DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E NO. 1197

DMEA NO. 4946

Application
- [ ] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

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

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

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

Additional Folders:

Left Side

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

Right Side

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

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

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

17963

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/4	[illegible]	600
6/5	[illegible]	600
6/9	[illegible]	800
6/9	[illegible]	120
		110
6/10	[illegible]	220
		600

600

JUN 9 1959

De Groat, Buchanan and Buchanan
c/o Mr. J. H. De Groat, Jr.
Route 4
Bakersville, North Carolina

Re: Docket No. DMEA-4946-Mica
De Groat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina
Contract No. Idm-E1197

Gentlemen:

Reference is made to your terminated 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.

We appreciate your interest and participation in the DMEA exploration program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

JWAlt:gad 6/2/59
Copy to: Dir. R. File
Region V
Audits
Mr. Kiilsgaard, USGS
Mr. Irving, USBM
Mr. Francis E. Field, President, Land & Mineral Company

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/4	ad	600
6/5	Hook	600
6/9	Tolbert	800
6/9	Selfridge	120
		110
		220

JUN 9 1959

600

Mr. Francis E. Field
President, Land & Mineral Company
Dover, Delaware

Re: Docket No. DMEA-4946-Mica
De Groat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina
Contract No. Idm-E1197

Dear Mr. Field:

Enclosed is a copy of a self-explanatory letter of today to the Operators under the above-cited contract.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you on February 14, 1958, under the DMEA program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

Enclosure

JWAlt:gad 6/3/59
Copy to: Dir. R. File
Region V
Audits
Mr. Kiilsgaard, USGS
Mr. Irving, USBM

43683

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 22 1959

DATE	INITIALS	CODE
4/22	G	220
4/23	Hook	600

April 20, 1959

Memorandum

To: Operating Committee, OME - Washington

From: Executive Officer, OME - Region V, Knoxville, Tenn.

Subject: Signed Termination Agreement - DMEA-4946, Idm-E1197.
Twiggs Mine, Mitchell County, N.C.
DeGroat, Buchanan & Buchanan, Operators.

Attached is the original and one copy of the subject signed termination agreement.

The usual distribution of the other copies has been made by this office.

Robert A. Laurence

Robert A. Laurence

Government's copy

Long
Dunlap
Hook
Talbot
Selfridge

TERMINATION AGREEMENT

It is agreed this 13th day of January, 1959, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, hereinafter called the "Government", and DeGroat, Buchanan, and Buchanan, hereinafter called the "Operator", parties to that certain Exploration Project Contract Idm-E1197, Docket No. DMEA-4946, dated May 29, 1958, hereinafter called the "Contract", that:

1. Effective December 16, 1958, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the fixed unit costs of work performed prior to said effective date.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account.

4. All rights of the Government respecting certification of discovery or development, percentage royalty and liens to secure payment thereof, reports (including preservation of Operator's records), accounts, audits, and the right to recover any overpayment, are hereby preserved.

5. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

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

DEGROAT, BUCHANAN AND BUCHANAN

James H. DeGroat Jr.
J. H. DeGroat, Jr.

Zeb Buchanan
Zeb Buchanan

Guy Buchanan
Guy Buchanan

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 22 1959

DATE	INITIALS	CODE

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

DeGroat, Buchanan & Buchanan
Route 4
Bakersville, North Carolina

pertaining to Exploration Project Contract No. Idm-E1197, DMEA No. 4946, including Amendment No. 1, for June 1958 to November 1958, inclusive, covering a mica project at the Twigge Mica Prospect, Mitchell County, North Carolina.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents, comparison of the claimed costs 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 reason that:

All of the costs were under a contract provision for contribution by the Government on the basis of fixed unit costs of work performed.

The findings of this review are stated in the following summary and the attached schedule:

Total cost billed by Operator		$5,360.00
Exceptions:		
Prior to this review	$ -0-	
Herewith	217.00	217.00
Accepted cost		$5,143.00

The contract calls for a 75 percent contribution of the allowable costs by the Government. Therefore, if the project is otherwise accepted as having met the terms of the contract, payments as follows are valid and proper:

Payable on audited claim	$3,857.25
Paid to date	3,438.75
Balance due Operator	$ 418.50

C. E. Fisher

C. E. Fisher, Auditor

December 22, 1958

Exception by this review:

Drifting	
Claimed by Operator:	
100 feet @ $31.00/foot	$3,100.00
Completed work reported by Field Examiners:	
93 feet @ $31.00/foot	2,883.00
Disallowance:	
7 feet @ $31.00/foot	$ 217.00

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

October 6, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 8 1958

DATE	INITIALS	CODE
10/8	C	220
		130
10/9	Hmh	600

Memorandum

To: Operating Committee, OME - Washington

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

Subject: Signed Amendment No. 1. DMEA-4946, Idm-E1197-mica.
DeGroat, Buchanan & Buchanan
Twiggs Mine, Mitchell County, N.C.

Transmitted are the Government and Audit copies of the subject signed amendment. The usual distribution of the other copies has been made.

V. J. Lynch

V. J. Lynch

Government Copy

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 8 1958
DATE | INITIALS | CODE

EXPLORATION PROJECT CONTRACT

DeGROAT, BUCHANAN and BUCHANAN, PTNRS.

Docket No. DMEA-4946

AMENDMENT No.1

It is agreed this 29th day of September, 1958, between the United States of America, acting through the Department of the Interior, Office of Minerals Exploration, and the partnership of DeGroat, Buchanan and Buchanan that Exploration Project Contract No. Idm-E1197, (Docket No. DMEA-4946), dated May 29, 1958, is amended, effective September 29, 1958, as follows:

1. In Article 1(a), the date for completion of the work is extended from September 29, 1958 to December 29, 1958, a total of seven months from the date of the contract.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in quintuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Robert A. Lawrence
Executive Officer
Office of Minerals Exploration
Field Team, Region V

DEGROAT, BUCHANAN & BUCHANAN

By James H. DeGroat Jr.
J. H. DeGroat, Jr. (Partner)

By Zeb Buchanan
Zeb Buchanan (Partner)

By Guy Buchanan
Guy Buchanan (Partner)

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

ORIGINAL FILE COPY
DMEA
RECEIVED JUN 11 1958

DATE	INITIALS	CODE
6/11	C	220
6/11	C	215
6/11	Zbrch	600

June 9, 1958

Memorandum

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

From: Executive Officer, DMEA - Region V - Knoxville

Subject: Signed Contract - DMEA-4946, Idm-E1197-mica.
Degroat, Buchanan and Buchanan
Twigg Mica Prospect, Mitchell County, N. C.

Transmitted are the Government and Audit Copies of the subject signed contract.

Robert A. Laurence
Robert A. Laurence

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 11 1958

MF-200A
(Rev. April 1956)

Government's copy

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

DATE		

DMEA No.	Commodity	Contract No. Idm-E	County	State
4946	Mica		Mitchell	North Carolina

29 MAY 1958 1197

It is agreed ....., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and J. H. DeGroat, Jr., Zeb Buchanan and Guy Buchanan, a partnership, d/b/a DeGroat, Buchanan and Buchanan

whose mailing address is c/o J. H. DeGroat, Route #4, Bakersville, North Carolina
hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority and project.*—(a) This contract is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF–200A), the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed therein. The project work is a search for indicated or undeveloped deposits of the commodity designated above. The Operator shall begin the work on or before 30 days from the date of the Contract, and, subject to the provisions of Article 7 and Exhibit A, shall complete the work within four months from the date of the contract.

(b) The description of the work and the fixed cost for each unit of work to be performed (per foot of drilling, per foot of drifting, per hour of operations, etc.) are hereby agreed upon as specified in Exhibit A. The estimated total cost of the project work is $ 5,512.00. The Government will contribute 75 percent of the fixed unit cost of the work performed, not exceeding $ 4,134.00, in accordance with the provisions of Articles 4 and 5.

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

ARTICLE 2. *Operator's property rights.*—(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's rights of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances: interests of Lessor, the Land & Mineral Company

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached, as follows: Consent to Lien and Subordination Agreement of the Lessor, the Land & Mineral Company

(c) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing

in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. Two copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 6 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. *Performance of the work.*—(a) Operator's responsibility.—The work shall be performed diligently, efficiently, expertly, in a workmanlike manner, and in accordance with good mining standards and State regulations governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work, as specified in Article 1 (a).

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

ARTICLE 4. *Contribution by the Government.*—The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5 (b); but all payments by the Government are provisional only, subject to audit, and until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been rendered, the Government may withhold such sums as it sees fit but not in excess of 10 percent of the estimated total cost of the work. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government will not contribute to the cost of any work performed prior to the date of this contract. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(a) Operator's records.—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

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

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

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

ARTICLE 6. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered a sufficient final report (see Article 5), may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 7. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

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

(c) The giving of any notice by the Government under the provisions of this Article 7 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and liens to secure the payment thereof, and such rights shall be fully preserved.

ARTICLE 8. *Notices to be given by the Government* may be delivered to the Operator or may be sent by registered mail addressed to the Operator at the mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 9. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 10. *Changes and added provisions.*—

Long
Kuesser

App'd. Sol. Off.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

DeGROAT, BUCHANAN AND BUCHANAN
(Operator)

By James H DeGroat Jr.
J. H. DeGroat, Jr., (partner)

By Zeb Buchanan
Zeb Buchanan (partner)

By Guy Buchanan
Guy Buchanan (partner)

By C Mitteedorf
Administrator, Defense Minerals
Exploration Administration

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ....., who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

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

Krause
Hook
Chambers
Selfridge
Johnson

EXPLORATION PROJECT CONTRACT
DEGROAT, BUCHANAN AND BUCHANAN
DOCKET NO. DMEA-4946

ANNEX I

The land referred to in Article 2 of the Contract consists of an 8.26 acre tract known as the Twiggs Mica Prospect which is situated 1.9 miles N. 28° E. of Cane Creek School (Near Hawk Center) and also 1.0 mile N. 19° E. of the Hawk Mine, in Mitchell County, North Carolina.

The Operator is in possession of the land pursuant to the terms of a lease executed February 14, 1958, by the Land and Mineral Company, recorded in the Register of Deeds Office for Mitchell County, North Carolina, in Book 86 at page 486.

The leased area is shown on the attached map entitled "Figure 1, Metes & Bounds & Location of Land & Mineral Company (Twiggs Mine) leased to J. H. DeGroat, Jr., Zeb Buchanan & Guy Buchanan,"and is described as follows:

Beginning at the mine shaft (the site of this exploration program) thence south 310 feet to a stake on the south boundary line, thence east 300 feet to a stake, SE corner; thence north 600 feet to a stake NE corner; thence west 600 feet to a stake, NW corner; thence south 600 feet to a stake SW corner; thence east 300 feet to a stake, point of closure. Enclosing an area 600 feet by 600 feet square or not less than 8.26 acres. The SE corner of the land is located S. 58° W. 775.5 feet from an Ash Tree, Buchanan's corner as shown on the map referred to above.

A Consent to Lien and Subordination Agreement dated February 15, 1958, signed by the Lessor is attached hereto.

MF-205
(Combines and supercedes MF-201 [redacted] MF-203)
June 1956

RECEIVED
FEB 20 1958
D.M.E.A.

RECEIVED
MAY 12
D.M.E.A.

F[redacted]vernment's Use Only
EXPLORA[redacted] PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Mitchell, State of North Carolina, described ~~as follows 2/~~ XXXXXXXXXXX In a Certain Mineral Lease dated February 14th, 1958, the same being duly recorded in the Register of Deeds Office for Mitchell County, N.C. in Book # 86, on Page # 486, of said offical records of that county.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom, to secure the payment to the Government of a percentage royalty on production as may be provided for by the Contract;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

LESSOR OWNS MINERALS AND MINING RIGHTS ONLY

NONE

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto. THIS CONSENT TO LIEN SHALL NOT REMAIN IN FORCE FOR MORE THAN A MAXIMUM OF TEN YEARS FROM DATE OF CONTRACT

7. Added provision: *** (State "None" or "See Annex No.____")

Dated this 14th day of February, 1958

X Francis E. Field	[Seal]	X Dover, Deleware	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

I, V. Jordan Brown certify that I am the Secretary (Secretary, etc.) of the corporation named herein; that Francis E. Field who signed this agreement was then President (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

V. Jordan Brown

[Corporate Seal]

EXPLORATION PROJECT CONTRACT
DEGROAT, BUCHANAN AND BUCHANAN
DOCKET NO. DMEA-4946

EXHIBIT A

Description of the work

1. Construct:

(a) A toolhouse, minimum dimensions 7 feet by 8 feet by 10 feet.
(b) A powder storage magazine, minimum dimensions 4 feet by 3 feet by 2½ feet.
(c) An exploder storage magazine, minimum dimensions 2 feet by 1½ feet by 1 foot.

The toolhouse may be unfloored, shall be made from unfinished lumber, with protective roof covering, and shall be equipped with lock and key.

The powder and exploder magazines shall be boxed on all sides, shall be made from 2-inch hardwood or 3-inch soft wood lumber, and shall be braced at the corners. No metal shall be exposed, and the doors shall be equipped with the equivalent of a 5-tumbler jarproof lock.

2. From the bottom of the 40 foot shaft, shown in the leased area of the attached map, Figure I, sink the shaft along the pegmatite or as close thereto as practical, a distance of not more than 50 feet.

3. From a point within 5 feet of the bottom of the shaft, drift northeasterly along the pegmatite or as close thereto as is practical a distance of not more than 100 feet.

4. Drill not in excess of 200 feet of long holes, approximately normal to the drift direction, and inclined plus 5 to 15 degrees at locations approved by the Government.

The shaft shall have two compartments and together with the drift and/or crosscut shall be timbered as necessary and have cross-sectional dimensions of not less than 5 feet by 7 feet in the clear of timber.

All cuttings from the drill holes shall be saved, at intervals not exceeding 5 feet, and properly labeled and stored pending Government inspection. With Government approval, the Operator may dispose of all drill cuttings.

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

Estimated Cost of the Project

Fixed Unit Costs

148 cu. yds. excavation, access road improvement @ $0.30		$45.00	
1. Construct:			
Toolhouse 1/	$75.00		
Powder magazine 1/	25.00		
Exploder magazine 1/	15.00	115.00	
2. 50 foot shaft @ $42/ft.		2,100.00	
3. 100 foot drift or crosscut @ $31/ft.		3,100.00	
4. 200 feet percussion drilling @ $0.75/ft.		150.00	
Estimated total cost of the project (rounded)			$5,512.00
Government participation @ 75 percent			$4,134.00

1/ The completed work constitutes the unit.

METES & BOUNDS

LAND OF MINERAL COMPANY

MITCHELL County N. C.

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 12 1958
DATE

BEGINNING on a Cherry Stump in the Buchanan Branch, the old corner, and runs up the Branch north 15 east 20 poles to the mouth of a Drain; thence up the Drain north 17 west 17 poles to a spring; thence north 35 west 43 poles to a Poplar stump on a Ridge; thence up and with the top of the ridge 33 poles to a chestnut oak on Little Hawk Ridge; thence up and with the top of the Little Hawk Ridge 151 poles to a Rock at the top of the mountain; thence south 55 east with J. G. Phillips line 66 poles to a Chestnut; thence south 60 east 16 poles to an Ash; thence south 85 east 10 poles to a stake in Dellinger's line on top of the mountain; thence with Dellinger's line south 18 east 16 poles to a Chestnut, Hace Buchanan's corner; thence south 50 west 57 poles to an Ash; Buchanan's corner; thence south 38 east 35 poles to a Chestnut; thence south 24 east 35 poles to a stake; thence south 37 west 24 poles to a Chestnut; thence south 40 east 8 poles to a small Oak in the old line; thence south 55 west 156 poles to the Buchanan Branch at the old Poplar (now gone) ; thence up and with the Branch to the Beginning Containing 140 and 5/8 acres, more or less.

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

February 24, 1958

DMEA
RECEIVED FEB 26 1958
DATE | INITIALS | CODE

Memorandum

To: Operating Committee, DMEA - Washington

From: DMEA Field Team, Region V - Knoxville, Tennessee

Subject: Application from DeGroat, Buchanan & Buchanan. Twiggs Mica Prospect, Mitchell County, North Carolina

Enclosed are the original and two copies of the subject application which was received here, with a copy of the lease and six copies of the Consent to Lien signed by Francis E. Field of Dover, Delaware. We are keeping the fourth copy of the application for our use.

Please note that the landowner has added a clause to item 6 of the Consent to Lien.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA-Reg.V

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

Form ME-103
Revised Oct. 1957

RECEIVED
FEB 21 1958
U. S. BUREAU OF MINES
DEPT. OF INT.
Knoxville, Tennessee

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

APPLICATION FOR AID IN AN EXPLORATION PROJECT

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

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

De Groat, Buchanan & Buchanan
c/o J.H. De Groat, Jr
Route ~~X~~ 4,
Bakersville, North Carolina.

RECEIVED FEB 20 1958 D.M.E.A.

APPLICANT NOT TO USE THIS BLOCK

Docket Number	4946
Date Received	2-26-58
Government Participation %	
Region	V
Division Code	600

BUSINESS ORGANIZATION (Check one)

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

State in which firm is organized: N.C.

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
J.H. De Groat, Jr	Rt. 4.	Bakersville, N.C.
Zeb Buchanan,	Rt. 4.	Bakersville, N.C.
Guy Buchanan,	Rt. 4.	Bakersville, N.C.

(A Partnership D/B/A DeGroat, Buchanan & Buchanan)

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

Estimated Cost of Project: $ 8,130.50

LOCATION OF PROPERTY

Name	County	State
Twiggs Mica Prospect		
Cane Creek Tp.	Mitchell,	N.C.

GENERAL INSTRUCTIONS

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

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

February 14th, 1958
Dated

De Groat, Buchanan & Buchanan
James H De Groat Jr
BY (Signature) (Partner)

c/o J.H. De Groat, Jr
Route 4,
Bakersville, North Carolina.
Title

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

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

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

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

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

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

2. *Physical Description:*

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

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

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

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

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

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

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

3. *Accessibility of Project:*

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

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

4. *The Exploration Project:*

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

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

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

5. *Experience:*

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

6. *Estimate of Costs:*

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

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

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

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

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

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

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

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

Note – No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

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

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

* * * * *

INT.-DUP. SEC., WASH., D.C. 25960

Re: DE GROAT, BUCHANAN & BUCHANAN
C/O J.H. DE GROAT, Jr.
ROUTE # 4,
BAKERSVILLE, NORTH CAROLINA

(Twiggs Mica Prospect)

SUPPLEMENT SHEET NO.1.
-re-
FORM MF-103,(REVISED)

Sect. 1-(a) Applicants Property Rights.

The mica prospect hereinafter known and referred to as the "Twiggs Mica Prospect", is located in Cane Creek Township Township, Mitchell County, State of North Carolina. The site of the proposed mining project lys approximately 600 yards East-Northeast of the Residence of Clarence Rathbone in the head of a hollow and is reached by jeep road from Rathbone's house. A legal description of the mining property is as follows: BEGINING on a Stake which is located South, 50 feet from the portal of the Twiggs Mine; thence South, 250 feet to a Stake; thence East, 300 feet to a Stake; thence North, 600 feet to a Stake; thence West, 600 feet to a Stake; thence South, 600 ft to a Stake; thence East, 300 feet to a point of closure.
The applicants intrest in this property is that of Lessee's by virture of a Mineral Lease dated February 14th, 1958, recorded in the Register of Deeds Office for Mitchell County, N.C. in Book #_____, on Page # _____, of said official records of Mitchell County, N.C.

1-(b) . Twiggs Mica Prospect.

1-(c) Lessee's (See copy of Lease attached)

1-(d) NONE.

Sect. 2-(a) Physical Description Of Property.

The Twiggs Mica Prospect lys in a deep hollow between two prominient ridges some 600 yards East-Northeast of the home of Clarence Rathbone at the head of the Cane Creek road some two miles East-Northeast of the Hawk, N.C. Postoffice. The prospect has been in state of operation some several times by various parties. The present old works consist of (1) An open shaft about 40 feet deep. (2) A drift running off the 20 ft level of this shaft in a Northeast direction for a length of some 50 feet.(Drift now caved) (3) Also a drift drove off from bottom of shaft Northeast for about 50 feet and now open. (4) Several small shallow test holes on strike of the main body both above and below site of the 40 ft shaft. The mine is not being operated at the present time.

2-(b) . One of the applicants, J.H. De Groat, took part in the last mining operation done at site of proposed exploration project which was some four months ago. Applicant worked for wages during operation.

2-(c) . During the entire history of previous mining operations at the Twiggs Mica Prospect, the operators have recovered various quanities of good grade mica of a light green color in books up to 4" X 6" in size. 50% or more of the recovered mica will run pattern size in trimmed sheets 2½" to 3½" with some larger patterns. This mica when processed and sold at the Govt Mica Depot in Spruce Pine, N.C. has graded from 45% to 70%.

2-(d) . The applicants have strong reason to beleive that the prospect holds vast quanities of high grade mica in reserve. This beleif is supported by fact that prospect has always produced high grade mica with every previous operation. It is futher supported by the fact that no previous operation has penetrated over 40 feet in depth on main pegmatite body.

Re: DE GROAT, BUCHANAN & BUCHANAN
C/O J.H. DeGROAT, Jr
ROUTE # 4.
BAKERSVILLE, NORTH CAROLINA.

(Twiggs Mica Prospect)

SUPPLEMENT SHEET # 2.
-re-
FORM MF-103, (REVISED)

Sect. 2-(e) Geologic Data Of Prospect.

The Main Pegmatite body strikes a course roughly NE-SW from the North side of a ridge across the hollow to a ridge of Southside of the main mountain range. The proposed mining site (shaft) is located in the hollow between the two mentioned ridges. The pitch of the vein is to the South at about ~~XX%~~ 40-45 degrees at the bottom of the 40 ft shaft the deepest point of penetration. The main pegmatite body is composed entirely of feldspar and quartz. A permanent quartz core about 10 inches wide is seperated from the main body by a rib of slate 8 to 10 inches thick on the hanging wall side of body. The main body will average 12" to 24" in width but it is the opinion of the applicants that it will become wider with more depth. The mica is a light colored green or border color. It is flat, hard, and almost free of any defects. The books will range in size from 1½" to 6" and some larger books have been recovered by past operators. Both slate binders are exposed in drift and in shaft. Mica previously mined, processed and sold showed grade of from 45% to 70%.

2-(f) Due to fact that the prospect has never been worked more than 40 feet in depth and no work whatsoever done on the SW strike of body. Futher evidence tending to support this is the fact that every past operation has produced certain quanites of high grade mica.

2-(g) No Geologic surveys available.

Sect. 3-(a) Acessibility of Project.

From Bakersville, N.C. take the Cane Creek public road, (hard-topped), east 4½ miles to Hawk Postoffice. Take North fork of the Cane Creek road (gravel) from postoffice approximately 2 miles to home of Clarence Rathbone. From Rathbone house take jeep road to site of proposed mining site, (about 600 yards east-northeast.)

3-(b) The nearest railway shipping point is located at Toecane, N.C. about 9½ miles from proposed mining project. Nearest supply point is Spruce Pine, N.C. about 19 miles from project site. All employees will reside within a radis of 4 miles of project over good year around roads.

Sect. 4-(a) The Exploration Project.

It is proposed by the applicants to drive a drift (tunnel) into the main strike of the body starting at a point about 100 feet SW of the 40 foot open shaft. This drift would be pointed at the 40 foot shaft and if drove on level would bring the NE end of said drift some 30 feet below and directly under the bottom of the 40 foot open shaft. (2) The applicants would then drive upwards for a contact with the bottom of the old shaft thus making an outlet for all surplus water now in old shaft. Upon reaching a break through with bottom of old shaft, it is proposed to drive a shaft downward in line with old shaft, 100 feet with dip of main body. Footage as requested would be as follows: 100 Ft from ground level NE to a poin directly under old 40 foot shaft. Approximately 30-40 feet shaft upward to breakthru bottom of old shaft. 100 ft shaft down with dip of body from NE end of the 100 ft drift. Total: 230 Ft drift-Shaft.

Re: De GROAT, BUCHANAN & BUCHANAN
c/o J.H. DE GROAT, Jr
RT.4.
BAKERSVILLE, NORTH CAROLINA

(Twiggs Mica Prospect)

SUPPLEMENT SHEET NO 3.
-re-
FORM MF-103, (REVISED)

Sect. 4-(b) NONE.

4-(c) Work could start within period of (30) days from Contract date. It is estimated that it would require a period of (24) weeks to complete exploration work if contract is awarded on basis of estimates submitted in application. during an 8 hour work period it is estimated that 1 to 3 feet could be drilled, shot and muck removed from shaft or drift 5' X 7' opening.

Sect. 5-(0) EXPERIENCE of SUPERVISOR AND EMPLOYEE'S.

All three applicants have had in excess of 5 years experience in the mining of mica. Any extra help hired would be required to show a minimum of 3 years actual mica mining experience to qualify for employment. The Supervision of mining would be in charge of Mr. Guy Buchanan or Mr. Zeb Buchanan both with back ground of several years mining experience.

Sect. 6-(a) ESTIMATE OF COSTS BY UNITS.

Indenpendent Contracts----NONE.

(b) Personal Services.

No.	Class	Hrly Rate	Wkly Rate	Estd Cost For The 24 Week Period.	
1	Supervisor (Mine)	$ 1.50	$ 60.00	$ 1,440.00	960 work
1	Drill Operator	1.50	60.00	1,440.00	ing Hrs.
2	Muckers @ 1.25 ea.	2.50	100.00	2,400.00	
(4)	Man Crew----------	$ 5.50	$ 220.00	$ 5,280.00	

(c) OPERATING MATERIALS-SUPPLIES. (Purchase Basis)

Unit	Items	No Units	Unit Costs	Estd Cost For The 24 Week Period.	
Gal.	Gasoline	800	$ 0.25	$ 200.00	
Qts.	Motor Oil	190	0.22	41.80	
Ea.	Line Lubricator	1	20.00	20.00	
Lft.	1" Air Line (metal)	200	.16	32.00	
Lbs.	40% Dynamite	650	.25	162.50	
Ea.	6' El Exploders	500	.16	80.00	
Lft	Air Hose	50	.90	45.00	
Lft.	Tung Drill Steels	24	6.40	153.60	(3 pcs)
Ea.	El Blasting Battery	1	25.00	25.00	
TOTALS----------				$ 759.90	

(d) OPERATING EQUIPMENT--(Monthly Rental Basis)

Unit	Item	No. Units	Unit Cost	Estd Cost For The 24 Week Period
Ea.	105 Air Compressor	1	$ 150.00	$ 900.00
Ea.	Jackhammer Drill	1	50.00	300.00

Re: De GROAT, BUCHANAN & BUCHANAN
c/o J.H. DE GROAT, Jr
Rt.4.
BAKERSVILLE, NORTH CAROLINA

(Twiggs Mica Prospect)

SUPPLEMENT SHEET NO. 4.
-re-
FORM MF-103, (REVISED)

Sect. 6-(d) con-- Mining Equipment--(Monthly Rental Basis)

Ea.	Electric Water Pump	1	$ 50.00	$ 300.00
Ea.	Mining Jackleg	1	15.00	$ 90.00
TOTALS----------				$ 1,590.00

(e) Rehabilitation & Repairs----NONE.

(f) New Buildings & Installations. (Purchase Basis)

Unit	Item	No. Unit	Unit Cost	Estd Cost For The 24 Week Period
Ea	Toolhouse & Shop	1	$ 75.00	$ 75.00
Ea.	Powder Magazine	1	25.00	25.00
Ea.	Exploder Magazine	1	15.00	15.00
TOTALS----------			$ 125.00	$ 115.00

(g) Miscellaneous Expenses.

Federal Payroll Taxes @ 2% of $ 5,280.00 Payroll	$ 105.60
Employers Liability Ins. (Estimated)----------	$ 200.00
TOTALS----------	$ 305.60

Contingencies

8 Hours Work With Bulldozer pushing off Dump------$ 80.00

Sect. 7-(a)-(b) The applicants will supply their 25% of total cost of the project in Mining equipment and Labor.

RECAPITULATION OF ESTIMATED COST OF PROJECT
**----BY UNITS------

Sect. 6-(b)	Labor & Supervision	24 Week Period----------	$ 5,280.00
Sect 6-(c)	Materials & Supplies	" " " ----------	$ 759.90
Sect. 6-(d)	Mining Equipment	" " " ----------	$ 1,590.00
Sect. 6-(f)	Buildings-Installations	" " " ----------	115.00
Sect. 6-(g)	Miscellaneous Expenses	" " " ----------	$ 305.60
	Contingencies	" " " ----------	$ 80.00
TOTALS----------		24 Week Period----------	$ 8,130.50

Respectfully Submitted,

De Groat, Buchanan & Buchanan

By: James H. De Groat Jr.
Partner
Rt.4, Bakersville, N.C.

NORTH CAROLINA
BUNCOMBE COUNTY

THIS AGREEMENT made the 14TH day of FEBRUARY, 19 58, between the LAND & MINERAL COMPANY, a corporation organized pursuant to the laws of the State of Delaware, hereinafter sometimes designated as "Lessor," party of the first part; and,

JAMES H. DEGROAT JR, ZEB BUCHANAN, AND GUY BUCHANAN

of MITCHELL COUNTY, BAKERSVILLE, N.C. RT-4

hereinafter sometimes designated as "Lessee,"
(This designation shall include the respective parties, whether one or more, individual or corporate, and their respective successors in interest or assigns), party of the second part:

WITNESSETH

That the said Lessor, for and in consideration of the premises and of the sum of One Dollar paid said Lessor by Lessee, the receipt of which is hereby acknowledged, and of the undertakings and agreements hereinafter set forth and stated to be kept and performed by the Lessee, has leased and granted, and by these presents does lease and grant unto the Lessee the sole and exclusive right and privilege of digging, boring and otherwise prospecting for, and mining mica, including scrap, sheet and punch mica, and FELSPAR, and _____, and to remove the same from the following described tract or tracts of land situate in the State of NORTH CAROLINA, County of MITCHELL, and bounded and more particularly described as follows:

BEGINNING ON A STAKE WHICH IS LOCATED SOUTH 50 FEET FROM THE TWIGGS MINE: THENCE SOUTH 250 FEET TO A STAKE: THENCE EAST 300 FEET TO A STAKE: THENCE NORTH 600 FEET TO A STAKE: THENCE WEST 600 FEET TO A STAKE: THENCE SOUTH 600 FEET TO A STAKE: THENCE EAST 300 FEET TO A POINT OF CLOSURE.

DMEA
RECEIVED FEB 26 1958
DATE | INITIALS | CODE

(TWIGGS MINE)

TO HAVE AND TO HOLD the said premises for the purposes aforesaid only, unto the said Lessee for and during the term of ~~XXXXXX~~ FIVE year next ensuing from the 14TH day of FEBRUARY, 19 58.

1. The Lessee covenants and agrees to pay to the Lessor on the 10th day of each month, the following royalties:
   (a) Scrap mica—a sum equal to 1/8 of the then prevailing market price.
   (b) Sheet and punch mica—a sum equal to 1/8 of the then prevailing market price.
   (c) Feldspar—a sum equal to 50¢ per ton of 2240 pounds.
   (d) All other minerals—a sum equal to _____ of the then prevailing market price,
   (E) NO MICA TO BE SOLD IN BLOCK FORM EXCEPT TO GSA

   mined and removed from said premises pursuant to the provisions of this lease during the month immediately preceding said dates of payments, which payments shall be made to the Lessor at its office in Biltmore, North Carolina, or to its duly designated agent, for that purpose, ARTHUR BUCHANAN, JR AGENT, in complete settlement of any and all royalties due the Lessor for minerals mined and removed during the preceding month and each remittance of royalty payments herein specified shall be accompanied by an accurate statement or invoice and/or weight ticket, showing the amount, grade, qualification and weight of the mica and other minerals upon which said payments are based, together with such other information as may be incident to the mining, sale and shipment of said mica.

2. The Lessee agrees to pay to the Lessor a minimum royalty of $ NONE per year during the term hereof, without regard to the mica, feldspar or other minerals produced from said land; for any period less than a year the minimum royalty payable hereunder shall be ratably ascertained, providing that nothing in this paragraph contained shall release the Lessee from the obligation to prosecute mining operations with a reasonable degree of efficiency and to pay the royalties provided upon the mica and other minerals actually produced. The annual royalties received pursuant to paragraph 1, hereof, shall apply against said minimum royalties but said sums received under paragraph 1, hereof, shall not be considered as advance and cumulative royalties against said minimum royalties.

3. The Lessee covenants and agrees to keep adequate, accurate and complete records, books and accounts of all mica and other minerals mined within the boundaries of the premises above described, and the same shall be open to inspection of the Lessor at all reasonable times.

4. The said Lessee will classify, segregate and keep separate and separately marked, all mica and other minerals mined upon and taken from the premises hereinabove described and in no event will store, ship, mix or confuse the same with mica and other minerals mined or taken from any other land or premises.

5. The Lessor hereby grants to the Lessee the right to mine, prospect, search, dig, bore and excavate for mica and other minerals in as many places on the premises above described as the said Lessee may deem proper, and to extract and remove the same from said premises.

6. The Lessor hereby grants to the Lessee the same right that it has to construct ditches, drains, aerial tramways, tramways, railroads, truck roads, to and across said premises and any adjoining tracts of land belonging to the Lessor, but subject to any obligation of the Lessor in connection therewith which Lessee assumes.

7. The Lessor hereby grants to the Lessee such rights as it has in the premises above, to cut and use such timber located upon the said premises as may be necessary for the construction of buildings and/or for other usual purposes of such mining operations, upon paying for the merchantable timber the reasonable market stumpage value thereof at and upon the aforesaid land and premises, but subject to any obligation of the Lessor in connection therewith, which the Lessee assumes.

8. The Lessor hereby grants to the Lessee such rights as it has to use any stone or gravel located on the aforesaid premises for the purpose of constructing roads necessary and suitable for the full enjoyment of the mining rights hereby leased by the Lessee, as well as such right as it has to use or secure water on said premises and to dump waste material and water arising through the mining operations upon said premises, but subject to any obligation of the Lessor in connection therewith, which Lessee assumes.

9. The Lessor hereby grants to the Lessee the right to remove his mining machinery and equipment at any time within ninety (90) days after the termination or expiration of this lease, provided the time for the removal of said machinery and equipment may be enlarged only by written permission of the Lessor. No mining machinery and equipment belonging to the Lessee shall be removed from said premises until all of the indebtedness and obligations which may be owing to the Lessor by the Lessee shall have been paid in full.

10. The Lessor reserves unto the Lessor the right to use so much of the premises as shall not be required by the Lessee for the mining operations of the Lessee.

11. The Lessee agrees to pay all taxes which may be levied solely upon the mining operations conducted upon the said premises by the Lessee.

12. The Lessee shall have the right to terminate this lease at any time during the term aforesaid upon giving written notice to Lessor of such intention, at least sixty (60) days prior to the date of termination, and upon payment of all sums due Lessor by Lessee to said date of termination. Said notice shall be sent by Registered Mail to last known address of Lessor.

13. The Lessee agrees to conduct his mining operations in a businesslike and workmanlike manner with due regard to Lessor's rights in the mines, minerals and mineral deposits, and to that end the Lessee agrees to keep and maintain the mines and all parts thereof in good and sufficient repair and to work and operate said mines in a good and skillful manner not removing the rich parts of the mines at the expense of the other part thereof, and as the work progresses to keep the mines as clean as reasonably practicable, and all parts thereof securely and properly timbered and supported; and in case of open work to properly slope the walls and banks so as to prevent the same from slipping or falling in; that no waste, rubbish or refuse will be dumped, thrown or placed in any mine, mine tunnel, cut shaft or other improper place, and no waste will be permitted upon said premises nor avoidable damage done to mine thereunder. Lessee further agrees not to interfere with, dislocate, remove, damage or misplace any surface monuments, marker stake or other evidence as presently set defining the boundaries of said premises.

14. The Lessor reserves the right to terminate and cancel this lease in the event of a default on the part of the Lessee in complying with any of the terms and conditions of this lease, provided said default shall continue for a period of sixty days after the Lessor has forwarded written notice thereof to the Lessee. Said notice shall be sent by registered mail to the last known address of the Lessee.

15. The Lessee shall have the right to renew this lease for an additional period of FIVE YEARS, upon the terms and conditions hereinbefore set forth, provided that 30 days prior to the expiration of this lease the Lessee shall forward to the Lessor written notice thereof in the manner hereinbefore provided for sending notices to Lessee.

16. The Lessee will within a period of 60 days from the signing of this lease begin active work in prosecuting the mining operations for scrap mica, sheet and punch mica, feldspar and other minerals and will continue the prosecution of said mining operations in good faith and with due diligence and activity in order to produce the maximum output from the mines located on the above described premises. In the event Lessee fails to operate actively and continuously any mine or mines within said boundary for the production of scrap mica, sheet and punch mica, feldspar and other minerals for a period of 30 days, except for causes absolutely beyond Lessee's control, then the Lessor, at its option, may declare this lease void and of no further force and effect.

17. It is agreed that during the continuation this lease, or any extension thereof, the Lessor or its assigns shall have the refusal of and the right and option to purchase all mica mined and produced by the Lessee from the land and premises hereinabove described. Such purchase to be at the prevailing market price.

18. It is agreed that the acceptance of royalty by the Lessor under the provisions of this lease is to to be a credit in behalf of the Lessee but is not to be taken or considered as a waiver for any damages Lessor may be entitled to recover from Lessee for any breach or breaches that Lessee may make in any duty or covenant expressed or reasonably implied in this lease or as an estoppel against Lessor in this respect. Nothing contained in this lease is intended to, nor shall it abridge or in any way modify the Lessor's right or rights in or to any action for the non-performance of the covenants of this lease.

19. It is agreed that this lease shall not be transferred, assigned or sub-let either in whole or in part by the Lessee without the prior written consent of the Lessor and no right or privilege of the Lessee hereunder can be transferred, assigned or sub-let by Lessee without such written consent of Lessor first had and obtained.

20. Lessee agrees that the Lessor shall in no sense or in any way be held liable for any operations under this lease, and in no event and under no circumstances shall Lessor be held liable for any debt, tort or other liability of the Lessee, his agents, workmen or employees and Lessee further agrees to at all times indemnify and save harmless said Lessor of any claim and demand of whatsoever kind and nature predicated in any manner on such operations under this lease and Lessee further agrees to carry adequate insurance of all kinds to so indemnify said Lessor.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be duly and properly executed as of the day and year first above written.

LAND AND MINERAL COMPANY
By: Francis C. Field
President

ATTEST:
V. Jordan Brown
Secretary

James H. DeGroat Jr. (SEAL)
Guy Buchanan (SEAL)
J. Zeb Buchanan (SEAL)

NORTH CAROLINA
BUNCOMBE COUNTY

I, a Notary Public of said State and County, certify that V. Jordan Brown personally came before me this day and acknowledged that he is _____ Secretary of LAND AND MINERAL COMPANY, a corporation, and that, by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its _____ President, sealed with its corporate seal, and attested by _____ self as its _____ Secretary.

WITNESS my hand and Notarial Seal, this the 14 day of Feb, 1958

_____ NOTARY PUBLIC

My commission expires:
Jan-7-1960

NORTH CAROLINA MITCHELL
~~BUNCOMBE~~ COUNTY

I, R. P. Greene, Clerk Superior Court, ~~a Notary Public~~ of said State and County, do hereby certify that ~~J. Zeb Buchanan~~ James H. DeGroat, Jr., Guy Buchanan & personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and Notarial Seal, this 19 day of February, 1958

R. P. Greene ~~NOTARY PUBLIC~~
Clerk Superior Court

My commission expires:

STATE OF NORTH CAROLINA
COUNTY OF BUNCOMBE

LAND AND MINERAL COMPANY

To

JAMES H. DEGROAT JR, ZEB BUCHANAN AND GUY BUCHANAN

LEASE

Filed for registration on the 19 day of February, 1958, at 10:15 o'clock A M., and registered in the Office of The Register of Deeds for Mitchell County, North Carolina in Book 86 Page 486-487-488

Bill Masten
Register of Deeds for

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/4	alt	600
6/5	Hook	600

600

Project Summary Report

By: J. W. Alt June 4, 1959

1. Docket No. DMEA-4946-Mica
Contract No. Idm-E1197
Twiggs Mine
Mitchell County, North Carolina

Application: Form MF-103(October, 1957) received February 26, 1958.
Work proposed by Applicants:
Construct toolhouse and shop, powder magazine and exploder magazine, bulldozing, drifting 100 feet, shaft sinking and shaft raising at an estimated total cost of $8,130.50.

Operators: J. H. DeGroat, Jr., Zeb Buchanan and Guy Buchanan, a Partnership.
c/o Mr. J. H. DeGroat, Jr.
Route No. 4
Bakersville, North Carolina

Operators' property rights:
Five year mining lease on Land & Mineral Company property, consisting of 8.26 acres, dated February 14, 1958.
Consent to Lien and Subordination Agreement, dated February 14, 1958.

2. Contract: Form MF-200A (April,1956) dated May 29, 1958
Work Authorized:

	148 cu.yds. excavation, access road improvement @ $0.30		$45.00
1.	Construct: Toolhouse	$75.00	
	Powder Magazine	25.00	
	Exploder Magazine	15.00	115.00
2.	50 foot shaft @ $42/ft.		2,100.00
3.	100 foot drift or crosscut @ $31/ft.		3,100.00
4.	200 feet percussion drilling @ $0.75/ft.		150.00
	Estimated total cost of the project (rounded)		$5,512.00
	Government participation @ 75%		$4,134.00

43683

Amendments:

No. 1 - September 29, 1958
Completion time extended from September 29, 1958, to December 29, 1958.

Work completed:

Drifting, 93 feet @ $31/ft.	$2,883.00
Shaft sinking, 50 feet @ $42/ft.	2,100.00
Access road improvement	45.00
Construction: Toolhouse, powder and exploder magazines	115.00
Total cost of the project	$5,143.00

Work started June 9, 1958, work suspended December 10, 1958. Contract terminated by mutual agreement, effective December 16, 1958. Field Team final report received January 28, 1959. Operators' final report received December 10, 1958. No equipment purchased under contract. The Field Team reports that during July and August two sales of mica were made. A total of 28.98 pounds of mica was sold for $463.99 for which the Government received royalty of $23.20. The royalty received to date (May 11, 1959) is $126.94.

Oct.

3. Audit: Report of Review issued December 22, 1958.

Total cost billed by Operator	$5,360.00
Accepted cost	$5,143.00
Government participation @ 75%	$3,857.25

4. Certification of discovery: None issued.

5. Comments:

How conducted: All of the work in which the Government participated was acceptable.
Operation: Shaft sinking was slow because of hard ground. Drifting was accomplished faster and more efficiently. The Operators were cooperative and attempted to follow the suggestions of the Field Examiners.
Engineering: Operators reports were good.
Geological Premise: The suggested concentration of mica found in the upper levels did not extend downward to the DMEA workings.
Geological criteria upon which work was based:

1. The property from shallow workings has produced an excellent quality of mica and the fairly continuous nature of the pegmatite body should warrant further exploration below the old workings.

2. Mica--Excellent quality greenish rum, free splitting muscovite occurring in books up to 4 by 6 inches.
3. Past Production--From the period July 31, 1956 to August 16, 1957, the mica sold was 1,276.41 pounds having a value of $23,022.76. The average price per pound was $18.04.

Criteria developed during project:

1. The Twiggs pegmatite is a thin, pinching and swelling tabular body that is concordant with the foliation of the layered biotite and hornblende gneiss country rock. The pegmatite in the upper workings of the Twiggs Mine is reported to range from 0.5 foot to 3 feet in thickness but in the contract shaft the pegmatite ranges from less than one inch to a maximum of eight inches in thickness. In the contract drift the pegmatite ranges from less than an inch to possibly 18 inches in thickness.
2. Mica--Smoky greenish-gray. Although generally flat and free splitting much of it is cracked and the edges bent.

Future possibilities: No significant reserves were outlined by the DMEA exploration work. The pegmatite is too thin and too poor in mica to permit profitable mining. Additional exploration is not warranted.

Recommendations:

The Division of Nonmetallic Minerals concurs in the Field Team's recommendation that no certification of discovery be made.

J. W. Alt
J. W. Alt
Division of Nonmetallic Minerals

JWAlt:gad 5/4/59
Copy to: Dir. R. File

☑ Audited 12/22/58

☐ Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of 12/29/58

Incl. Voucher for -8

☐ Actual Cost

☑ Agreed Unit Costs

Name le Groat, Buchanan + Buchanan

Docket No. 4946

Sta No. Car.

Commodity Mica

Idm-E No. 1197

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Lifting & Crosscutting	100 Ft.	3100.00	75 ? 93'	2,883.00	2883.00
Raising					
Shafts	50 Ft.	2100.00	50	2100.00	2100.00
Winzes					
Drilling (Specify) Percussion	200 Ft.	150.00			
Surface Excavation					
Underground Excavation					
Roads and Trails		45.00		45.00	45.00
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
Building, Improvements, etc.		115.00		115.00	115.00
Other (Specify)					
Totals		5572.00		5,143.00	5143.00

Prepared by Walter C. Anderson

71626

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/29	[illegible]	600
	[illegible]	500
6/29	Dec on leave	120
		~~110~~
6/29	[illegible]	220
		600

600

JUN 29 1959

Land and Mineral Company

Biltmore, North Carolina

Attention: Mr. Arthur Buchanan, Jr.,
Agent

Gentlemen:

Enclosed is our letter of June 9, 1959, to Mr. Francis E. Field, president of Land and Mineral Company, Dover, Delaware, which was returned to us by the Post Office marked "unknown." It will be appreciated if you will deliver our same letter to Mr. Field.

Sincerely yours,

Frank E. Johnson (for)

Acting Director

Enclosure

JWAlt:gad 6/29/59
Copy to: Dir. R. File
Region V
Mr. Kirkemo, USGS
Mr. Skow, USBM
Docket DMEA-4946

43683

OFFICIAL FILE COPY O. M. E. RECEIVED MAY 12 1959		
DATE	INITIALS	CODE
5/13	a	220
5/14	Hook	600

May 11, 1959

Memorandum

To: Finance Officer, OME - Region V - Norris, Tennessee

From: Executive Officer, OME - Region V - Knoxville, Tenn.

Subject: Royalty Payment - DMEA-4946, Idm-E1197-Mica. DeGroat, Buchanan & Buchanan, Twiggs Mine, Mitchell County, North Carolina.

Attached are final settlement sheets for mica sold from the subject mine in the amount of $487.58, and their Money Order for 5% in the amount of $24.38 to be credited to their contract.

R. A. Laurence

zm.
cc
F. Johnson, OME
Lynch
Files

FORM APPROVED BY COMP. GEN., U.S. MARCH 25, 1957

GENERAL SERVICES ADMINISTRATION

FINAL SETTLEMENT - MICA PURCHASE

MICA PURCHASE DEPOT - Spruce Pine, N. C.

PROGRAM: [X] A [ ] B

DATE PURCHASED: 2-27-59

ACCEPTANCE NUMBER: A03-482(a)

CERTIFICATE AUTHORIZATION NUMBER: [redacted]-3-122A

LOT NUMBER: SPAO-482(a)

VOUCHER NUMBER:

SCHEDULE NUMBER:

EVALUATION DATA

RUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
GOOD STAINED AND BETTER						
GRADES NO. 3 AND LARGER		$	$		$ 70.00	$
GRADES NO. 4 AND 5					40.00	
GRADES NO. 5½ AND 6					17.70	
STAINED						
GRADES NO. 3 AND LARGER		12.00			31.90	
GRADES NO. 4 AND 5		5.00			18.05	
GRADES NO. 5½ AND 6		3.00			7.55	
HEAVY STAINED						
GRADES NO. 3 AND LARGER		8.00			14.80	
GRADES NO. 4 AND 5		4.00			6.85	
GRADES NO. 5½ AND 6		2.00			4.00	
TOTALS			$			$

NONRUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
GOOD STAINED AND BETTER						
GRADES NO. 3 AND LARGER		$	$		$ 70.00	$
GRADES NO. 4 AND 5				2.50	40.00	100.00
GRADES NO. 5½ AND 6				14.63	17.70	258.95
STAINED						
GRADES NO. 3 AND LARGER		9.60			25.55	
GRADES NO. 4 AND 5		4.00		2.00	14.60	29.20
GRADES NO. 5½ AND 6		2.40		14.82	6.55	97.07
HEAVY STAINED						
GRADES NO. 3 AND LARGER		6.40			11.85	
GRADES NO. 4 AND 5		3.20		.03	5.45	.16
GRADES NO. 5½ AND 6		1.60		.55	4.00	2.20
TOTALS			$			$

TOTAL YIELD AND VALUE [ ] RUBY [X] NONRUBY (*Half trim plus full trim*) 34.53 LBS. $ 487.58

ADJUSTED VALUE WHEN LESS THAN 18% GS & B (ABOVE VALUE $ _____ X _____ : 18) $

FOR PROGRAM B, DEDUCT $4.00 PER POUND FOR RIFTING AND TRIMMING

FINAL BASIS FOR PAYMENT $ 487.58

LESS: INITIAL PAYMENT VOUCHER NUMBER SCHEDULE NUMBER 292.46

BALANCE DUE [X] SELLER [ ] GOVERNMENT $ 195.12

NAME AND LOCATION OF MINE

Twiggs, Mitchell County, N. C.
% GS & B 49.61

PROCESSED FOR PAYMENT (LBS.)	34.53
PROCESSED - NO PAYMENT (LBS.) THINS	
BLACK (*Dots, Spots, Stained*)	
UNDERSIZED	
PROCESSING [redacted]	.15 Gain
TOTAL POUNDS PURCHASED	34.38

SELLER'S NAME AND ADDRESS (*Type or print*)

Twiggs Mining Co.
Route 4, % Bob Buchanan
Bakersville, N. C.

APPROVED

DEPOT SUPERINTENDENT

DATE 4-16-59

WASH D C 58-3177

GSA FORM 1013a
SEPTEMBER 1957

Bakersville, N.C.
May 6 1959

Mr Robert A. Laurence
Executive Officer, Reg V.
Defense Min. Expto admn.
P.O. Building
Knoxville, Tenn.

4946

Dear Mr Laurence.
Please find enclose P.O. Money Order in the sum of $24.38 which represents payment of 5% royalty on the last sale of mica sold from the Wiggs Mica Mine. To G.S.A. Mica Purchase depot at Spruce Pine, N.C. under date of 2-27-59.
Bill No A03-482(a) Copy of bill enclose,
This is the last and final sale of mica we had from this Mine,

RECEIVED
MAY 8 - 1959
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

Yours
Degroat Buchanan & Buchanan
Per. Zeb Buchanan

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

April 17, 1959

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

DATE	INITIALS	CODE
4/20	C	220
		600

Memorandum

To: Finance Officer, Region V (OME) Norris, Tennessee

From: Acting Executive Officer, OME - Region V

Subject: Royalty Payment - DMEA-4946, Idm-E1197-mica.
DeGroat, Buchanan & Buchanan, Bakersville, N.C.
Twiggs Mine, Mitchell County, North Carolina

Attached are two final settlement sheets for mica sold from the subject mine in the amount of $1,233.07 and their Money Order for 5% royalty on the sales in the amount of $61.66 to be credited to their contract.

V. J. Lynch

zm.
cc
F. Johnson-OME
Lynch
Files

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

DATE	INITIALS	CODE

Bakersville, N.C.
April 15th, 1959

Mr. Robert A. Laurence
Executive Officer, Reg. V
Defense Min. Explo. Admn
P.O. Building
Knoxville, Tennessee.

Re: DMEA-4946 (Mica)
DeGroat, Buchanan & Buchanan
Twiggs Mine-Mitchell Co. N.C.
Contract # Idm-E1197

Dear Mr. Laurence:

Enclosed herewith please find P.O. Money order in the sum of $ 61.66 which sum represents payment of 5% royalty on two sales of mica sold from the Twiggs Mica Mine, Mitchell County, N.C. to GSA mica purchase depot at Spruce Pine, N.C. under dates of 1-19-59 and 2-6-59, bills # A03-401 & A03-434 (a), copy of these bills enclosed.

Respectfully,

De Groat, Buchanan & Buchanan
Per: Zeb Buchanan
Bakersville, North Carolina.

enc: (2)
M.O. $61.66

RECEIVED
APR 17 1959
U.S. Geological Survey
Geologic Division
Knoxville, Tenn.

35.65

FORM APPROVED BY COMP. GEN. U.S. MARCH 25, 1957

GENERAL SERVICES ADMINISTRATION

FINAL SETTLEMENT - MICA PURCHASE

PROGRAM: [X] A [ ] B

DATE PURCHASED: 1-19-50

ACCEPTANCE NUMBER: A03-401(a)

MICA PURCHASE DEPOT - [illegible] Plan, N. C.

VOUCHER NUMBER:

SCHEDULE NUMBER:

CERTIFICATE AUTHORIZATION NUMBER: [illegible]-3-122 A

LOT NUMBER: [illegible]-401(a)

EVALUATION DATA

QUALITY	RUBY HALF TRIM POUNDS	RUBY HALF TRIM PRICE PER LB.	RUBY HALF TRIM AMOUNT	RUBY FULL TRIM POUNDS	RUBY FULL TRIM PRICE PER LB.	RUBY FULL TRIM AMOUNT
GOOD STAINED AND BETTER		$	$		$ 70.00	$
GRADES NO. 3 AND LARGER					40.00	
GRADES NO. 4 AND 5					17.70	
GRADES NO. 5½ AND 6						
STAINED					31.90	
GRADES NO. 3 AND LARGER		12.00			18.25	
GRADES NO. 4 AND 5		5.00			7.55	
GRADES NO. 5½ AND 6		3.00				
HEAVY STAINED					14.80	
GRADES NO. 3 AND LARGER		8.00			6.85	
GRADES NO. 4 AND 5		4.00			4.00	
GRADES NO. 5½ AND 6		2.00				$
TOTALS			$			

NONRUBY						
GOOD STAINED AND BETTER		$	$		$ 70.00	$
GRADES NO. 3 AND LARGER				3.34	40.00	133.60
GRADES NO. 4 AND 5				20.95	17.70	370.82
GRADES NO. 5½ AND 6						
STAINED				.28	25.55	7.15
GRADES NO. 3 AND LARGER		9.60		4.00	14.60	58.40
GRADES NO. 4 AND 5		4.00		20.25	6.55	132.83
GRADES NO. 5½ AND 6		2.40				
HEAVY STAINED					11.85	
GRADES NO. 3 AND LARGER		6.40		.16	5.45	.87
GRADES NO. 4 AND 5		3.20		2.32	4.00	9.28
GRADES NO. 5½ AND 6		1.60				$
TOTALS			$	51.33	LBS.	$ 712.95

TOTAL YIELD AND VALUE [ ] RUBY [X] NONRUBY (*Half trim plus full trim*) $ ____ x ____ ÷ 18) $

ADJUSTED VALUE WHEN LESS THAN 18% GS & B (ABOVE VALUE $ ____ x ____ ÷ 18) $ 712.95

FOR PROGRAM B, DEDUCT $4.00 PER POUND FOR RIFTING AND TRIMMING [illegible]

FINAL BASIS FOR PAYMENT [illegible]

LESS: INITIAL PAYMENT VOUCHER NUMBER SCHEDULE NUMBER $ 266.01

BALANCE DUE [X] SELLER [ ] GOVERNMENT

NAME AND LOCATION OF MINE

Twiggs, Mitchell County, N. C.
% GS & B 47.32

SELLER'S NAME AND ADDRESS (*Type or print*)

Twiggs Mining Co.
Route 4, % Zeb Buchanan
Dobersville, N. C.

PROCESSED FOR PAYMENT (LBS.)	51.33
PROCESSED - NO PAYMENT (LBS.) THINS	
BLACK (*Dots, Spots, Stained*)	
UNDERSIZED	
PROCESSING LOSS	.36
TOTAL POUNDS PURCHASED	51.69

APPROVED

DEPOT SUPERINTENDENT

DATE 3-12-50

GSA FORM 1013a SEPTEMBER 1957

GSA WASH D C 58-3177

FORM APPROVED BY COMP. GEN. U.S. MARCH 25, 1957

GENERAL SERVICES ADMINISTRATION

FINAL SETTLEMENT - MICA PURCHASE

MICA PURCHASE DEPOT - [redacted]

PROGRAM: [X] A [ ] B

DATE PURCHASED: 3-6-30

ACCEPTANCE NUMBER: A03-434(a)

CERTIFICATE AUTHORIZATION NUMBER: [redacted]

LOT NUMBER: [redacted]

VOUCHER NUMBER:

SCHEDULE NUMBER:

EVALUATION DATA

RUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
GOOD STAINED AND BETTER						
GRADES NO. 3 AND LARGER		$	$		$ 70.00	$
GRADES NO. 4 AND 5					40.00	
GRADES NO. 5½ AND 6					17.70	
STAINED						
GRADES NO. 3 AND LARGER		12.00			31.90	
GRADES NO. 4 AND 5		5.00			18.25	
GRADES NO. 5½ AND 6		3.00			7.55	
HEAVY STAINED						
GRADES NO. 3 AND LARGER		8.00			14.80	
GRADES NO. 4 AND 5		4.00			6.85	
GRADES NO. 5½ AND 6		2.00			4.00	
TOTALS			$			$

NONRUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
GOOD STAINED AND BETTER						
GRADES NO. 3 AND LARGER		$	$		$ 70.00	$
GRADES NO. 4 AND 5				3.80	40.00	155.20
GRADES NO. 5½ AND 6				13.91	17.70	246.21
STAINED						
GRADES NO. 3 AND LARGER		9.60			25.55	
GRADES NO. 4 AND 5		4.00		2.69	14.60	39.27
GRADES NO. 5½ AND 6		2.40		11.28	6.55	73.88
HEAVY STAINED						
GRADES NO. 3 AND LARGER		6.40			11.85	
GRADES NO. 4 AND 5		3.20		.22	5.45	1.20
GRADES NO. 5½ AND 6		1.60		1.50	4.00	4.56
TOTALS			$			$

TOTAL YIELD AND VALUE [ ] RUBY [X] NONRUBY (*Half trim plus full trim*)	33.07 LBS.	$ 520.12
ADJUSTED VALUE WHEN LESS THAN 19% GS & B (ABOVE VALUE $ _____ X _____ ÷ 18)		$
FOR PROGRAM B, DEDUCT $4.0 PER POUND FOR RIFTING AND TRIMMING		
FINAL BASIS FOR PAYMENT		$ 520.12
LESS: INITIAL PAYMENT VOUCHER NUMBER SCHEDULE NUMBER		280.37
BALANCE DUE [X] SELLER [ ] GOVERNMENT		$ 239.75

NAME AND LOCATION OF MINE

Twiggs, Mitchell County, N. C.
[redacted] 51.79

SELLER'S NAME AND ADDRESS (*Type or print*)

Twiggs Mining Co.
Route 4, [redacted]
Bakersville, N. C.

PROCESSED FOR PAYMENT (LBS.)	33.07
PROCESSED - NO PAYMENT (LBS.) THINS	
BLACK (*Dots, Spots, Stained*)	
UNDERSIZED	
PROCESSING LOSS	.05
TOTAL POUNDS PURCHASED	33.12

APPROVED

DEPOT SUPERINTENDENT

DATE: 3-31-30

GSA WASH D C 58-3177

GSA FORM 1013a SEPTEMBER 1957

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 15 1959

DATE	INITIALS	CODE
4/15	C	220
4/15	[illegible]	800
4/14	[illegible]	600

April 13, 1959

Mr. Zeb Buchanan
Route 4
Bakersville, North Carolina

Re: Docket No. DEA-4946 (Idea)
DeCroat, Buchanan & Buchanan
Twiggs Mine
Mitchell County, North Carolina
Contract No. Idm-E1197

Dear Mr. Buchanan:

On January 16, I sent Mr. J. H. DeCroat five copies of a proposed Termination Agreement for the subject exploration project contract. On February 17, Mr. Lynch again wrote him, requesting return of the executed agreement.

Will you please have all five copies of this agreement signed by all three partners, keep the Operator's Copy, and return all the others to me as soon as possible?

Sincerely yours,

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

RAL/mg
cc - Operating Committee (2)
Mr. V. J. Lynch
Mr. J. H. DeCroat
File

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

February 12, 1959

Official
EXTRA COPY
O. M. E.
RECEIVED FEB 16 1959

DATE	INITIALS	CODE
2/16	C	220
2/16	Hook	600

Memorandum

To: Finance Officer, Region V - Norris, Tenn.

From: Executive Officer, OME - Region V - Knoxville, Tenn.

Subject: Royalty Payment - DMEA-4946, Idm-E1197-mica.
Twiggs mine, Mitchell County, N.C.

Attached is a final settlement sheet for mica from the subject mine in the amount of $354.08, and a Money Order for 5% royalty on the sale for $17.70.

Robert A. Laurence

sm
F. Johnson, OME
Lynch
Files

FO... OVED BY CO... U.S. MA... 25, 1957

GENERAL SERVICES ADMINISTRATION

FINAL SETTLEMENT - MICA PURCHASE

MICA PURCHASE DEPOT - Spruce Pine, N. C.

PROGRAM: A [illegible] / B

DATE PURCHASED: 11-14-58

ACCEPTANCE NUMBER: A03-265(a)

CERTIFICATE AUTHORIZATION NUMBER: [illegible]-3-122 A

LOT NUMBER: [illegible]-265 ( )

VOUCHER NUMBER:

SCHEDULE NUMBER:

EVALUATION DATA

RUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
GOOD STAINED AND BETTER						
GRADES NO. 3 AND LARGER		$	$		$ 70.00	$
GRADES NO. 4 AND 5					40.00	
GRADES NO. 5½ AND 6					17.70	
STAINED						
GRADES NO. 3 AND LARGER		12.00			31.90	
GRADES NO. 4 AND 5		5.00			18.25	
GRADES NO. 5½ AND 6		3.00			7.55	
HEAVY STAINED						
GRADES NO. 3 AND LARGER		8.00			14.80	
GRADES NO. 4 AND 5		4.00			6.85	
GRADES NO. 5½ AND 6		2.00			4.00	
TOTALS			$			$

NONRUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT	
GOOD STAINED AND BETTER							
GRADES NO. 3 AND LARGER		$	$	.13	$ 70.00	$ 9.10	9.10
GRADES NO. 4 AND 5				1.09	40.00	43.60	43.60
GRADES NO. 5½ AND 6				13.24	17.70	234.35	234.35
STAINED							
GRADES NO. 3 AND LARGER		9.60		.03	25.55	.77	
GRADES NO. 4 AND 5		4.00		.90	14.60	13.14	
GRADES NO. 5½ AND 6		2.40		7.78	6.55	50.96	
HEAVY STAINED							
GRADES NO. 3 AND LARGER		6.40			11.85		
GRADES NO. 4 AND 5		3.20		.03	5.45	.16	
GRADES NO. 5½ AND 6		1.60		.50	4.00	2.00	
TOTALS			$			$	

TOTAL YIELD AND VALUE [ ] RUBY [X] NONRUBY (*Half trim plus full trim*) 23.70 LBS. $ 354.08 — 354.08

ADJUSTED VALUE WHEN LESS THAN 18% GS & B (ABOVE VALUE $ _____ X _____ ÷ 18) $

FOR PROGRAM B, DEDUCT $4.00 PER POUND FOR RIFTING AND TRIMMING

FINAL BASIS FOR PAYMENT $ [illegible] — 354.08

LESS: INITIAL PAYMENT VOUCHER NUMBER SCHEDULE NUMBER [illegible] — 189.74

BALANCE DUE [X] SELLER [ ] GOVERNMENT $ [illegible] — 164.34

NAME AND LOCATION OF MINE

Twiggs, Mitchell County, N. C.
% GS & B 61.01

PROCESSED FOR PAYMENT (LBS.)	23.70 / 23.70
PROCESSED - NO PAYMENT (LBS.) THINS	
BLACK (*Dots, Spots, Stained*)	
UNDERSIZED	
PROCESSING [illegible]	.03 Gain
TOTAL POUNDS PURCHASED	23.65 / 23.65

SELLER'S NAME AND ADDRESS (*Type or print*)

Twiggs Mining Co.
Route 4, % Guy Buchanan
Bakersville, N. C.

EXTRA COPY
O. M. E.
RECEIVED FEB 16 1959

DATE	INITIALS	CODE

APPROVED

DEPOT SUPERINTENDENT

DATE [illegible]

GSA WASH D C 58-3177

GSA FORM 1013a SEPTEMBER 1957

DMEA-4946

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

February 5, 1959

Memorandum

OFFICIAL FILE COPY O. M. E. RECEIVED FEB 9 1959		
DATE	INITIALS	CODE
2-9	C	220
2/18	[illegible]	600

To: Nonmetallic Minerals Division
Office of Minerals Exploration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4946 (mica)

Applicant: J. H. DeGroat, Jr.

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

Contract Number: Idm-E 1197

Date of Field Team Final Report: January 26, 1959

Date Rec'd. by Branch of Ceramic and Fertilizer Materials: February 2, 1959

Field Team Recommendation: Recommend that no certification of discovery be made.

Comments:

1. Contract work consisted of sinking 50 feet of shaft and drifting 93 feet.
2. About 650 pounds of mine-run mica were produced during contract work.
3. Reserves of strategic mica are estimated to be negligible.
4. Expenditures -

Total approved (rounded)	$5,512.00
Total cost	5,143.00
Government's share of cost	3,857.25
Government's share unexpended	276.75
Value of production (includes one sale for which final settlement not yet received)	1,117.27
Total royalty due	55.86
Royalty paid to date	23.20
Bal. unpaid royalty 1-20-59	32.66

Recommendation:

I concur with the recommendation of the field team that no certification be issued.

W. F. Dietrich

W. F. Dietrich

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 28 1959

DATE	INITIALS	CODE
1/28	C	220
"		130
2/3		130
2/3	C	130
2/9		220
		600

January 26, 1959

Memorandum

To: Operating Committee, OME - Washington, D. C.

From: OME Field Team, Region V - Knoxville, Tennessee

Subject: Field Team Final Report - DMEA-4946, Idm-E1197-mica. Twiggs Mine, Mitchell County, North Carolina

Transmitted are the original and two copies of the subject report with maps attached.

The Field Team concurs with the Examiners in recommending that no certification of discovery be issued.

Robert A. Laurence
Robert A. Laurence
Executive Officer, OME
Region V

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

Reviewed by
OME OPERATING COMMITTEE
2-3-59
(date)

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 28 1959

DATE	INITIALS	CODE
2/3	JB	130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF MINERALS EXPLORATION

FINAL REPORT
Field Team - Region V

Final Field Team Rept.

DMEA-4946, Idm-E1197(mica) TWIGGS MINE
Mitchell County, North Carolina

Frank G. Lesure, Geologist
Geological Survey

S. A. Feitler, Mining Engineer
Bureau of Mines

Wm. A. Beck, Mining Engineer
Bureau of Mines

Reviewed by
OME OPERATING COMMITTEE
2-3-59
(date)

January 26, 1959

DMEA EXPLORATION PROJECT

FINAL REPORT

DMEA-4946, Idm-E1197 (mica) TWIGGS MINE
Mitchell County, North Carolina

Operator: J. H. DeGroat, Jr., Zeb Buchanan and Guy Buchanan, d/b/a/ DeGroat, Buchanan and Buchanan
c/o J. H. DeGroat, Jr., Route # 4, Bakersville, N. C.

SUMMARY

The existing 48-foot shaft at the Twiggs mine was deepened 50 feet and a drift was driven 93 feet northeast from the bottom to explore a thin but continuous pegmatite. The pegmatite ranged from less than an inch to a maximum of 18 inches in thickness. Production from the shaft and drift was about 650 pounds of mine-run muscovite. Production from a post-contract exploratory stope above the drift has amounted to about 500 pounds. About a ton of indicated and a ton of inferred reserves can be calculated. We recommend that no certification be made. No additional work is warranted.

INTRODUCTION

Location: The Twiggs mine is at an elevation of 3880 feet near the head of Long Hollow about one mile N19°E of the Hawk mine (DMEA-4337) and 1.9 miles N28°E of Cane Creek School, Hawk community, Mitchell County, North Carolina (Carver Gap, N. C., Quad. TVA 1:24,000). The mine can be reached in 4-wheel drive vehicles by following the dirt road up Long Hollow.

History: The Twiggs mine has been worked intermittently for a number of years. Early workings consist of an open cut, now caved and only 10 feet deep, that extends northeast along the strike of the pegmatite for 45 feet. Between 1941 and 1944, Rube Ledford and Greene Ledford drove an adit about 20-feet below the old open cut. This adit is now caved but is reported to have extended 190 feet into the mountain. It was supposedly stoped out to near the bottom of the open cut and

reportedly broke through in several places now filled by caving.

The mine was worked from 1956 to 1957 by Otis Buchanan. A vertical and inclined shaft was sunk 48 feet. From the 20-foot level a drift and stope were worked for an unknown distance northeast along the pegmatite. A second drift and stope were worked for 47 feet northeast and 10 feet or more southwest from the 40-level (Fig.1). Sales of mica made at the GSA Mica Purchasing Depot in Spruce Pine, N. C., between July 1956 and August 1957 are as follows:

	Wt. lbs.	Average percent of total
Good stained	768.22	60.19
Stained	457.71	35.86
Heavy stained	50.48	3.95
Total	1276.41	

Total value of mica $23,022.76; average price per pound $18.04.

Contract Work

Work on contract DMEA-4946, Idm-E1197, started June 9, 1958. Road excavation of 200 cubic yards, 52 cubic yards at the Operator's expense, was made to gain better access to the mine. A toolhouse, powder magazine, and exploder magazine were built. The inclined shaft was deepened 50 feet at -45° to -50°. Near the bottom of the deepened shaft a drift was turned off northeast and driven 93 feet.

Between 38 and 65 feet from the shaft the Operator has stoped about 15 feet above the contract drift. Because of the small amount of mica found and the thinness of the pegmatite

in the last 30 feet of the contract drift work was suspended December 10, 1958. The contract was terminated on January 13, 1959, effective December 16, 1958, by mutual agreement. More than 93% of the authorized work was completed.

Shaft sinking on this project was slow because of hard ground. Drifting was accomplished faster and more efficiently. The Operators were cooperative and attempted to follow the suggestions of the Field Examiners.

GEOLOGY

The Twiggs pegmatite is a thin, pinching and swelling tabular body that is concordant with the foliation of the layered biotite and hornblende gneiss country rock. The pegmatite in the upper workings of the Twiggs mine is reported to range from 0.5-foot to 3 feet in thickness but in the contract shaft the pegmatite ranges from less than one inch to a maximum of eight inches in thickness. In the contract drift the pegmatite ranges from less than an inch to possibly 18-inches in thickness. The pegmatite strikes N30°-45°E and dips 45° - 65°SE. Rolls along the hanging wall apparently plunge to the northeast.

The Twiggs pegmatite is a medium-to coarse-grained mixture of plagioclase, quartz and muscovite. Muscovite occurs in books up to seven inches across that are oriented at all angles to the walls. In several places books of muscovite four inches or more across and an inch or more thick are parallel to the pegmatite walls and form the whole pegmatite

at that point. In other places mica books at an angle to the walls are also larger in diameter than the thickness of the pegmatite. In the shaft only about 150 pounds of mica was recovered representing a mica concentration of less than one percent. In the drift, between 25 and 65 feet from the shaft, where the pegmatite has a slightly greater average thickness, about 500 pounds of mica was recovered. An additional 500-pounds of mica was also recovered from the stoped area above the drift. This mica "shoot" contains an average of three percent muscovite.

The mica is a smoky greenish-gray. Although generally flat and free splitting, much of it is cracked and the edges bent. Some books have black specks of iron oxides and biotite. The Operator reports that the mica from the contract drift is not as good quality as that recovered from the 40-foot level and higher workings.

PRODUCTION AND RESERVES

Production from the DMEA shaft was about 150 pounds and from the DMEA drift about 500 pounds of mine-run mica. Production from the post-contract stoping above the DMEA drift was about 500 pounds. At least four sales of trimmed mica totaling 83.9 pounds have been made. Final results from one sale have not yet been received.

Results of two sales made in July and October are as follows:

	Pounds		
	No.3	4 & 5	5½ & 6
Good stained	.06	2.85	15.33
Stained	-	.77	9.13
Heavy stained	-	.03	.81

These 28.98 pounds were sold for $463.99, or an average of $16 a pound.

Only one mica "shoot" was cut in the DMEA drifting. About one ton of mica remains between the contract drift and the 40-level workings assuming a three percent average mica content and a 0.5-foot average pegmatite thickness. An additional ton of mine-run mica can be inferred below the contract drift level.

RECOMMENDATION AND CONCLUSIONS

We recommend that no certification be made. No significant reserves were outlined by the DMEA exploration work. Although the pegmatite is nearly continuous the full depth of the shaft and length of the drift, it is too thin and too poor in mica to permit profitable mining. No additional exploration is warranted.

EXPENDITURES

Total approved (rounded)	$5,512.00
Total cost	5,143.00
Government's share of cost	3,857.25
Government's share unexpended	276.75
Value of production (includes one sale for which final settlement not yet received)	1,117.27
Total royalty due	55.86
Royalty paid to date	23.20
Bal. unpaid royalty 1-20-59	32.66

F. G. Lesure, Geologist
Geological Survey

S. A. Feitler and Wm. A. Beck
Mining Engineers, USBM.

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

JAN 15 1959

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 28

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November 195 8 Docket No. DMEA 4946 Contract No. Idm-1197
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt.4. Bakersville, N.C.
Contract Amount, $ 5,512.00 Government Participation: 75 % Amount, $ 4,134.00

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	None	45.00	45.00	—	45.00	45.00
Bulldozing						
Crosscutting	775.00	2,325.00	3,100.00	558.00	2325.00	2883.00
Drifting						
Shaft	None	2,100.00	2,100.00	—	2100.00	2100.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	None	115.00	115.00	—	115.00	115.00
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	775.00	~~2,360.00~~ 4,585.00	3,360.00	558.00	4585.00	5143.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 12-2-58 *Payee DeGroat, Buchanan & Buchanan
Per Jeb Buchanan Title Partner

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

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:
$ 418.50
Signature Helen R. Mellin
(Authorized Certifying Officer)
Date JAN 13 1959 Vou. No. 74
(See other side)

bk 7 12/9 139.50

(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. E-1197 in accordance with the terms of the contract.

Signature F. S. Lesure Title GEOLOGIST, U. S. G. S. Date DEC 29 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ACTING EXECUTIVE OFFICER DME - REGION V Date DEC 29 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

JAN 15 1959
O.M.E.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1958 Docket No. DMEA 4946 Contract No. 1197
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt.4. Bakersville, North Carolina.

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	lft	775.00	25	3,100.00	100	31.00	100	31.00
Crosscutting								
Raising								
Shafts	lft.	None	None	2,100.00	50	42.00	50	42.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	Cu Yds	None	None	45.00	148	0.30	148	0.30
TOTAL DISTRIBUTED COSTS		775.00	25	5,245.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		None	None	None				
Initial Rehabilitation and Repairs		"	"	"				
New Buildings, Improvements, etc.		"	"	115.00				115.00
TOTAL COSTS		775.00	25	5,360.00				115.00

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 December 2nd 1958 Operator DeGroat, Buchanan & Buchanan

Per Jeb Buchanan Title Partner

REMARKS: Final Report On This Project.

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)

See Report of Review and Corrections made on MF-104

MINING ENGINEER
U. S. BUREAU OF MINES

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

A Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/13	Houk	600
1/13	Fabiet	800
1/13	[illegible]	130
"	[illegible]	110
		~~200~~
		~~[illegible]~~
1/14	C	220
		600

600

JAN 14 1959

Mr. Robert A. Laurence
Executive Officer, OME
Field Team, Region V
Room 2-B, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. DMEA-4946-Mica
DeGroat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina
Contract No. Idm-E1197

Dear Mr. Laurence:

Reference is made to the Field Team's memorandum of December 16, 1958, and to the enclosed interim report recommending termination of the subject contract.

Enclosed are the original and four copies of a proposed termination agreement signed by the Acting Director for the Government. Two extra copies are enclosed for the use of the Field Team.

If the proposed termination agreement meets with your approval present it to the Operators for execution. If any part of this agreement 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 are to be returned to this office, together with the proposed changes for consideration.

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

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Approved:

G. T. BAROCH (GCS)

Member, Bureau of Mines

N. E. Nelson (GCS)

Member, Geological Survey

Enclosures 7

LGHouk:gad 1/13/59

Copy to: Dir. R. File
Operating Committee
Mr. Kiilsgaard, 6222
Mr. Dietrich, 3061
Mr. Houk

8623

Form 7
-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/30	Anderson	600
12/30	Houk	600
12/31	Galice	800
1/2	Martin	130
	On leave	110
		200 HB
		220

600

Mr. V. J. Lynch
Acting Executive Officer
OME Field Team, Region V
Room 2-B, Post Office Bldg.
Knoxville 2, Tennessee

Re: Docket No. DMEA-4946-Mica
DeGroat, Buchanan, and
Buchanan
Twiggs Mine
Mitchell County, North Carolina
Contract No. Idm-E1197

Dear Mr. Lynch:

We note in your memorandum of December 16, 1958, that the work of the subject contract was stopped with only seven feet of drift remaining to be done, because the pegmatite had practically pinched out and further work was not justified.

We concur that for all practical purposes the contract work can be considered completed and, therefore, a formal termination agreement will not be necessary.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (HB)

Approved:

G. J. BAROCH (HB)
Member, Bureau of Mines

N. E. Nelson (HB)
Member, Geological Survey

WCAnderson:gad 12/30/58
Copy to: Dir. R. File
Operating Committee
Mr. Kiilsgaard, USGS
Mr. Dietrich, 3061
Mr. Houk

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/22	G McCarthy	~~800~~
12/23	Fisher	800
12/23	C	220
MV	Lynch	~~600~~

DEC 23 1958

Mr. Robert A. Laurence
Executive Officer
OME Field Team, Region V
Room 2-B, Post Office Building
Knoxville 2, Tennessee

Re: Docket No. DMEA-4946
DeGroat, Buchanan & Buchanan
Contract No. Idm-E1197

Dear Mr. Laurence:

Enclosed are the original and three copies of a Report of Review, as requested by Mr. Lynch's December 16 memorandum. Also enclosed is the Operator's final (November 1958) MF-104, which was submitted with his request.

If you concur with the facts as stated in this report, please make the usual distribution. If for any reason you do not concur, please return the original and all copies with your comments to this Division.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers
Contract Administration
and Audit Division

Enclosures

GMcCarthy/GMcC
December 22, 1958

cc: Docket
Director's Reading File
Mr. Chambers
Helen R. Miller

8623

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

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O. M. E.
RECEIVED DEC 17 1958

DATE	INITIALS	CODE
12/17	H. G.	225
"		110
12/18		800
12/18		600

December 16, 1958

Memorandum

To: Operating Committee, OME - Washington

From: Field Team, OME - Region V - Knoxville, Tennessee

Subject: DMEA-4946, Idm-E1197(mica) DeGroat, Buchanan and Buchanan, Bakersville, N.C.
Twiggs Mine, Mitchell County, N.C.

Enclosed are the original and two copies of the latest interim report on the subject project.

Please note that the authorized work is more than 90% completed, and that completion of the remaining work is not recommended. If you consider that a termination agreement is required, please prepare one.

Robert A. Laurence

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

V. J. Lynch

V. J. Lynch, Member
Bureau of Mines - OME

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O. M. E.
RECEIVED DEC 17 1958

DATE	INITIALS	CODE

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197 (mica) TWIGGS MINE
Mitchell County, North Carolina

Operator: J. H. DeGroat, Jr., et al, R#4, Bakersville, N.C.

Location: 1.9 miles N28°E of Cane Creek School and also N19°E of the Hawk mine, Mitchell County, N. C.

The contract drift has been driven an additional nine feet for a total of 93 feet. A four-foot burn in the face shows that the pegmatite pinches to one inch. No mica was recovered in the last 25 feet of drift. The pegmatite in the face is a fine-grained mixture of quartz and plagioclase. It strikes N20°E, dips 45°SE and is concordant with the foliation of the gneiss country rock.

The Operator has stoped a triangular area about 15-feet high above the drift between 38 and 65 feet from the shaft. About 500 pounds of medium-quality mine-run muscovite was recovered. This is an average of 3 percent mica in the pegmatite mined. In the roof of the stope the pegmatite pinches and swells. It ranges from about an inch to eight inches in thickness. Muscovite occurs in books up to seven inches across, either perpendicular or parallel to the pegmatite walls. The Operator reports that this mica is not as good a quality as that obtained at higher levels in the mine. Although not enough mica is being recovered to pay for stoping, the Operator stated that work will be continued a little farther

in the hope that the pegmatite will widen.

The Operator in a final report claims 100 feet of drift. The Examiners measured only 93 feet of drift. The Operator's measurement was probably made from the southwest side of the shaft but the seven feet of shaft not subtracted. Because of the poor showing in the last 25 feet and the thinness of the pegmatite exposed in the burn, further work is not justified. Even though the pegmatite may widen again along strike no significant discovery would be made by driving the additional seven feet. A re-evaluation of the parallel pegmatite exposed at the surface indicates that long hole drilling called for in the contract is not justified. This parallel pegmatite has not been prospected at the surface and does not appear to contain strategic muscovite. It is recommended that the project be terminated. Certification will not be recommended.

Mr. R. A. Laurence, Executive Officer, Region V, OME accompanied the Examiner.

Inspected: December 9, 1958

Frank G. Lesure, Geologist
U. S. Geological Survey, OME

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

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DATE	INITIALS	CODE
12/18	J.J.J.	225
12/19	EEB	800
		600

December 16, 1958

Memorandum

To: Jay L. Chambers, OME Contract Administration and Audit Division - Washington, D.C.

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

Subject: Completion of MDA-4946, Idm-L1197(mica)
DeGroat, Buchanan & Buchanan, Bakersville, N.C.
Twiggs Prospect, Mitchell County, N.C.

Work on the subject contract has been completed. The following units of work were acceptably performed as verified by our Field Examiners:

1 - Construction of powder magazine, exploder magazine and toolhouse.

2 - 148 cubic yards of material excavated in road construction.

3 - Shaft sunk to a depth of 50 feet

4 - 93 feet of drift work completed (Operator incorrectly claimed 100 ft.)

An acceptable final engineering and geological report has been received. This report was combined with the last monthly report which has been submitted to the Operating Committee.

Original of final monthly report and voucher is attached. A Report of Review is requested.

V. J. Lynch

VJL/zm
cc
Opr. Com-2
File

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

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DATE	INITIALS	CODE
12/10	C	220
12/10	[illegible]	800
12/10	[illegible]	600

December 8, 1958

Memorandum

To: Operating Committee, OME - Washington

From: OME Field Team, Region V - Knoxville, Tennessee

Subject: DMEA-4946, Idm-E1197-mica. DeGroat, Buchanan and Buchanan, Bakersville, N.C.
Twiggs mine, Mitchell County, N.C.

Enclosed are the original and two copies of the Operator's Final Report on the subject contract, which has been completed since the last inspection. We plan to make the final inspection next week.

Robert A. Laurence
Robert A. Laurence
Executive Officer, OME
Region V

W. A. Beck
Wm. A. Beck, for V. J. Lynch
Member, Bureau of Mines

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

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O. M. E.
RECEIVED DEC 10 1958

DATE	INITIALS	CODE

December 8, 1958

Memorandum

To: Operating Committee, OME - Washington

From: OME Field Team, Region V - Knoxville, Tennessee

Subject: DMEA-4946, Idm-E1197-mica. DeGroat, Buchanan and Buchanan, Bakersville, N.C.
Twiggs mine, Mitchell County, N.C.

Enclosed are the original and two copies of the Operator's Final Report on the subject contract, which has been completed since the last inspection. We plan to make the final inspection next week.

Robert A. Laurence
Executive Officer, OME
Region V

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

RAL/zm

OPERATORS FINAL REPORT

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 10 1958
DATE INITIALS CODE

DeGroat, Buchanan & Buchanan
Route # 4. Bakersville, N.C.
Twiggs Mica Prospect.

MICA

Docket No. DMEA 4946
Contract No. Idm-E 1197
Mitchell County, N.C.

Phase # 1. Shafting

Operation of above approved project began June 9th, 1958 with a 3 man crew engaged. June 9th to 27th inclusive was taken up in making of a road to mine site, setting up machinery, building of tool house and magazines and the cribbing and otherwise rehabilitation of the old 40X foot shaft. Actual work on the main pegmatite body began June 30th when some 36 feet of holes was drilled, shot and mucked out in bottom of the 40 foot shaft. The pegmatite body at this contact was sone 10 inches thick on an average and quite void of any signs of mica deposits or reserves. A depth penetration of some 17 feet was made with the dip of the pegmatite body dur- this period of operation.

During the period July 1st to 31st inclusive, a 3 man crew was engaged in futher sinking of the vertical shaft down and with the dip of the pegmatite body. During this period the 3 man crew worked (4) 40 hour weeks or 160 man working hours. A total of some 500 lft of holes was drilled, shot and mucked out during this four week period and the shaft sank to a futher depth of some 21 additional feet. During this period the pegmatite body at all points remained narrow with an average thickness of about 9 to 10 inches and still void of any visible sign of a mica makeup. All work was done in or ajacent to the main pegmatite body with removal of sufficient slate binders to permit working room. A few small books of mica recovered.

During the period August 1st to 31st inclusive, (4) weeks of 40 hours each or 160 man hours was worked by a 3 man crew. The shaft was sunk to a futher depth of some 20 feet down with the dip of the main body. Some 480 Lft of holes was drilled, shot and mucked out during this period. The dip or pitch of the body remained about steady at approximately 25 degrees to the south-southeast. Main pegmatite body still very narrow and poor with a few small books of widely scattered mica noted. Body appears to be narrowing somewhat which might indicate a change soon in formation.

Sept. 1st, 1958. During this one 8 hour period with a 3 man crew, the shaft was sunk an additional 3 feet down with the dip of the main body which brought the shaft up to the 50 foot maximum as allowed by contract. At this final depth no visible signs of improvement in the main body was noted and said body remained poor with average width of about 8 inches at the overall depth of the open shaft which is now some 90 feet deep from portal to bottom

Phase # 2. Drifting

During the period Sept. 2nd to 30th, inclusive, work was started on the 100 foot drift. Begining at a point some 5 feet from the center of the 90 foot open shaft, a 5' X 7' drift was driven in a northeasterly direction along the strike of the main pegmatite body. During this 21 day peruod of 8 hours per day, a total of 168 man hours was worked by a 3 man crew. Some 560 Lft of holes was drilled, shot and mucked out and the drift driven some 40 feet along with and ajacent to the northeasterly strike of the main body. During this 40 foot penetration the main body remained almost stationary in with with an average of 8 to 9 inches. A few small books of mica was noted and recovered at the 25 foot depth and again at the 35 foot depth but as a whole, the formation remained poor. A thickness of about 10 " noted in body at about 29 to 40 foot depth.

Phase # 2- Drifting (Con)

During the period, October 1st to 31st inclusive, a 3 man crew continued work on the 100 ft drift being driven northeasterly along the strike of the main pegmatite body. (4) 40 hours weeks or 160 man hours were worked during this period and an additional 35 feet was penetrated in the drift. A total of some 525 lft of holes were drilled, shot and mucked out. All shots were made in or close ajacent to the main pegmatite body. The body remained an average of 9 to 10 inches in thickness and still lacking in mica buildup although a few more small books of mica was noted and recoved but these were well scattered thruout the entire 35 feet penetrated during the period. As a whole, the entire formation and body makeup remained very poor with a narrowing of the body noted during the last days operation.

November 1st to 30th inclusive. During this period only 19 days of 8 hrs each or a total of 152 man hours were worked due to weekends and the Thanksgiven hollidays. Some 456 lft of holes were drilled, shot and mucked out by the 3 man crew engaged in the operation. An additional 25 feet penetration was made in the drift bringing the total footage up to the 100 feet mark as allowed in contract. During the last 11 days of operation total contact was lost with the main pegmatite body and only slate binders encountered in all drilling and blasting done during these last 11 days operation. A few test holes failed to pickup the pegmatite body again.

Project Summary

Phase # 1. Shafting 50 feet. (3) Man Crew.

Worked a total of 41 days of 8 hrs each or 328 man hours.
Drilled, Shot & Removed Muck From Approximately 1,028 Lft of holes.

Phase # 2. Drifting 100 feet. (3) Man Crew.

Worked a total of 60 days of 8 hrs each or 480 man hours.
Drilled, Shot & Removed Muck From Approximately 1,541 Lft of Holes.

REMARKS

At no time during the entire 101 days of mining operation done in both the 50 foot vertical shaft or in the 100 foot drift did this exploration project give any real indication of any mica buildup of importance. While the past production history of the Twiggs Mica Prospect has been quite good, it has been fully determined now both by depth penetration and penetration along the northeasterly strike of the pegmatite body that no real reserve of mica exists at these points.. It is the opinion of the present operators that any future exploration should be made only along the southwesterly strike of the body and then ONLY after a core drilling test has shown real indications of a mica reserve in that particular location.

Respectfully submitted,
DeGroat, Buchanan & Buchanan
By: Jack Buchanan
Partner

OPERATORS FINAL REPORT

EXTRA COPY
O. M. E.
RECEIVED DEC 10 1958
DATE | MEANITWLS | CODE

DeGroat, Buchanan & Buchanan
Route # 4. Bakersville, N.C.
Twiggs Mica Prospect.

MICA

Docket No. ~~Idm-E 1146~~
Contract No. ~~Idm-E 1197~~
Mitchell County, N.C.

Phase # 1. Shafting

Operation of above approved project began June 9th, 1958 with a 3 man crew engaged. June 9th to 27th inclusive was taken up in making of a road to mine site, setting up machinery, building of tool house and magazines and the cribbing and otherwise rehabilitation of the old 40 foot shaft. Actual work on the main pegmatite body began June 30th when some 36 feet of holes was drilled, shot and mucked out in bottom of the 40 foot shaft. The pegmatite body at this contact was some 10 inches thick on an average and quite void of any signs of mica deposits or reserves. A depth penetration of some 7 feet was made with the dip of the pegmatite body durthis period of operation.

During the period July 1st to 31st inclusive, a 3 man crew was engaged in futher sinking of the vertical shaft down and with the dip of the pegmatite body. During this period the 3 man crew worked (4) 40 hour weeks or 160 man working hours. A total of some 500 lft of holes was drilled, shot and mucked out during this four week period and the shaft sank to a futher depth of some 21 additional feet. During this period the pegmatite body at all points remained narrow with an average thickness of about 9 to 10 inches and still void of any visible sign of a mica makeup. All work was done in or ajacent to the main pegmatite body with removal of sufficient slate binders to permit working room. A few small books of mica recovered.

During the period August 1st to 31st inclusive, (4) weeks of 40 hours each or 160 man hours was worked by a 3 man crew. The shaft was sunk to a futher depth of some 20 feet down with the dip of the main body. Some 480 Lft of holes was drilled, shot and mucked out during this period. The dip or pitch of the body remained about steady at approximately 25 degrees to the south-southeast. Main pegmatite body still very narrow and poor with a few small books of widely scattered mica noted. Body appears to be narrowing somewhat which might indicate a change soon in formation.

Sept. 1st, 1958. During this one 8 hour period with a 3 man crew, the shaft was sunk an additional 3 feet down with the dip of the main body which brought the shaft up to the 50 foot maximum as allowed by contract. At this final depth no visible signs of improvement in the main body was noted and said body remained poor with average width of about 8 inches at the overall depth of the open shaft which is now some 90 feet deep from portal to bottom

Phase # 2. Drifting

During the period Sept. 2nd to 30th, inclusive, work was started on the 100 foot drift. Begining at a point some 5 feet from the center of the 90 foot open shaft, a 5' X 7' drift was driven in a northeasterly direction along the strike of the main pegmatite body. During this 21 day peruod of 8 hours per day, a total of 168 man hours was worked by a 3 man crew. Some 560 Lft of holes was drilled, shot and mucked out and the drift driven some 40 feet along with and ajacent to the northeasterly strike of the main body. During this 40 foot penetration the main body remained almost stationary in with with an average of 8 to 9 inches. A few small books of mica was noted and recovered at the 25 foot depth and again at the 35 foot depth but as a whole, the formation remained poor. A thickness of about 10 " noted in body at about 29 to 40 foot depth.

Phase # 2- Drifting (Con)

During the period, October 1st to 31st inclusive, a 3 man crew continued work on the 100 ft drift being driven northeasterly along the strike of the main pegmatite body. (4) 40 hours weeks or 160 man hours were worked during this period and an additional 35 feet was penetrated in the drift. A total of some 525 lft of holes were drilled, shot and mucked out. All shots were made in or close ajacent to the main pegmatite body. The body remained an average of 9 to 10 inches in thickness and still lacking in mica buildup although a few more small books of mica was noted and recoved but these were well scattered thruout the entire 35 feet penetrated during the period. As a whole, the entire formation and body makeup remained very poor with a narrowing of the body noted during the last days operation.

November 1st to 30th inclusive. During this period only 19 days of 8 hrs each or a total of 152 man hours were worked due to weekends and the Thanksgiven hollidays. Some 456 lft of holes were drilled, shot and mucked out by the 3 man crew engaged in the operation. An additional 25 feet penetration was made in the drift bringing the total footage up to the 100 feet mark as allowed in contract. During the last 11 days of operation total contact was lost with the main pegmatite body and only slate binders encountered in all drilling and blasting done during these last 11 days operation. A few test holes failed to pickup the pegmatite body again.

Project Summary

Phase # 1. Shafting 50 feet. (3) Man Crew.

Worked a total of 41 days of 8 hrs each or 328 man hours.
Drilled, Shot & Removed Muck From Approximately 1,028 Lft of holes.

Phase # 2. Drifting 100 feet. (3) Man Crew.

Worked a total of 60 days of 8 hrs each or 480 man hours.
Drilled, Shot & Removed Muck From Approximately 1,541 Lft of Holes.

REMARKS

At no time during the entire 101 days of mining operation done in both the 50 foot vertical shaft or in the 100 foot drift did this exploration project give any real indication of any mica buildup of importance. While the past production history of the Twiggs Mica Prospect has been quite good, it has been fully determined now both by depth penetration and penetration along the northeasterly strike of the pegmatite body that no real reserve of mica exists at these points.. It is the opinion of the present operators that any future exploration should be made only along the southwesterly strike of the body and then ONLY after a core drilling test has shown real indications of a mica reserve in that particular location.

Respectfully submitted,
DeGroat, Buchanan & Buchanan
By: Zeb Buchanan

OPERATORS FINAL REPORT

EXTRA COPY
O. M. E.
RECEIVED DEC 10 1958
DATA CODE

DeGroat, Buchanan & Buchanan
Route # 4. Bakersville, N.C.
Twiggs Mica Prospect.

MICA

Docket No. DMA 49-C
Contract No. DAIdm-3-1198
Mitchell County, N.C.

Phase # 1. Shafting

Operation of above approved project began June 9th, 1958 with a 3 man crew engaged. June 9th to 27th inclusive was taken up in making of a road to mine site, setting up machinery, building of tool house and magazines and the cribbing and otherwise rehabilitation of the old 40 foot shaft. Actual work on the main pegmatite body began June 30th when some 36 feet of holes was drilled, shot and mucked out in bottom of the 40 foot shaft. The pegmatite body at this contact was some 10 inches thick on an average and quite void of any signs of mica deposits or reserves. A depth penetration of some 7 feet was made with the dip of the pegmatite body durthis period of operation.

During the period July 1st to 31st inclusive, a 3 man crew was engaged in futher sinking of the vertical shaft down and with the dip of the pegmatite body. During this period the 3 man crew worked (4) 40 hour weeks or 160 man working hours. A total of some 500 lft of holes was drilled, shot and mucked out during this four week period and the shaft sank to a futher depth of some 21 additional feet. During this period the pegmatite body at all points remained narrow with an average thickness of about 9 to 10 inches and still void of any visible sign of a mica makeup. All work was done in or ajacent to the main pegmatite body with removal of sufficient slate binders to permit working room. A few small books of mica recovered.

During the period August 1st to 31st inclusive, (4) weeks of 40 hours each or 160 man hours was worked by a 3 man crew. The shaft was sunk to a futher depth of some 20 feet down with the dip of the main body. Some 480 Lft of holes was drilled, shot and mucked out during this period. The dip or pitch of the body remained about steady at approximately 25 degrees to the south-southeast. Main pegmatite body still very narrow and poor with a few small books of widely scattered mica noted. Body appears to be narrowing somewhat which might indicate a chenge soon in formation.

Sept. 1st, 1958. During this one 8 hour period with a 3 man crew, the shaft was sunk an additional 3 feet down with the dip of the main body which brought the shaft up to the 90 foot maximum as allowed by contract. At this final depth no visible signs of improvement in the main body was noted and said body remained poor with average width of about 8 inches at the overall depth of the open shaft which is now some 90 feet deep from portal to bottom

Phase # 2. Drifting

During the period Sept. 2nd to 30th, inclusive, work was started on the 100 foot drift. Begining at a point some 5 feet from the center of the 90 foot open shaft, a 5' X 7' drift was driven in a northeasterly direction along the strike of the main pegmatite body. During this 21 day peruod of 8 hours per day, a total of 168 man hours was worked by a 3 man crew. Some 560 Lft of holes was drilled, shot and mucked out and the drift driven some 40 feet along with and ajacent to the northeasterly strike of the main body. During this 40 foot penetration the main body remained almost stationary in with with an average of 8 to 9 inches. A few small books of mica was noted and recovered at the 25 foot depth and again at the 35 foot depth but as a whole, the formation remained poor. A thickness of about 10 " noted in body at about 29 to 40 foot depth.

Phase # 2- Drifting (Con)

During the period, October 1st to 31st inclusive, a 3 man crew continued work on the 100 ft drift being driven northeasterly along the strike of the main pegmatite body. (4) 40 hours weeks or 160 man hours were worked during this period and an additional 35 feet was penetrated in the drift. A total of some 525 lft of holes were drilled, shot and mucked out. All shots were made in or close ajacent to the main pegmatite body. The body remained an average of 9 to 10 inches in thickness and still lacking in mica buildup although a few more small books of mica was noted and recoved but these were well scattered thruout the entire 35 feet penetrated during the period. As a whole, the entire formation and body makeup remained very poor with a narrowing of the body noted during the last days operation.

November 1st to 30th inclusive. During this period only 19 days of 8 hrs each or a total of 152 man hours were worked due to weekends and the Thanksgiven hollidays. Some 456 lft of holes were drilled, shot and mucked out by the 3 man crew engaged in the operation. An additional 25 feet penetration was made in the drift bringing the total footage up to the 100 feet mark as allowed in contract. During the last 11 days of operation total contact was lost with the main pegmatite body and only slate binders encountered in all drilling and blasting done during these last 11 days operation. A few test holes failed to pickup the pegmatite body again.

Project Summary

Phase # 1. Sheafting 50 feet. (3) Man Crew.

Worked a total of 41 days of 8 hrs each or 328 man hours.
Drilled, Shot & Removed Muck From Approximately 1,028 Lft of holes.

Phase # 2. Drifting 100 feet. (3) Man Crew.

Worked a total of 60 days of 8 hrs each or 480 man hours.
Drilled, Shot & Removed Muck From Approximately 1,541 Lft of Holes.

REMARKS

At no time during the entire 101 days of mining operation done in both the 50 foot vertical shaft or in the 100 foot drift did this exploration project give any real indication of any mica buildup of importance. While the past production history of the Twiggs Mica Prospect has been quite good, it has been fully determined now both by depth penetration and penetration along the northeasterly strike of the pegmatite body that no real reserve of mica exists at these points.. It is the opinion of the present operators that any future exploration should be made only along the southwesterly strike of the body and then ONLY after a core drilling test has shown real indications of a mica reserve in that particular location.

Respectfully submitted,
DeGroat, Buchanan & Buchanan
By: Jeb Buchanan
Partner

COPY

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DATE	INITIALS	CODE
11/21	C	220
"	[illegible]	110
11/21	[illegible]	800
11/24	[illegible]	600

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197(mica) TWIGGS PROSPECT
Mitchell County, N. C.

Operator: J. H. DeGroat, Jr. et al. R#4, Bakersville, N. C.

Location: 1.9 miles N28°E of Cane Creek School and also N19°E of the Hawk Mine, Mitchell County, N.C.

The drift has been driven an additional 36 feet for a total of 84 feet. The first 25 feet was driven N35°E; the remainder is N40°E. The pegmatite vein has been nearly continuous throughout the length of the drift, although in a few places it has pinched to an inch or less in thickness. A mica "shoot" was cut in the drift between 25 and 63 feet from the shaft. In this area the pegmatite widened locally to 12-inches or more and about 400 pounds of mine-run muscovite was recovered. About 24 pounds of trimmed mica was produced from this and sold at the Spruce Pine Depot.

The pegmatite narrows between 65 and 84 feet from the shaft. In the face the pegmatite is about four inches thick. It is composed of medium-grained plagioclase, quartz, and muscovite. Muscovite occurs in books up to 2 inches in diameter. The pegmatite strikes N45°E and 55°SE.

The Operator has been unable to procure extension steel for percussion drilling. The amount allowed in the contract for this drilling is not sufficient for the Operator to buy steel and no steel is available for renting in the area. * The Operator was instructed to continue the drift to the northeast in the hopes of picking up another wide area in the pegmatite. After the contract work is finished the Operator intends to attempt mining up and down on the shoot cut in the drift.

November 17, 1958 (inspected)

Frank G. Lesure, Geologist
Geological Survey (OME)

* Work under fixed unit costs must be performed, any excess costs being borne by Operator.

z

11/24/58

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

ELECTROTECHNICAL
EXPERIMENT STATION

P. O. BOX 217
NORRIS, TENNESSEE

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DATE	INITIALS	CODE
11/13		220
11/14		410
11/17		600

November 12, 1958

Memorandum

To: Jay L. Chambers, Office of Minerals Exploration, Interior Building, Washington 25, D. C.

From: Administrative Assistant, Norris, Tennessee

Subject: Monthly reports and vouchers

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

Idm-E1197 — DeGroat, Buchanan & Buchanan
Docket No. DMEA-4946
5th payment - month of October
Amount $813.75

Idm-E1204 — The New Jersey Zinc Company
Docket No. DMEA-5008
3rd payment - month of October
Amount $1808.49

Helen R. Miller
Helen R. Miller

Attachments
/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

RECEIVED NOV 13 1958 O.M.E.

PAID ON VOUCHER & SCHEDULE OF PAYMENTS No. 28

Month of October, 1958 Docket No. DMEA 4946 Contract No. Idm-1197
Operator's Name DeGroat, Bu chanan & Buchanan Minerals Mica
Address Rt. 4. Bakersville, N.C.
Contract Amount, $5,512.00 Government Participation: 75 % Amount, $ 4,134.00

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
(XXXXXXXX XXXXXXX) XXXXXXX Contracts:						
XXXXXXX Shafting	None	2,100.00	2,100.00			
Bulldozing	None	45.00	45.00			
Crosscutting						
XXXXX	[illegible]	[illegible]	[illegible]			
Drifting	1,085.00	1,240.00	2,325.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	None	115.00	115.00			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1,085.00	3,500.00	4,585.00			
TOTALS	[illegible]	[illegible]	XXXXXXXXXX	$1,085.00	$3,500.00	$4,585.00

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

Date 11-3-58 *Payee DeGroat, Buchanan & Buchanan

Per Zeb Buchanan Title Partner

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

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

(Instructions on reverse)

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

$813.75

Signature Helen R. Miller
(Authorized Certifying Officer)

Date NOV 12 1958 Vou. No. 55
(See other side)

271.25

(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. Adm-E1197 in accordance with the terms of the contract.

Signature W. A. Beck Title U.S. BUREAU OF MINES Date NOV 5 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER OME FIELD TEAM REGION V Date NOV 10 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED NOV 13 1958 O.M.E.

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

Month of October 1958 Docket No. DMEA 4946 Contract No. Idm-1197
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt.4. 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	Lft	1,085.00	(35)	2,325.00	(75)	31.00	100	31.00
Crosscutting								
Raising								
Shafts	Lft.	None	None	2,100.00	(50)	42.00	50.00	42.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	Cu Yds	None	None	45.00	(148)	0.30	148	0.30
TOTAL DISTRIBUTED COSTS		1,085.00	(35)	4,470.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		None	None	None				
Initial Rehabilitation and Repairs		"	"	"				
New Buildings, Improvements, etc.		"	"	115.00				115.00
TOTAL COSTS		1,085.00	(35)	4,585.00				115.00

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 Nov. 3rd 1958 Operator DeGroat, Buchanan & Buchanan

Per [signature] 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)

[signature] NOV 5 1958
MINING ENGINEER
U. S. BUREAU OF MINES

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

DAILY WORK PROGRESS REPORT

Month Of October,1958
Twiggs Mine Prospect
Mitchell County, N.C.
Work Accomplished:

DMEA No. 4946
Idm-E 1197
Date Work Began-10-1-58
DeGroat, Buchanan & Buchanan.

SUMMARY

All Work done during this period, October 1st, to November 1st, 1958, consisted in driving of the 100 ft drift along the strike of the main pegmatite body. Only one phase of work was accomplished, towit:- Drilling, loading and shooting in the pegmatite body and mucking after each shot. During this period, 13.44 lbs of mica was recovered, processed and sold to the local mica depot at Spruce Pine, N.C. (see invoice attached) Royalty at the rate of .05% is enclosed with this report to cover the amount due Government on the 13.44 pounds sold from this prospect.

DAILY NOTES:

Oct. 1st, 1958. Drilled, Loaded & Shot 24' of holes & mucked out.
2nd, " Drilled, Loaded & Shot 24' of holes & mucked out.
3rd, " Drilled, Loaded & Shot 30' of holes & mucked out.
Note: Main body still about ~~XXX~~ 10" in thickness, improvement in makeup noted. A few books of good mica recovered mostly on footwall side of body.

Oct. 6th, 1958. Drilled, Loaded & Shot 26" of holes & Mucked out.
7th, " Drilled, Loaded & Shot 24" of holes & mucked out.
8th, " Drilled, Loaded & Shot 30" of holes & mucked out.
9th, " Drilled, Loaded & Shot 30" of holes & mucked out.
10th, " Drilled, Loaded & Shot 24" of holes & mucked out.
Note: No apparent change in pegmatite body noted. A few more small books of mica recovered during this period.

Oct. 13th, 1958. Drilled, Loaded & Shot 26" of holes & mucked out.
14th, " Drilled, Loaded & shot 24" of holes & mucked out.
15th, " Drilled, Loaded & shot 24" of holes & mucked out.
16th, " Drilled, Loaded & shot 26" of holes & mucked out.
17th, " Drilled, Loaded & shot 24" of holes & mucked out.
Note: Formation of pegmatite body unchanged. A few more books of small mica recovered during this period.

Oct. 20th, 1958 Drilled, Loaded & Shot 24" of holes and mucked out.
21st, " Drilled, Loaded & shot 30" of holes & mucked out.
22nd, " Drilled, Loaded & shot 30" of holes & mucked out.
23rd, " Drilled, Loaded & shot 30" of holes & mucked out.
24th, " Drilled, Loaded & shot 24" of holes & mucked out.
Note: No change of any importance noted in operation. Few more small books of mica recovered.

Oct. 27th, 1958 Drilled, Loaded & shot 24" of holes & mucked out.
28th, " Drilled, Loaded & shot 24" of holes & mucked out.
29th, " Drilled, Loaded & shot 30" of holes & mucked out.
30th, " Drilled, Loaded & shot 30" of holes & mucked out.
31st, " Drilled, Loaded & shot 24" of holes & mucked out.
Note: Still no change of any importance noted in formation or any part of the operation. Body averages about 10" in thickness. Few more small books of mica recovered.

Respectfully submitted,

DeGroat, Buchanan & Buchanan,
Rt.4. Bakersville, N.C.
Per: Zeb Buchanan

RECEIVED
NOV 5 - 1958
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

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

November 5, 1958

Memorandum

To: Finance Officer, Region V (OME) Norris, Tennessee

From: Executive Officer, Region V OME - Knoxville, Tenn.

Subject: Royalty Payment - DMEA-4946, Idm-E1197-mica.
Twiggs Prospect, Mitchell County, N.C.
DeGroat, Buchanan & Buchanan, Operators.

Attached is a settlement sheet for mica sold from the subject mine in the amount of $199.07, and a Money Order dated November 3, 1958 in the amount of $9.95 for 5% royalty on the sale.

Robert A. Laurence

zm.
cc
Acting Director
Lynch
Files

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O. M. E.
RECEIVED NOV 7 1958

DATE	INITIALS	CODE
11/7	Fmh	220
		600

FORM APPROVED BY COMP. GEN. U.S. MARCH 25, 1957

GENERAL SERVICES ADMINISTRATION

FINAL SETTLEMENT - MICA PURCHASE

MICA PURCHASE DEPOT - [illegible]

PROGRAM: [X] A [ ] B

DATE PURCHASED: 10-2-58

ACCEPTANCE NUMBER: [illegible]-173 (a)

CERTIFICATE AUTHORIZATION NUMBER: [illegible]-2-122 A

LOT NUMBER: [illegible]-173 (a)

VOUCHER NUMBER:

SCHEDULE NUMBER:

EVALUATION DATA

RUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
GOOD STAINED AND BETTER						
GRADES NO. 3 AND LARGER		$	$		$ 70.00	$
GRADES NO. 4 AND 5					40.00	
GRADES NO. 5½ AND 6					17.70	
STAINED						
GRADES NO. 3 AND LARGER		12.00			31.90	
GRADES NO. 4 AND 5		5.00			18.25	
GRADES NO. 5½ AND 6		3.00			7.55	
HEAVY STAINED						
GRADES NO. 3 AND LARGER		8.00			14.80	
GRADES NO. 4 AND 5		4.00			6.85	
GRADES NO. 5½ AND 6		2.00			4.00	
TOTALS			$			$

NONRUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT	
GOOD STAINED AND BETTER							
GRADES NO. 3 AND LARGER		$	$		$ 70.00	$	
GRADES NO. 4 AND 5				.94	40.00	37.60	37.60
GRADES NO. 5½ AND 6				7.04	17.70	124.61	124.61
STAINED							
GRADES NO. 3 AND LARGER		9.60			25.55		
GRADES NO. 4 AND 5		4.00		.33	14.60	4.82	4.82
GRADES NO. 5½ AND 6		2.40		4.72	6.55	30.92	30.92
HEAVY STAINED							
GRADES NO. 3 AND LARGER		6.40			11.85		
GRADES NO. 4 AND 5		3.20		.28	5.45		
GRADES NO. 5½ AND 6		1.60		.30	4.00	1.12	1.12
TOTALS			$			$	

TOTAL YIELD AND VALUE [ ] RUBY [X] NONRUBY (*Half trim plus full trim*) 13.31 LBS. $ 199.07 — 199.07

ADJUSTED VALUE WHEN LESS THAN 18% GS & B (ABOVE VALUE $ _____ X 13.31 ÷ 18) $

FOR PROGRAM B, DEDUCT $4.00 PER POUND FOR RIFTING AND TRIMMING

FINAL BASIS FOR PAYMENT $ 199.07 — 199.07

LESS: INITIAL PAYMENT VOUCHER NUMBER SCHEDULE NUMBER 109.83 — 109.83

BALANCE DUE [X] SELLER [ ] GOVERNMENT $ 89.24 — 89.24

NAME AND LOCATION OF MINE

Tulsa, Mitchell County, N. C.

1 GS & B 39.53

PROCESSED FOR PAYMENT (LBS.)	13.31 — 13.31
PROCESSED - NO PAYMENT (LBS.) THINS	
BLACK (*Dots, Spots, Stained*)	
UNDERSIZED	
PROCESSING LOSS	.13 — 13
TOTAL POUNDS PURCHASED	13.44 — 13.44

SELLER'S NAME AND ADDRESS (*Type or print*)

Tulsa Mining Co.
Route 4, % Rob Buchanan
Bakersville, N. C.

APPROVED

DEPOT SUPERINTENDENT

DATE [illegible]-12-58

GSA WASH D C 58-3177

GSA FORM 1013a SEPTEMBER 1957

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197 (mica) TWIGGS PROSPECT
Mitchell County, N. C.

Operators: J. H. DeGroat, Jr., et al. R#4, Bakersville, N.C.

Location : 1.9 miles N28°E of Cane Creek School and also N19°E of the Hawk Mine, Mitchell County, N.C.

The shaft has been sunk an additional 2 feet to provide a sump and to complete the 50 feet allowed in the contract.

The drift has been extended an additional 28 feet N35°E along the pegmatite and is now 48 feet from the shaft. The pegmatite is looking better and is from 2 inches to 10 inches thick and consists of medium-grained plagioclase, quartz, muscovite and minor garnet.

About 100 pounds of mine-run mica up to 5 x 7 inches has been recovered during this interim. Seventy pounds of this has been gotten in the last 10 feet.

The Operator has trimmed the drift as requested by the Examiners on the last inspection. He was instructed to continue the drift to the northeast and endeavor to procure extension steel to do the percussion drilling set up in the contract.

Inspected: October 20, 1958

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O. M. E.
RECEIVED OCT 30 1958

DATE	INITIALS	CODE
10/30	C	220
"	FG	110
10/31	[illegible]	800
11/3	[illegible]	600

Wm. A. Beck, Mining Engineer
Bureau of Mines - OME

F. G. Lesure, Geologist
Geological Survey - OME

z

OFFICIAL FILE COPY

Date	Surname	Code
10/20	Anderson	600
	Houk	600
		600
		130
		600

(JS-20) DEV 2 OCT 1

600

October 20, 1958

To: Mr. Frank E. Johnson, Acting Director

From: Lawrence G. Houk, Chief, Division of Nonmetallic Minerals

Subject: Amendment No. 1 - Docket No. DMEA-4946-Mica
DeGroat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina
Contract No. Idm-E1197

The Division of Nonmetallic Minerals concurs in Amendment No. 1 to the subject contract as written and executed in the field. This amendment extends the completion date from September 29, 1958, to December 29, 1958.

This amendment is necessary since not enough time was provided to complete the work under the contract. The processing and the execution of the contract required more time than was anticipated. Also, it is in the Government's interest to thoroughly explore the subject property.

Walter C. Anderson

Walter C. Anderson
Division of Nonmetallic Minerals

WCAnderson:gad 10/20/58
Copy to: Dir. R. File
Mr. Houk

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

ELECTROTECHNICAL
EXPERIMENT STATION

P. O. BOX 217
NORRIS, TENNESSEE

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 13 1958

DATE	INITIALS	CODE
10/13	C	220
"		100
10/15		600

October 8, 1958

Memorandum

To: Jay L. Chambers, Office of Mineral Exploration, Interior Building, Washington 25, D. C.

From: Personal Assistant, Norris, Tennessee

Subject: Monthly report and voucher

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

Idm-E1197 DeGroat, Buchanan & Buchanan
Docket No. DMEA-4946
4th payment - month of September
Amount $1024.50

Helen Miller
Helen R. Miller

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

MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

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

RECEIVED VOUCHER & SCHEDULE
OCT 9 1958
COST PAYMENTS
21

Month of September 1958 Docket No. DMEA 4946 O.M. Contract No. Idm- 1197
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt.4. Bakersville, N.C.
Contract Amount, $ 5,512.00 Government Participation: 75% Amount, $ 4,134.00

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~~ ~~Drifting~~ Shaft	126.00	~~2,374.00~~ 1,974.00	~~2,500.00~~ 2,100.00			
Bulldozing	None	45.00	45.00			
Crosscutting						
Drifting	1,240.00	None	1,240.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	None	115.00	115.00			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1366.00	2134.00	3,500.00			
TOTALS $	~~1,366.00~~	~~3,374.00~~	~~3,500.00~~	1366.00	2134.00	3500.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 9-30-58 *Payee DeGroat, Buchanan & Buchanan
Per James T. DeGroat 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:
$ 1024.50
Signature Helen R. Miller
(Authorized Certifying Officer)
Date OCT 8 1958 Vou. No. 46
(See other side)

4

341.50

(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. E1197 in accordance with the terms of the contract.

Signature S Fettler Title MINING ENGINEER U. S. BUREAU OF MINES Date OCT 2 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ONLY EXECUTIVE OFFICER OME FIELD TEAM REGION V Date OCT 2 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED OCT 18 1956 O.M.E.

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

Month of Sept. 195 8 Docket No. DMEA 4946 Contract No. Idm-1197

Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica

Address Rt.4. 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)
~~XXXX~~	~~XXX~~	~~XXXXX~~	~~XXXX~~	~~XXXXX~~	~~XXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~
~~Drifting~~								
Crosscutting								
Raising								
Shafts	Lft.	126.00	(3)	2,100.00	(50)	42.00	(50)	42.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits	Cu Yds	None	None	45.00	(148)	0.30	(148)	0.30
Roads and Trails	Lft.	1240.00	(40)	1240.00	(40)	31.00	(100)	31.00
Drifting								
TOTAL DISTRIBUTED COSTS		1366.00	(43)	3,385.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		None	None	None				
Initial Rehabilitation and Repairs		"	"	"				
New Buildings, Improvements, etc.		"	"	115.00				115.00
TOTAL COSTS		~~1366.00~~		~~3,500.00~~				~~115.00~~

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: The (50) Ft shaft completed with this report and initial work on drift started.

Date 9-30-58 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)

S Feitler

MINING ENGINEER
U. S. BUREAU OF MINES

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

DAILY WORK PROGRESS REPORT

Month Of September, 1958
Work Accomplished:
Twiggs Mica Prospect
Mitchell County, N.C.

DMEA NO. 4946
Idm-E 1197
Date Work Began: 9-1-58
DeGroat, Buchanan & Buchanan

SUMMARY

The work done during this period was in two phases, namely: (1) completion of the (50) foot vertical shaft. (2) Initial work began on the (100) foot drift along the strike of the main pegmatite body.

All work accomplished consisted in drilling and blasting out the formation rock forming the main body and sufficient slate binder to permit sufficient space to work. A (3) man crew was employed during all this period of operation. A small amount of mica (not yet weighed) was recovered during this period in the drift along the strike of main body.

DAILY NOTES:

Sept. 1st, 1958. Drilled, Loaded & Shot 30' of holes & removed muck. This was done in the 50 ft shaft and brought the shaft up to 50 ft maximum depth as per contract.

Sept. 2nd, 1958. Drilled, Loaded & Shot 24' of holes & removed all muck.
3rd, " Drilled, Loaded & Shot 30' of holes & removed all muck.
4th, " Drilled, Loaded & Shot 26' of holes & removed all muck
5th, " Drilled, Loaded & Shot 26' of holes & removed all muck.
Note: Work accomplished from 9-2 to 9-5 inclusive was done on the 100 ft drift along the strike of the main pegmatite body. Body dur- this period remained poor with no visible indication of a mica build up. The average thickness of body being about 8 inches.

Sept. 8th, 1958. Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
9th, " Drilled, Loaded & Shot 26' Of Holes & Removed All Muck.
10th, " Drilled, Loaded & Shot 26' Of Holes & Removed All Muck.
Xlth, " Drilled, Loaded & Shot 24' Of Holes & Removed All Muck.
12th, " Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
Note: No change of any importance noted in formation during this per iod of operation. Pegmatite body continues poor and thickness of bod y remaining about same.

Sept.15th, 1958. Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
16th, " Drilled, Loaded & Shot 26' Of Holes & Removed All Muck.
17th, " Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
18th, " Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
19th, " Drilled, Loaded & Shot 26' Of Holes & Removed All Muck.
Note: A small lot of small to mediumn size books of mica was recov- ed during this period. Body at one point showed small enlargment but otherwise remained about same.

Sept.22nd, 1958. Drilled, Loaded & Shot 26' Of Holes And Removed All Muck
23rd, " Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
24th, " Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
25th, " Drilled, Loaded & Shot 24' Of Holes & Removed All Muck.
26th, " Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
Note: No change of any importance noted during this period of work.

Sept.29th, 1958. Drilled, Loaded & Shot 26' Of Holes & Removed All Muck.
30th, " Drilled, Loaded & Shot 30' Of Holes & Removed All Muck.
Note: A few more small books of mica recovered. Body remains at an average of 10" in thickness. No futher indications of mica buildup noted.

OFFICIAL FILE COPY
RECEIVED OCT 3 1958
10/3 C 220
16 100
" 110
" 800
600

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197 (mica) TWIGGS PROSPECT

Applicants: J. H. DeGroat, Jr. et al. R#4, Bakersville, N.C.

Location : 1.9 miles N28°E of Cane Creek School, and also N19°E of the Hawk Mine, Mitchell County, N.C.

The shaft is 48 feet deep from the bottom of the old workings.

A drift has been driven 20 feet N30°E along the pegmatite. Mineral composition and size of the pegmatite is unchanged. Muscovite is from scrap size up to 2 x 2 inches. Little mica has been recovered.

The Operator was advised to trim the drift and prepare a sump. Drifting will be continued.

Inspected: Sept. 22, 1958

S. A. Feitler, Mining Engineer
Bureau of Mines

F. G. Lesure, Geologist
Geological Survey

z

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 8 1958

DATE	INITIALS	CODE
9-8	C	220
"	JH	110
"	Hmb	600

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

ELECTROTECHNICAL
EXPERIMENT STATION

P. O. BOX 217
NORRIS, TENNESSEE

September 5, 1958

Memorandum

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

From: Personal Assistant, Norris, Tennessee

Subject: Monthly reports and vouchers

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

Idm-E1197 Degroat, Buchanan & Buchanan
Docket No. DMEA-4946
3rd payment - month of August
Amount $630.00

Idm-E1214 A. Ward, Ira Ward, Frank & H. Lee Medford
Docket No. DMEA-4945
1st payment - months of July and August
(2 vouchers)
Starting Date: 7/8/58
Amount $929.10

Idm-E1215 B. H. Putnam
Docket No. DMEA-5026
2nd payment - month of August
Amount $860.82

Helen Miller
Helen R. Miller

Attachments
/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

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 13

OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED SEP 8 1958 D.M.E.A.

Month of August, 1958 Docket No. DMEA 4946 Contract No. 1197
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt.4. Bakersville, N.C.
Contract Amount, $ 5,512.00 Government Participation: 75% Amount, $ 4,134.00

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	None	45.00	45.00			
Crosscutting						
Drifting						
Shaft (20 Ft)	840.00	1,134.00	1,974.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	None	115.00	115.00			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	840.00	1,294.00	2,134.00	840.00	1294.00	2134.00

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

Date 8-31-58 *Payee DeGroat, Buchanan & Buchanan

Per James H. DeGroat 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:

$ 630.00

Signature Peter R. Meller
(Authorized Certifying Officer)

Date SEP 5 1958 Vou. No. 29
(See other side)

3rd

210.00

(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. E1197 in accordance with the terms of the contract.

Signature S F Eccler Title MINING ENGINEER U. S. BUREAU OF MINES Date SEP 4 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lemmon Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date SEP 4 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

RECEIVED SEP 8 1958 DMEA

Month of August 1958 Docket No. DMEA 4946 Contract No. 1197
Operator's Name DeGroat, Buchanan & Buchanan Minerals Mica
Address Rt. 4. 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								
Crosscutting								
Raising								
Shafts	Lft	840.00	20	1,974.00	47	42.00	50	42.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	Cu Yds	None	None	45.00	148	0.30	148	0.30
TOTAL DISTRIBUTED COSTS		840.00	20	2,019.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		None	None	None				
Initial Rehabilitation and Repairs		"	"	"				
New Buildings, Improvements, etc.		"	"	115.00				115.00
TOTAL COSTS		840.00	20	2,134.00				115.00

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

REMARKS:

Date 8-31-58 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)

S Feitler
MINING ENGINEER
U. S. BUREAU OF MINES

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

DAILY WORK PROGRESS REPORT

Month Of August 1958
Work Accomplished:
Twiggs Mica Prospect
Mitchell County, N.C.

DMEA No. 4946
Idm-E 1197
Date Work Began: 8-1-58

Phase of work done consisted of driving vertical shaft down for a depth of (20) feet with pitch of pegmatite body. All of the work done consisted of drilling, loading and blasting out the formation rock and removing same from shaft. A (3) man crew worked during the period covered by this report. No mica was recovered during this period of operation.

Daily Notes:

August 1st, 1958--Drilled 4-6' holes in pegmatite. Shot & removed muck
4th " --Drilled 30 ft of holes. Shot & removed all muck.
5th " -- " 25 " " " " " " " "
6th " -- " 24 " " " " " " " "
7th " -- " 24 " " " " " " " "
8th " -- " 30 " " " " " " " "
Note: All shots were placed in or ajacent to pegmatite body which remained poor with no indications of a build up either in mica or size of the body. Pitch of body remained about steady at about 25 degrees to the South-Southeast.

August 11th, 1958--Drilled 25 ft of holes. Shot & removed muck.
12th " -- " 24 " " " " " " " .
13th " -- " 24 " " " " " " " .
14th " -- " 24 " " " " " " " .
15th " -- " 30 " " " " " " " .
Note: No change of importance noted in formation. Pegmatite body still poor. A few small mica books noted but too small and scattered.

August 18th, 1958--Drilled 26 ft of holes. Shot & removed all muck.
19th " -- " 24 " " " " " " " " .
20th " -- " 24 " " " " " " " " .
21st " -- " 30 " " " " " " " " .
22nd " -- " 26 " " " " " " " " .
Note: Still no change noted in formation. No indication of any mica buildup. Pegmatite body poor.

August 25th, 1958--Drilled 26 ft of holes. Shot & removed all muck.
26th " -- " 30 " " " " " " " " .
27th " -- " 24 " " " " " " " " .
28th " -- " 24 " " " " " " " " .
29th " -- " 24 " " " " " " " " .
Note: Pegmatite body, binders, ects. remain about the same but a slight narrowing of body noted. This might indicate a important change in formation shortly.

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 8 1958

DATE	INITIALS	CODE
9-8	C	220
9	[illegible]	100
	[illegible]	110
9/10	[illegible]	800
9/10	[illegible]	600

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197(mica) TWIGGS PROSPECT

Applicants: J. H. DeGroat, Jr., et al. R#4, Bakersville, N.C.

Location : 1.9 miles N28°E of Cane Creek School, and also N19°E of Hawk Mine, Mitchell County, N.C.

The shaft has been sunk 39 feet at minus 45° from the bottom of the old workings.

The pegmatite exposed in the face strikes N30°E and dips 45°SE. It is from 1 to 6 inches thick and contains plagioclase, quartz and a sparse scattering of thin muscovite books up to 3-inches long. The wall rock is interlayered hornblende and biotite gneiss.

Most of the muscovite mined during the previous operation came from the area northeast of the shaft. The shaft serves to insure continuity down dip, but would only encounter a mica concentration if the shoot plunged southwest.

The shaft will be sunk to a depth of 50 feet, as provided in the contract and a drift will be driven northeast along the pegmatite.

Inspected: August 27, 1958

S. A. Feitler, Mining Engineer
Bureau of Mines

F. G. Lesure, Geologist
Geological Sruvey

z

Mittendorf

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

August 26, 1958

Memorandum

To: Finance Officer, Region V (DMEA)

From: Acting Executive Officer, DMEA - Region V

Subject: Royalty Payment - DMEA-4946, Idm-E1197 (mica)
Twiggs Prospect, Mitchell County, North Carolina.
DeGroat, Buchanan & Buchanan, operators.

Attached is a final settlement sheet for mica sold from the subject prospect in the amount of $264.92 and their Money Order for $13.25 representing 5% of the sale.

V. J. Lynch

zm.
cc
Mittendorf
Lynch
Files

M.O. #6-44,175,863.
8/25/58

8/28 C 220
8/28 Hoch 600

GENERAL SERVICES ADMINISTRATION

FINAL SETTLEMENT - MICA PURCHASE

MICA PURCHASE DEPOT - [illegible]

STATION NUMBER [illegible]

LOT NUMBER S9A3-24 (8)

PROGRAM: [X] A [ ] B

DATE PURCHASED 7-11-56

ACCEPTANCE NUMBER A-3-24 (8)

VOUCHER NUMBER

SCHEDULE NUMBER

EVALUATION DATA

RUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
STAINED AND BETTER		$	$		$ 70.00	$
GRADES NO. 3 AND LARGER					40.00	
GRADES NO. 4 AND 5					17.70	
GRADES NO. 5½ AND 6						
STAINED					31.90	
GRADES NO. 3 AND LARGER		[illegible]			18.25	
GRADES NO. 4 AND 5		[illegible]			7.55	
GRADES NO. 5½ AND 6		[illegible]				
HEAVY STAINED					14.00	
GRADES NO. 3 AND LARGER		[illegible]			6.85	
GRADES NO. 4 AND 5		4.00			4.00	
GRADES NO. 5½ AND 6		2.00				
TOTALS			$			$

NONRUBY

QUALITY	HALF TRIM POUNDS	HALF TRIM PRICE PER LB.	HALF TRIM AMOUNT	FULL TRIM POUNDS	FULL TRIM PRICE PER LB.	FULL TRIM AMOUNT
STAINED AND BETTER		$	$	.06	$ 70.00	$ 4.20
GRADES NO. 3 AND LARGER				1.91	40.00	76.40
GRADES NO. 4 AND 5				6.23	17.70	366.75
GRADES NO. 5½ AND 6						
STAINED					25.55	
GRADES NO. 3 AND LARGER		9.60		.44	14.60	6.42
GRADES NO. 4 AND 5		4.00		4.41	6.55	28.89
GRADES NO. 5½ AND 6		2.40				
HEAVY STAINED					11.85	
GRADES NO. 3 AND LARGER		6.40		.02	5.45	.10
GRADES NO. 4 AND 5		3.20		.53	4.00	2.12
GRADES NO. 5½ AND 6		.60				
TOTALS			$			$

[ ] RUBY [X] NONRUBY (*Half trim plus full trim*) 15.67 LBS. $ 530.93

[illegible] AND VALUE $

[illegible] VALUE WHEN LESS THAN 182 GS & B (ABOVE VALUE $ _____ X _____ ÷ 18)

[illegible] DEDUCT $4.00 PER POUND FOR SPLITTING AND TRIMMING $ 244.92

[illegible] BASIS FOR PAYMENT 125.60

[illegible] PAYMENT VOUCHER NUMBER SCHEDULE NUMBER $ 141.32

[illegible] DUE [X] SELLER [ ] GOVERNMENT

[illegible] AND LOCATION OF MINE

Twiggs, Mitchell Co., N. C.

[illegible] 69.50

[illegible] NAME AND ADDRESS (*Type or print*)

Twiggs Mining Co.
Route 4, % James Dagnent, Jr.
Spruceville, N. C.

PROCESSED FOR PAYMENT (LBS.)	15.67
PROCESSED - NO PAYMENT (LBS.) THINS	
BLACK (*Dots, Spots, Stained*)	
UNDERSIZED	
PROCESSI[illegible]	.05 [illegible]
TOTAL POUNDS PURCHASED	15.62

APPROVED

DEPOT SUPERINTENDENT [illegible]

DATE 8-28-56

GSA FORM 1013a

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DMEA
RECEIVED AUG 21 1958

DATE	INITIALS	CODE
8/21	J.H.	225
21	Com	100
"	Fel	110
8/25	EEF	800
8/25	Hawk	600

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197(mica) TWIGGS PROSPECT

Applicants: J. H. DeGroat, Jr., et al. R#4, Bakersville, N.C.

Location : 1.9 miles N28°E of Cane Creek School, and also N19°E of Hawk Mine, Mitchell County, N. C.

The shaft has been deepened 27 feet at minus 50° under the contract. The Operator cut the shaft length from 10 feet to 7 feet by bringing in the unproductive south end.

The pegmatite strikes N40°E and dips 50°SE. It pinches and swells from 1/2" to 6" with mica up to 3 x 4 inches exposed. The swells seem to repeat at 5 to 6-foot intervals down dip as well as along strike. About 50 pounds of mica was recovered during the interim.

tiny

Inspected: August 11, 1958

S. A. Feitler, Mining Engineer
Bureau of Mines (DMEA)

F. G. Lesure, Geologist
Geological Survey (DMEA)

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED AUG 7 1958 DEMEA

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 7

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of JULY 1958 Docket No. DMEA 4996 Contract No. 1197
Operator's Name DeGROAT, BUCHANAN + BUCHANAN Minerals MICA
Address RT. 4, BAKERSVILLE, N.C.
Contract Amount, $ 5,512.00 Government Participation: 75 % Amount, $ 4,134.00

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					45.00	45.00
Crosscutting						
Drifting						
21 FT SHAFT @ 42.00	882.00	252.00	1134.00	882.00	252.00	1134.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.					115.00	115.00
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 882.00	$ 252.00	$ 1134.00	882.00	412.00	1294.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 7-31-58 *Payee DeGROAT, BUCHANAN + BUCHANAN
Per James H. DeGroat 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:
$ 661.50
Signature Helen R. Miller
(Authorized Certifying Officer)
Date AUG 5 1958 Vou. No. 17
(See other side)

220.50

(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. E1197 in accordance with the terms of the contract.

Signature S F Feitler Title MINING ENGINEER U. S. BUREAU OF MINES Date AUG 4 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date AUG 4 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED AUG 7 1958 U.M.E.

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

Month of JULY 1958 Docket No. DMEA 4946 Contract No. 1197
Operator's Name DeGROAT, BUCHANAN & BUCHANAN Minerals
Address Rt. 4, BAKERSVILLE, N.C. MICA

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts	Lft	882.00	21	1134.00	27	1134.00	50	2,100.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS	$	882.00	21	$1134.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		None						
Initial Rehabilitation and Repairs		"						
New Buildings, Improvements, etc.		"						
TOTAL COSTS	$	882.00	21	$1134.00			$	2,100.00

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 7-31-58 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)

REMARKS:

(For Government use only)

S A Fitler

Operator did not include $45.00 for road repair or $115.00 for new buildings previously reported in above costs to date. Total costs to date should be $1,294.00

W A Beck

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

DAILY WORK PROGRESS REPORT

Month Of July, 1958

Work Accomplished:

DMEA No. 4946

Idm-E 1197

Date Work Began:
July 1st, 1958

A three man crew engaged in mining operation. All work done consisted in drilling holes, loading and blasting and cleaning up after shots. During the month 15 pounds of mica was recovered, processed and sold to Government Depot at Spruce Pine, N.C.

Daily Work Notes:

July 1st, 1958	Drilled holes,	shot	and	mucked	out.		
2nd	"	"	"	"	"	"	"
3rd	"	"	"	"	"	"	"
4th	"	"	"	"	"	"	"
7th	"	"	"	"	"	"	"
8th	"	"	"	"	"	"	"
9th	"	"	"	"	"	"	"
10th	"	"	"	"	"	"	"
11th	"	"	"	"	"	"	"
14th	"	"	"	"	"	"	"
15th	"	"	"	"	"	"	"
16th	"	"	"	"	"	"	"
17th	"	"	"	"	"	"	"
18th	"	"	"	"	"	"	"
21st to 31st Inc	"	"	"	"	"	"	"

OFFICIAL FILE COPY
DMEA
RECEIVED 7 1958
DATE INITIALS CODE

Respectfully submitted,
De Groat, Buchanan & Buchanan
By: James H. DeGroat Partner

DMEA
RECEIVED JUL 31 1958

DATE	INITIALS	CODE
7/31	C	220
31	Com	100
"		110
8/1		800
		600

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197 (mica) TWIGGS MICA PROSPECT

Applicants: J. H. DeGroat, Jr., et al. R#4, Bakersville, N.C.

Location : 1.9 miles N28°E of Cane Creek School, and also N19°E of Hawk Mine, Mitchell County, North Carolina.

The shaft has been sunk 16 feet at minus 50° from the bottom of the existing shaft. The Operator plans to cut the shaft back to 5' x 7' from 5' x 10'.

The pegmatite is 1/8" to 6" thick in the lowest 6 feet. It is rich in mica up to 3 x 4 inches. The strike is N30°E, 65°SE. The body contains plagioclase, quartz, and muscovite.

About 125 pounds of mine-run muscovite has been recovered to date. Of this 40 pounds was found in old muck removed in rehabilitation. About 16 pounds was trimmed from this production.

Sinking will continue.

Inspected: July 21, 1958

S. A. Feitler, Mining Engineer
Bureau of Mines (DMEA)

F. G. Lesure, Geologist
Geological Survey (DMEA)

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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
PAYMENTS K- 2

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1958 Docket No. DMEA 4946 Contract No. 1197
Operator's Name DeCroat, Buchanan & Buchanan Minerals Mica
Address Rt.4. Bakersville, N.C.
Contract Amount, $ 5,512.00 Government Participation: 75 % Amount, $ 4,134.00

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	$ 45.00	None	$ 45.00			
Crosscutting						
Drifting						
Shaft 6 ft	$ 252.00	None	$ 252.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.	$ 115.00	None	$ 115.00			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 412.00	None	$ 412.00	412.00	—	412.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 1-7-58 *Payee DeCroat, Buchanan & Buchanan
Per James H. DeCroat 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:
$ 309.00
Signature Helen R. Miller
(Authorized Certifying Officer)
Date JUL 11 1958 Vou. No. 6
(See other side)

1 6/9 103.00

(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. E1197 in accordance with the terms of the contract.

Signature S. Kettler Title MINING ENGINEER U. S. BUREAU OF MINES Date JUL 7 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date JUL 7 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 195 8 Docket No. DMEA 4946 Contract No. 1197
Operator's Name De Groat, Buchanan & Buchanan Minerals Mica
Address Rt. 4. 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								
Crosscutting								
Raising								
Shafts	Ft	$252.00	6	$ 252.00	6	252.00	50	2,100.00
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	CY							
Bulldozer Work	"	45.00	148	45.00	148	45.00	148	45.00
TOTAL DISTRIBUTED COSTS		297.00	154	297.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		None						None
Initial Rehabilitation and Repairs		None						None
New Buildings, Improvements, etc. Toolhouse & Magazines		115.00	3	115.00				$ 115.00
TOTAL COSTS		412.00		412.00				~~2,600.00~~ 115.00

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

REMARKS:

Date 7-1-58 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)

S Feidler
MINING ENGINEER
U. S. BUREAU OF MINES

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

DAILY REPORT OF WORK PROGRESS

(Narrative)

Month Of June 1958

DMEA NO. 4946

Work Accomplished:

Idm-E 1197

Date Work Began 6-9-58

Bulldozed out road to mine, brought machinery to mining site and set up same, carried cribbing to mine and pumped water out of old shaft, set down hoist and worked on road, built toolhouse and magazines for powder and exploders, overhauled all machinery and equipment, cribbed old shaft and removed old muck, drilled 36 ft of holes and shot same penetrating a depth of 6' in shaft. removed muck.

Daily Notes:

June 9th-- Hauled machinery and equipment to mining site.

10th- Bulldozed out road to mining site (4 hrs.)

11th- Hauled Cribbing to mine and pumped out water.

12th- Set down hoist and worked on mine road to mine.

13th- Built toolhouse and magazines.

16th to 20th inclusive-- Overhauled machinery.

23rd- Cribbed and otherwise rehabilited at shaft and removed muck.

24th- " " " " " " " "

25th- " " " " " " " "

26th- " " " " " " " "

27th- " " " " " " " "

30th- Drilled 36 lft of holes in bottom of shaft, loaded and shot same, mucked out shots. all holes in pegmatite and 3 men employed during all this period report.

Respectfully submitted,

DeGroat, Buchanan & Buchanan

By: James H DeGroat Jr.
Partner

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 11 1958

DATE	INITIALS	CODE
7/11	C	220
14	Com	100
"	[illegible]	110
7/15	[illegible]	800
7/17	[illegible]	600

DMEA EXPLORATION PROJECT

INTERIM REPORT

DMEA-4946, Idm-E1197(mica) TWIGGS MICA PROSPECT
Mitchell County, North Carolina

Applicants: J. H. DeGroat, Jr., Zeb Buchanan, Guy Buchanan, c/o J. H. DeGroat, R#4, Bakersville, N.C.

Location: 1.9 miles N28°E of Cane Creek School, and also 1 mile N19° E of Hawk Mine, Mitchell County, N.C.

The Operator reported the starting date as June 9, 1958.

Road excavation of 200 cubic yards has been made. Of this quantity, 52 cubic yards is at the Operator's expense.

A toolhouse and powder and exploder magazines have been built. The shaft is 25 feet vertical and 23 feet S65°E at-52°.

In the bottom a concordant pegmatite strikes N35°E 60°SE pinches and swells from 1/8-inch to 6 inches. It contains plagioclase, quartz and muscovite up to 1 1/2 x 1 1/2 inches in place. The Operator displayed a hatful of mica up to 4 x 7 inches from the shaft excavation. A northeast plunge of 15° was noted.

A parallel stringer, 2 feet above the target pegmatite is mostly quartz. It is from 1/8-inch to 3 inches thick.

Inspected: June 30, 1958.

S. A. Feitler, Mining Engineer
Bureau of Mines (DMEA)

D. H. Amos, Geologist
Geological Survey (DMEA)

z

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/26	Knouse	600
5/27	Hark	600
5-27	Chambers	800
5/29	[illegible]	130
"	Johnson	110
"	[illegible]	100
5/29	C	120
		600

MAY 29 1958 600

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

Re: Docket No. DMEA-4946-Mica
De Groat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina

Dear Mr. Laurence:

Enclosed are the original and four copies of a proposed short-form contract between the Government and the subject Applicants, signed by the Administrator. The Contract consists of Form MF-200A, Annex I (1 page); Exhibit A (2 pages); one Consent to Lien and Subordination Agreement; and one map (Figure I). Also enclosed for the use of the Field Team are two extra copies of Annex I, Exhibit A, and map (Figure I).

If you and the Applicants find the contract satisfactory, it is ready for the Applicants' signatures. After the contract is signed please make the usual distribution of the document.

You will note in the enclosed copies of the Applicants' letter dated May 10, 1958, that they agree to rehabilitate the shaft at their expense.

Copies of memoranda dated April 30 and May 14, 1958, by Mr. T. H. Kiilsgaard, USGS, and Mr. W. F. Dietrich, USBM, respectively, relating to the project are enclosed.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Approved:

Frank D. Lamb (FDL)
Member, Bureau of Mines

Thor H. Kiilsgaard (THK)
Member, Geological Survey

FLKnouse:rsi 5/26/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Knouse

Enclosures 15

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

OFFICIAL FILE COPY
DMEA
RECEIVED 14
DATE
5/14/58 KRB 220
600
5-26 600

May 14, 1958

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4946 (mica)

Applicant: J. H. DeGroat, Jr., et al.

Name and Location of Property: Twiggs Mica Prospect, Mitchell County, N. C.

Date of Field Team Report: 4/22/58

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 4/28/58

Field Team Recommendation: Recommend approval of a contract as outlined in field examiners report.

Comments:

1. This prospect is a past producer and in 1956-57 over $23,000 worth of excellent quality mica was produced.

2. The pegmatite appears to be of a fairly continuous nature and there is much unexplored ground on the prospect.

3. The field examiners have modified the rather ambitious work-proposal of the applicant and recommend shaft sinking and drifting to the northeast well below old workings. They also recommend test hole drilling from the drift to explore for possible parallel but isolated pegmatite structures.

Recommendation:

I concur with the field team in recommending that DMEA assistance be granted.

W. F. Dietrich

W. F. Dietrich

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/13	Knouse	600
		600
		220

C

INTERIOR DEPT.

MAY 14 1958

SOLICITOR

600

May 13, 1958

Memorandum

To: Legal Division

From: Division of Nonmetallic Minerals

Subject: Docket No. DMEA-4946-Mica
DeGroat, Buchanan and Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina

Attached is a draft of a short-form contract covering the subject project. Also attached is a set of Consent to Lien and Subordination Agreement forms. The map referred to in the contract draft is being duplicated and the necessary copies will be forwarded for attachment with the OCL's to the contract.

Please prepare a contract from the draft.

RECEIVED

MAY 14 1958

ASSOC. SOLICITOR
MINERAL RESOURCES

F. L. Knouse
Division of Nonmetallic Minerals

FLKnouse:rsi 5/13/58
Copy to: Admr. R. File
Mr. Houk
Mr. Knouse

8623

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 12 1958

DATE	INITIALS	CODE

Bakersville, North Carolina
May 10, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 12 1958

DATE	INITIALS	CODE
5/12	C	220
5/12	Hoch	600
5/12	Kinsse	600

Mr. Lawrence G. Houk, Director
Division of Nonmetallic Minerals
United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA-4946-Mica
DeGroat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina

Gentlemen:

We have complied with the directions of your letter of May 2, 1958 and we are enclosing herewith, a Map of the property giving the required information.

We also agree to rehabilitate the 40 foot shaft at our expense.

We are also returning to you the original and four copies of the "consent to Lien and Subordination Aggreement forms with the necessary changes.

Yours very truly,

DeGroat, Buchanan and Buchanan

J. H. DeGroat, Jr.

J. H. DeGroat, Jr.

JHD/hl

Enclosures

copies to Region V

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/30	Knouse	600
5/1	Houk	600
5/2	Selbrede	120
"	Johnson	110
"	Bettendorf	100
5/5	C	220
		600

600

MAY 2 1958

De Groat, Buchanan and Buchanan
c/o Mr. J. H. De Groat, Jr.
Route 4
Bakersville, North Carolina

Re: Docket No. DMEA-4946-Mica
De Groat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina

Gentlemen:

Before we can continue processing your application to explore the subject property we require the following information:

1. The exploration program under consideration consists of rehabilitating the existing 40 foot shaft, i.e., enlarging and cribbing the shaft to a two-compartment - 5 x 7 foot size (inside of timber measurements), followed by sinking the shaft an additional 50 feet along the pegmatite, and drifting northeasterly 100 feet along the pegmatite from the shaft bottom.

Please advise whether you would agree to rehabilitate the 40 foot shaft at your expense, if a program were approved wherein the Government would contribute its prorata share to the cost of the additional work.

2. If you agree to do the rehabilitation, please furnish a map of the property showing (1) metes and bounds of the tract owned by the Lessor, (2) the leased area, and (3) ties to a corner of the major tract, a corner of the leased area, and the old shaft.

3. We are returning the original and four copies of the Consent to Lien and Subordination Agreement forms signed by Francis E. Field. In Item 6 of this document, the insertion "This Consent to Lien shall not remain in force for more than a maximum of ten years" should be amended to read "This Consent to Lien shall not remain in force for more than a maximum of ten years from the date of the contract.

This information should be speeded to us for quick action.

Sincerely yours,

Enclosures 5

Lawrence G. Houk, Director
Division of Nonmetallic Minerals

FLKnouse:rsi 4/30/58
Copy to: Admr. R. File
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Knouse

8623

IN REPLY REFER TO:

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

DMEA
RECEIVED MAY 5 1958

5/1 C 220
5/2 Kuna 600

April 30, 1958

Memorandum

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

From: T. H. Kiilsgaard, U. S. Geological Survey

Subject: Review of Field Examination Report, DMEA 4946 (Mica) Twiggs Mine, Mitchell County, North Carolina

The applicant has proposed a rather ambitious program to explore the Twiggs mine. This property has yielded a large quantity of excellent quality, greenish-rum, flat, free-splitting muscovite. Production during the Period July 31, 1956, to August 16, 1957, amounted to $23,000 of mica having an average value of $18.00 per pound.

The Examiners are of the opinion the property could contain significant reserves of similar quality mica, which could be explored by a relatively modest program. They therefore have recommended a program considerably modified from that proposed by the applicant. Cost of this proposed program is $7,030. The map attached to the Field Team Report clearly shows the proposed program with respect to areas previously productive. The program seems to be a logical way of further exploring this pegmatite, and I concur with the examiners and recommend that DMEA enter into the proposed exploration project.

T. H. Kiilsgaard

T. H. Kiilsgaard

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

ROOM 13 POST OFFICE BLDG
KNOXVILLE 2, TENN.

DMEA RECEIVED APR 25 1958		
DATE	INITIALS	CODE
4/25	H.S.	220
4/28	JB	130
4/28	C	220
4/29	JMC	600

April 22, 1958

Memorandum

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

From: Field Team, DMEA, Region V, Knoxville, Tennessee

Subject: Field Examination Report, DMEA-4946 (Mica)
DeGroat, Buchanan and Buchanan
Twiggs Mine, Mitchell County, North Carolina

Enclosed are the original and two copies of the subject report.

Available evidence indicates that previous workings have not been very extensive, and apparently no study was made of this mine during World War II by the Geological Survey party then in the district.

An alternative plan of drilling might be proposed, to test the down-dip extension of the pegmatite before sinking, but this would cost at least $4200 (600 ft @ $7.00), which is well over half the estimated cost of sinking and drifting.

The evidence indicates a favorable exploration target and we recommend approval of a contract as outlined in the report.

No property map is available. If a contract is to be approved, the Applicants should be asked for a map showing (1) metes and bounds of the tract, (2) the leased square, tied to an identifiable corner and (3) the old shaft, tied to a corner of the leased square.

Robert A. Laurence
Robert A. Laurence
Executive Officer

V. J. Lynch
V. J. Lynch, Member
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
4-28-58
(date)

On-Site Exam Rpt.

Official
COPY
DMEA
RECEIVED APR 25 1958
DATE | CODE
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220

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT
REGION V

DMEA-4946(mica) TWIGGS MICA PROSPECT
Mitchell County, North Carolina

Helmuth Wedow, Jr., Geologist
Geological Survey

and

L. E. Shirley, Mining Engineer
Bureau of Mines

April 22, 1958

Reviewed by
DMEA OPERATING COMMITTEE
4-28-58
(date)

OFFICIAL FILE COPY
DMEA
RECEIVED APR 25 1958

DATE	INITIAL	CODE
4/28	[illegible]	130
		220

DMEA FIELD EXAMINATION REPORT

DMEA-4946(mica) TWIGGS MICA PROSPECT
Mitchell County, North Carolina

Applicants: James H. DeGroat, Jr., J. Zeb Buchanan and Guy Buchanan,
Route #4, Bakersville, North Carolina

SUMMARY

Until World War II little is known of the Twiggs prospect, at which time it reportedly produced an unknown but large quantity of excellent mica from shallow underground workings. In 1956-1957 the prospect produced over $23,000 worth of mica averaging about $18 per pound. The mica is an excellent quality greenish rum, free-splitting muscovite occurring in books up to 4 by 6-inches. Although the existing workings were not accessible at the time of the examination, the concordant and apparently fairly continuous nature of the pegmatite body coupled with the excellent quality of the mica warrant further exploration at the prospect. Consequently, the Examiners recommend the rehabilitation of an existing 40-foot vertical and inclined shaft, deepening the shaft another 50 feet on the dip of the pegmatite, and drifting a maximum of 100 feet to the northeast to follow the pegmatite well below the old workings. It is further recommended that a maximum of 200 feet of percussion test-hole drilling from the drift be provided to probe for possible parallel pegmatite structures that may be isolated from the main pegmatite.

INTRODUCTION

Location:

The Twiggs mica prospect is located 1.9 miles airline N.28°E of Cane Creek School (near Hawk Community), Mitchell County, North Carolina. It is also located 1.0 mile airline N 19°E of the Hawk Mine (DMEA-4337, Idm-E977). These localities are on the Carvers Gap (208-SE) Quad. N.C.-Tenn. The elevation of the shaft collar at the mine, as closely as it can be estimated from the topographic map, is about 3,880 feet above sea level.

Reviewed by
DMEA OPERATING COMMITTEE
4-28-58
(date)

Applicants

The Examiners were accompanied in the examination by the Applicants-- James H. DeGroat, Jr., J. Zeb Buchanan, and Guy Buchanan, all of Route #4, Bakersville, N. C. Mr. DeGroat with others worked the Azaline mine (DMEA-3463, Idm-E741). Although this project was not certified, the work was conducted in a satisfactory manner. Neither J. Zeb Buchanan nor Guy Buchanan have been in on contracts with the Government under the DMEA program, but both have spent most of their working lives in mining or processing mica.

Examination

The examination of the Twiggs prospect was made during a period of about three hours on the afternoon of April 7, 1958.

Mine history, workings, and production

Little is known of the early history of the Twiggs prospect except that it was worked only at brief intervals over a period of many years. The only evidence of the early workings seen today consist of an open cut or surface excavation, now about 10 feet deep, extending into the hill toward the northeast following the strike of the pegmatite for a maximum distance of about 45 feet. Although the face and walls of this cut have collapsed and are almost completely obscured by slumped material, weathered pegmatite is partially exposed near the "grass roots" in the face.

The prospect is reported to have been developed further sometime between 1941 and 1944 by Rube Ledford and son, Greene Ledford,

during the Colonial Mica Company era of World War II. The Ledfords apparently drove an adit, the portal of which is now caved, along the strike of the pegmatite at a depth of about 20 feet below the old open cut. The Applicants say that the "Ledford" adit extended to about 190 feet from the portal and was stoped out to near the bottom of the open cut, reportedly breaking through in several places now filled by caving. It is said that the Ledfords recovered an unknown but large quantity of excellent quality greenish rum mica from the adit and related stope work.

The Twiggs mine was last worked in the period 1956-1957, when Otis Buchanan and others from the nearby Hawk Community operated the mine under the name of Hawk Mining Company, Route #4, Box 181, Bakersville, N.C. The recent workings consist of a 40-foot vertical and inclined shaft collared about 20 feet below the "Ledford" adit. At the time of this examination water stood at a level 6 1/2 feet below the collar of the shaft. Drift work reportedly was done from the 20-and 40-levels in the shaft. The vertical portion of the shaft was sunk from the surface to a depth of 20 feet with the pegmatite encountered at a depth of 16 feet. The drift work from the 20-level was then accomplished to an unknown distance northeast; however, a reasonable estimate of the length of this drift from the size of the new dump is about 100 feet. Later, the shaft was deepened to 40 feet following the inclination of the pegmatite which here dips about 60 to 65 degrees southeast. Mr. DeGroat indicated that about 30-feet of level work was done from the bottom of the shaft where 20-feet of drift extends to the northeast and 10 feet to the southwest

along the strike of the pegmatite. Sales of mica from the recent work were made to the GSA Mica Purchasing Depot at Spruce Pine, N. C., covering a period from July 31, 1956 to August 16, 1957. Receipts in the Applicants' possession are the source of the summary of sales during this period shown below:

	Wt. Lbs,	Average percent of total
Good stained.....	768.22	60.19
Stained	457.71	35.86
Heavy stained.....	50.48	3.95
Total mica sold....	1,276.41	100.00

Total value of mica.....$23,022.76
Average price per pound..... 18.04

The Applicants also report that the mica occurs in books as much as 4- by 6-inches in size with 50 percent of the recovered mica running pattern size in trimmed sheets 2½-by 3½-inches with some larger patterns.

The Twiggs prospect is located in close proximity to the Big Hawk mine and others producing mines in the general area. Past mica production from this area has been good and the general quality of the mica has been above average.

GEOLOGY

The pegmatite appears to occur as a concordant body in a garnetiferous biotite-hornblende gneiss. The strike of the pegmatite is about N 30°E., and dip about 65° SE. The thickness is reported to range generally from 1/2 to 1½ feet with a maximum of about 3 feet.

It is reported to have pinched out locally up dip. The "grass roots" exposure in the old open cut shows a similar up-dip pinch out. According to Mr. DeGroat the lineation of the swells of the pegmatite plunges at a relatively high angle to the northeast.

The pegmatite is a medium-to coarse-grained mixture of soda and potash feldspars, muscovite, and some quartz. Biotite was noted near the contacts with the country rock. The Applicant reports a quartz core at or near the hanging wall of the pegmatite. The mica is greenish rum, hard, flat, and free-splitting--of excellent quality as the summary of the sales (see page 4) under the current buying program indicates.

In addition to the pegmatite being mined, a thin stringer of pegmatite about several inches thick was noted in an outcrop about 25 to 30 feet southeast of the shaft collar. As with the main body this thin stringer paralleled the foliation of the gneiss.

PROPOSED EXPLORATION PROGRAM

Applicants' proposal

The Applicants proposed to drive an adit on the strike of the pegmatite from a point about 100 feet southwest of the 40-foot shaft. This adit would supposedly intersect the down-dip project of the inclined shaft at the 100-foot level. They would then raise to the bottom of the old shaft and then sink further on the shaft for another 100 feet or to the 200-level.

Rough surveys at the time of the examination showed that to reach the 100-level at the shaft site approximately 200 feet of

drift would be required. In addition, no pegmatite was seen at the proposed adit site 100 feet southwest of the shaft, nor at the site of a possible adit driven to intersect the projected shaft at the 100-level. Although the Applicants stated that pegmatite had been exposed at the proposed adit site, this locality is now covered with spoil from the 40-foot shaft or earth from the stream bank. If pegmatite had been exposed at this site, there is also no assurance that the pegmatite is the same on which the shaft had been sunk.

Lack of positive proof of pegmatite to the southwest of the shaft and the unlikelihood of developing a significant reserve in this direction because of the surface slope cause the Examiners to reject this approach to further exploration at the Twiggs prospect. However, the quality of the mica and the possibility of reserves of size toward the northeast below the 20-level warrant further study.

Field Examiners' Proposal

The Examiners recommend the rehabilitation of the present shaft to the 40-level. The shaft should then be sunk an additional 50 feet to the 90-level staying with the pegmatite. At the 90-level a maximum of 100 feet of drift should be driven toward the northeast. If the pegmatite thickens with depth, the drift should remain with the hanging wall, and provision should be made to permit cross-cutting to the footwall at selected intervals if such is necessary. The Examiners believe that the amount of shaft and drift work proposed will be sufficient horizontal extent to show a sizable reserve of excellent quality mica. It is further recommended that 200 feet of

percussion test-hole drilling be provided to probe the hanging wall and footwall as needed to test for possible parallel marginal pegmatite structures that may be isolated from the main pegmatite being explored by the drift work.

The estimated costs of the Examiners' proposal are as follows:

Access Road - Improve existing access road 200' x 10' x 2'-148 cu.yds @ 30¢ per cu. yd.....		$ 45.00
Construction-		
Tool house	$75.00	
Powder magazine	25.00	
Exploder magazine	15.00	
		115.00
Rehabilitation- Trim to 5' x 7' and crib solid existing 5' x 5' shaft. Install partitioned manway, ladders and landings-(1st 20 ft of existing shaft is vertical, remaining 20 ft is inclined -60° to the southeast) (10 shifts).		
Labor:		
1 - Foreman-Miner @ $1.75/hr...		$140.00
1 - Hoistman @ $1.50/hr.....		120.00
1 - Laborer @ $1.00/hr.....		80.00
Equipment(rental)		
1 - 105 air compressor @ $150/Mo.		75.00
1 - Single drum, gasoline-powered hoist @ $50/Mo.....		25.00
1 - Rock drill w/hose @ $50/Mo.		25.00
1 - Sinking pump-either air sump or electric @ $50/Mo..		25.00

Supplies:

Gasoline and oil	$35.00
Explosives	40.00
Drill steel	20.00
Timber -2500 b.f. @ $65/M	163.00
Miscellaneous	80.00
Sales Tax	10.00
Social Sec. & Ins.	41.00

Estimated cost of shaft rehabilitation..... $879.00

Shaft Sinking - Sink an additional 50 feet of inclined and/or vertical shaft; 5' x 7' in cross-section, two-compartment, separated manway with ladders and landings at specified intervals. (~~33.3~~ 30 shifts)

Labor:

$34/shift x 30 = $1020.00

1 - Foreman-Miner @ $1.75/hr.	$466.00
1 - Hoistman @ $1.50/hr.	400.00
1 - Laborer @ $1.00/hr.	267.00

$1020.00

Equipment (rental)

$250/mo - Rental
1½ mos = $375.00

1- Air compressor @ $150/Mo.	251.00
1 - Hoist @ $50/Mo.	84.00
1 - Electric Pump @ $50/Mo.	83.00
1 - Drill w/air hose @ $50/Mo.	84.00

375.00

Supplies:

Explosives	150.00
Drill steel	88.00
Gasoline and oil	100.00
Small tools, pipe, etc.	100.00
Timber, 200 b.f. @ $65/M	130.00
Sales tax	17.00
Social Sec. & Ins.	~~136.00~~

707.40

* 12% of $1020 = $122.40

$122.40

$2102.40

Estimated cost of shaft sinking..... ~~$2,356.00~~

$2102.40/50 ft = $42.05/ft. - use $42/ft.

Drift - From the 90 ft shaft bottom, drive 100 ft of drift and/or crosscut, 5' x 7' in cross-section and timbered where necessary (~~50 shifts~~).

44 shifts / 2.3/ft adv./shift.

Labor:

$34/shift x 44 shifts = $1496.00	1 - Foreman-Miner @ $1.75/hr.	$700.00
	1 - Hoistman @ $1.50/hr.	600.00
	1 - Laborer @ $1.00/hr.	400.00
		$1496.00

Equipment(rental)

	1 - Air compressor @ $150/Mo.	375.00
	1 - Hoist, @ $50/Mo. (single drum, gas powered)	125.00
Rental @ $250/mo 2 1/4 mos = $562.50	1 - Air Jackleg @ $15/Mo.	38.00
	1 - Rock drill w/hose @ $50/Mo.	125.00
	1 - Electric pump @ $50/Mo.	125.00
		$562.50

Supplies:

	Explosives	275.00
	Drill Steel	150.00
	Gasoline and oil	188.00
	Timber, 1000 b.f. @ $65/M	65.00
	Miscellaneous	115.00
		997.00
	Sales tax	24.00
	Social Sec. and insurance	180.00
		$3,055.50
	Estimated cost of drift	~~$3,485.00~~

$3055.50/100 ft = 30.55/ft. use $31/ft. x 100 ft = $3100.00

In conjunction with above drift work, drill a maximum of 200 ft of percussion test holes, if necessary...200 ft @ 75¢ per ft..... 150.00

Estimated cost of project..... $7,030.00

Government participation at 75% - $5,272.00

CONCLUSION AND RECOMMENDATIONS

The Twiggs Mica Prospect in Mitchell County, North Carolina has produced a relatively large quantity of excellent quality greenish rum, flat, free-splitting muscovite. The geology and past production recommend the prospect for the discovery of significant reserves of similar quality mica with a relative modest

exploration program. The competence of the Applicants to conduct a specified program appears to be more than adequate if a contract is granted. The Examiners recommend the rehabilitation of an existing vertical and inclined 40-foot shaft, sinking an additional 50 feet of inclined and/or vertical shaft staying with the pegmatite, 100 feet of drift and/or cross-cut level work to explore for the extension down dip and northeastward along the pegmatite. A small amount of percussion test-hole drilling to probe for parallel structures is also recommended.

Helmuth Wedow, Jr., Geologist
Geological Survey

L. E. Shirley, Mining Engineer
Bureau of Mines

April 22, 1958

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DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/5	Anderson	600
3/5	Selfridge	130
3/5	Bishop	130
3/5	Ridgeard	130
"	Colmer	110
"	Mittendorf	100
		220

600

MAR 6 1958

De Groat, Buchanan & Buchanan
c/o Mr. J. H. De Groat, Jr.
Route 4
Bakersville, North Carolina

Re: Docket No. DMEA-4946-Mica
De Groat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, North Carolina

Gentlemen:

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

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

LGHouk:gad 3/5/58
Copy to: Admr. R. File
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/5	Anderson	600
3/5	[illegible]	130
"	Johnson	110
"	[illegible]	100
3/6	[illegible]	220
		600

600

MAR 6 1958

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

Re: Docket No. DMEA-4946-Mica
De Groat, Buchanan & Buchanan
Twiggs Mica Prospect
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 dated March 3, 1958, by Mr. W. F. Dietrich, USBM, and Mr. H. E. Nelson, USGS, relating to the project are enclosed. There is also enclosed a copy of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GHB)

Approved:

O. M. Bishop (GHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (GHB)
Member, Geological Survey

Enclosures 5

LGHouk:gad 3/5/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
~~Mr. Houk~~

8623

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 4 1958

DATE	INITIALS	CODE
3/4	C	230
		600

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

March 3, 1958

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4946 (mica)

Applicant: J. H. De Groat, Jr., et al

Name and Location of Property: Twiggs Mica Prospect,
Mitchell County, North Carolina

Date Application Rec'd. by Br. of Ceramic & Fertilizer Materials: 2/26/58

Comments:

1. Applicants state that this is an old mine from which much good grade mica has been recovered.

2. Applicants state that past operations have been confined to depths of 40 feet or less and that they wish to explore at greater depths.

3. It appears that the proposed amount of work is excessive to prove the existence of ore at greater depths.

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.

W. F. Dietrich

W. F. Dietrich

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 4 1958

DATE	INITIALS	
3/4	C	220
		600

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

March 3, 1958
Re: DMEA 4946
DeGroat, Buchanan & Buchanan
Twiggs Mica Prospect
Mitchell County, N. C.
$8,130.50 - Mica

Memorandum

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

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

Subject: Review of application

The applicants request assistance in exploring a 12-24-inch pegmatite by adit crosscut, 100 feet, raising to old shaft 30-40 feet, sinking from adit level, 100 feet. The adit would serve as a drainage exit for the upper 70 or 80 feet of the mine. Apparently it would not be used as a working opening.

The mine has been in production, but a measure of the production of it is not given.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

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

February 26, 1958

Mr. James H. DeGroat, Jr.
Route 4
Bakersville, North Carolina

Subject: DMEA-4946

Dear Mr. DeGroat:

Your application for exploration assistance, dated February 14, 1958 submitted to our office at Knoxville, Tennessee has been assigned Docket Number DMEA-4946 and referred to the Non Metallics Minerals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region V

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

RECEIVED FEB 26 1958

DATE	INITIALS	CODE

February 24, 1958

Mr. J. H. DeGroat, Jr.
Route #4
Bakersville, North Carolina

Dear Mr. DeGroat:

Your application for aid in exploring for strategic mica at the Twiggs Mica Prospect in Mitchell County, North Carolina has been forwarded to our Washington office in accordance with established procedure.

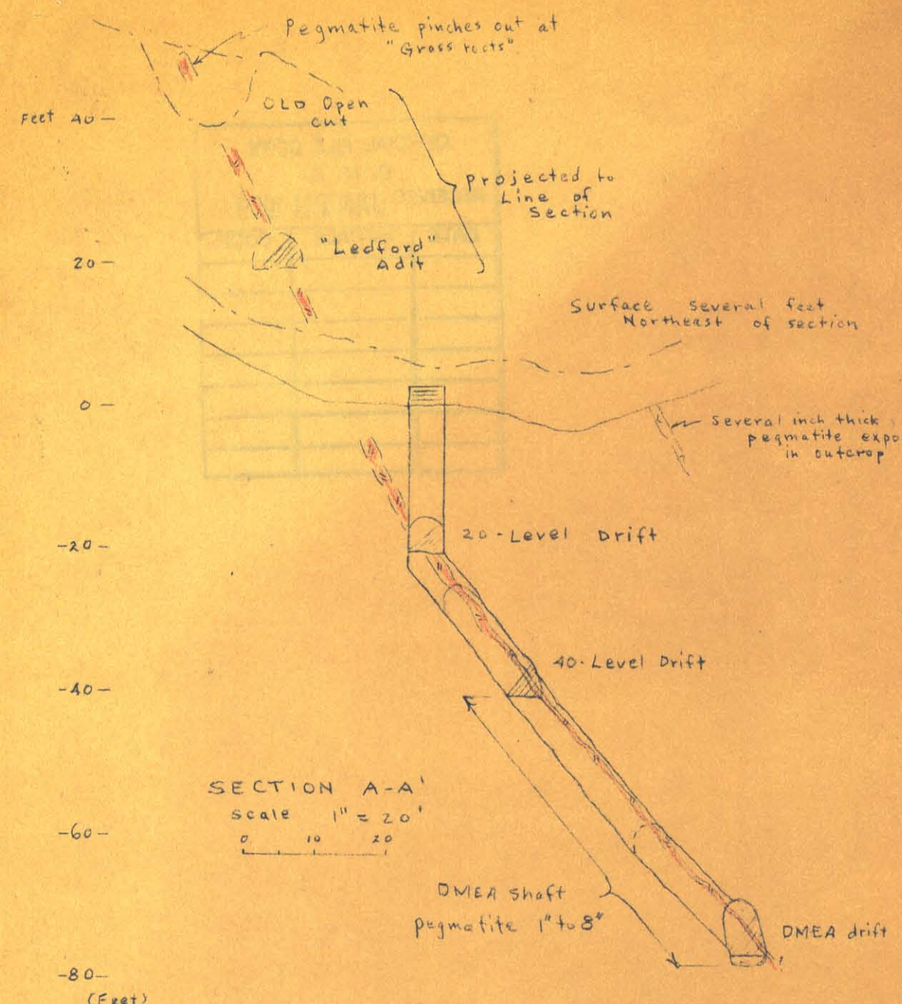
We will notify you in advance if a field examination is to be made.

Sincerely yours,

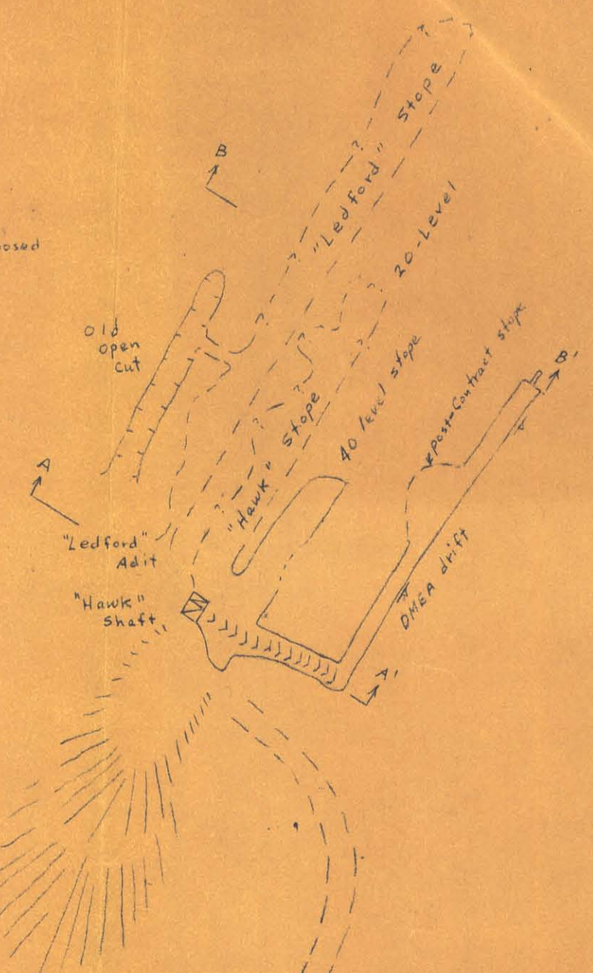
Robert A. Laurence
Executive Officer, DMEA - Region V

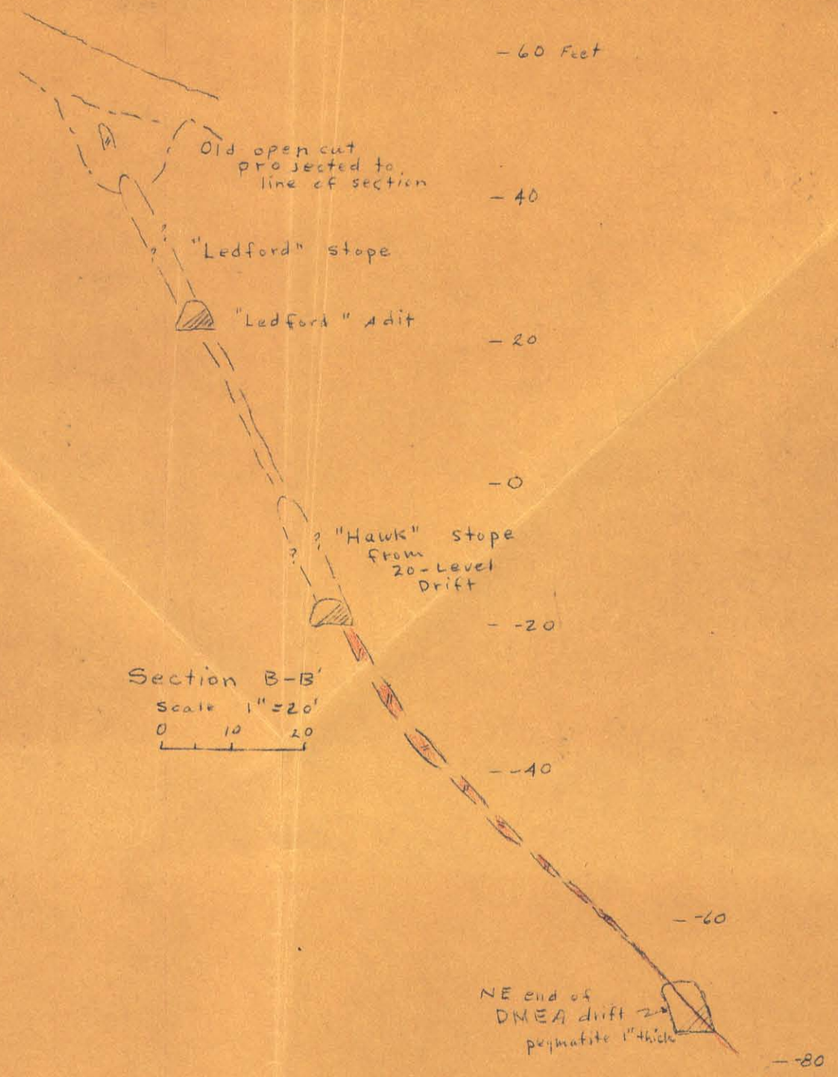
RAL/xm

Twiggs Mica Prospect
Mitchell County, North Carolina
DMEA-4946 (Mica)
Scale 1" = 40'



SECTION A-A'
Scale 1" = 20'
0 10 20

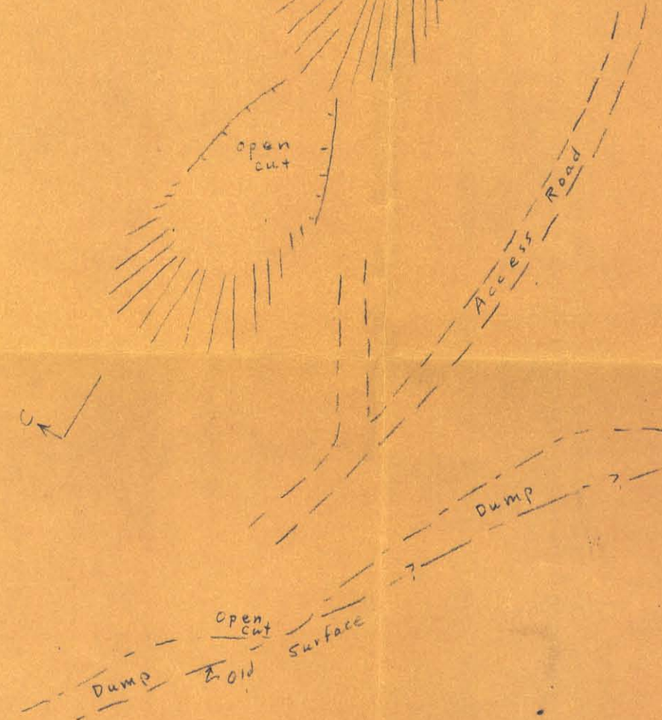


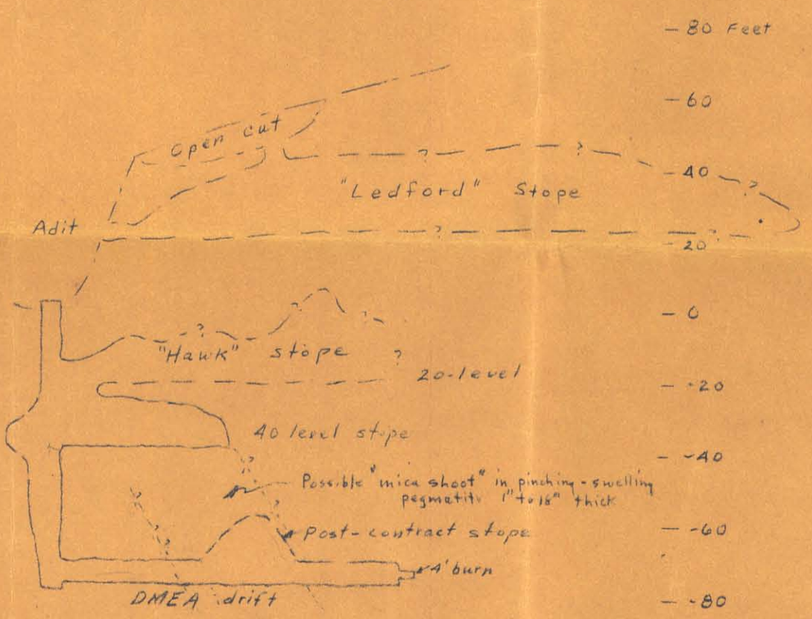


Section B-B'
Scale 1" = 20'
0 10 20

Explanation

- Drift or adit
- open cut
- Shaft showing direction of incline
- Approximate limits of underground workings
- pegmatite





Longitudinal or Strike Section C-C'
Scale 1" = 40'
0 20 40

TWIGGS MICA PROSPECT
MITCHELL COUNTY NORTH CAROLINA
DMEA - 4946 (mica)
Scale 1" = 40'

H W 4/58
rev. FGL 12/58

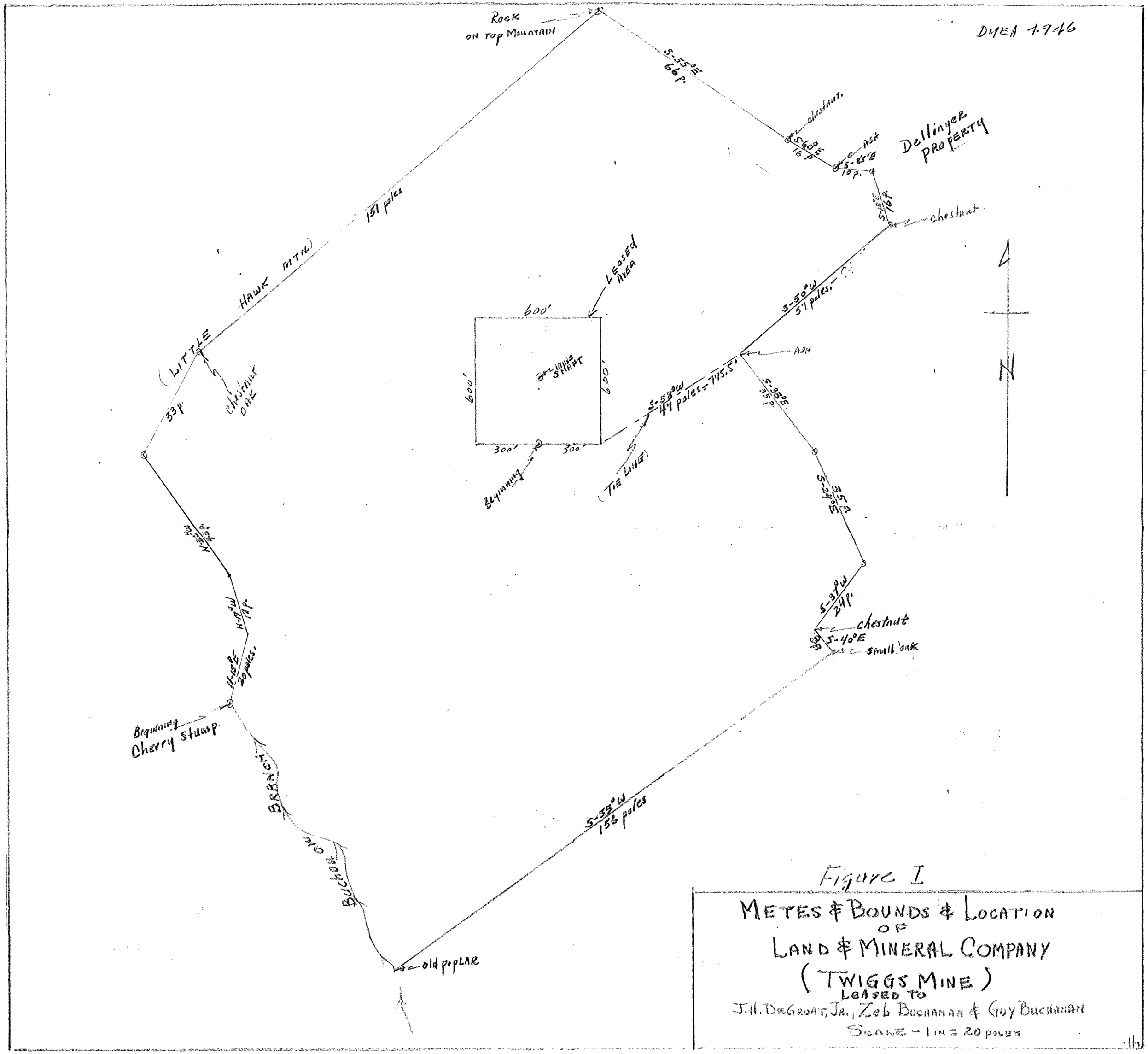


Figure I

METES & BOUNDS & LOCATION
OF
LAND & MINERAL COMPANY
(TWIGGS MINE)
LEASED TO
J.H. DeGroat, Jr., Zeb Buchanan & Guy Buchanan
Scale - 1 in = 20 poles