☑ Audited 5/31/55 — [redacted]RK ANALYSIS SHEET - DMEA PROJE[redacted] — ☐ Actual Cost

☐ Certified — Analysis as of 5-19-55 — ☑ Agreed Unit Costs

Incl. Voucher for Apr. & May 55

Name James H. DeGroat, Jr. Pat & Henry Buchanan — Docket No. 3463

State North Carolina — Commodity Mica — Idm-E No. 741

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	100	3000.00	97.5	2,925.00	2,925.00
Raising					
Shafts					
Winzes					
Drilling (Specify)					
Surface Excavation					
Underground Excavation					
Roads and Trails		150.00		150.00	150.00
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.		114.00		114.00	114.00
Other (Specify)					
Totals		$ 3264.00		$ 3189.00	3189.00

Prepared by Walter C. Anderson

71626

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

James H. DeGreat, Jr., Pat Buchanan, & Henry Buchanan
Route 1, Box 183
Bakersville, North Carolina

pertaining to Exploration Project Contract No. Idm-E741, Docket No. DMEA-3463, for the months of February 1955 to May 1955, inclusive, covering a project for the exploration of mica on property, known as the Amaline 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, verification of work performed by reference to Field Team reports and correspondence, and a determination of the reasonableness and propriety of the costs.

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

all of the costs incurred were under a contract provision for payment by the Government on the basis of 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		$3,199.00
Exceptions:		
By DMEA Finance Officer	$ 10.00	
Herewith	-0-	10.00
Total Accepted Cost		$3,189.00

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Two thousand three hundred ninety-one and 75/100 Dollars

$2,391.75

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.

E. D. Talbert, Auditor

1, 1955

Rcd - 6/3/55

Division copy

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 16 1955

MF-200A
(Revised June 1954)

Docket No. DMEA -3363

Commodity Mica

Contract No. Idm-E 741

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this 1st day of February, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] James H. DeGroat, Jr., Pat Buchanan, and Henry Buchanan, partners,

whose mailing address is Route 1, Box 183
Lakeresville, North Carolina,
hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and

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

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of North Carolina, County of Mitchell, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a lease dated 8/20/54 [7] recorded in Book 15, page 229, official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

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

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of mica. The work to be performed is described in Exhibit "A." The Operator on or before March 15, 1955 shall commence the work, and on or before 4 mos. from date of contract (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

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

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $3,264.00. The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $2,448.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

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

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

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

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

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

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

DEGROAT, BUCHANAN, AND BUCHANAN
(Operator)

By Pat Buchanan (Partner)

By Henry Buchanan (Partner)

By James H. DeGroat (Partner)

THE UNITED STATES OF AMERICA

By C. O. Mitterdorf
Administrator, Defense Minerals Exploration Administration

Entris
Hoffland
Anderson
Stowe
Chambers
Selfridge

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—70618-1

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 16 1955

EXPLORATION PROJECT CONTRACT
DEGROAT, BUCHANAN AND BUCHANAN
DOCKET NO. DMEA-3463

ANNEX I

The land referred to in Article 2 of the contract is known as the Azaline Mine and was leased for mining purposes by Dora Buchanan, Grover Ledford and wife, Azaline Ledford, to James H. DeGroat, Jr., Pat Buchanan, and Henry Buchanan for a period of five years, with option to renew for an additional five years, by an instrument dated August 20, 1954. It consists of a two acre tract known as the Azaline Tract which is a part of the old 50 acre P. H. Buchanan tract of land in Cane Creek Township, Mitchell County, State of North Carolina (Now the G. W. Ledford tract). The 50 acre tract is described in Deed Book #53, page 518, and the Azaline 2 acre tract in Mining Lease Contract Book #15, page 229, both in the office of the Register of Deeds for Mitchell County, North Carolina. The Azaline tract is particularly described as follows:

> Beginning at the center of the face of the bench cut on the pegmatite and running S 45° W 208 feet to the southwest corner of the tract; thence north 295 feet; thence east 295 feet; thence south 295; thence west 295 feet to the beginning southwest corner.

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

Fixed Unit Costs

Constructing:

Access road, bulldozer 15 hours @ $10.00/hr.	$ 150.00	
Toolhouse 1/	76.00	
Powder magazine 1/	25.00	
Exploder magazine 1/	13.00	
Driving 100 feet of drifts and/or crosscuts @ $30.00/ft.	3,000.00	
Estimated Total Cost of Project		$3,264.00
Government Participation @ 75%		$2,448.00

1/ The completed work constitutes the unit.

DMEA-3463

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 18 1954

Defense Minerals Administration
RECEIVED
SEP 13 1954

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of North Carolina, County of Mitchell, described ~~xxx xxxxxx~~ 1/ In a Mineral Lease executed by the co-owners, dated August 21st, 1954 and duly recorded in Contract Book # 15, on Page # 229, in office of the Register of Deeds for Mitchell County, North Carolina.

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

2/ James H. DeGroat, Jr Pat Buchanan, and Henry Buchanan, a Partnership operating under name of-- DeGroat, Buchanan & Buchanan

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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

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

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract or any amendment thereof there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

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

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

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

(OVER)

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

4. Changes and added provisions None

Dated this 31st day of August, 1954.

Dora Buchanan [Seal]

Grover Ledford [Seal] Bakersville, N.C. Rt. #1 Box 178

Azaline Ledford [Seal]

STATE OF NORTH CAROLINA,
MITCHELL COUNTY.

Personally appeared before me R. P. Greene, Clerk of the Superior Court of Mitchell County, North Carolina, Dora Buchanan, Grover Ledford & Azaline Ledford, who acknowledged the due execution of the foregoing instrument for the purpose therein expressed.

This the 31st, day of August, 1954.

R. P. Greene
Clerk Superior Court, Mitchell Co, N. C.

FEB - 6 1956

Mr. Pat Buchanan
DeGroot, Buchanan and Buchanan
Route 1, Box 153
Bakersville, North Carolina

Re: Docket No. [illegible]
DeGroot, Buchanan and Buchanan
Analine Mine
Mitchell County, North Carolina
Contract No. [illegible]

Dear Mr. Buchanan:

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

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the period indicated.

Your interest in the [illegible] exploration program and participation therein are fully appreciated.

Sincerely yours,

C. O. Mitterdorf

Administrator

WGAnderson:ms 2/2/56
Copy to: Admr. R. File
Docket
Mr. Chambers
Mr. Killingsard, 5221
Mr. Dietrich, 3061
Field Team, Region V
Mr. Hank (Dora Buchanan's copy to Field Team for forwarding)
Mr. Anderson
Dora Buchanan
Grover and Analine Ledford

Project Summary Report

By: Walter C. Anderson February 2, 1956

1. Docket No. DMEA-3463 - Mica
Contract No. Idm-E741
Azaline Mine
Mitchell County, North Carolina

Application: Form MF-103(April 1952) received August 26, 1954.
Work proposed - 50 feet of shaft and 50 feet of drifts
Amount requested - $4,006.70

Operators: James H. DeGrout, Jr., Pat and Henry Buchanan, Partners
Route 1, Box 183
Bakersville, North Carolina

Operators' property rights: Mining lease for 5 years on the Buchanan property, dated August 20, 1954.
Owner's Consent to Lien, dated August 31, 1954.

2. Contract: Form MF-200 A(June 1954), dated February 1, 1955.
Work authorized:

Bulldozing access road - 15 hours @ $10/hr.	$ 150.00
Toolhouse, powder and exploder magazines	114.00
100 feet of drifts and/or crosscuts @ $30/ft.	3000.00
Estimated total cost of project	$3264.00
Government participation @ 75%	$2448.00

Amendments: none

Work completed:

Bulldozed access road	$ 150.00
Constructed toolhouse, powder and exploder magazines	114.00
Drove 97.5 feet of drifts and crosscuts	2925.00
Total accepted cost	$3,189.00
Government participation	$2391.75

Work began February 21, 1955 and ended May 5, 1955
Field Team Final report received May 31, 1955
Operators' Final report received May 31, 1955
No production during project.
No equipment purchased under contract.

3. Report of Review issued May 31, 1955
   Accepted cost $3189.00
   Government participation $2391.75

4. Certification of Discovery: None issued.

5. Comments:
   How conducted: All of the work in which the Government participated was acceptable.
   Operation: Good
   Engineering: Reporting by the Operator was very good.
   Geological Premise: The premise that a mica-bearing pegmatite would continue laterally did not materialize, as only a small amount of mica was found which was too small to yield trimmed sheet mica.
   Geological Criteria upon which work was based:
   1. Zoned pegmatite 12 feet thick exposed for distance of 50 feet, crosscutting a hornblende gneiss wall rock.
   2. Mica - small but of excellent quality. Clear, ruby colored, flat, free splitting, some books up to 4 inches across.

   Criteria developed during project:
   1. Disconformable pegmatite 15 to 20 feet thick, nearly vertical. Consists of perthite, quartz, plagioclase, biotite and very little muscovite.
   2. Mica - of strategic quality but too small to yield trimmed sheet mica.

   Future possibilities: None because of sparse occurrence and small size of mica.

Recommendations: The Nonmetallic Minerals Division concurs in the Field Team's recommendation not to issue a certification of discovery or development. The commodity members of the Bureau of Mines and Geological Survey agree.

WCAnderson:ms 2/2/56
Copy to: Adm. R. File
Mr. Houk
Mr. Anderson

IN REPLY REFER TO:

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

October 4, 1955

Re: DMEA 3463, Idm-E741
James H. DeGroat, et al.
Azaline Mine
Mitchell Co., N. C.
$3,264.00 - Mica

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Final report.

Of the total approved for this project ($3,264.00), $3,189.00 was expended on bulldozing of a road, accessories, adit and a crosscut.

The discontinuous pegmatite, 15-20 feet thick explored, contained little muscovite.

The examiners conclude that further exploratory work is not warranted and the Field Team recommends that a certificate of discovery should not be issued.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-10/4/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061

IN REPLY REFER TO:

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

October 4, 1955

Re: DMEA 3463, Idm-8741
James H. DeGroat, et al.
Asaline Mine
Mitchell Co., N. C.
$3,264.00 - Mica

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Final report.

Of the total approved for this project ($3,264.00), $3,189.00 was expended on bulldozing of a road, accessories, adit and a crosscut.

The disconformable pegmatite, 15-20 feet thick explored, contained little muscovite.

The examiners conclude that further exploratory work is not warranted and the Field Team recommends that a certificate of discovery should not be issued.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-10/4/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061

IN REPLY REFER TO:

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

October 4, 1955

Re: DMEA 3463, Idm-2741
James H. DeFrost, et al.
Azaline Mine
Mitchell Co., N. C.
$3,254.00 - Mica

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Final report.

Of the total approved for this project ($3,254.00), $3,189.00 was expended on building of a road, accessories, adit and a crosscut.

The disconformable pegmatite, 15-20 feet thick explored, contained little muscovite.

The examiners conclude that further exploratory work is not warranted and the Field Team recommends that a certificate of discovery should not be issued.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-10/4/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061

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

COPY

ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

May 27, 1955

Memorandum

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

From: Field Team, Region V

Subject: Final Reports, DMEA-3463, Idm-E741 (Mica)
James H. DeGroat, Jr., Henry and Pat Buchanan
Azaline Mine, Mitchell County, North Carolina

Enclosed are four copies each of the Operator's and Field Team final reports on the subject exploration contract.

The work did not discover a commercial deposit of mica, and we agree with the examiners' recommendation that a certificate of discovery should not be issued.

/s/ ROBERT A. LAURENCE
Robert A. Laurence
Executive Officer
DMEA Field Team, Region V

/s/ V. J. LYNCH
V. J. Lynch
Mining Engineer
U. S. Bureau of Mines

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
6-3-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR

FIELD TEAM FINAL REPORT
REGION V

D. M. E. A.

On

DMEA-3463, AZALINE 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

May 27, 1955

Reviewed by
DMEA OPERATING COMMITTEE
6-3-55
(date)

FINAL REPORT

DMEA-3463, Idm-E741, AZALINE MINE

Operators:

James H. Degroat, Mr., Henry & Pat Buchanan, R#1, Box 183, Bakersville, North Carolina

Location: On the southwest slope of Ivy Knob, 3.13 airline miles N. 70° E. of Bakersville, Mitchell County, N. C.

Exploration of a thick pegmatite at this mine failed to discover any strategic mica. It is recommended that no certification of discovery be issued. Additional exploratory work is not warranted.

Work began under the contract February 21, 1955 and ended May 5, 1955. An access road about 1200 feet long was bulldozed to the property and a toolhouse, powder and exploder magazines were constructed. An adit was driven 84.5 feet in a N. 60° E. direction in pegmatite. At a point 58 feet from the portal of the adit a crosscut was driven 13 feet in a S. 30° E. direction.

A disconformable pegmatite 15-20 feet thick was exposed by the level work. It strikes about N. 60° E. and is essentially vertical. The body consists of medium-grained perthite, quartz, plagioclase and biotite, having a crudely gneissic structure. Large pods of structureless plagioclase, quartz, perthite and sparse muscovite occur sporadically in the pegmatite. The foliation of the country rock, hornblende gneiss, strikes about N. 20° W. and dips 60° to the northeast.

The only muscovite revealed in the laterals was at the junction of the drift and the crosscut. It is of strategic quality but all is too small in size to yield trimmed sheet mica.

No reserves of strategic mica were revealed by the work done under the contract.

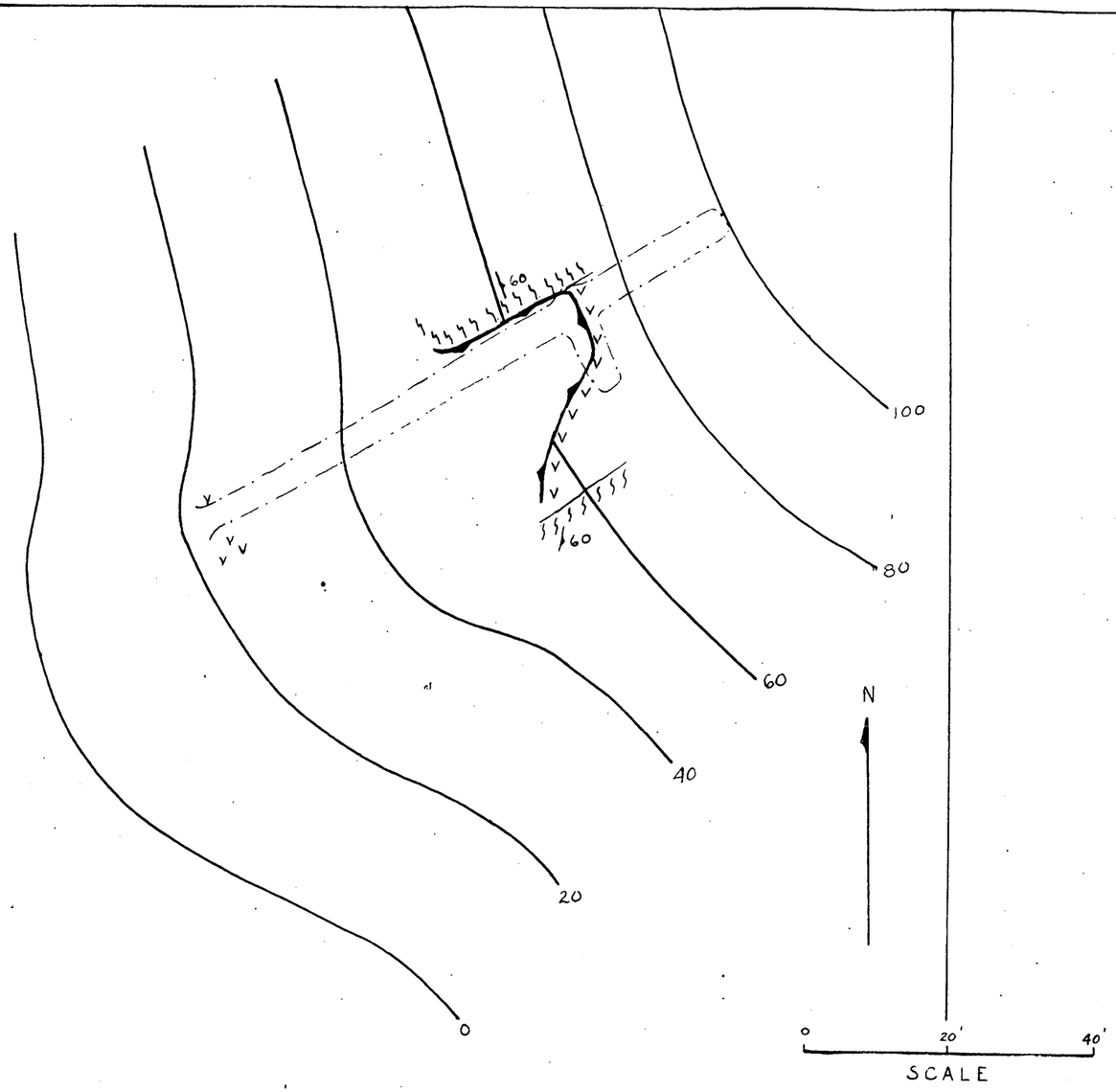
Expenditures:	(a)	Total approved	$3,264.00
	(b)	Total cost of project	3,189.00
	(c)	Government's share of cost	2,391.75
	(d)	" " unexpended	56.25
	(e)	Value of production	None

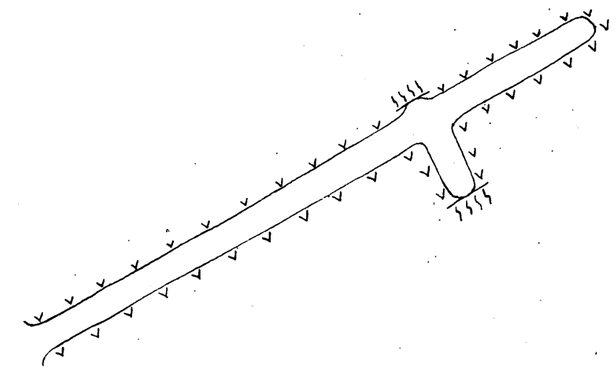
The project was conducted in an efficient and satisfactory manner. No equipment was purchased under the contract.

May 27, 1955

K. H. Teague and D. H. Amos, Geologists
U. S. G. S.

L. E. Shirley, Mining Engineer
U. S. B. M.





PLAN OF ADIT

LEGEND

- v v pegmatite
- ~ hornblende gneiss
- — contact
- cut
- strike & dip of foliation
- — outline of adit

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

DMEA-3463 (mica)

May 5, 1955

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

May 27, 1955

Memorandum

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

From: Field Team, Region V

Subject: Final Reports, DMEA-3463, Idm-E741 (Mica)
James H. DeCroat, Jr., Henry and Pat Buchanan
Asaline Mine, Mitchell County, North Carolina

Enclosed are four copies each of the Operator's and Field Team final reports on the subject exploration contract.

The work did not discover a commercial deposit of mica, and we aree with the examiners' recommendation that a certificate of discovery should not be issued.

Robert A. Laurence
Executive Officer
DMEA Field Team, Region V

V. J. Lynch
Mining Engineer
U. S. Bureau of Mines

RAL/mg
Enclosures
cc
Operating Committee
Mr. Lynch
Files
Mr. Alissman

ENGINEERING & GEOLOGICAL REPORT

ON THE AZALINE MINE- MITCHELL COUNTY, N.C.

(MICA)

Re: DeGroat, Buchanan & Buchanan
R.R. Box 199, Rt.1.
Bakersville, North Carolina

REPORT

Upon approval of Exploration Project Contract, Form MF-200A, under date of February 1st, 1955, work was started at the Exploration Project "Azaline Mine" in accordance with engineering instructions received from the field ingineers of the Defense Minerals Exploration Administration and as outlined in engineering sketch received.

PHASE (1)--A drift, 5' X 7' was started from surface level on slope of the ridge some 45 feet below the outcrop of the vein. This drift was driven in granite with scattered pods of quartz intermingled for a distance of 50 feet where a contact was made with pegmatite body. Begining February 21st, 1955, (12) working days of 8 hours was used in driving the 50 feet. February 21st to March 12th inclusive with Saturdays & Sundays excluded. No Mica or ores was recovered during this phase of operation.

PHASE (2)--Upon contact with the main Pegmatite body which showed to be 6' wide, the drift was continued thru the Pegmatite body with out noting any muscovite books of commercial size or value. The pegmatite body consisted of feldspar and a quartz core about 2 feet wide with a rich mica binder on either side of quartz core which was rich in small muscovite books too small for commercial value. Two days was used in this phase of the operation, March 13th & 14th, 1955.

PHASE (3)--Upon driving through the 6' pegmatite body the drift was continued for a distance of 33 feet straight ahead. All this distance (33 Ft.) was drove in granite with some small pods of quartz intermingled. 14 days of 8 hours each was used in driving the 33 feet. March 15th to March 28th, 1955 with Saturdays & Sundays excluded from this period. No muscovite or other ores was noted or recovered during this phase of the operation.

PHASE (4)-- On April 6th, 1955, the feild engineers came on inspection trip and instructed us to return back to the point where the main pegmatite body was contacted. We were instructed to drive at a left angle in the pegmatite body where the slate binder was contacted after driving 4 feet. Upon futher instructions from the feild engineers, we drove at a right angle in pegmatite body for a distance of 6 feet where the other slate binder was contacted. We then was instructed to drive overhead for a distance of 3 feet and then for a distance of 4 feet down with the pitch of the pegmatite body. Only feldspar, quartz & granite was exposed in this operation. No muscovite or other ores of value was noted or recovered during this phase of the operation. 20 days of 8 hours was used in this phase of operation with some time applied to work on the air compressor. This last phase consumed all the time and money set up for the operation and we were instructed to discontinue the operation after a total of 97 1/2 feet had been driven during the entire project.

Respectfully Submitted,

DeGroat, Buchanan & Buchanan

By- James H DeGroat Jr (Partner)

Rt. 1. Box 199, Bakersville, N.C.

Andrews

INTERIM REPORT

DMEA-3463, Idm-8741 (mica) AZALINE MINE

Operator: DeGroat, Buchanan, and Buchanan, c/o James H. DeGroat, Jr.
Route # 1, Box 199, Bakersville, N. C.

Location: On the southwest slope of Ivy Knob, 3.13 airline miles N. 78° E. of Bakersville, Mitchell County, N. C.

All work authorized under contract, except 2 1/2 feet of laterals has been completed at this prospect. No discovery of strategic mica was made from exploration conducted and certification will not be recommended.

Work completed consisted of : Construction of an access road, a toolhouse, exploder and cap magazines, driving 74.5 feet of drift and 13 feet of crosscut. The direction of the entire drift was N. 60° E. Short crosscutting laterals were driven to the northwest and southeast at a point 59.5 feet from the portal; both crosscuts intersected wall rock and were driven because of increased mica content at this point. All of the work was conducted in pegmatite, virtually barren of mica, and composed principally of quartz and feldspar.

The work conducted, was done efficiently and in a safe and workmanlike manner.

Inspected: May 5, 1955.

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

Department of the Interior
Defense Minerals Administration
RECEIVED
MAY 2 9 1955

May 10, 1955

Mr. James H. DeCroat, Jr.
Route # 1, Box 199
Bakersville, North Carolina

Re: DMEA-3463, Idn-E741 (mica)
Asaline Mine, Mitchell Co., N. C.

Dear Mr. DeCroat:

In checking your April-May Operator's Monthly Report & Voucher on the subject contract, we find an error of $10.00 in the amount claimed for drifting during this period. Eighteen and one-half feet (18.5ft) at $30 per foot, amounts to $555.00, instead of $565.00. Please correct your copy of the report to read correctly on both the MF-104 and MF-104A forms.

Very truly yours,

Robert A. Lawrence
EXECUTIVE OFFICER
DMEA REGION V

RAL/mm
cc:
Lynch
Shirley
Files
Finance -3

Re: [illegible]ehrent, Buchanan & Buchanan
[illegible]t. 1. Box 199
[illegible]kersville, North Carolina.

[illegible] Contract No. [illegible] Report
(Daily Work)

April 20th.	Drilled (2) rounds, 12 holes, in vein. Shot holes and mucked out. No mica exposed or recovered.
April 21st.	Had trouble with compressor. Worked 3 hours on the compressor. Drilled (1) round, 6 holes. Shot and mucked out. No mica exposed or recovered.
April 22nd.	Drilled round of holes at right angle. Shot holes and exposed slate. Small amt of mica recovered but none of commercial value. Mucked out
April 23th.	Shot 2 rounds of holes along slate. Rock rich in small books of mica less than 1 inch. No mica of value recovered. Mucked out & scaled top of loose rocks.
April 26th.	Drilled two rounds of holes & shot same. Mucked out and repaired pipe line.
April 27th.	Drilled 1 round of holes in heading which is composed mostly of granite. Shot holes & mucked out. Worked on compressor & pipe line.
April 28th.	Drilled & shot two rounds in heading. Still in granite and no sign of mica. Mucked out.
April 29th.	Drilled 2 rounds of holes into slate & shot. Broke thru slate & exposed small rib of vein but no sign of mica. Mucked out.
May 2nd.	Went back to headwall & shot two rounds of holes. Still in granite with no mica sign. Mucked out.
May 3rd.	Drilled two rounds of holes in headwall & shot them down. Still in granite formation. No mica. Mucked out.
May 4th.	Shot 2 rounds of holes at extreme left angle at headwall recovered small amt of chub mica of no value. Mucked out.
May 5th.	Shot 2 rounds in headwall & mucked out. No mica recovered or exposed.

Drifted 18.5 feet during this period report, April 20th to May 5th, incl. Our spect looks doubtful for recovery of mica of commercial value.

Anderson

INTERIM REPORT

DMEA-3463, Idm-E741 (mica) AZALINE MINE

Operator: DeGroat, Buchanan and Buchanan, c/o James DeGroat, Jr.
Route 1, Box 199, Bakersville, N. C.

Location: On the southwest slope of Ivy Knob, 3.13 airline miles N. 70° E. of Bakersville, Mitchell County, N. C.

Drifting continues at this mine and now totals 79 feet all of which has been driven in a N. 55° E. direction. The entire opening is in pegmatite having a crude gneissic structure. Most of the mica recovered to date is of scrap sizes. A few books of larger size mica were recovered from a point 60 feet from the portal. This is directly below the main open cut. Drill holes made from a point about 50 feet from the portal encountered the northwest contact of the body about 3-feet from the northwest wall of the adit.

Progress on the contract is satisfactory.

Date of Examination: April 20, 1955.

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

and

V. J. Lynch, Mining Engineer
U. S. Bureau of Mines

z

Region V

P. O. Box 217
May 2, 1955

Memorandum

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

From: Administrative Assistant, Electrotechnical Experiment Station, Norris, Tennessee

Subject: Monthly report and voucher

We are enclosing two copies of the following monthly report and voucher:

Idm-E-741 DeGroat, Buchanan and Buchanan
DMEA Docket No. 3463
3rd payment - month of April
Amount $1282.50

Helen R. Miller

Attachments 2
/hbm
Copies to R. A. Laurence
V. J. Lynch
Norris files
Day Files

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

PAID ON VOUCHER & SCHEDULE
PAYMENTS

RECEIVED MAR 4 - 1955 Minerals Administration

Month of April, 1955 Docket No. DMEA 3463 Contract No. Idm-F-741
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt.1. Box 199 Bakersville, N.C.
Contract Amount, $ 3,264.00 Government Participation: 75 % Amount, $ 2,448.00

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		150.00	150.00			
Crosscutting						
Drifting (57 Ft.)	1710.00	660.00	2370.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber Tool House		76.00	76.00			
Explosives P/ Magazine		25.00	25.00			
Pipe Exp. Magazine		13.00	13.00			
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1710.00	924.00	2634.00	1710.00	924.00	2634.00

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

Date 4-28-55 *Payee DeGroat, Buchanan & Buchanan

Per James H. DeGroat Jr. 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:

$ 1282.50

Signature Helen R. Miller
(Authorized Certifying Officer)

Date 5-2-55 Vou. No.
(See other side)

427.50

(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-F74 in accordance with the terms of the contract.

Signature Laurence E. Shirley Title Mining Engr. USBM Date April 28, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Laurence Title EXECUTIVE OFFICER DMEA REGION V Date APR 29 1955

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

Defense Minerals Administration
RECEIVED
MAY 4 - 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 195 5 Docket No. DMEA 3463 Contract No. Idm-F-741
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt. 1. Box 199 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 1371	Ft.	1,710.00	57	2,370.00	79	30.00	100	30.00
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping ~~Blasting~~	Yd.							
~~Trenches~~ Tool House	Ea.			76.00				
Test Pits ~~P.~~ Magazine	Ea.			25.00				
Roads and Trails								
~~Cap.~~ Magazine	Ea.			13.00				
Total Distributed Costs		1,710.00		2,484.00			Total Costs Authorized by Contract	
Bulldozer				150.00				
Operating Equipment Purchased				2,634.00				
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		1,710.00		2,634.00				

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 April 28-55 Operator DeGroat, Buchanan & Buchanan

Per James H. DeGroat Jr. 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)

Lawrence E. Shirley April 28, 1955
U.S.B.M.

INSTRUCTIONS

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

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

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

GPO 872894

OPERATORS MONTHLY PROGRESS REPORT
FOR THE MONTH
OF
APRIL, 1955

Defense Min
MAY 4 - 195

April 1.	Drilled & Shot on vein.& mucked out.
4.	" " " " " "
5.	" " " "
6.	" " " " " "
7.	Worked on Compressor---Mucked out.
8.	Drilled & Shot On Vein & Mucked Out
11.	" " " " " "
12.	" " " " " "
13.	" " " " " "
14.	" " " " " "
15.	" " " " " "
18.	" " " " " "
19.	" " " " " "

WORK ACCOMPLISHED-(Apr. 1st to 19 incl.)

Drilled, shot & removed muck in drift 57 feet.

LIST OFMATERIALS USED IN 57 FEET DRIFT

500 Lbs Powder. 200 Blasting Caps. 210 Gals Gasoline

Re: DeGroat, Buchanan & Buchanan
Rt. 1. Box 199
Bakersville, N.C.

Anderson

INTERIM REPORT

IMEA-3463, Idm-2741 (mica) AZALINE MINE

Operator: Degroat, Buchanan, and Buchanan, c/o James DeGroat, Jr.
Route No. 1, Box 199, Bakersville, N. C.

Location: On the southwest slope of Ivy Knob, 3.13 airline miles N. 78° E. of Bakersville, Mitchell County, N. C.

Drifting continues on this contract and is now at 53 feet. Material encountered has not changed appreciably from that observed in first 22 feet of work, and is pegmatite composed of feldspar, quartz and small blocks of muscovite mica. The Operator reports that more quartz and mica was encountered in drilling out the last round of holes. Directions were given for continuing the drift, altering the drift direction slightly. No timbering has been necessary, with the exception of portal work. The Operator was advised to scale the dust-covered roof of the drift thoroughly after shooting. Progress on this contract is satisfactory.

Inpected: April 5, 1955.

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

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

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

ON YOUR INTERIOR SCHEDULE
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR - 6 1955
51

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1955 Docket No. DMEA 3463 Contract No. IdmE-741
Operator's Name DeRoat Buchanan Buchanan Minerals
Address Rt. I, Box 199 Bakersville N.C.
Contract Amount, $ 3264.00 Government Participation: 75% Amount, $ 2448.00

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		156.00	156.00			
Crosscutting						
Drifting (22 FT)	660.00	—	660.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
~~Explosives~~ Tool house		76.00	76.00			
~~Pipe~~ Powder Mag		25.00	25.00			
~~Track~~ Exploder Mag		13.00	13.00			
(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	660.00	264.00	924.00	660.00	264.00	924.00

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

Date March 16th Payee DeRoat Buchanan Buchanan

Per James H. DeRoat Jr. 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:

$ 495.00

Signature Helen R. Miller
(Authorized Certifying Officer)

Date 4-1-55 Vou. No.
(See other side)

165.00

(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-E741 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr. U.S.B.M Date March 24, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date MAR 25 1955

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1962).

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1955 Docket No. DMEA 3463 Contract No. IdME-741
Operator's Name DeBroat Buchanan Buchanan Minerals Mica
Address Rt I, Box 199 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.	660.00	22	660.00	22	30.00	100	30.00
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
~~Trenching~~ Tool house	Each	–	–	76.00	1	76.00	1	76.00
~~Test Pits~~ Powder Mag	Each	–	–	25.00	1	25.00	1	25.00
~~Roads and Trails~~ Exploder Mag	Each	–	–	13.00	1	13.00	1	13.00
Roads & Trails				150.00				
TOTAL DISTRIBUTED COSTS		660.00		924.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		660.00		924.00				

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

Date March 16th Operator DeBroat Buchanan Buchanan
Per James H DeBroat Jr 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 872894

Operators

Monthly Progress Report
for the
Month of March 1955

DME A. No. 3463

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 1955

Work Accomplished

Built road, set up machinery, laid pipe line, built tool house, powder mag. & exploder mag. and drifted 22 feet. Three men on day light shift.

Daily notes

March 1st. Moved surface dirt
March 2nd. Moved surface dirt.
March 3rd. Drilled & shot on vein.
March 4th. " " " " "
March 7th. " " " " "
March 8th. Mucked
March 9th. Drilled & shot on vein.
March 10th. " " " " "
March 11th. Repaired Compressor.
March 14th. Mucked
March 15th. Drilled & shot on vein.
March 16th. " " " " "

250 lb. powder, 150 exploders.
60 gal. gas, 12 quarts oil,

Anderson

March 28, 1955

INTERIM REPORT

DMEA-3463, Idm-E741 (mica) AZALINE MINE

Operator: Degroat, Buchanan & Buchanan, c/o J. H. DeGroat, Jr. R#1, Box 199, Bakersville, N. C.

Location: On the southwest slope of Ivy Knob, 3.13 airline miles N. 78° E of Bakersville, Mitchell County, N. C.

Drifting is underway on this contract and an advance of 22 ft. in a N. 70° E. direction has been accomplished in the past two weeks. Material encountered is primarily feldspar and scattered quartz, containing an occasional small block of muscovite mica and films of biotite mica.

Suggestions were made concerning necessary timber work and the miners were advised to wear safety hats. Progress on this contract is satisfactory.

Inspected: March 16, 1955.

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

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

Anderson

INTERIM REPORT
ON
DMEA-3463, Idm-E741, AZALINE MINE (mica)

Operator: Degroat, Buchanan & Buchanan, c/o James H. Degroat, Route # 1, Box 199g, Bakersville, N. C.

Location: On the southwest slope of Ivy Knob, 3.13 airline miles N. 78° E. of Bakersville, Mitchell County, N. C.

The starting date on this contract is February 21, 1955. Work completed to date consists of construction of an access road to the mine, a toolhouse, powder and exploder magazines, all of which have been completed satisfactorily. The Operators stated that 16 hours of bulldozing was required for road construction.

A drift location was spotted and work will commence within the coming week. Necessary timbering at the portal and removal of large boulders over the proposed site was discussed with the Operators. Another visit will be made in the near future.

Inpected: March 3, 1955

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

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

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

Anderson

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Feb, 1955 Docket No. DMEA 3463 Contract No. IdMe. 741
Operator's Name DeGroat Buchanan Buchanan. Minerals MICA
Address Rt 1 Box 199 Bakersville NC.
Contract Amount, $ 32,6400 Government Participation: 75% Amount, $ 2,448.00

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 (15 hrs)	150.00		150.00			
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
~~Explosives~~ Toolhouse	76.00		76.00			
~~Pipe~~ Powder Mag	25.00		25.00			
~~Tools~~ Ex. Mag	13.00		13.00			
(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	264.00		264.00	264.00		264.00

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

Date MARCH 3 1955 Payee DeGroat Buchanan Buchanan

Per James H. DeGroat Jr. 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:

$ 198.00

Signature Helen R. Miller
(Authorized Certifying Officer)

Date 3-9-55 Vou. No.
(See other side)

S 2/21

66.00

(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. Dm-E741 in accordance with the terms of the contract.

Signature Lawrence E. Thurley Title Mining Engr. U.S.B.M. Date March 7, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date MAR 8 1955

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 62

OPERATOR'S MONTHLY REPORT AND VOUCHER

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 17 1955

Month of Apr-May, 1955 Docket No. DMEA 3463 Contract No. Idm-P-741
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt.1. Box 199, Bakersville, N.C.
Contract Amount, $ 3,264.00 Government Participation: 75 % Amount, $ 2,448.00

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		150.00	150.00		150.00	150.00
Crosscutting						
Drifting 18-1/2'	565.00	2370.00	2935.00	555.00	2370.00	2925.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber Tool House		76.00	76.00		76.00	76.00
Explosives P. Magazine		25.00	25.00		25.00	25.00
Pipe Ex. Magazine		13.00	13.00		13.00	13.00
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	565.00	2634.00	3199.00	555.00	2634.00	3189.00

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

Date 5-5-55 *Payee DeGroat, Buchanan & Buchanan

Per James H. DeGroat Jr. 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:

$ 416.25

Signature Helen R. Miller
(Authorized Certifying Officer)

Date 5-16-55 Vou. No.
(See other side)

138.75

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Dm-E741 in accordance with the terms of the contract.

Signature Lawrence E. Shirley Title Mining Engr. U.S.B.M. Date May 9, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date MAY 10 1955

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.

MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 17 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Apr-May 1955 Docket No. DMEA 3463 Contract No. 10n-U-741
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address R.1. Box 199, 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.	555.00 ~~565.00~~	18.5	2935.00 ~~2935.00~~	97.5	30.00	100	30.00
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping Tool House	Ea.			76.00	1	76.00	1	76.00
Trenching P. Magazine	Ea.			25.00	1	25.00	1	25.00
Test Pit P. Magazine	Ea.			13.00	1	13.00	1	13.00
Roads and Trails								
Bulldozer	Hr.			150.00	15	150.00	15	150.00
TOTAL DISTRIBUTED COSTS		555.00 ~~565.00~~	18.5	3189.00 ~~3199.00~~				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
		555.00		3189.00				
TOTAL COSTS		~~565.00~~	18.5	~~3199.00~~				

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

REMARKS: Final Report
Apr 20th to May 5th (Incl)

Date 5-5-55 Operator DeGroat, Buchanan & Buchanan

Per James H DeGroat Jr Title (Partner)

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

(Instructions on reverse)

(For Government use only)

Lawrence E. Shirley May 9, 1955
U.S.B.M.

INSTRUCTIONS

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

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

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

GPO 872894

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 11 1955

Month of Feb. 1955 Docket No. DMEA 3463 Contract No. DM-E-741
Operator's Name DeGroat Buchanan Buchanan Minerals MICA.
Address Rt 1 Box 199. Bakersville. NC.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads ~~and Trails~~		150.00	1	150.00	1	150.00	1	150.00
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, ~~Improvements, etc.~~		76.00		76.00				
Powder & Exploder Mag.		38.00		38.00				
TOTAL COSTS		264.00		264.00				

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

Date March 3rd 55 Operator DeGroat Buchanan Buchanan

Per James H. DeGroat Jr. 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 872894

C
O
P
Y

Dorris Auditorium
MAR 21 1975

MONTHLY REPORT ON LABOR

Feb. 21	Purchased lumber and hauled to mine .	8 hrs.
" 22	Worked on Toolhouse .	8 hrs.
23	" " " "	8 hrs.
24	Worked on powder magazine .	8 hrs.
25	Worked on exploder magazine.	8 hrs.
26	Bulldozing on road.	8 hrs.
28	" " "	7 hrs.

DeGroat, Buchanan, Buchanan

BY: James H. DeGroat, Jr., partner

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
RECEIVED
FEB 16 1955

February 14, 1955

Memorandum

To: Operating Committee, DMEA - Washington 25, D. C.

From: Acting Executive Officer, DMEA - Region V - Knoxville

Subject: Signed Contract - Idm-E741, DMEA-3463 (mica)
James H. DeGroat, Jr., Pat Buchanan and Henry Buchanan, Ptners,
Bakersville, North Carolina

Transmitted are three signed copies of the subject contract. The usual distribution of the other copies has been made by this office.

V. J. Lynch, Acting
ExecutiveOfficer, DMEA
Region V.

TM.
cc:
Finance Office
Shirley
Lynch
Files

C
O
P
Y

Bakersville, N. C.
Jan. 22nd, 1955

Defense Minerals Exploration Admn.
Washington 25, D. C.

Gentlemen:

In reply to your letter attached hereto, beg to advise that we will accept the unit cost of $30.00 per foot as offered for the mica exploration project, Asaline Mine, Bakersville, N. C.

If you will return the contract, we will be glad to sign same and return to your office.

Respectfully,

/s/
DeGroat, Buchanan & Buchanan
By: Pat Buchanan, Super.
Rt. 1, Box 183
Bakersville, N. C.

FEB 1 1955

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

Subject: Docket No. DMEA-5463 - Mica
DeGroot, Buchanan & Buchanan
Analine Mine
Mitchell County, North Carolina

Dear Mr. Lawrence:

On December 20, 1954, you transmitted to this office six copies of the subject contract, which were returned unsigned by the Operator. Pursuant to Operator's request in letter of January 22, 1955, a copy of which is enclosed, we are returning the original and five copies of this contract which have been signed by the Government with register number and effective date.

If the contract meets with your approval present it to the Operators for their approval and signature. Please explain to the Operators that the contract, when executed, is a firm commitment under the terms of which they are 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 Operators 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

Thor H. Kiilsgaard

Member, Geological Survey

Enclosures 7

WCAnderson:ad 1/28/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

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

JAN 26 1955.

Memorandum

To: Administrator, DMEA
Attention: Mr. L. G. Houk

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3463, DeGroat, Buchanan, and Buchanan

At the request of Mr. Anderson, we have redrafted the first page of the subject contract changing dates for commencing and finishing the work. This was necessitated by the lapse of time since the contract was first drafted.

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor

Attachments

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

JAN 26 1955.

Memorandum

To: Administrator, DMEA
Attention: Mr. L. G. Houk

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3463, DeGroat, Buchanan, and Buchanan

At the request of Mr. Andersen, we have redrafted the first page of the subject contract changing dates for commencing and finishing the work. This was necessitated by the lapse of time since the contract was first drafted.

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor

Attachments

JLHofflund/emd

Copy to: DMEA Docket
Solicitor's Docket
L. G. Houk
J. L. Hofflund
chron.

C
O
P
Y

Bakersville, N. C.
Jan. 22nd, 1955

Defense Minerals Exploration Admn.
Washington 25, D. C.

Gentlemen:

In reply to your letter attached hereto, beg to advise that we will accept the unit cost of $30.00 per foot as offered for the mica exploration project, Azaline Mine, Bakersville, N. C.

If you will return the contract, we will be glad to sign same and return to your office.

Respectfully,

/s/
DeGroat, Buchanan & Buchanan
By: Pat Buchanan, Super.
Rt. 1, Box 183
Bakersville, N. C.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 22 1954

December 20, 1954

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region VII

Subject: Unsigned Contract Copies, DMEA-3463 (mica) Azaline Mine
Mitchell County, N. C.

Enclosed herewith are all six copies of the subject contract, returned unsigned by the Operator, and the Operator's letter of explanation.

I do not know where they got the idea that we approved a $35.00 per foot cost, as the examination report estimates a cost of $30.00, and all of us here think that is an adequate estimate for the job.

Robert A. Laurence

RAL/am
cc:
Beck
Shirley
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1 ASH POST OFFICE BLDG.
KNOXVILLE 2, TENN.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 22 1954

December 20, 1954

Mr. Pat Buchanan
DeGroat, Buchanan & Buchanan
Bakersville, North Carolina

Re: DMEA-3463, Idn-E 741 (mica)
Azaline Mine, Mitchell County, N. C.

Dear Mr. Buchanan:

This will acknowledge receipt of the original and five copies of the unsigned contract on the subject docket. As we do not have the authority to change the price per foot allowed in a contract, we are returning it to Washington together with your letter.

Robert A. Laurence
Executive Officer, DMEA
Region VII

WAB/sm
cc:
Beck
Lynch
Opr. Com.-2
Files

JAN - 6 1955

Mr. Pat Buchanan
DeGroat, Buchanan & Buchanan
Route 1, Box 183
Bakersville, North Carolina

Re: Docket No. DMMA-3463 - Mica
DeGroat, Buchanan & Buchanan
Azaline Mine
Mitchell County, North Carolina

Dear Mr. Buchanan:

Reference is made to your letter of December 13, 1954, returning the unsigned exploration project contract.

A careful review of the data available to this office indicates that the unit cost of $30.00 per foot is adequate to complete the drifting from the surface. We note your objections but feel that conditions do not justify $35.00 per foot.

We regret that you are not desirous of executing the contract in its present form and unless we hear from you within 30 days we will consider the application withdrawn and the docket closed.

Sincerely yours,

G. O. Mittendorf

Administrator

WCAnderson:ad 12/31/54
Rewritten
LGHouk:gad 1/4/55

Copy to: Admr. R. File
Docket
Operating Committee
Field Team, Region VII
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

DEC - 2 1954 600

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

Subject: Docket No. DMEA-3463 - Mica
DeBroat, Buchanan & Buchanan
Analine Mine
Mitchell County, North Carolina

Dear Mr. Laurence:

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 Operators for their approval and signature. Please explain to the Operators that the contract, when executed, is a firm commitment under the terms of which they are 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 Operators 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. Copies of memoranda from the Geological Survey, dated October 13, 1954, and from the Bureau of Mines, dated October 15, 1954, are enclosed.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

Enclosures 10

WCAnderson:ag 12/1/54
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

P. S. Please fill in the space provided for in the contract, the date on or before which the work shall commence.

Extra copy

MF-200A
(Revised June 1954)

Docket No. DMEA 3463

Commodity Mica

Contract No. Idm-E

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] James E. McDrew, Jr., Pat Burnham, and Henry Burnham, partners,

whose mailing address is Route 1, Box 103
Burnsville, North Carolina,
hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and .....

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

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of North Carolina, County of Mitchell, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] lease, dated 8.27.54, recorded in Book 19, page 22, official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

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

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

16—70619-1

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of ..... The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before ..... (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

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

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $3,264.00 The Government will contribute ..... percent of the fixed unit costs as work is performed, in a total sum not in excess of $2,445.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit; until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

NOV 5 - 1954

Mr. Pat Buchanan
DeGroat, Buchanan & Buchanan
Route 1, Box 183
Bakersville, North Carolina

Re: Docket No. DMEA-3463 - Mica
DeGroat, Buchanan & Buchanan
Amaline Mine
Mitchell County, North Carolina

Dear Mr. Buchanan:

On September 22, 1954, and again on October 8, 1954, we wrote you requesting an adequate legal description of the subject property. To date you have not furnished the requested description and we assume that you no longer desire to proceed with the application.

The land description given in the lease and the Owner's Consent to Lien is inadequate. It must be a legal description that gives the bearings and distances of the lines which enclose the two acres of land you propose to explore tied to an identifiable reference point.

We wish to cooperate with you in the matter of allowing ample time but if the needed information has not been received by December 10, 1954, we will then remove the application from the active file and consider the matter closed.

Sincerely yours,

C. O. Mittendorf

Administrator

WCAnderson:gad 11/2/54
Copy to: Admr. R. File
Docket
Field Team, Region VII
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

IN REPLY REFER TO:

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

October 13, 1954

Re: DMEA-3463
Amaline Mine
Mitchell Co., N. C.
$3,863 - Mica

Memorandum

To: L. G. Monk, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of field examination report

The Field Team recommends DMEA assistance be granted to build a 900 foot access road and drive a 100 foot adit.

A bench-like opening on the pegmatite indicates a zoned deposit at least 12 feet thick and probably 100 feet in strike length. Present exposure has excellent quality ruby mica. If Field Team's conclusion that the mica-bearing zone thickens with depth proves correct then this deposit should contain very significant amounts of strategic mica. The proposed adit will develop about 60-80 feet of "backs" above the adit.

I concur with the Field Team and recommend a 100 foot adit be approved.

E. L. Newcomb

ELNewcomb:hlm
G-10/13/54

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

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

Defense Minerals Administration
RECEIVED
OCT 18 1954

October 15, 1954

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3463 (mica)

Applicant: DeGroat, Buchanan, and Buchanan

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

Date of Field Team Report: October 1, 1954

Date Rec'd. by Ceramic and Fertilizer Mtls. Br.: October 11, 1954

Field Team Recommendation:

1. Exploration assistance.

Comments:

1. Recent prospecting has disclosed a 12-foot thick, zoned pegmatite containing mica which, though small, is of strategic quality. The prospect is new.

2. Proposed exploration is consistent with good engineering practice and unit costs are in line with other projects in the area.

3. Total estimated costs are $3,263.00.

Recommendation:

I concur in the field team's recommendation for an exploration project in the amount of $3,263.

Signed

W. F. Dietrich

OCT 8 1954

Mr. Pat Buchanan
DeGroat, Buchanan & Buchanan
Route 1, Box 183
Bakersville, North Carolina

Re: Docket No. DMEA-3463 - Mica
DeGroat, Buchanan & Buchanan
Azaline Mine
Mitchell County, North Carolina

Dear Mr. Buchanan:

Reference is made to our letter dated September 22, 1954, requesting additional information on the subject property.

We are returning the six blank copies of Owner's Consent to Lien signed by the three owners. Kindly have them filled out with the location and description of the property and names of Operators. We have not yet received an adequate legal description of the property as requested. This description can be written in the space provided in the Owner's Consent to Lien forms.

Prompt attention will be given your application as soon as the above requested data are received.

Sincerely yours,

Lawrence G. Houk, Chief
Nonmetallic Minerals Division

Enclosures 6

WCAnderson:gad 10/7/54
Copy to: Admr. R. File
Docket
Field Team, Region VII
Mr. Kiilsgaard, 5227
Mr. Dietrich, 3061
Mr. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
OCT - 4 1954

October 1, 1954

Memorandum

To: Operating Committee, DMEA - Washington

From: Field Team, DMEA - Region VII

Subject: Field Examination Report on DMEA-3463, Azaline Mine. DeGroat, Buchanan & Buchanan. Mitchell County, N. C.

Transmitted are four copies of the field examination report and six extra copies of the map on the subject mine.

The Field Team is in agreement with the examiners that exploratory assistance should be granted.

Wm. A. Beck, Acting
Executive Officer, DMEA
Region VII

K. H. Teague, Geologist
U. S. Geological Survey

ZM.
cc:
Beck
Lynch
Files

Reviewed by
DMEA OPERATING COMMITTEE
10-8-54
(date)

OCT - 4 1954

UNITED STATES - DEPT. OF INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM # REGION VII

ON

DMEA-3463, AZALINE MINE
(mica)
Mitchell County, N. C.

BY

K. H. Teague, Geologist
U. S. Geological Survey

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

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

September 23, 1954

Reviewed by
DMEA OPERATING COMMITTEE
10-8-54
(date)

FIELD EXAMINATION REPORT
On
BMKA-3463, AZALINE MINE (mica)

Applicants: Degroat, Buchanan & Buchanan, c/o Pat Buchanan, Rt 1, Bx 183
Bakersville, North Carolina

This application is on a relatively new prospect. Recent work has exposed a 12-feet thick pegmatite which contains small, but strategic mica. The examiners believe that the deposit warrants exploration assistance, and recommend same.

The deposit was examined on September 23, 1954. Messrs. James H. DeGroat, Jr. Henry Buchanan, and G. W. Ledford accompanied the examiners on the inspection which required two hours.

The Azaline prospect is on the southwest slope of Ivy Knob, about 0.75 mile northeast of the Clarrissa Mine and 3.13 airline miles N. 78° E. of Bakersville, Mitchell County, North Carolina. Access from the Bakersville-Hawk road is via a rough, rocky road up Azaline Branch to within 900 feet of the prospect. No road extends beyond this point.

All of the applicants appear to be competent to conduct the proposed project. Area covered by the application is leased. Size of the leased area is adequate for the proposed project.

There are no surface facilities on the property. Existing openings consist of one bench cut with a 25-foot face and 25 feet bench (see attached sketch). All work is in unweathered pegmatite.

This small opening exposes a pegmatite which is about 12 feet thick, strikes N. 70° E., and dips 75° SE. It crosscuts the hornblende gneiss wall rock which trends N. 10° W. and dips 45-60° N. E. The northwest contact of the pegmatite is a pre-pegmatite fault. Grooves along this contact plunge about 60° N. E.

The plan and section of the attached sketch show in general the zonal character of the pegmatite. Mica from each zone is similar, although the composition is different. It appears that the geissic pegmatite thins with depth, with a corresponding thickening of the mica bearing zones. A low escarpment extends northeast of the cut for an additional 50 feet suggesting that the pegmatite extends considerably beyond the present face. Below the cut, pegmatite is exposed over a similar distance.

Mica from the deposit is of excellent quality, although in small sizes. It is hard, clear, flat, free splitting, and ruby colored. Many of the books exhibit crystal outline. Books up to 4 inches in diameter were observed.

The examiners are of the opinion that this deposit warrants exploration. Wehre exposed the pegmatite is about 12 feet thick, zoned, has a strike length of probably more than 100ft., and contains considerable small excellent quality mica.

We recommend that an access road be built (900 ft), toolhouse and magazines constructed, and 100 feet of drift driven from a point below the present bench (approximate position shown on attached sketch).

Estimated Cost:

Construct 900 lineal feet of access road
(750 yds. dirt to be moved-estimated)

Bulldozer, 15 hrs. @ $10/hr.		$150.00
Toolhouse		75.00
Powder Magazine		25.00
Exploder "		13.00
Drive 100 ft. drift on pegmatite (40 shifts)		
Labor:		
1 - miners @ $1.50/hr.	$ 480.00	
2 - Laborers @ $1.00/hr.	640.00	
Equipment (rental)		
Compressor, drill and jackleg @ $240/Mo.	480.00	
Supplies:		
Explosives	350.00	
Gasoline and oil	200.00	
Drill steel	200.00	
Timber, 1000 b. f. @ $65/M.	65.00	
Small tools, pipe, etc.	150.00	
Rail	75.00	
Miscellaneous, etc.	150.00	
Social Security, Insurance, etc.	210.00	3,000.00
Estimated Total cost.....		$3,263.00

Exam. date:
September 23, 1954

K. H. Teague, and D. H. Amos, Geologists
U. S. Geological Survey
and
L. E. Shirley, Mining Engineer
U. S. Bureau of Mines

SEP 22 1954

Mr. Pat Buchanan
DeGrout, Buchanan & Buchanan
Route 1, Box 183
Bakersville, North Carolina

Re: Docket No. DMAA-3463 - Mica
DeGrout, Buchanan & Buchanan
Asaline Mine
Mitchell County, North Carolina

Dear Mr. Buchanan:

Your application for exploration assistance on 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.

To continue with the processing of your application we must have the following:

1. A better description of the property. The description given in the lease is inadequate. Kindly furnish a legal description that gives the bounding bearings and distances of the two acre plot of land which you propose to explore. A property map, if available, showing relationship of proposed exploration work to boundary lines would be helpful.

2. We do not have the Owner's Consent to Lien. We understand the Field Office has sent you the required number of forms for execution.

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,

C. O. Mittendorf

Administrator

LGHouk:gad 9/21/54
Copy to: Admr. R. File
Docket
Field Team, Region VII
Operating Committee
Mr. Dietrich, 3061
Mr. Kiilsgaard, 5227
Mr. Houk

SEP 22 1954

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

Subject: Docket No. DMEA-3463 - Mica
DeGroat, Buchanan & Buchanan
Analine Mine
Mitchell County, North Carolina

Dear Mr. Laurence:

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

Copies of memoranda from the Geological Survey, dated September 1, 1954, and from the Bureau of Mines, dated September 16, 1954, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

T. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

Enclosures 4

LGHouk:gad 9/21/54
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Dietrich, 3061
Mr. Kiilsgaard, 5227
Mr. Houk

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

September 16, 1954

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Donald R. Irving, Acting for Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3463 (mica)

Applicant: DeGroat, Buchanan and Buchanan

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

Date Application Rec'd. by Ceramic & Fertilizer Mtls. Br.: August 30, 1954

Comments:

1. No data available in this office on subject mine.
2. The field team can best evaluate the possibilities of obtaining strategic mica.

Recommendation:

It is recommended that the field team visit this mine when in that vicinity to ascertain if an exploration project is justified. If so, the field team and applicant should agree on a definite plan of exploration on a unit-cost basis.

Signed

Donald R. Irving

SEP 13 1954

September 9, 1954

Memorandum

To: Operating Committee, DMMA - Washington

From: Acting Executive Officer, DMMA - Region VII

Subject: Form MF-203, on DMMA-3463, DeGroat, Buchanan & Buchanan (Mica) Realdine Mine, Mitchell County, N. C.

Transmitted are six signed copies of Form MF-203 to be attached to the application mailed your office August 24, 1954.

The applicant did not fill in the legal description of the property on these forms, and since the lease was sent along with the application to your office we are sending the forms as they were received in this office. If the description cannot be filled in there, please return them to the applicant.

W. F. Beck

EH.

IN REPLY REFER TO:

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

September 1, 1954

Memorandum

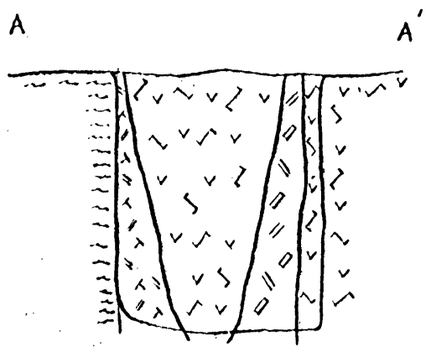
REVIEW OF APPLICATION DMEA-3463 (mica)

To: L. G. Hook, Defense Minerals Exploration Administration
From: E. L. Newcomb, U. S. Geological Survey
Applicant's name and address: Pat Buchanan, Route 1, Box 183, Bakersville, North Carolina
Name of property: Analine Prospect
Location of property: G. W. Ledford tract, Cane Creek Township, Mitchell County, North Carolina
Summary of applicant's proposal:
50 feet - shaft
50 feet - drifting
Total estimated cost - $4,006.70
Sources of information on applicant's property:
We do not have any available information on this prospect. Its relation to other properties in the area cannot be determined from the present data.
Comments:
As this is a new prospect with no substantial exploration development having been completed, the Field Team's intimate knowledge of pegmatites in the area will be important in appraising the merits of the proposed work.
RECOMMENDATION: I recommend the Field Team examine the property when they are in the area.

E. L. Newcomb

ELNewcomb:hlm
G-9/1/54

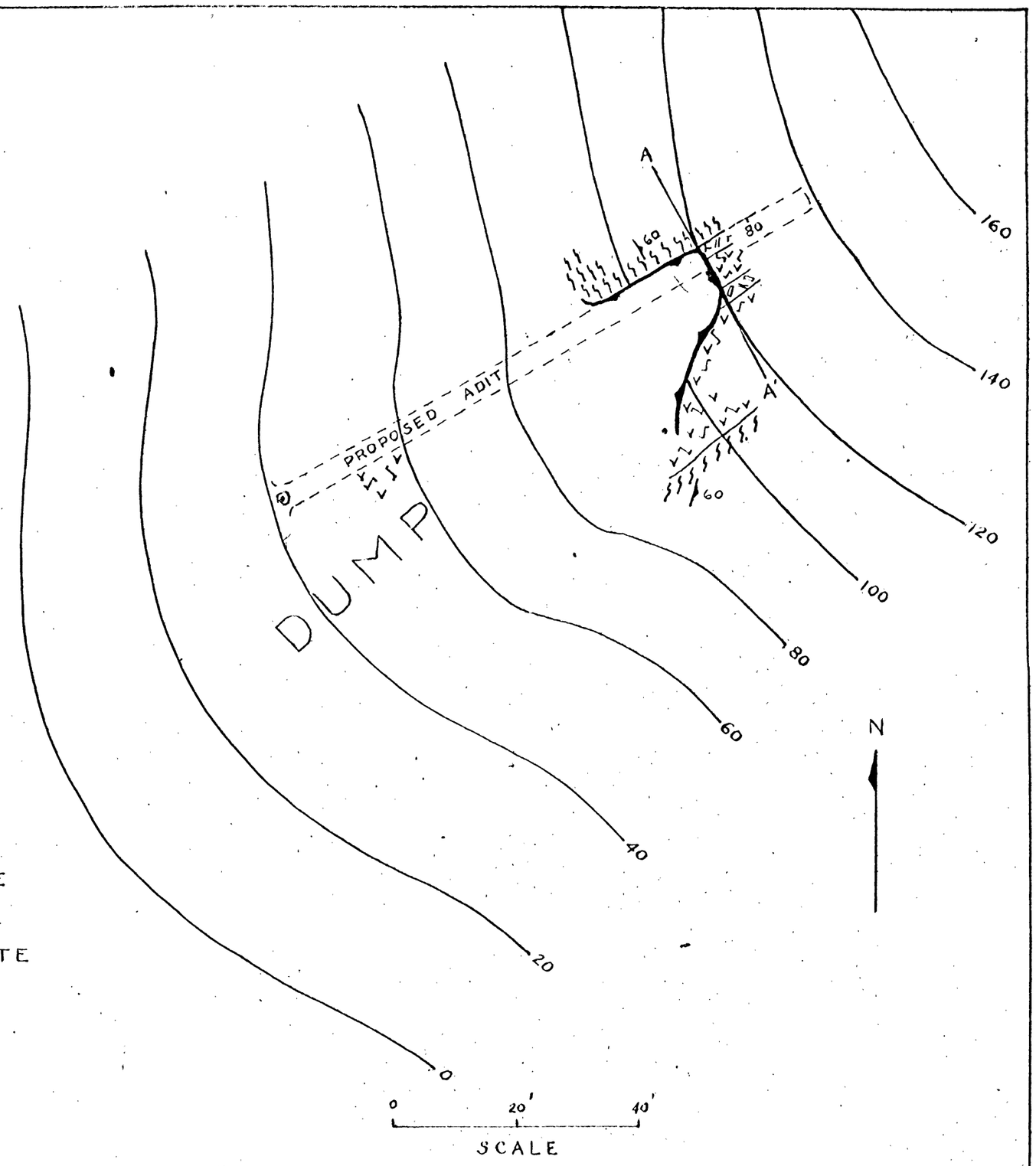
Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061



SECTION.. A-A'

0 10' 20'
SCALE

PLAGIOCLASE, QUARTZ, PERTHITE, MUSCOVITE
FINE-GRAINED GNEISSIC BIOTITE PEGMATITE
MICROCLINE, QUARTZ, PLAGIOCLASE, MUSCOVITE
HORNBLENDE GNEISS



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

DMEA-3463 (mica)