July 23, 1956

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region VII

Subject: Final Report on DMEA-3175, Idm-2 652 (mica) Gordon Mine
Mitchell County, North Carolina

Transmitted herewith are 4 copies each of the Operator's and Field Team final report on the Gordon Mine exploratory work.

We agree with the conclusion that a certificate of discovery should not be issued.

Robert A. Lawrence
EXECUTIVE OFFICER
DMEA REGION VII

Mr. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

RAL/em

Spruce Pine, North Carolina
July 16, 1954

Mr. Robert A. Laurence, Executive Officer
DMEA, Region 7
Room 13, Post Office Building
Knoxville, Tennessee

Re: DMEA-3178, Idm-E652
Borden Mine
Final Engineering Report

Dear Mr. Laurence:

Work began on the Borden project during the first part of February, 1954. The work consisted of bulldozing a road to the mine, building tool shed and magazines, moving in and setting up machinery. We reconditioned 85 feet of existing shaft.

We drove a drift 48 feet to the Northwest, in pegmatite most of the way, but very little mica was recovered. All the mica that we did recover was scrap. At the 28 foot depth in this drift we ran another drift 14 feet to the West which was in slate most of the way and in some pegmatite with no mica recovered. We then drove another drift 32 feet to the Northeast, making a total of 94 feet of drifting, and no mica of commercial value was recovered.

The field team advised us to abandon this operation.

We wish to thank the field team for their efforts and fine cooperation in working on this project. If further information is required for completion of the records, please let us know.

Very truly yours,

Zeb Buchanan

Zeb Buchanan

P/b

600

JUL 16 1954

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3178 - Rice
Zeb Buchanan, W. R. Johnson
and Edgar Buchanan
The Borden Mine
Mitchell County, North Carolina
Contract No. Idm-8652

Dear Mr. Laurence:

Reference is made to your memorandum of July 8, 1954, relating to the completion of subject project.

Please be advised you may consider this a completed project and no termination agreement is necessary.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Approved:

J. H. Hedges
Member, Bureau of Mines

Philip W. Guild
Member, Geological Survey

WCAnderson:ag 7/14/54
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3061
Mr. Larrabee, 5216
Mr. Houk

Mica Report

DMMA-3173 Idm-2052 (mica) BELTON, S.C.

OPERATOR: Zeb Buchanan, A. R. Johnson and Edgar Buchanan, Bakersville, N. C.

LOCATION: On a ridge between Laurel and Dry Branches, about 1 airline mile north of Hawk, Mitchell County, N. C.

Drifting has been in progress on this contract and now totals 94 feet. No additional exploration is warranted under contract and it is recommended that the contract be terminated.

Work conducted under the contract consisted of access road construction, dewatering and installation of temporary ladders in the existing 35 ft. shaft, enlarging the 35 ft. shaft to 5' x 7' in cross-section and drifting a total of 94 feet. 60 feet of drift was driven from the shaft bottom to the southeast. The body was essentially barren of mica and work was stopped in this direction when the body pinched out. New drift work was started to the northeast in promising looking pegmatite and was carried for 34 feet. Material encountered was composed primarily of quartz, feldspar and scattered blocks of muscovite mica, in a body about 8 feet thick. Due to the poor showing of possible strategic mica the operator was advised to discontinue work. The operators were cooperative with the examiners throughout this work and followed all suggestions closely.

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

K. H. Teague & D. H. Amos, Geologists

July 1, 1954

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

RECEIVED
JUL 16 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

For month of June, 1954 Docket No. DMEA 3173 Contract No. IGs-E 652

Operator's Name Borden Mining Company Minerals Mica

Address c/o Zeb Buchanan, Bakersville, N. C.

Contract Amount, $ 6825.00 Government Participation: 90 % Amount, $ 6142.50

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing		400.00	400.00			
Crosscutting						
34' Drifting @ 35.00 ft.	1190.00	2100.00	3290.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Reconditioning Shaft		1326.00	1326.00			
Dewatering		240.00	240.00			
(8) Contingencies (specify):						
Tool House		200.00	200.00			
Powder Magazine		50.00	50.00			
Exploder Magazine		25.00	25.00			
TOTALS	1190.00	4421.00	5611.00	1190.00	4421.00	5611.00

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-1

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

Date July 2, 1954 Payee Borden Mining Co.

Per Zeb Buchanan 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:

$ 1071.00

Signature Cora A. Piper
(Authorized Certifying Officer)

Date JUL 14 1954 Vou. No. 8

(See other side)

5th + 7th
C-6/30

(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 Mine Exploration Administration project under Contract No. Idm-E652 in accordance with the terms of the contract.

Signature Lawrence C. Shirley Title Mining Engr. Date July 4 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION VII Date JUL 8 1954

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-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Defense Minerals Administration
RECEIVED
JUL 16 1954

Month of June 1954 Docket No. DMEA 3178 Contract No. Idm-E652
Operator's Name Borden Mining Company Minerals Mica
Address c/o Zeb Buchanan, Balsersville, N. C.

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
34' Drifting @ 35.00	Ft.	1190.00	34	3290.00	94	35.00	100	35.00
Crosscutting								
Raising								
Shafts Reconditioning	Ft.			1326.00	51	26.00	85	26.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails Bulldozing	Hrs.			480.00	48	10.00	50	10.00
Dewatering	Ft.			240.00	60	4.00	85	4.00
TOTAL DISTRIBUTED COSTS		1190.00	34	5336.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Toolhouse Powder & Exploder				275.00				
Magazine TOTAL COSTS		1190.00		5611.00				

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

Date July 2, 1954 Operator Borden Mining Co.

Per Zeb Buchanan Title Partner
Zeb Buchanan

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

OPERATORS
MONTHLY PROGRESS REPORT

for the Month of June, 1954

DMEA-3178

Contract No. Idm-E652 (Mica)

COPY

Work Accomplished:

We completed 34 feet of drifting during the month, and had difficulty in doing so, as we were in flint about 2/3 of the way. The remainder of the way alternated with some slate and small streaks of vein material, and no mica was encountered.

Daily Notes:

June 1 - 4 Pulled water and muck, drilled. In streaks of vein material and some slate.

June 7 - 11 Pumped water, mucked. Drilled and did some shooting. Material changed to flint and became hard to work through.

June 14 - 18 Pumped water, mucked. Continued to drill and shoot in the same direction, and continued in flint most of the time.

June 21 - 25 Mucked, drilled and shot, still in flint but crossing a few streaks of vein material.

June 28 - 30 Completed 34 feet of drifting, still encountering no mica and still in flint . Decided after Mr. Teague visited the mine to stop at present depth.

M.' 0

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 7/12

REFERRED TO:

1. 600
2.
3.
4.

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	..... Referring to .....
..... Conference	..... Reply for signature of .....
..... Consideration	..... Rewriting
..... Filing	..... Signature
..... Instructions	..... Suggestions
..... Investigation	..... Your information
..... Initials	
..... Mailing	
..... Previous correspondence	

REMARKS: .....

Check (X) before the items needing attention.

ROBERT E. ADAMS

Initials of sender.

GPO 16—63815-1

Defense Minerals Administration
RECEIVED
JUL 12 1954

July 6, 1954

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region VII

Subject: DMEA-3170, Idaho 652 (Idaho) Border Mining Co., c/o Bob Dunbaugh, Bellerville, Ill. [illegible] Shoshone County, Idaho.

Operator has completed 96 feet of drift out of approved total of 100 feet in contract. Field examiners report no ore being the last 6 feet as there has been no indication of stratagic zone, so far. Operator agrees with this and has resumed the work.

I would consider this as a completed project. Do we need a termination agreement? If so, please advise me and we will send one.

Field Team final report will be submitted as soon as it can be prepared.

Robert J. Lawrence
EXECUTIVE OFFICER
DMEA REGION VII

[illegible]
[illegible]
[illegible]
[illegible]
[illegible] Sec. Div. File
[illegible]

INTERIM REPORT
On

DMEA-3178, Idm-E 652, BORDON MINE (mica)

Operators: Zeb Buchanan, W. R. Johnson, and Edgar Buchanan, Bakersville, N. C.

Location: On a ridge between Laurel and Dry Branches, about 1 airline mile North of Hawk, Mitchell County, North Carolina.

Drifting continues on this contract and now totals 78 feet; 16 feet of which is a new drift in a N. 20° E. direction from a point about 10 feet above the bottom of the rehabilitated shaft. The northwest half of this drift has been driven in quartz core and the other half in pegmatite consisting of feldspar, quartz and scattered books of muscovite. Country rock, biotite gneiss, is exposed on the southeast wall of the drift for the first 8 feet.

The Operator was advised to use the remaining footage of the contract in advancing the drift one more heading and then crosscutting to the northwest wall of pegmatite from the head of this new lateral.

Exam. Date: June 17, 1954.

K. H. Teague, and D. H. Amos, Geologists
U. S. Geological Survey

Z

INTERIM REPORT

L.M.-3178 Idm-2652 (mica) GORDON MINE

OPERATOR: Zeb Buchanan, W. R. Johnson and Edgar Buchanan, Bakersville, North Carolina.

LOCATION: On a ridge between Laurel and Dry Branches, about 1 airline mile north of Hawk, Mitchell County, N. C.

Drifting continues on this contract and now totals 88 feet. Work has been stopped on the southwest drift and incline, after further work disclosed that the pegmatite apparently terminates in this direction. Future drift work will be conducted to the northeast. Test holes have been drilled in this area to determine the thickness of the body to the hanging wall and some mica production is anticipated from this exploration. Material encountered in the last 17 feet of drift consisted of barren pegmatite which graded into biotite gneiss.

Suggestions were made concerning necessary retimbering of left sections before attempting work to the northeast. Progress on this contract is satisfactory.

L. A. Shirley, Mining Engineer
U. S. Bureau of Mines

R. M. Teague & D. M. Amos, Geologists
U. S. Geological Survey

June 3, 1954

Form M[redacted] (Rev.)
(Ap[redacted])

UNITED STATES
DEPARTMENT OF THE INTERIO[redacted]
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 1 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1954 Docket No. DMEA 3178 Contract No. Idm-E 652
Operator's Name Borden Mining Company Minerals Mica
Address c/O Zeb Buchanan, Bakersville, N. C.
Contract Amount, $ 6825.00 Government Participation: 90 % Amount, $ 6142.50

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						
Bulldozing		480.00	480.00			
Crosscutting						
30' Drifting @ 35.00 ft.	1050.00	1050.00	2100.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Redonditioning Shaft		1326.00	1326.00			
Dewatering		240.00	240.00			
(8) Contingencies (specify):						
*(6) Tool House		200.00	200.00			
Powder Magazine		50.00	50.00			
Exploder Magazine		25.00	25.00			
TOTALS	1050.00	3371.00	4421.00	1,050.00	3,371.00	4,421.00

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-71

I certify that the above bill is correct and just and that payment therefor has not been received.
Date June 1 *Payee Borden Mining Company
Per Zeb Buchanan 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:

$ 945.00

Signature Cora A. Pipes
(Authorized Certifying Officer)

Date JUN 9 1954 Vou. No. 306

(See other side)

105.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E652 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr. U.S.B.M. Date June 5, 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Lou M Beck ACTING Title EXECUTIVE OFFICER DMEA REGION VII Date JUN 7 1954

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;

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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.

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".

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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.

GPO 83-38476

Form [illegible].04A
(A[illegible]62)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 4 Docket No. DMEA 3178 Contract No. Idm-E 652

Operator's Name Borden Mining Company Minerals Mica

Address c/o Zeb Buchanan, Bakersville, N. C.

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
30' @ 35.00 ft.	Ft.	1050.00	30	2100.00	60	2100.00	100	35.00
Drifting								
Crosscutting								
Raising Reconditioning	Ft.			1326.00	51	1326.00	85	26.00
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits Bulldozing	Hr.			480.00	48	480.00	50	10.00
Dewatering				240.00	60	240.00	85	4.00
Roads and Trails								
		1050.00	30	4146.00				
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				275.00				
(Toolhouse, Powder & Exploder Magazines) Buildings, Improvements, etc.								
		1050.00		4421.00				
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.

June 1, 1954 Borden Mining Co.

Date ..... Operator .....

Partner

Per Zeb Buchanan Zeb Buchanan Title .....

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:

(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

OPERATORS
MONTHLY PROGRESS REPORT

for the Month of May, 1954

DMRA-3178

Work Accomplished:

Satisfactory progress has been made during the month, and we have continued our drift thirty feet. Due to bad air in the mine, we installed a blower which solved this problem. We have been traveling in slate and vein material, and are now getting into a small amount of good grade mica. The mica is flat, no spots and is generally good, but is small in size.

Daily Notes:

May 3 - 5 Pumped water, continued shooting. Now in material that is about 2/3 slate and vein material.

May 6 - 7 Pumped water, drilled, mucked. Air becoming bad in mine.

May 10 - 12 Drilled, mucked. Now hitting vein material with considerable granite.

May 13 - 14 Installed air blower to move bad air from mine.

May 17 - 19 Moved hoist and hoist house back in mine further, put in longer boom pole.

May 20 - 21 Pumped water, continued to drill. Now shooting in vein containing feldspar, quartz and some fine mica.

May 24 - 26 Pumped water, drilled, mucked. Took out material with small bits of mica.

May 27 - 31 Continued with the drift in practically same type material - feldspar, quartz and find mica.

COPY

[illegible] REPORT

[illegible]-3173 [illegible]-[illegible]52 (mica) [illegible]

[illegible] Zeb Buchanan, [illegible] Johnson and Edgar Buchanan, Takers-[illegible], [illegible]

LOCATION: [illegible] a ridge between [illegible] and [illegible], about 1 air-line mile north [illegible], [illegible], [illegible]

Drifting is underway and has advanced 65 feet on this contract. No change in the budget is anticipated at this time.

Most of the drift footage has been driven in pegmatite composed of feldspar and quartz and barren of mica. A few small pieces of clear muscovite were recovered in the earliest work. From 0 to 17 feet the drift was driven S 25° [illegible] in pegmatite only, from 17 to 32 feet pegmatite was exposed along the right wall and the work was driven S 10° [illegible], and from 32 to 45 feet (driven [illegible] 50° [illegible]) only wall rock is exposed. The body is plunging about 10° west and it was suggested to the operator that he return to a point 20 feet from the beginning of the drift and gradually incline the drift and attempt to keep his work in the body completely. Another examination will be made in the near future to see that this suggestion is complied with. Progress on this contract is satisfactory.

[illegible] B. Shirley, Mining Engineer
U. S. Bureau of Mines

D. M. Amos, Geologist
U. S. Geological Survey

May 21, 1954

For [redacted].

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Defense Minerals Exploration Administration
RECEIVED
MAY 17 1954

Month of April, 1954 Docket No. DMEA 3173 Contract No. Idm-5652
Operator's Name Borden Mining Co. Minerals Mica
Address Bakersville, N. C.
Contract Amount, $ 6825.00 Government Participation: 90 % Amount, $ 6142.50

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent / Short Form Contracts:						
Drilling						
Bulldozing		430.00	430.00			
Crosscutting						
Drifting 30' @35.00	1050.00	None	1050.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Reconditioning Shaft 25'	650.00	676.00	1326.00			
Dewatering		240.00	240.00			
(8) Contingencies (specify):						
*(6) Tool House		200.00	200.00			
Powder Magazine		50.00	50.00			
Exploder Magazine		25.00	25.00			
TOTALS	1700.00	1671.00	3371.00	1,700.00	1,671.00	3371.00

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-64

I certify that the above bill is correct and just and that payment therefor has not been received.
Date May 4, 1954 *Payee Borden Mining Co.
Per Zeb Buchanan 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:

$ 1,530.00

Signature Cora A. Pipes
(Authorized Certifying Officer)

Date MAY 13 1954 Vou. No. 279
(See other side)

3

170.00

(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. Idn E652 in accordance with the terms of the contract.

Signature Kefton H. Teague Title Geologist USGS Date MAY 7 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION VII Date MAY 7 1954

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

.04A
52)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
MAY 17 1954

Month of April 4 195 Docket No. DMEA 3178 Contract No. IDm-E652
Operator's Name Borden Mining Co. Minerals Mica
Address Bakersville, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Ft.	1050.00	30	1050.00	30	35.00	100	35.00
Crosscutting								
Raising Reconditioning Shafts	Ft.	650.00	25	1326.00	51	26.00	85	26.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits Bulldozing	Hrs.			430.00	43	10.00	50	10.00
Roads and Trails Dewatering	Ft.			240.00	60	4.00	85	4.00
TOTAL DISTRIBUTED COSTS		1700.00		3096.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				275.00				
New Buildings, Improvements, etc. *Tool House, Powder and Exploder Magazines		1700.00		3371.00				
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 May 4, 1954 Operator Borden Mining Co.

Per Zeb Buchanan Title Partner

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

OPERATORS
MONTHLY PROGRESS REPORT

for the Month of April, 1954

DMEA-3178

Work Accomplished:

We encountered a little more water than usual, but extended our ladders on down. After reconditioning the shaft, we made satisfactory progress with the drifting.

Daily Notes:

April 1 - 2	Pumped water, began shaft reconditioning.
April 5 - 7	Pumped water, continued shaft reconditioning.
April 8 - 9	Completed shaft reconditioning and installed necessary ladders.
April 12 -14	Drilled, mucked.
April 15 -16	Drove on what we could see of the vein in the direction that had been specified by the Govt. engineers.
April 19-21	Pumped water, continued drilling.
April 22	Engineers visited mine, and suggested that we put in some test holes. This was done.
April 23	As a result of test holes, we changed direction of of the drift.
April 26- 28	Picked up small vein, including small amount of mica.
April 29 - 30	Continued with drift, finding a little mica, but of a poor grade.

COPY

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

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE
OF PAYMENTS K- 59

260

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1954 Docket No. DMEA 3178 Contract No. Idm- E 652
Operator's Name Zeb Buchanan, W. R. Johnson & Edgar Buchanan Minerals Mica
Address Bakersville, N. C.
Contract Amount, $ 6,825.00 Government Participation: 90% Amount, $ 6,142.50

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						
Bulldozing		480.00	480.00			
Crosscutting						
Drifting						
Toolhouse	200.00	None	200.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Powder Magazine	50.00	None	50.00			
Exploder Magazine	25.00	None	25.00			
(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						
Reconditioning shaft 26 ft.	676.00	None	676.00			
Dewatering (60 ft.)	240.00	None	240.00			
(8) Contingencies (specify):						
TOTALS	$1191.00	$480.00	$1671.00	1,191.00	480.00	1,671.00

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

Date 4-1-54 *Payee Zeb Buchanan, W. R. Johnson & Edgar Buchanan

Per Zeb Buchanan 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:

$ 1,071.90

Signature Cora A. Piper
(Authorized Certifying Officer)

Date APR 6 1954 Vou. No. 260
(See other side)

2

119.10

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E652 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr. U.S.B.M. Date April 5, 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. E. Beck ACTING Title EXECUTIVE OFFICER DMEA REGION VII Date APR 5 1954

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-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1954 Docket No. DMEA 3178 Contract No. Idm- E 652
Operator's Name Zeb Buchanan, W. R. Johnson & Edgar Buchanan Minerals Mica
Address Bakersville, N. C.

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
Building Toolhouse		200.00		200.00				200.00
Constructing Powder Magazine		50.00		50.00				50.00
Raising Exploder Magazine		25.00		25.00				25.00
Shafts reconditioning	Ft.	676.00	26	676.00	26	26.00	85	26.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	Hrs.			480.00	48	10.00	50	10.00
Dewatering	Ft.	240.00	60	240.00	60	4.00	85	4.00
TOTAL DISTRIBUTED COSTS		1191.00		1671.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$1191.00		$1671.00				

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

Date 4-1-54 Operator Zeb Buchanan, W. R. Johnson & Edgar Buchanan

Per Zeb Buchanan 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.

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

OPERATORS
MONTHLY PROGRESS REPORT
for the
Month of March, 1954

DMEA No. 3178

Work Accomplished

We have built a toolhouse and installed the powder and exploder boxes. We began on reconditioning the shaft and advanced 26 feet, and advanced 30 ft. of dewatering.

Daily Notes

March	1 - 5	Hauled in lumber and built toolhouse.
March	8 - 9	Brought in powder and exploder boxes and installed them.
March	10 - 12	Began ~~[illegible]~~ reconditioning shaft.
March	15 - 17	Mucked, pumped water and drilled.
March	18 - 19	Continued work on reconditioning shaft and pumping water.
March	22 - 26	Continued work on reconditioning shaft and pumping water. Some pretty mica is showing, but still haven't got any out.
March	29 - 31	Mucked, pumped water and drilled.

DOE

A

[illegible]T

[illegible]-3175 [illegible]-362 (Misc) [illegible]

[illegible] Feb [illegible], [illegible] and [illegible] [illegible], [illegible] [illegible]ville, [illegible]

[illegible] bridge between Laurel and [illegible] [illegible], about [illegible] air-line miles [illegible] of Lawn, [illegible] [illegible], [illegible]

[illegible]metering, and other work outlined under Stage I of the contract has been completed to a depth of 32 feet. The bottom contains an unestimated amount of muck which, when removed, will increase the total depth. The cost of the [illegible] and lofting were examined and is in good condition. The most practical points of exploration were located and discussed with the operators. Enlargement of the shaft to 5' x 7' in order [illegible] and installation of a partitioned [illegible] army will begin as soon as written approval is received by the operators from the regional office. The report on this contract is satisfactory.

[illegible] Barley, Mining Engineer
[illegible] Bureau of Mines

[illegible] Jolliffe, Geologist
[illegible] Geological Survey

March 25, 1954

C
O
P
Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON, D.C.~~
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

March 30, 1954

Mr. Zeb Buchanan

Bakersville, North Carolina

Re: DMEA-3178, Idm-E652 (mica)
Bordon Mine, Mitchell County, N. C.

Dear Mr. Buchanan:

This is to confirm the verbal approval, given by Mr. Teague and Mr. Shirley last week, for you to be gin Stage II of the work described under exhibit "A" of the Bordon contract. Specific approval is given to the construction of the toolhouse, powder magazine and exploder magazine, and to enlarge the shaft to 5 X 7 feet in cross-section, install a partitioned ladderway, and timber the shaft where necessary. Completed items may thus be included for payment on your March voucher.

Level work from the shaft should not be bagun until examined and approved by Mr. Teague and Mr. Shirley. They will next visit the Bordon mine on April 8.

Very truly yours,

Robert A. Laurence

Mr. Chambers

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

SOUTHEASTERN REGION
REGION VII
HAMILTON BANK BUILDING

OFFICE OF
REGIONAL DIRECTOR

POST OFFICE BOX 1909
KNOXVILLE, TENNESSEE

MAR 25 1954

March 23, 1954

Memorandum

To: J. L. Chambers, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Administrative Officer, Region VII, Knoxville, Tennessee

Subject: Monthly reports and vouchers

We are enclosing two copies each of the following monthly reports and vouchers:

Idm-E-454 — Schroeder Company
DMEA Docket No. 2634
15th payment - month of February
Amount $2246.63

Idm-E-503 — L. Rex Doons
DMEA Docket No. 3136
4th payment - month of February
Amount $378.00

Idm-E-612 — E. E. Bellson
DMEA Docket No. 3130
5th and final payment - month of February
Completion Date: 2/26/54
Amount $1512.00

Idm-E-618 — Dixie Mines, Inc.
DMEA Docket No. 3132
4th payment - month of February
Amount $1134.00

Idm-E-652 — Zeb Buchanan, W. R. Johnson & Edgar Buchanan
DMEA Docket No. 3178
1st payment - month of February
Amount $432.00

Helen R. Miller

Enclosures
CC: W. A. Beck
R. A. Lawrence
Region Files
Day Files

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

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE PAYMENTS K-57

DEPARTMENT OF THE INTERIOR

OPERATOR'S MONTHLY REPORT AND VOUCHER

MAR 25 1954

Month of February, 1954 Docket No. DMEA 3178 Contract No. Idm- E 652
Operator's Name Zeb Buchanan, W. R. Johnson, Edgar Buchanan Minerals Mica
Address Bakersville, N. C.
Contract Amount, $6,825.00 Government Participation: 90 % Amount, $ 6,142.50

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						
Bulldozing (48 hrs.)	480.00	None	480.00	480.00		480.00
Crosscutting						
Drifting						
Toolhouse	200.00	None	200.00	—		—
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Powder Magazine	50.00	None	50.00	—		—
Exploder Magazine	25.00	None	25.00	—		—
(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	$ 755.00		$755.00	480.00		480.00

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

Date 3-15-54 *Payee Zeb Buchanan, W. R. Johnson, & Edgar Buchanan

Per Zeb Buchanan 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:

$ 432.00

Signature Cora A. Pipes
(Authorized Certifying Officer)

Date MAR 23 1954 Vou. No. 250
(See other side)

10

48.00

(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 Kefton H. Teague Title Geologist Date 3-19-54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert L. Lawrence Title EXECUTIVE OFFICER DMEA REGION VII Date MAR 22 1954

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-R1151.1
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

MAR 25 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Feb. 195 4 Docket No. DMEA 3178 Contract No. Idm- E 652
Operator's Name Zeb Buchanan, W. R. Johnson, & Edgar Buchanan Minerals Mica
Address Bakersville, N. C.

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~~ Toolhouse		200.00		200.00				200.00
~~Crosscutting~~ Powder Magazine		50.00		50.00				50.00
~~Raising~~ Exploder Magazing		25.00		25.00				25.00
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	Hrs.	480.00	48	480.00	48	10.00	50	10.00
TOTAL DISTRIBUTED COSTS		755.00		755.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		755.00		755.00				

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

Date 3-15-54 Operator Zeb Buchanan, W. R. Johnson, & Edgar Buchanan

Per Zeb Buchanan 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.

REMARKS:

(Instructions on reverse)

(For Government use only)

$480.00 approved was

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

MAR 25 1954

OPERATORS
MONTHLY PROGRESS REPORT
for the
Month of February, 1954

DMEA No. 3178

Work Accomplished

We have built the road to the mine and installed the equipment and the powder and exploder magazines.

Daily Notes

February	1 - 5	Bulldozed Road and did some blasting on road.
February	8 - 10	Completed Bulldozing road and did some blasting.
February	11 - 12	Brought in hoist and set it up and set up boom poles.
February	15 - 16	Brought in Air Compressor and set it up.
February	17 - 19	Hauled in lumber and began building toolhouse.
February	22 - 26	Finished toolhouse and brought in powder and exploder boxes and installed them.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAR 25 1954

March 19, 1954

Mr. Zeb Buchanan

Bakersville, North Carolina

Re: DMEA-3178, Idm-E 652 (mica)
Bordon Mine

Dear Mr. Buchanan:

Your voucher and monthly report for February have been received.

Please read exhibit "A" of the contract. You will note that Stage II is to be undertaken only after Stage I has been completed and approved by the Government. The toolhouse and magazines are all listed as item 1 of Stage II, and therefore should not have been begun at this time. For that reason, the $275.00 charged to these items is deducted from your voucher, and it is approved for payment of 90% of $480.00, or $432.00.

No additional work under Stage II should be done before completion of Stage I. No payment for any items under Stage II can be made unless and until Stage I has been completed and approval of Stage II has been made. Please note further that the location, direction, inclination and extent of all work (under Stage II) must have prior written approval of the Government. Work done without this approval will not be paid for with government funds.

Mr. Teague and Mr. Shirley will be at the Bordon mine on Thursday March 25. If you have any questions about this, they will be glad to explain further. If stage I is complete, or nearly so, at that time, you should arrange with them for examination and approval.

Very truly yours,

Robert A. Laurence
Executive Officer, DMEA
Region VII

RAL/sm
cc:
Beck
Lynch
Files
Opr. Com.

[illegible] REPORT

[illegible]-3178 [illegible]-.682 (mica) [illegible]

OPERATOR: Rob Buchanan, [illegible] Johnson and [illegible] Buchanan, Bakersville, N. C.

[illegible]: On a ridge between [illegible] and [illegible] Branches, about 1 airline mile north of [illegible], Mitchell County, N. C.

Starting date on an access road to this mine is February 17, 1954. Construction of the access road has been completed. It is passable only by jeep in wet weather. Sinking of the existing shaft is underway, but not complete. Equipment at the site consists of a gasoline powered hoist, 105 c.f.m. air compressor with necessary drilling attachments and miscellaneous hand tools. A straight leg and [illegible] pole for hoisting frame has been rigged. Another inspection will be made as soon as the [illegible] for a watered and installation of the [illegible] is complete.

[illegible] Shirley, Mining Engineer
U. S. Bureau of Mines

[illegible] Tempto and D. [illegible] Amos, Geologists
U. S. Geological Survey

March 12, 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

February 19, 1954

Mr. Zeb Buchanan

Bakersville, N. C.

Re: Docket DMEA-3178 (mica) Idm-E 652

Dear Mr. Buchahan:

On January 4, 1954 we transmitted to you the original and five copies of a contract to do exploratory work at the Borden Mine for the signatures of you and your partners. This contract was signed by the D. M. E. A. Administrator and was dated December 30, 1953. To date we have not received the signed contract in this office.

The contract specified that work was to commence within 60 days from the date of the contract. As this time is almost up, we are wondering why you have not returned the signed contracts.

If any of the provisions in the contract are unsatisfactory, please return all copies to this office unsigned.

Please give this matter your immediate attention, as under the terms of the contract, work must be started before March 1, 1954.

Very truly yours,

Acting Executive Officer
DMEA-Region VII

WAP/sm
cc:
Beck
Lynch
Cpr. Com.
Files

DEC 3 0 1953 600

Mr. Robert A. Lawrence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3178 - Mica
Zeb Buchanan, W. K. Johnson
and Edgar Buchanan
The Bordon Mine
Mitchell County, North Carolina

Dear Mr. Lawrence:

Please find herewith the original and five copies of a contract covering the subject exploration project which have been signed by the Government with register number and effective date as shown.

If the contract meets with your approval present it to the partners for approval and signature. Please explain to the partners that the contract, when executed, is a firm commitment under the terms of which it is obligated to complete the work outlined at the agreed unit cost. If any part of this contract does not have either your approval or that of the partners and cannot be amended within your delegated authority, then the original and all copies of the contract are to be returned to this office, together with the proposed changes for consideration.

After execution of the contract, the copies are to be distributed in the usual manner.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

D. M. Larrabee

Member, Geological Survey

Enclosures: 6

WCAnderson:ag 12/28/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

IN REPLY REFER TO:

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

November 3, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3178 (Mica).

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. A. Brobst, U. S. Geological Survey
Applicant: Buchanan, Johnson & Buchanan
Name of property: Bordon Mine
Location of property: On a ridge between Laurel and Dry Branches, about 1 mile north of Hawk, Mitchell County, N. C.
Date of field team report: October 26, 1953
Authorship of field team report: K. H. Teague and L. E. Shirley
Field team's recommendation: Includes improving 1.5 miles of logging road to the mine, dewatering and rehabilitating a shaft, cutting of 100 feet of drift, and the construction of exploder and powder magazines and a tool house. Estimated costs are shown below.

Comments:

1. The examiners propose a realistic approach to exploration of a property which apparently holds promise as a producer of strategic ruby mica.

2. Although the field team's report suggests that the work be done in two stages, they do not specifically set up the costs on that basis. Approval for this contract should not be granted without setting up the work plan in stages.

3. Cost of dewatering the shaft is omitted from the cost schedule. Check with the field team for an estimate.

4. The following plan is suggested:

Stage I	
Improve the 1.5 miles of road	$500.00
Tool house	200.00
Dewater the old shaft	?
Examination of the shaft by the field team to determine the advisability of Stage II	
	$700.00 +

Stage II	
Powder magazine	$ 50.00
Exploder "	25.00
Trim and install ladderway in 85 ft. of shaft at $30.00/ft.	2550.00
100 feet of drift at $35/ft.	3500.00
	$ 6,125.00
Estimated Grand Total	6,825.00 +

ACTION SUGGESTED:

Follow field team's recommendation for exploration, but set up the work in two stages.

D. A. Brobst

Copy to: DMEA (3)

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

NOV 10 1953

November 10, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3178, Mica

Applicant: Zeb Buchanan, W. R. Johnson, and Edgar Buchanan
Name and Location of Property: Bordon Mine, Mitchell County
North Carolina
Date of Field Team Report: October 26, 1953
Field Team's Recommendation:

1. Improve existing logging road.
2. Trim and install ladderway in 85 foot existing shaft.
3. Exploration by a 100 foot drift.
4. Total estimated costs - $6,825.

Comments:

1. It is suggested the project be considered in two stages. Stage I, reconditioning of the existing shaft. Stage II, examination of the shaft after it has been dewatered to determine if further exploration is justified and if so, the best method for exploration.

Recommendation:

I concur in the field team's recommendation for an exploration program, but suggest consideration of the program in two stages.

Signed

W. F. Dietrich

December 10, 1953

Memorandum

To: Operating Committee, D M E A - Washington

From: Field Team, Region VII

Subject: DMEA-3178 (mica) Zeb Buchanan, W. R. Johnson and Edgar Buchanan, The Bordon Mine, Mitchell County, North Carolina

Reference is made to your letter of December 4, 1953.

The Field Team overlooked the need for a more complete breakdown of cost figures in the examination report of subject mine. In order to adequately examine the existing shaft after it is dewatered, it will be necessary to install temporary ladders. These ladders may be reused after the existing shaft is trimmed. It is recommended that the following estimates be used:

Stage I

Improve 1.5 miles of access road	$500.00
Dewater and install temporary ladders in existing 85-foot shaft @ $4/ft.	340.00
Estimated Cost Stage I.....	$840.00

Stage 2

Tool House	$200.00
Powder magazine	50.00
Exploder magazine	25.00
Trim to 5' x 7' and install partitioned ladderway in 85-ft. Shaft @ $26/ft.	$2,210.00
100 ft. drift @ $35/ft.	3,500.00
Estimated Cost of Stage I & 2	$5,985.00

Reference is made to the size of the area covered by the applicants lease and the location of proposed work. The area is

roughly rectangular in shape, being about 220 feet long by 140 feet wide. The long dimension is parallel to the strike of the pegmatite and the dip is steep, so that there is no danger of the pegmatite dipping out of the lease area. The Field Team is of the opinion that the leased area is adequate for the exploration.

Robert A. Laurence
Executive Officer, DMEA
Region 7

Wm. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

KHT/sm
cc:
Beck
Lynch
Files

600

DEC - 4 1953

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3178 - Mica
Zeb Buchanan, W. R. Johnson
and Edgar Buchanan
The Borden Mine
Mitchell County, North Carolina

Dear Mr. Laurence:

Enclosed are copies of reviews by the Geological Survey and the Bureau of Mines of the Report of Examination by the Field Team on the subject property.

Both the Geological Survey and the Bureau of Mines suggest the project be carried out in two stages. In order to follow the suggestion by the Geological Survey, please note we will need the cost for dewatering the old shaft. However, can examination be carried out safely and satisfactorily without additional outlay of money (beyond pumping cost), for reconditioning the shaft?

We note that the Field Team states that the area of 0.7 acres covered by the lease is adequate for the proposed work. Just offhand, it seems to us a rather small area to carry on a $6,858.00 exploration project where considerable mining has already been done.

Before continuing with the processing of this application, we will appreciate having your views on the suggestions and comments by the Geological Survey and the Bureau of Mines and reassurance by the Field Team that the area under the lease is adequate.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

WCAnderson:gad 12/2/53

Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

Approved:

J. H. Hedges

Member, Bureau of Mines

D. M. Larrabee

Member, Geological Survey

Enclosures 2

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 10 1953

November 10, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3178, Mica

Applicant: Zeb Buchanan, W. R. Johnson, and Edgar Buchanan
Name and Location of Property: Bordon Mine, Mitchell County
North Carolina
Date of Field Team Report: October 26, 1953
Field Team's Recommendation:

1. Improve existing logging road.
2. Trim and install ladderway in 85 foot existing shaft.
3. Exploration by a 100 foot drift.
4. Total estimated costs - $6,825.

Comments:

1. It is suggested the project be considered in two stages. Stage I, reconditioning of the existing shaft. Stage II, examination of the shaft after it has been dewatered to determine if further exploration is justified and if so, the best method for exploration.

Recommendation:

I concur in the field team's recommendation for an exploration program, but suggest consideration of the program in two stages.

Signed
W. F. Dietrich

IN REPLY REFER TO:

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

November 3, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3178 (Mica).

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. A. Brobst, U. S. Geological Survey
Applicant: Buchanan, Johnson & Buchanan
Name of property: Bordon Mine
Location of property: On a ridge between Laurel and Dry Branches, about 1 mile north of Hawk, Mitchell County, N. C.
Date of field team report: October 26, 1953
Authorship of field team report: K. H. Teague and L. E. Shirley
Field team's recommendation: Includes improving 1.5 miles of logging road to the mine, dewatering and rehabilitating a shaft, cutting of 100 feet of drift, and the construction of exploder and powder magazines and a tool house. Estimated costs are shown below.

Comments:

1. The examiners propose a realistic approach to exploration of a property which apparently holds promise as a producer of strategic ruby mica.

2. Although the field team's report suggests that the work be done in two stages, they do not specifically set up the costs on that basis. Approval for this contract should not be granted without setting up the work plan in stages.

3. Cost of dewatering the shaft is omitted from the cost schedule. Check with the field team for an estimate.

4. The following plan is suggested:

Stage I	
Improve the 1.5 miles of road	$500.00
Tool house	200.00
Dewater the old shaft	?
Examination of the shaft by the field team to determine the advisability of Stage II	
	$700.00 +

Stage II	
Powder magazine	$ 50.00
Exploder "	25.00
Trim and install ladderway in 85 ft. of shaft at $30.00/ft.	2550.00
100 feet of drift at $35/ft.	3500.00
	$ 6,125.00
Estimated Grand Total	6,825.00 +

ACTION SUGGESTED:

Follow field team's recommendation for exploration, but set up the work in two stages.

D. A. Brobst

Copy to: DMEA (3)

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

COPY

October 27, 1953

Memorandum

To: Operating Committee, D M E A - Washington

From: Field Team, D M E A - Region 7

Subject: Field examination Reports.

Transmitted herewith are four copies of field examination reports with six extra copies of maps on the following:

DMEA-3177, Goodmica Mining Co. North Carolina (mica)

✓ DMEA-3178, Buchanan, Johnson and Buchanan, North Carolina

The field team is in agreement with the recommendations set forth in the reports.

/s/ Executive Officer, DMEA
Region 7

/s/ Wm. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
11-2-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

ON

DMEA-3178, BORDON MINE (mica)
Mitchell County, N. C.

BY
Kefton H. Teague, Geologist
U. S. Geological Survey

and

Lawrence E. Shirley, Mining Engineer
U. S. Bureau of Mines

October 26, 1953

Reviewed by
DMEA OPERATING COMMITTEE

11-2-53
(date)

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Field Team Report on

BORDON MINE
DMEA-3178, (mica)
Applicants: Zeb Buchanan, W. R. Johnson, and Edgar Buchanan
Bakersville, North Carolina

Evidence available at this deposit is sufficient to justify exploration assistance. The total past production is unknown, but apparently considerable mica and feldspar have been produced.

The deposit was examined on October 19, 1953. All of the applicants- Zeb Buchanan, W. R. Johnson and Edgar Buchanan, accompanied the examiners on the inspection which required three hours.

The Bordon (Bardon) mine is on a ridge between Laurel and Dry Branches, about one airline mile north of Hawk, Mitchell County, North Carolina. Access is by a steep logging trail up Laurel Branch. At present access is possible only by walking; however, the logging road can be improved sufficiently to permit travel by jeep during periods of dry weather. About 1.5 miles of road will require improvement.

All of the applicants have had mica and feldspar mining experience. If assistance is granted, Edgar Buchanan will supervise the work. He appears competent to conduct the proposed work.

The applicants hold the mine by lease. Area covered by the lease (approx. 0.7 acres) is adequate for the proposed work.

This mine has been worked intermittently for feldspar and mica over a period of many years. The most recent operations were during the period of June 1943 to June 1944. The Colonial Mica Corporation purchased $6613.27 worth of mica from this mine. Production prior to World War II is unknown. The openings include a slumped open cut 50 feet long, 30 feet wide, and 25 feet deep. An inclined shaft, reported to be 85 feet deep is 15 feet from the south end of the cut. There are no reported laterals southwest from the shaft. The country rock is a mica schist whose foliation strike N. 25° E. and dips 60° SE.

The pegmatite body is not exposed, but the shape of the cut suggests that it ranges from 6 to 8 feet in thickness. It may pinch and swell along its strike. The chief pegmatite minerals are plagioclase, microcline, quartz, and mica. Much of the quartz evidently occurs as veins or relatively large, pod-like masses. The mica is ruby to reddish brown, and in general is of good quality. Some is ruled. The books appear to have been concentrated, at least in part, along the margins of quartz masses.

According to several reports, one of the books was among the largest ever encountered in the Bakersville area.

At present the shaft is filled with water to within 25 feet of the collar; however, reports are that very little water is normally made in the shaft. For the first 25 feet the shaft is vertical and 5' x 5' in cross section. Below that level it is inclined on the pegmatite and reports indicate that the shaft may not be more than 4' x 4' in cross section. Reports are that a lateral, driven from about the 35-foot level connects with the open cut to the northeast. The upper 15 feet of the shaft is timbered with split chestnut, and appears to be in good shape.

The "mica shoot" is reported to rake to the southwest and was cut by the shaft between the 35 and 50-foot levels. This report may be valid inasmuch as minor folds in the country rock rake to the southwest at an angle of about 50°.

The applicants proposal which includes considerable bulldozing at the mine site has questionable value. The field examiners are of the opinion that the most logical and economical approach to use in exploring the deposit is to use the existing shaft and conduct exploration from it. Before exploration can begin, access should be provided for jeep transportation. After access is provided, the shaft should be dewatered and the field examiners be permitted to examine it. If possibilities at this point justify, all or the necessary part of the existing shaft should be trimmed to 5' x 7', timbered where necessary and separate manway installed. Laterals, not to exceed 100 linear feet, should then be driven from the most promising points in the shaft. It is possible that it will not be necessary to trim the shaft to the bottom if promising mica bearing pegmatite is found at higher levels.

The above recommendations were discussed with the applicants and it meets with their approval.

Estimated Cost:

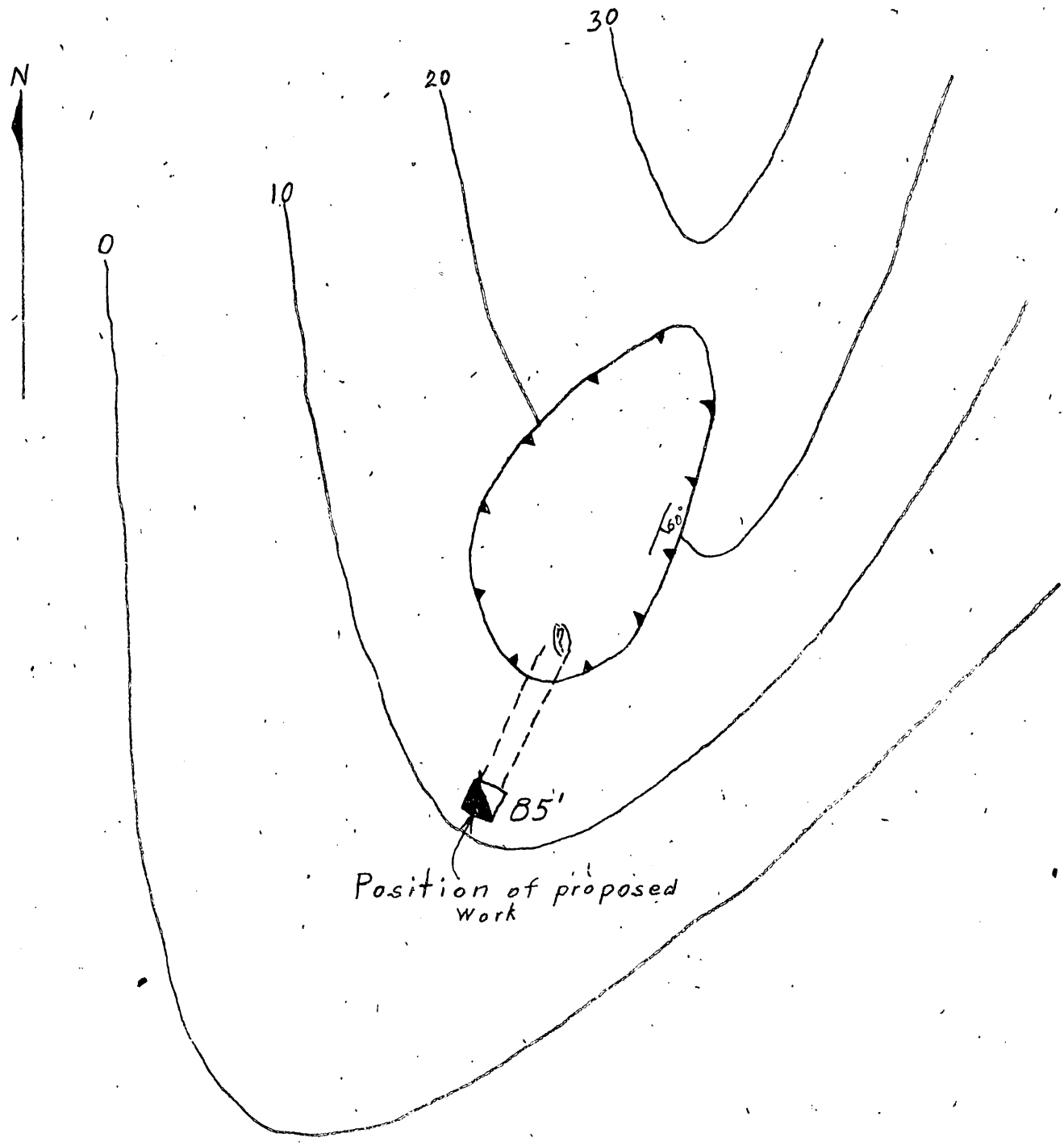
Improve 1.5 miles of existing logging road to permit jeep travel	$ 500.00	
10' x 15' tool house	200.00	
Powder magazine	50.00	
Exploder Magazine	25.00	
Trim and install ladderway in 85-foot existing shaft @ $30.00/ft.	2550.00	
100 feet of drift @ $35.00/ft.	3500.00	
Total Estimated Cost		$6,825.00

Estimated time required six months.

October 26, 1953.

K. H. Teague, U. S. G. S.

Lawrence E. Shirley, U.S.B.M.



Sketch of
Bordon Mine
Mitchell Co., N.C.

0 20' 40'

Scale

DMEA-3178 (mica)

600

OCT - 7 1953

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3178 - Miss
Zeb Buchanan, W. R. Johnson and
Edgar Buchanan
The Borden Mine
Mitchell County, North Carolina

Dear Mr. Laurence:

Please review the subject application and arrange for a field examination if you deem it advisable.

Copies of memoranda from the Geological Survey and the Bureau of Mines are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

Enclosures 4

WCAnderson:gad 10/6/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

OCT - 7 1953

Mr. Zeb Buchanan

Bakersville, North Carolina

Re: Docket No. DMEA-3178 - Mica
Zeb Buchanan, W. H. Johnson and
Edgar Buchanan
The Borden Mine
Mitchell County, North Carolina

Dear Mr. Buchanan:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville 2, Tennessee, for further consideration and possibly a field examination.

The Regional Office will contact you at an early date if an examination is to be made. Any assistance that you may give the members of the field team during the examination will be appreciated.

Sincerely yours,

E. O. Mittendorf

Administrator

Cinderson:gad 10/6/53

Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

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

Defense Minerals Administration
RECEIVED
OCT 1953

October 2, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Acting Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3178, Mica, Borden Mine, Zeb and Edgar Buchanan and W. R. Johnson, Mitchell County, North Carolina

No data are available in this office on subject mine. It is suggested the field team visit this mine when a member of the field team is in that vicinity to ascertain if an exploration program is justified.

Signed

Donald R. Irving

IN REPLY REFER TO:
G-MI-CRM

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

September 28, 1953

Memorandum

REVIEW OF APPLICATION DMEA-3178 (Mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: Donald A. Brobst, U. S. Geological Survey
Applicant's name and address: Zeb Buchanan, W. R. Johnson and Edgar Buchanan all of Bakersville, North Carolina.
Name of property: The Borden Mine.
Location of property: 5 miles from Bakersville, near Hawk, Mitchell County, North Carolina.
Summary of applicant's proposal:

1. Prepare the site and trench with a bulldozer.
2. Sink 5x7 ft. shaft for 125 ft.
3. Drift for 100 ft.

Costs:	40 hrs. bulldozing at $10/hr.	$400.00
	125' of 5x7 shaft at $50/ft.	6,250.00
	100' of drift at $35/ft.	3,500.00
	Estimated total cost	$10,150.00 in about 9 mos. work.

Sources of information on applicant's property:
The Survey has no information on this mine.
Comments:

1. The applicants claim to be able to produce ruby mica of strategic quality from this mine.
2. There is no geology on the applicants' sketches so a field examination to determine (1) geology of the pegmatite, (2) the quality of the mica, and (3) the soundness of the applicants' approach to exploration.

RECOMMENDATION:
Refer the application to the field team for an examination of the property.

Donald A. Brobst

Brobst:jeh
9/28/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Brobst G-230

☑ Audited

☐ Certified

WO[illegible] ANALYSIS SHEET - DMEA PROJECT

Analysis as of Nov 29 54
Incl. Voucher for July 54

☐ Actual Cost

☑ Agreed Unit Costs

Name Zeb Buchanan et al

Docket No. 3178

State N.C.

Commodity Mica

Idn-E No. 652

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	100	3500	94	3290	3290
Raising					
Shafts					
Winzes					
Drilling (Specify)					
Surface Excavation					
Underground Excavation					
Roads and Trails		$500		$480	$480
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation		$2550		$1566	$1566
New Building, Improvements, etc.		$275		$275	$275
Other (Specify)					
Totals		$6825		$5611	$5611

Prepared by L.G.H.

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Zeb Buchanan, W. R. Johnson & Edgar Buchanan
d/b/a Borden Mining Company
Bakersville, North Carolina

pertaining to Exploration Project Contract No. Idm-E652, Docket No. DMEA-3178, for the period of February, 1954 to June, 1954, inclusive, covering a project of exploration of mica, on property known as Borden Mine, located in Mitchell County, North Carolina.

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

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

all of the costs incurred were under a contract provision for payment by the Government on the basis of agreed estimated costs of units of work actually performed.

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

Total cost as billed by Contractor		$5,611.00
Exceptions:		
By DMEA Finance Officer	$ -0-	
Herewith	-0-	-0-
Total Accepted Cost		$5,611.00

The contract calls for a 90 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Five thousand forty-nine Dollars and 90/100,

$5,049.90

is considered valid and proper, provided that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

B. J. BREKHUS
Auditor

July 16, 1954

MF-200 (A)
(February 1952)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 25 1954

DOCKET NO. DMEA 3275

COMMODITY Mica

Division Copy
IDM-E 652

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

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 30th day of December, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] [illegible] R. Johnson, and [illegible] McBanan, partners, Spruce Pine, North Carolina

hereinafter called the "Operator," as follows: and as set forth in Annexes I and II attached hereto and made a part hereof:

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 North Carolina, County of Mitchell, described as follows:[3] See Exhibit "A" attached hereto.

the Operator represents and undertakes:[4]

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

(*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 60 days from the date of this contract shall commence work on a project of exploration for[5] Mica

in or upon the described land; and shall bring the project to completion within a period of Eight (8) 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 50 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 $6,142.50, which is 50 percent of $12,285.00, 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 month reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Governm These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work formed on the project during the period covered by the report and his voucher for repayment by the Government, unle Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on 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 attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *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. See Annex II, substituted for Article 6.

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* .....

Executed in sextuplicate the day and year first above written.

(Operator)

(Partner)

(Partner)

(Partner)

THE UNITED STATES OF AMERICA

By

Administrator, Defense Minerals Exploration Administration

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

EXPLORATION PROJECT CONTRACT
ZEB BUCHANAN, W. R. JOHNSON, AND EDGAR BUCHANAN, PARTNERS
DOCKET NO. DMEA-3176

ANNEX I

The land referred to in Article 2 of the contract form is known as The Bordon Mine and was leased for mining purposes to Zeb Buchanan, W. R. Johnson, and Edgar Buchanan for a period of five years by Mrs. Effie Buchanan and Milt Wilson, by an instrument dated July 31, 1953. It is located on a ridge between Laurel and Dry branches, about one airline mine north of Hawk, Mitchell County, North Carolina, and is described in the aforesaid lease, as follows:

"Beginning on a 16" water oak standing 14' Northwest of a 30' granite ledge; 12' Northeast of a 12" chestnut oak pointer. Running North 49° 30' East for 100' to a 6" blackgum, then N. 48° E. for 115' 6" to a 6" maple. Then S. 31° 30' East for 88' to a stake near a double maple. Then S. 50° E. for 39' to a 4" crabapple. Then S. 36° 30' W. for 129' to a 5" hickory. Then S. 35° 30' W. for 99' to a stake in the old sled road. Then N. 56° 30' W. for 124' along old road, to an 18" water oak in edge of old road. Then N. 1° E. for 66' to the beginning. Containing approximately .7 (seven-tenths) acres."

EXPLORATION PROJECT CONTRACT
ZEB BUCHANAN, [illegible]. R. JOHNSON, AND EDGAR B[illegible]HANAN, PARTNERS
DOCKET NO. DMEA-3178

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 25 1954

ANNEX II

The following provisions are in lieu of Article 6

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by this contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production (including any bonuses), in whatever form disposed of, including ore, concentrates, or metal, as follows:

(a) One and one-half ($1\frac{1}{2}$) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(b) One and one-half ($1\frac{1}{2}$) per cent of any such net amounts, plus one-half ($\frac{1}{2}$) per cent 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) 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 ($1\frac{1}{2}$) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) per cent.)

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

d. Lien for Payment.--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.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--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.

MAY 25 1954

EXPLORATION PROJECT CONTRACT
ZEB BUCHANAN, W. E. JOHNSON, AND EDGAR BUCHANAN, PARTNERS
DOCKET NO. DMEA-3178

EXHIBIT "A"

Description of the Work

Exploration for concentrations of strategic mica shall be accomplished in the area indicated on the attached map entitled "Sketch of Bordon Mine, Mitchell Co., N. C., DMEA-3178 (mica)." The work shall be done in two stages, as follows:

Stage I

1. Improve 1.5 miles of existing logging road to permit jeep travel.

2. Dewater and install temporary ladders in existing 85-foot shaft.

Stage II

1. Construct one toolhouse 10 feet by 15 feet, one powder magazine, and one exploder magazine.

2. Enlarge the existing 85-foot shaft to 5 feet by 7 feet in cross section and install a partitioned ladderway. Timber the shaft where necessary.

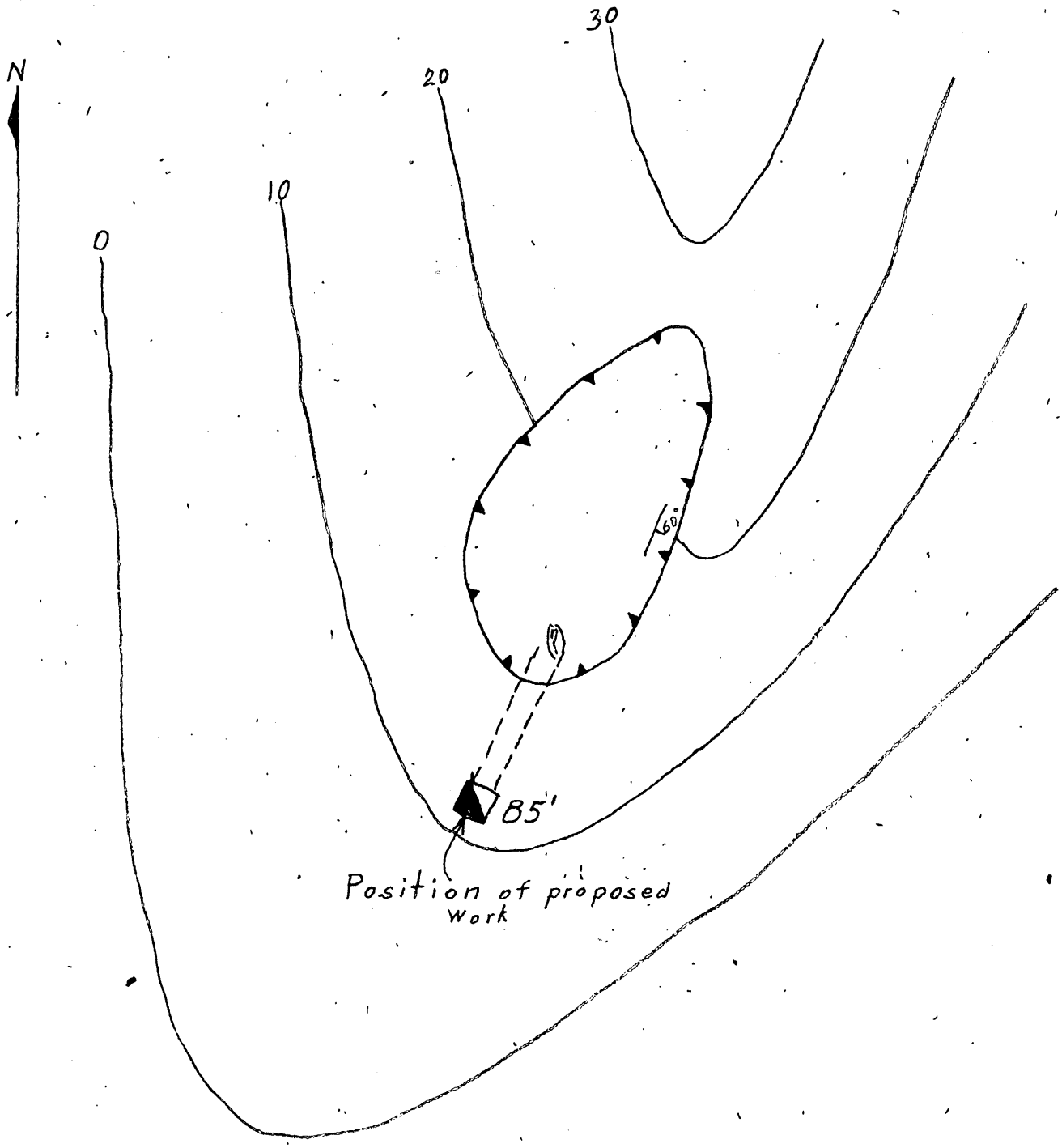
3. After the shaft is completed, 5-foot by 7-foot drifts shall be driven from the most promising points in the shaft, not in excess of 100 feet.

Stage II shall be undertaken only after Stage I has been completed and approved by the Government. The location, direction, inclination, and extent of all work must have prior written approval of the Government.

Agreed Unit Costs

Improving 1.5 miles access road.[1]		$500.00
Dewatering and installing temporary ladders in existing shaft, 85 feet @ $4.00/ft.		340.00
Constructing:	Toolhouse [1]	200.00
	Powder magazine [1]	50.00
	Exploder magazine [1]	25.00
Reconditioning shaft, 85 feet @ $26.00/ft.		2,210.00
Drifting, 100 feet @ $35.00/ft.		3,500.00
Total Estimated Agreed Unit Costs		$6,825.00
Government Participation @ 90%		$6,142.50

1/ The completed work constitutes the unit.



Sketch of
Bordon Mine
Mitchell Co., N.C.

0 20' 40'

Scale

DMEA-3178 (mica)

Mr. Zeb Buchanan, et al.

Bakersville, North Carolina

Re: Docket No. DMEA-3178 - Mica
Zeb Buchanan, W. R. Johnson and
Edgar Buchanan
Bowlen Mine
Mitchell County, North Carolina
Contract No. Idm-8652

Dear Mr. Buchanan:

We are pleased to advise you that your performance of exploration work under the subject contract has been acceptable to the Government, and the account relating thereto has been closed. The final audit of the Contract Administration and Audit Division shows:

Total claimed for units of work performed	$5,611.00
Total Government contribution at 90 percent	$5,049.90

Your attention is called to the provision of the contract which requires you to keep and preserve your records and accounts of this transaction for a period of three years for possible future reference.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the exploration contract. In the absence of such certification, the Government retains no claim or lien against the property or royalty on any production made after the date of this letter.

The Government thanks you for your interest and participation in the exploration program of the Defense Minerals Exploration Administration.

Sincerely yours,

C. U. Dallendorf

Administrator

WCAnderson:gad 1/25/55
Copy to: Mrs. Ebby Buchanan (Attached to Field Team copies for forwarding)
Mr. M. S. Wilson " " " "

Copy to: Admr. R. File
Docket Mr. Hook
Field Team, Region V
Mr. Killegaard, 5222
Mr. Dietrich, 3061
Mr. Chambers

IN REPLY REFER TO:

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

August 4, 1954

Memorandum

REVIEW OF FIELD TEAM FINAL REPORT ON DMEA-3178 (mica)

To: Lawrence G. Houk, Defense Minerals Exploration Administration
From: R. D. Trace, U. S. Geological Survey
Applicant: Buchanan, Johnson, and Buchanan
Name of property: Borden Mine
Location of property: Mitchell County, North Carolina
Date of Field Team Report: July 20, 1954
Authorship of Field Team Report: Teague, Amos and Shirley
Field Team's recommendation: No certification of discovery and no further exploration.
Comments: No reserves revealed.
ACTION RECOMMENDED: Follow Field Team's recommendation.

R. D. Trace

RDTrace:hlm
G-8/4/54

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061

Project Summary Report

By: Walter C. Anderson January 25, 1954

1. Docket No. DMEA-3178 - Mica
Contract No. Idm-E652
Bordon Mine
Mitchell County, North Carolina

Operators: Zeb Buchanan, W. R. Johnson, and Edgar Buchanan, Partners
Bakersville, North Carolina

Application - Form MF-103 (Apr. 1952) received September 28,1953
Work proposed - bulldozing, 125 feet of shaft and 100 feet of drift. Amount requested - $10,150.00.

Operators' property rights: Lease for five years, dated 7/31/53. Owner's Consent to Lien - date not shown on file copies.

2. Contract - Form MF-200(A) (Feb.1952), dated December 30, 1953.

Work authorized:

Improving access road	$500.00
Dewatering old shaft	340.00
Constructing toolhouse, powder and exploder magazines	275.00
Reconditioning shaft - 85 ft. @ $26.00/ft.	2210.00
Drifting - 100 ft. @ $35.00/ft.	3500.00
Total agreed unit costs	$6,825.00
Government participation @ 90%	$6,142.50

Amendments - none

Work completed:

Improving access road	$480.00
Dewatering old shaft	240.00
Construction - toolhouse, powder and exploder magazines	275.00
Reconditioning shaft - 51 ft. @ $26.00/ft.	1,326.00
Drifting - 94 ft. @ $35.00/ft.	3,290.00
Total accepted cost	$5,611.00
Government participation @ 90%	$5,049.90

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

July 30, 1954

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3178 (mica)

Applicant: Zeb Buchanan, W. R. Johnson, and Edgar Buchanan

Name and Location of Property: Bordon Mine
Mitchell County, North Carolina

Contract Number: Idm-E652

Date of Field Team Report: July 20, 1954

Date Rec'd. by Ceramic & Fertilizer Mtls. Br.: July 29, 1954

Field Team Recommendation:

1. That a certificate of discovery should not be issued.

Comments:

1. Exploration was by rehabilitating a 51-foot shaft and driving 94 feet of drift from the shaft bottom. Only 50 pounds of "mine-run" mica, mostly curved, and of no strategic value, was recovered during exploration.

2. Exploration disclosed no evidence of the existence of strategic mica.

Recommendation:

I concur in the field team's recommendation that a certification of discovery or development should not be issued.

Signed
W. F. Dietrich

UNITED STATES
DEPARTMENT OF THE INTERIOR

COPY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Room 13, Post Office Bldg.
Knoxville 2, Tenn.

July 23, 1954

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region VII

Subject: Final Report on: DMEA-3178, Idm-E 652 (mica) Borden Mine
Mitchell County, North Carolina

Transmitted herewith are 4 copies each of the Operator's and Field Team final report on the Bordon mine exploratory work.

We agree with the conclusion that a certificate of discovery should not be issued.

/s/ Robert A. Laurence
Executive Officer
DMEA Region VII

/s/ Wm. A. Beck, for V. J. Lynch
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
7-30-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT
On
DMEA-3178, BORDON MINE
(mica)
Mitchell County, N. C.

BY

K. H. Teague, and D. H. Amos, Geologists
U. S. Geological Survey

and

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

July 20, 1954

Reviewed by
DMEA OPERATING COMMITTEE
7-30-54
(date)

FINAL REPORT
On
DMEA-3178, BORDON MINE (Mica) N. C.
Idm-K 652

Operator: Zeb Buchanan, W. R. Johnson, and Edgar Buchanan, Bakersville, N. C.

The Bordon Mine is on a ridge between Laurel and Dry Branches, about 1 airline mile north of Hawk, North Carolina in Mitchell County.

Work completed under the contract consisted of improving approximately 1.5 miles of existing logging road, dewatering an existing 60-foot shaft; constructing a toolhouse and two magazines, reconditioning and timbering of 51 feet of the dewatered shaft, and driving 94 feet of drift from the shaft. As no significant quantity of mica was discovered during the work, the contract was terminated effective June 30, 1954. No certification of discovery should be issued nor is additional exploratory work warranted.

Work began on February 17, 1954, and was completed on June 30, 1954. An existing road was improved for a total of about 1.5 miles and a toolhouse, powder magazine and exploder magazine constructed. An existing 60-foot combination vertical and inclined shaft was dewatered and temporary ladders were installed; 51 feet of this shaft was enlarged to 5' x 7' in cross-section. From the 60-foot level of the shaft a total of 62 feet of drifts were driven to the southwest. As the pegmatite terminated in this direction, a drift was driven N. 30° E. for 32 feet from the 50-foot level.

A conformable "cigar-shaped" pegmatite is exposed in the shaft and laterals. It plunges about 40° in a S. 30-60° W. direction. The body is zoned having a quartz core up to eight feet thick enclosed by a zone of medium-grained plagioclase, quartz, microcline, muscovite and pyrite. The pegmatite terminates about 40 feet southwest of the bottom of theshaft.

About 50 pounds of "mine-run" mica was recovered during the project. Most was considerably curved.

No reserves were revealed by the work.

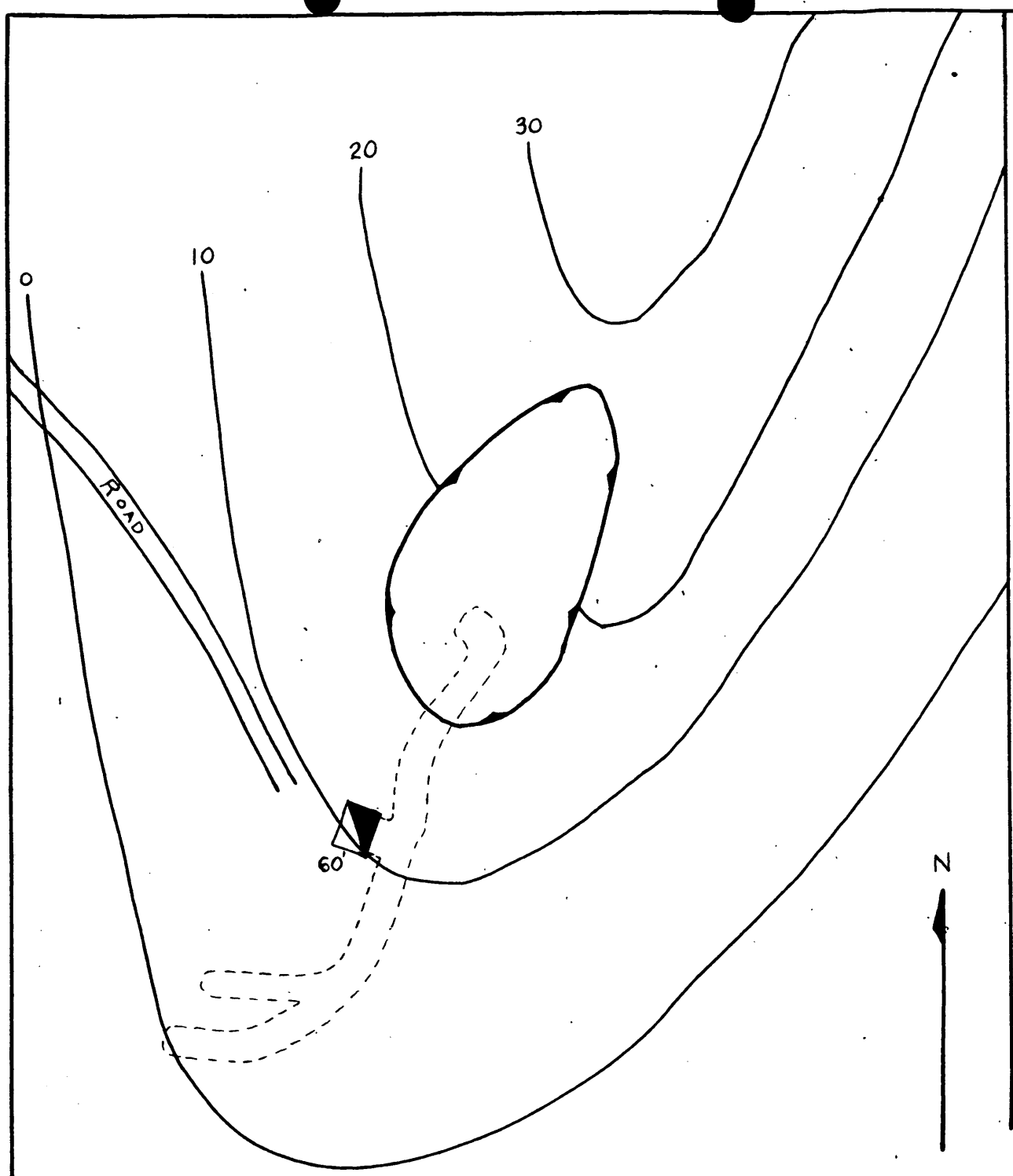
Expenditures:	(a)	Total approved	$6,825.00
	(b)	Total cost of project	5,611.00
	(c)	Governments' participation	5,049.90
	(d)	" share unexpended	1,092.60
	(e)	Value of production during opr.	None

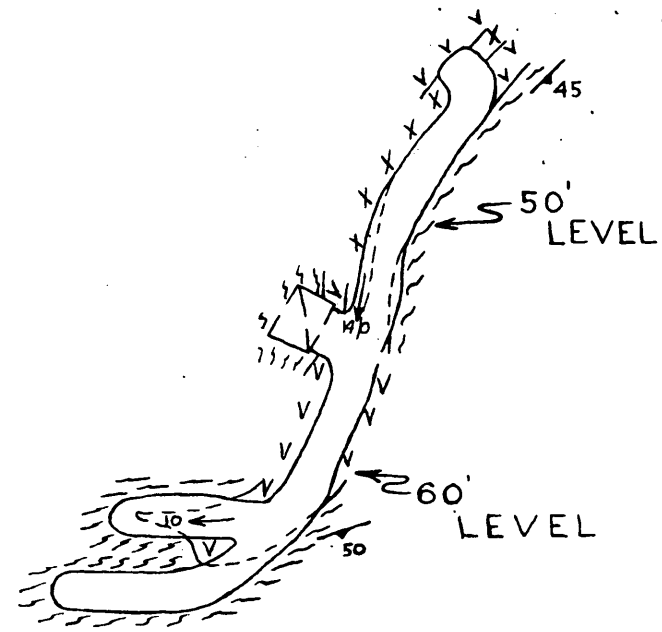
The work was done in an efficient and satisfactory manner. No equipment was purchased under the contract.

July 20, 1954.

K. H. Teague, and D. H. Amos, Geologists
U. S. Geological Survey

L. E. Shirley, Mining Engineer
U. S. Bureau of Mines





PLAN

0 20' 40'
SCALE

SKETCH OF
BORDON MINE
MITCHELL CO., N.C.

DMEA-3178