill hole, showing number and inclination

20½°
TRUE NORTH
MAGNETIC NORTH

GEOLOGIC MAP OF THE SPRINGFIELD MINE

VALLEY COUNTY, IDAHO

BRADLEY MINING COMPANY

50 0 50 100 FEET

Contour interval 10 feet