DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4801

Application
- [x] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [ ] Project summary (final)
- [ ] Work Comoleted 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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 3 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 29 1957
DATE | CODE

July 25, 1957

Memorandum

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region V - Knoxville

Subject: Application from Mica Development Corp., Franklin, N.C.
Chalk Hill Mine, Macon County, N.C.

Enclosed are the original and two copies of the subject application, received at this office. We are keeping the fourth copy for our use.

This property was previously explored, by core drilling only, under Contract No. Idm-E129 (Docket No. DMEA-1665).

Robert A. Laurence

Robert A. Laurence

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)

MICA DEVELOPMENT CORPORATION
Route # 3, Box 237
Franklin, North Carolina

APPLICANT NOT TO USE THIS BLOCK

Docket Number: 4801
Date Received: 7/29/57
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
Maurice A. Haupert	19409 John R. Detroit, Michigan	Vice-president
William Dinnes	Franklin, N.C.	Vice-president
Roy H. Fouts	Franklin, N.C.	Sec-Treasurer

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

Estimated Cost of Project: $ 7,000.00

LOCATION OF PROPERTY

Name	County	State
Chalk Hill Mine	Macon	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.

July 23, 1957
Dated

ROY H. FOUTS
BY *(Signature)*

Secretary-Treasurer
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:* See Exhibit A

(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:* See Exhibit B

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.

* * * * *

"Exhibit B"

6. Estimate of Cost.

200 feet of Adit and/or crosscut @ $ 35.00 per foot--$ 7,000.00

Labor:	Foreman ----------	$ 15.00		
	Driller ----------	12.00		
	Mucker ----------	10.00		
	Locomotive Operator----	$10.00		
	Tota l----------	$ 47.00		
	Four month to complete----------		$3510.00	
Dyanmite----------			960.00	
Drill Steel----------			645.00	
Exploders----------			248.00	
Electric Power----------			150.00	
Fuel and Oil - Grease ----------			425.00	
Depreciation on equipment----------			1062.00	
		$	7,000 .00	7,000.00

Equipment to be used.

315 Ingersoll Rand Air-compressor
Eimco Air Locomotive - 104
12 B. Rocker-shovel
12" discharge Buffalo Blower
J.R. 38 Jackdrill
600 feet of rails double
600 feet of 12" blower line
Air line and water line 600 feet on outside, which makes transporation of or difficult.

No rehabilitation or repairs on building necessary.

Repairs and etc. on equipment is in the Depreciation.

We are prepaired to furnish our share in equipment and money if necessary.

OFFICIAL FILE COPY
DMEA

Exhibit "A"

1. The applicant's propety rights is a tract of land carved out of a Deed owned by W.M. Downs and recorded in Book HH, at page 60, Recorded in Registered of Deeds for Macon County, N.C., now owned in fee simple by Mica Development Corporation. The section which we wish to expore is Section CC on the Geology and Topography May of Strategic Minerals, U.S. Department of Interior of the Chalk Hill Mica Mine, Macon County, North Carolina, and a section of 500 feet surrounding core Drill Hole No. 5.

   The land is owned in fee simple by applicant, no liens, mortgages, or other encumbrances on the property.

2. The area which we wish to explore is located on Stra tegic Minerals Map on Chalk Hill Mine, Macon County, North Carolina and in and around Section CC, Diamond Core Drill hole No. 5.

   For the past three year over $100,000.00 Strategic Mica sold to the U.S. Government, all of which was sold by the applicant.

   No known ore reserves are esta blished as that is the reason for exploration.

   The Strategic Minera l Map sketches the geologic features of the property, and it lies in the Sylva-Franklin District in a northeast trending belt 14 miles wide and 45 miles long which ranks second in the production of mica mining areas of the Southern Appalachian region.

   The reason we expect to find ore is because we cut a dyke of pegmatite sixteen feet wide with the diamond core drill and still have the logs available for inspection.

3. The DMEA representatives is familiar with the Chalk Hill Mine and the company representative live on the property of which we wish to explore and it is accessible via car in an all weather road.

   The town of Franklin is the nearest shipping point six miles away and truck express will pick up and delivery at the mine.

4. The proposed exploration work will be to drive an adit and/or crosscut 200 feet from one of two locations in the mine to bisect the diamond core drill hole No. 5, which will necessitate 200 feet of driving, 7 feet by eight feet in order to operate an Eimco Air locomotive and 12 B. Rocker-shovel. The opening will have to have an air line 12 inches put in as this 200 feet of work will be 300 feet from the outside and fresh air is required for the men.

   No excess roads are encessary as an all weather road is already to the mine, water is on the property, power line and telephone.

5. Building, repair shop, residence near by, as continuous operation has been going on. William Dinnes and Roy H. Fouts will supervise the operation and are familiar with extraction of mica and marketing of same.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/30	Houk	600
11/22	Martin	130
11/22	Kassab	130
11/22	Williams	130
"	Johnson	110
"	Mittendorf	100
		220

600

NOV 25 1957

Mica Development Corporation
Route #3, Box 237
Franklin, North Carolina

Re: Docket No. DMEA-4801-Mica
Mica Development Corporation
Chalk Hill Mine
Macon County, North Carolina

Gentlemen:

Your application for aid for an exploration project and other reports available to us in Washington relating to the subject property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that the probability of disclosing significant reserves of mica is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

LGHouk:gad 10/29/57
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 1325, FIDELITY BLDG.
KNOXVILLE 2, TENN.

WASHINGTON 25, D.C.

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 21 1957

DATE	INITIALS	COST
11/21	C	220
11/21	Hrub	600

November 19, 1957

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: DMEA-4801 (mica) Mica Development Corporation, Franklin, N.C. Chalk Hill Mine, Macon County, N.C.

Reference is made to your letter of November 8.

We have no additional evidence to support the recommendation given in the report. It was the opinion of the Field Examiners, concurred in by us, that this provides a fairly good exploration target, but if the data in the report do not support this in your opinion, then it should not be approved. Some comments on your letter follow:

According to Mr. Fouts, the best production from the Chalk Hill mine (now shut down) was from a portion of the pegmatite which was four feet wide. The relatively short stopes support the assumption that the mica in most of the wide pegmatite will not support stoping, and that most of the mica came from shoots of restricted extent.

The proposed target, as intersected in drill hole No.5 consists of two 4-foot pegmatites, separated by 3 feet of country rock which may be a "horse." This is comparable in size with many productive lenses, including the main Chalk Hill mine.

Is it the "quality," or the size (as seen in the cores) of the mica cut in drill hole No.5 which is not very encouraging? It is very difficult to evaluate the mica content, both as to quality and quantity, of a pegmatite from a drill core. The fact that mica was seen at all is encouraging, but would not be proof of a workable shoot. Drill cores are very useful in determining the thickness, zoning, and mineralogy of a pegmatite,

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/8	Houk	600
11/8	ECL	130
"	Johnson	110
		~~100~~ 210
11/8	gb	220
		600

600

NOV 8 1957

Mr. Dietrich, 3061
Mr. Houk

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

Re: Docket No. DMEA-4801-Mica
Mica Development Corporation
Chalk Hill Mine
Macon County, North Carolina

Dear Mr. Laurence:

Reference is made to your recommendation for a contract at the subject mine.

In our opinion the geological probability that these pegmatites will contain a significant quantity of strategic mica is not promising. A study of the maps shows that the major production at the 2,160 level has been from wide pegmatites. The pegmatites cut by No. 5 Diamond Drill Hole are narrow and the relationship to surface showings above is uncertain, indicating discontinuity. The workings in No. 3 Drift also confirms that these pegmatites are of limited horizontal extent westward. The quality of mica cut in the No. 5 Diamond Drill Hole is not very encouraging compared to that cut in some of the other drill holes. The possible production from the narrow discontinuous pegmatites could hardly be expected to approach that from the wide continuous pegmatite which was mined, hence, the size of the target does not justify the proposed cost of exploring it. Your comments on the foregoing will be appreciated, and any additional evidence you might have to support your recommendation.

Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222

May we point out that in the case of a going operation, the Government's contribution toward the depreciation is proportioned between the operational phase and the exploration phase. See Special Notice No. 296, November 23, 1953.

Receipt is acknowledged of three copies of description and map showing the area the Applicant desires to subordinate.

IGHouk:gad 11/4/57
Rewritten
IGHouk:rsi 11/8/57

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Approved:

Frank D. Lamb (GCS)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

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

Re: Docket No. DMEA-4801-Mica
Mica Development Corporation
Chalk Hill Mine
Macon County, North Carolina

Dear Mr. Laurence:

Reference is made to your recommendation for a contract at the subject mine.

In our opinion the geological probability that these pegmatites will contain a significant discovery of strategic mica is not promising. A study of the maps shows that the major production at the 2100 level has been from wide pegmatites. We would appreciate receiving a copy of the surface geologic map. May we point out that in the case of a going operation the Government's contribution toward the depreciation is proportioned between the operational phase and the exploration phase. See Special Notice No. 296, November 23, 1953.

We will be pleased to receive any additional evidence you may have that this is a good exploration bet. Receipt is acknowledged of three copies of description and map showing the area the Applicant desires to subordinate.

Sincerely yours,

Approved:

noted: Frank D Lamb
Member, Bureau of Mines

Chairman, Operating Committee

Chas H Pilsgaard
Member, Geological Survey

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1-8 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

November 1, 1957

DMEA
11/4 C 220 600

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: DMEA-4801-Mica. Mica Development Co., Franklin, N.C.
Chalk Hill Mine, Macon County, N.C.

Enclosed are three copies of the Applicant's Survey of the area to be included in the proposed project. It appears to provide adequare area for the proposed exploration project, and excludes much of the previously developed parts of the Chalk Hill Mine.

Robert A. Laurence

Robert A. Laurence
Executive Officer, DMEA
Region V

V. J. Lynch

V. J. Lynch, Member
Bureau of Mines

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

November 1, 1957

11/4 Lynch

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: DMEA-4801-Mica. Mica Development Co., Franklin, N.C.
Chalk Hill Mine, Macon County, N.C.

Enclosed are three copies of the Applicant's Survey of the area to be included in the proposed project. It appears to provide adequare area for the proposed exploration project, and excludes much of the previously developed parts of the Chalk Hill Mine.

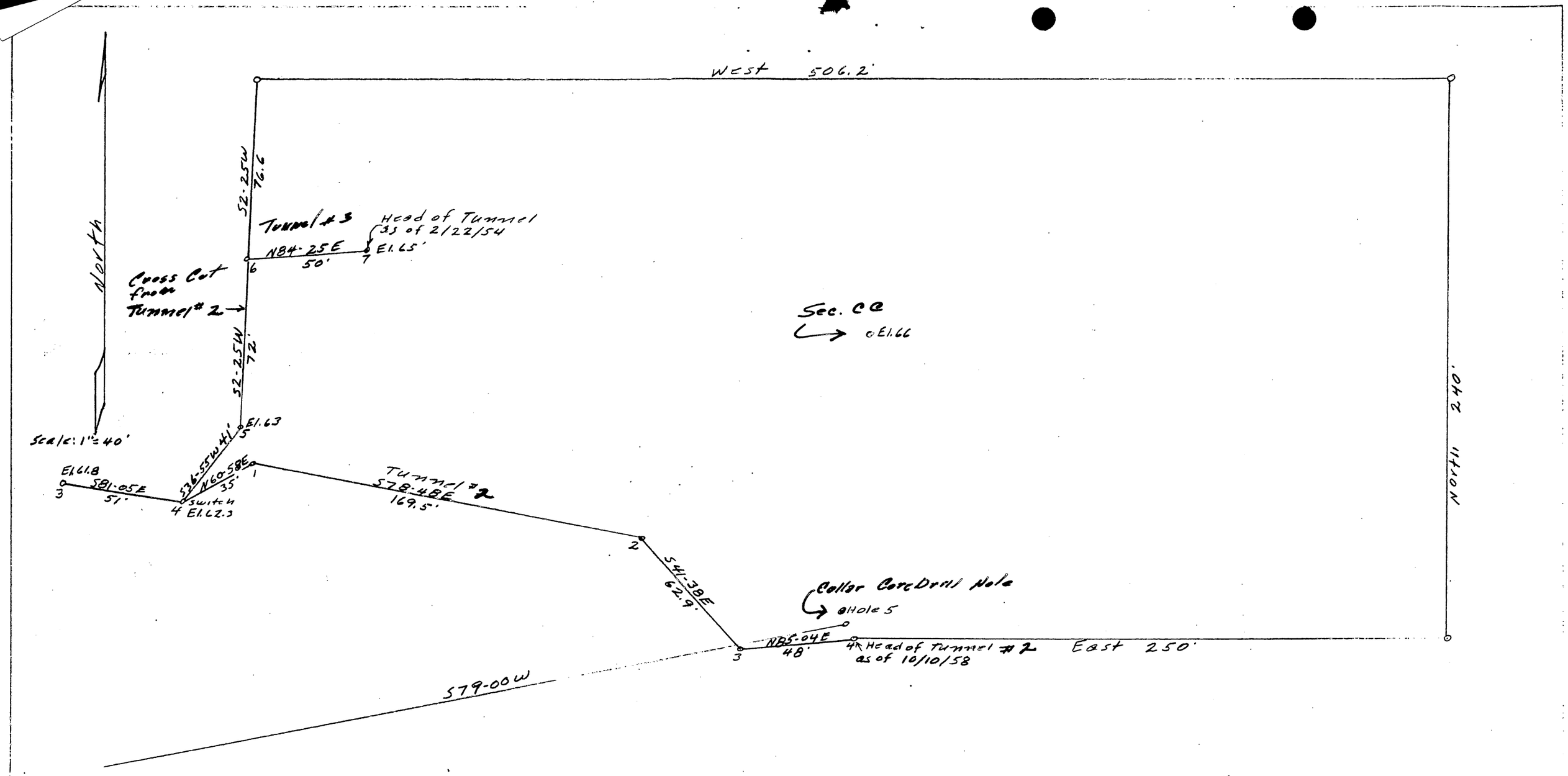
Robert A. Laurenee
Executive Officer, DMEA
Region V

RAL/zm
cc
Lynch
Files

V. J. Lynch, Member
Bureau of Mines

EXPLORATION PROJECT
MICA DEVELOPMENT CORPORATION
Docket No. DMEA - 4801

The exploration area carved out of the Greater Chalk Hill Mine, having access via the main tunnel to a switch in the railroad track located at the intersection of tunnel # 2 and cross cut # 2, at the beginning and running N 60-58 E, 35 feet to a piece of drill steel in the rock; thence with tunnel # 2 S 78-48 E, 169.5 feet; thence S 41-38E, 62.9 feet; thence N 85-04 E 48 feet to the head of tunnel # 2; thence east 250 feet to a point thence North 240 feet to a point; thence West 506.2 feet; thence S 2-25" to the cr cross cut from tunnel # 2 to a point at the head of cross cut # 2; thence S 2-25 W 72 feet to a point, thence S 36-55 W 41 feet to the beginning, incircling Diamond Core Drill hole # 5, the collar of same indicated on map being north of Tunnel # 2, but of a different elevation.



D.M.E.A. # 4801
Proposed Exploration work Area
Mica Development company
Chalk Hill Mine
Macon County, N.C.
Tunnel # 2 surveyed By Richard H. Slagle
Reg. Sur. Oct. 10, 1957
Map by Richard H. Slagle, Oct. 14 1957
Scale: 1" = 40'

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/30	[illegible]	

600

October 30, 1957

Memorandum

To: Mr. C. O. Mittendorf, Administrator

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

Subject: Evaluation of application and field examination report
Docket No. DMEA-4801-Mica
Mica Development Corporation
Chalk Hill Mine
Macon County, North Carolina

Denial of application is recommended.

Mica: Mica production from the open cut in the pegmatite above that intersected near the bottom of D.D.H. No. 5 was only fair quality. The mica was flat and clear but was also ruled and clay stained.

Pegmatite: Numerous pegmatite lenses ranging from less than 10 to more than 100 feet long, and from less than a foot to more than 20 feet wide. The pegmatite bodies already mined are echelon in character. The abundant lenses of pegmatite are fine- to coarse-grained and poorly- to well-zoned, containing plagioclase, perthite, quartz, muscovite and biotite.

Workings: Six diamond drill holes were the subject of a DMEA contract (DMA-1665X, Idm-E129), one of which, No. 5, is the subject of the present recommendation by the Field Team. The Operator's subsequent work consisted of an adit driven at the 2160 foot level to intersect the Ledford shaft. Additional exploration work consists of a crosscut and two drifts, one of which followed one pegmatite vein about 110 feet and is now being stoped on a second echelon vein.

Past production: Since 1909 the mine has intermittently been worked. Following the DMEA drilling program the Operator reports more than $100,000 worth of strategic mica was mined from 1954 to 1957.

Applicant's proposal:

200 feet of adit and/or crosscut @ $35/ft.
for a total of $7,000.00.

The Applicant wants to exclude the area of the present workings from the contract area, however, it will assume the $5,974.75 spent on DMEA-1665 in the event of a certification.

Field Team's proposal:

A unit cost contract recommending crosscut and drift to explore the pegmatites cut near the end of D.D.H. No. 5.

Unit Cost
Drive 250 feet of drift and/or crosscut 5'x7' in cross section -- $9,048.00.

Reasons for denial:

The vertical section through D.D.H. No. 5 indicated the 30 foot pegmatite on the surface may be rooting out, Although the report states there is reasonable doubt that it is the same pegmatite. The major portion of the production from the pegmatites has been from those in excess of ten feet. These two 3' and 4' pegmatites separated by a 3' horse do not offer a significant target if the Field Team doubts mentioned above are correct. The Operator is mining at the present and wishes to exclude the area of his mining. The chances of an additional $300,000 production from the area seems remote.

Recommendations:

The Field Team recommends a contract.
The Commodity Specialists concur.
The Division of Nonmetallic Minerals recommends denial.

November 21, 1957

P.S. In our opinion the Field Team failed to supply any additional evidence to support their recommendation in their memorandum of November 19, 1957, in reply to our letter of November 8, 1957. The size of the target does not justify the expenditure.

LGHouk:gad 10/30/57
Copy to: Admr. R. File
Mr. Houk

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

DMEA
RECEIVED OCT 28
DATE | | |
10/28 | C | 220
| | 600

October 25, 1957

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4801 (mica)

Applicant: Mica Development Corporation

Name and Location of Property: Chalk Hill Mine, Macon County, N. C.

Date of Field Team Report: 10/7/57

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 10/14/57

Field Team Recommendation: Recommend that exploration assistance be granted.

Comments:

1. Applicants wish to explore pegmatite cut by one of five holes in a previous DMEA project.

2. Although certification was not issued after initial exploration (DMEA-1665X) in 1951, over $100,000 worth of mica was recovered from 1954 to 1957 most of which came from the No. 1 and No. 2 workings.

3. New exploration work will be on a pegmatite believed to be unworked by older operations.

4. Applicants have agreed to repay advance on DMEA-1665 if present exploration project results in production.

Recommendation:

I concur with the recommendation of the field team that exploration assistance be granted.

W. F. Dietrich

W. F. Dietrich

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

OFFICIAL FILE COPY
DMEA
IN REPLY REFER TO:
RECEIVED OCT 22 1957

DATE	INITIALS	CODE
10/22	gb	220
10/23	Houk	600

Memorandum

October 21, 1957

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

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

Subject: Review of Field Examination Report, DMEA 4801 (mica), Mica Development Corp., Chalk Hill mine, Macon County, North Carolina.

The examining team report that conditions on the applicant's property seem favorable for the presence of important, undiscovered mica deposits.

The examiners recommend approval of a DMEA project that would seek for an extension of the Chalk Hill mine as well as explore a favorable zone at the bottom of a diamond drill hole. The hole was drilled under DMEA 1665X.

The Chalk Hill mine has been an important mica producer. An extension to the mine seems like a worthwhile target for a DMEA project. I agree with the recommendations of the field examiners for approval of the application.

W. P. Williams

W. P. Williams

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

October 7, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 9 1957

DATE	INITIALS	CODE
10/9	B	220
10/14	2B	130
10/15	C	220
10/15	MRa	600

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Field Examination Report - DMEA-4801-mica.
Mica Development Corp. Franklin, North Carolina
Chalk Hill Mine, Macon County, North Carolina

Enclosed are the original and 2 copies of the subject report, and 8 extra copies of a map for use in the contract, if approved. We recommend approval of a unit-cost contract, as outlined in the report.

Because the target pegmatite is not on any of the structures exposed in the present workings, we consider this to be exploration rather than development. The good productive history of the area makes this a desirable exploration project, in our opinion.

The Applicants understand that the $5,974.75 spent on DMEA-1665 will be added to the amount of the new work, in the event of certification, and is agreeable to this. However, the Applicant wants to exclude the area of the present workings from the contract area, and will submit a request for this exclusion with a description of the area to be excluded.

Robert A. Laurence

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

V. J. Lynch

V. J. Lynch, Member
DMEA Field Team, Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
10-14-57
(date)

On-Site Exam Rpt

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 9 1957

DATE	INITIALS	CODE
10/14	26	130
		228

UNITED STATES

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT, REGION V

DMEA-4801, (mica) CHALK HILL MINE
Macon County, North Carolina

S. C. Bergman and F. G. Lesure, Geologists
Geological Survey

and

Stanley A. Feitler, Mining Engineer
Bureau of Mines

October 7, 1957

Reviewed by
DMEA OPERATING COMMITTEE
10-14-57
(date)

FIELD EXAMINATION REPORT

ON

DMEA-4801 (mica) CHALK HILL MINE
Macon County, N. C.

Applicant: Mica Development Corporation, Route # 3
Franklin, North Carolina

SUMMARY

The Chalk Hill Mine has had a good production record during the past 48 years. The area contains numerous pegmatite lenses ranging from less than 10 to more than 100 feet long and from less than a foot to more than 20 feet wide. Because of the en echelon character and good production of the pegmatite bodies already mined, the intersection of pegmatite near the bottom of DMEA D. D. H. No.5 appears more favorable as an exploration target at this time than at the time of the drilling program. It is recommended that exploration assistance be granted.

INTRODUCTION

Examination: The Chalk Hill mine was examined September 20, 1957. Mr. Roy Fouts accompanied the Examiners underground and also showed them the drill core from the diamond drilling program DMEA-1665X. The examination lasted about an hour and a half.

In July and August, 1957, D. H. Amos and F. G. Lesure of the U. S. Geological Survey spent five days mapping the surface at the Chalk Hill at a scale of 1:1200 and the 2160-ft level mine workings at a scale of 1:240. These maps were used in the examination.

Location: The Chalk Hill Mine is on a low ridge just south of Iotla Creek, 4.3 miles N62°W of the courthouse in Franklin, N. C., (Franklin, N.C. Quad., TVA, 1:24,000) The mine can be reached

by a good gravel road from the Iotla Creek all weather road.

Past Production: Mining is reported to have started at the Chalk Hill Mine in 1909 and has continued intermittently since then. A full description of the early work is given by E. W. Heinrich (Chalk Hill Mica Mine, Macon County, N. C., March, 1944, unpublished U. S. Geological Survey manuscript) and the post-World War II development by J. B. Hadley, Wm. A. Beck, and A. L. Peyton (DMEA-1665X, Chalk Hill Mine, Macon County, N.C., June 1951). Following the DMEA drilling program the Mica Development Corporation drove an adit at about the 2160-foot level from the northwest to intersect the Ledford shaft. Additional exploration work consists of a crosscut and two drifts. The northernmost drift, called No.3 by the Company, followed a thin pegmatite vein for about 50 feet and now heads in barren ground (see attached map). The No.2 drift followed one pegmatite vein for about 110 feet and is now being stoped on a second en echlon vein to the southeast. The No. 1 drift intersected the Ledford shaft and has been stoped both above and below the 2160-foot level. These workings, which are reported to have reached at least the 2085 level, have not yet been fully mapped. From 1954 to 1957 the Mica Development Corporation reports sales of more than $100,000 worth of strategic mica, most of which has come from the No.1 and No.2 workings. According to Roy H. Fouts, mica production from the open cut in the pegmatite above that intersected near the bottom of D.D.H. No.5 was only fair quality.

This mica was flat and clear but was also ruled and clay stained.

The Chalk Hill is an operating mine, well equipped and well run. Power, water, and all necessary mine buildings are on the property. Mining equipment now being used includes a 315 Ingersoll Rand Air Compressor, an Eimco Air Locomotive Model 104, a 12 B Rocker-shovel, a 12" discharge Buffalo Blower, and a J. R. 38 Jackdrill.

Geology

The Chalk Hill mine is in an area underlain by mica gneiss and schist that contains abundant lenses of pegmatite. Foliation in the country rock strikes generally northeast and dips northwest in the mine workings (see attached map), but wide variations of attitude are found. Although surface exposures in the many open cuts above the mine workings are deeply weathered, both country rock and pegmatite are fresh and hard in the eastern half of the 2160 level of the mine.

The larger pegmatite bodies are for the most part discordant but may be concordant locally. These pegmatites are large en échelon lenses with strike lengths of 100 feet or more and maximum thicknesses of 10 to 20 feet. Many smaller concordant and discordant pegmatite lenses ranging in thickness from a few inches to several feet have also been cut in the drifts and crosscut. The pegmatites are fine-to coarse-grained and poorly to well zoned. They contain plagioclase, perthite, quartz,

muscovite and biotite. A quartz core is present in the westernmost large pegmatite. In the No.2 drift the easternmost pegmatite lens has a coarse-grained perthite-quartz core with flanking intermediate zones of coarse plagioclase, fine quartz and muscovite and wall zones of fine-grained plagioclase and muscovite. Production in the large southernmost pegmatite bodies has been good. The mica is abundant and of good quality.

The target pegmatite or pegmatites may or may not be a continuation of the large pegmatite exposed in the open cuts above the drill hole intersection (see attached cross-section). Log of the core (Peyton and Teague, final report on DMEA-1665X, Chalk Hill Mine, July, 1952) indicates that the two pegmatite bodies cut contain some muscovite and together form a body of minable width. The pegmatite bodies are separated by about 3 ft (horizontal distance)of country rock and may be part of a large lens with a gneiss horse. The abundance of en echelon pegmatite lens in the area and the good record of production from pegmatite bodies of similar thickness make the target pegmatites more favorable for further exploration at this time than at the time of the drilling program.

RECOMMENDATIONS

It is recommended that exploration assistance be granted in the form of a crosscut and drift to explore the pegmatites cut near the end of D.D.H. No.5. This work is believed to be exploration because little underground work has been done in the

direction of this drill hole intersection. Adit No.3, which is barren at the face, is apparently not on the same structure as the target pegmatite (see attached map). There is a reasonable doubt that the pegmatite exposed at the surface in the open cuts above D.D.H No.5 is the same as the target pegmatite. The abundance of en echelon pegmatite bodies both north and south of the target pegmatite strongly suggest the additional possibility of intersecting other minable pegmatites during the crosscutting. It is therefore, recommended that a crosscut be driven in approximately the position indicated on the accompanying map. This represents the shortest practicable distance between present workings and the drill hole intersection. Additional drifting along the target pegmatite is recommended to explore it adequately. The total of drift and/or crosscut should be at least 250 feet.

Estimated Costs:

Drive 250 feet of drift and/or crosscut 5' x 7' in cross section.

Labor:

1 - Foreman .....$15/ shift
1 - Driller .....$12/ shift
Mucking machine
Operator.....$10/ shift
Locomotive Oper..$10/ shift

Total ..$47/8-hour shift

Total labor - 90 shifts..... $4,230.00

Estimates of costs cont'd.

Depreciation on Equipment:

	Value	
Compressor - I.R. 315	$9,500.00	
Locomotive-Eimco-104	3,200.00	
Mucking machine-Eimco-12-B	3,800.00	
Blower-Buffalo Forge,10 H.P.	1,200.00	
Jackleg & drill, J.R.38	700.00	
Track, 250 ft -complete	700.00	
Ventube- 700 ft - 12"	1,300.00	
Total Value.....	$20,400.00	
Per Month (5 yr. basis).....	340.00	
Total depreciation - 4 1/2 months.....		$1,530.00

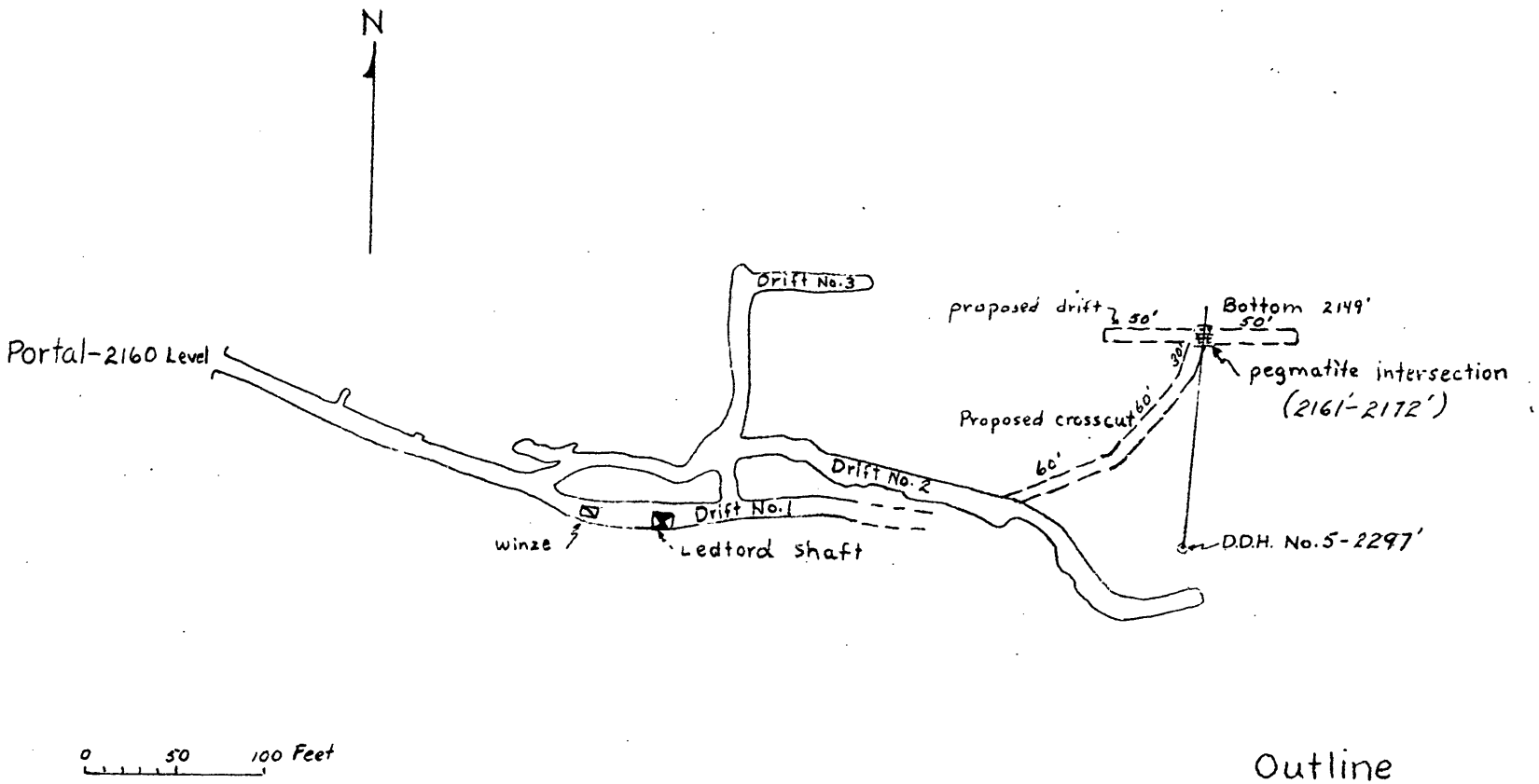
Supplies:

Drill steel	$ 450.00	
Blasting supplies	$1,250.00	
Electric pump	270.00	
Diesel fuel, oil and grease	480.00	
Small tools and miscelaneous	250.00	
Social Sec. & Insurance	508.00	
Sales Tax	80.00	
Total supplies, etc.		$3,288.00
Estimated Total cost of project..		$9,048.00

Estimated cost per foot...$36.19

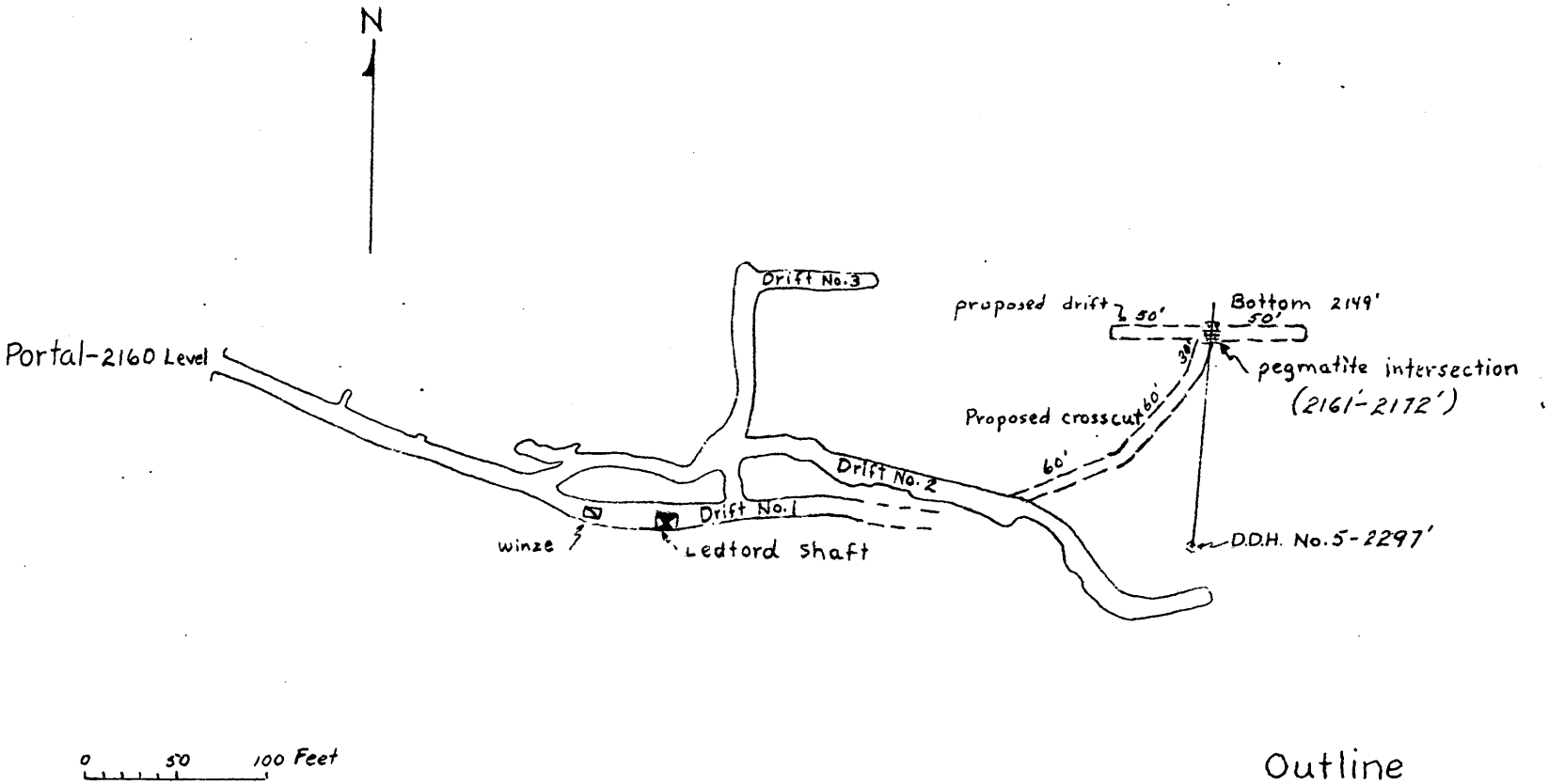
10/7/57

z



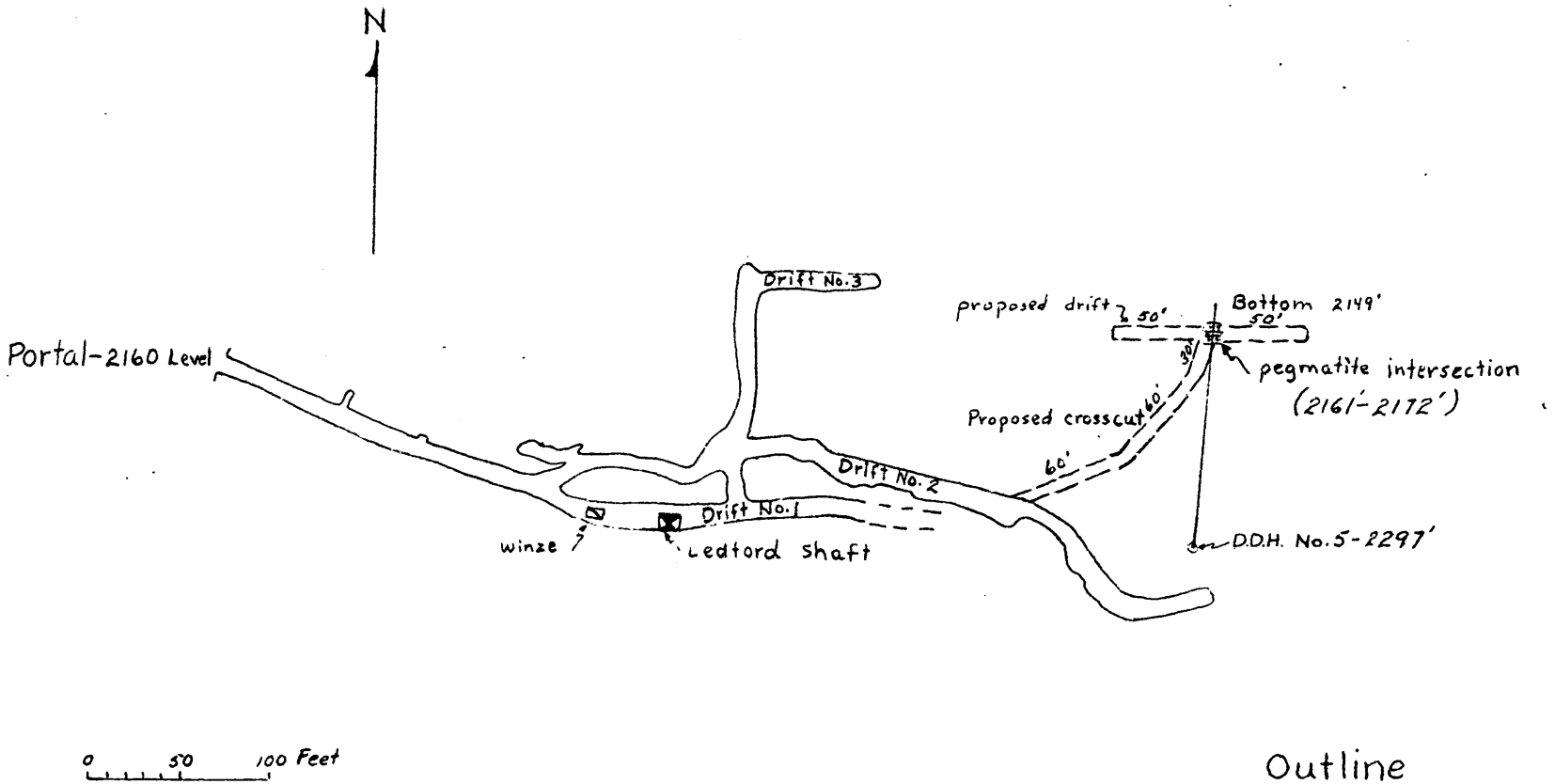
Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.



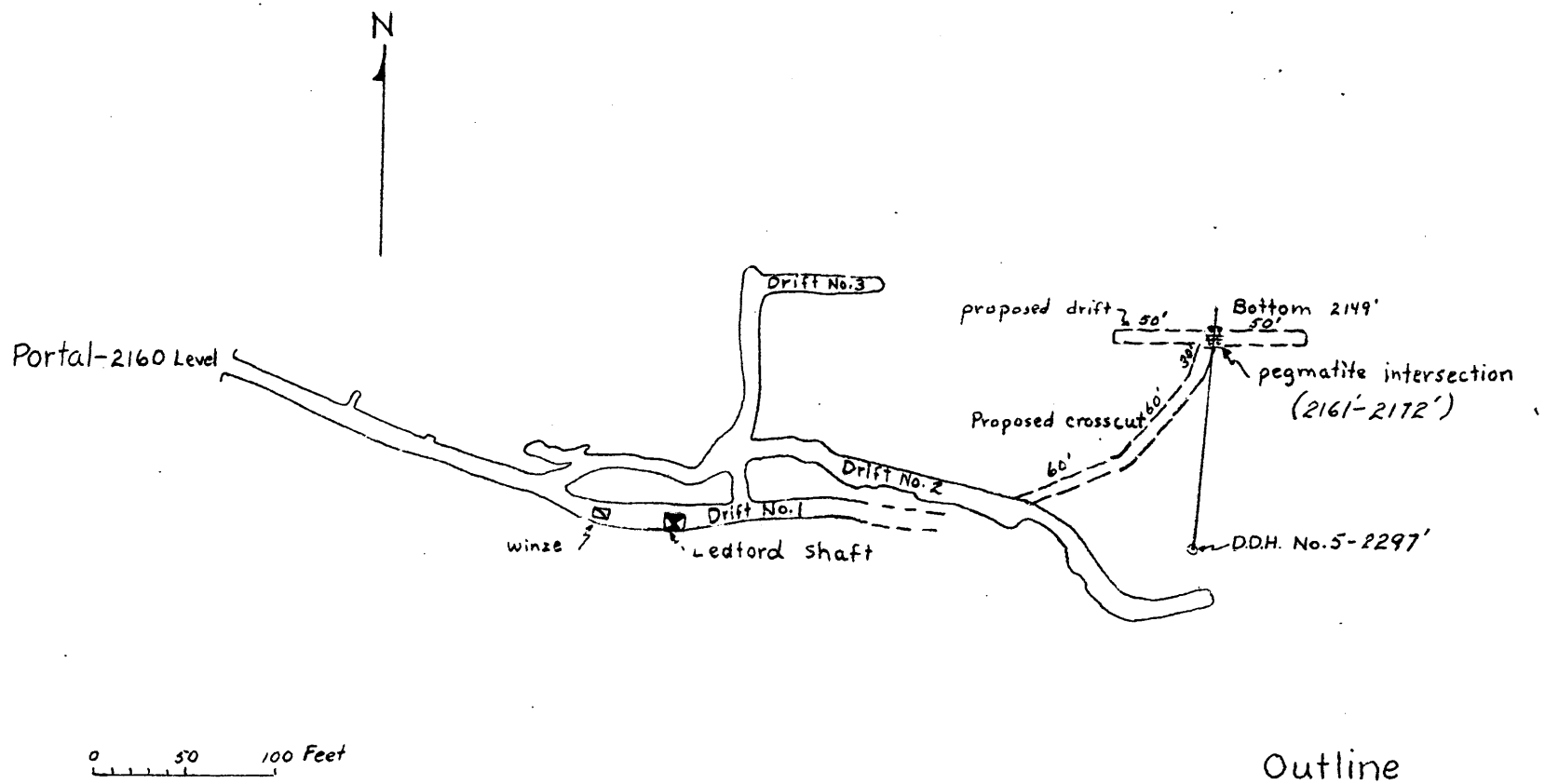
Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.



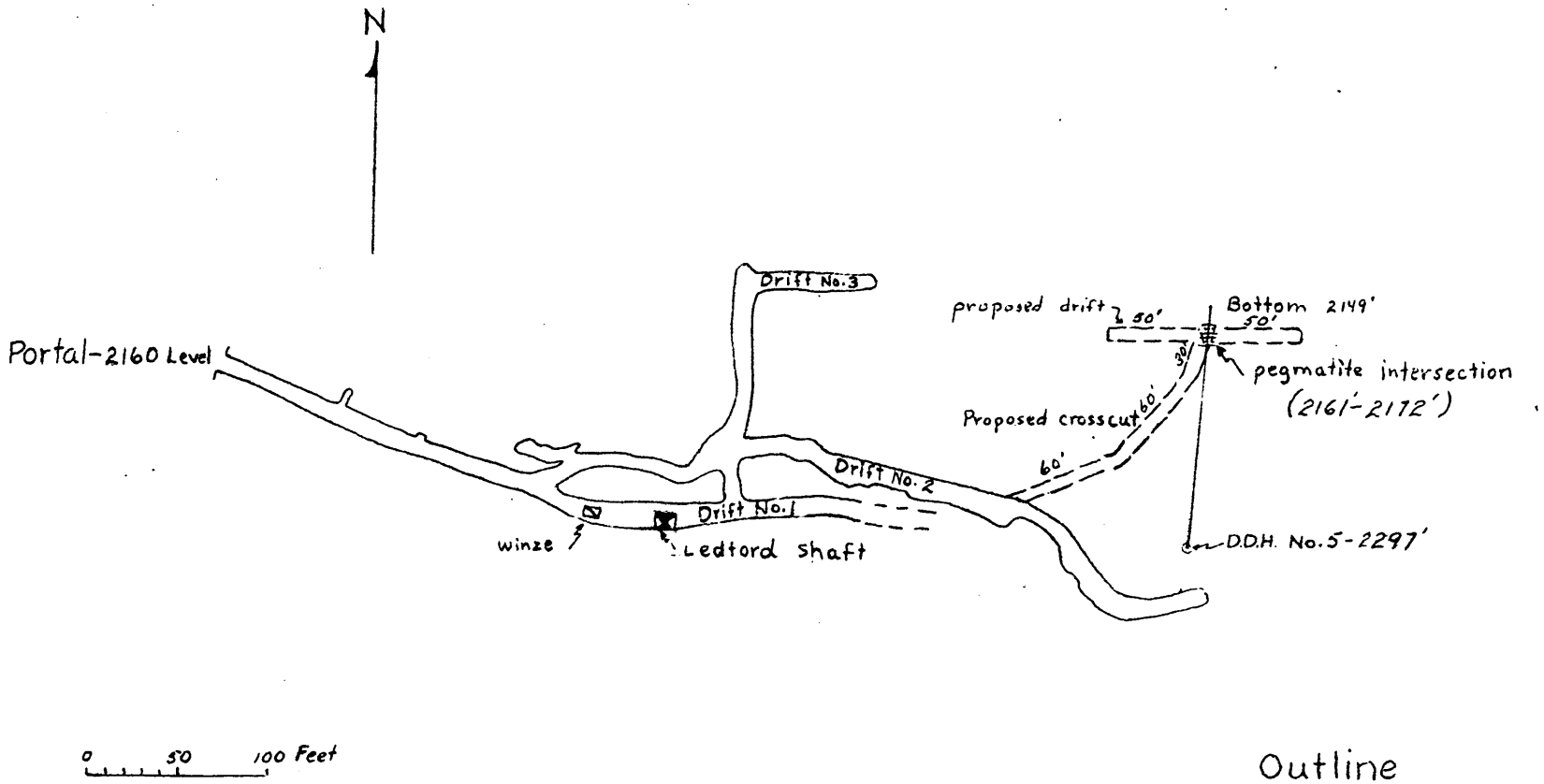
Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.



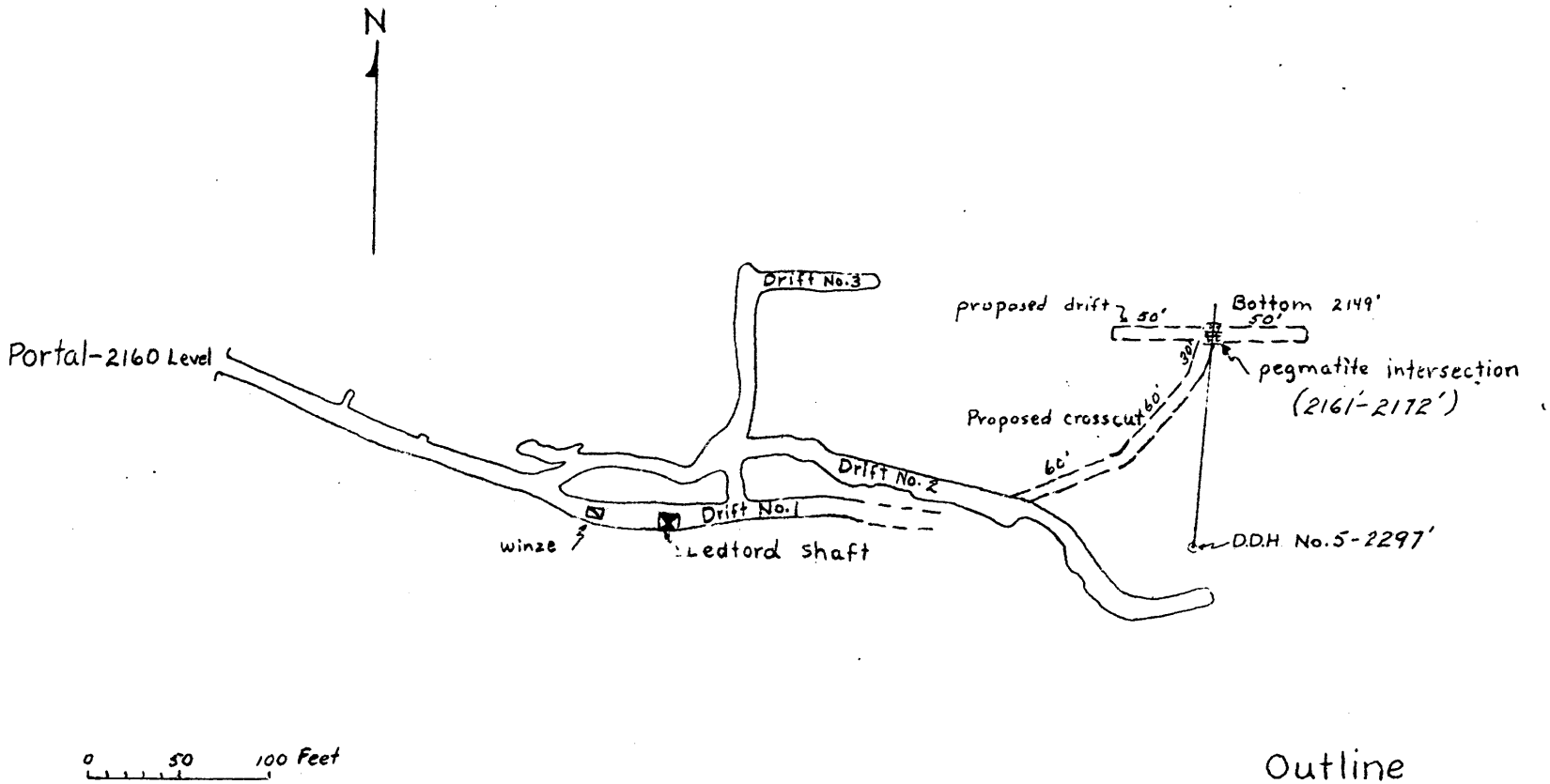
Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.



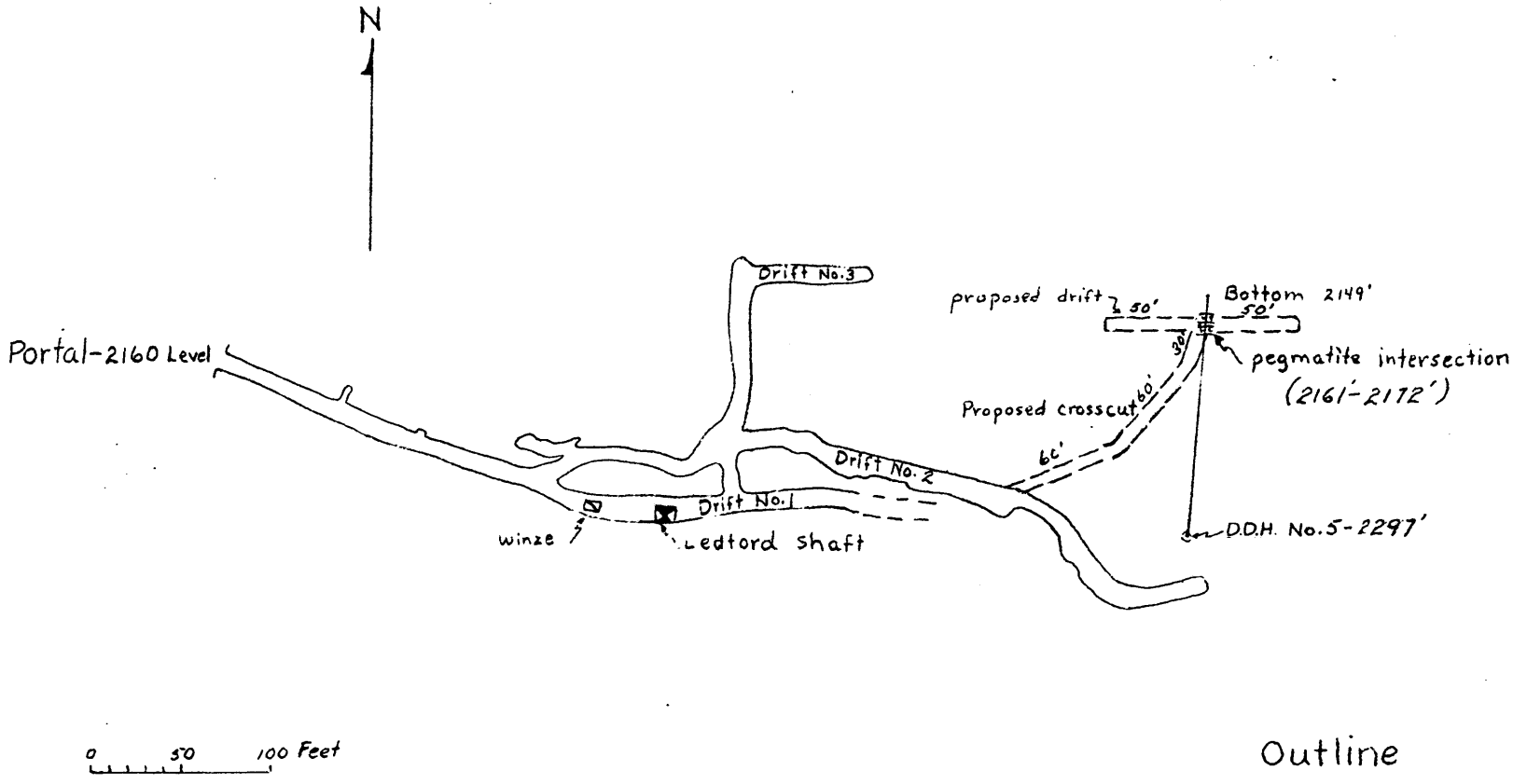
Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.



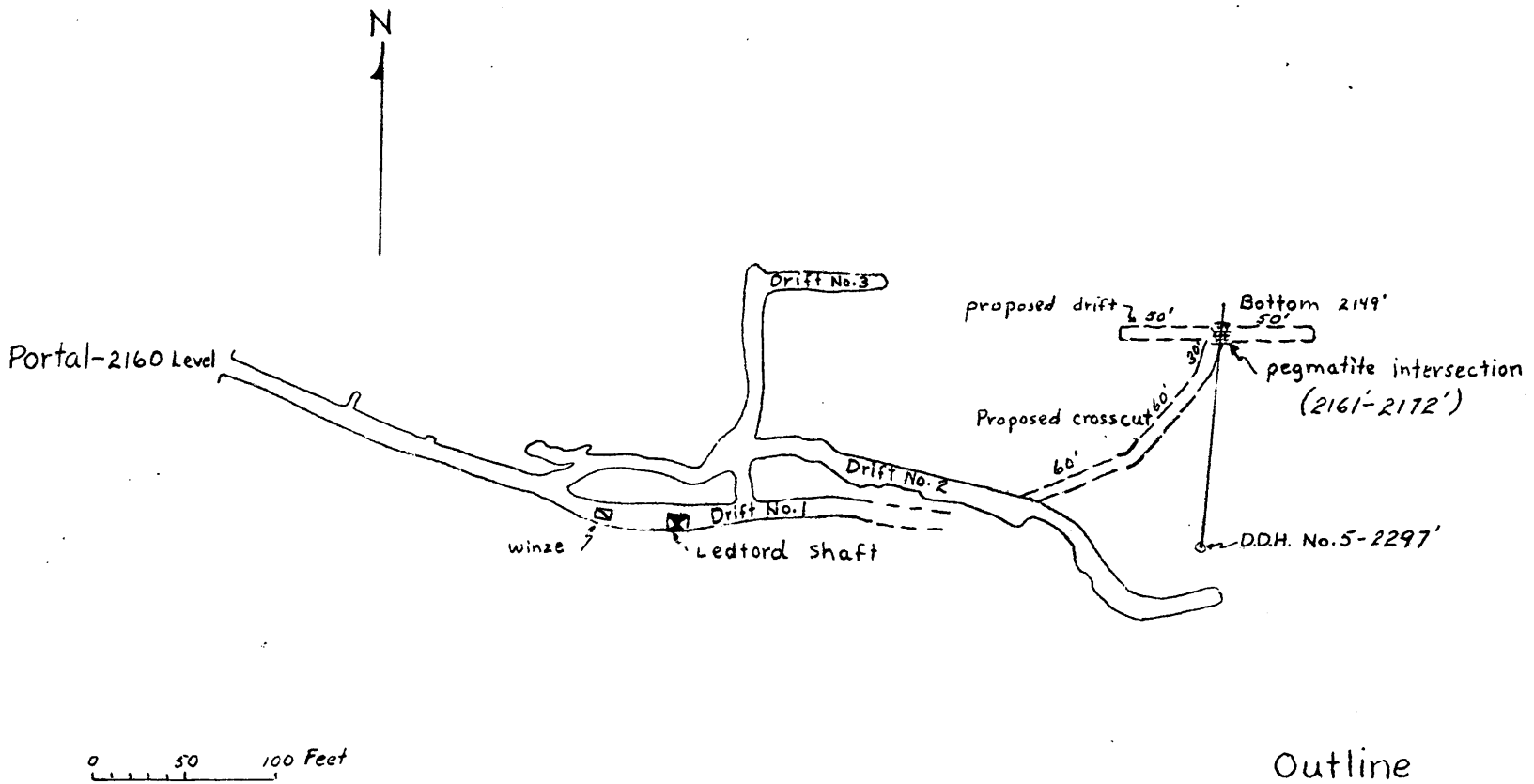
Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.



Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.



Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 250 FEDERAL BLDG.
KNOXVILLE 2, TENN.

August 16, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 19 1957

DATE	INITIALS	CODE
8-19	C	220
		600

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: DMEA-4801(mica) Mica Development Corporation, Franklin, N. C. Chalk Hill Mine, Macon County, N.C.

Reference is made to your letter of August 12.

The Chalk Hill Mine at present has three headings (one active, two inactive) on three separate pegmatite bodies, all served through a single main adit. It appears that the pegmatite cut by drill Hole No.5 is on the same structure as heading No.3 (the most northwesterly), in which the pegmatite has become too thin to work. The Applicant does not have any underground maps which will permit an accurate projection, so we cannot be sure of this.

However, the Survey geologists have recently started mapping some of the bigger mines, including Chalk Hill, and when their data are plotted we will be able to make a projection. Therefore, we will withhold a field examination until after completion of the mapping.

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

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

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/8	Houk	600
8/9	Martin	130
8/9	Yopes	130
8/9	Nelson	130
"	Johnson	110
"	Mittendorf	100
8/13	G.K.	220
		600

600

AUG 12 1957

Mica Development Corporation
Route #3, Box 237
Franklin, North Carolina

Re: Docket No. DMEA-4801-Mica
Mica Development Corporation
Chalk Hill Mine
Macon County, North Carolina

Gentlemen:

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

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

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

LGHouk:gad 8/7/57
Copy to: Admr. R. File
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/8	Houk	600
8/8	Martin	130
"	Johnson	110
9	Charleston	100
		220

600

AUG 12 1957

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

Re: Docket No. DMEA-4801-Mica
Mica Development Corporation
Chalk Hill Mine
Macon County, North Carolina

Dear Mr. Laurence:

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

Copies of memoranda dated July 31 and August 5, 1957, 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.

If an exploration project is recommended at the Chalk Hill Mine, the Mica Development Corporation will be required to assume the obligation to repay the $5,377.27, Government participation spent on the diamond drilling program, DMA-1665X, in the event certification is made. Please apprise the Applicant of this requirement.

Please inquire of Mr. Fouts the quality of the mica obtained from the open-cut, and since we are not familiar with the location of the work performed by the Mica Development Corporation we would appreciate it if an up-to-date map were provided by the Applicant.

Approved:

P. F. Yopes (JHB)
Member, Bureau of Mines

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

Sincerely yours,

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

LGHouk:gad 8/7/57

Enclosures 5

Copy to: Admr. R. File
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

8623

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

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 6 1957

DATE	INITIALS	CODE
8/6	P.K.	220
8/6	[illegible]	600

August 5, 1957

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: W. F. Dietrich, Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4801 (mica)

Applicant: Mica Development Corp. (Roy H. Fouts)

Name and Location of Property: Chalk Hill Mine, Macon County, N. C.

Date Application Rec'd. by Br. of Ceramic & Fertilizer Materials: 8/31/57

Comments:

1. Strategic mica has been produced from this mine for 40 years and the mine is still in operation.

2. In 1951-1952 exploration consisting of 6 diamond drill holes totaling 881 feet was conducted under DMEA-1665, Idm-e 129.

3. Although there was evidence of strategic mica in one of the holes 5 holes showed insufficient mica to be of interest and no certification was issued.

4. Applicant proposes to drift 200 feet from existing underground working and intersect a 16 foot pegmatitie cut by hole No. 5.

5. Log of hole No. 5 shows pegmatite cut at 5 different depths from 36 feet to 178 feet with no one being over 5 feet in thickness. Log description shows muscovite 1-inch across.

6. Field examiners should determine if the proposed work is exploration or development.

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

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 1 1957

IN REPLY REFER TO:

DATE	INITIALS	CODE
8/1	C	220
8/1	Houk	600

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

July 31, 1957
Re: DMEA 4801
Mica Development Corp.
Chalk Hill Mine
Macon County, N. C.
$7,000 - Mica

Memorandum

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

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

Subject: Review of application

The applicant requests assistance in further exploration of a pegmatite on which some work has been done and which has been cut by a DMEA assisted diamond drill hole. The hole is said by the applicant to have cut 16 feet of pegmatite. No claim is made that the pegmatite where cut is mica bearing. The DMEA work was done under contract Idm-E129, DMEA 1665.

The applicant says it has sold $100,000 worth of strategic mica in the past 3 years, but does not say it came from the pegmatite it proposes to explore.

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.

July 30, 1957

Mica Development Corporation
Route # 3, Box 237
Franklin, North Carolina

Subject: DMEA 4801

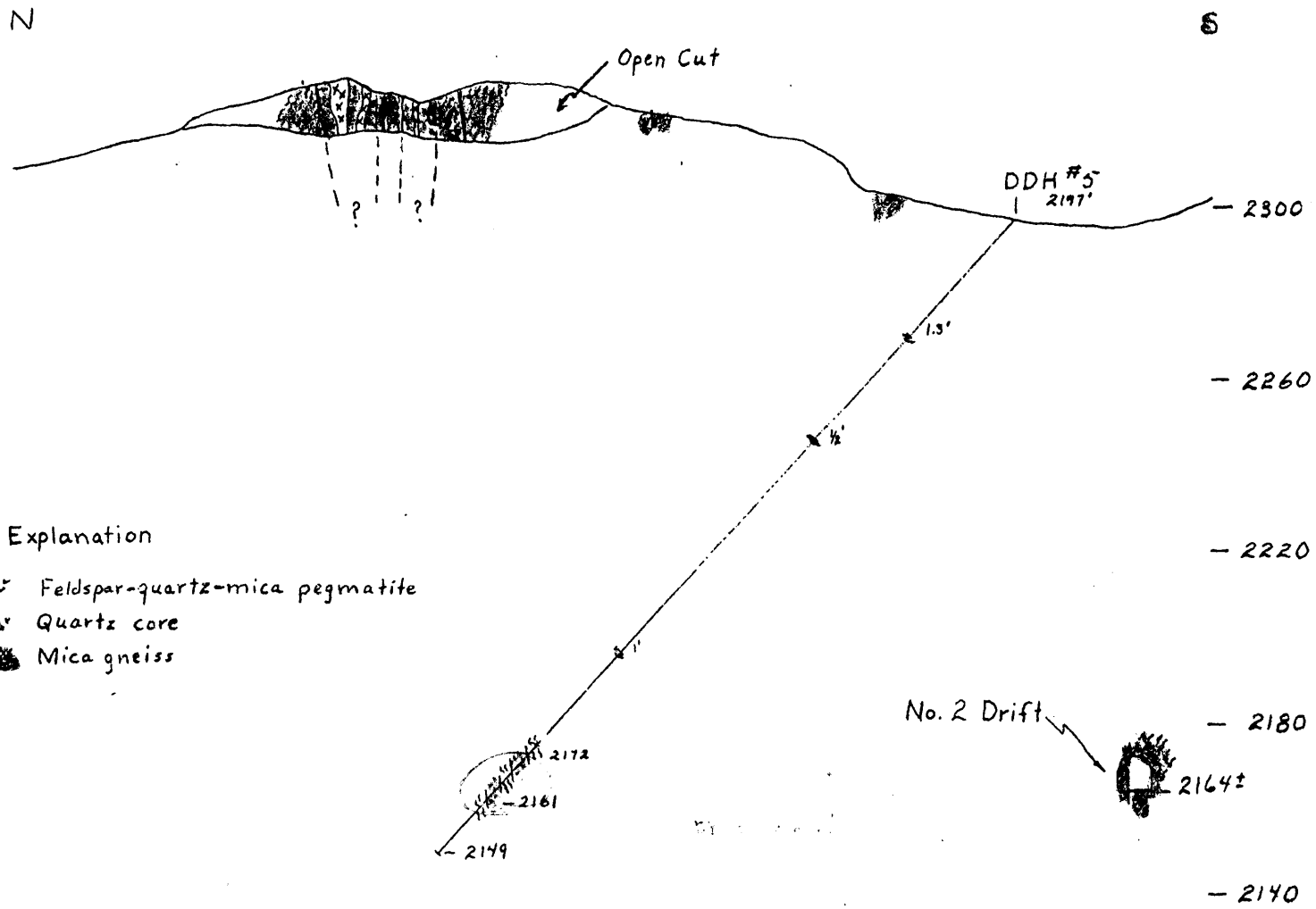
Gentlemen:

Your application for exploration assistance, dated July 23, 1957 submitted to our office at Knoxville, Tenn. has been assigned Docket Number 4801 and referred to the Division of Nonmetallic Minerals 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

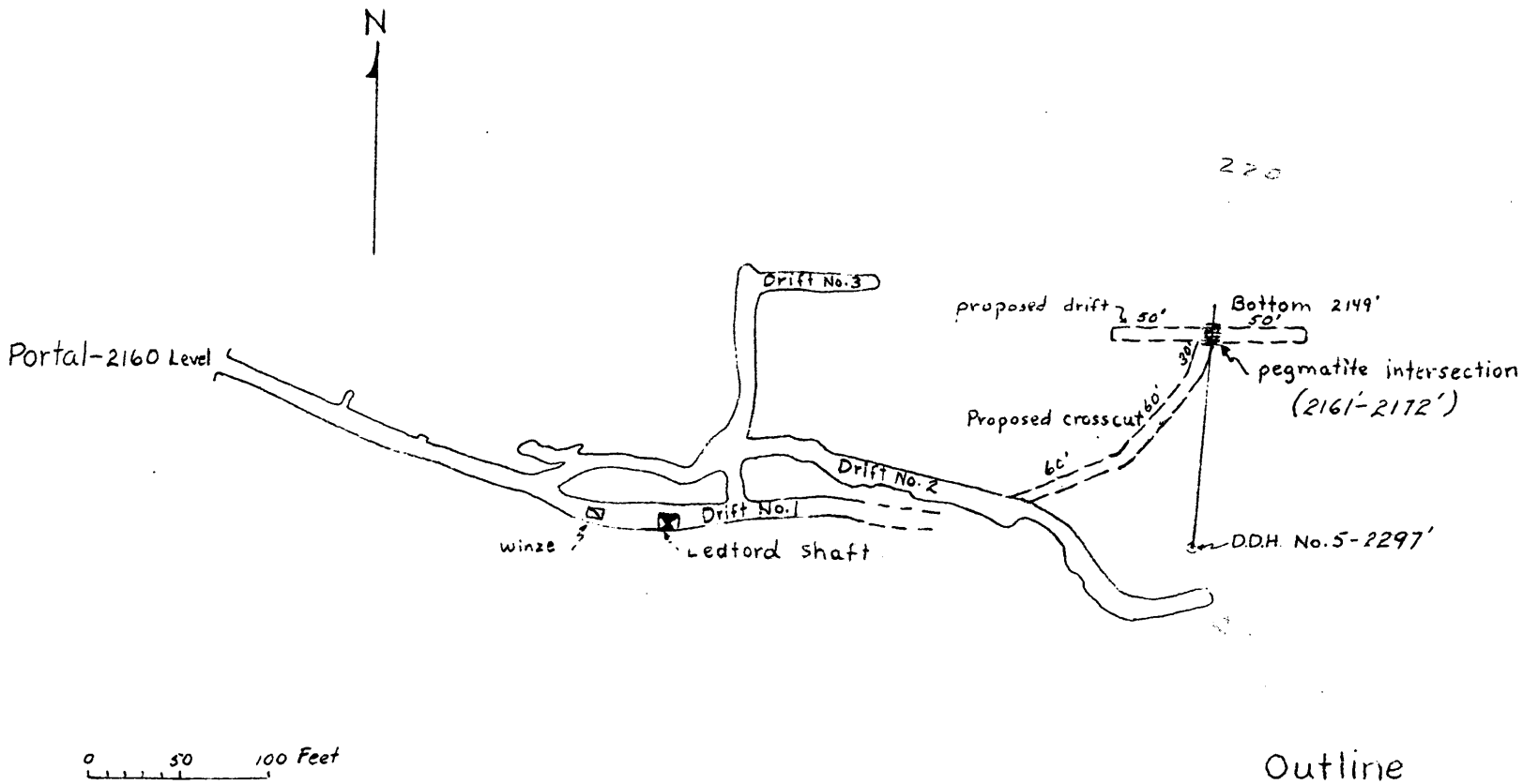


0 20 40 Feet

Cross section
through
DMEA DDH No. 5
Chalk Hill Mine
Macon County, N. Carolina

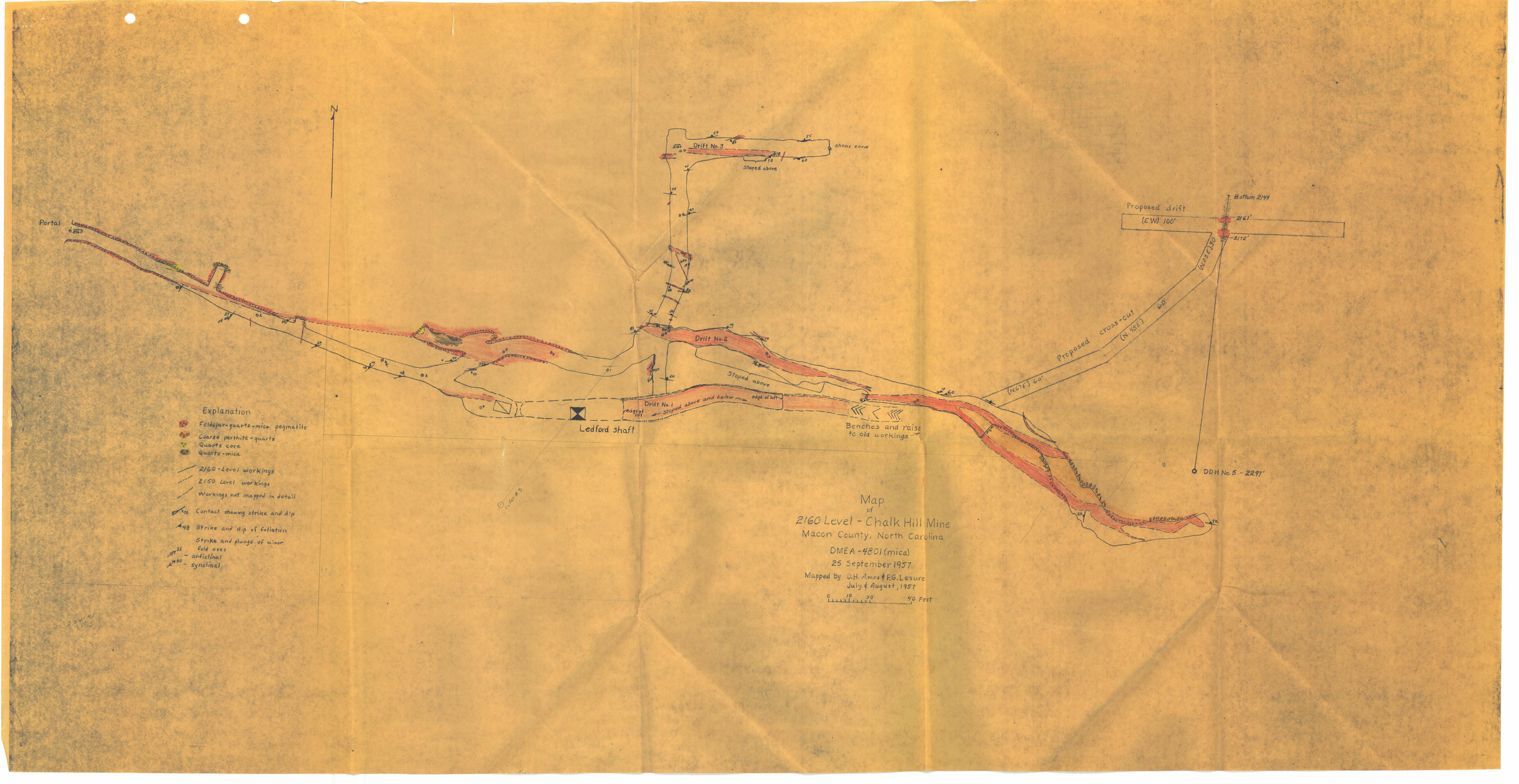
DMEA - 4801 (mica)
25 September 1957

F.G.L.



Outline
2160 Mine Level
Chalk Hill Mine
Macon County, N. C.
DMEA-4801 (mica)
25 September 1957

F.G.L.


N
Portal
2160
Drift No. 3
shear zone
Stoped above
Drift No. 2
Stoped above
Drift No. 1
edge of lift
stoped above and below
edge of lift
Ledford shaft
Benches and raise
to old workings
Proposed drift
(EW) 100'
Bottom 2149
2161'
2172'
Proposed cross-cut
(N 48 E) 60
(N 67 E) 60'
(N 23 E) 50
DDH No. 5 - 2297'
Explanation
Feldspar-quartz-mica pegmatite
Coarse perthite-quartz
Quartz core
Quartz-mica
2160-Level workings
2150 Level workings
Workings not mapped in detail
Contact showing strike and dip
Strike and dip of foliation
Strike and plunge of minor fold axes
- anticlinal
- synclinal
Map
of
2160 Level - Chalk Hill Mine
Macon County, North Carolina
DMEA-4801 (mica)
25 September 1957
Mapped by D.H. Ames & F.G. Lesure
July & August, 1957
0 10 20 40 Feet