DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4920

Application
- [ ] Denied
- [x] Withdrawn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:

15 %

Left Side

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

Right Side

- [ ] Project summary (final)
- [ ] 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
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] 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

THE GREAT STATE OF NORTH CAROLINA, COUNTY OF MITCHELL

THIS MINING LEASE, made this 2nd day of January, 1958, by and between GRAHAM FRENCH, of Philadelphia, Pennsylvania, (hereinafter referred to as "OWNER") and the EMPIRE MICA MINES, INC., a North Carolina corporation, (hereinafter referred to as "LESSEE.")

W I T N E S S E T H :

That, for and in consideration of the performance of the conditions and agreements and the payment of rental by the Lessee as hereinafter stated, the Owner hereby bargains, leases and grants unto the Lessee, its successors and assigns, for a period of time hereinafter defined below, the minerals, mining rights and privileges, as hereinafter stated, on a certain tract of land, described as follows:

Certain real property in Cane Creek Township, Mitchell County, North Carolina, situate about three miles northeast of the Town of Bakersville, known as the CLARISSA mining property and described as follows:

FIRST: A certain tract of land bounded as follows: BEGINNING on a buckeye, an old corner, and runs thence South 60 deg. 30 min. West 218 feet to a sycamore, now a concrete monument; thence South 43 deg. 30 min. West 257 feet to a black walnut; thence South 18 deg. East 403 feet crossing the public road to a concrete monument near a cherry tree; thence South 82 deg. 30 Min. West crossing Buchanan branch 218 feet to a concrete monument; thence South 64 deg. West 446 feet to a big rock near a fence marked X; thence North crossing the highway and running with the old fence row and J. L. Morgan's line 957 feet to a large chestnut in said line; thence North 16 1/2 feet to a stake corner; thence East 495 feet to a beech, now a concrete monument; thence South 81 East 313 feet to a buckeye, the BEGINNING corner. Containing 12 acres more or less.

Excepting and reserving from the above conveyance the mineral interest in about one acre of land as described in two certain deeds as shown of record in the Register's Office of Mitchell County.

First: Deed from John L. Buchanan and wife, Polly Buchanan and Blaine Buchanan and wife, Dora Buchanan, to W. Vance Brown, dated January 11, 1919, and recorded January 14, 1919 in Deed Book #71 at page 425.

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Second: Deed from John L. Buchanan and wife, Polly Buchanan and Blaine Buchanan and wife, Dora Buchanan to W. Vance Brown, dated February 19, 1919 and recorded March 14, 1919 in Deed Book #71 at page 496.

Also, excepting about one-fourth acre as now staked off and used as a family burying ground; also, about two-tenths acre on the public road described as follows:

BEGINNING on a rock on the public highway and runs North 32 West 76 feet to a stake; thence North 46 East 90 feet to an apple tree; thence South 33 East 94 feet to a stake in the public road; thence with the road South 59 West 85 feet to a rock, the BEGINNING corner.

AND BEING the same property described in a Deed dated 24 June 1937 from Blaine Buchanan and wife, Dora Buchanan to Mrs. Ella Clapp Thompson, recorded in Mitchell County Deed Book 95, page 287.

SECOND: All the mineral or mineral substances of value, with all mining privileges and appurtenances in that tract of land bounded as follows: BEGINNING on a sycamore bush in the branch near the glass house and runs down nearly with the branch to a Black Walnut Thence a direct course across the hill to Cane Creek - Thence with said Creek to the branch below Joseph Buchanan's - Thence with said branch to Joseph Buchanan's line - Thence East with said line to his stake corner. Thence from said corner to the BEGINNING, containing 20 acres, more or less.

AND BEING the same real property as conveyed by Deed dated 25 October 1873 from Joseph K. Irby and wife, S. E. Irby to John G. Heap and E. B. Clapp, recorded in Mitchell County Deed Book 7, page 427.

THIRD: A tract of land 5 feet square, marked by concrete corners, in the center of which was the location of a Spanish Oak, the beginning corner of an entry made by John Buchanan 21 November 1835, under Yancey County Warrant No. 709, and more definitely described in a Deed dated 20 June 1919 from Ed Stamey and wife, Larcena Stamey to E. St. Clair Thompson, recorded in Mitchell County Deed Book 72, page 474.

TO HAVE AND TO HOLD the said premises for mining purposes unto the Lessee, its successors and assigns, upon a period of time fixed in paragraph 1 below upon full compliance with each and all of the following conditions, agreements and requirements.

1. (a) This Lease shall begin as of January 2, 1958, and be and remain in full force and effect for a period of thirteen (13) years (other termination is described hereinafter).

(b) That the rental and royalties under this lease shall be paid in accordance with a certain contract dated January 1958 and executed simultaneously herewith between Graham French, as Owner, and Empire Mica Company, Inc., as Lessee, a copy of which is attached hereto and made a part hereof.

The failure to make the payments as the Lessee and the Owner, at his option, may thereupon terminate this lease, reenter and take possession of the premises without further notice.

(c) Lessee may, at its option, terminate this Lease by payment in full of the full purchase price for these properties under the terms of an Agreement of Purchase and Sale, which is incorporated herein.

(d) If the Owner deems that the Lessee has failed to comply with any of the provisions of this Agreement, the Owner, at his option, may give written notice to the Lessee of its failure to comply with this Lease, and if reasonably full compliance is not made within thirty (30) days after such written notice, then the Owner, at his option, may declare this Lease terminated and of no further effect and shall have the right to re-enter and take possession of the premises without further notice.

2. Lessee shall have the right to mine, dig, excavate, quarry, search for and obtain mica and any other minerals from said premises.

3. The Lessee shall and hereby expressly agrees to conduct mining operations on said premises in a business-like manner and workman-like manner with due regard to the Owner's rights in the mica and other mineral deposits on said premises, and to that end the Lessee agrees to keep and maintain the mines where it works and all parts thereof in good and sufficient repair, and to work and operate such mines in a good and skillful manner, and, as work progresses, to keep the mines where it works as clean as reasonably practicable, and to keep such mine 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 reasonably prevent the same from slipping or falling in; that no waste will be dumped or placed in any mine, tunnel, cut or shaft.

4. The Owner or his agent shall at all times have the right to enter into the mine and premises for the purpose of inspection and for the purposes of ascertaining if the terms and covenants of this Lease are being in good faith complied with.

5. Upon the expiration or any other termination of this Lease, the Lessee shall have the right to enter upon said premises and remove its machinery and equipment, but in

no event shall the time limit for the removal of said property extend beyond a period of sixty (60) days from the expiration or termination of this Lease, nor shall said property or any part thereof be removed until all of the indebtedness and obligations which may arise hereunder shall have been fully paid.

6. The Lessee shall have a right of ingress and egress over the lands of the Owner so as to conduct mining operations on the above-described premises and shall have the right-of-way for power lines, roads and other ways as may be necessary in mining and removing minerals from said premises.

7. The Lessee shall have a right to construct upon said premises such shanties or other buildings as it may deem necessary to the operations under this Lease, and upon the expiration of this Lease or the sooner termination thereof, such shanties or other buildings shall automatically become and remain the property of the Owner and the Lessee shall have no right to tear down or remove such buildings.

8. The Lessee shall have a right to cut and use from said premises such timber, which the Owner has the right to cut and use, as may be necessary for use in timbering mines on said premises, but the Lessee shall not have the right to cut or remove any timber from said premises for any other purpose.

9. It is agreed that this Lease and Purchase Agreement is not intended to and does not create a joint venture of any kind; and further, that Lessee, at its own expense, will insure Owner against all liability by reason of any mining operation or use of the property in any way that Owner's interest or liability may be effected, if at all.

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DATE | MINES | CODE

10. It is expressly understood and agreed by the parties hereto that this Lease and the Agreement to Purchase shall never be transferred or assigned in any manner without the written consent of the Owner.

IN WITNESS WHEREOF, the said Owner and the said Lessee have hereunto signed their signatures and affixed their seals, in duplicate, the day and year first above written.

EMPIRE MICA MINES, Lessee

By Sam L. Phillips
President

Attest: John Phillips
Secretary

Graham French (SEAL)
GRAHAM FRENCH, Owner

COMMONWEALTH OF PENNSYLVANIA :

COUNTY OF PHILADELPHIA :

On the 22nd day of January Anno Domini 1958, before me, the subscriber, personally appeared GRAHAM FRENCH who acknowledged the due execution of the foregoing MINING LEASE for all the purposes therein expressed.

WITNESS my signature and notarial seal this 22nd day of January, 1958.

Florence M. Forman
Notary Public

My Commission Expires: November 20, 1961

FLORENCE M. FORMAN
Notary Public, Philadelphia, Phila. County
My Commission Expires November 20, 1961

NORTH CAROLINA,
Mitchell County

On the 10th day of Feb - Anno Domini 1958, before me, the subscriber, personally appeared John Phillips of the said Empire Mica Company, Inc. who being duly sworn according to law, says that he was personally present at the execution of the above MINING LEASE and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said MINING LEASE was duly sealed and delivered by Sam L. Phillips, President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned; and that the names of this Sam L. Phillips as President and of John Phillips as Secretary of the said corporation, subscribed to the above MINING LEASE in attestation of its due execution and delivery, are of their and each of their respective handwriting.

and subscribed before me the day and year aforesaid. Witness my hand and notarial seal.

Kenneth R. McKenney
Notary Public

My Commission Expires:
8/29/59

DMEA
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DATE	INITIALS	COPY

ZOOB & MATZ
ATTORNEYS AT LAW
1620 WESTERN SAVING FUND BUILDING
BROAD AND CHESTNUT STREETS
PHILADELPHIA 7

Clarissa Mine

1 - 15 - 58

Will forward leases and consent's to lien in a few days. Wed for recept

Form MF-103
Revised Feb. 1957

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)

Empire Mica Company, Inc.
% Sam L. Phillips
Spruce Pine, North Carolina

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA- 4920
Date Received: 1/17/58
Government Participation %:
Region: V
Division Code: 600

BUSINESS ORGANIZATION (Check one)

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

State in which firm is organized: N.C.

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
Sam L. Phillips	Spruce Pine, N.C.	President
John Phillips	Spruce Pine, N.C.	Vice President
Donald S. Cohan	110 Morris Building, 1421 Chestnut St., Philadelphia 3, Pa.	Secretary & Treas.

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

Estimated Cost of Project: $ 17,050.00

LOCATION OF PROPERTY

Name	County	State
Clarissa Mine 2½ miles E. of Bakersville	Mitchell	N.C.

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order-I, Amended, "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.

1-15-58
Dated

Sam L. Phillips
BY *(Signature)*

President
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, Amended.

(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.

* * * * *

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MF - 103 (Continuation Sheet)

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1. (a) Description on lease.

   (b) Prospect will be known as the Clarissa Mine.

   (c) Lessee

   (d) No lien.

2. (a) thru (f) See attached sheet.

3. (a) and (b) See attached sheet.

4. (a) We propose to bulldoze away 40' of overburden, build a head frame, and sink a 5' X 7' shaft 150' deep, then drift 150' with vein.

   (b) No road to build

   (c) Work can begin within 15 days after contract is received, and project can be completed within 12 months.

5. Now on file with D.E.M.A.

6. Estimated Cost of Project:

80 hrs. bulldozing @ $10.00 per hour - - - - - - -	$ 800.00
Head Frame -	500.00
150' Shaft @ $70.00 per foot - - - - - - - - - - -	10,500.00
150' Drift @ $35.00 per foot - - - - - - - - - - -	5,250.00
Total estimated cost of project:	$ 17,050.00

7. (a) Will share cost of proposed project.

   (b) Money and equipment.

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CLARISSA MINE

The Clarissa mine is 2½ miles due east of Bakersville, on the west side of a small cove about 900 yards north of Cane Creek. It was first worked by Joseph Buchanan and Neal Leatherman about 1870 but was later purchased by Henry A. Clapp, who considered it the best of their properties. It has been reputed to be the best mica mine in the State. Some question has arisen as to the ownership of the property, but the greater part of the deposit appears to be owned by Mrs. Ella Clapp Thompson, of Washington, D.C. (a daughter of H.A. Clapp), and Mrs. V.P. Cibotti, of Philadelphia, Pa., and part of the east end of the workings is held by Vance Brown, of Asheville, N.C. Col. J.K. Irby estimates that up to 1896 the mine had yielded mica worth about $175,000.

The workings extend from the bed of the stream in the cove about 150 yards S. 60° W. up to and across the summit of a small ridge that stands about 75 feet higher than the stream. Practically nothing can be seen of the workings except a depression about 75 yards long 20 to 30 feet wide, and 5 to 15 feet deep, formed by old surface workings and by the caving of underground workings. A few pits were opened between the end of this depression and the summit of the hill. Dumps were cast up along the workings, but the principal dump was at the foot of the hill. Here at the bottom of the cove an immense pile of waste was accumulated, but by being worked over for scrap and by washing down in floods it has now been spread out over a large area.

Information regarding the early workings was given to J. A. Holmes in 1892 by Thomas Grindstaff, Col. J.G. Irby, and a Manning Buchanan, and all this information, supplemented by measurements made by J.A. Holmes, has been abstracted below. The later work at the mine is described by B.B. Westphalen, the mine superintendent, in a report prepared for Mrs. Thompson. Westphalen's report is also abstracted below. J.A. Holmes's notes follow:

Remains of prehistoric workings were found around the Clarissa mine.

These workings consisted of a large amphitheatral cut in the northeast side of the ridge. Large trees were found in this cut and in the dumps. In 1896 a Chestnut tree that measured 12 feet in circumference 3 feet above the ground was still standing in the dump.

On the west slope of the ridge at the southwest end of the workings there is a shaft about 15 feet deep, and there is another of the same depth 23 feet to the northeast. Mica was found in both shafts, but the ground between them was not worked out. A 40 foot shaft was sunk 71 feet northeast of the shaft last mentioned, but it did not find much mica. A shaft was sunk to a depth of more than 60 feet over the summit of the ridge. About 72 feet northeast of the s haft over the summit of the ridge, in an open cut, is the Gooseneck shaft sunk by Colonel Irby to a depth of about 100 feet. About 50 feet farther northeast another shaft, called the Gooseneck No. 2. also about 100 feet deep, was carried from the bottom of the amphitheatral cut. The vein was not thoroughly worked out southwest of the Gooseneck shaft, but between this and Gooseneck No. 2 most of the mica was stoped out. The Clarissa or Engine shaft is 133 feet north east of the Gooseneck shaft No. 2. It was worked to a depth of 312 feet. From the bottom of this shaft the work slopes up toward the Gooseneck No. 2 on the southwest and to the pump shaft in the Spread Eagle mine on the northeast. This was the limit of the Clarissa mine, the property adjoining it on the northeast being known as the Spread Eagle mine.

The Spread Eagle shaft is 35 feet east of the pump shaft. It was nearly as deep as the Clarissa shaft, and was used as the engine shaft for the Spread Eagle mine. Another shaft (Spread Eagle) No. 2) was sunk 23 feet northeast of shaft No. 1; but not as deep. Still another shaft 20' deep was used to pump the surface water from the Spread Eagle mine. The ground was largely worked out between the Spread Eagle No. 2, the Spread Eagle No. 1, and the Clarissa shafts. The workings stoped

Southwest from the bottom of the Spread Eagle No.2 to the bottom of the Clarissa shaft.

The abstract from Westphalens report follows:

Three shoots or chimneys of mica were worked within a space of 150 feet northeast and southwest. These were called the Spread Eagle, Briny Deep, and Gooseneck. All were sunk to considerable depths by different persons, the Briny Deep being carried down 175 feet by Mr. Westphalen and opened by drifts and stopes. In this working the stopes were worked out by 3-foot benches, and in some of the larger stopes there were as many as 10 of these benches, one above the other. A large force of men worked at the mine during the day and a small force at night. Blasting was done twice a day, water was raised in 50-gallon oil barrels at the rate of one barrel every 15 minutes. Other parties carried on mining by less systematic methods. Waste rock was allowed to accumulate or was dumped into older workings which made them difficult to reopen.

The vein was inclosed in hard, firm walls below the zone of surface weathering and had a high to vertical dip. Its thickness was variable ranging from a few feet to 10 feet, but as the vein bulged or pinched in places it averaged nearly 8 feet. The bulges were so rich in fine crystals of mica that it was difficult to drill without injuring the crystals.

A study of the present surface indications shows that the country rock is hornblende gneiss interbedded with muscovite-biotite schist and gneiss. The mica schist and gneiss form the wall rock of the pegmatite. The pegmatite strikes about northeast and is approximately conformable with the gneiss. Potash, feldspar, quartz, small mica, and opaque and garnets were observed in the dump. The mica has a fine clear rum color and good flat cleavage.

This report taken from Mica Deposits of the United States -

By - D.B. Sterrett - 1923

DMRC

CLARISSA MICA MINE

MITCHELL COUNTY, NORTH CAROLINA

The Clarissa Mica Mine is about 300 yards north of Cane Creek and 4.5 miles east of Bakersville, Mitchell County, North Carolina. It is easily accessible at all times by cars.

The deposit was discovered about 1870 and worked estensively until about 1920. Since 1920 various parts of the deposit have been worked; however, except for reworking muck accumulated on lofts, no work has been conducted underground in the northeastern part of the deposit (interval between the "Gooseneck" and "Spread Eagle" shafts) since they were abandoned after World War I.

Workings at this place extend over a strike length of about 450 feet and the deepest workings reach a depth of about 320 feet. Apparently all openings were made in the same pegmatite which has a strike of about N. 60° E. and a dip of about 65° S E. The pegmatite is reported to be generally conformable to the mica gneiss wall rock and it ranges in thickness from about 2 to 10 feet. Mica is reported to have been concentrated along the hanging wall but in places occurred throughout the pegmatite. Workings southwest of the "Gooseneck" shaft are about 100 feet deep and those northeast of it are about 300 feet deep.

Mica from the Clarissa Mine is of exceptionally good quality. In the interval between the "Gooseneck" and "Spread Eagle" shafts three mica "shoots" are reported. These "shoots" were from 20 to 30 feet along strike and at least one of them continues below the bottom (at the bottom of the "Spread Eagle" shaft,") as reported by Edgar Buchanan who was working on the lowest level, at the time the mine was abandoned in 1920. He reports that the "shoot" was about 20 feet along strike and 2 feet thick. All of the "shoots" raked steeply to the northeast.

Southwest of the "Gooseneck" shaft mica is present in the pegmatite, but is reported to be less rich than to the northeast, although the quality was similar. The last underground work at the Clarissa Mine was done in 1952 by Ira, O.H. and Edgar Buchanan from the "Manning Buchanan" shaft (second shaft from southwest end). Al-

though some mica was obtained from this operation, the operations did not have adequate equipment to continue, thus they found employment elsewhere.

Future attempts to produce mica from the Calrissa deposit face several problems. In the northeastern part of the deposit water has always been a problem and was one of the causes of this portion of the mine being abandoned. In order to reopen the "Spread Eagle" shaft adequate pumping facilities will be a "must". The shaft will have to be retimbered down to the top of rock (20-30 feet), and muck will have to be cleaned out and some new stills installed in that part of the shaft that is in unweathered rock. Once the shaft is reopened, water will be a continuing problem. Once the reconditioning is completed, mica production can begin.

In the southwestern part of the deposit water is no problem. The principal problem in this area is to secure entrance. In 1952 the "Manning Buchanan" shaft was in use, however, it is untimbered and is not safe.

The most attractive approach to exploring the southwest end of the deposit is to strip the surface about 40 feet southeast of the "Blain Buchanan" shaft, leaving natural drainage and sink a vertical shaft to intersect the pegmatite at approximately the 80 foot level, then incline the shaft on the pegmatite and continue sinking to a depth of 150 feet. Drifts should then be driven in both directions with work concentrated to the northeast. At least 150 feet of drift will be needed. It is believed that the sinking of an 150foot vertical and inclined shaft would be more desirable than reconditioning existing shafts because the new shaft could be made safe from the beginning and it would be entirely in undisturbed ground.

The possibility of core drilling the deposit has been considered before further exploration work; however, the continuous character of the pegmatite along strike and also on dip seems to remove the need for a core drilling program prior to shaft sinking.

Fewer operational problems will be encountered in exploration and later mining if work is directed towards opening that portion of the deposit southwest of the "Gooseneck Shaft" as outlined above. If a profitable mining venture results from

exploration of this portion of the deposit, and there are good reasons to believe that this will happen, profits from the operation can be used to reopen the "Spread Eagle" shaft.

THE GREAT STATE OF NORTH CAROLINA, COUNTY OF MITCHELL

THIS MINING LEASE, made this 2nd day of January, 1958, by and between GRAHAM FRENCH, of Philadelphia, Pennsylvania, (hereinafter referred to as "OWNER") and the EMPIRE MICA MINES, INC., a North Carolina corporation, (hereinafter referred to as "LESSEE.")

W I T N E S S E T H :

That, for and in consideration of the performance of the conditions and agreements and the payment of rental by the Lessee as hereinafter stated, the Owner hereby bargains, leases and grants unto the Lessee, its successors and assigns, for a period of time hereinafter defined below, the minerals, mining rights and privileges, as hereinafter stated, on a certain tract of land, described as follows:

Certain real property in Cane Creek Township, Mitchell County, North Carolina, situate about three miles northeast of the Town of Bakersville, known as the CLARISSA mining property and described as follows:

FIRST: A certain tract of land bounded as follows: BEGINNING on a buckeye, an old corner, and runs thence South 60 deg. 30 min. West 218 feet to a sycamore, now a concrete monument; thence South 43 deg. 30 min. West 257 feet to a black walnut; thence South 18 deg. East 403 feet crossing the public road to a concrete monument near a cherry tree; thence South 82 deg. 30 Min. West crossing Buchanan branch 218 feet to a concrete monument; thence South 64 deg. West 446 feet to a big rock near a fence marked X; thence North crossing the highway and running with the old fence row and J. L. Morgan's line 957 feet to a large chestnut in said line; thence North 16 1/2 feet to a stake corner; thence East 495 feet to a beech, now a concrete monument; thence South 81 East 313 feet to a buckeye, the BEGINNING corner. Containing 12 acres more or less.

Excepting and reserving from the above conveyance the mineral interest in about one acre of land as described in two certain deeds as shown of record in the Register's Office of Mitchell County.

First: Deed from John L. Buchanan and wife, Polly Buchanan and Blaine Buchanan and wife, Dora Buchanan, to W. Vance Brown, dated January 11, 1919, and recorded January 14, 1919 in Deed Book #71 at page 425.

Second: Deed from John L. Buchanan and wife, Polly Buchanan and Blaine Buchanan and wife, Dora Buchanan to W. Vance Brown, dated February 19, 1919 and recorded March 14, 1919 in Deed Book #71 at page 496.

Also, excepting about one-fourth acre as now staked off and used as a family burying ground; also, about two-tenths acre on the public road described as follows:

BEGINNING on a rock on the public highway and runs North 32 West 76 feet to a stake; thence North 46 East 90 feet to an apple tree; thence South 33 East 94 feet to a stake in the public road; thence with the road South 59 West 85 feet to a rock, the BEGINNING corner.

AND BEING the same property described in a Deed dated 24 June 1937 from Blaine Buchanan and wife, Dora Buchanan to Mrs. Ella Clapp Thompson, recorded in Mitchell County Deed Book 95, page 287.

SECOND: All the mineral or mineral substances of value, with all mining privileges and appurtenances in that tract of land bounded as follows: BEGINNING on a sycamore bush in the branch near the glass house and runs down nearly with the branch to a Black Walnut Thence a direct course across the hill to Cane Creek - Thence with said Creek to the branch below Joseph Buchanan's - Thence with said branch to Joseph Buchanan's line - Thence East with said line to his stake corner. Thence from said corner to the BEGINNING, containing 20 acres, more or less.

AND BEING the same real property as conveyed by Deed dated 25 October 1873 from Joseph K. Irby and wife, S. E. Irby to John G. Heap and E. B. Clapp, recorded in Mitchell County Deed Book 7, page 427.

THIRD: A tract of land 5 feet square, marked by concrete corners, in the center of which was the location of a Spanish Oak, the beginning corner of an entry made by John Buchanan 21 November 1835, under Yancey County Warrant No. 709, and more definitely described in a Deed dated 20 June 1919 from Ed Stamey and wife, Larcena Stamey to E. St. Clair Thompson, recorded in Mitchell County Deed Book 72, page 474.

TO HAVE AND TO HOLD the said premises for mining purposes unto the Lessee, its successors and assigns, upon a period of time fixed in paragraph 1 below upon full compliance with each and all of the following conditions, agreements and requirements.

1. (a) This Lease shall begin as of January 2, 1958, and be and remain in full force and effect for a period of thirteen (13) years (other termination is described hereinafter).

(b) That the rental and royalties under this lease shall be paid in accordance with a certain contract dated January 1958 and executed simultaneously herewith between Graham French, as Owner, and Empire Mica Company, Inc., as Lessee, a copy of which is attached hereto and made a part hereof.

The failure to make the payments as the Lessee and the Owner, at his option, may thereupon terminate this lease, re-enter and take possession of the premises without further notice.

(c) Lessee may, at its option, terminate this Lease by payment in full of the full purchase price for these properties under the terms of an Agreement of Purchase and Sale, which is incorporated herein.

(d) If the Owner deems that the Lessee has failed to comply with any of the provisions of this Agreement, the Owner, at his option, may give written notice to the Lessee of its failure to comply with this Lease, and if reasonably full compliance is not made within thirty (30) days after such written notice, then the Owner, at his option, may declare this Lease terminated and of no further effect and shall have the right to re-enter and take possession of the premises without further notice.

2. Lessee shall have the right to mine, dig, excavate, quarry, search for and obtain mica and any other minerals from said premises.

3. The Lessee shall and hereby expressly agrees to conduct mining operations on said premises in a business-like manner and workman-like manner with due regard to the Owner's rights in the mica and other mineral deposits on said premises, and to that end the Lessee agrees to keep and maintain the mines where it works and all parts thereof in good and sufficient repair, and to work and operate such mines in a good and skillful manner, and, as work progresses, to keep the mines where it works as clean as reasonably practicable, and to keep such mine 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 reasonably prevent the same from slipping or falling in; that no waste will be dumped or placed in any mine, tunnel, cut or shaft.

4. The Owner or his agent shall at all times have the right to enter into the mine and premises for the purpose of inspection and for the purposes of ascertaining if the terms and covenants of this Lease are being in good faith complied with.

5. Upon the expiration or any other termination of this Lease, the Lessee shall have the right to enter upon said premises and remove its machinery and equipment, but in

no event shall the time limit for the removal of said property extend beyond a period of sixty (60) days from the expiration or termination of this Lease, nor shall said property or any part thereof be removed until all of the indebtedness and obligations which may arise hereunder shall have been fully paid.

6. The Lessee shall have a right of ingress and egress over the lands of the Owner so as to conduct mining operations on the above-described premises and shall have the right-of-way for power lines, roads and other ways as may be necessary in mining and removing minerals from said premises.

7. The Lessee shall have a right to construct upon said premises such shanties or other buildings as it may deem necessary to the operations under this Lease, and upon the expiration of this Lease or the sooner termination thereof, such shanties or other buildings shall automatically become and remain the property of the Owner and the Lessee shall have no right to tear down or remove such buildings.

8. The Lessee shall have a right to cut and use from said premises such timber, which the Owner has the right to cut and use, as may be necessary for use in timbering mines on said premises, but the Lessee shall not have the right to cut or remove any timber from said premises for any other purpose.

9. It is agreed that this Lease and Purchase Agreement is not intended to and does not create a joint venture of any kind; and further, that Lessee, at its own expense, will insure Owner against all liability by reason of any mining operation or use of the property in any way that Owner's interest or liability may be effected, if at all.

10. It is expressly understood and agreed by the parties hereto that this Lease and the Agreement to Purchase shall never be transferred or assigned in any manner without the written consent of the Owner.

IN WITNESS WHEREOF, the said Owner and the said Lessee have hereunto signed their signatures and affixed their seals, in duplicate, the day and year first above written.

EMPIRE MICA MINES, Lessee

By Sam L. Phillips
President

Attest:

Secretary

(SEAL)
GRAHAM FRENCH, Owner

COMMONWEALTH OF PENNSYLVANIA :

COUNTY OF PHILADELPHIA :

On the day of Anno Domini 19 , before me, the subscriber, personally appeared GRAHAM FRENCH who acknowledged the due execution of the foregoing MINING LEASE for all the purposes therein expressed.

WITNESS my signature and notarial seal this day of , 195 .

Notary Public

My Commission Expires:

NORTH CAROLINA,
Mitchell County

On the 10th day of Feb. Anno Domini 1958, before me, the subscriber, personally appeared John Phillips of the said Empire Mica Company, Inc. who being duly sworn according to law, says that he was personally present at the execution of the above MINING LEASE and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said MINING LEASE was duly sealed and delivered by Sam L. Phillips, President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned; and that the names of this Sam L. Phillips as President and of John Phillips as Secretary of the said corporation, subscribed to the above MINING LEASE in attestation of its due execution and delivery, are of their and each of their respective handwriting.

and subscribed before me the day and year aforesaid. Witness my hand and notarial seal.

Seal: Kenneth R. McKinney
Notary Public

My Commission Expires:

8-29-59

ZOOB & MATZ
ATTORNEYS AT LAW
1620 WESTERN SAVING FUND BUILDING
BROAD AND CHESTNUT STREETS
PHILADELPHIA 7

THE GREAT STATE OF NORTH CAROLINA, COUNTY OF MITCHELL

THIS MINING LEASE, made this 2nd day of January, 1958, by and between GRAHAM FRENCH, of Philadelphia, Pennsylvania, (hereinafter referred to as "OWNER") and the EMPIRE MICA MINES, INC., a North Carolina corporation, (hereinafter referred to as "LESSEE.")

W I T N E S S E T H :

That, for and in consideration of the performance of the conditions and agreements and the payment of rental by the Lessee as hereinafter stated, the Owner hereby bargains, leases and grants unto the Lessee, its successors and assigns, for a period of time hereinafter defined below, the minerals, mining rights and privileges, as hereinafter stated, on a certain tract of land, described as follows:

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FIRST: A certain tract of land bounded as follows: BEGINNING on a buckeye, an old corner, and runs thence South 60 deg. 30 min. West 218 feet to a sycamore, now a concrete monument; thence South 43 deg. 30 min. West 257 feet to a black walnut; thence South 18 deg. East 403 feet crossing the public road to a concrete monument near a cherry tree; thence South 82 deg. 30 Min. West crossing Buchanan branch 218 feet to a concrete monument; thence South 64 deg. West 446 feet to a big rock near a fence marked X; thence North crossing the highway and running with the old fence row and J. L. Morgan's line 957 feet to a large chestnut in said line; thence North 16 1/2 feet to a stake corner; thence East 495 feet to a beech, now a concrete monument; thence South 81 East 818 feet to a buckeye, the BEGINNING corner. Containing 12 acres more or less.

Excepting and reserving from the above conveyance the mineral interest in about one acre of land as described in two certain deeds as shown of record in the Register's Office of Mitchell County.

First: Deed from John L. Buchanan and wife, Polly Buchanan and Blaine Buchanan and wife, Dora Buchanan, to W. Vance Brown, dated January 11, 1919, and recorded January 14, 1919 in Deed Book #71 at page 425.

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Also, excepting about one-fourth acre as now staked off and used as a family burying ground; also, about two-tenths acre on the public road described as follows:

BEGINNING on a rock on the public highway and runs North 32 West 76 feet to a stake; thence North 46 East 90 feet to an apple tree; thence South 32 East 94 feet to a stake in the public road; thence with the road South 59 West 85 feet to a rock, the BEGINNING corner.

AND BEING the same property described in a Deed dated 24 June 1937 from Blaine Buchanan and wife, Dora Buchanan to Mrs. Ella Clapp Thompson, recorded in Mitchell County Deed Book 95, page 287.

SECOND: All the mineral or mineral substances of value, with all mining privileges and appurtenances in that tract of land bounded as follows: BEGINNING on a sycamore bush in the branch near the glass house and runs down nearly with the branch to a Black Walnut Thence a direct course across the hill to Cane Creek - Thence with said Creek to the branch below Joseph Buchanan's - Thence with said branch to Joseph Buchanan's line - Thence East with said line to his stake corner. Thence from said corner to the BEGINNING, containing 20 acres, more or less.

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TO HAVE AND TO HOLD the said premises for mining purposes unto the Lessee, its successors and assigns, upon a period of time fixed in paragraph 1 below upon full compliance with each and all of the following conditions, agreements and requirements.

1. (a) This Lease shall begin as of January 2, 1958, and be and remain in full force and effect for a period of thirteen (13) years (other termination is described hereinafter).

(b) That the rental and royalties under this lease shall be paid in accordance with a certain contract dated January 1958 and executed simultaneously herewith between Graham French, as Owner, and Empire Mica Company, Inc., as Lessee, a copy of which is attached hereto and made a part hereof.

The failure to make the payments as the Lessee and the Owner, at his option, may thereupon terminate this lease, re-enter and take possession of the premises without further notice.

(c) Lessee may, at its option, terminate this Lease by payment in full of the full purchase price for these properties under the terms of an Agreement of Purchase and Sale, which is incorporated herein.

(d) If the Owner deems that the Lessee has failed to comply with any of the provisions of this Agreement, the Owner, at his option, may give written notice to the Lessee of its failure to comply with this Lease, and if reasonably full compliance is not made within thirty (30) days after such written notice, than the Owner, at his option, may declare this Lease terminated and of no further effect and shall have the right to re-enter and take possession of the premises without further notice.

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3. The Lessee shall and hereby expressly agrees to conduct mining operations on said premises in a business-like manner and workman-like manner with due regard to the Owner's rights in the mica and other mineral deposits on said premises, and to that end the Lessee agrees to keep and maintain the mines where it works and all parts thereof in good and sufficient repair, and to work and operate such mines in a good and skillful manner, and, as work progresses, to keep the mines where it works as clean as reasonably practicable, and to keep such mine 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 reasonably prevent the same from slipping or falling in; that no waste will be dumped or placed in any mine, tunnel, cut or shaft.

4. The Owner or his agent shall at all times have the right to enter into the mine and premises for the purpose of inspection and for the purposes of ascertaining if the terms and covenants of this Lease are being in good faith complied with.

5. Upon the expiration or any other termination of this Lease, the Lessee shall have the right to enter upon said premises and remove its machinery and equipment, but in

no event shall the time limit for the removal of said property extend beyond a period of sixty (60) days from the expiration or termination of this Lease, nor shall said property or any part thereof be removed until all of the indebtedness and obligations which may arise hereunder shall have been fully paid.

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IN WITNESS WHEREOF, the said Owner and the said Lessee have hereunto signed their signatures and affixed their seals, in duplicate, the day and year first above written.

EMPIRE MICA MINES, Lessee

By Sam L. Phillips
President

Attest:

Secretary

(SEAL)
GRAHAM FRENCH, Owner

COMMONWEALTH OF PENNSYLVANIA :

COUNTY OF PHILADELPHIA :

On the day of Anno Domini 19 , before me, the subscriber, personally appeared GRAHAM FRENCH who acknowledged the due execution of the foregoing MINING LEASE for all the purposes therein expressed.

WITNESS my signature and notarial seal this day of , 195 .

Notary Public

My Commission Expires:

NORTH CAROLINA,
Mitchell County

On the 10th day of Feb- Anno Domini 19 58, before me, the subscriber, personally appeared John Phillips of the said Empire Mica Company, Inc. who being duly sworn according to law, says that he was personally present at the execution of the above MINING LEASE and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said MINING LEASE was duly sealed and delivered by Sam L. Phillips, President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned; and that the names of this Sam L. Phillips as President and of John Phillips as Secretary of the said corporation, subscribed to the above MINING LEASE in attestation of its due execution and delivery, are of their and each of their respective handwriting.

and subscribed before me the day and year aforesaid. Witness my hand and notarial seal.

Seal: Kenneth L. McKinney
Notary Public

My Commission Expires:

8-29-59

ZOOB & MATZ
ATTORNEYS AT LAW
1620 WESTERN SAVING FUND BUILDING
BROAD AND CHESTNUT STREETS
PHILADELPHIA 7

THE GREAT STATE OF NORTH CAROLINA, COUNTY OF MITCHELL

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By Sam L. Phillips
President

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Secretary

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GRAHAM FRENCH, Owner

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NORTH CAROLINA,
Mitchell County

On the 10th day of Feb. Anno Domini 1958, before me, the subscriber, personally appeared John Phillips of the said Empire Mica Company, Inc. who being duly sworn according to law, says that he was personally present at the execution of the above MINING LEASE and saw the common or corporate seal of the said corporation duly affixed thereto; that the seal so affixed thereto is the common or corporate seal of the said corporation; that the said MINING LEASE was duly sealed and delivered by Sam L. Phillips, President of the said corporation, as and for the act and deed of the said corporation, for the uses and purposes therein mentioned; and that the names of this Sam L. Phillips as President and of John Phillips as Secretary of the said corporation, subscribed to the above MINING LEASE in attestation of its due execution and delivery, are of their and each of their respective handwriting.

and subscribed before me the day and year aforesaid. Witness my hand and notarial seal.

Seal: Kenneth R. McKinney
Notary Public

My Commission Expires:

8-29-58

ZOOB & MATZ
ATTORNEYS AT LAW
1620 WESTERN SAVING FUND BUILDING
BROAD AND CHESTNUT STREETS
PHILADELPHIA 7

FM-205
(Combined and supersedes ML-201 and ML-203)
June, 1956

FOR GOVERNMENT'S USE ONLY

Exploration 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) See attached sheet.

(1) Money 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 1-3-1958, and recorded in book 120, page 57, official record of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space is insufficient, use an annex and refer to the annex in the space.

FIRST: A certain tract of land bounded as follows: BEGINNING on a buckeye, on old corner, and runs thence South 60 deg. 30 min. West 218 feet to a sycamore, now a concrete monument; thence South 43 deg. 30 min. West 257 feet to a black walnut; thence South 18 deg. East 403 feet crossing the public road to a concrete monument near a cherry tree; thence South 82 deg. 30 min. West crossing Buchanan branch 218 feet to a concrete monument; thence South 64 deg. West 446 feet to a big rock near a fence marked X; thence North crossing the highway and running with the old fence row and J.L. Morgan's line 957 feet to a large chestnut in said line; thence North 16 1/2 feet to a stake corner; thence East 495 feet to a beech, now a concrete monument; thence South 81 East 313 feet to a buckeye, the BEGINNING corner. Containing 12 acres more or less.

Excepting and reserving from the above conveyance the mineral interest in about one acre of land as described in two certain deeds as shown of record in the Register's Office of Mitchell County.

First: Deed from John L. Buchanan and wife, Polly Buchanan and Blaine Buchanan and wife, Dora Buchanan, to W. Vance Brown, dated January 11, 1919, and recorded January 14, 1919 in Deed Book #71 at page 425.

Second: Deed from John L. Buchanan and wife, Polly Buchanan and Blaine Buchanan and wife, Dora Buchanan to W. Vance Brown, dated February 19, 1919 and recorded March 14, 1919 in Deed Book #71 at page 496.

Also, excepting about one-fourth acre as now staked off and used as a family burying ground; also, about two-tenths acre on the public road described as follows:

BEGINNING on a rock on the public highway and runs North 32 West 76 feet to a stake; thence North 46 East 90 feet to an apple tree; thence South 33 East 94 feet to a stake in the public road; thence with the road South 59 West 85 feet to a rock, the BEGINNING corner.

ZOOB & MATZ
ATTORNEYS AT LAW
1620 WESTERN SAVING FUND BUILDING
BROAD AND CHESTNUT STREETS
PHILADELPHIA 7

FM-205
(Combined and supersedes ML-201 and ML-203)
June, 1956

FOR GOVERNMENT'S USE ONLY

Exploration Project Contract

Operator _____

Docket No. DMEA _____

Contract No. IDM-X _____

Contract Date _____

CONSENT TO LIEN

AND

SUBORDINATION AGREEMENT (1)

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AND BEING the same property described in a Deeddated 24 June 1937 from Blaine Buchanan and wife, Dora Buchanan to Mrs. Ella Clapp Thompson, recorded in Mitchell County Deed Book 95, page 287.

SECOND: All the mineral or mineral substances of value, with all mining privileges and appurtenances in that tract of land bounded as follows: BEGINNING on a sycamore bush in the branch near the glass house and runs down nearly with the branch to a Black Walnut Thence a direct course across the hill to Cane Creek - Thence with said Creek to the branch below Joseph Buchanan's - Thence with said branch to Joseph Buchanan's line - Thence East with said line to his stake corner. Thence from said corner to the BEGINNING, containing 20 acres, more or less.

AND BEING the same real property as conveyed by Deed dated 25 October 1873 from Joseph K. Irby and wife, S. E. Irty to John G. Heap and E. B. Clapp, recorded in Mitchell County Deed Book 7, page 227.

THIRD: A tract of land 5 feet square, marked by conp crete corners, in the center of which was the location of a Spanish Oak, the beginning corner of an entry made by John Buchanan 21 November 1835, under Yancey County Warrant No.709, and more definitely described in Deed dated 20 June 1919 from Ed Stamey and wife, Larcena Stamey to E. St. Clair Thompson, recorded in Mitchell County Deed Book 72, page 474.

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 thereupon, to secure the payment to the Government of a percentage royalty on the production as may be provided for by the contract;

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

4. Represents and undertakes that there is no claim, lien or encumbrances upon the undersigned's right, title, claim or interest in or against the land other than the following: (If none, insert the word none in quotation marks.) None

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 right under this agreement to any subsequent transferee, mortgagee, encumbrancers, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production thereupon, 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.

7. Added Provision: None

(State none in quotations or "see annex No. _____")

Dated this 11th day of Feb., 1958.

Witness:
David B. Zook

Signed:
Graham French (SEAL) 2128 DeLancey Pl. Phila. Pa. (ADDRESS)

_____ (SEAL) _____ (ADDRESS)

_____ (SEAL) _____ (ADDRESS)

_____ (SEAL) _____ (ADDRESS)

_____ (SEAL) _____ (ADDRESS)

_____ (SEAL) _____ (ADDRESS)

I, _____, certify that I am the _____ (secretary, etc.) of the Corporation named herein; that _____ who signed this agreement was then _____ (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.

_____ (Corporate Seal)

FM-205
(Combined and supersedes ML-201 and ML-203)
June, 1956

FOR GOVERNMENT'S USE ONLY

Exploration Project Contract

Operator _____

Docket No. DMEA _____

Contract No. IDM-E _____

Contract Date _____

CONSENT TO LIEN

AND

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_____ (SEAL) _____ (ADDRESS)

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(Corporate Seal)

ZOOB & MATZ
ATTORNEYS AT LAW
1620 WESTERN SAVING FUND BUILDING
BROAD AND CHESTNUT STREETS
PHILADELPHIA 7

EXTRACT
DMEA
RECEIVED MAY 28 1958
DATE | TIME | CODE

May 26, 1958

Memorandum

To: Operating Committee, DMEA, Washington

From: DMEA Field Team, Region V, Knoxville

Subject: DMEA-4920, CLARISSA MINE, Mitchell County, N. C. (Mica)

Reference is made to Mr. Houk's telephone call of May 22.

We understand that the adjacent area to the northeast of the Clarissa Mine is under lease to Sam Phillips and associates. They are now pumping out the Spread Eagle shaft.

Therefore, we suggest that action on the subject application be held in abeyance until a field examination of the Spread Eagle shaft can be made. Of course, it should be noted that processing of the application probably cannot be completed before June 30 under these conditions, as it is unlikely that the examination could be made before June 5 at the earliest.

Robert A. Laurence
Executive Officer

V. J. Lynch
Member, Bureau of Mines

cc: Opr. Com. (2)

DMEA
RECEIVED MAY 28 1958
DATE | INITIALS | CODE

May 26, 1958

Memorandum

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From: DMEA Field Team, Region V, Knoxville

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Robert A. Laurence
Executive Officer

V. J. Lynch
Member, Bureau of Mines

cc: Opr. Com. (2)

D
RECEIVED M 19
DATE CODE

Memorandum

May 16, 1958

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4920 (mica), Empire Mica Company, Inc., Clarissa mine, Mitchell County, North Carolina.

The examining team recommend denial of the application on the principal grounds that the old mine is worked out. The Clarissa mine is one of the oldest mines in the Spruce Pine district. Much high grade mica has come from the mine.

The examiners point out that the pegmatite that remains in the southwest part of the property is not rich enough in good mica to warrant further exploration. The applicant proposed to sink a 150-foot shaft and drift 150 feet to explore the unfavorable area. WPW

J. J. Page, U. S. Geological Survey, in an unpublished report, dated August 4, 1943, makes some exploration recommendations about the northeast part of the property. Page states, "...possibilities for future work at the mine that appear best are: (1) work on the thick pegmatite reportedly left at the northeast end of the mine..."

The examiners did not comment upon exploration possibilities along the lines of Page's recommendations. Is it possible that conditions to the northeast of the old mine are promising enough to warrant initial work consisting of bulldozer trenching, to be followed, possibly, by a shaft if the trenching is successful?

I agree with the examining team's recommendation that the applicant's proposal be denied.

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

W. P. Williams

WPWilliams:pbb
G-MD: 5/16/58

Memorandum May 16, 1958

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

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W. F. Dietrich, 3061
Docket file
Chron. file
Director's reading
Branch reading

W. P. Williams

WPWilliams:pbb
G-MD: 5/16/58

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

May 16, 1950

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4920 (mica)

Applicant: Empire Mica Company, Inc.

Name and Location of Property: Clarissa Mine, Mitchell County, N. C.

Date of Field Team Report: 5/5/50

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 5/8/50

Field Team Recommendation: Recommend denial of application.

Comments:

1. The Clarissa Mine is the second oldest mica mine in the Spruce Pine district, reportedly having been worked as early as 1869.

2. Excellent production has been obtained from this mine. The mine was last worked in 1952, mostly by bulldozer, and $25,000 worth of good quality mica was reportedly recovered.

3. The report by J. J. Page (1943) states that the southwestern part of the mine probably has no reserves, but reserves might exist in the northeast part of the mine.

Recommendation:

I concur with the recommendation of the field team in denial of the application as submitted and on the evidence of the field team examination; however, consideration might be given to another more reasonable proposal to explore the northeast part of the mine. Perhaps the applicant should be advised to do more work which would allow for a more inclusive examination.

Signed
W. F. Dietrich

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

May 16, 1950

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4920 (mica)

Applicant: Empire Mica Company, Inc.

Name and Location of Property: Clarissa Mine, Mitchell County, N. C.

Date of Field Team Report: 5/5/50

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 5/9/50

Field Team Recommendation: Recommend denial of application.

Comments:

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Signed
W. F. Dietrich

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/6	Houk	600
3/6	Selfridge	120
		110
3/6	C	220
		600

600

MAR 6 1959

Empire Mica Company, Inc.
c/o Mr. Sam L. Phillips
Spruce Pine, North Carolina

Re: Docket No. DMEA-4920-~~Mica~~
Empire Mica Company, Inc.
Clarissa Mine
Mitchell County, North Carolina

Gentlemen:

Reference is made to our letter of January 29, 1959, regarding action required to make your DMEA application eligible for consideration under the OME regulations.

We wish to cooperate with you in allowing ample time to complete such action, but, if we do not hear from you within 30 days from the date of this letter, we will assume that you are no longer interested in proceeding with your application, and we will consider it as having been withdrawn.

Sincerely yours,

(signed) FRANK E. JOHNSON (pt)

Acting Director

LGHouk:gad 3/5/59
Copy to: Dir. R. File
Region V
Mr. Kiilsgaard, USGS
Mr. Dietrich, USBm

no response received to date
4-13-59
gad

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Washington 25, D. C.

January 31, 1959

Memorandum for Docket

Subject: Withdrawal of Pending DMEA Applications

Effective this date, this pending DMEA application is considered withdrawn for statistical purposes.

If, at a later date, the applicant requests reconsideration under the OME program, all pertinent material in the DMEA file should be transferred to the new OME docket.

Frank E. Johnson
Acting Director

DMEA Form 7
(12-56)

JAN 29 1959

600

OFFICIAL FILE COPY

Date	Surname	Code
1/14	Houk	600
1/22	Selfridge	120 ✓
		~~110~~
1/29	C	220
		600

Empire Mica Company, Inc.
c/o Mr. Sam L. Phillips
Spruce Pine, North Carolina

Re: Docket No. DMEA-4920-Mica
Empire Mica Company, Inc.
Clarissa Mine
Mitchell County, North Carolina

Gentlemen:

Enclosed is a copy of the regulations for obtaining Federal assistance in financing mineral exploration under which the new Office of Minerals Exploration will operate.

If you wish that your partly-processed DMEA application be considered under the OME regulations, please complete and return four of the copies of the attached application, MME Form 40.

Your attention is called especially to the certification which when signed declares that you would not ordinarily undertake the proposed exploration under current conditions and circumstances at your sole expense, and to Item 1(a) -- and 1(c) if applicable -- which relates to information used to determine your financial eligibility under the new exploration program. Information that is included in your DMEA application need not be repeated in the OME application, but you can add new information if you so desire. Please supply this office with a copy of the lease on the area to the northeast of the Spread Eagle shaft, and a map of the property showing boundary lines. We are returning one copy of the Consent to Lien, dated February 11, 1958, signed by Mr. Graham French.

Also enclosed are six copies of the Lien and Subordination Agreements, MME Form 52, referred to in Item 2(c) of the application, for each tract. Early submittal of five completed copies for each tract will save time in case you apply for exploration assistance under the OME program and a contract is granted.

Please supply evidence that a pegmatite exists in the area northeast of the Spread Eagle shaft. If you do not wish to participate in the OME program, we shall appreciate being so informed.

Sincerely yours,

Frank E. Johnson

Acting Director

LGHouk:gad 1/16/59

Enclosures

Copy to: Dir. R. File
Region V
Mr. Kiilsgaard
Mr. Dietrich
Mr. Houk

8623

DMEA Form 7
(12-56)

OFFICIAL FILE C

Date	Surname	C
9/19	Anderson	600
"	[illegible]	100
		220

SEP 19 1958

Empire Mica Company, Inc.
c/o Sam L. Phillips
Spruce Pine, North Carolina

Re: Docket No. DMEA-4920

Dear Mr. Phillips,

As you have an application for exploration aid pending in our office, perhaps you may wish to study the proposed OME regulations and comment on them before October 17 as provided in the first paragraph of the enclosed notice reprinted from the Federal Register of Sept. 17.

Some time after October 17 when the final regulations become effective, we will send you the new application form so you may furnish any additional information necessary to process your application for aid under the new program.

G. O. Bittendorf

ACTING Director

ASDakan:gjb
Sept. 19, 1958
Copy to: Docket
Dir. R. File
Field Team (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/15	Houk	600
7/16	Martin	130
7/16	Lamb	130
7/16	Kiilsgaard	130
"	Johnson	110
"	Mittendorf	100
7/17	H.g.	220
		P.F.

600

JUL 16 1958

Empire Mica Company, Inc.
c/o Mr. Sam L. Phillips
Spruce Pine, North Carolina

Re: Docket No. DMEA-4920-Mica
Empire Mica Company, Inc.
Clarissa Mine
Mitchell County, North Carolina

Gentlemen:

Early in June we sent you the Department of the Interior Information Service Release dated June 6th which announced that no new Defense Minerals Exploration Administration contracts could be executed after June 30th because of the ending of the present program for exploration assistance.

We regret to inform you that your application, identified above, could not be completely processed before June 30th because of insufficient time to re-examine the property after the Spread Eagle shaft was de-watered.

However, we will be glad to hold your application until the Congress acts on pending legislation to continue exploration aid. If the aid is continued, we will then ask you to state whether you wish us to consider your application under regulations established for the new program.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

LGHouk:rsi 7/16/58
Copy to: Admr. R. File
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623

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

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1/28	C	220
5/2	Houk	600

May 26, 1958

Memorandum

To: Operating Committee, DMEA, Washington

From: DMEA Field Team, Region V, Knoxville

Subject: DMEA-4920, CLARISSA MINE, Mitchell County, N. C. (Mica)

Reference is made to Mr. Houk's telephone call of May 22.

We understand that the adjacent area to the northeast of the Clarissa Mine is under lease to Sam Phillips and associates. They are now pumping out the Spread Eagle shaft.

Therefore, we suggest that action on the subject application be held in abeyance until a field examination of the Spread Eagle shaft can be made. Of course, it should be noted that processing of the application probably cannot be completed before June 30 under these conditions, as it is unlikely that the examination could be made before June 5 at the earliest.

Robert A. Laurence
Robert A. Laurence
Executive Officer

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

May 22, 1958

Mr. L. G. Houk calling Mr. R. A. Laurence in Knoxville, Tenn.

Re: Docket No. DMEA-4920-Mica
Empire Mica Company, Inc.
Clarissa Mine
Mitchell County, North Carolina

I asked Mr. Laurence who was the owner of the land northeast of the Clarissa Mine shaft and he said he did not know but would ask the Field Team when they come in next week. He will advise us of the ownership.

Concerning the maps submitted with the application, he said he did not know how the Applicant obtained the maps but thought possibly they were from the former owner, Mrs. Ella Clapp Thompson. When the ownership of the northeast extension of the pegmatite is known we will resolve the question raised by Mr. Williams's memorandum.

DEFENSE MINERALS ADMINISTRATION

97023

PRODUCTION EXPANSION DIVISION

PROCUREMENT APPLICATIONS

Name of Company and Address _____

Name of Mine and Location _____

Docket No. DMA - _____ Date received by P.E.D. _____

Metals or Minerals involved _____

Length of Contract (preproduction plus production) _____

Amount of Metals or Minerals in tons, units or pounds _____

Floor price or Guaranteed price and whether or not escalated _____

Maximum Government Commitment _____

Comments on Contract: _____

_____

_____

_____

_____

_____

Date sent to Legal Division _____

Date of Recommendation to D.P.A. for Certification _____

Date Certification sent to G.S.A. by D.P.A. _____

Date signed into Contract by G.S.A. _____

Additional Remarks: _____

_____

_____

_____

_____

NOTE: If application is denied, or if it is recommended for change into exploration, etc., please state under additional remarks.

Interior—Duplicating Section, Washington, D. C.

Signed _____

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IN REPLY REFER TO:
DATE | INITIALS | FILE
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

Memorandum

May 16, 1958

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4920 (mica), Empire Mica Company, Inc., Clarissa mine, Mitchell County, North Carolina.

The examining team recommend denial of the application on the principal grounds that the old mine is worked out. The Clarissa mine is one of the oldest mines in the Spruce Pine district. Much high grade mica has come from the mine.

The examiners point out that the Not pegmatite that remains in the southwest part of the property is rich enough in good mica to warrant further exploration. The applicant proposed to sink a 150-foot shaft and drift 150 feet to explore the unfavorable area. WPW

J. J. Page, U. S. Geological Survey, in an unpublished report, dated August 4, 1943, makes some exploration recommendations about the northeast part of the property. Page states, "...possibilities for future work at the mine that appear best are: (1) work on the thick pegmatite reportedly left at the northeast end of the mine..."

The examiners did not comment upon exploration possibilities along the lines of Page's recommendations. Is it possible that conditions to the northeast of the old mine are promising enough to warrant initial work consisting of bulldozer trenching, to be followed, possibly, by a shaft if the trenching is successful?

I agree with the examining team's recommendation that the applicant's proposal be denied.

W. P. Williams

W. P. Williams

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

May 16, 1958

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4920 (mica)

Applicant: Empire Mica Company, Inc.

Name and Location of Property: Clarissa Mine, Mitchell County, N. C.

Date of Field Team Report: 5/5/58

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 5/8/58

Field Team Recommendation: Recommend denial of application.

Comments:

1. The Clarissa Mine is the second oldest mica mine in the Spruce Pine district, reportedly having been worked as early as 1869.

2. Excellent production has been obtained from this mine. The mine was last worked in 1952, mostly by bulldozer, and $25,000 worth of good quality mica was reportedly recovered.

3. The report by J. J. Page (1943) states that the southwestern part of the mine probably has no reserves, but reserves might exist in the northeast part of the mine.

Recommendation:

I concur with the recommendation of the field team in denial of the application as submitted and on the evidence of the field team examination; however, consideration might be given to another more reasonable proposal to explore the northeast part of the mine. Perhaps the applicant should be advised to do more work which would allow for a more inclusive examination.

W. F. Dietrich

W. F. Dietrich

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

May 5, 1958

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5/12	JLL	600

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Field Examination Report - DMEA-4920(mica)
Empire Mica Company, Inc., Spruce Pine, N. C.
Clarissa Mine, Mitchell County, North Carolina

Enclosed are the original and two copies of the field examination report on the Clarissa mine.

Evidence available to the Examiners indicates that the probability of making a significant discovery of strategic mica is not sufficiently good to warrant the expense required. Therefore, we agree with the recommendation for denial.

Accompanying the report is a copy of the1943 USGS report and map. Please note that this map and report have not been open-filed, and therefore should not be used as a contract map, if one should be approved.

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

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

Reviewed by
DMEA OPERATING COMMITTEE
5-9-58
(date)

On-Site Exam Rpt

UNITED STATES

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

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FIELD EXAMINATION REPORT, REGION V

DMEA-4920 (Mica) CLARISSA MINE
Mitchell County, North Carolina

F. G. Lesure, Geologist
U. S. Geological Survey

S. A. Fietler, Mining Engineer
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
5-9-58
(date)

May 2, 1958

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FIELD EXAMINATION REPORT

DMEA-4920 (Mica) CLARISSA MINE
Mitchell County, North Carolina

Applicants: Empire Mica Company, Inc.
c/o S. L. Phillips
Spruce Pine, North Carolina

SUMMARY

The Clarissa Mine is the second oldest mica mine in the Spruce Pine district. Although it has had a good production record no continuous operations have been conducted since 1920. Recent bulldozing has exposed pegmatite left in old workings at the southwest end of the area, but both the amount and the size of the mica present are small. The Field Examiners agree with a previous report by Mr. J. J. Page of the Geological Survey that the southwest end of the property does not warrant further exploration. We recommend that exploration assistance be denied.

INTRODUCTION

Location

The Clarissa Mine is on the east side of Mine Hill about 0.1 mile north of Cane Creek and 0.6 mile N. 60° E. of BM-2602 at Clarissa, Mitchell County, North Carolina (Carvers Gap, North Carolina-Tennessee quad., TVA 1:24,000). The mine is about 0.1 mile north of the Cane Creek road and is accessible at all times.

Examination

The examination of the Clarissa Mine was made on March 18, 1958, and lasted 3 hours. Mr. S. L. Phillips accompanied the examiners.

Previous Operations

The Clarissa Mine is probably the second oldest mica mine in the Spruce Pine district. It was first worked about 1869 and has had a long and detailed history (Sterrett, D. B., 1923, Mica deposits of the United States, U. S. Geol. Survey, Bull. 740, pp. 245-247; Page, J. J., 1943, Clarissa Mine, unpublished U. S. Geol. Survey manuscript, copy attached).

The mine has been worked to depths of 300 feet or more at the northeast end in the stoped area between the Gooseneck and Spread Eagle shafts and about 100 to 150 feet in the southwestern part. None of the underground workings were accessible at the time of the examination.

Bulldozing on both sides of Mine Hill since World War II has removed the upper part of the workings in two cuts 20 to 40 feet deep. One cut is in the area of the Manning Buchanan and Milton McKinney shafts on the southwest side of the hill; the other is between the Blaine Buchanan, Clapp, Blum, Dave Green and ventilation shafts on the east side (see small map). Some of this work was done by Ira, O. H., and Edgar Buchanan in 1952 as mentioned in the application. Mr. S. L. Phillips reported that $25,000 of ruby mica was recovered during the work. The only remaining shaft on Mine Hill is between the Manning Buchanan (2) and the Blaine Buchanan (3). Edgar Buchanan reported that he sank this shaft in 1952 to a depth of 80 feet. He did about 10 feet of drifting to the northeast from the bottom of the shaft. Although the shaft is not timbered it is still open.

Bulldozing at the northeast end of the property has destroyed most of the former surface and covered some of the old shafts. Only the Spread Eagle shaft with a small rotted headframe can be recognized. This shaft is full of water to the collar.

Edgar Buchanan reports that a shaft was sunk 114 feet deep about 100 feet or more northeast of the Spread Eagle shaft under the Colonial Mica program. No pegmatite was found.

No buildings or equipment are on the property. Water and three-phase electric power are readily available.

GEOLOGY

The geology of the Clarissa Mine is described by J. J. Page (1943, Clarissa Mine, unpublished U. S. Geol. Survey manuscript, copy attached). The recent bulldozing has exposed pegmatite left as pillars at the southwest end of the workings near the Manning Buchanan shaft. This pegmatite ranges in thickness from 4 to 6 feet. It is composed of medium to coarse-grained plagioclase, quartz, and muscovite. It is deeply weathered and soft. Manganese stain is common along fractures. Muscovite is not abundant in the exposed pegmatite. It occurs in small books, 2" x 3", and is of good quality.

RECOMMENDATIONS AND DISCUSSION

We recommend that exploration assistance be denied. According to Page (1943, p. 8) pegmatite in the southwestern part of the mine is not rich enough in mica to warrant further exploration. No evidence contrary to this report was seen in the bulldozed trenches. The applicants proposed 150 ft. shaft and 150 ft. of drift are not warranted. Because of the excellent past production in the northeast part of the mine, however, consideration might be given to an alternative plan. This would consist of rehabilitating the Edgar Buchanan shaft for 80 feet, sinking an additional 70 feet, and driving 150 feet of drift. The southwest area of the mine has been prospected to a maximum depth of 100 feet in 5 or more shafts, none of which have apparently been profitable. We feel that the chances of finding significant amounts of

strategic mica in this area are poor and that the amount of work needed to explore the area excessive.

F. G. Lesure, Geologist
U. S. Geological Survey

S. A. Feitler, Mining Engineer
U. S. Bureau of Mines

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CLARISSA MINE
Clarissa P.O., Mitchell County, N.C.

The Clarissa mine is 2.8 miles N86°E of Bakersville, Mitchell County, N.C. and is 0.65 miles N62°E of Clarissa Post Office. The mine is located on the east side of Mine Hill about 0.1 mile north of Cane Creek. Near the northeast end of the workings, a property line divides the mine into the Spread Eagle workings, northeast of the line, and the Clarissa workings, southwest of the line. Both groups of workings are commonly referred to as the Clarissa mine. This is one of the earliest and best known of the mica mines in Western North Carolina and was for many years the source of excellent sheet mica.

In July 1943, the surface and a small part of the underground workings were mapped and studied, and all available data on the location and extent of the inaccessible underground workings were compiled by J.J.Page and V.C.Fryklund, Jr. of the Geological Survey, United States Department of the Interior, as a part of the strategic minerals investigations. This work was done in cooperation with the North Carolina Department of Conservation and Development.

A large part of the underground workings were filled with water at the time of this investigation, and much of the information was obtained from those who had worked in the mine during past operations and from maps and reports made when the mine was partially open. Maps and reports furnished by Mrs. Ella C. Thompson of Bakersville, N.C. were of great assistance. Several other individuals, particularly Blaine Buchanan of Clarissa P.O., George Pitman of Hawk, Frank Fortner of Spruce Pine, and Jesse McKinney of Spruce Pine, also aided in this work.

History

The Clarissa mine was worked in prehistoric times, and although these old workings have been largely destroyed or covered with dump material, a portion of the large amphitheatral cut, described by J.A.Holmes and referred to by Sterrett 1/, can still be seen in the northeast side of the ridge. Large trees were found in this cut and in the dumps. The soft surface material of the pegmatite was removed, and large blocks of mica are reported to have been found protruding from the hard pegmatite when these old workings were uncovered.

1/ Sterrett, D.B., Mica deposits of the United States, U.S. Geol. Survey Bull. 740, p.246, 1923.

The mine is reported to have been found by James Buchanan and was first worked about 1869 by Joseph Buchanan and Neal Leatherman. It apparently was the second mica mine opened in the Spruce Pine District, being preceded only by the Sinkhole. It was purchased

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a short time after it was opened by E.B.Clapp who, with J.G.Heap, owned ~~XXXX~~ many of the largest mica mines in the district at that time. The mica was used for stove windows, and only the largest sizes of sheet mica were acceptable for this use. The Heap and Clapp partnership ended with the death of Clapp in 1874, but intermittent operations at the Clarissa mine were continued.

The record of operations between 1874 and 1915 is incomplete. Rorison, Col. J.K.Irby, and P.H.Abernathy worked the mine about 1887. Griffith and Robinson (~~XX~~ operated about 1897, but previous to this work, Bernard B. Westphalen worked the Briny Deep shaft to a reported depth of 475 feet. Verification of this figure, however, is impossible. Several other operations were probably carried out at the mine during this period, but no information concerning them was obtained.

In the years 1915-1919, the Clarissa workings were operated by the Mountain State Mining Company of Philadelphia, Penna. They opened a new Gooseneck shaft (located on the accompanying surface map) which encountered old workings at a depth of 30 feet. The old lofts are reported to have been worked for almost two years by this company, and considerable mica was obtained. The depth of this part of the mine was also increased by 75 feet. During this same period, the Spread Eagle end of the mine was operated by Jesse McKinney for Ed Young, Charlie Green, Doc Green, and Sam Black. In 1920, the Clarissa was worked by J.E.Burleson.

Frank Fortner operated both the Spread Eagle and the northeast end of the Clarissa in the period October 1940-September 1941. Most of this work was done in the bottom of the mine which was deepened by about 45 feet.

In November 1942, the Ellacy Corporation of Burnsville, N.C., under the direction of Eugene Blum, began operations. One shaft, the Blaine, was deepened so as to extend into the old workings between the Gooseneck and the Little Engine shaft. Another shaft, the Manning Buchanan, was cleaned out and deepened. The Blum shaft was sunk 25 feet west of the Dave Green shaft which also was cleaned out. None of these operations was successful, and work was stopped late in July 1943.

The land and mineral rights to the Clarissa portion of the mine are owned by Mrs. Ella C. Thompson of Bakersville, N.C., daughter of E.B.Clapp. Land and mineral at the Spread Eagle are owned by the Asheville Mica Company. The property line has been in dispute for many years, and use of all but the upper portion of the Spread Eagle shaft by the Asheville Mica Company has been enjoined by court action.

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Workings

The workings at the Clarissa mine extend for 500 feet in a S57°W direction from the bottom of a small cove at the northeast end. Eight shafts were definitely located, and six others are approximately located. Only six of these were open for any distance, and of this number, five were partially filled with water on August 1, 1943. Old reports indicate the presence of several other shafts which could not be definitely located. For example, at least four shafts are reported to have been sunk between the Gooseneck and the Blaine shafts but are not indicated on the map.

The approximate extent of the underground workings are shown on the accompanying longitudinal section. At the northeast end of the mine, all the pegmatite apparently has been removed between the Gooseneck and Spread Eagle shafts, a distance of about 250 feet. The maximum depth of this stope apparently is slightly more than 300 feet. A much smaller stope was entered by the Blum and Dave Green shafts. Little, if any, work was done between this small stope and the Gooseneck, and this unmined portion is known as the Gooseneck Bluff. Possibility of old work in the Gooseneck Bluff is perhaps indicated by the fact that the workings under the Dave Green shaft fill with water from the northeast whenever the water level in that portion of the mine rises above 2680 feet.

A description of the shafts located and numbered on the surface map and longitudinal section is given below. Most of these are vertical for as much as 80 feet near the surface but then are inclined steeply southeast, following the dip of the pegmatite. These shafts enter old works which are filled with lofts on which waste has been piled and now are under water.

1. Milton McKinney.- Southwest end of the workings. Location approximate and depth unknown. A tunnel with a minimum length of 125 feet is reported to extend from the west side of the ridge to a point approximately under this shaft. The trend of this tunnel is about S75°E.

2. Manning Buchanan.- 45 feet N37°E of approximate location of (1). 100 feet deep. In part old work but was cleaned out by Blaine Buchanan and deepened by the Ellsey Corporation in 1942-43. 50 feet from the surface, a drift was run northeastward along the pegmatite for a distance of 38 feet.

3. Blaine Buchanan.- On crest of ridge 55 feet N47°E of (2). Opened by Blaine Buchanan about 1915 and worked by the Mountain State Mining Company to an unknown depth. This company also continued the old 110-foot cross-cut tunnel, which enters from the southeast, into the workings from the shaft.

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4. Clapp.- One of the earliest Heap and Clapp works. Location approximate and depth unknown. Probably 42 feet N56°E of (3).

5. Blum.- Opened in 1943. Depth of 30 feet where old workings were encountered. During this work, timbers were removed which are reported to have been cribbing in a shaft sunk by Milton and Steven Buchanan; this shaft was deeper than the Blum. Used as a manway for work under Dave Green shaft. Located about 25 feet due east of (4).

6. Dave Green.- Reopened in 1943 and is now 107 feet deep. Used as hoist shaft and is 25 feet N80°E of (5).

7. Ventilation.- Probably 25 feet S88°E of the Dave Green. About 55 feet deep and used for ventilation of the Dave Green workings with which it is connected.

8. Goosenock.- 82 feet N37°E of (7). Opened in 1915 by the Mountain State Mining Company and was 30 feet deep. Approximately in the same location as an earlier Goosenock shaft. At 80 feet, old lofts were encountered. During operations of the Mountain State Mining Company, this was used as a manway, and muck and mica were hoisted in the Little Engine shaft.

9. Blaine.- Begun by Blaine Buchanan and completed by the Ellacy Corporation. It is reported to be 30 feet to the old lofts and was continued 25 feet into them. In the most recent work, this was used as a pump shaft. It is 78 feet N57°E of (8).

10. Little Engine.- Last used by the Mountain State Mining Company and probably is at least 250 feet deep. Located 30 feet N65°E of the Blaine shaft.

11. Big Engine.- Also known as the Clarissa and Briny Deep. Located 40 feet N65°E of (10). Bernard B. Westphalen, in a report to Mrs. Ella C. Thompson in 1910, reported the depth of the Briny Deep as 475 feet. The present workings in the bottom of the Spread Eagle shaft are only 313 feet deep according to a survey made at the end of Fortner's work in 1941, and these workings are reported locally to be the deepest in the mine. The depth reported by Westphalen cannot be verified, however. This is the northeast shaft on the Clarissa property.

12. Manway.- Joins the main Spread Eagle shaft at a depth of 40 feet. It is 23 feet N46°E of (11).

13. Spread Eagle.- 313 feet deep according to a survey made at the mine in October 1941 by R.D.Griffey. Locally reported to be the deepest work at the mine. Located 15 feet N67°E of the manway (12). A cross-section through this shaft is shown in the accompanying illustrations.

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14. Pump.- 24 feet N63°E of (13). Old pump shaft reported to be about 20 feet deep and is connected with the SpreadeEagle shaft.

Two other shafts have been opened near the mine but not on the main pegmatite. One of these (15), located 210 feet N76°E of the Spread Eagle shaft, was about 30 feet deep. This appears to be on a parallel pegmatite. A small amount of mica was obtained but was of poor quality. This work was done about 12 years ago. An old shaft (16) is reported to have been opened by Manning Buchanan in the road to the mine, about 12 feet northwest of the branch. This was about 20 feet deep, and considerable small mica was obtained.

Country Rock

The country rock at the Clarissa mine is hornblende gneiss interbedded with mica gneiss and schist which composed the wall rock of the pegmatite. Outcrops are not abundant in the immediate vicinity of the mine, but the cross-cut tunnel near the southwest end of the workings indicates that the country rock is mica gneiss and schist for at least 80 feet southeast of the pegmatite. Near the portal of this tunnel, the rock apparently was hornblende gneiss before weathering caused its alteration to a soft, clayey, micaceous gneiss which is reddish-brown in color. This weathered rock grades almost imperceptibly into mica gneiss which, although it also is deeply weathered, still retains the characteristics of the gneiss. A small tunnel northwest of the Blaine (9) shaft indicates the presence of mica gneiss and schist for at least 25 feet northwest of the pegmatite.

For a distance of 2 or 3 feet on either side of the pegmatite, the rocks are impregnated with pegmatitic material, and mica books are commonly found entirely enclosed in the wall. These books are often euhedral. Several blocks of pegmatite and wall rock on the dump indicated the replacement of the wall rocks by pegmatite. In some instances, small flakes of biotite in pegmatitic material were oriented parallel to the foliation developed by similar flakes in the wall rock. Small inclusions of mica gneiss were partially replaced by the surrounding pegmatite. The rocks in this zone on either side of the pegmatite are very rich in coarse mica flakes, both muscovite and biotite, in addition to the euhedral books mentioned above, and small pink garnets are common.

Medium- to coarse-grained muscovite-biotite gneiss bounds this zone of pegmatized wall rock. Small, euhedral pink garnets as much as 0.1 inch in diameter are abundant, and occasional crystals of blue kyanite as much as 1 inch in length were observed. Sulphides, probably largely pyrrhotite, are minor constituents of the hornblende gneiss.

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The strike of mica gneiss and schist near the mine is N55-70°E but averages about N65°E. Hornblende gneiss in the large outcrops 350 feet east of the Spread Eagle shaft strikes about N25°E. All of the rocks dip steeply, 70-80°, southeast. No indications of the pitch of linear elements in the hornblende gneiss or of minor folds in the mica gneiss were observed.

White quartz veins, carrying traces of sulphides, were seen on the northwest side of the branch 100 feet north of the mica house and in the cross-cut tunnel. The former vein was slightly cross-cutting in relation to the enclosing country rock, but the one in the tunnel was conformable.

Pegmatites

With the exception of two shallow shafts, all of the workings are on a single pegmatite which strikes about N55°E, parallel to the enclosing country rock, and dips southeast at an angle of 62°. The dip steepens with depth as shown on the accompanying cross-section. Most of the mining has been done on the northeast 500 feet of the "vein", but prospects continue down the southwest side of the ridge for an equal distance. Little mica has been found in these prospects, however. The "vein" is composed of interconnected pegmatite lenses which range in thickness from a few inches to more than 10 feet. The average thickness is reported to be 3-4 feet by men living near the mine, but Sterrett 2/ reports

2/ Sterrett, D.B., op. cit., p. 247.

an average of 8 feet. This latter figure may include portions of the pegmatized wall rock, for considerable mica was obtained from this material. About 80 feet below the surface in the Spread Eagle mine, the pegmatite is reported to be 8-12 feet thick. This is the "spread" from which this portion of the mine took its name. Comparatively little work was done in the "spread" because the mica was not concentrated in rich "shoots", and too much rock had to be mined for the amount of mica that was recovered. Under present prices, this portion of the mine would probably pay. No information was available to indicate the depth to which this thick portion of the pegmatite continues. In the Manning Buchanan shaft (2), the pegmatite is at least 5 feet thick, but the southeast wall was not exposed.

The main pegmatite was seen in place at only three places, in the workings entered by the Blum shaft, in the caved opening to the Little Engine shaft, and in the Manning Buchanan shaft. The following description of the mineralogy of the pegmatite is based largely on information obtained from dump material. The pegmatite is largely composed of plagioclase, quartz, and muscovite.

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Plagioclase is often glassy, and index determinations indicate that oligoclase is probably predominant. Gray-blue quartz occurs either with the plagioclase or in thin parallel veins which are in mica gneiss and schist. Mica "capping" (small books of muscovite in quartz) is abundant, particularly near the pegmatite contacts. Muscovite was very abundant in the pegmatite and also in the zone of pegmatized country rock on either side. B.B.Westphalen, in his report to Mrs. Ella C. Thompson, stated that some of the "bulges" in the pegmatite were so filled with large books of No. 1 mica that it was difficult to drill without injuring one or more books. Muscovite books in the wall rock were often perfect six-sided crystals. Very little pegmatite was mined in the bottom of the Spread Eagle shaft in 1941, and most of the mica recovered came from the wall rock. Very little scrap mica was obtained. Reports indicate that three rich "columns" of mica, known as the Gooseneck, Briny Deep, and Spread Eagle, were mined at the Clarissa. The pegmatite between these "columns" also carried considerable mica and was entirely removed. These "columns" apparently pitched steeply in a direction S45°E, almost directly down the dip of the pegmatite.

Other minerals in the pegmatite include garnet, apatite, sulphides, milky quartz, and biotite. Euhedral pink garnets as much as 0.25 inch across were seen in the pegmatite and are slightly larger than similar ones in the wall rock. Irregular masses of fine-grained garnets were observed. Green apatite crystals 0.5 inch in length are also present. Small veinlets of sulphides, possibly pyrrhotite, are found in certain quartz rich portions, and also are found in milky quartz veins. Milky quartz appears to form a component part of the pegmatite in certain portions of the mine. Mica is not associated with this quartz. Books of biotite are occasionally seen in the wall rock as well as in the pegmatite, and one specimen showed intergrowths of biotite and muscovite.

Mica

Mica from the Clarissa mine is reported to be among the finest in the Spruce Pine district. It is a hard, flat ruby mica, and nearly all is clear. A small proportion, perhaps 5%, is somewhat specked, however. Much of the mica is said to have been of large size, but the only records of production available[2] indicate that a very

2/ Kesler, T.L. and Olson, J.C., Muscovite in the Spruce Pine district, North Carolina, U.S. Geol. Survey, Bull. 936-A, table 11, 1942.

large proportion of the mica sold in 1920 consisted of the smaller sizes of sheet. This mica, however, may have been obtained by reworking old lofts. In 1941, the mica was largely recovered from the pegmatized wall rock, and

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during these operations, a negligable amount of scrap mica was obtained because of the size and quality of the individual blocks.

Sales of mica in 1920 consisted of 7,954 pounds of clear sheet mica, 117 pounds of stained sheet, and 4,626 pounds of punch. The size range of clear sheet mica, in percent, is given below.

1½ x 2	58.5%
2 x 2	28.5%
2 x 3	5.6%
3 x 3	2.3%
3 x 4	1.8%
3 x 5	2.3%
4 x 6	0.9%
6 x 8	0.1%

Future Possibilities

The two possibilities for future work at the mine that appear best are: (1) work on the thick pegmatite reportedly left at the northeast end of the mine about 80 feet below the surface, and (2) core-drilling along the strike of the pegmatite northeast of the mine. Further development southwest of the Gooseneck shaft does not appear to be justified although some mica would probably be obtained. The work of the Sillacy Corporation indicated that very little pegmatite and no mica was to be found in the workings under the Dave Green shaft. Although ~~all~~ pegmatite was encountered in the Manning Buchanan shaft (2), the mica recovered was not sufficient to continue operations. The pegmatite southwest of this shaft has been fairly thoroughly prospected but with little success.

Reopening of the main workings does not appear to be practical. This would have to be done from the Spread Eagle shaft unless another shaft were run to the bottom. In this instance, the shaft would have to be sunk through old timbered workings, and the difficulty of this in conjunction with the expensive nature of the pumping facilities necessary to handle the water does not appear to be warranted by information regarding comparatively recent ~~past~~ production in the bottom of the mine.

At the present time, additional development work is planned to work the thick pegmatite reportedly found at a depth of 80 feet in the northeast end of the mine. This is said to be 8-12 feet thick, and although worked unprofitably in 1941, probably would pay under present price conditions. Two possible methods of doing this work are suggested: (1) by pumping out the water in the Spread Eagle shaft and working from it and (2) open a new shaft northeast of all previous workings. The latter

possibility would not require as great pumping facilities as the former, especially if a leg were left between the old and new workings. This new shaft might also locate another "column" of mica for this ground has not been prospected. There is, however, no geologic evidence to confirm this. In addition, all question of a property dispute would be avoided.

Core-drilling might prove to be a practical method of prospecting at the northeast end of the mine. Mica at this end has been found wherever pegmatite was encountered. Under such circumstances, core-drilling along the strike would indicate the presence or absence of pegmatite or the zone of pegmatized ~~[illegible]~~ wall rock which accompanies it. Parallel pegmatites might also be discovered although all those seen carried little mica and were accompanied by little alteration of the wall rock. The lenticular character of the main pegmatite is such that several drill holes should be used, for the drill might encounter the barren portions between lenses.

James J. Page

James J. Page
Asst. Geologist
August 4, 1943

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April 9, 1958

Resume of telephone conversation with Mr. Robert A. Laurence
Knoxville, Tennessee, April 9, 1958

By: Lawrence G. Houk

On the Cloudland (DMEA-4922), and the Clarissa (DMEA-4920) they were just examined last week.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/21	Houk	600
2/21	Anderson	600
2/21	[illegible]	130
"	Johnson	110
"	Shuckendorf	100
2/24	C	220
		680

FEB 21 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-4920-Mica
Empire Mica Company, Inc.
Clarissa Mine
Mitchell County, North Carolina

Dear Mr. Laurence:

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

The longitudinal section provided with the application shows the pegmatite has been explored by numerous shafts in the immediate area of the proposed shaft. A study of the available literature shows the shoots to be of limited horizontal extent but persistent down dip. The shoots appear nearly vertical.

Copies of memoranda dated January 17 and 24, 1958, by Mr. N. E. Nelson, USGS, and Mr. W. F. Dietrich, USBM, respectively, 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 (24B)

Approved:

Frank D. Lamb (24B)
Member, Bureau of Mines

Thor H. Kiilsgaard (24B)
Member, Geological Survey

WCAnderson:rsi 2/21/58
Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

Enclosures 5

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/21	Houk	600
2/21	Anderson	600
2/21	Schwartz	130
2/21	Smith	130
2/21	Kiilsgaard	130
"	Johnson	110
"	Rittenhouse	100
		220

600

FEB 21 1958

Empire Mica Company, Inc.
c/o Sam L. Phillips
Spruce Pine, North Carolina

Re: Docket No. DMEA-4920-Mica
Empire Mica Company, Inc.
Clarissa Mine
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.

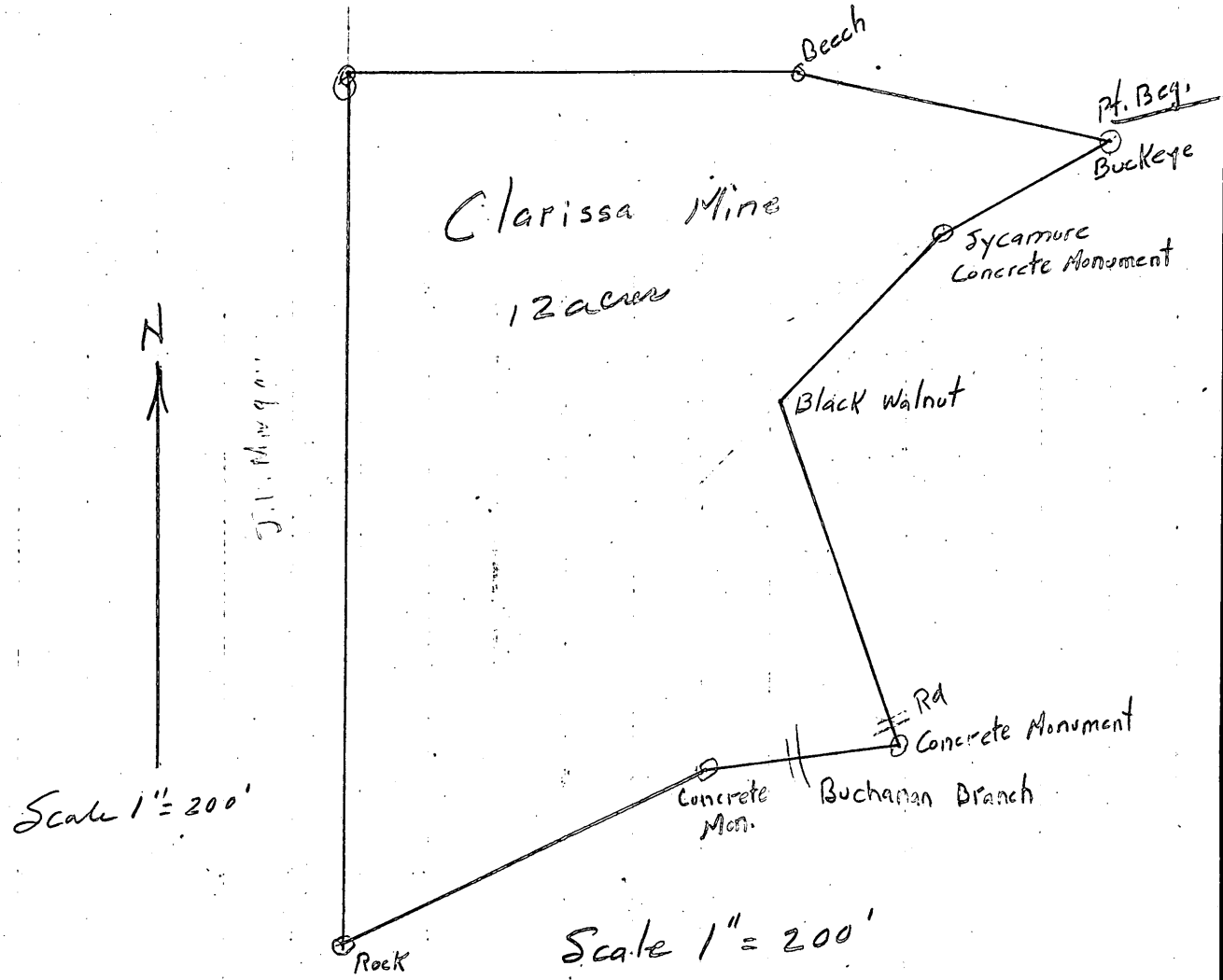
Sincerely yours,

C. C. Rittenhouse (for)

Administrator

WCAnderson:rsi 2/21/58
Copy to: Admr. R. File
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623


Clarissa Mine
12 acres
Beech
Pt. Beg.
Buckeye
Sycamore
Concrete Monument
Black Walnut
Rd
Concrete Monument
Concrete Mon.
Buchanan Branch
Rock
Scale 1" = 200'

N
Scale 1" = 200'

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

January 24, 1958

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4920 (mica)

Applicant: Empire Mica Co., Inc. (S. L. Phillips)

Name and Location of Property: Clarissa Mine, Mitchell County, N. C.

Date Application Rec'd. by Br. of Ceramic & Fertilizer Mtls. 1/17/58

Comments:

1. This is an old mine with an extensive production history of strategic mica, dating back to about 1870.
2. Successful workings extended to a depth of 320 feet deep to the northeast and only 100 feet to the southwest.
3. Applicant wishes assistance to explore pegmatite vein deeper to the southwest.
4. Estimated cost of $70 a foot for shaft sinking appears to be excessive.
5. A field examiners inspection may reveal that proposed work is development and not exploration.

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

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DMEA
RECEIVED JAN 24 1958

DATE	INITIALS	CODE
1/24	C	220
1/28	mra	600

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 20 1958

DATE	INITIALS	CODE
1/20	gb	220
1/21	[illegible]	600

IN REPLY REFER TO:

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

January 17, 1958
Re: DMEA 4920
Sam L. and John Phillips
Clarissa Mine
Mitchell County, North Carolina
$17,050.00 - Mica

Memorandum

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

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

Subject: Review of application

The applicants solicit assistance in exploring reportedly unexploited parts of a pegmatite by shaft and drifts. The old workings are said to have produced considerable prime mica between 1870 and 1952.

One shaft in the old mine is as much as 320 feet deep which would appear to reach a horizon considerably below the depth to be explored by the proposed 150-foot shaft. Otherwise the project seems to have merit, if the hearsay evidence can be relied upon.

I understand Doug Sterrett is living in Statesville, N.C. His present day opinion could be of value.

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.

January 17, 1958

Empire Mica Company, Inc.
c/o Sam L. Phillips
Spruce Pine, North Carolina

Gentlemen:

Subject: DMEA-4920

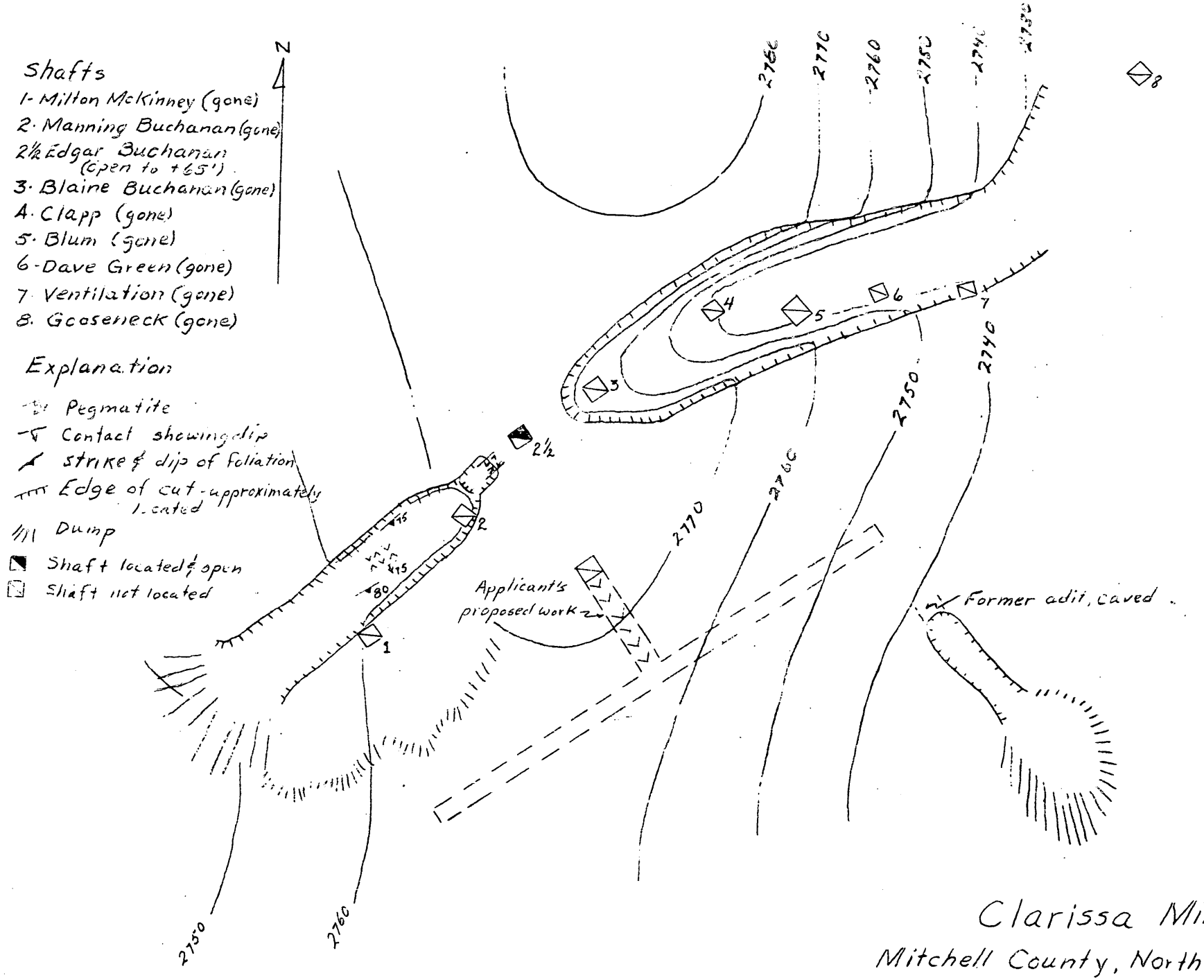
Your application for exploration assistance, dated January 15, 1958 submitted to our office at Washington, D. C. has been assigned Docket Number DMEA-4920 and referred to the Nonmetallic Minerals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region V



Clarissa Mine

Mitchell County, North Carolina

DMEA - 4920 (mica)

0 20 40 Feet

Modified from base by J.J. Page & V.C. Fryklund, Jr.

FGL 4/58

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 7 1958

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS
EXPLORATION ADMINISTRATION

OFFICIAL BUSINESS

KNOXVILLE TENN.
JUL 14 5PM
1958

OPERATING COMMITTEE
DEFENSE MINERALS EXPLORATION ADMIN.
U. S. DEPARTMENT OF THE INTERIOR
WASHINGTON 25, D. C.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
in cooperation with the
NORTH CAROLINA DEPARTMENT OF
CONSERVATION AND DEVELOPMENT

STRATEGIC MINERALS INVESTIGATIONS
PRELIMINARY MAPS

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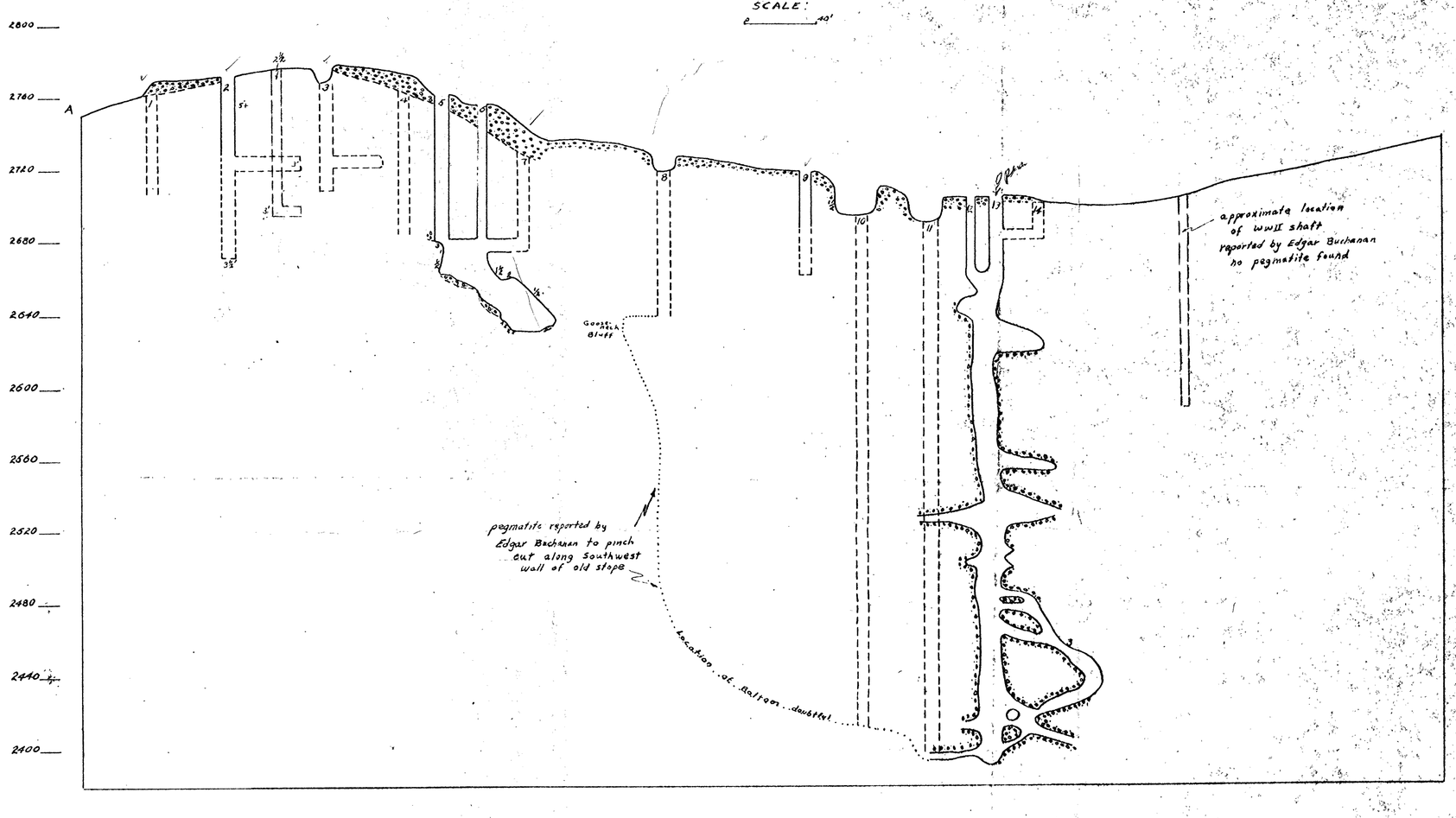
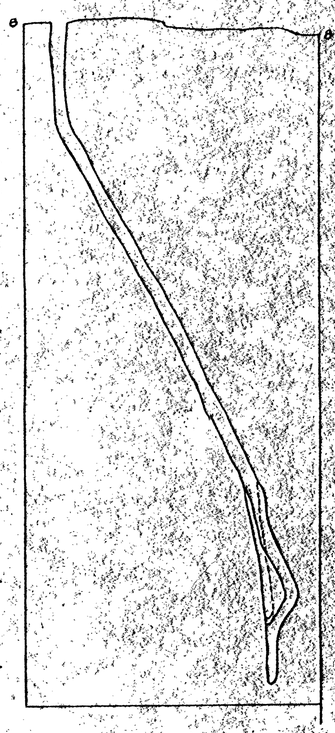
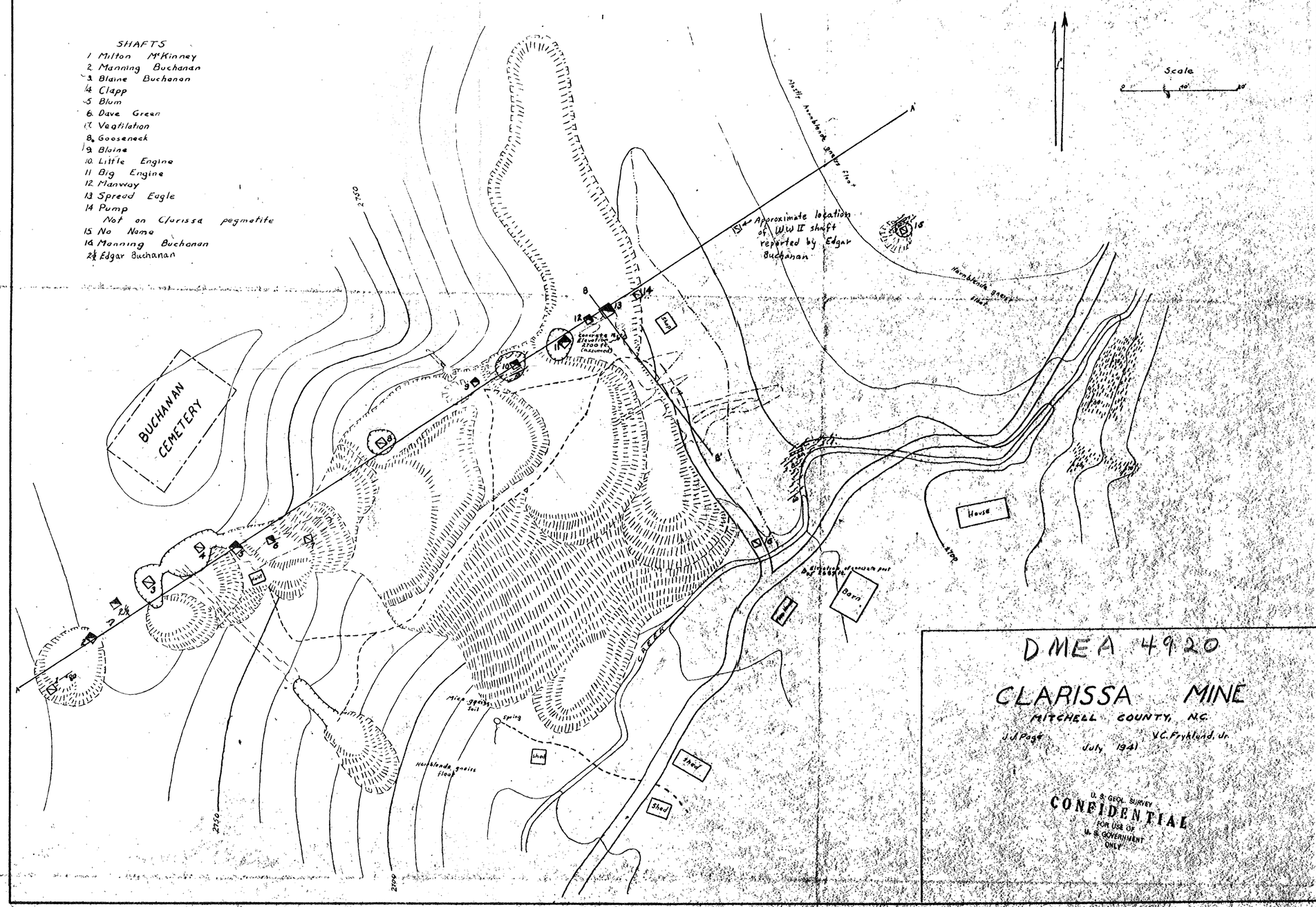
DIAGRAMMATIC LONGITUDINAL SECTION AA'
WORKINGS PROJECTED TO PLANE OF SECTION
Workings at Spread Eagle end of mine from section made by R.D. Griffey in Oct. 1941, and used by permission of Mrs Ella C Thompson
HORIZONTAL AND VERTICAL SCALE:
0 — 40'

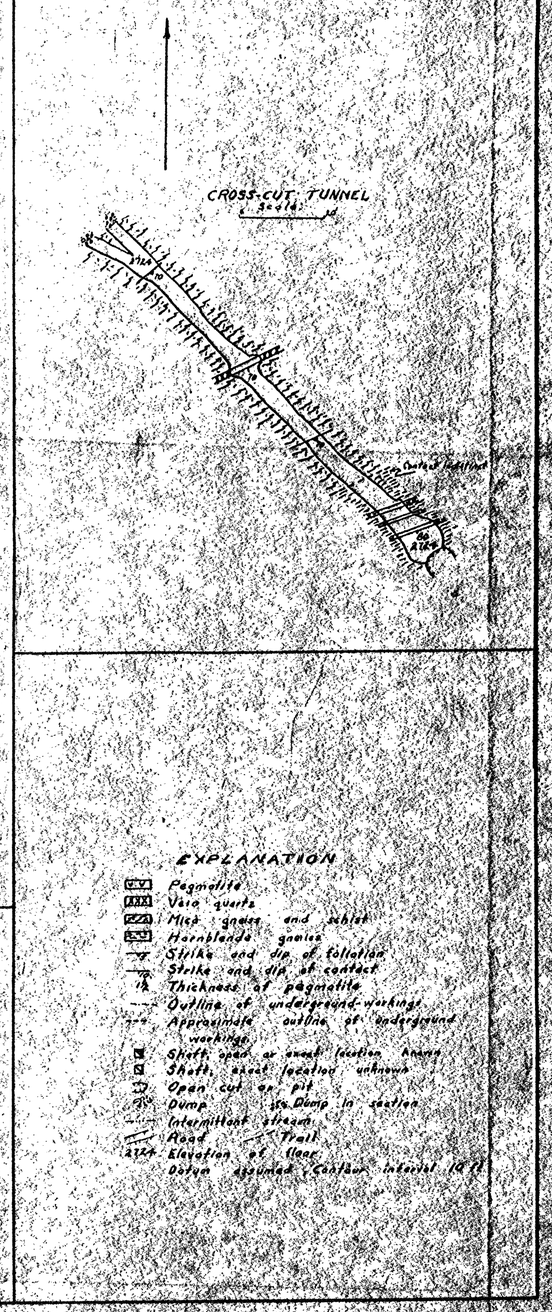


DIAGRAMMATIC CROSS-SECTION BB'
Section by R.D. Griffey, Oct. 1941, and used by permission of Mrs Ella C Thompson
HORIZONTAL AND VERTICAL SCALE
0 — 40'



SHAFTS
1 Milton McKinney
2 Manning Buchanan
3 Blaine Buchanan
4 Clapp
5 Blum
6 Dave Green
7 Ventilation
8 Gooseneck
9 Blaine
10 Little Engine
11 Big Engine
12 Manway
13 Spread Eagle
14 Pump
Not on Clarissa pegmatite
15 No Name
16 Manning Buchanan
24 Edgar Buchanan





EXPLANATION
Pegmatite
Vein quartz
Mica gneiss and schist
Hornblende gneiss
Strike and dip of foliation
Strike and dip of contact
Thickness of pegmatite
Outline of underground workings
Approximate outline of underground workings
Shaft, open or exact location known
Shaft, exact location unknown
Open cut or pit
Dump
Dump in section
Intermittent stream
Road — Trail
2774 Elevation of floor
Datum assumed (Contour interval 10 ft)

DMEA 4920

CLARISSA MINE

MITCHELL COUNTY, N.C.

J.J. Page July 1941 V.C. Fryklund, Jr.

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