Yes Audited

No Certified

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

Analysis as of
Incl. Voucher for ~~12/15/1954~~

Actual Cost

yes Agreed Unit Costs

Name Albert Robitch & William Brewster

Docket No. ~~DMEA 2548~~

State Colorado

Commodity Tungsten

Idm-E No. ~~416~~

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Diamond AX bits	1,000'	9,650.00	1,000'	9,650.00	9,650.00
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		~~9,650.00~~		~~9,650.00~~	~~9,650.00~~

Prepared by ~~Keating, TLC~~

71626

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Albert Robitsch and William Brewster
(a co-partnership)
P. O. Box 483
Boulder, Colorado

WSM

pertaining to Exploration Project Contract No. E416, Docket No. 2548, and including amendment No. 1, covering a project for exploration of Tungsten, for the months of October 1952 to February, 1953.

My review included an examination of the Monthly Reports (Form MF-104) and supporting documents attached thereto, comparison of costs claimed with the contract and pertinent schedules, consultation with the Executive Officer of the Field Team in charge of the project, and a determination of the reasonableness and propriety of the costs.

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

The contract provides for payment by the Government at the basis of agreed estimated costs of units of work actually performed. Viz 1000 ft. of Diamond Drilling at $9.65 per foot.

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

Total cost as billed by Contractor		$9650.00
Exceptions:		
By DMEA Finance Officer	None	
Herewith	None	None
Total Accepted Cost		$9650.00

The contract calls for a 75 per cent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Seven Thousand Two Hundred thirty-seven Dollars and 50/100

-$7,237.50-

is considered valid and proper.

March 16, 1953

Donald T. Finch

Donald T. Finch, Auditor

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

224 New Customhouse
Denver 2, Colorado

March 18, 1953.

WSM

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region IV

Subject: Operator's Final Progress Report for DMEA Docket 2548 (Tungsten) Contract Idm-E416, Robitsch and Brewster (Dunmore Mine), Ouray County, Colorado.

Enclosed are two copies of the Operator's Final Progress Report MF-104 and MF-104A, Operator's Narrative Report, and other supporting data for the month of February 1953, pertaining to DMEA Docket 2548, Contract Idm-E416, Robitsch and Brewster (Dunmore Mine).

As this contract was prepared on Form MF-200A, there exists no jointly-owned property in which the Government owns an equity.

Forms were processed for payment in conformance with the final Report of Review by the Contract Administration and Audit Division dated March 16, 1953.

Full Government participation at 75 percent amounted to $7,237.50 as allowed by the contract.

There will be no certification of discovery. Copies of Engineer's Final Report, Geologist's Final Report, and Operator's Final Report will be transmitted at a later date after all data has been assembled in this office.

W. H. King

W. H. King

Enclosures

Feb

Feb. 1953

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

254 New Customhouse
Denver 2, Colorado

March 16, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2548, Contract I4s-2416, (Tungsten) Rohitsch and Brewster (Dunmore Mine), Gurey County, Colorado. Operator's Final Progress Report for the period February 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

This report constitutes the Operator's final claim under the contract and is recommended for payment in conformance with the final Audit Report by the Contract Administration and Audit Division dated March 16, 1953.

Payment for Diamond Drill Hole No. 10 is allowable according to Amendment No. 1 to the subject contract.

As stated in the contract original forms are accompanied by certified copies of Diamond Drill Logs.

Amount claimed by the Operator this report	$5,983.00
Disallowances or Reinstatements	None
Payment to Operator at 75 percent	4,487.25

No equity in jointly-owned property purchased under the contract is owned by the Government.

This final check is to be made payable to William E. Brewster at the following address in conformance with an oral request from the Operator:

William E. Brewster
P. O. Box 483
Boulder, Colorado

Remarks:

Date of Report	February 21, 1953.
Date Received in Field Office	February 24, 1953.
Date Received in Region Office	February 27, 1953.
Date Processed for Payment	March 16, 1953.

Held pending receipt of Operator's Final Report and Engineer's Final Report.

W. H. King

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WMTraver
Chron.

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
February 26, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

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

Subject: DMEA 2548, Contract Idm-E416 (Tungsten), Robitsch and Brewster (Dunmore mine), Ouray County, Colorado - Progress Report for February 1953

Enclosed please find the original and four copies of the above progress report on a short form contract--forms MF-104 and MF-104A, with narrative--and the original and six copies of Russell R. McLellan's memorandum covering inspection of the diamond drilling progress. Documentation is not required.

The drilling progress, 620 feet, was found correct as reported in the narrative and on the MF-104A forms and extensions at the allowed unit price of $9.65 per foot drilled are shown correctly on both the reporting forms.

Your attention is directed to the fact that the contract refers the drilling to figure 3 attached to it which shows a total of only 895 feet of drilling and was intentionally made that way to allow for an intermediate hole to test the high-grade ore below the shaft. This hole was drilled to a depth of 105.0 feet to use the 1,000 feet allowed. It is our assumption this will not require an amendment. However, if it does, one should be prepared.

Payment is approved and certified on the MF-104 form of $4,487.25, or 75 percent of the total $5,983.00 claimed by the contractor.

W. M. Traver

W. M. Traver

enclosures

WMT/cb

cc 4
E416
DMEA Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
February 26, 1953

Memorandum

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

From: Russell R. McLellan

Subject: DMEA 2548, Contract Idm-E416 (Tungsten), Robitsch and Brewster (Dunmore mine), Ouray County, Colorado - Progress Report for February 1953

The project was visited on February 19, 1953, by Russell R. McLellan and Wilbert L. Dare of the Bureau of Mines. The final hole was in progress on that date with approximately 38 feet remaining to be drilled to complete the 1,000 feet allowed by the subject contract.

The estimated minimum footage for each hole (fig. 3 with the contract) was exceeded only by 5 feet for the nine holes; therefore, sufficient footage remained to complete one approved intermediate hole directed to locate a possible vertical extension of a high-grade ore shoot between holes 5 and 8. The final hole was drilled to a depth of 100 feet on a bearing of S. 52° W. and at a dip of -60° for a total of 1,000 feet of drilling as specified in the contract.

The project was completed on February 21, 1953, with no significant discovery being made.

Brewster is of the opinion that nothing of commercial value was encountered and wishes to release all core and sludge to the Government for more detailed study. The core and sludge will be picked up on February 26, 1953, and delivered to the Denver Federal Center for examination and storage.

The project was completed in a satisfactory manner and in conformance with the terms of the short form contract. The Government has no equity in equipment; therefore, it is assumed that the contract can be officially closed upon receipt of the final report of the field team.

Payment is recommended of $4,487.25, or 75 percent of the $5,983.00 claimed.

Russell R. McLellan
Russell R. McLellan
Mining Engineer

RRM/cb

cc 6
E416
DMEA Chron

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Feb. 195[illegible] Docket No. DMEA 25[illegible] Contract No. IDM [illegible]
Operator's Name Albert Rebitsch & William A. Brewster Minerals Tungsten
Address P.O. Box 21, Ouray, Colo.
Contract Amount, $9,650.00 Government Participation: 75 % Amount, $7,2[illegible]

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	5,983.00	3,667.00	9,650.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	5,983.00	3,667.00	9,650.00	5,983.00	3,667.00	9,650.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Feb. 21/53 *Payee Rebitsch & Brewster
Per W. E. Brewster Title Partner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4487.25

Signature [illegible]
(Authorized Certifying Officer)
Date 3/16/53 Vou. No. DMA 53-108
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 416 in accordance with the terms of the contract.

Signature R.R. McLellan 4,487.25 Title Mining Engineer Date 2/25/53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R.B.

Signature ..... Title ..... Date .....

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF–104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF–104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF–104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF–104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF–200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF–200; and delete word "Independent" if the contract reported is on Form MF–200 (A). Also, report work paid for on a unit basis under contract Form MF–200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF–104 when submitted for reimbursable expenses incurred under contract Form MF–200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF–200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF–104 is required to be documented. The four copies of Form MF–104 are not to be thus supported.

Form MF–104 submitted for reimbursement under fixed price contracts on Form MF–200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF–104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 23 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Feb. 1953 Docket No. DMEA 2568 Contract No. IDM 2-46
Operator's Name Albert Rohitsch & William R. Brewster Minerals Tungsten
Address P.O.Box 21, Ouray, Colo.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Feet	5,988.00	620	9,650.00	1000	9.65	1000	9.65
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

Date Feb. 21 1953 Operator Rohitsch & Brewster

By Wm C. Brewster Title Partner

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

(Instructions on reverse)

REMARKS: This completes the contract calling for 1000 feet of drilling. So far as can be determined from the cores recovered there does not seem to be any worthwhile discovery made and possibly ends the project, however the sludge samples may show something worth while.
Holes covered in this report are No.s 5,6,1,2,3 and No.10.

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

Ouray, Colo.
P.O.Box 21
Feb.21 1962

Mr. W. M. Traver Jr.
Minerals Resources Branch
Mining Division
Denver 1., Colo.

DMMA 2566,Contract Idm-2410

Dear Mr.Traver:

The enclosed report covers holes No.1,60 Ft.depth,No.2,90 Ft.No.3,121 Ft. No.5,98 Ft.No.6,141 Ft.and No.10,100 Ft. Total for this report 610 Ft. With the van.report of 390 Ft.this finishes the contract for 1000 ft.of diamond drilling.

Unless the sludge samples show something different there appears not to be any discovery made here and I presume that the project can be considered completed.

None of the cores recovered seems to show any worthwhile amount of Tungsten.There is considerable iron in some of it and one piece has what looks like Telluride and might be good in Silver.The sludge samples will evidently show better than the cores when assayed.

Yours Very Truly,

Robitsch & Brewster

Wm E. Brewster

By William E. Brewster.

DMA 2548, Idm-2416

Hole No. 1
Bearing S 18 W
Inclination - 42
Depth 60 feet

Drill Hole Log
Ouray Mine
Ouray Co, Colo.

Footage From	Footage to	Formation
0	60	Rusty quartz containing pyrite - no apparent change of formation. Total recovery 60 percent.

Original Form Certified

DMSA 2548, Idm-2416

Hole No. 2
Bearing S 18 W
Inclination -64
Depth 90 feet

Drill Hole Log
Sunnore Mine
Ouray Co., Colo.

Footage From	Footage To	Formation
0	90	Vuggy quartz containing pyrite - no apparent change of formation. Total recovery 66 percent.

DMRA 2548, Idm-1416

Hole No. 3
Bearing S 18 W
Inclination -78
Depth 131 feet

Drill Hole Log
Dunmore Mine
Ouray Co., Colo.

Footage From	Footage To	Formation
0	31	Vuggy quartz containing pyrite
31	53	Altered quartz - few vugs
53	86	Vuggy quartz containing pyrite
86	96	Altered quartz
96	115	Quartzitic zone, highly altered showing brecciation
115	131	Quartzite

Total recovery 74 percent

DMEA 2548, Idm-E416

Hole No. 5
Bearing S 42 W
Inclination -62
Depth 98 feet

Drill Hole Log
Dunmore Mine
Ouray Co., Colo.

Footage From	Footage To	Formation
0	98	Vuggy quartz containing pyrite - no apparent change of formation. Total recovery 68 percent.

DMEA 2548, Idm-2416

Hole No. 6
Bearing S 42 W
Inclination -77
Depth 141 feet

Drill Hole Log
Dunmore Mine
Ouray Co., Colo.

Footage From	Footage To	Formation
0	36	Vuggy quartz containing pyrite
36	60	Altered quartz showing brecciation, slightly vuggy
60	86	Highly vuggy quartz, little pyrite
86	110	Quartz, altered and vuggy with slight green coloration
110	141	Quartzite

Total recovery 68 percent

DMEA 2548, Idm-E416

Hole No. 10
Bearing S 52 W
Inclination -60
Depth 100 feet

Drill Hole Log
Sunnore Lime
Ouray Co., Colo.

Footage From	Footage To	Formation
0	100	Vuggy quartz containing pyrite - no apparent change of formation. Total recovery 72 percent.

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

224 New Customhouse
Denver 2, Colorado

March 16, 1953.

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 19 1953

WSM

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region IV

Subject: Form MF-104, DMEA Docket 2548, Contract Idm-E416, (Tungsten) Robitsch and Brewster (Dunmore Mine), Ouray County, Colorado. Operator's Monthly Progress Report for the period of January 1953.

Enclosed are two copies of the Operator's Monthly Progress Report MF-104 and 104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data for the month of January 1953, pertaining to DMEA Docket 2548, Contract Idm-E416, (Tungsten) Robitsch and Brewster (Dunmore Mine), Ouray County, Colorado.

W. H. King

W. H. King

Enclosures

Jan

Jan. 1953

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

New Customhouse
Denver 2, Colorado

February 26, 1953

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 19 1953

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2548, Contract Idm-2416 (Tungsten) Robitsch and Brewster (Dunmore Mine) Ouray County, Colorado - Operator's Monthly Progress Report for the period of January, 1953

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report - January 30, 1953
Date Received in Field Office - February 1, 1953
Date Received in Region Office - February 26, 1953
Date Processed for Payment - February 26, 1953

W. H. King
W. H. King

Enclosures

RDB:oc

cc: Contract
Secretary to the Operating Committee (2)
WMTraver
Chron.

region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
February 25, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

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

Subject: DMEA 2548, Contract Idm-E416 (Tungsten), Robitsch and Brewster (Dunmore mine), Ouray County, Colorado - Progress report for January, 1953

Enclosed please find the original and four copies of the above progress report--forms MF-104 and MF-104A, with narrative--and the original and six copies of R. R. McLellan's memorandum covering inspection of the ~~surface~~ diamond drilling progress. The contract is short form MF-200 (A) and supporting documentation is not required.

McLellan and Dare visited the project February 19, 1953, and on that date it was nearing completion. The 380 feet reported was confirmed and entries on the reporting forms, as stated in the narrative, are correct.

Payment is approved and certified of $2,750.25, or 75 percent of the total $3,667.00 claimed by the contractor.

W. M. Traver

W. M. Traver

enclosures

WMT/cb

cc 4
E416
DMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
February 25, 1953

Memorandum

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

From: R. R. McLellan

Subject: DMEA 2548, Contract Idm-E416 (Tungsten), Robitsch and Brewster, (Dunmore mine), Ouray County, Colorado - Progress report for January, 1953

The Dunmore mine was visited by R. R. McLellan and W. L. Dare on February 19, 1953. It will be remembered that the first drilling subcontractor abandoned the job on December 12, 1952. The operator then entered into a drilling contract with Boyles Brothers Drilling Company, of Salt Lake City, and drilling was resumed on January 12, 1953.

The operator is very pleased with the drilling as performed by Boyles Brothers. Core recovery is much better than obtained by the first driller and adequate sludge samples have been taken to supplement core in the ore zone.

At the time of the visit, the project was very near completion as only 38 feet remained to be drilled in the last hole. Notwithstanding machine breakdown, the project should have been completed on February 21. As far as can be determined no tungsten of commercial value has been found. The operator has informed the DMEA representatives that he would prefer that personnel from the Bureau of Mines and Geological Survey examine and log his core in detail. Core and sludge samples will be picked up and stored at the Denver Federal Center.

Although not needed to support his costs under the short form contract, the operator has included invoices from the subcontractor showing the footage drilled in holes 4, 7, 8, and 9. Approval is given to the amount reported and payment is recommended as 75 percent of $3,667.00, or $2,750.25.

R. R. McLellan
R. R. McLellan
Mining Engineer

WLD /cb

cc 6, E416, DMEA Chron.

Form MI-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

DEPT. OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 19 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Jan., 1953 Docket No. DMEA 2548 Contract No. IDM-E 416
Operator's Name Albert Rohitsch & William E. Brewster Minerals Tungsten
Address P.O. Box 21, Ouray, Colorado
Contract Amount, $ 9,600.00 Government Participation: 75 % Amount, $ 7,257.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	$3,667.00	none	$3,667.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$3,667.00	--	3667.00	3667.00	--	3667.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Jan. 30-53 *Payee Rohitsch & Brewster

Per Wm. E. Brewster Title Partner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$2750.25

Signature
(Authorized Certifying Officer)

Date 3/2/53 Vou. No. DMA 53-103

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-46 in accordance with the terms of the contract.

Signature L. L. McLellan 2750.25 WMT Title Mining Engineer Date 2/24/53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R.D.B.

Signature W. H. King Title Executive Officer Date FEB 26 1953

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

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Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED

Month of Jan. 1955 Docket No. DMEA 2548 Contract No. DMA-1-916-1953
Operator's Name Albert Robitsch & William E. Brewster Minerals Tungsten
Address P.O. Box 21, Ouray, Colorado

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Feet	$5,667.00	580	$5,667.00	580	$9.65	1000	$9.65
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Jan. 30 1955 Operator Robitsch & Brewster

Per Wm. E. Brewster Title Partner

Remarks: Completed this month was hole No. 7- 70 Ft. No. 8- 100 Ft. No. 9- 145 Ft. No. 4- 65 Ft. Total this month 380 Ft.

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

Ouray, Colorado
January 30, 1953

Mr. W. M. Traver, Jr.
Denver Federal Center
Denver, Colo.

Dear Mr. Traver:

Relative to the inclosed forms MF-104 and MF-104A. As shown on the Boyles Bros. invoices, holes Nos. 7, 8, 9 and No. 4 have been completed. They were drilled a depth of 70,100,145 and 65 feet. The core recovery was fair, although there were portions in some holes where the recovery dropped down to around 60%, but generally the recovery was around 80%. The sludge samples were saved in all the holes after reaching the ore zone and also before that point was reached if the core recovery was not at its best.

Most holes have to be cemented because of blocking ground, however, it is expected that the driller will complete the drilling by Feb. 20.

Yours very truly,

Robitsch & Brewster
/s/ William E. Brewster
By William E. Brewster

C
O
P
Y

DMEA 2548, Idm-E416

Drill Hole Log
Dunmore Mine
Ouray Co., Colo.

Hole No. 4
Bearing S42W
Inclination - 41
Depth 65 feet

Footage From	Footage To	Formation
0	65	Vuggy quartz containing pyrite - no apparent change of formation. Total recovery 54 percent.

Original Form Certified

DMEA 2548, Idm-E416

Hole No. 7
Bearing S 62 W
Inclination -36
Depth 70 feet

Drill Hole Log
Dunmore Mine
Ouray Co., Colo.

Footage From	Footage To	Formation
0	70	Vuggy quartz containing pyrite - no apparent change of formation. Total recovery 57 percent.

DMEA 2548, Idm-E416

Hole No. 8
Bearing S62 W
Inclination -58
Depth 100 feet

Drill Hole Log
Dunmore Mine
Ouray Co., Colo.

Formation From	Formation To	Formation
0	100	Vuggy quartz containg pyrite - no apparent change of formation. Total recovery 72 percent.

Hole No. 9
Bearing S 62 W
Inclination -76
Depth 145 feet

Drill Hole Log
Dunmore Mine
Ouray Co., Colo.

Footage From	Footage To	Formation
0	28	Vuggy quartz containing pyrite
28	41	Altered quartz, few vugs, red coloration
41	57	Vuggy quartz, altered and brecciated
57	68	Altered quartzite, green coloration
68	101	Altered quartzite
101	145	Quartzite with slate bands.

Total recovery 63 percent.

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

224 New Customhouse
Denver 2, Colorado

January 9, 1953

Dec

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
1953

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Form MF-104 DMEA Docket 2548, Contract Idm-E416 (Tungsten), a partnership consisting of Albert Robitsch and William Brewster, Ouray County, Colorado

Enclosed are two copies of the Operator's Monthly Progress Report Form MF-104, and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data for the period of December, 1952, pertaining to DMEA Docket 2548, Contract Idm-E416, Albert Robitsch and William Brewster, Ouray County, Colorado.

W. H. King
W. H. King

Enclosures

Dec

Dec 1952

No Payment Made

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 1 1953

January 7, 1953

Progress
Report - Nov. & Dec. 1952

Albert Kobitsch and William E. Brewster
P. O. Box 21
Ouray, Colorado
Contract I-DMA-E-416

675.50

675.50

000.00

Entire amount disallowed. Work was not satisfactory as to the exploration project and was not acceptable to project engineers.

Any claim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

Albert K. Olson

Audit section

A-Veg & P Form No 4

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

224 New Customhouse
Denver 2, Colorado

January 5, 1953

Memorandum

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
DENVER
JAN 1 1953

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2548, Contract Idm-E416 (Tungsten), A partnership consisting of Albert Robitsch and William Brewster, Ouray County, Colorado - Operator's Monthly Progress Report, for the months of November and December, 1952

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

The entire amount of $675.50 claimed by the operator is disallowed because the work was not performed in a satisfactory manner or to the best interest of the exploration project. Core recovery was extremely low and sludge was not recovered as specified in the contract. Therefore, it is deemed that the 70 feet of hole drilled was of no benefit to the exploration project.

Engineering certification has been omitted from the MF-104 forms.

W. H. King
W. H. King

Enclosures

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20
Denver Federal Center
Denver 14, Colorado
December 29, 1952

Memorandum

To: Executive Officer, Field Team, Region IV

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

Subject: DMEA 2548, Contract Idm-R416 (Tungsten), Robitsch and Brewster (Dunmore mine), Ouray County, Colorado - Progress report for November and December 1952

Please find enclosed the original and four copies of the initial progress report on the above short form contract--forms MF-104 and MF-104A, with narrative--and seven copies of Russell R. McLellan's memorandum covering inspection of the progress and accounts.

Drilling operations under subcontract started November 29, 1952, according to the operator's notification and notation on the MF-104A forms. Only one signed copy of his narrative was provided.

The work was not performed in accordance with the terms of the contract and, consequently, the reports submitted to you uncertified as payment cannot be approved. The one hole drilled is a complete loss as far as the project is concerned and the operator should probably be instructed to negotiate a new contract with a reputable drill contractor and advised that he should scrutinize the contract carefully before signature.

W. M. Traver, Jr.

W. M. Traver, Jr.

enclosures

WMT/eb

cc 4
AHKoschmann
R416
DMEA Chron

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20
Denver Federal Center
Denver 14, Colorado
December 29, 1952

1/14/53

Memorandum

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

From: Russell R. McLellan

Subject: DMEA 2548, Contract Idm-R416 (Tungsten), Robitsch and Brewster (Dunmore mine), Ouray County, Colorado - Progress report for November and December 1952

The project was visited on December 17, 1952, by W. L. Dare and Russell R. McLellan. Robitsch and Brewster stated that the diamond drill contractor had abandoned the job at the completion of one hole on December 12, 1952. According to the operators, the contractor would not continue unless the hole size could be reduced from AX to EX. The contractor removed all drilling equipment from the mine when the request to reduce the hole size was denied by the operator.

Upon examining the core, it was obvious that very poor drilling technique was employed. Most of the drill runs were long, undoubtedly resulting in excessive core loss. Sludge was recovered only for the final 8 feet of drilling. The container for catching sludge was a gold pan, which was entirely inadequate. Although Robitsch and Brewster were responsible for furnishing proper containers for core and sludge, according to a letter from the drill contractor, W. A. Rogers, to Brewster, the driller was to show Brewster what constitutes acceptable containers. This was not done by the driller or by Rogers when he was on the job as a supervisor.

The following log was prepared by the examining engineer from the single box of core:

Pull No.	From Feet	To Feet	Distance Feet	Core Recovery Feet	Formation
1	0	10	10	0.7	Vuggy quartz
2	10	19	9	1.8	" "
3	19	29	10	1.8	" "
4	29	34	5	1.3	" "
5	34	37	3	2.7	" "
6	37	40	3	2.6	" "
7	40	43	3	2.4	" "
8	43	55	12	2.7	" "
9	55	62	7	1.2	" "
10	62	70	8	0.8	Small crystals of hubnerite visible in two pieces of core

From 70 feet of drilling only 18.0 feet of core was recovered. It should be noted that good recovery was obtained when the drill runs did not exceed 3 feet, but apparently the driller did not attempt to make short runs consistently for the purpose of saving core. Since a few crystals of hubnerite were observed in core from the final run, the hole should have been extended at least an additional 5 feet, but the contractor left the job before the core could be examined carefully. The two sludge samples will be of little value except for qualitative purposes.

The work of the drill contractor has been so completely unsatisfactory that, in the best interest of the project, Robitsch and Brewster probably should be advised that, if they so desire, they should take steps to terminate the subcontract with the driller. Although the Government is not concerned directly with the subcontract, Robitsch and Brewster will need advice in the matter.

At least one additional hole should be attempted by an experienced driller to ascertain the true nature of the ground. There is little doubt that by carefull drilling good core recovery could be obtained; however, it is possible that the rock may be so hard and so fine-grained that bit costs will be prohibitive for a total of nine holes. Brewster received drilling estimates from

Joy Manufacturing Company and from Boyles Brothers Drilling Company. It is possible that one of these companies will be interested in completing the job.

Brewster's suggestion that he rent Roger's outfit and hire a driller would probably not prove satisfactory. It is doubtful that a driller with sufficient experience can be hired outside the larger drilling companies. In addition, Brewster and Robitsch are completely inexperienced in diamond drilling methods and procedure. As long as the success of the project will depend largely upon the driller and his supervisor, it seems advisable to place the job in the hands of a reputable drilling company, if possible.

Brewster has submitted a set of five MF-104 forms but only one copy of a narrative report. Seventy feet of drilling at $9.65 per foot for a total of $675.50 is correct as entered on the forms, but there is some question as to the fulfillment of the terms as specified in the DMEA contract. The contract states that sludge samples must be collected at 5-foot intervals. Consequently, no single drill run should have exceeded 5 feet. Only two sludge samples were collected and six of the ten drill runs exceeded 5 feet in length.

Payment of $506.62, or 75 percent of the $675.50 claimed, cannot be recommended unless the sludge sample clause of the contract is waived for this occasion.

Russell R. McLellan

Russell R. McLellan
Mining Engineer

RRM/cb

cc 6
AHKoschmann
E416
DMEA Chron

Form MF-104 (Rev.)
(April 1952)

UNITED ST[illegible]
DE[illegible]RTMENT OF [illegible]ERIOR
DEFENSE MINERALS EXPLOR[illegible] [illegible]INISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 1 4 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December, 1952 Docket No. DMEA 2548 Contract No. IDM-2416 1/14/53

Operator's Name Albert Rehitsch & William E. Brewster Minerals Tungsten

Address P.O.Box 21, Ouray, Colorado

Contract Amount, $ 9,650.00 Government Participation: 75 % Amount, $ 7,237.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:	(675.50)		(675.50)			
Drilling	~~506.63~~	none	~~506.63~~			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
	(675.50)					
TOTALS	~~506.63~~			00	00	00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Dec. 20 1952 *Payee Rehitsch & Brewster

Per Wm E. Brewster Title Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ —0—

Signature Ashel R. Olson
(Authorized Certifying Officer)

Date 1-7-53 Vou. No.
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. ..... in accordance with the terms of the contract.

Signature ..... Title ..... Date .....

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature ..... Title Executive Officer Date DEC 29 1952

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

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(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

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Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

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Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED S[illegible]
DEPARTMENT OF T[illegible] INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 1[illegible] 1953

Month of December 195[illegible] Docket No. DMEA 2546 Contract No. IDW- E416
Operator's Name Albert Robitsch & William E. Brewster Minerals Tungsten
Address P.O. Box 21, Ouray, Colorado

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes	(Feet)	(675.50)		(675.50)		(675.50)		
Drilling: Core	1300	509.55	70 Ft.	509.55	70 Ft.	509.55	1000 Ft	49.65
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Dec. 20 52 Operator Robitsch & Brewster

Per Wm E. Brewster Title Manager

Remarks: Compressors were moved to this job on Nov. 4th. We begin drilling and shooting out drill station about Nov. 10th. The diamond drill began work on Nov. 20. The drill contractor worked six days between the 29th. of Nov. and 12th. of Dec. He is not working now.

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

COPY

Ouray, Colo.
Dec. 21, 1952
Box 21

Mr. W. M. Traver, Jr.
Bureau of Mines
Denver, Colo.

Dear Mr. Traver:

The Engineers that were over here last week instructed me to mail my monthly report now, since the contractor had gone from the job, having jumped his contract to do the diamond drilling.

I am enclosing those reports herein but I think I made a mistake by first figuring on the Government's portion of the cost as a basis of cost instead of using the total of $9.65 per foot. If these reports are not useable this way please send me a new set of reports and I will correct them.

It is regretable that the ground was so hard at the beginning of this job, but I think that had the driller continued that it would not have all been as hard as the first hole was. He did drill 29 feet on his second day's drilling, which was above the average days drilling.

I would like to go ahead with the drilling as we were at a very heavy cost in making everything ready to do this drilling. Mr. Rogers offered to rent us his drill outfit to finish it with, provided we could hire a good driller to do the job, do you favor such a basis? We would have to buy our own bits. It appears that we would have to buy the bits used by Mr. Roge_s if we abided by his charges sent to me here, a copy of which you have likely seen by this time.

Yours very truly,

/s/ Wm. E. Brewster

Yes Audited

No Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of 12/15/1954
Incl. Voucher for

Actual Cost

yes Agreed Unit Costs

Name Albert Robitch & William Brewster

Docket No. DMEA-2548

State Colorado

Commodity Tungsten

Idm-E No. 416

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Diamond AX bits	1,000'	9,650.00	1,000'	9,650.00	9,650.00
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		9,650.00		9,650.00	9,650.00

Prepared by Keating, TLC

71626

SEP 3 1953

Messrs. Robitsch and Brewster
P. O. Box 483
Boulder, Colorado

Re: Docket No. DMEA 2548 - Tungsten
Dunmore and Yankee Lad claims
Ouray County, Colorado
Contract No. Idm-2416

Gentlemen:

This is with reference to the subject exploration project contract between Robitsch and Brewster, partners, and the Government.

The final audit of the contract expenditures and the final reports of the Operator and the Field Team have been received and accepted by this Administration. The total amount of $9,650.00 approved under the contract was expended, 75 percent of which,, or $7,237.50, represented the Government's share. There were no unused supplies, material, or equipment to be disposed of for the joint account of the Operator and the Government. The exploration work was completed in a satisfactory manner.

Because the results of the exploration were unfavorable, it is not our intention to make a certification of discovery or development which would create a lien against the subject property. We are, therefore, closing our books and records with respect to this project. Your attention is called, however, to Article 5(d) of the Contract which requires the Operator to "keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract."

Your interest in the Exploration Program of the Defense Minerals Exploration Administration and your willingness to participate therein are appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

FARutledge:foc
8-26-53
cc: Docket
Code 400
Oper. Comm.
Adm. Reading File
FT. Reg. IV
Mr. Geehan, USBM
Mary Miller, USGS.

SEP 3 1953

Memorandum

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Memorandum of Non-Discovery
Docket No. DMEA 2548 - Tungsten
Robitsch and Brewster
Dunmore and Yankee Lad claims
Ouray County, Colorado
Contract No. Ibs-4416

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

A description of the property, the work done, and the results obtained follow:

1. The exploration project was conducted on the Dunmore claim located in T. 43 N., R. 7 W., N.M.P.M., about 3 miles south of Ouray, Colorado.

2. The mineral sought was hubnerite which occurs in an elliptical breccia pipe.

3. The applicants proposed raising to the surface from the tunnel level on a known ore shoot. Because this work would be development and not exploration, the program was revised to one that would explore for downward extensions of the ore shoot by diamond drilling from the tunnel level.

4. Exploration started December 12, 1952, and was completed February 21, 1953. Ten holes aggregating 1,000 feet of drilling were completed. The results were nil. Since the holes were closely spaced both

horizontally and vertically, it must be concluded that the disseminated hubnerite and the lenticular ore bodies of ore do not extend below the tunnel level, at least to the level of the lower holes, 135 feet below the tunnel level.

5. Total costs incurred were 1,000 feet of drilling @ $9.65 per foot - $9,650.00.

SIGNED

F. A. Rutledge, Acting Chief
Iron and Ferro-Alloys Division

FARutledge:foc
8-26-53
cc: Docket
Code 400
Adm. Reading File

400

AUG 31 1953

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

Re: Docket No. DMEA 2548 - Tungsten
Hobitsch and Brewster
Dunmore and Yankee Lad claims
Ouray County, Colorado
Contract No. Idm-5-416

Dear Mr. King:

This will acknowledge receipt of your letter of August 17, 1953, noting that the requested Field Team final reports had been forwarded to Washington by letter of April 16, 1953.

In rechecking, we now find that the referenced reports were received in Washington but inadvertently were misrouted and not referred to the Iron and Ferro-Alloys Division.

Sincerely yours,

Ernest Wm. Ellis

ACTING Chairman, Operating Committee

APPROVED:

M. H. Kline

Member, Bureau of Mines

D. M. Lemmon

Member, Geological Survey

Copy to: DOCKET
Adm. Read. File
Code 400
Operating Committee

FAHutledge/ls
8/26/53

224 New Customhouse
Denver 2, Colorado

August 17, 1953

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA-2548 (Tungsten), Contract Idm-E416, Albert Robitsch and William Brewster

Reference is made to the letter dated August 11, 1953, signed by the Acting Chairman of the Operating Committee, regarding final reports on Contract Idm-E416.

The original and one copy of the operator's final report, the original and three copies of the final geologic report, and the original and three copies of the final engineering report were sent by this office to the Secretary of the Operating Committee on April 16, 1953. A copy of our transmittal letter is enclosed.

found both copies in official docket, & never sent to 400.

Never sent in 400.

W. H. King

W. H. King

Enclosure

402

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
March 11, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

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

Subject: DMEA 2548, Contract Idm-E416 (Tungsten), Albert Robitsch and William Brewster (Dunmore mine), Ouray County, Colorado

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

The total amount approved under the contract, or $9,650.00, was expended, and the Government's share was 75 percent, or $7,237.50. There was no unused material, supplies or equipment for disposal. Final audit will be routine.

Operations were carried on to completion of 1,000 feet of underground drilling in a satisfactory manner, with unfavorable results. A "Certification of Discovery", which would create a lien against the property, cannot be made. It is recommended the project be closed in the usual manner under such circumstances.

Floyd H Everest
for
W. M. Traver

enclosures

WMT/cb

cc S
E416
DMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

FINAL ENGINEERING REPORT

DMEA 2548, Exploration Project Contract Idm-E416

Robitsch and Brewster

Dunmore Mine

Ouray County, Colorado

Tungsten

Russell R. McLellan, Mining Engineer
Bureau of Mines

March 11, 1953

DMEA 2548
Contract Idm-E416

DUNMORE MINE
OURAY COUNTY, COLORADO

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Work accomplished	2
Project results	2
Project costs	3
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ILLUSTRATIONS

Figure	Follows Page
1. Location of diamond drill holes, Dunmore mine, Ouray County, Colorado	2

DMEA 2548
Contract Idm-E416

DUNMORE MINE
OURAY COUNTY, COLORADO

FINAL ENGINEERING REPORT

By

Russell R. McLellan

INTRODUCTION

William E. Brewster and Albert Robitsch, of Ouray, Colo., applied to the Defense Minerals Exploration Administration for assistance to explore for tungsten in the Dunmore mine, Ouray County, Colo. The applicants originally proposed to raise 100 feet on a known shoot of tungsten ore. During the preliminary investigation on June 19, 1952, the field examiners pointed out to the applicants that only 60 feet of back existed and that the tungsten shoot cropped out on the surface; a program of raising, therefore, could not be classified as exploration. The operators suggested a revised program of sinking or of diamond drilling to explore the deposit at depth. One thousand feet of diamond drilling, estimated to cost $9,650.00, was recommended. A short-form contract was signed on October 3, 1952, and the 1,000 feet of diamond drilling was completed on February 21, 1953. No discovery was made.

PROJECT PROPOSALS

The applicants revised the original proposal to raise from the haulage level of the Dunmore mine in favor of exploring for a continuation

of the mineralized zone at depth. Nine holes were proposed which were to be fanned vertically and horizontally in such a pattern that the nearly vertical tungsten-bearing breccia chimney could be explored quite thoroughly to a depth of approximately 140 feet (fig. 1). An estimated 1,000 feet of drilling was believed sufficient to complete the project.

WORK ACCOMPLISHED

Ten diamond drill holes were completed for a total footage of 1,000 feet. Nine holes were specified in contract Idm-E416 and one additional hole was allowed by an amendment to the contract. The drilling was accomplished by Boyles Brothers Drilling Company and was completed satisfactorily on February 21, 1953. The rock was hard, vuggy, and, in places, badly fractured. Sludge samples were collected as required and the core was boxed in wooden containers. The applicants submitted all core and sludges to the Bureau of Mines for detailed study. The core was logged in detail by a Geological Survey geologist. Sampling was considered unnecessary.

PROJECT RESULTS

The diamond drilling revealed no trace of tungsten below the main level. The complete absence of tungsten in the core is indicative that no commercial ore exists in the breccia chimney for a depth of at least 140 feet below the main level.

As a result of stoping above the level and diamond drilling below the level, it is apparent that the better grade tungsten ore is confined to an extremely limited area laterally and vertically.

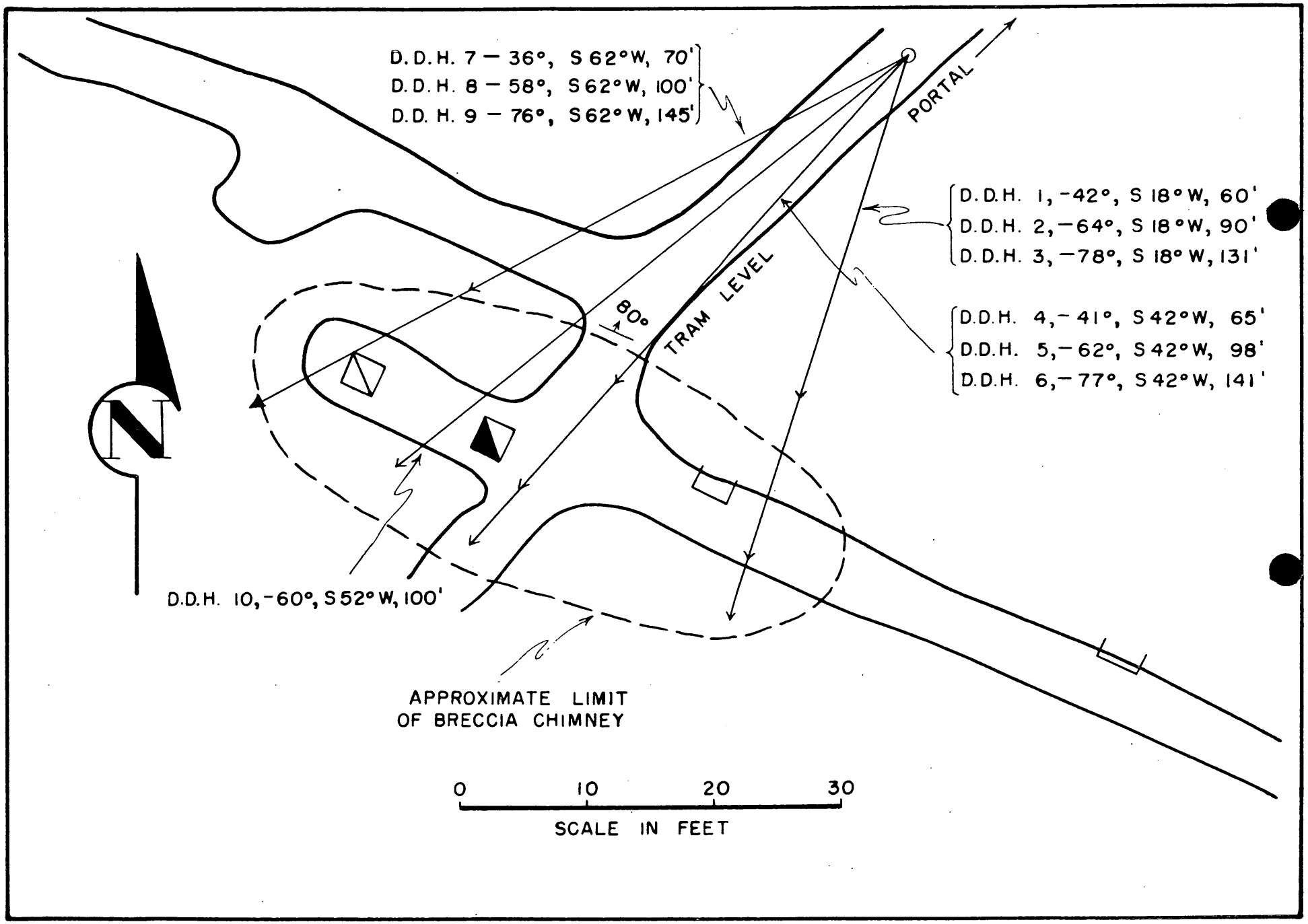


FIG. 1 LOCATION OF DIAMOND DRILL HOLES, DUNMORE MINE, OURAY COUNTY, COLO., DMEA 2548

Detailed geologic logs of the holes will be submitted with the final geologic report. The project was completed within the 6 months allowed by the contract.

PROJECT COSTS

The project was set up under a short-form contract which allowed the applicants to diamond drill no more than 1,000 feet of hole at an over-all cost of $9.65 per foot or at a total cost of $9,650.00. Following is a résumé of the holes drilled and the cost per hole.

Diamond drill hole number	Depth feet	Cost per foot	Total cost
1	60	$9.65	$ 579.00
2	90	9.65	868.50
3	131	9.65	1,264.15
4	65	9.65	627.25
5	98	9.65	945.70
6	141	9.65	1,360.65
7	70	9.65	675.50
8	100	9.65	965.00
9	145	9.65	1,399.25
10	100	9.65	965.00
Totals	1,000		$9,650.00

Government participation was $7,237.50, or 75 percent of the total expenditure.

CONCLUSIONS AND RECOMMENDATIONS

As no discovery was made and as the operator purchased no equipment and has no unused materials or supplies on hand that could be utilized for other work, it is recommended that the project be officially closed in the usual manner.

ob

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

April 15, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2548, Dunmore Mine, Ouray County, Colorado.

Attached are 8 copies of the final geologic report by E. N. Harshman covering Contract Idm-E416, DMEA Docket 2548, Dunmore Mine, Ouray County, Colorado.

Ten holes were drilled to explore the downward extension of the low-grade hubnerite-bearing breccia found in a "pipe" which is exposed in the tunnel and at the surface. The exploration failed to discover additional tungsten ore below the tunnel level and Harshman, therefore, recommends that certification of discovery not be made.

I concur in his recommendation.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

4-24-53

DUNMORE MINE

OURAY COUNTY, COLORADO

DMEA DOCKET 2548

Final Geologic Report

By E. N. Hershman
U. S. Geological Survey

4-24-53

DUNMORE MINE
OURAY COUNTY, COLORADO

INTRODUCTION

The Dunmore mine, Ouray County, Colorado, was examined on June 22, 1952, by R. R. McClellan, U. S. Bureau of Mines, and E. N. Harshman, U. S. Geological Survey. In their report they recommended a diamond drilling program, to explore for the possible downward extension of the low grade tungsten (hubnerite) ore body known to exist between the tunnel level and the outcrop.

In the original request for Government assistance, DMEA Docket 2548, W. E. Brewster and Albert Robitsch proposed to raise 100 feet to explore the hubnerite bearing chimney in the Dunmore lode. Since existing maps showed only 55 feet of unexplored ground between the stope back and the surface outcrop, and since low-grade ore of identical character was present in both the stope and the outcrop, the applicants' proposal was considered to be development rather than exploration. The application was amended to request exploration by diamond drilling below the tunnel level.

Contract idm-E416, between W. E. Brewster, Albert Robitsch, and the Government was signed on October 3, 1952. It authorized an expenditure of $9,650 for rental of equipment and for drilling 1000 feet of diamond drill holes.

Exploration started January 12, 1952, and was completed February 21, 1953.

December

GEOLOGY

The Dunmore lode is exposed in the steep-walled canyon of Silver Creek, about 3 miles south of Ouray, Colorado. It is a fissure vein in Uncompahgre quartzite and has a uniform width of about 100 feet. Two pipes or breccia chimneys have been developed along the lode. One contains hematite, alkinite, and chalcopyrite; the other contains hubnerite and base-metal sulfides. The hubnerite-bearing breccia pipe is elliptical, 12 to 20 feet wide, and 50 to 60 feet long. It plunges about 80° northward. The breccia consists of coarse-grained, translucent, vuggy quartz that lines cavities and fills open spaces in an earlier brecciated quartz. Brecciation was produced by movement along a series of fractures which formed after silicification of the Dunmore lode. The fractured, silicified material was subsequently mineralized by solutions depositing quartz, hubnerite, pyrite, and minor amounts of hematite, galena, sphalerite, gold, and silver. Hubnerite occurs either as small disseminated crystals in the late quartz or as masses filling vuggs. It was the last ore mineral deposited in the breccia pipe.

Very minor amounts of hubnerite are found throughout the breccia pipe exposed above the tunnel level, but material of possible mining grade is found only in widely spaced lenticular bodies 1 to 20 feet in maximum dimension.

EXPLORATION

Ten holes were drilled to explore the downward extension of the low-grade hubnerite-bearing breccia pipe exposed in the tunnel. All holes were drilled from one station and were directed to explore the pipe at

depths of from 30 to 130 feet below the tunnel level (fig. 1). Drilling data follows:

Hole No.	Bearing	Inclination	Depth
1	S. 18° W.	-42°	60'
2	S. 18° W.	-64°	90'
3	S. 18° W.	-78°	131'
4	S. 42° W.	-41°	65'
5	S. 42° W.	-62°	98'
6	S. 42° W.	-77°	141'
7	S. 62° W.	-36°	70'
8	S. 62° W.	-58°	100'
9	S. 62° W.	-76°	145'
10	S. 52° W.	-60°	100'
			1000

Only a few hubnerite grains and crystals were found in the core secured from the 10 drill holes. Since the holes were closely spaced both horizontally and vertically (fig. 1), it must be concluded that the disseminated hubnerite and the lenticular bodies of ore do not extend much below the tunnel level. Although the intensity of brecciation and silicification at this depth is somewhat less than that noted above the tunnel level, the breccia pipe can be recognized in the deepest drill holes, about 135 feet below the tunnel level.

Geologic logs of the 10 diamond drill holes are shown at the end of this report.

ORE RESERVES

As a result of the apparent absence of significant amounts of hubnerite in the breccia pipe below the tunnel level, the ore reserves given in the examination report should be decreased by eliminating the inferred ore. Revised ore reserve estimates follow:

Type	Tons	% WO_3
Measured	75-100	0.80
Indicated	4500	0.80
Total	4600	0.80

CONCLUSIONS AND RECOMMENDATIONS

The exploration program at the Dunmore mine, Ouray County, Colorado, failed to discover additional tungsten (hubnerite) ore in the breccia pipe below the tunnel level. Accordingly, the ore reserve estimate is reduced to 4600 tons by eliminating 2200 tons of inferred ore previously believed to be present below the tunnel level.

The results of the program are believed to be conclusive and certification of discovery is not recommended.

DUNMORE MINE
OURAY COUNTY, COLORADO
DMEA DOCKET 2548

LOGS OF DRILL HOLES

DH No. 1
Drilled Jan.-Feb. 1953

Bearing S. 18° W.
Inclination -42°
Depth 60'

0'-31' Silicious vein material, white to gray, somewhat brecciated, pyritic.

31'-60' Silicified breccia, pyritic, gray to white, vuggy. Translucent quartz lines vuggs.

DH No. 2
Drilled Jan.-Feb. 1953

Bearing S. 18° W.
Inclination -64°
Depth 90'

0'-54' Silicious vein material, white to gray, brecciated and jointed, pyritic.

54'-90' Silicified breccia, pyritic, gray to white. Translucent quartz fills vuggs and cements breccia fragments.

DH No. 3
Drilled Jan.-Feb. 1953

Bearing S. 18° W.
Inclination -78°
Depth 131'

0'-33' Silicious vein material, white to gray, brecciated, pyritic.

33'-52' Quartzite, silicified and brecciated, pyritic. Numerous red, white, and clear quartz phenocrysts. Numerous vuggs.

52'-87' Silicious vein material, white to gray, brecciated, pyritic.

87'-113' Silicified breccia, gray, pyritic.

113'-131' Quartzite, brecciated, silicified, pyritic.

DH No. 4
Drilled Jan.-Feb. 1953

Bearing S. 42° W.
Inclination -41°
Depth 65'

0'-36' Silicious vein material, white to gray, somewhat brecciated, jointed, pyritic.

36'-65' Silicified breccia, pyritic, white to gray, vuggy, pyritic.

DH No. 5
Drilled Jan.-Feb. 1953

Bearing S. 42° W.
Inclination -62°
Depth 98'

0'-45' Silicious vein material, white to gray, pyritic, brecciated and jointed.

45'-98' Silicious breccia, cemented with translucent quartz. White to gray, pyritic, vuggy.

DH No. 6
Drilled Jan.-Feb. 1953

Bearing S. 42° W.
Inclination -77°
Depth 141'

0'-37' Silicious vein material, white to gray, pyritic.

37'-55' Quartzite, silicified and somewhat brecciated, vuggy, gray. Contains small quartz phenocrysts.

55'-86.5' Silicious vein material, gray to white, pyritic.

86.5'-94' Quartzite, silicified, gray to gray-green, vuggy, brecciated.

94'-107' Silicified breccia, gray-green.

107'-141' Quartzite, silicified, brecciated, light-gray.

DH No. 7
Drilled Jan.-Feb. 1953

Bearing S. 62° W.
Inclination -36°
Depth 70'

0'-49' Silicious vein material, gray to white, somewhat brecciated, pyritic.

49'-70' Silicified breccia, gray to white, pyritic, translucent quartz as cementing material.

DH No. 8
Drilled Jan.-Feb. 1953

Bearing S. 62° W.
Inclination -58°
Depth 100'

0'-16' Silicious vein material, white to gray pyritic, somewhat brecciated.

16'-48' Silicious vein material, white to gray pyritic, intensely brecciated.

48'-68' Silicified breccia, pyritic, light-gray.

68'-100' Silicified vein material, brecciated, pyritic, gray to white.

DH No. 9
Drilled Jan.-Feb. 1953

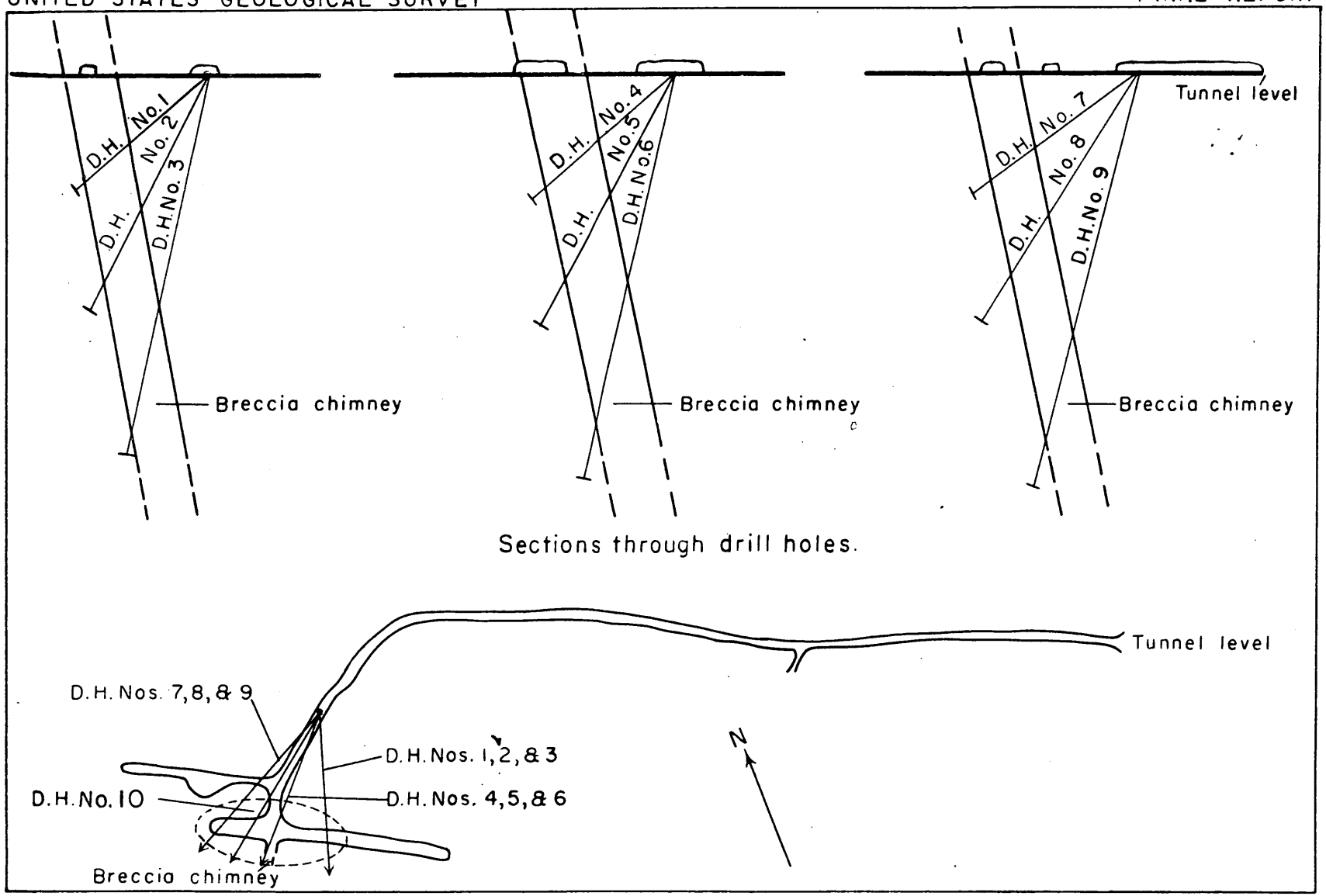
Bearing S. 62° W.
Inclination -75°
Depth 145'

0'-31'	Silicified vein material, slightly brecciated, pyritic, gray to white.
31'-56.5'	Quartzite, slightly silicified.
56.5'-59'	Quartzite, silicified, gray-green.
59'-115'	Quartzite, somewhat silicified, vuggy, gray-green.
115'-145'	Quartzite, alternate gray-green and red bands, only slightly silicified.

DH No. 10
Drilled Jan.-Feb. 1953

Bearing S. 52° W.
Inclination -60°
Depth 100'

0'-13'	Silicified vein material, pyritic, gray to white, somewhat silicified.
13'-14'	Quartzite, unaltered, red.
14'-77'	Silicious vein material, brecciated and vuggy; some translucent quartz.
77'-100'	Silicious vein material, white to gray, somewhat brecciated.



E.N. Harshman March 1953

FIGURE 1.—PLAN AND SECTIONS, DUNMORE MINE.

50 0 50 100 Feet

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
March 2, 1953

WSM

Memorandum

To: Executive Officer, Field Team, Region IV

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

Subject: DMEA 2548, Contract Idm-R416 (Tungsten), Robitsch and Brewster (Dunmore mine), Ouray County, Colorado

Please find enclosed the original and four copies of the operators' final report, with attached sketch showing the completed diamond drilling, on the subject exploration project contract.

W. M. Traver

W. M. Traver

enclosures

d'amh

cc: WHKing
R416
DMEA Chron.

Final Report

Final Report
DMEA 2548
Contract No. E416

Dunmore Mine
Ouray County, Colorado

Diamond drilling under contract E 416 commenced at the Dunmore mine on January 12 , 1953, and was completed by Boyles Brothers Drilling Company on February 20, 1953. Ten holes were drilled to explore a tungsten bearing chimney within the Dunmore vein. Following is a summary of the holes drilled:

Hole No.	Depth	Formation drilled
1	60	Quartz
2	90	"
3	131	"
4	65	"
5	98	"
6	141	"
7	70	"
8	100	"
9	145	"
10	100	"
Total	1000 feet	

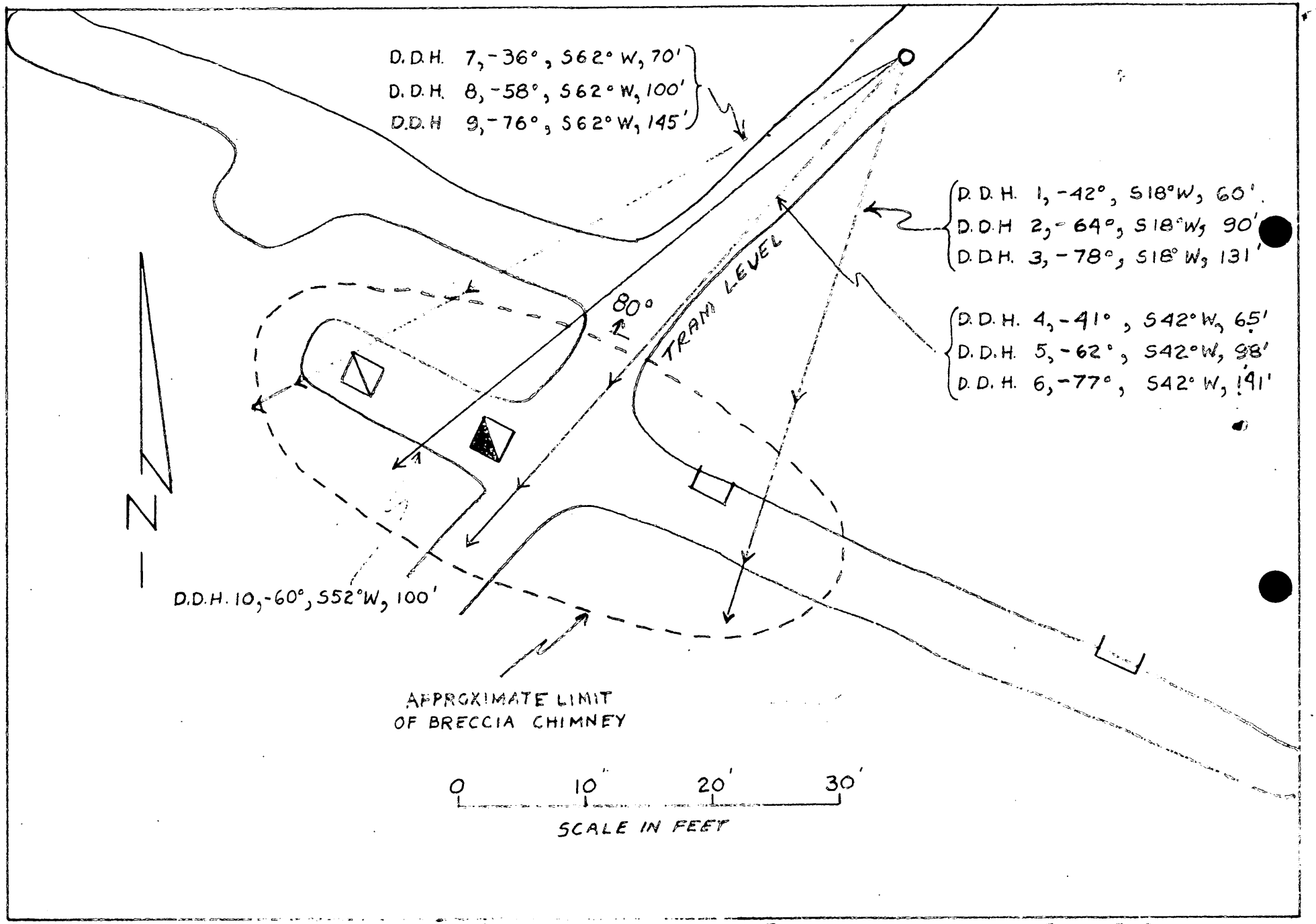
The attached map shows the location of the holes with respect to the chimney.

Diamond drilling under subcontract to Boyles Brothers was satisfactory and core recovery was good. No tungsten of commercial value was found in the core. Sludge samples were collected as required by the contract and all core was boxed in wooden containers. The core and sludges were turned over to the Bureau of Mines for additional inspection.

Under the terms of the contract a total of 1000 feet of drilling was completed at the contract rate of $9.65 per foot. The overall cost was set at $9,650.00 of which the Government will contribute $7,237.50 or 75% of the total. Drillers invoices have been submitted.

Wm. E. Brewster

Wm. E. Brewster
For
Robitsch and Brewster



COMPLETED DIAMOND DRILLING, DUNMORE MINE, OURAY CO., COLO. DMEA - 2548

CODE 400

400

JAN 19 1953

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

Re: Docket No. DMEA 2548, Tungsten
Robitsch and Brewster
Dunmore and Yankee Lod claims
Ouray County, Colorado
Contract No. Idm-E-416

Dear Mr. King:

This acknowledges receipt of your letter of January 13, 1953, regarding the last paragraph of our letter of December 5, 1952, to you, concerning the contract prepared in Region IV for the subject project.

We note that you do not believe that the overnment is at all concerned in what compressors, if any, the Operator is using on this job. You mention that the contract is prepared on the short form and that you are authorized to reimburse the Operator for actual units of work performed regardless of what equipment is used to do the work.

As a matter of fact, Defense Minerals Exploration Administration is deeply concerned not only with the supervision of all DMEA contracts but also with the preparation of such contracts. After the contract has once been executed in short form, you are of course authorized to reimburse the Operator for actual units of work performed regardless of what equipment is used for the work. At the same time, as DMEA Circular No. 21 makes clear, the short form should not be used unless the Operator will agree to estimated unit costs that are as low or lower than the actual costs are apt to be.

It is our belief that in many future instances carefully prepared short form contracts can be used to the advantage of our entire program. Therefore, we desire, especially in cases like the one discussed herein where the unit cost seems to us to be conspicuously high, to have sufficient information in our records to justify such unit costs. The foregoing should clarify our reasons for inquiring about the compressor.

With your letter of January 9, 1953, to the Administrator, DMMA, you transmitted a copy of Mr. R. R. McLellan's memorandum of January 8 covering the same project. That memorandum raises a number of other questions which can best be discussed after the project has been completed, but we are pleased to find that the next to last paragraph thereof explains in satisfactory form why the second compressor is required.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

WSMartin/ls
1/16/53

CC: DOCKET
FIELD TEAM, REG. IV
CODE 400
CODE 800
CODE 140
ADMN. READ. FILE
D. M. LEMMON, USGS
R. W. GEEHAN, USBM
OPERATING COMMITTEE

402

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

224 New Customhouse
Denver 2, Colorado

January 13, 1953

File

Memorandum

To: Chairman of the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Docket No. DMEA 2548, Contract No. Idm-E416, Robitsch and Brewster

Reference is made to a letter dated December 5, 1952 from the Chairman of the Operating Committee regarding Contract Idm-E416.

This letter quotes cost data from the final report and discusses a compressor that the applicants have recently purchased. The estimated cost of diamond drilling in the final report was given as $5.00 per foot. The operator has a contract for diamond drilling at the rate of $5.25 per foot, $2.25 per foot for reaming, and $7.50 per hour for waiting. It is impossible to determine how much reaming or cementing will have to be done beforehand. However, we believe that the cost of $9.65 per foot, which was stipulated in the short form contract, is fair to both the operator and to the Government. This cost is not high enough to cover all contingencies, but in our estimation, does not exceed what the actual costs of performing the work are apt to be.

The last paragraph of this letter states as follows:

> "Possibly the foregoing simply means that a second compressor is to be rented for the project in addition to the one already purchased. In that event, we would appreciate your advising us promptly what program of his own the Operator plans to follow that prevents use of the existing compressor for the DMEA project."

We do not believe that the Government is at all concerned in what compressors, if any, the operator is using on this job. The contract is prepared on the short form, and we are authorized to reimburse him for actual units of work performed regardless of what equipment is used to do the work.

W. H. King

W. H. King

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 14 1953

400

224 New Customhouse
Denver 2, Colorado

January 9, 1953

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 2548, Contract Idm-8416, Robitsch and Brewster (Tungsten)

Enclosed are two copies of a memorandum by Russell R. McLellan, Mining Engineer, in reply to a letter dated January 2, 1953 from the Chairman of the Operating Committee to the Executive Officer, Field Team, Region IV.

W. H. K
W. H. King

Enclosures

(Copy mailed by USMA)
1/14/53

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
January 8, 1953

400

1/13/53

Memorandum

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

From: Russell R. McLellan, Mining Engineer

Subject: DMEA 2548, Contract Idm-E416 (Tungsten), Robitsch and Brewster (Dunmore mine), Ouray County, Colorado - Frank E. Johnson's letter, January 2, 1953

With reference to Frank E. Johnson's letter of January 2, 1953, it is believed that most of his comments concerning the subject contract were expressed without sufficient knowledge of the area to be explored or of the conditions existing at the mine.

In paragraph 4, Johnson's wording indicates a lack of understanding as to why the applicants' proposal to raise was not qualified as exploration. The applicants admitted that no attempt had been made to measure the distance from the stope to the surface, nor did [illegible] to locate an outcrop of the mineralized chimney. The examining engineer and geologist located the outcrop and determined that it was approximately 65 feet above the stopes. The tungsten mineralization had decreased to little more than a trace from the stopes to the surface. This fact alone was enough to discourage any additional work in the heavy ground above the existing stopes. In addition, a short raise driven to connect two known mineralized exposures can hardly be qualified as exploration.

In the same paragraph, Johnson flatly states that the field team pursuaded the operator to accept a program of 1,000 feet of diamond drilling. It should be stressed that the operator was not pursuaded in any sense of the word. Brewster and Robitsch wished to explore the deposit in the least amount of time and as economically as possible. They suggested renting a drill and proposed to drill the deposit themselves which was out of the question as neither man had ever operated a diamond drill.

In paragraph 5, Johnson states that the sinking program would have been more appropriate and could have been controlled by staging the program or by drawing up a short form contract. In this case, there was

little object in setting up a program which could be curtailed at any time by the Government due to inefficiency on the part of the operator or, in the case of a short form contract, could remain inactive due to a lack of funds as a result of inefficiency. In either case, there is little reason to believe that the project could have been completed except at an exorbitant cost. Since the deposit appeared to be somewhat limited and spotty, it was deemed advisable to agree upon a program which would provide samples over the largest area at the least cost. Compared to 1,000 feet of diamond drilling, 65 feet of sinking and 70 feet of drifting would explore only a fraction of the area and at a considerably higher cost. It was pointed out in the engineering report that the topography is ideally suited for driving a lower level into the chimney. With this fact in mind, there is little need for additional sinking if ore can be located at depth by drilling. Since the contract was prepared, the operators suffered the loss of a tram terminal by fire which destroyed their only means of transporting large quantities of ore to the highway. A new terminal could be constructed at the portal of a lower level if it is found to be justified by exploration.

Johnson completely misinterprets the purpose of the drilling when he states the following in paragraph 5 "Another consideration was the belief that the drilling would prove the ore body to a depth of 140 feet'." He then shows that although the "ore body" will be penetrated to a depth of 145 feet, the "ore body" will be proved only to "a depth of approximately 108 feet." The engineering report makes no mention of an ore body below the tram level nor does it make any statement to the effect that an ore body would be proved to a depth of 140 feet. In this type of a deposit, nine holes would not be sufficient to definitely prove an ore body if it did exist. The purpose of the drilling is to determine whether or not the chimney contains tungsten mineralization to the maximum depth of the proposed drilling. The following quotation is from the recommendation section of the engineering report, "Nine holes fanned vertically and horizontally as shown on figure 3 should be sufficient to explore the chimney systematically to a depth of approximately 140 feet." No mention is made of an ore body, or of proving one, to a depth of 140 feet.

Johnson states that the drill holes may have a tendency to become "normal to the dip of the controlling structures" and thus flatten the inclination of the holes. He also mentions that the brecciation and vugs may cause additional deviation. It should be pointed out that in the comparatively short holes proposed for the Dunmore mine, any deviation sufficient to affect the value of the hole would be sufficient to bind the drill rods and prevent operation of the drill. The rock to be drilled is silicified into a [illegible] mass containing very small vugs. There is no sharp contrast between the chimney and the wall rock and the contacts are gradational. There is little reason to believe that the longest hole proposed will deviate in excess of a few inches.

In paragraph 6, Johnson infers that the close spacing of the holes borders upon development rather than exploration, but he also infers that the drilling results may be inconclusive due to the spotty nature of the hubnerite occurrences. As mentioned before, considerably more than nine holes would have to be drilled to be classified as development. Drilling one or two holes into the chimney or drilling widely spaced holes would have about as much chance of encountering the isolated pods as would sinking 65 feet and drifting 70 feet.

It is true as stated by Johnson in paragraph 7 that any ore the project encounters will have to carry the cost of the project in addition to all other production costs, but he still does not consider the fact no ore may be encountered in the limited area that could be explored by sinking and drifting. If no ore was encountered, the results would be entirely inconclusive as most of the chimney on all sides would remain unexplored. If encouraging results were obtained either by sinking or by diamond drilling, the logical and most efficient method to mine the deposit would be to drive a short crosscut at a lower level to eliminate the necessity of additional sinking and subsequent hoisting of ore.

In paragraph 8, Johnson makes the following statement, "The winze is already 10 feet deep and 65 feet of sinking would, therefore, develop the ore to a depth of 75 feet, which, at 80 tons per foot, equals 6,000 tons of ore." If there was any possibility whatsoever of developing 6,000 tons of ore merely by sinking the winze, there would have been little reason for recommending any type of exploration program. He applies the same reasoning to the proposed 70 feet of drifting, and states, "Additional cost for development would be negligible because the exploration workings could be used for ore extraction." This is true only to the extent that any lenses of ore encountered by sinking and drifting could be removed by utilizing the exploration workings. Once these lenses were removed, the operators would be confronted with the problem of drifting in all directions to locate additional ore. This method of haphazard drifting undoubtedly proved costly and impractical to the previous operators, and little was learned of the true nature and extent of the mineralization except in the near vicinity of the tram level. It is imperative that the operators have some definite indication to drive for unless the chimney is completely disseminated with hubnerite below the tram level. Dissemination to this extent is highly improbable.

In the final paragraph, Johnson states that sinking and drifting would have been more favorable "in view of the limited target and the marginal nature of the ore." At present, we know that the deposit is limited and marginal above the tram level; however, we can only guess as to the possibilities below the level. As mentioned before, the object of the drilling program is to explore as much of the chimney as possible both laterally and vertically with a limited amount of money. This objective could not be attained satisfactorily by sinking and drifting to the amount of $12,000.00.

One additional item should be clarified in paragraph of Johnson's letter in which he mentions an excessive rental charge. This charge is assumed to be the $400.00 allowed for the monthly rental of a 315 c.f.m. compressor to operate the diamond drill. It should be pointed out that such equipment was not available locally and that $400.00 per month is not excessive for a portable compressor of that size, particularly when a rental-purchase agreement is not practical. A large compressor was necessary due to the fact that air had to be piped approximately 1,500 feet across a canyon at an elevation in excess of 9,000 feet.

In short, each item specified in Section 6 of DMEA Order - 1 was carefully considered during the examination and during the preparation of the engineering report. There was no question as to the advisability of recommending a drilling program for the mine in preference to any other method of exploration.

Russell R. McLellan
Mining Engineer

RRM/amh

cc: WHKing (2)
B416

Room 35-38 400

JAN 2 1953

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

re: Docket No. AMA-2548 (Tungsten)
Exploration Contract No. Idm-8416
Rehitach and Brewster

Dear Mr. King:

The subject contract negotiated and executed by the Field Team, Region IV, under delegation of authority has been reviewed by this office and we have set forth our comments below:

Although a Geologist and a Mining Engineer made the field examination on June 19, and their final report is dated July 29, 1952, the final Field Team report did not arrive in Washington until November 24, 1952.

A preliminary review of the contract indicated that the estimated cost included an excessive rental charge and to avoid any difficulty with the Auditors we wrote to Region IV on December 5 requesting clarification. It would have been to the advantage of both the Washington office and the field if the report had been received with the contract. Field Team reports should be forwarded to this office as promptly as possible after they are completed, whether or not a contract is to be executed under your delegated authority. It is important that this office be kept fully and currently informed so that it is not placed in an unfavorable position for carrying out its responsibilities.

In connection with the subject contract, the applicants proposed to raise at least 100 feet from the top of an old raise to be selected from a group of six, each extending about 15 feet above the tram level, and all connected at the top to form a stope. According to the Field Team's final report it was pointed out to the Operator that only about 55 (or 85) feet of ore existed between the back of the old stope and the surface, and that the raise, therefore, would not qualify as exploration. The Operator then suggested sinking the old 10 feet winze on the tram level another 65 feet and driving a total of about 70 feet of drifts and crosscuts on the 75 foot level to determine the ore limits. Instead, the Operator was persuaded by the Field Team to accept a program of 1,000 feet of diamond drilling.

We believe it would have been more appropriate to have approved a sinking program. One consideration in choosing a drilling program was that the Operator was known to be incompetent and the drilling could be contracted. Control of operations could have been established by setting up the project in stages, each dependent upon the satisfactory completion of the prior stage, or more effectively by drawing up a "short form" contract. Another consideration was the belief that the drilling would prove the ore body "to a depth of 148 feet"; but if the dip of the orebody remains constant at 80°, diamond drill holes Nos. 3 and 9 would each cut the hanging wall of the orebody 81 feet below the tram level and will probably find footwall at 122 feet and 145 feet below, respectively, thus, proving the orebody only to a depth of approximately 108 feet. Furthermore, in many districts inclined holes tend to orient themselves so as to become normal to the dip of the controlling structures. Any such tendency would cause the inclination of the holes to flatten, and thus obtain even less depth than that computed above. Drilling a deposit that is known to be brecciated and vuggy may result in additional deviations.

The contract calls for 9 diamond drill holes from one setup, fanned out in groups of 3 in 3 planes dipping about 40°, 60° and 77°. In each plane, the holes will be not over 15 feet apart horizontally at the hanging wall and about 22 feet apart at the footwall. Holes spaced so closely would ordinarily be classed as development. It is, however, not only possible but may be probable that the drilling results will be inconclusive in spite of the close spacing, because of the extremely spotty nature of the hubnerite occurrences at the Dunmore property.

Moreover, even if the drilling gives results which can properly be accepted as proving ore reserves, it is still true that whatever ore the project encounters will have to carry the cost of the project in addition to all other production costs. With more favorable marketing conditions and more efficient operation, it is possible that the property could be operated profitably.

The Operator expected to be able to sink 65 feet and drive 70 feet of drifts and crosscuts for a total of $12,050.00, corresponding to costs of about $137 per foot for sinking and $45 per foot for drifting. The winze is already 10 feet deep and 65 feet of sinking would, therefore, develop the ore to a depth of 75 feet, which, at 80 tons per foot, equals 6,000 tons of ore. A program including exploration winze and horizontal workings extending from foot to hanging wall and from easterly to westerly limits of the one ore body would amount to $2.00 per ton explored. Additional cost for development would be negligible because the exploration workings could be used for ore extraction. Furthermore, the ore extracted

in sinking and drifting could be treated as a bulk sample and would give more dependable results than can be expected from diamond drill core samples of an ore as spotty as that discussed above.

In view of the limited target and the marginal nature of the ore it would seem that underground exploration of a limited amount would have been the most expedient means for further exploring the subject property. Although you may not agree with our premises, we feel that you should have the benefit of our thinking on this matter.

Sincerely yours,

Frank E. Johnson

Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, Geological Survey

FEJohnson/bih
12/24/52
cc to: Docket
Admr. Reading File
Operating Committee
Region IV
Messrs. Hedges R-4604
Kinkel, Jr. GSA R-4234
Selfridge
FEJohnson

Administrator, DMEA

December 16, 1952

Iron and Ferro-Alloy Division, DMEA

Docket No. DMEA 2543 - Tungsten
Review of contract
Robitsch and Brewster
Dunmore and Yankee Lad Lode Mining Claims
Ouray County, Colorado
Exploration Contract No. Idm-9416

The subject contract was negotiated and executed by the Field Team, Region IV, under delegation of authority. Robitsch and Brewster applied on May 20, 1952, for exploration assistance at the above property in the amount of approximately $12,000.00.

A geologist and a mining engineer made the field examination on June 19 and their final report is dated July 29, 1952. On August 19, the Field Team advised us that exploration assistance in the amount of $9,657.00 had been approved, that the contract would be prepared in the field, and that copies of the Field Team's report would be forwarded to us after the contract had been signed. A contract totaling $9,650.00, with Government participation of $7,237.50, was submitted to us for assignment of number on October 3 and returned to Region IV on October 9. The final report arrived here November 24.

Preliminary review of the contract indicated that the estimated cost included an excessive rental charge and to avoid any difficulty with the auditors, we wrote to Region IV on December 5 requesting clarification. We believe it would have been to the advantage both of the Washington office and the field if the report had come in with the contract and we recommend that such reports be submitted promptly when prepared.

The applicants proposed to raise at least 100 feet from the top of an old raise to be selected from a group of six, each extending about 15 feet above the tram level, and all connected at the top to form a stope. According to the final report, the Field Team pointed out to the Operator that there was only about 55 (or 85) feet of ore between the back of the old stope and the surface, and that the raise would, therefore, not qualify as exploration. The Operator then suggested sinking the old 10-foot winze on the tram level another 65 feet and driving a total of about 70 feet of drifts and crosscuts on the 75-foot level to determine the ore limits. Instead, the Operator was persuaded by the Field Team to accept a program of 1,000 feet of diamond drilling.

We believe that better judgement would have approved the sinking program. One consideration in choosing the drilling program was that the Operator was known to be incompetent and the drilling could be contracted. Such an Operator could, instead, be controlled by setting up the project in stages, each dependent on the satisfactory completion of the stage next before, or even better by drawing effectively a "short form" contract. Another consideration was the belief that the drilling would prove the ore body "to a depth of 140 feet", but, if the dip of the ore body remains constant at 80°, D.D. holes Nos. 3 and 9 will each cut the hanging wall of the ore body about 81 feet below the tram level and will probably find footwall at 122 feet and 134 feet below respectively, thus proving the ore body only to a depth of approximately 108 feet. Furthermore, in many districts inclined holes tend to orient themselves so as to become normal to the dip of the controlling structures. Any such tendency would cause the holes to flatten in inclination and thus attain even less depth than that computed above. Drilling a deposit that is known to be brecciated and vuggy may result in additional deviations.

The contract calls for 9 diamond drill holes from one set-up, and fanned out in groups of 3 in 3 planes dipping about 40°, 60° and 77°. In each plane, the holes will be not over 15 feet apart horizontally at the hanging wall and about 22 feet apart at the footwall. Holes spaced so closely would ordinarily be classed as development. It is, however, not only possible but may even be probable that the drilling results will be inconclusive in spite of the close spacing, because of the extremely spotty nature of the hubnerite occurrences at the Dunmore property.

Moreover, even if the drilling gives results which can properly be accepted as proving ore reserves, it is still true that whatever ore the project encounters will have to carry the cost of the project in addition to all other production costs.

Assuming 17 feet average width and 59 average length for the ore body, the horizontal cross sectional area is 1,000 square feet, and with a factor of 12.5 cubic feet per ton of ore in place, each foot of depth explored will prove 80 tons of ore. Using the Field Team's grade estimate of 0.8 percent WO_3, each ton will be worth 0.008 X 2,000 X $1.18 delivered at Nederland, Colorado, or $18.88. (If, as our recomputation indicates, the grade is not 0.80 but 0.78 then each ton will be worth 0.0078 X 2,000 X $1.12, or $17.47 delivered at Nederland. The actual grade may be even lower because 2 out of 10 samples used for the computation are "selected samples".)

If the Yukon mill of Silverton would pay according to the VGA schedule, the transportation charge would be approximately $3.00, leaving $15.88 to pay for all mining costs. The Field Team estimates the mining costs at $20.00, without specifying how much development is included. It would appear from the foregoing that, given a more favorable selling price and more efficient operation, it is not impossible that the property could be operated profitably.

To a depth of 100 feet, the above estimated 80 tons per foot will equal 8,000 tons, and the cost of the project drilling will amount to $1.20 per ton explored. To this cost must be added the cost of whatever development workings are needed to extract this same tonnage.

The operator expected to be able to sink 65 feet and drive 70 feet of drifts and crosscuts for a total of $12,050.00, corresponding to costs of about $137 per foot for sinking and $45 per foot for drifting. The winze is already 10 feet deep and 65 feet of sinking would, therefore, develop the ore to a depth of 75 feet, which, at 80 tons per foot, equals 6,000 tons of ore. A program including exploration winze and horizontal workings extending from foot to hanging wall and from easterly to westerly limits of the one ore body would amount to $2.00 per ton explored. Additional cost for development would be negligible because the exploration workings could be used for ore extraction. Furthermore, the ore extracted in sinking and drifting could be treated as a bulk sample and would give more dependable results than can be expected from diamond drill core samples of an ore as spotty as that discussed above.

George C. Selfridge

G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

WSMartin:lm
12/16/52

cc: Admn. Reading File
Docket
G. C. Selfridge
W. S. Martin

Extracted from Monthly Report of Region IV for October 1952.

DMEA-2320 - Coughlin and Henderson

The compressor drive motor required overhauling and part of the period was devoted to that. When completed, drifting was started and the south drift was advanced 14 feet. After widening at some locations, track was laid and the stope above the drift caught up.

DMEA-2343 - George Jump

Preparatory work for sinking the winze from the lower, or Good Friday, tunnel and consisting of rehabilitation work was completed and one round drilled and blasted in the winze. Sinking started on good ferberite ore.

DMEA-2387 - A. W. Brown

The Blue Jay tunnel was advanced 10 feet for the period, with up to two or more ½-inch streaks showing. Operations have been slowed by the inability of the contractor to hire competent labor.

DMEA-2548 - Robitsch and Brewster

The contractor has notified the Colorado Branch office that he is attempting to negotiate a subcontract for underground drilling.

DMEA-2650 - Hallie "A" Mining Company

Operations started October 27 and a progress report is not expected before the end of November.

DMA-13927 - Cecil H. Woodman

Stage A, surface stripping by bulldozer, has been completed on both properties. The work on the Queen Bee revealed no mineralization or structures of significance. One zone of scheelite mineralization has been uncovered on the Yellow Hammer property. A decision is pending concerning additional work on this occurrence.

DMA-1906 - Louise W. Garrick

Work on project 2 was continued during October and an advance of 35 feet was made in the dirft. The direction of the drift has been changed slightly to the left. The entire advance has been along tungsten ore varying from 2 feet to 2½ feet in width.

DEC 5 1952

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

Re: Docket No. DMTA 2548 - Tungsten
Hobitsch and Brewster
Dunmore and Yankee Lad Lode
Mining Claims
Ouray County, Colorado
Exploration Contract IGs-316

Dear Mr. King:

This will acknowledge receipt on November 24, 1952 of copies of your memorandum of August 19, 1952, to the Field Team, Region IV, enclosing engineering report on the subject exploration property, by R. F. McLellan, Mining Engineer, U. S. Bureau of Mines.

In reviewing the above report, we note from data in the summary on page 9 that the total cost of diamond drilling at the project, estimated at $9.65 per foot, includes the following individual items:

	Dollars Per Foot
Contract diamond drilling	5.00
Supervision	1.17
Labor	1.01
Operating material and supplies	1.07
Operating equipment, rented	1.20*
Operating equipment, depreciation	0.02
Miscellaneous	0.18

* This item corresponds to rental of a 315 c.f.m. compressor at $400.00 per month.

We also note, from page 7 of the same report, that the applicants have already purchased the compressor and that, consequently, its purchase price cannot be included in the cost of our program except on a depreciation basis. Using the specified replacement value of $2,400.00, the calculated monthly depreciation is $40.00.

The difference between the above charges for use of the compressor is $1.08 per foot. Saving this amount would reduce the total estimated drilling cost to $9.57 per foot and would decrease the total cost of the project by more than 11 percent.

Possibly the foregoing simply means that a second compressor is to be rented for the project in addition to the one already purchased. In that event, we would appreciate your advising us promptly what program of his own the Operator plans to follow that prevents use of the existing compressor for the NMMA project.

Sincerely yours,

George C. Selfridge

ACTING Chairman, Operating Committee

Approved:

Jo H. Hedges

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, Geological Survey

WSMartin:lm
12/3/52

cc: Admin. Reading File
Docket
R. W. Gechan, USBM
D. M. Lemmon, USGS
Field Team Reg. IV
Operating Committee
G. C. Selfridge
W. S. Martin

OCT 9 1952

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

Re: Docket No. DMEA 2548 - Tungsten
Dunmore and Yankee Lad Lode
Mining Claims
Robinson and Brewster
Ouray County, Colorado
Exploration Contract Idm-2416

Dear Mr. King:

Returned herewith are the Operator's, Field Team's and Regional Finance Officer's copies of the exploration project contract, which has been given the number Idm-2416, pertaining to the subject docket.

It is taken for granted that the dip of the breccia chimney is 50 degrees and not 10 degrees as shown on the map.

Sincerely yours,

(signed) FRANK M. JOHNSON

Chairman, Operating Committee

Enclosures

GSelfridge'lm
10/7/52

Approved:

J. H. Hodges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

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

Reg. 4 contract

DMEA -2548 Idm - E-416.

DMEA 2548, Idm-E-416, Amend #1,

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

400

224 New Customhouse
Denver 2, Colorado

March 6, 1953

Memorandum

To: C. O. Mittenderf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Amendment No. 1 to Contract Idm-E416, Docket DMEA 2548, Robitsch and Brewster

Enclosed are the original and two copies of Amendment No. 1 to Contract Idm-E416. This amendment allows the operator to drill 10 holes instead of 9, inasmuch as the footage drilled in 9 holes did not total the authorized 1,000 feet of drilling. It was orally agreed between the engineer and the operator that it would be desirable to drill this additional hole.

W. H. King

W. H. King

Enclosures

No. 1

AMENDMENT OF CONTRACT: No. Idm-E416

Contract Docket No. DMEA 2548, dated October 3, 1952, between the United States of America and a partnership consisting of Albert Robitsch and William Brewster is hereby amended as follows, effective as of the date of said contract:

> Referring to "EXHIBIT 'A'" attached to Exploration Project Contract Form MF-200(A), caption "Description of the Work", first paragraph, add the following:
>
> > In the event the aggregate footage of the nine holes does not expend the total of the authorized 1000 feet, the unexpended balance may be expended by drilling an additional hole at a location acceptable to the DMEA representative.

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".

Dated MAR 6 1953

UNITED STATES OF AMERICA

By W. H. King
Executive Officer, DMEA
Field Team, Region IV

Albert Robitsch
Albert Robitsch, Partner

Wm. C. Brewster
William Brewster, Partner

Amend. No. 1

MF-200 (A)
(February 1952)

OCT 6 1950

DOCKET DMEA 25.8

COMMODITY Tungsten

IDM-E 416

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

DIVISION COPY

EXPLORATION PROJECT CONTRACT[1]

(Short Form)

IT IS AGREED this 3rd day of October, 195 2, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] A partnership consisting of Albert Robiteau and William Prewster

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 Colorado, County of Ouray, described as follows:[3]
Aurora Lode Mining Claim U. S. Mineral Survey No. 2008
Yankee Lad Lode Mining Claim U. S. Mineral Survey No. 2131

the Operator represents and undertakes:[4]

(a) ~~That the Operator is the owner of the property described above, subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:~~

(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 Sixty (60) 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 six (6) 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. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. 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 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay seventy-five (75) percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $7,237.50, which is 75 percent of $9,650.00, 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 check or 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. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(a) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed 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 units of work performed 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.

[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.

Contract

(*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 the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, 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 and statement of work performed to accompany his final report.

ARTICLE 6. *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 the 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 7. *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 8. *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.

ARTICLE 9. *Changes and added provisions* A certified drill log must accompany each monthly Progress Report. Reimbursement will be made only for diamond drill holes completed to the satisfaction of the DMA representative. Drill cores must be properly stored in acceptable core boxes. Cores must be split and one-half retained for the use of the DMA.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

William Brewster (Operator)

By Albert Robitsch

X

By W. H. King
Executive Officer, DMA
Field Team, Region IV

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—66329-1

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of [illegible], described as follows: 1/ [illegible]

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ [illegible]

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production 3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 7,237.50, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 15 day of Sept., 1952.

Marguerite L. MacLennan [Seal]

Roderick F. MacLennan [Seal]
by Marguerite L. MacLennan - Mother

Kenneth G. MacLennan [Seal]
by Marguerite L. MacLennan - Guardian

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

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 six 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) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent 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) per cent 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) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(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, 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.

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.

Exhibit A

Description of the Work

Nine holes shall be diamond core drilled a total distance of 1,000 feet, fanned vertically and horizontally as shown in Figure 3 to systematically explore the ore chimney. The core shall be no smaller than AX. Sludge samples must be collected at 5-foot intervals.

Figure 3 and 4 attached hereto show the location of the work and are made a part of Exhibit A.

Estimated Costs of the Project

1000 feet of diamond core drilling, including all costs of drilling, sampling, and storage of samples and cores at $9.65 per foot -	$9650.00	
Total cost of Project		$9650.00
Government's participation at 75%		$7237.50

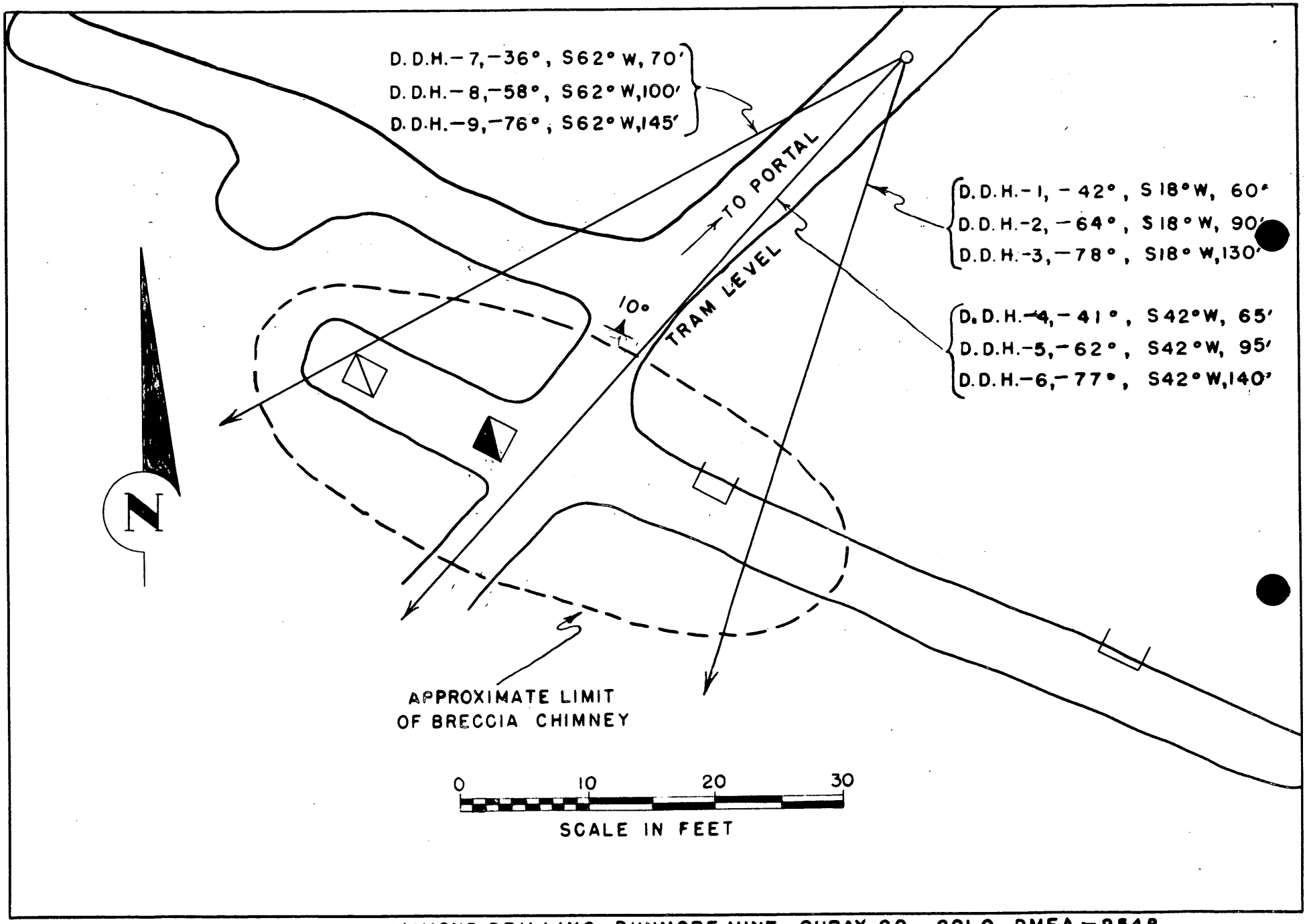
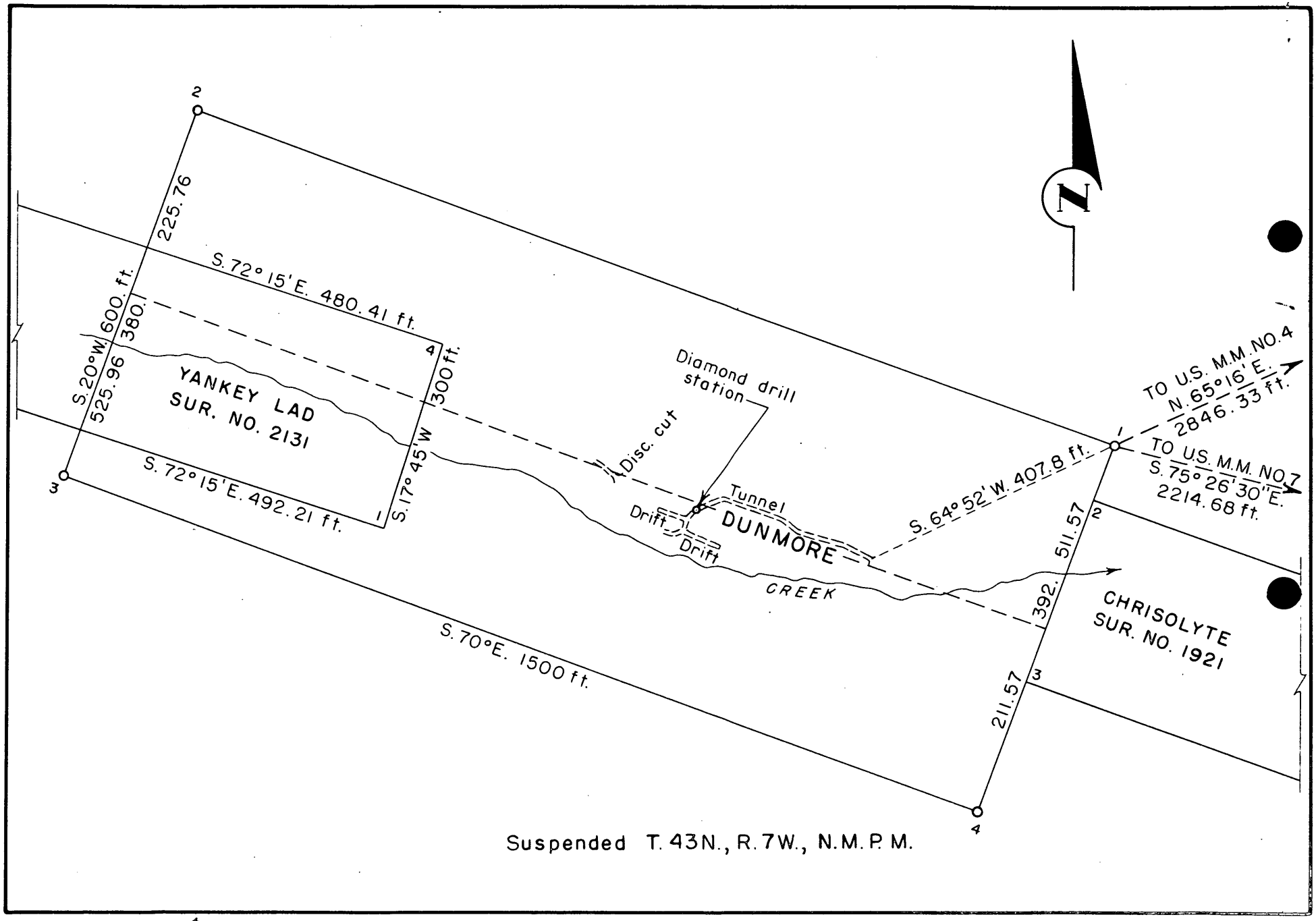


FIGURE 3., PROPOSED DIAMOND DRILLING, DUNMORE MINE, OURAY CO., COLO. DMEA-2548



Suspended T. 43N., R. 7W., N.M.P.M.

FIGURE 4 .- DUNMORE MINE, ROBITSCH AND BREWSTER, OURAY COUNTY, COLORADO. D.M.E.A. 2548