DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE | Idm-E NO._____ | DMEA NO. 4896

Application
- [ ] Denied
- [ ] Withdrawn

Contract 23 MAY 1958 1194
- [X] Terminated - Not Certified
- [ ] Terminated - Certified

- [ ] Cancelled
- [ ] Royalty Agreement

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

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [X] Closing Letter - 3/19/59
- [X] Cost Audits
- [✓] Termination Notice or Agreement 8/26/58
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [✓] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [XX] Application and attachments

Right Side

- [✓] Project summary (final) 10-3-58
- [X] 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
- [✓] 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. II : Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

17963

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/17	Klugescheid	500
	[illegible]	500
3-18	[illegible]	800
3/19	Selfridge	130
		130
		130
		110
		100
		HB
3/19		220
		500

MAR 19 1959

Mr. Roland F. Beers, President
Roland F. Beers, Inc.
Post Office Box 1019
Troy, New York

Re: Docket No. DMEA-4896 (Copper-Lead-Zinc)
Roland F. Beers, Inc.
DE-10 Prospect
Davidson County, North Carolina
Contract No. Idm-E1194

Dear Mr. Beers:

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

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

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

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

WPKlugescheid/er 3/17/59
Copy to: Docket
Dir Read File
Op. Committee
Mr. McMahon, USBM
Mr. Kiilsgaard, USGS
Mr. Chambers, OME
Region V (2)
Chron.

OFFICE MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Roland F. Beers, Inc.
P. O. Box 1019
Troy, New York

pertaining to Exploration Project Contract No. Idm-E1194, DMEA No. 4896, for June 1958 and July 1958, inclusive, covering a copper-lead-zinc project on the DE-10 (Denton) Prospect, Davidson County, North Carolina.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents, comparison of the claimed costs with the contract and pertinent schedules, verification of work performed by reference to Field Team reports and correspondence, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the reasons given in the attached schedule.

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

Total cost billed by Operator		$6,933.82
Exceptions:		
Prior to this review	$ -0-	
Herewith	-0-	-0-
Total acceptable cost		$6,933.82

The contract calls for a 50 percent contribution of the allowable costs by the Government. Therefore, if the project is otherwise accepted as having met the terms of the contract, payments as follows are valid and proper:

Payable on audited claim	$3,466.91
Paid to date	1,642.75
Balance due Operator	$1,824.16

E. D. Talbert, Auditor

September 24, 1958

Reasons for Report of Review in lieu of a final audit:

(a) the Monthly Reports were supported by documentary proof of that portion ($5,882.30) of the costs covering work performed at unit rates under independent contract;

(b) the balance ($1,051.52) of the costs was under a contract provision for payment by the Government at fixed unit costs for work performed; and

(c) the administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible disallowances.

Government's copy

Robin Hoffland

App'd. Sol. Off.

Hyzerchek
Chandler
Selfridge
Johnson

TERMINATION AGREEMENT

It is agreed this 26th day of August, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Roland F. Beers, Inc., hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1194 (Docket No. DMEA-4896), dated May 23, 1958, hereinafter called the "Contract," that:

1. Effective July 31, 1958, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute to allowable costs incurred prior to said effective date.

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

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

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

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

THE UNITED STATES OF AMERICA

By O. Mitterdorf
Administrator, Defense Minerals
Exploration Administration

ROLAND F. BEERS, INC.

By Roland F. Beers

Title President

Government's Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4896

Commodity copper-Lead-Zinc

Contract No. Idm-E 1194

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 13 1958
DATE | INITIALS | CODE

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 23rd day of 23 MAY 1958, 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Roland T. Beers, Inc., a New York corporation, whose mailing address is P. O. Box 1019 Troy, New York, hereinafter called the "Operator," as follows:

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

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] See Annex I in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] See Annex I, [7] recorded in Book ..., page ..., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: interests of lessors

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Surety Company's Performance Bond was furnished to the Government in lieu of Consents to Lien and Subordination Agreements of lessors

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Copper, Lead, and Zinc The work to be performed is described in Exhibit "A." The Operator on or before June 20, 1958 shall commence the work, and on or before January 20, 1959 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A"~~ See Annex II

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

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $13,080.00 The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $6,540.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; ~~but except for any such excess any excesses in categories, subcategories, or items hereunder the Operator is not obligated to incur more than his agreed percentage of the estimated total allowable cost of the work.~~ See Annex II.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. 8 (See Annex II.)

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

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

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

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

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

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

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

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

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

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

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

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

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

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

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

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

ARTICLE 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—
See Annex II.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O Mitterdorf
Administrator, Defense Minerals
Exploration Administration

ROLAND F. BEERS, INC.
(Operator)

By Helen C Beers

Title: Vice President

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

John S. Bakos

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70017-1

Long
App'd. Sol. Off.
Klugescheid
Gurnard
Tafft
Selbridge
Johnson

35485

EXPLORATION PROJECT CONTRACT
ROLAND F. BEERS, INC.
DOCKET NO. DMEA-4896

ANNEX I

The land referred to in Article 2 of the Contract consists of three contiguous tracts, totaling approximately 597 acres outlined in blue on the map entitled "DE-10-Denton Prospect, Davidson County, North Carolina - Map No. 1," attached and made a part hereof.

The Operator is in possession by virtue of leases, copies of which are in the DMEA file and the descriptions therein are incorporated herein by reference, and the originals of which are recorded in the office of the Register of Deeds of Davidson County, North Carolina, and listed as follows:

1. Lease of 507 acres from Baxter Lineberry Morris and wife, Grace Hill Morris, dated September 13, 1957, recorded in Deed Book 304, at page 183.

2. Lease of 55 acres from W. A. Johnson and wife, Bettie Johnson, dated September 25, 1957, recorded in Deed Book 304, at page 179.

3. Lease of 35 acres from E. Howell Elliott and wife, Mabel Elliott, dated October 29, 1957, recorded in Deed Book 304, at page 174.

The Government has accepted the attached Performance Bond in lieu of the Consents to Lien and Subordination Agreements of the lessors.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 12 1968

EXPLORATION PROJECT CONTRACT
ROLAND F. BEERS, INC.
DOCKET NO. DMEA-4896

ANNEX II

Article 13. Changes and added provisions--

(a) In Article 3, the words following the reference to Article 10 are deleted, and the following words are substituted: "Shall have completed the work."

(b) In Article 6(a), that part of the last sentence in the first paragraph beginning after the semicolon is deleted.

(c) Categories (2) through (7) of Article 6(a) are deleted.

(d) In addition to the costs of work estimated in Exhibit "A" by categories of actual costs, the costs of work requirements specified in Exhibit "A" as "Fixed Unit Costs" are allowable costs of the project. The Government will contribute to the fixed unit costs as work units are performed. A "Fixed Unit Cost" is an agreed price for each unit of work to be performed regardless of costs incurred by the Operator. Costs set forth in Exhibit "A" include all allowable costs of the work to be performed under the Contract.

(e) In Article 6(c), the words "Article 9" are changed to "Article 8."

DMEA

EXPLORATION PROJECT CONTRACT
ROLAND F. BEERS, INC.
DOCKET NO. DMEA-4896

EXHIBIT "A"

Description of the Work

The purpose of the project, based upon prior geophysical reconnaissance work, is to explore the metamorphic rocks underlying the anomalies for ores of copper, lead, and zinc by overburden drilling and diamond drilling.

Drill six vertical diamond drill holes to average depths of approximately 500 feet, aggregating not in excess of 3,500 feet. Tentative locations of the holes are shown on the map entitled "Map of Proposed Drill Hole Locations for DMEA-4896 - D-10 Prospect - Map No. 5," attached and made a part hereof.

The actual locations, directions, inclinations, and depths of all holes are subject to prior Government approval. Drill holes shall be spaced at intervals of at least 200 feet.

Drill holes shall be collared in rock NX size.

All diamond drilling shall be performed with AX size, or larger, coring bits, except when, in the opinion of the Government, it is necessary, the hole may be reduced with EX casing and completed with EX size bits. Drill holes shall be reamed and cased or cemented and redrilled as necessary. No drilling shall be performed at locations which are within 200 feet of the outside boundary of the land.

The Government will not contribute to the cost of drilling any hole which is not completed.

All drill holes shall be logged and all drill cores shall be made available to the Government for examination. All significantly mineralized core, in lengths not to exceed 5 feet, shall be split and one-half thereof shall be properly sampled, and assayed for copper, lead and zinc. The Government will not contribute to the cost of assaying more than 40 samples.

Sludges corresponding to the cores shall be retained (if possible) when drilling is being done in significantly mineralized ground. In the event that the core recovery does not exceed 70 percent, both core and sludge samples shall be taken at intervals not to exceed 5 feet.

The remaining half of all significantly mineralized core samples, and sludge samples when taken, shall be furnished to the Government upon request.

All assays shall be reported monthly to the Government, together with the logs of the drill holes and proper plan maps and sections showing the progress of the work and the sample locations.

All drilling and sample preparation shall be properly supervised by competent engineers and geologists.

Estimated Cost of the Project

Actual Costs

Category (1) Independent Contracts

NX drilling to collar hole in rock 90 feet @ $3.40/ft.	$306.00
Overburden drilling and rock drilling (not less than AX size core), 3,410 feet @ $2.90/ft.	9,889.00

EX size @ $2.65/ft.

Cementing, reaming, etc. 25 hours @ $7.50/hr.	$188.00	
Delays not attributable to drillers, 20 hours @ $6.50/hr.	130.00	
Mobilization and demobilization of personnel and drilling equipment	300.00	
Surveying drill holes with Maas Compass, 25 hours @ $7.50/hr.	187.00	$11,000.00

The above rates include charges for water supply, changing of locations, and all other charges by the diamond drill contractor.

Neither the cost nor the value of the casing left in drill holes at the option of the Operator will be accepted as a charge to the Contract.

Categories (2) through (7)

None

Fixed Unit Costs (See Article 13)

Incidental allowance 1/ for each foot of drilling completed, 3,500 feet @ $0.46/ft.	$1,610.00	
Core boxes (wooden), 100 @ $3.00/each	300.00	
40 samples assayed @ $4.00/sample	160.00	$2,070.00
Estimated total cost of the project (rounded to)		$13,080.00
Government's participation @ 50 percent		$6,540.00

1/ Includes all costs that might otherwise have been allowable costs under Categories (1) through (7) of Article 6(a) except as scheduled in Exhibit "A."

STANDARD FORM 25
REVISED NOVEMBER 1950
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
GENERAL REGULATION NO. 5

PERFORMANCE BOND

(See Instructions on Reverse)

DATE BOND EXECUTED: May 29, 1958

PRINCIPAL: ROLAND F. BEERS, INC., 447 Pinewoods Ave., Troy, New York.
A New York Corporation.

SURETY: HARTFORD ACCIDENT AND INDEMNITY COMPANY, Hartford, Conn. -
A Connecticut Corporation authorized to do business in the State of New York.

PENAL SUM OF BOND (*express in words and figures*)	CONTRACT NO.	DATE OF CONTRACT
SIX THOUSAND EIGHT HUNDRED FIFTY AND NO/100 - - - - - - - - - - ($6,850.00) DOLLARS	DMEA-4896	May 29, 1958

KNOW ALL MEN BY THESE PRESENTS, That we, the PRINCIPAL and SURETY above named, are held and firmly bound unto the United States of America, hereinafter called the Government, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the Government, numbered and dated as shown above and hereto attached;

NOW THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Government, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

In Presence of:

WITNESS		INDIVIDUAL PRINCIPAL	
1.	as to		[SEAL]
2.	as to		[SEAL]
3.	as to		[SEAL]
4.	as to		[SEAL]

WITNESS		INDIVIDUAL SURETY	
1.	as to		[SEAL]
2.	as to		[SEAL]

Attest: Dorothy H. Beals

CORPORATE PRINCIPAL: ROLAND F. BEERS, INC.
BUSINESS ADDRESS: 447 Pinewoods Ave., Troy, N. Y.
BY: Helen C. Beers
TITLE: Vice President
AFFIX CORPORATE SEAL

Attest: Dorothy H. Beals

CORPORATE SURETY: HARTFORD ACCIDENT AND INDEMNITY COMPANY
BUSINESS ADDRESS: Asylum St., Hartford, Conn.
BY: Marcus V. McEvoy
TITLE: Marcus V. McEvoy, Attorney-in-Fact
AFFIX CORPORATE SEAL

STANDARD FORM 25
NOVEMBER 1950 EDITION

16—30441-2

The rate of premium on this bond is $10.00 per thousand.

Total amount of premium charged, $ 68.50

(The above must be filled in by corporate surety)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, John S. Bakos, certify that I am the assistant secretary of the corporation named as principal in the within bond; that Helen C. Beers, who signed the said bond on behalf of the principal, was then Vice President of said corporation; that I know ~~his~~ her signature, and ~~his~~ her signature thereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

John S. Bakos

John S. Bakos [CORPORATE SEAL]

INSTRUCTIONS

1. This form shall be used for construction work or the furnishing of supplies or services, whenever a performance bond is required. There shall be no deviation from this form except as authorized by the General Services Administration.

2. The surety on the bond may be any corporation authorized by the Secretary of the Treasury to act as surety, or two responsible individual sureties. Where individual sureties are used, this bond must be accompanied by a completed Affidavit of Individual Surety for each individual surety (Standard Form 28).

3. The name, including full Christian name, and business or residence address of each individual party to the bond shall be inserted in the space provided therefor, and each such party shall sign the bond with his usual signature on the line opposite the scroll seal, and if signed in Maine or New Hampshire, an adhesive seal shall be affixed opposite the signature.

4. If the principals are partners, their individual names shall appear in the space provided therefor, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.

5. If the principal or surety is a corporation, the name of the State in which incorporated shall be inserted in the space provided therefor, and said instrument shall be executed and attested under the corporate seal as indicated in the form. If the corporation has no corporate seal the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name.

6. The official character and authority of the person or persons executing the bond for the principal, if a corporation, shall be certified by the secretary or assistant secretary, according to the form herein provided. In lieu of such certificate there may be attached to the bond copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.

7. The date of this bond must not be prior to the date of the instrument in connection with which it is given.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1951—O-79566

Hartford Accident and Indemnity Company

Hartford, Connecticut

Financial Statement, December 31, 1957

ASSETS		LIABILITIES		
U. S. Government Bonds	$109,461,003.00	Reserve for Claims and Claims Expense		$192,205,129.12
Bonds of other Governments	2,348,890.00	Reserve for Unearned Premiums		101,015,954.93
State, County and Municipal Bonds	138,114,106.00	Reserve for Taxes		5,885,256.73
Miscellaneous Bonds	254,200.00	Reserve for Unauthorized Reinsurance		259,848.03
Stocks	104,764,939.95	Amounts withheld for account of others		1,236,336.31
Real Estate, Mortgages, Etc.	8,003.51	Miscellaneous Liabilities		2,166,817.00
	$354,951,142.46			**$302,769,342.12**
		Voluntary Reserve	$35,000,000.00	
Cash in Offices and Banks	19,149,848.99	Capital Paid In	10,000,000.00	
Outstanding Premiums less Commissions (Under 90 Days)	34,672,337.02	Unassigned Funds (Surplus)	72,369,691.07	
Interest Accrued	1,516,802.68			
Sundry Assets	9,848,902.04	Surplus as regards Policyholders		117,369,691.07
Total Admitted Assets	**$420,139,033.19**	**Total**		**$420,139,033.19**

STATE OF CONNECTICUT,
COUNTY OF HARTFORD, } ss.

Wilson C. Jainsen, President of the Hartford Accident and Indemnity Company, being duly sworn, does hereby certify that the foregoing is a correct statement of the assets and liabilities of the said Company as of December 31, 1957, and in witness whereof said President has hereunto signed and caused the corporate seal to be affixed hereto.

Acknowledged and sworn to before me
this 6th day of February, 1958

Herbert P. Schoen

Notary Public
My commission expires March 31, 1962

Wilson C. Jainsen
President

Attest: A. E. Young
Vice-President and Secretary-Treasurer

Form G-1208 Printed in U. S. A.

Hartford Accident and Indemnity Company

HARTFORD, CONNECTICUT

1919

POWER OF ATTORNEY

Know all men by these Presents, That the HARTFORD ACCIDENT AND INDEMNITY COMPANY, a corporation duly organized under the laws of the State of Connecticut, and having its principal office in the City of Hartford, County of Hartford, State of Connecticut, does hereby make, constitute and appoint

PETER D. KIERNAN, HARRY N. PITT, JR., MARCUS V. McEVOY, THOMAS J. FLANIGAN, PETER D. KIERNAN, JR., WILLIAM H. BRADT, LUKE J. HENRY, and CARL W. MUELLER, of ALBANY, NEW YORK,

its true and lawful Attorney(s)-in-fact, with full power and authority to each of said Attorney(s)-in-fact, in their separate capacity if more than one is named above, to sign, execute and acknowledge any and all bonds and undertakings and other writings obligatory in the nature thereof on behalf of the company in its business of guaranteeing the fidelity of persons holding places of public or private trust; guaranteeing the performance of contracts other than insurance policies; guaranteeing the performance of insurance contracts where surety bonds are accepted by states and municipalities, and executing or guaranteeing bonds and undertakings required or permitted in all actions or proceedings or by law allowed.

and to bind the HARTFORD ACCIDENT AND INDEMNITY COMPANY thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the HARTFORD ACCIDENT AND INDEMNITY COMPANY and sealed and attested by one other of such officers, and hereby ratifies and confirms all that its said Attorney(s)-in-fact may do in pursuance hereof.

This power of attorney is granted under and by authority of the following By-Law adopted by the Stockholders of the HARTFORD ACCIDENT AND INDEMNITY COMPANY at a meeting duly called and held on the 10th day of February, 1943.

ARTICLE IV

SECTION 8. The President or any Vice-President, acting with any Secretary or Assistant Secretary, shall have power and authority to appoint, for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, one or more Resident Vice-Presidents, Resident Assistant Secretaries and Attorneys-in-fact and at any time to remove any such Resident Vice-President, Resident Assistant Secretary, or Attorney-in-fact, and revoke the power and authority given to him.

SECTION 11. Attorneys-in-fact shall have power and authority, subject to the terms and limitations of the power of attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company thereto any and all bonds and undertakings, and other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-fact shall be as binding upon the Company as if signed by an Executive Officer and sealed and attested by one other of such Officers.

This power of attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Directors of the HARTFORD ACCIDENT AND INDEMNITY COMPANY at a meeting duly called and held on the 13th day of March, 1956.

RESOLVED, that, whereas the President or any Vice-President, acting with any Secretary or Assistant Secretary, has the power and authority to appoint by a power of attorney, for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, one or more Resident Vice-Presidents, Assistant Secretaries and Attorneys-in-fact;

Now therefore the signatures of such officers and the seal of the Company may be affixed to any such power of attorney or to any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

In Witness Whereof, the HARTFORD ACCIDENT AND INDEMNITY COMPANY has caused these presents to be signed by its Vice-President, and its corporate seal to be hereto affixed, duly attested by its Secretary, this 22nd day of April, 1957.

Attest: HARTFORD ACCIDENT AND INDEMNITY COMPANY

Secretary *Vice-President*

STATE OF CONNECTICUT, } ss.
COUNTY OF HARTFORD,

On this 22nd day of April, A. D. 1957, before me personally came Wm. H. Wallace, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Vice-President of the HARTFORD ACCIDENT AND INDEMNITY COMPANY, the corporation described in and which executed the above instrument; that he knows the seal of the said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.

STATE OF CONNECTICUT, } ss.
COUNTY OF HARTFORD,

HERBERT P. SCHOEN NOTARY PUBLIC HARTFORD, CONN.

Notary Public
My commission expires March 31, 1962

CERTIFICATE

I, the undersigned, Assistant Secretary of the HARTFORD ACCIDENT AND INDEMNITY COMPANY, a Connecticut Corporation, DO HEREBY CERTIFY that the foregoing and attached POWER OF ATTORNEY remains in full force and has not been revoked; and furthermore, that Article IV, Sections 8 and 11, of the By-Laws of the Company, and the Resolution of the Board of Directors, set forth in the Power of Attorney, is now in force.

Signed and sealed at the City of Hartford. Dated the 29th day of May 19 58

Assistant Secretary

Form S-3507 2nd Rev. Printed in U.S.A. 3-'57

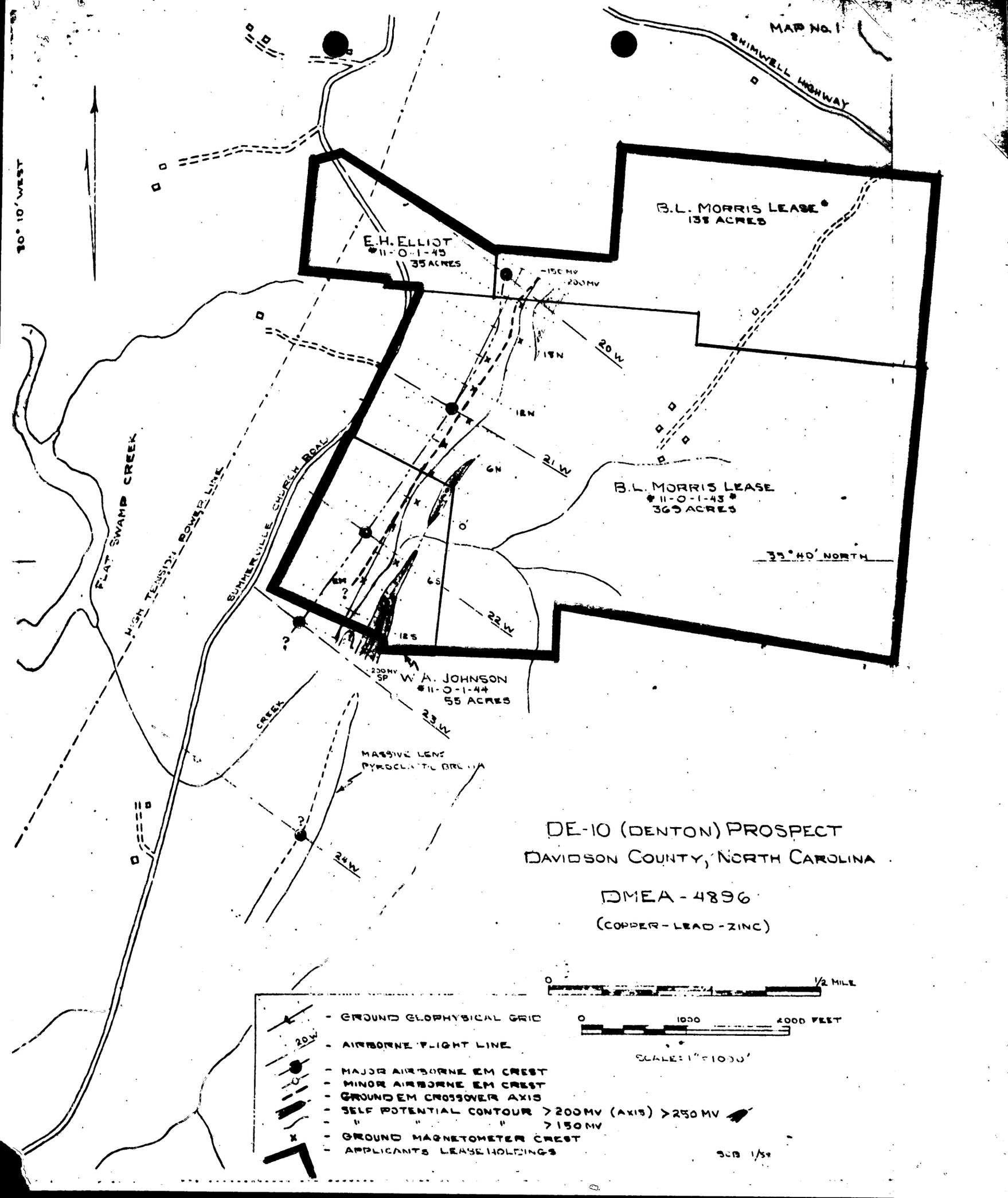
SEE REVERSE SIDE

STATE OF NEW YORK)
) ss.
COUNTY OF Albany)

On May 29, 1958, before me personally came Marcus V. McEvoy, to me known who, being by me duly sworn, did depose and say, that he resides in Town of Colonie, Newtonville, N. Y.; that he is the attorney-in-fact of the HARTFORD ACCIDENT AND INDEMNITY COMPANY, the corporation described in and which executed the within instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order; and that the Superintendent of Insurance of the State of New York has, pursuant to Chapter 33 of the Laws of the State of New York for the year 1909, as amended, constituting Chapter 30 of Cahill's Consolidated Laws of the State of New York, as amended, issued to the HARTFORD ACCIDENT AND INDEMNITY COMPANY his certificate that said Company is qualified to become and be accepted as surety or guarantor on all bonds, undertakings, and other obligations or guarantees, as provided by the Insurance Law of the State of New York and all laws amendatory thereof and supplementary thereto; and that such certificate has not been revoked.

John J. Carroll Jr.
Notary Public,

JOHN J. CARROLL JR.
Notary Public in the State of New York
Residing in Rensselaer County
Commission Expires March 30, 1959


MAP NO. 1
SHIMWELL HIGHWAY
30° 10' WEST
B.L. MORRIS LEASE*
135 ACRES
E.H. ELLIOT
#11-0-1-45
35 ACRES
-150 MV
-200 MV
20 W
18N
18N
21 W
6N
B.L. MORRIS LEASE
#11-0-1-43*
365 ACRES
35° 40' NORTH
FLAT SWAMP CREEK
HIGH TENSION POWER LINE
SUMMERVILLE CHURCH ROAD
6M
6S
22 W
18S
230 MV
SP
W.A. JOHNSON
#11-0-1-44
55 ACRES
23 W
CREEK
MASSIVE LENS
PYROCLASTIC BRECCIA
24 W
DE-10 (DENTON) PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA
DMEA-4896
(COPPER-LEAD-ZINC)
0
1/2 MILE
0
1000
4000 FEET
SCALE: 1" = 1000'
- GROUND GEOPHYSICAL GRID
- AIRBORNE FLIGHT LINE
- MAJOR AIRBORNE EM CREST
- MINOR AIRBORNE EM CREST
- GROUND EM CROSSOVER AXIS
- SELF POTENTIAL CONTOUR >200MV (AXIS) >250 MV
- " " " >150 MV
- GROUND MAGNETOMETER CREST
- APPLICANTS LEASEHOLDINGS
SCB 1/59

Roland F. Beers, Inc.
P. O. Box 3725, University Station
Charlottesville, Va.

Dear Sirs:

We have examined the form number MF-203, "Consent to Lien and Subordination Agreement", and we are unwilling to sign same.

Very truly yours,

Baxter L. Morris
B. L. Morris

Grace Hill Morris
Grace Hill Morris

ALL ANSWERS SUPPLIED AND COMPLETELY SUBSCRIBED AND SWORN BEFORE ME THIS 11 DAY OF April 1958. MY COMMISSION EXPIRES 8-9-59

Jeannine B. Morris
Notary Public

Denton, N. C.
Address

(SEAL)

Roland F. Beers, Inc.
P. O. Box 3725, University Station
Charlottesville, Va.

Dear Sirs:

We have examined the form number MF-205, "Consent to Lien and Subordination Agreement", and we are unwilling to sign same.

Very truly yours,

Howell Elliott
Howell Elliott

Mabel Elliott
Mabel Elliot

Signed before me this 12 day April 1958
Robert Clemell N.P.
My Com. Ex - 1-14-60

Roland F. Beers, Inc.
P. O. Box 3725, University Station
Charlottesville, Va.

Dear Sirs:

We have examined the form number MF-205, "Consent to Lien and Subordination Agreement", and we are unwilling to sign same.

Very truly yours,

W. A. Johnson
W. A. Johnson

Bettie Johnson
Bettie Johnson

ALL ANSWERS SUPPLIED AND COMPLETELY SUBSCRIBED AND SWORN BEFORE ME THIS 11 DAY OF April 1958. MY COMMISSION EXPIRES 8-9-59.

Jeannine B. Morris
Notary Public

Denton, N.C.
Address

(SEAL)

BRANCH OFFICE
1111 ROSE HILL DRIVE
CHARLOTTESVILLE, VIRGINIA
PHONE 2-4918

ROLAND F. BEERS, INC.

December 7, 1957

MAIL ADDRESS
P. O. BOX 3725
UNIVERSITY STATION
CHARLOTTESVILLE, VIRGINIA

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 12 1957

DATE	INITIALS	CODE

Mr. W. R. Griswold
Chief, Base Metals Division
Defense Minerals Exploration Adm.
Department of the Interior
Washington 25, D. C.

Dear Mr. Griswold:

Attached is an application for DMEA assistance on our DE-10 prospect, Davidson County, North Carolina. The prospect was discovered through a regional, airborne electromagnetic survey conducted by Roland F. Beers, Inc. Leases have been obtained on the land, and all preliminary geological investigations have been completed.

Of the three drilling bids submitted, that of E. J. Longyear Company was the lowest. This factor together with the designated wire-line drilling technique makes their bid preferable to the Corporation. It is recommended that the drilling contract be awarded to the E. J. Longyear Company. The total recommended drilling will cost approximately $5,190.50; the total cost of the entire recommended program is $7,267.67.

We sincerely hope that you will find this application in order and of merit.

Very truly yours,

Robert S. Young

Robert S. Young,
Branch Manager

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)

Roland F. Beers, Inc.
P. O. Box 1019
Troy, New York

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-4896
Date Received: 12/12/57
Government Participation %:
Region: V
Division Code: 500

BUSINESS ORGANIZATION (Check one)

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

State in which firm is organized: New York

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
See Attachment A		

Mineral(s) for which you wish to explore: chalcopyrite-galena-sphalerite

Estimated Cost of Project: $ 7,267.67

LOCATION OF PROPERTY

Name	County	State
Denton	Davidson	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.

Dated

BY (Signature)

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:* Attachment B

(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:* Attachment C

(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:* Attachment D

(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:* Attachment E

(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:* Attachment F

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:* Attachment G

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.

Attachment H

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

* * * * *

INT.-DUP. SEC., WASH., D.C.-15539

Attachment A

ATTACHMENT A

ORIGINAL COPY
DMEA
RECEIVED DEC 12 1957
DATE | INITIALS | CODE

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

Corporation, State of New York

Roland F. Beers, President and Treasurer
465 Pinewoods Avenue, Troy, New York

Helen C. Beers, Vice President
465 Pinewoods Avenue, Troy, New York

Frank A. McNamee, Jr., Secretary
75 State Street, Albany, New York

Roland F. Beers, Inc. is the manager of operations for a group known as The American Syndicate. The names and addresses of the Syndicate members follow:

Basic Incorporated, 845 Hanna Building, Cleveland, Ohio
Victor Bator, 30 East 72nd Street, New York, New York
Roland F. Beers, 465 Pinewoods Ave., Troy, New York
Roland F. Beers, Inc., 447 Pinewoods Ave., Troy, New York
Eugene F. Connally, 471 Second Avenue, Troy, New York
Erwin F. Darrin, P. O. Box 2465, Spartanburg, South Carolina
James R. Dunn, View Drive, R. D. 2, Averill Park, New York
C. Emory Lochner, 75 State Street, Albany, New York
Shepard W. Lowman, P. O. Box 876, Troy, New York
W. W. MacGregor, 40A Schuyler Apts., Menands, Albany 4, New York
Malartic Gold Fields, Ltd., Halet, Quebec, Canada
Salomon Bros. & Hutzler, c/o John Stévenson, 60 Wall Street, New York, New York
John M. Schiff, 30 Wall Street, New York, New York
South Texas Development Company, 100 State Street, Albany, New York
Wytex Oil Corporation, 100 State Street, Albany, New York

Attachment B

ATTACHMENT B

RECEIVED DEC
DATE

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

1. (a) Applicant's Property Rights (see Property Map).

MORRIS PROPERTY (Lease # 11-0-1-43)

February 25, 1941

D. T. Fritts and wife, Notie B.

to

B. L. Morris

A certain parcel of land in Emmons township of Davidson County, N. C., adjoining the lands of C. L. Garner and B. M. Hedrick.

Beginning at a stone, Henry Hill's corner; thence south 6 degrees west 41.60 chains to C. L. Garner's corner; thence north 81 degrees west 49.70 chains to a stone heap; thence south 3 degrees west 7.40 chains to a stone heap; thence north 87 degrees west 18 chains to a stone, B. M. Hedrick corner; thence north 8 degrees east 23.90 chains to a stone; thence north 62½ degrees west 17.70 chains to a stone; thence north 29 degrees east 22.50 chains to a stone; south 84 degrees east 40.26 chains to a stone; thence south 5 degrees west 4 chains to a stone; thence south 84 degrees east 36.60 chains to the beginning; containing 369 acres more or less.

As recorded in Davidson County Court House, Lexington, N. C., in Deed Book 147, page 45.

July 1, 1942

W. R. Owen and wife, Emma Clapp

to

B. L. Morris

A certain parcel of land in Emmons township of Davidson County, N. C., adjoining land of B. L. Morris.

Beginning at a post oak, Alex Gallimore's corner; thence south 84 degrees east 30 chains to a stone; thence west 5 degrees south 4 chains to a stone heap; thence south 84 degrees east 33 chains to a stone heap in C. L. Garner line, thence east 6 degrees north 28 chains and 40 links to a stone heap; thence north 85 degrees west 47 chains

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

and 8 links to a stone heap; thence west 5 degrees south 15 chains and 77 links to a stone heap; thence north 84 degrees west 16 chains and 42 links to a stone heap; thence west 3 degrees south 7 chains and 23 links to beginning.

Less 10 acres sold off to his daughter. See deed. The entire tract containing 138 acres less the 10 acres sold. 128

This deed intends to convey the 10 acres known as the Will Morris property bounded as follows which was formerly part of the above tract:

Beginning at a stone C. L. Garner corner; thence west 10 chains to a stone; thence south 12 chains to a stone; thence east 7 chains and 90 links to a stone; thence north 12 chains and 11 links to the beginning. Containing 9 6/10 acres more or less.

July 2, 1923

H. P. Sexton and wife, Addie

to

B. L. Morris

A certain parcel of land in Emmons township of Davidson County, N. C., adjoining land of A. A. Snyder and A. S. Johnson, J. P. Bingham and H. P. Sexton.

Beginning at a stone in A. A. Snyder line; thence east 10 chains and 68 links to ditch new corner in H. P. Sexton; thence north 11 chains and 43 links to Johnson line; west 10 chains and 10 links to Snyder corner; south 11 chains and 90 links to the beginning. Containing 12 acres more or less.

As recorded in Davidson County Court House, Lexington, N. C., in Deed Book 95, page 66.

October 31, 1940

Henry H. Frank

to

B. L. Morris

A certain parcel of land in Emmons township of Davidson County, N. C., adjoining the lands of Ellen Hedrick, C. D. Workman, and George Young and others.

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P. O. Box 1019
Troy, New York

Beginning at a stone pile Ellen Hedrick corner in P. J. Hedricks line; thence west with said Hedrick line 25.50 chains to a stone in said line; thence north 5 chains to a stone; thence south 37½ degrees east 6 chains to a stone George Young's corner; thence north with said line 23.70 chains to a stone in C. D. Workman line; thence east 12.72 chains to a stone in Ellen Hedrick line; thence south 8.14 chains to a pine, Ellen Hedrick line; thence east 7 chains to a rock pile in Ellen Hedricks line; thence south with said line 20.40 chains to the beginning. Containing 53½ acres more or less.

As recorded in Davidson County Court House, Lexington, N. C., in Deed Book 145, page 236.

JOHNSON PROPERTY (Lease # 11-0-1-44)

Jan. 22, 1948

Eula Gallimore, Elsie Floyd, widows; H. M. Hedrick and wife, Julia; Maude Hedrick Hunt and husband, R. E.; Walter Hedrick and wife, Jessie; Grady P. Hedrick and wife, Edna,

to

L. U. and W. A. Johnson

Beginning at a stone in Manley Daniel line; thence north 9 degrees east 24 chains to a stone; thence north 62 degrees west 18 chains to a stone in Morris line; thence south 29 degrees west 25 chains and 63 links to a Black oak formerly a pine; thence south 66 degrees east 18 chains and 9 links to a stone heap; thence south 3 degrees west 2 chains and 16 links to a stone heap to a white oak pointer; thence south 87 degrees west 8 chains and 6 links to the beginning. Containing 55 acres.

As recorded in Davidson County Court House, Lexington, N. C., in Deed Book 179, page 494.

ELLIOTT PROPERTY (Lease # 11-0-1-45)

August 7, 1952

B. L. Morris and wife, Grace

to

Howell Elliott

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

Tract #1: Beginning at a stone corner to No. 3, Alexander Davis line; east 20 chains and 30 links to a post oak; north 7 chains and 20 links to a stone; west 20 chains to a stone; south 7 chains to the beginning, containing 14 3/10 acres.

Tract #2: Beginning at stone Alexander Davis corner; east 15 chains and 30 links to a stone, north 7 chains to a stone; north 62 degrees west 26 chains and 70 links to a stone; south 77 degrees west 3 chains and 36 links to a stone; south 16 chains and 50 links to a post oak; east 12 chains and 74 links to a stone; south 67 links to beginning, containing 35 3/5 acres.

Tract # 3: Beginning at a stone in L. A. Gallimore line; west 12.74 chains to a stone; thence same direction west to new corner in Tallassee Power Company; south 8.65 chains to a stone; east 17.80 chains to a stone; north 8.77 chains to the beginning, containing 15 acres.

(b) The company designation is "DE-10"; other names are "Morris" or "Johnson" prospect.

(c) Lessee; see attached lease copies (# 11-0-1-43, 11-0-1-44, 11-0-1-45).

(d) None known.

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DMEA
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DATE	INITIALS	CODE

MINING LEASE

from

Mr. Baxter Lineberry Morris & Grace

Hill Morris

to

ROLAND F. BEERS, INC., TROY, NEW YORK

Date of Lease September 13, 1957

No. of Acres Five Hundred & Seven (507)

County of Davidson

State of North Carolina

Expiration of Definite Term September 13, ~~1957~~ 60

RECORDER'S DATA

Received for Record ..... 19.....

Recorded ..... 19.....

In Book ..... Page .....

..... Recorder

of .....

AGREEMENT made and entered into this 13th day of September A. D., 19 57

by and between Mr. Baxter Lineberry Morris, and Grace Hill Morris

of Denton County of Davidson

and State of North Carolina of the first part, hereinafter referred to as Lessor, and Roland F Beers, Inc. of Troy, New York, of the second part, hereinafter referred to as Lessee WITNESSETH:

1. (LEASING CLAUSE) That Lessor, in consideration of the sum of One Dollar Cash in hand paid, the receipt of which is hereby acknowledged under the covenants, conditions, and agreements hereinafter contained on the part of Lessee to be paid, kept and performed, does lease, let, and demise exclusively to Lessee, all and every prospecting and mining right and privilege in and upon the lands hereinafter described, together with the privilege of erecting and installing any and all machinery and equipment necessary or convenient, for the sole purpose of prospecting, mining, processing and marketing of ores and minerals as found on this land alone or co-jointly with neighboring lands.

The following described premises owned by Lessor and situated in Emmons Township Davidson County and State of North Carolina bounded substantially by the following lands.

NORTH E. L. Harris, Marvin Gallimore, and E. E. Elliott

EAST Mrs. C. T. Surratt, Dona Garner

SOUTH J. A. Johnson, Daniel Airas

WEST Bynum Garrick

containing FIVE HUNDRED SEVEN (507) acres, more or less, reserving, however, three hundred (300) feet from the main buildings now on the premises, on which no mine shaft shall be placed by either party except by mutual consent.

2. (LESSOR'S COVENANTS) Lessor warrants and agrees to defend the title to the lands hereinbefore described, and agrees that Lessee at its option may pay and discharge any taxes mortgages or other liens existing, levied or assessed on or against the above described lands, and, in the event that it exercises such option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax, or other lien any royalty or rentals accruing hereunder.

3 (TERM) This lease shall run for a period of three (3) years, and so long thereafter as mining operations are performed or maintained on said leased premises unless terminated sooner as herein provided If Lessee has discovered an ore body on said leased premises at the time of expiration of said term Lessee may at its option, renew said lease for a similar term of years on the same terms and conditions as herein provided, in which event Lessee shall give Lessor written notice of its intension so to do on or before sixty (60) days prior to the expiration of said term Upon the renewal of said lease, all royalties advances or otherwise, shall continue to be paid as though said lease had never been terminated

4 (MINING RIGHTS) This lease conveys the surface land rights necessary for prospecting developing and operating any mine or mines in said land, or operating mills on said land. Lessee shall have right of ingress and egress, and right of way to and from any place where operations are carried on, and the public highway Ores mined from the leased premises may be milled and prepared for market there on, or on other lands, separately or in connection with other ores, as Lessee may elect Lessee, however shall use one roadway to and from any mine or mill on said land, and shall keep all gates closed on such part of said premises as are used by it Lessee agrees that all of its operations on said premises shall be conducted in accordance with good and customary mining practices Lessee shall have the privilege of raising ores from said land through shafts or inclines on other lands in the area, and the privilege of milling, cleaning or otherwise treating such ores in plants or mills located upon such lands Lessee shall also have the privilege of raising ores mined from other land through shafts or inclines which Lessee has sunk or driven on the leased premises for the purpose of working same, and of milling, cleaning or otherwise treating such ores in mills or plants located upon the leased premises. The privileges referred to in the last preceding sentence shall survive the termination, by expiration or otherwise, of the lease For any period after such termination during which Lessee is (a) raising, through a shaft driven on the demised premises ores exclusively from other lands in which Lessor has no interest, or (b) milling, cleaning or otherwise treating on the demised premises, ores exclusively from such other lands, or (c) doing both (a) and (b), Lessee shall pay Lessor five hundred (500) dollars per year. The right to use underground inclines or exploration openings existing in the leased premises at the termination of this lease shall also survive such termination for so long as the use of any of the same may be necessary or convenient for any mining purpose connected with this or any other property.

During the term of this contract all rock waste and jig tailings resulting from the operation of any mines located on said premises may be sold by Lessee, and Lessee shall pay to Lessor fifty (50) per cent of the net sales price It is agreed that either Lessor or Lessee shall have the right to use, without cost, so much of said tailings or waste rock as may be required in connection with mining or milling operations or for use on the leased premises. Lessee's judgment and decision as to all matters pertaining to waste materials shall be final and binding In case of forfeiture or surrender of this lease, all tailings and waste, not sold, or remaining on the leased premises, if not sold and removed within two (2) years, become the

property of the Lessor, and Lessee waives all rights thereto and shall be released and relieved from all further obligations or liabilities hereunder.

Should Lessee erect a mill on the leased premises, it agrees to pay Lessor the reasonable annual value of the portion of the surface of the premises required for such mill site, and the necessary storage facilities for rock and tailings. If such value cannot be agreed upon by the parties, it shall be submitted for arbitration as hereinafter provided. Such mill and storage facilities may be established before arbitration, and payment shall be made promptly after such arbitration is concluded. Upon payment, Lessor shall grant to Lessee, by instrument in writing independent of this lease, the exclusive right, privilege and license to use the mill site and storage facilities for milling, beneficiating, stock piling and storing ores, concentrates, minerals, metals, pertinent in connection with mining or milling, so long as Lessee shall deem necessary.

Anything hereinbefore to the contrary notwithstanding, Lessee shall have the right to remove any of its property used in connection with the exercise of the rights and privileges referred to in the preceding sentences of this paragraph within six (6) months after tendering a release of the same.

5. (DAMAGES) Lessee shall cover and case all prospect holds, and shall pay all damage to growing crops or timber. Should any regularly used water supply on the premises be drained by mining operations carried on by Lessee, the Lessee agrees to furnish Lessor with a new water supply equal to the existing water supply before mining operations were carried on.

6. (ADVANCED ROYALTIES AND WORK REQUIREMENTS) Lessee, except as herein otherwise provided, each year during the life of this agreement beginning September 13, 1957 (hereinafter referred to as "work year") shall:

A Perform mining operations, conducted in good and miner-like manner and in conformity with proper practice, or,

B. ~~Explore by means of bona fide drilling methods, or~~

C. ~~Prospect geophysically by means of airborne or ground-operated scientific equipment and prospect geochemically by means of soil analysis and laboratory experiment, or~~

D. Pay the sum of fifty FIVE HUNDRED DOLLARS ($500.00) BEGINNING THE FIRST on or before the ~~anniversary of any~~ work year ~~during which Lessee has not performed either A, B or C.~~ Such payment to be considered advance royalty against subsequent royalties provided, if Lessee terminates this lease prior to the expiration of any work year Lessee shall pay Lessor on a pro-rata basis for those months during such work year that this lease was in force and effect. After the first ~~two~~ work years of this lease, the Lessee will pay to the Lessor ~~twenty~~ TWENTY dollars ~~per acre~~ in lieu of required mining work referred to in (A) above during any work year, payable at the ~~end~~ BEGINNING thereof, as advance royalty applicable against subsequent royalties.

7. (SUSPENSION OF WORK ON LOW MARKET) In the event of a drop in the market price of Zinc or Copper as quoted in the Engineering and Mining Journal, to less than twelve (12) cents per pound for Zinc, and forty (40) cents per pound for Copper, the Lessee may suspend all operations until the quoted prices are again equal to at least twelve (12) cents per pound for Zinc and forty (40) cents per pound for Copper, and that during such period this lease shall remain in effect without the payment of a minimum advance royalty The suspension of such work shall not exceed a period of four (4) years at any one time.

8 (ROYALTIES) Lessee will pay to Lessor a royalty of five (5) per cent of the ~~market value~~ NET SMELTER RETURN of such sulfide and metallic concentrates from ores mined and marketed from the leased premises "Concentrates," for the purposes hereof, means the salable Zinc, Lead, Copper, Nickel, Cobalt, Iron, Sulfides Gold, and Silver economically recoverable, as determined above at the mill or concentrating plant where treated. "Market value," for the purposes hereof when used with respect to the sulfide minerals listed above, means the price established f.o.b. cars at the mill by responsible buyers of concentrates of a similar grade and kind produced from ores mined and milled in said district and prevailing at the time the ores are delivered to the mill for treatment

9. (ROYALTY PAYMENTS) Royalty payments shall be made by the Lessee on or before the last day of each calendar month for all ores delivered at the mill during the preceding calendar month. Royalty or other payments under this agreement shall be paid (a) to Lessor at Denton North Carolina or (b) as Lessor may in writing designate.

10. (RECORDS AND REPORTS) Lessee agrees to keep an accurate record of all ores mined from the leased premises and of all calculations relative to royalty payments hereunder. Said records may be inspected by Lessor at all reasonable times. Lessee will make available for Lessor's inspection, at all reasonable times during the term of this lease, information as to the location and footage of each hole drilled on said land. At the termination Lessee will furnish a factual record of any holes drilled on the land together with a map showing the location of such holes.

11. (FORFEITURE) In case of failure of Lessee to keep and perform the terms and obligations of this lease, Lessor may give thirty (30) days written notice of the breach or violation complained of, and if such violation or default is not removed, or as nearly corrected as possible, within said period, this lease shall thereupon terminate, provided, however, that no forfeiture shall be asserted where Lessee claims no breach or violation has occured or that the same has been removed or corrected as nearly as possible within the ninety (90) day period, in which event the same shall be submitted for arbitration in accordance with Paragraph 14 of this lease, provided further that no forfeiture shall be asserted based on cessation or delays in operations hereunder when occasioned by fire, war, riot, civil commotion, strikes, operations of law or interference by the Government or its agencies, acts of nature or other causes,

whether like or unlike those enumerated, beyond the control of Lessee. Upon forfeiture, Lessee shall account for and pay royalties accrued to the date of such termination.

12. (**SURRENDER**) Lessee may at any time surrender this lease by executing and tendering to Lessor a written release thereof, and from and after such tender Lessee shall be released and relieved from all further obligations and liability hereunder, with respect to or in any way connected with the above described premises or the exercise of Lessee's rights hereunder, except to account for and make payments accrued during the life hereof. Tender of such release may be made by delivery of same to Lessor in person, or to his agent, or by recording in the office of the Clerk of the Court of the County in which the leased premises are located, of such release, and paying the recording fee.

13. (**NOTICES**) All notices herein provided to be given in writing shall, unless otherwise provided, be mailed by registered mail to the address following, until some other address is designated in a notice so given.

LESSORS ADDRESS: Denton, North Carolina

14. (**ARBITRATION**) In the event the parties hereto can not mutually agree upon any matters arising out of this lease, the same shall be determined by arbitration; the Lessor to select one arbitrator, the Lessee to select one arbitrator, and the two arbitrators so selected to select a third arbitrator. Such submission to arbitration shall be a condition precedent to action by either party hereto, in any court, and it is hereby expressly agreed between the parties hereto that such submission to arbitration may be entered of record in the court of proper jurisdiction. The determination by such arbitration shall be binding and conclusive on the parties hereto and may be entered up as the judgment or decree of such court. Expenses of the arbitration shall be borne by the parties equally.

15. (**ASSIGNABILITY**) This lease shall be binding upon and enure to the benefit of the respective parties hereto, and their personal representatives, successors and assigns.

16. (**ENTIRE CONTRACT**) It is agreed that the entire contract and agreement between Lessor and Lessee is embodied herein, and that no oral warranties, representations or promises have been made or relied upon by Lessor or Lessee supplementing, modifying or as an inducement to this Agreement

IN WITNESS WHEREOF, Lessor and Lessee have hereunto set their hands and seals the day and year first above written.

In the presence of:

Jean B. Morris

LESSOR

Baxter L. Morris (seal)

Grace Hill Morris (seal)

(seal)

(seal)

ROLAND F. BEERS, INC.

By Vernon Geyer, Jr. (seal)

Vernon R. Geyer, Agent

STATE OF North Carolina

COUNTY OF Davidson

I, Jeannine B. Morris, a Notary Public in and for the State and County aforesaid, do hereby certify that Baxter L. Morris and his wife Grace Hill Morris personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal this 13 day of September 19 87

Jeannine B. Morris
Notary Public

My Commission expires:
My Commission Expires Aug. 2, 1988

OFFICIAL FILE COPY
DMEA
RECEIVED BY
DATE

MINING LEASE

from

W. A Johnson and Battie His wife

to

ROLAND F. DEERS, INC., TROY, NEW YORK

Date of Lease September 15, 1957

No. of Acres 55

County of Davidson

State of North Carolina

Expiration of Definite Term Sept. 15, 1959

RECORDER'S DATA

Received for Record ..... 19.....

Recorded ..... 19.....

In Book ..... Page.....

..... Recorder

of .....

AGREEMENT made and entered into this 15th day of September A. D., 19 57

by and between W. A. Johnson & Bettie his wife

of Denton County of Davidson

and State of North Carolina of the first part, hereinafter referred to as Lessor, and Roland F Beers, Inc of Troy, New York, of the second part, hereinafter referred to as Lessee. WITNESSETH:

1. (**LEASING CLAUSE**) That Lessor, in consideration of the sum of One Dollar Cash in hand paid, the receipt of which is hereby acknowledged, under the covenants, conditions, and agreements hereinafter contained on the part of Lessee to be paid, kept and performed, does lease, let, and demise exclusively to Lessee, all and every prospecting and mining right and privilege in and upon the lands hereinafter described, together with the privilege of erecting and installing any and all machinery and equipment, necessary or convenient, for the sole purpose of prospecting, mining, processing and marketing of ores and minerals as found on this land alone or co-jointly with neighboring lands.

The following described premises owned by Lessor and situated in Emmons Township of Davidson County and State of North Carolina bounded substantially by the following lands:

NORTH By B. L. Morris

EAST By B. L. Morris

SOUTH By Daniel est. or (Lane Place)

WEST By " " or (Public Highway)

containing 55 See DB 179 Page 494 Also DB. 275-Page 279 acres, more or less, reserving, however, three hundred (300) feet from the main buildings now on the premises, on which no mine shaft shall be placed by either party except by mutual consent.

2. (**LESSOR'S COVENANTS**) Lessor warrants and agrees to defend the title to the lands hereinbefore described, and agrees that Lessee at its option may pay and discharge any taxes mortgages or other liens existing, levied or assessed on or against the above described lands, and, in the event that it exercises such option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax, or other lien, any royalty or rentals accruing hereunder.

3. (**TERM**) This lease shall run for a period of ~~five (5)~~ (two) 2 years, and so long thereafter as mining operations are performed or maintained on said leased premises unless terminated sooner as herein provided If Lessee has discovered an ore body on said leased premises at the time of expiration of said term Lessee may at its option, renew said lease for a similar term of years on the same terms and conditions as herein provided, in which event Lessee shall give Lessor written notice of its intension so to do on or before sixty (60) days prior to the expiration of said term Upon the renewal of said lease, all royalties, advances or otherwise, shall continue to be paid as though said lease had never been terminated.

4 (**MINING RIGHTS**) This lease conveys the surface land rights necessary for prospecting developing and operating any mine or mines in said land, or operating mills on said land. Lessee shall have right of ingress and egress, and right of way to and from any place where operations are carried on, and the public highway Ores mined from the leased premises may be milled and prepared for market thereon, or on other lands, separately or in connection with other ores, as Lessee may elect Lessee, however, shall use one roadway to and from any mine or mill on said land, and shall keep all gates closed on such part of said premises as are used by it Lessee agrees that all of its operations on said premises shall be conducted in accordance with good and customary mining practices. Lessee shall have the privilege of raising ores from said land through shafts or inclines on other lands in the area, and the privilege of milling, cleaning or otherwise treating such ores in plants or mills located upon such lands. Lessee shall also have the privilege of raising ores mined from other land through shafts or inclines which Lessee has sunk or driven on the leased premises for the purpose of working same, and of milling, cleaning or otherwise treating such ores in mills or plants located upon the leased premises. The privileges referred to in the last preceding sentence shall survive the termination, by expiration or otherwise, of the lease. For any period after such termination during which Lessee is (a) raising, through a shaft driven on the demised premises ores exclusively from other lands in which Lessor has no interest, or (b) milling, cleaning or otherwise treating on the demised premises, ores exclusively from such other lands, or (c) doing both (a) and (b), Lessee shall pay Lessor five hundred (500) dollars per year. The right to use underground inclines or exploration openings existing in the leased premises at the termination of this lease shall also survive such termination for so long as the use of any of the same may be necessary or convenient for any mining purpose connected with this or any other property.

During the term of this contract all rock waste and jig tailings resulting from the operation of any mines located on said premises may be sold by Lessee, and Lessee shall pay to Lessor fifty (50) per cent of the net sales price It is agreed that either Lessor or Lessee shall have the right to use, without cost, so much of said tailings or waste rock as may be required in connection with mining or milling operations or for use on the leased premises. Lessee's judgment and decision as to all matters pertaining to waste materials shall be final and binding. In case of forfeiture or surrender of this lease, all tailings and waste, not sold, or remaining on the leased premises, if not sold and removed within two (2) years, become the

property of the Lessor, and Lessee waives all rights thereto and shall be released and relieved from all further obligations or liabilities hereunder.

Should Lessee erect a mill on the leased premises, it agrees to pay Lessor the reasonable annual value of the portion of the surface of the premises required for such mill site, and the necessary storage facilities for rock and tailings. If such value cannot be agreed upon by the parties, it shall be submitted for arbitration as hereinafter provided. Such mill and storage facilities may be established before arbitration, and payment shall be made promptly after such arbitration is concluded. Upon payment, Lessor shall grant to Lessee, by instrument in writing independent of this lease, the exclusive right, privilege and license to use the mill site and storage facilities for milling, beneficiating, stock piling and storing ores, concentrates, minerals, metals, pertinent in connection with mining or milling, so long as Lessee shall deem necessary.

Anything hereinbefore to the contrary notwithstanding, Lessee shall have the right to remove any of its property used in connection with the exercise of the rights and privileges referred to in the preceding sentences of this paragraph within six (6) months after tendering a release of the same.

5. (DAMAGES) Lessee shall cover and case all prospect holes, and shall pay all damage to growing crops or timber. Should any regularly used water supply on the premises be drained by mining operations carried on by Lessee, the Lessee agrees to furnish Lessor with a new water supply equal to the existing water supply before mining operations were carried on.

6. (ADVANCED ROYALTIES AND WORK REQUIREMENTS) Lessee, except as herein otherwise provided, each year during the life of this agreement beginning 15 September 19 57 (hereinafter referred to as "work year") shall:

A. Perform mining operations, conducted in good and miner-like manner and in conformity with proper practice, ~~or~~ AND

B. Explore ~~by means of bona fide drilling methods, or~~

~~C. Prospect geophysically by means of airborne or ground operated scientific equipment, or prospect geochemically by means of soil analysis and laboratory experiment, or~~

D. Pay the sum of ~~fifty (50) cents~~ ONE ($1.00) Dollar per acre per year OR $3.00 on or before the expiration of any work year ~~during which Lessee has not performed either A, B, or C~~. Such payment to be considered advance royalty against subsequent royalties provided, if Lessee terminates this lease prior to the expiration of any work year Lessee shall pay Lessor on a pro-rata basis for those months during such work year that this lease was in force and effect. After the first ~~[illegible]~~ work years of this lease, the Lessee will pay to the Lessor ~~[illegible]~~ $110.00 dollars ~~[illegible]~~ in lieu of required mining work referred to in (A) above during any work year payable at the ~~end~~ Beginning thereof, as advance royalty applicable against subsequent royalties.

7. (SUSPENSION OF WORK ON LOW MARKET) In the event of a drop in the market price of Zinc or Copper as quoted in the Engineering and Mining Journal, to less than twelve (12) cents per pound for Zinc, and forty (40) cents per pound for Copper, the Lessee may suspend all operations until the quoted prices are again equal to at least twelve (12) cents per pound for Zinc and forty (40) cents per pound for Copper, and that during such period this lease shall remain in effect without the payment of a minimum advance royalty. The suspension of such work shall not exceed a period of four (4) years at any one time.

8. (ROYALTIES) Lessee will pay to Lessor a royalty of five (5) per cent of the ~~market value~~ NET SMELTER RETURN of such sulfide and metallic concentrates from ores mined and marketed from the leased premises. "Concentrates," for the purposes hereof, means the salable Zinc, Lead, Copper, Nickel, Cobalt, Iron, Sulfides, Gold, and Silver economically recoverable, as determined above at the mill or concentrating plant where treated. "Market value," for the purposes hereof when used with respect to the sulfide minerals listed above, means the price established f.o.b. cars at the mill by responsible buyers of concentrates of a similar grade and kind produced from ores mined and milled in said district and prevailing at the time the ores are delivered to the mill for treatment.

9. (ROYALTY PAYMENTS) Royalty payments shall be made by the Lessee on or before the last day of each calendar month for all ores delivered at the mill during the preceding calendar month. Royalty or other payments under this agreement shall be paid (a) to Lessor at P.O. Box 106 Denton, N.C. or (b) as Lessor may in writing designate.

10. (RECORDS AND REPORTS) Lessee agrees to keep an accurate record of all ores mined from the leased premises and of all calculations relative to royalty payments hereunder. Said records may be inspected by Lessor at all reasonable times. Lessee will make available for Lessor's inspection, at all reasonable times during the term of this lease, information as to the location and footage of each hole drilled on said land. At the termination Lessee will furnish a factual record of any holes drilled on the land together with a map showing the location of such holes.

11. (FORFEITURE) In case of failure of Lessee to keep and perform the terms and obligations of this lease, Lessor may give thirty (30) days written notice of the breach or violation complained of, and if such violation or default is not removed, or as nearly corrected as possible, within said period, this lease shall thereupon terminate, provided, however, that no forfeiture shall be asserted where Lessee claims no breach or violation has occured or that the same has been removed or corrected as nearly as possible within the ninety (90) day period, in which event the same shall be submitted for arbitration in accordance with Paragraph 14 of this lease, provided further that no forfeiture shall be asserted based on caution or delays in operations hereunder when occasioned by fire, war, riot, civil commotion, strikes, operations of law or interference by the Government or its agencies, acts of nature or other causes,

whether like or unlike those enumerated, beyond the control of Lessee. Upon forfeiture, Lessee shall account for and pay royalties accrued to the date of such termination.

12. (SURRENDER) Lessee may at any time surrender this lease by executing and tendering to Lessor a written release thereof, and from and after such tender Lessee shall be released and relieved from all further obligations and liability hereunder, with respect to or in any way connected with the above described premises or the exercise of Lessee's rights hereunder, except to account for and make payments accrued during the life hereof. Tender of such release may be made by delivery of same to Lessor in person, or to his agent, or by recording in the office of the Clerk of the Court of the County in which the leased premises are located, of such release, and paying the recording fee.

13. (NOTICES) All notices herein provided to be given in writing shall, unless otherwise provided, be mailed by registered mail to the address following, until some other address is designated in a notice so given.

LESSORS ADDRESS: Box 106 Denton, N.C.

14. (ARBITRATION) In the event the parties hereto can not mutually agree upon any matters arising out of this lease, the same shall be determined by arbitration, the Lessor to select one arbitrator, the Lessee to select one arbitrator, and the two arbitrators so selected to select a third arbitrator. Such submission to arbitration shall be a condition precedent to action by either party hereto, in any court, and it is hereby expressly agreed between the parties hereto that such submission to arbitration may be entered of record in the court of proper jurisdiction. The determination by such arbitration shall be binding and conclusive on the parties hereto and may be entered up as the judgment or decree of such court. Expenses of the arbitration shall be borne by the parties equally.

15. (ASSIGNABILITY) This lease shall be binding upon and enure to the benefit of the respective parties hereto and their personal representatives, successors and assigns.

16. (ENTIRE CONTRACT) It is agreed that the entire contract and agreement between Lessor and Lessee is embodied herein, and that no oral warranties, representations or promises have been made or relied upon by Lessor or Lessee supplementing, modifying or as an inducement to this Agreement.

IN WITNESS WHEREOF, Lessor and Lessee have hereunto set their hands and seals the day and year first above written.

In the presence of:

LESSOR

H. A. Johnson (seal)

Bettie Johnson (seal)

(seal)

(seal)

ROLAND F. BEERS, INC.

By Robert S. Young (seal)

Robert S. Young, Agent

STATE OF

COUNTY OF

I, a Notary Public in and for the State and County aforesaid, do hereby certify that and his wife personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal this 25 day of Sept. 19

My Commission expires:

2-1-58

Notary Public

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45

MINING LEASE

from

E. Howell Elliott and wife Mabel Elliott

to

ROLAND F. BEERS, INC., TROY, NEW YORK

Date of Lease October, 29, 1957

No. of Acres Thirty-Five

Emmons District

County of Davidson

State of North Carolina

Expiration of Definite Term Oct. 29, 1960

RECORDER'S DATA

Received for Record ..... 19.....

Recorded ..... 19.....

In Book ..... Page.....

..... Recorder

of .....

Description

From Deed Book 231 page 95 Recorder of Deeds
Davidson County
Lexington, North Carolina

Re: B.L.Morris
to
Howell Elliott

Tract No. 2

Beginning at a stone Alexander Davis Corner East 15 Chains and 30 links to a stone, thence North 7 chains to a stone, thence North 62 degrees West 26 chains and 70 links to a stone, thence, South 77 degrees West 3 chains and 36 links to a stone, thence South 16 Chains and 50 links to a post oak, thence East 12 Chains and 74 links to a stone, thence South 67 links to the beginning. Containing 35 3/5 acres.

AGREEMENT made and entered into this 29th day of October A. D., 19 57.

by and between E. Howell Elliott and wife Mabel Elliott

of Emmons District County of Davidson

and State of North Carolina of the first part, hereinafter referred to as Lessor, and Roland F. Beers, Inc. of Troy, New York, of the second part, hereinafter referred to as Lessee.

WITNESSETH:

1. (**LEASING CLAUSE**) That Lessor, in consideration of the sum of One Dollar Cash in hand paid, the receipt of which is hereby acknowledged, under the covenants, conditions, and agreements hereinafter contained on the part of Lessee to be paid, kept and performed, does lease, let, and demise exclusively to Lessee, all and every prospecting and mining right and privilege in and upon the lands hereinafter described, together with the privilege of erecting and installing any and all machinery and equipment, necessary or convenient, for the sole purpose of prospecting, mining, processing and marketing of ores and minerals as found on this land alone or co-jointly with neighboring lands.

The following described premises owned by Lessor and situated in Emmons District Davidson County and State of North Carolina bounded substantially by the following lands:

NORTH Gallimore — See Deed Book 431 Page 95

EAST B.L. Morris — Tract No. 4 of Deed from B.L.

SOUTH B.L. Morris & others — Morris to Howell Elliott, Davidson

WEST Gallimore & others — County Court House

containing Thirty-Five (35) acres, more or less, reserving, however, three hundred (300) feet from the main buildings now on the premises, on which no mine shaft shall be placed by either party except by mutual consent.

2. (**LESSOR'S COVENANTS**) Lessor warrants and agrees to defend the title to the lands hereinbefore described, and agrees that Lessee at its option may pay and discharge any taxes, mortgages or other liens existing, levied or assessed on or against the above described lands, and, in the event that it exercises such option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax or other lien, any royalty or rentals accruing hereunder.

3. (**TERM**) This lease shall run for a period of ~~two (2)~~ three (3) years, and so long thereafter as mining operations are performed or maintained on said leased premises unless terminated sooner as herein provided. If Lessee has discovered an ore body on said leased premises at the time of expiration of said term, Lessee may at its option, renew said lease for a similar term of years on the same terms and conditions as herein provided, in which event Lessee shall give Lessor written notice of its intension so to do on or before sixty (60) days prior to the expiration of said term. Upon the renewal of said lease, all royalties, advances or otherwise shall continue to be paid as though said lease had never been terminated.

4. (**MINING RIGHTS**) This lease conveys the surface land rights necessary for prospecting, developing and operating any mine or mines in said land, or operating mills on said land. Lessee shall have right of ingress and egress, and right of way to and from any place where operations are carried on and the public highway. Ores mined from the leased premises may be milled and prepared for market thereon, or on other lands, separately or in connection with other ores, as Lessee may elect. Lessee, however, shall use one roadway to and from any mine or mill on said land, and shall keep all gates closed on such part of said premises as are used by it. Lessee agrees that all of its operations on said premises shall be conducted in accordance with good and customary mining practices. Lessee shall have the privilege of raising ores from said land through shafts or inclines on other lands in the area, and the privilege of milling, cleaning or otherwise treating such ores in plants or mills located upon such lands. Lessee shall also have the privilege of raising ores mined from other land through shafts or inclines which Lessee has sunk or driven on the leased premises for the purpose of working same, and of milling, cleaning or otherwise treating such ores in mills or plants located upon the leased premises. The privileges referred to in the last preceding sentence shall survive the termination, by expiration or otherwise of the lease. For any period after such termination during which Lessee is (a) raising, through a shaft driven on the demised premises ores exclusively from other lands in which Lessor has no interest, or (b) milling, cleaning or otherwise treating on the demised premises, ores exclusively from such other lands, or (c) doing both (a) and (b), Lessee shall pay Lessor five hundred (500) dollars per year. The right to use underground inclines or exploration openings existing in the leased premises at the termination of this lease shall also survive such termination for so long as the use of any of the same may be necessary or convenient for any mining purpose connected with this or any other property.

During the term of this contract all rock waste and jig tailings resulting from the operation of any mines located on said premises may be sold by Lessee, and Lessee shall pay to Lessor fifty (50) per cent of the net sales price. It is agreed that either Lessor or Lessee shall have the right to use, without cost, so much of said tailings or waste rock as may be required in connection with mining or milling operations or for use on the leased premises. Lessee's judgment and decision as to all matters pertaining to waste materials shall be final and binding. In case of forfeiture or surrender of this lease, all tailings and waste, not sold, or remaining on the leased premises, if not sold and removed within two (2) years, become the

property of the Lessor, and Lessee waives all rights thereto and shall be released and relieved from all further obligations or liabilities hereunder.

Should Lessee erect a mill on the leased premises, it agrees to pay Lessor the reasonable annual value of the portion of the surface of the premises required for such mill site, and the necessary storage facilities for rock and tailings. If such value cannot be agreed upon by the parties, it shall be submitted for arbitration as hereinafter provided. Such mill and storage facilities may be established before arbitration, and payment shall be made promptly after such arbitration is concluded. Upon payment, Lessor shall grant to Lessee, by instrument in writing independent of this lease, the exclusive right, privilege and license to use the mill site and storage facilities for milling, beneficiating, stock piling and storing ores, concentrates, minerals, metals, pertinent in connection with mining or milling, so long as Lessee shall deem necessary.

Anything hereinbefore to the contrary notwithstanding, Lessee shall have the right to remove any of its property used in connection with the exercise of the rights and privileges referred to in the preceding sentences of this paragraph within six (6) months after tendering a release of the same.

5. (**DAMAGES**) Lessee shall cover and case all prospect holes, and shall pay all damage to growing crops or timber. Should any regularly used water supply on the premises be drained by mining operations carried on by Lessee, the Lessee agrees to furnish Lessor with a new water supply equal to the existing water supply before mining operations were carried on.

6 (**ADVANCED ROYALTIES AND WORK REQUIREMENTS**) Lessee, except as herein otherwise provided, each year during the life of this agreement beginning 29 October, 1957, (hereinafter referred to as "work year") shall:

A. Perform mining operations, conducted in good and miner-like manner and in conformity with proper practice, or,

~~B. Explore by means of bona fide drilling methods, or,~~

~~C. Prospect geophysically by means of airborne or ground operated scientific equipment, and prospect geochemically by means of soil analysis and laboratory experiment, or,~~

D. Pay the sum of ~~fifty (50)~~ ONE Dollar ($1.00) cents per acre per year on or before the expiration of any work year ~~during which Lessee has not performed either A, B, or C.~~ Such payment to be considered advance royalty against subsequent royalties provided, if Lessee terminates this lease prior to the expiration of any work year Lessee shall pay Lessor on a pro-rata basis for those months during such work year that this lease was in force and effect. After the first four work years of this lease, the Lessee will pay to the Lessor ten (10) dollars an acre in lieu of required mining work referred to in (A) above during any work year, payable at the end thereof, as advance royalty applicable against subsequent royalties.

7. (**SUSPENSION OF WORK ON LOW MARKET**) In the event of a drop in the market price of Zinc or Copper as quoted in the Engineering and Mining Journal, to less than twelve (12) cents per pound for Zinc, and forty (40) cents per pound for Copper, the Lessee may suspend all operations until the quoted prices are again equal to at least twelve (12) cents per pound for Zinc and forty (40) cents per pound for Copper, and that during such period this lease shall remain in effect without the payment of a minimum advance royalty. The suspension of such work shall not exceed a period of four (4) years at any one time.

8 (**ROYALTIES**) Lessee will pay to Lessor a royalty of five (5) per cent of the ~~market value~~ Net Smelter Return of such sulfide and metallic concentrates from ores mined and marketed from the leased premises "Concentrates," for the purposes hereof, means the salable Zinc, Lead, Copper, Nickel, Cobalt, Iron, Sulfides Gold, and Silver economically recoverable, as determined above at the mill or concentrating plant where treated. "Market value," for the purposes hereof when used with respect to the sulfide minerals listed above, means the price established f.o.b. cars at the mill by responsible buyers of concentrates of a similar grade and kind produced from ores mined and milled in said district and prevailing at the time the ores are delivered to the mill for treatment.

9 (**ROYALTY PAYMENTS**) Royalty payments shall be made by the Lessee on or before the last day of each calendar month for all ores delivered at the mill during the preceding calendar month. Royalty or other payments under this agreement shall be paid (a) to Lessor at P.O. Box 193 Denton, N.C. or (b) as Lessor may in writing designate.

10. (**RECORDS AND REPORTS**) Lessee agrees to keep an accurate record of all ores mined from the leased premises and of all calculations relative to royalty payments hereunder. Said records may be inspected by Lessor at all reasonable times. Lessee will make available for Lessor's inspection, at all reasonable times during the term of this lease, information as to the location and footage of each hole drilled on said land. At the termination Lessee will furnish a factual record of any holes drilled on the land together with a map showing the location of such holes.

11. (**FORFEITURE**) In case of failure of Lessee to keep and perform the terms and obligations of this lease, Lessor may give thirty (30) days written notice of the breach or violation complained of, and if such violation or default is not removed, or as nearly corrected as possible, within said period, this lease shall thereupon terminate, provided, however, that no forfeiture shall be asserted where Lessee claims no breach or violation has occured or that the same has been removed or corrected as nearly as possible within the ninety (90) day period, in which event the same shall be submitted for arbitration in accordance with Paragraph 14 of this lease, provided further that no forfeiture shall be asserted based on cessation or delays in operations hereunder when occasioned by fire, war, riot, civil commotion, strikes, operations of law or interference by the Government or its agencies, acts of nature or other causes,

whether like or unlike those enumerated, beyond the control of Lessee. Upon forfeiture, Lessee shall account for and pay royalties accrued to the date of such termination.

12. (**SURRENDER**) Lessee may at any time surrender this lease by executing and tendering to Lessor a written release thereof, and from and after such tender Lessee shall be released and relieved from all further obligations and liability hereunder, with respect to or in any way connected with the above described premises or the exercise of Lessee's rights hereunder, except to account for and make payments accrued during the life hereof. Tender of such release may be made by delivery of same to Lessor in person, or to his agent, or by recording in the office of the Clerk of the Court of the County in which the leased premises are located, of such release, and paying the recording fee.

13. (**NOTICES**) All notices herein provided to be given in writing shall, unless otherwise provided, be mailed by registered mail to the address following, until some other address is designated in a notice so given.

LESSORS ADDRESS: P.O. Box 133. Denton, N.C.

14. (**ARBITRATION**) In the event the parties hereto can not mutually agree upon any matters arising out of this lease, the same shall be determined by arbitration; the Lessor to select one arbitrator, the Lessee to select one arbitrator, and the two arbitrators so selected to select a third arbitrator. Such submission to arbitration shall be a condition precedent to action by either party hereto, in any court, and it is hereby expressly agreed between the parties hereto that such submission to arbitration may be entered of record in the court of proper jurisdiction. The determination by such arbitration shall be binding and conclusive on the parties hereto and may be entered up as the judgment or decree of such court. Expenses of the arbitration shall be borne by the parties equally.

15. (**ASSIGNABILITY**) This lease shall be binding upon and enure to the benefit of the respective parties hereto, and their personal representatives, successors and assigns.

16. (**ENTIRE CONTRACT**) It is agreed that the entire contract and agreement between Lessor and Lessee is embodied herein, and that no oral warranties, representations or promises have been made or relied upon by Lessor or Lessee supplementing, modifying or as an inducement to this Agreement.

IN WITNESS WHEREOF, Lessor and Lessee have hereunto set their hands and seals the day and year first above written.

In the presence of:

LESSOR

Howell Elliott (seal)

Mabel Elliott (seal)

(seal)

(seal)

ROLAND F. BEERS, INC.

By Robert S. Young (seal)

Robert S. Young, Agent

STATE OF N.C.

COUNTY OF Davidson

I, W. P. Morris, a Notary Public in and for the State and County aforesaid, do hereby certify that Howell Elliott and his wife Mabel Elliott personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal this 29 day of Oct 1957

W. P. Morris
Notary Public

My Commission expires:
1-29-59

Attachment C

ATTACHMENT C

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 12 1957

DATE	INITIALS	CODE

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

2. (a) Insofar as is known, no serious exploration nor prospecting has been performed on this property. The prospect was discovered through a regional, airborne electromagnetic survey accomplished in September, 1956. This particular anomaly was designated "DE-10". Reconnaissance geophysical surveys verified the anomaly, and a detailed geophysical survey was completed on the prospect during August-September, 1957. Geologic mapping accompanied the geophysical survey. The ground geophysical surveys included the application of: (1) electromagnetic equipment, (2) magnetometer, (3) self-potential, and (4) geochemistry. The geophysical grid covers an area 3,300 feet long and 1,000 feet wide.

Electromagnetic survey: A ground EM survey, utilizing a Sharpe SE-100 unit, was run on the entire grid area. A conducting zone, of apparent considerable width, was delineated, extending throughout the length of the grid. From the EM data, it appears that the conducting zone is continuous and dips westward at moderate angles. Because of the single frequency operation, depth estimates are not feasible (see attached map).

Self-potential survey: Self-potential relief of nearly 300 millivolts is present within the grid area. The potential high is linear northeast-southwest and is about 300 feet east of the base-line. Oxidation in this area is very shallow and the anomaly is caused by a sulfide-bearing, heavily silicified tuff. This bed outcrops in several places and float is common (see attached map).

Magnetic survey: The magnetic survey revealed the presence of a small but significant magnetic anomaly. The relation of EM and magnetic anomalies on selected traverse lines is shown on an attached map.

(b) All known exploration activities on DE-10 were accomplished by Roland F. Beers, Inc.

(c) No production.

(d) Ore reserves, if any, unknown.

(e) The major geologic features of the Cid-Gold Hill district were mapped by Pogue and Laney, for the North Carolina Geologic Survey. The attached geologic map is based on the published reports of Pogue and Laney.

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

The DE-10 prospect is in the western part of the "Carolina slate belt". The "slate belt" consists of a series of metamorphosed acid to intermediate tuffs, flows, and breccias intruded by gabbros and granite. The gabbros are relatively large dike-like forms; the granite occurs in major intrusive forms of stock proportions. Many workers ally the mineralization processes of the district with the late-stage granites.

Major faulting within the area is uncommon; the best example is that fault lying on the east side of Flat Swamp Mountain. Minor faults are known from mine workings at Cid and Gold Hill, but they can rarely be seen in surface outcrop.

As can be seen on the geologic map, the DE-10 prospect is in the same stratigraphic horizon as the large sulfide bodies at Gold Hill and Silver Valley. This broad mapping unit, designated only as "Tuff" by Pogue and Laney, is, in detail, a rather heterogeneous formation. Slaty tuffs, volcanic breccia, and heavily silicified beds occur on the DE-10 grid. The silicification of certain units is thought to be significant in the search for sulfides. At both Gold Hill and Silver Valley the most striking alteration is silicification, forming a homogeneous rock termed "hornstone" by miners. The "hornstone" on DE-10 is nearly identical with that of the former mines and also carries significant iron sulfides. Ore minerals (other than iron sulfides) do not outcrop within the grid area. However, it is anticipated that the anomalies previously described are due to an accumulation of complex basemetal sulfides lying downdip from exposed altered beds. This expected mineralized zone may be associated with a stratigraphic-structural situation which is not evident from surface exposures.

(f) The prospect under consideration is in an area of known major sulfide concentrations, the Gold Hill and Cid mining districts. Both of these districts have supported large copper-lead-zinc mines in past years.

These mining districts and the intervening area were prospected from the air by electromagnetic techniques. The DE-10 prospect is one of the anomalies discovered by the air survey. The characteristics of the EM data are those of a rather deep sulfide conductor. It is significant to note that graphite schist, which reacts to the EM in a manner like that of sulfides, is unknown in the district.

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

Further, ground geophysical surveys also point to sulfides as being the cause of the basic anomaly.

The exact composition of the conducting mass cannot be determined; however, judging from known district-wide mineralization, a complex basemetal sulfide (copper-lead-zinc) zone is to be expected.

(g) See attachments.

Attachment D

ATTACHMENT D

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ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

3. (a) DMEA representative desiring to inspect the prospect will be met by either:

Robert S. Young
or
Vernon R. Geyer
Roland F. Beers, Inc.
P. O. Box 3725, University Station
Charlottesville, Virginia

The prospect is easily accessible and may be reached by the following directions (see U.S.G.S. Denton N.W., N. C., quadrangle, 1:24000):

Follow N. C. 8 to 1 mile south of Lexington; turn east on the Shimwell Highway toward Denton; follow Shimwell Highway approximately 9.5 miles to its intersection with the Summerville Church road (watch for crossing of power transmission line, turn right or south at power line); follow Summerville Church road south about 1 mile to cleared field on east side; plastic flagging on the DE-10 grid is clearly visible in field.

(b) Shipping and supply points most convenient to the prospect are Lexington (20 miles) and Denton (5 miles). Major items of supply may be obtained from Salisbury, Winston-Salem, High Point, or Greensboro. Residence may be either Lexington or Denton.

Attachment E

ATTACHMENT E

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ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

4. (a) The location of the grid area with respect to property corners is shown on the attached property map. Most of the corners are readily identifiable.

The proposed exploration project consists of four diamond drill holes; three inclined 50 degrees from horizontal and drilled from northwest to southeast, one will be a vertical hole. The drill holes are to be located as shown on the accompanying grid map and cross-sections.

DH-1: Location: Line 3N + 1.9W
Inclination: 50 degrees from horizontal
Depth: 415 feet inclined
Elevation: 660.0 feet

DH-2: Location: Line 3N + 0.5E
Inclination: vertical
Depth: 315 feet
Elevation: 653.2 feet

DH-3: Location: Line 9S + 3.65W
Inclination: 50 degrees
Depth: 550 feet inclined
Elevation: 677.5 feet

DH-4: Location: Line 21N + 0.5W
Inclination: 50 degrees
Depth: 325 feet inclined
Elevation: 652.3 feet

It is believed that the magnetic high and the electromagnetic conductor are associated with the outcropping silicified-mineralized beds previously described. For this reason, all of the drill holes are designed to test this stratigraphic unit in the area of the vertical projections of the EM and magnetic anomalies. This concept is graphically presented on accompanying cross-sections.

In cost calculations, it is assumed that each drill hole will require 20 feet of soil drilling, 10 feet of NX, and the remainder AX standard or BX wire-line drill size. The soil mantle and accompanying oxidation is not expected to exceed a depth of twenty feet.

(b) No access roads required.

(c) With the execution of a DMEA contract, work will begin within 60 (sixty) days and the final report will be tendered within 6 (six) months of the starting date.

Attachment F

ATTACHMENT E

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ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

5. This exploration program, although localized, will have access to the entire technical staff and facilities of Roland F. Beers, Inc. Dr. Roland F. Beers is in charge of geophysical operations and interpretation of data therefrom. Geochemical data were supplied by the Troy laboratory of Roland F. Beers, Inc. The self-potential survey, magnetometer survey, soil sample collection, ground electromagnetic survey and local geological interpretation were accomplished by the Charlottesville staff of Roland F. Beers, Inc. The Corporation has for several years been conducting an extensive geological, geophysical and geochemical prospecting program in the eastern United States. This program has included prospect drilling.

Robert S. Young and Vernon R. Geyer are geologists-in-charge of the DE-10 project. Biographical sketches follow:

Robert S. Young, 114 West Park Drive, Charlottesville, Va.; b. April 14, 1922; m.'45; c.2; B.A. '50; M.A.'51; Ph.D.'54; U.S.A.A.F. '42-'45.

Field geologist, State Geological Survey, Va., '52; Stratigrapher-Structural Geologist, Va. Div. Geol., '53-'56; Lecturer, Harpur Coll. '53-'54; Consulting Geol. '54-'56, Exploration Projects, United Carbon Co., Roland F. Beers, Inc.; Branch Mgr. and Regional Geol., Roland F. Beers, Inc., '56-current.

Stratigraphic, structural and economic studies in northern Shenandoah Valley; geological and geophysical exploration for sulfides in southeastern United States.

Soc. Econ. Paleo. and Min.; Min. Soc. Am.; Paleo. Soc.; Am. Assn. Petrol. Geol.; Geol. Soc. Am.; R. E. S. A.; Sigma Xi; Sigma Gamma Epsilon; Appa. Geol. Soc.

Vernon R. Geyer, 111 Observatory Ave., Charlottesville, Va.; b. August 4, 1922; m.'47; c.2; B.S. '49; U.S.Army '42-'45.

Grad. student and lab. inst., University of N.C., '49-'51; field geologist, Zonolite Co. '51; chief geol., So. Div. Zonolite Co., '51-'53; ground water and economic geol., Va. Div. Geol. '53-'56; district geol., Roland F. Beers, Inc., '56-current.

Carolina Geol. Soc.; Geol. Soc. Am.; Va. Acad. of Sci.; Sigma Gamma Epsilon.

Attachment G

ATTACHMENT

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DATE	INITIALS	CODE

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

6. (a) An independent contract will be let for the entirety of the proposed drilling. The total cost of the initial drilling program (4 holes) will approximate $5,190.50, based on costs shown on the attached drilling bid submitted by E. J. Longyear Company.

80 205 1485/1605

Estimated 80' soil drilling @ $2.90	$ 232.00	
40' NX drilling @ $3.40	136.00	
1485' BX wire-line or AX standard drilling @ $2.90	4306.50	
Moving charges	300.00	
Survey time, 10 hours @ $7.50	75.00	
Core boxes, 47 @ $3.00	141.00	
		$5,190.50

(The above figures provide a unit per foot cost of $ 3.234)

(b) Personal Services:

1 Staff Geologist, 2/5 of 2½ mo. @ $800.00	$ 800.00	
1 Staff Stenographer, 1 wk. @ $60.00	60.00	
Labor:		
1 Staff Laborer, 60 hours @ $1.50	90.00	
		$ 950.00

(c) Operating materials and supplies ..... None

(d) Operating equipment ..... None

(e) Rehabilitation and repairs ..... None

(f) Rent of core storage .....$ 30.00 — $ 30.00

(g) Miscellaneous:

i. Office and drafting supplies for maintaining records, preparation of maps and reports	$ 25.00	
ii. Virginia Unemployment (0.1%/$1); Federal Unemployment (0.3%/$1); F.O.A.B. (2.25%/$1); Public Liability (0.68%/$100); Virginia Compensation Ins. (2.28%/$100)	53.29	
iii. Transportation, Staff geologist, automobile @ $0.08/mile.....	332.80	
iv. Subsistence	160.00	
v. Communications, telephone & telegraph	20.00	
vi. Assays, 16 @ $10.00	160.00	
		$ 751.09

(h) Contingencies, 5% of total .....$ 346.08

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

RECAPITULATION

(a) Independent contracts	$5,190.50	
(b) Labor, supervision, consultants	950.00	
(f) Rent of core storage	30.00	
(g) Miscellaneous	751.09	
(h) Contingencies	346.08	
GRAND TOTAL		$7,267.67

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Longyear
E. J. LONGYEAR COMPANY
General Offices, 76 South 8th St
Minneapolis 2, Minnesota, U. S. A.
TELEPHONE: FEDERAL 9-7631 • CABLE LONGCO

October 25, 1957

Roland F. Beers, Inc.
P.O. Box 3725 - University Station
Charlottesville, Virginia

Attention: Dr. R. S. Young, Branch Manager

PROPOSED DIAMOND DRILLING PROGRAM - VICINITY OF DENTON, NORTH CAROLINA

Gentlemen:

1. Based on the information furnished by our Mr. Williamson Ward, we are pleased to confirm below proposal for your contemplated exploratory drilling program which is to be carried out in the above-mentioned area.

2. We understand that the program as now planned will consist of a minimum of three to four vertical core holes, averaging approximately 400 feet in depth; that the formation to be drilled will consist of Carolina slate; and that AX-size core is desired. We further understand that all of the drill sites will be accessible to truck transportation; and that the water required for the drilling operations will be available within a maximum distance of 1500 feet of any proposed drill hole.

3. For this work we propose to furnish one truck-mounted Longyear diamond core drill of suitable capacity, together with the necessary accessory equipment, including BX wire line coring tools, required to complete the work as now planned. We further propose to operate the drill on a two shift basis, six days per week.

4. We will carry public liability insurance covering personal injury and property damage, and Workmen's Compensation insurance, and also, all-risk insurance on the drilling equipment protecting against loss by theft, fire, flood, land-slides and other similar hazards.

We will also assume and pay any and all Old Age Benefit, Unemployment and Social Security taxes and contributions imposed by federal or state authorities.

Certificates showing the coverage referred to will be furnished upon request.

5. Based upon the conditions as outlined above, we are pleased to quote as follows:

a) Mobilization and demobilization of personnel and drilling equipment.....$300.00 Lump Sum

b) Overburden Drilling -

0 to 100 feet in depth.....$ 2.90 per foot

c) Diamond Core Drilling -

Top of Ledge to 500 feet in depth -

AX standard, and/or BX wire line, recovering core approximately 1-3/16" in diameter.....$2.90 per foot

BX standard, recovering core approximately 2-1/8" in diameter (to be confined to coring hole in ledge).....$3.40 per foot

d) Cementing Operations, including time spent in placing cement, waiting for cement to set, and drilling out cement, with cement furnished by us.....$7.50 per hour, with two man crew

e) Drill hole surveying, employing:

1) Brunsw Compass.....$7.50 per hour, with two man crew

2) Tro-Pari Instrument.....$12.50 per hour, with two man crew, plus all repair costs, and full payment for instrument in case it is lost or left in drill hole.

f) Delays for your convenience or for which you are responsible.....$ 6.50 per hour, with two man crew

g) Wooden core boxes - capacity of 36 feet of AX-size core.....$ 3.00 per box

6. The above-quoted drilling rates are based on wages currently being paid in the State of North Carolina. If during the life of this project it becomes necessary for us to adjust the wages being paid our workmen because of demands of labor union or otherwise, it is understood and agreed that the Longyear Company reserves the right to increase drilling rates to cover resultant additional operating expenses.

7. Drill cores will be turned over to your representative at the drill site in core boxes provided by the Longyear Company as specified above.

8. Statements will be rendered as promptly as possible after the first of each month, and payment is to be made within thirty days after date of receipt for all work done during the previous calendar month.

9. We very much appreciate the opportunity to consider this program. If awarded the contract, we would be prepared to start the work within a maximum of sixty days after receipt of official notice to proceed.

Sincerely,

E. J. LONGYEAR COMPANY

M. J. Gleason

Manager, Contract Drilling Division

ACCEPTED:

ROLAND F. BEERS, INC.

By: _____

M.J.Gleason:bal

Diamond & Shot Core Drilling
Foundation Investigation
Soil Sampling

Foundation Grouting
Test Pits
Mineral & Quarry Testing

CUNNINGHAM CORE DRILLING AND GROUTING CORP.

P. O. Box 513, Salem, Va.

Telephone DUPont 9-2396

November 26, 1957

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DATE | [illegible] | CODE

Roland F. Beers, Inc.
Box 3725, University Station
Charlottesville, Virginia

Attention: Mr. Robert S. Young

Dear Sir:

We are pleased to quote on 4 AX drill holes, 3 on 50° angle from horizontal and 1 vertical, approximately totaling 1600 feet of drilling, deepest hole about 550 feet deep, between Lexington and Denton, N. C. at not more than 2100 feet from a water source, at a price of $3.75 per foot in a slate material as described to me by telephone yesterday.

As we understand it, this drilling may come up in about one month or more from now.

Very truly yours,

CUNNINGHAM CORE DRILLING
AND GROUTING CORPORATION

Sam J. Cunningham

Sam J. Cunningham

SJC: d

JOY MANUFACTURING COMPANY
900 WOODLAND AVENUE
MICHIGAN CITY, INDIANA

EXECUTIVE OFFICES
HENRY W. OLIVER BUILDING
PITTSBURGH 22, PA.

November 25, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 12 1957

DATE	INITIALS	CODE

AIR MAIL

Roland F. Beers, Inc.
P. O. Box 3725
University Station
Charlottesville, Va.

Attention: Mr. Robert S. Young
Branch Manager

Gentlemen:

In accordance with your request, we set forth below the terms and conditions under which we are prepared to undertake a minimum of 1600 feet of core drilling in Davidson County, North Carolina, or approximately five miles west of Denton, North Carolina.

	BX Core	AX Core
From surface to a depth of 450 ft.	@ $3.75 ft.	$3.50 ft.
In excess of 1600 feet of drilling	@ 3.50 "	3.25 "
Reaming and casing of drill holes	@ 2.00 "	1.50 "
Cementing of drill holes	@ $8.00 per hr.	
Surveys	@ $8.00 per hr.	
Delays on your part	@ $8.00 per hr.	

For this proposed drilling, we will furnish one of our Joy #12-B gasoline driven core drills complete with operating equipment, and will conduct the drilling operations on the basis of one or two 8-hour shifts per day and six days per week. We will furnish all labor, supplies and materials, including water for drilling purposes, but with the exception of core boxes.

We are in a position to start this work on very short notice, and can definitely assure you that if the work is entrusted to us, it will be conducted and completed to your entire satisfaction.

Thank you for giving us an opportunity of quoting on your requirements. We hope that we may have the pleasure of being of service to you.

Yours very truly,

JOY MANUFACTURING COMPANY

W. J. Pilarski, Mgr.
Contract Drill Division

WJP/A

Attachment H

ATTACHMENT H

ROLAND F. BEERS, INC.
P. O. Box 1019
Troy, New York

7. (a) Yes

(b) Money

ORIGINAL FILE COPY
DATA
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Docket

Project Summary Report

By: J. W. Alt October 3, 1958

1. Docket No. DMEA-4896 (Copper-Lead-Zinc)
Contract No. Idm-E1196

Property: D-10 Prospect
Davidson County, North Carolina

Operator: Roland F. Beers
P. O. Box 1019
Troy, New York

Operator's Property Rights: Lessee

Lease from Baxter Lineberry and wife, dated September 13, 1957
Lease from W. A. Johnson and wife, dated September 25, 1957
Lease from E. Howell Elliott and wife, dated October 29, 1957
Performance Bond in lieu of Consents to Lien and Subordination Agreement of the lessors

2. Contract dated May 23, 1958. To complete - January 20, 1959.

Work Authorized

To drill six vertical diamond drill holes to average depths of approximately 500 feet, aggregating not in excess of 3,500 feet.

Estimated Cost of the Project

Actual Costs

Category (1) Independent Contracts

NX drilling to collar hole in rock, 90 feet @ $3.40/ft.	$ 306.00
Overburden drilling and rock drilling (not less than AX size core), 3,410 feet @ $2.90/ft. EX size @ $2.65/ft.	9,889.00
Cementing, reaming, etc., 25 hours @ $7.50/hr.	188.00

Delays not attributable to drillers, 20 hours @ $6.50/hr.	$ 130.00	
Mobilization and dembilization of personnel and drilling equipment	300.00	
Surveying drill holes with Maas compass, 25 hours @ $7.50/hr.	187.00	$11,000.00

Fixed Unit Costs

Incidental allowance for each foot of drilling completed, 3,500 feet @ $0.46/ft.	$1,610.00	
Core boxes (wooden) 100 @ $3.00/each	300.00	
40 samples assayed @ $4.00/sample	160.00	2,070.00
Estimated total cost of the project (rounded to)		$13,080.00
Government's participation @ 50 percent		$6,540.00

Amendments

None

Work Completed

4 diamond drill holes - total footage 1,912 feet - cost $13,080.00

Work was started on June 11, 1958, and ended July 21, 1958. The contract was terminated by mutual agreement, effective July 31, 1958.

3. Report of Review, dated September 24, 1958.

Total cost billed by Operator	$6,933.82
Exceptions	-0-
Total Accepted Cost	$6,933.82
Government Participation @ 50%	$3,466.91

Operator's final report - dated September 9, 1958.
Field Team's final report - dated September 17, 1958.

4. Certification date: No certification made as there was no discovery of ore. Certification not recommended by Field Team.

5. Comments:

The work done under the contract was conducted in an efficient and satisfactory manner.

Results of all four drill holes were most disappointing, and no reserves can be said to exist. Only pyrrhotite-pyrite mineralization was encountered. Two additional holes provided in the contract were not drilled because of the absence of lead, zinc, and/or copper sulfides in the completed holes.

Further exploration on this property with Government assistance is not warranted.

J. W. Alt

J. W. Alt

DMEA Form 17
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

WORK COMPLETED ANALYSIS

After final audit or review report is received, prepare original only and file in official docket

Operator ROLAND F. BEERS, INC.		Actual Cost	X
State NORTH CAROLINA		Agreed Unit Cost *	X
Final Report of Audit		Commodity	Docket No. DMEA-4896
Final Report of Review	X	COPPER-LEAD-ZINC	Contract No. Idm-E1194

Operation	Authorized by Contract and Amendments Units	Authorized by Contract and Amendments Cost	Completed Units	Completed Cost	Net cost after sale of Government Property
NX drilling to collar hole in rock	90' @ $3.40/ft.	$ 306.00	15'	$ 51.00	$ 51.00
Overburden Drilling Rock Drilling (AX or larger)	3,410' @ $2.90/ft.	9,889.00	BX 1,897'	5,501.30	5,501.30
Cementing, Reaming, etc.	25 hours @ $7.50/hr.	188.00			
Delays not attributable to drillers	20 hours @ $6.50/hr.	130.00			
Mobilization & Demobilization		300.00		300.00	300.00
Drilling (Specify)					
Surveying drill holes with Maas Compass 25 hrs. @ $ 7.50/hour.		187.00	4	30.00	30.00
Underground Excavation					
Incidental Allowance per foot drilled 3,500' @ $0.48/ft. *		1,610.00	1,912'	879.52	879.52
Operating Equipment Purchased					
Core Boxes--100 @ $3.00 each *		300.00	56	168.00	168.00
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) 40 samples assayed @ $4.00 each *		160.00	1	4.00	4.00
Totals (Rounded to)		$ 13,080.00		$ 6,933.82	* $ 6,933.82

* Net cost total must agree with final report of audit or review.

No certification issued.

Prepared by W. P. Klugescheid Date 10/15.58.

31398

NX Drilling to collar hole in rock
90' @ $3.40/ft. $306.00

Overburden Drilling & rock drilling
(AX) 3,410' @ $2.90 9,889.00
EX @ $2.65/ft.

Cementing, Reaming etc.
25 hours @ $7.50/hr. 188.00

Delays not attributable to drillers
20 hours @ $6.50/hr. 130.00

Mobilization & Demobilization 300.00

Surveying drill holes with Maas compass.
25 hours @ $7.50/hour. 187.00

$11,000.00

Fixed unit costs
Incidentals allowance per foot drilled
3,500' @ $0.46/ft. 1,610.00
Core boxes 100 @ $3.00 each 300.00
40 samples assayed @ $4.00 each. 160.00

Cost of Project Rounded to $13,080.00

Spent. 1958 June

NX Drilling to collar 4' hole in rock @ $3.40/ft.	13.60
BX Core @ $2.90/ft. 946'	2,743.40
Core Boxes @ $3.00 ea 28	84.00
Drill Hole Surveying @ $7.50/hr. 1	7.50
Incids. Expense @ $0.46/ft. 950'	437.00

(over)

3,285.50

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9/24	Talbert	800
9/25	C	220
	Ang.	500

SEP 24 1958

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

Re: Docket No. DMEA-4896
(Copper-Lead-Zinc)
Roland F. Beers, Inc.
Contract No. Idm-E1194

Dear Mr. Laurence:

The original and three copies of a Report of Review in lieu of a final audit of the referenced project, as requested by your September 17 memorandum, are enclosed.

If you concur with the facts as stated therein, the usual distribution of the report should be made. If for any reason you do not concur, please return all copies with your comments to this Division.

The final (July 1958) MF-104 and attachments (as received in this Division), together with a drilling invoice supporting the prior (June 1958) MF-104, are being returned by certified mail to Mrs. Miller with a copy of this letter. Mrs. Miller's September 19 memorandum stated that the "final MF-104, MF-104A and attachments" were enclosed. However, only the MF-104, a drilling invoice and an assay report were received.

Sincerely yours,

(Signed) E. D. Talbert

E. D. Talbert
Contract Administration
and Audit Division

Enclosures

EDTalbert/GMcC
September 24, 1958

cc: Docket
Director's Reading File
Mr. Chambers
Mrs. Helen R. Miller (via certified mail)

8623

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

September 24, 1958

9-25 C 220
9-29 Clerg 500

Memorandum

To: W. R. Griswold, Office of Minerals Exploration

From: Commodity Specialist, Branch of Base Metals

Subject: Final Field Team Report, Docket No. DMEA-4896 (copper-lead-zinc) Roland F. Beers, Inc., DE-10 Prospect, Davidson County, North Carolina

Under the contract a total of 1,912 feet was drilled in four diamond drill holes to test an anomaly indicated by a previous geophysical survey. Weak pyrite-pyrrhotite mineralization was encountered but there were no associated copper, lead, or zinc sulfides.

The examiners recommend that no certification of discovery be issued. I concur in their recommendation.

A. D. McMahon

A. D. McMahon

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
F. D. Lamb
F i l e s

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Room 2-B, Post Office Building
Knoxville 2, Tennessee

September 18, 1958

RECEIVED SEP 22 1958		
DATE	INITIALS	CODE
9/22	C	220
9/22	esf	130
9/22	[illegible]	110
9/26	[illegible]	130
9-26	C	220
~~9/30~~	~~[illegible]~~	~~500~~

Memorandum

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

From: Field Team, Region V, Knoxville, Tennessee

Subject: Final Report, DMEA-4896, Idm-E1194 (Copper-lead-zinc)
Roland F. Beers, Inc., Troy, New York
DE-10 prospect, Davidson County, North Carolina

Enclosed are the original and two copies of the Field Team final report on the subject project. Results of all four drill holes were most disappointing, and no reserves can be said to exist. Certification is not recommended.

Robert A. Laurence
Robert A. Laurence
Executive Officer

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

Enclosures 3

OME Reviewed by
~~DMEA~~ OPERATING COMMITTEE
9-26-58
(date)

9/26 HB 130 220

UNITED STATES

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT

FIELD TEAM, REGION V

FIELD TEAM FINAL REPORT

DMEA-4896, Idm-E1194 (Cu, Pb, Zn) DE-10 PROSPECT
Davidson County, North Carolina

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

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

Released by
OME ~~DMEA~~ OPERATING COMMITTEE
9-26-55
(date)

September 17, 1958

EXPLORATION PROJECT CONTRACT

FINAL REPORT

DMEA-4896, Idm-E1194 (Cu, Pb, Zn) DE-10 PROSPECT
Davidson County, North Carolina

Operator: Roland F. Beers, Inc., Troy, New York

SUMMARY

A total of four diamond core drill holes was drilled along a marked linear geophysical anomaly. As only weak pyrite-pyrrhotite mineralization without any associated copper, lead and/or zinc sulfides was encountered the contract was terminated by mutual agreement prior to completion of the contract work. Additional exploration of the anomaly is not warranted. It is recommended that no certification of discovery be issued.

LOCATION

The area of exploration is 12.3 airline miles S. 28° E. of the center of Lexington, Davidson County, North Carolina. It is along the southeast side of the Summerville Church Road.

WORK COMPLETED

Work completed under the contract consisted of drilling four diamond core drill holes along a linear geophysical anomaly. Drilling began June 11, 1958 and ended July 21, 1958. The holes were drilled vertically and totaled 1,912 feet. Locations of the four holes are shown on the attached map. As only pyrrhotite-pyrite mineralization was encountered, the contract was terminated by mutual agreement, effective July 31, 1958. Two additional holes provided for in the contract were not drilled because of the absence of lead, zinc, and/or copper sulfides in the completed holes.

GEOLOGY

The area of exploration is in the "Carolina Slate Belt" of the southeastern Piedmont. It is in the vicinity of the Cid-Silver Hill district near the northwestern margin of the "Slate Belt."

The "Carolina Slate Belt" consists chiefly of moderately-folded, interbedded volcanic flows, pyroclastics and sediments which have undergone low grade metamorphism and, in some cases, silicification. These rocks are considered to be early Paleozoic in age. A complex of younger intrusives, probably late Paleozoic in age, occurs along the northwestern boundary of the "Slate Belt." Sulfide deposits in the area of exploration are apparently related genetically to these intrusives.

Geophysical surveys conducted by the Operator prior to the contract indicated a coincidence of three types of anomalies; airborne electromagnetic, ground electromagnetic and self potential. The anomalies have a steep gradient and a marked linear trend which is elongated in a N. 30° E.-S. 30° W. direction. The intensity of the anomalies decreases northeastward along their axes.

In the area of the exploratory work, four major stratigraphic units are recognizable. These units are from youngest to oldest as follows:

Units	Thickness
Metasediments, silicified argillite, siltstone and graywacke, very thin bedded with intercalated tuffaceous beds; contains sequences which are predominantly acid pyroclastics.	+ 2,000 ft
Metamorphosed fine-grained acid tuffs, silicified, well bedded; contains thick sequence of pyroclastic breccia near middle.	1,500 ft
Greenstone, metabasalt and meta-andesite tuffs and breccia.	1,000 ft
Tuff and pyroclastic breccia, interbedded metasediments, massive bedded.	+ 2,000 ft

Only portions of the younger two units were penetrated by the drilling. The lower part of the upper unit consists of thinly bedded argillite, siltstone and graywacke with intercalated tuffaceous beds. Graded bedding in the coarser grained layers indicates that the beds are not overturned. All rock types show moderate silicification. Three distinct subdivisions occur in the upper part of the underlying unit. They are, in descending order, a fine-grained tuff with thin beds of metasediments, tuffaceous breccia and a massive, fine-grained tuff. All of this unit shows moderate to extreme silicification. Correlation of units and rock types encountered in the drill holes is shown on the attached longitudinal section.

The contacts and bedding in the exploration area strike about N. 25°-30° E. and dip 30°-40° to the northwest. Although large faults which are transverse to the structure occur in the region, none is apparent in the immediate area of the drilling. Minor fractures, which in some cases exhibit displacements up to few inches, were encountered at irregular intervals in all of the holes.

Pyrite-pyrrhotite mineralization is present in all four holes. This mineralization is most intense in the southwestern drill hole (Hole No. 1) and decreases progressively to the northeast. The northeastward decrease in mineralization corresponds closely to a decrease in the intensities of the geophysical anomalies in the same direction. Pyrite-pyrrhotite is most abundant and persistent in the upper unit, the metasediments with intercalated tuffaceous beds, but is sparingly disseminated in the underlying tuffs and breccia. The mineralization occurs in the metasediments as thin films along bedding planes and small fractures and is disseminated in the coarser grained basal portions of both the metasediments and associated tuffaceous beds. It is estimated that the upper unit (about the upper 200 feet of the holes) encountered in the drilling contains approximately three percent combined pyrite and pyrrhotite. This quantity of sulfides, especially the intersecting network of films along the bedding planes and fractures, apparently accounts for the geophysical anomalies. Small amounts of disseminated pyrite and pyrrhotite occur in the tuffs and breccia which underlie the metasediment unit. Some of this mineralization occurs as small "blebs" which resemble amygdaloidal fillings.

The drilling was based on the inference that the anomalies resulted from sulfides present in the pyroclastic breccia but the work completed under the contract indicated that the bulk of the mineralization is in the metasediments which are stratigraphically above the breccia. Examination of the cores failed to reveal any copper, lead and/or zinc sulfide. An assay of part of the heaviest mineralization encountered in the drilling did not show any values of copper, lead and/or zinc.

RECOMMENDATIONS

As the geophysical anomalies are apparently a result of weak pyrite-pyrrhotite mineralization that does not have any associated copper, lead or zinc sulfides, additional exploratory work is not warranted. A certification of discovery should not be issued.

COMPETENCY OF OPERATOR

The work done under the contract was conducted in an efficient and satisfactory manner.

EQUIPMENT PURCHASED

No equipment was purchased under the contract.

EXPENDITURES

(a)	Total approved	$13,080.00
(b)	Total cost of project	6,933.82
(c)	Government's share of cost	3,466.91
(d)	Government's share unexpended	3,073.09
(e)	Value of production during operations	None
(f)	Royalty due the Government on production	None
(g)	Royalty paid to the Government	None

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

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

DMEA-4896

Diamond Drill Hole No. 1

W. A. Johnson Property
Co-ordinates 9 S., 0.85 W.
Collar elevation, 648 feet
Began 6/11/58, completed 6/20/58

Depth (Feet)	Description
0- 12	Overburden (NX core)
12-106	Metasediments and minor intercalated silicified acid tuffs, thin bedded ($\frac{1}{4}$" to 4"). Metasediments medium to dark gray and very fine-grained, tuffaceous beds light gray and medium- to fine-grained; tuffaceous beds show graded bedding which indicates units are not overturned. Bedding-planes in metasediments have films of sulfides (pyrrhotite, pyrite and chalcopyrite); coarser-grained basal portions of tuffaceous beds contain disseminated sulfides. Rock fractured at 24', 28', 78', and 83' depths, fractures coated with film of sulfides.
106-149	Metasediments, very fine grained silicified shales and argillites, alternating light and dark gray, very thin bedded (1/16" to 1/8").
149-194	Metasediments and acid tuffs, interbedded, thin bedded (1/4" to 3"). Metasediments medium to dark gray and very fine-grained, tuffaceous beds, light gray and medium- to fine-grained, tuffaceous beds show graded bedding. Disseminated sulfides in coarser-grained basal portions of tuffaceous beds; films of sulfides along bedding-planes and fractures in metasediments.
194-198	Metasediments, very thin bedded, medium to dark gray, silicified. Films of sulfides along bedding planes.
198-213	Metasediments and tuffs, thin bedded (2" to 6"), silicified, Metasediments medium- to dark gray and very fine-grained, tuffaceous beds medium- to fine-grained and light gray in color. Rocks fractured at 199'. Sulfides disseminated in coarser-grained portions of pyroclastic beds.
213-220	Metasediments with minor tuffs, very thin-bedded, medium to dark gray.
220-263	Tuff, light gray, medium grained, silicified; beds 2" to 24". Widely disseminated sulfides.

Log of Hole No. 1.--Continued.

263-302	Tuff, light gray, very fine-grained, highly silicified; few thin beds medium-grained tuffs.
302-310	Pyroclastic breccia, light gray, silicified.
310-337	Tuff, light gray, very fine-grained, highly silicified.
337-346	Pyroclastic breccia, not silicified.
346-364	Pyroclastic breccia, very light gray, highly silicified.
364-371	Tuff, light gray, very fine-grained, highly silicified.
371-425	Pyroclastic breccia, light gray, coarse-grained; few thin beds of very fine-grained light gray silicified tuff. Widely disseminated sulfides.
425-439	Tuff, light gray, very fine-grained, silicified.
439-466	Pyroclastic breccia, light gray, few thin beds of fine-grained tuff.
466-500	Tuff, light gray, very fine-grained, highly silicified.
	Bottom at 500 feet

DMEA-4896

DIAMOND DRILL HOLE No. 2

W. A. Johnson property
Co-ordinates 3 S., 0.40 W.
Collar elevation 646.4 feet
Began 6/20/58, completed 6/26/58

Depth (Feet)	Description
0- 6	Overburden
6- 82	Metasediments with minor interbedded tuff, thin bedded ($\frac{1}{4}$" to 3"). Metasediments medium to dark gray and very fine grained, tuffaceous beds light gray and medium- to fine-grained; tuffaceous beds show graded bedding which indicates units are not overturned. Sulfides as films along bedding planes of metasediments and disseminated in coarser-grained basal portions of tuffaceous beds. 2" bed of bentonitic clay at 22 feet.
82-118	Metasediments, very fine-grained silicified argillites and shales, alternating light and dark gray, very thin bedded.
118-169	Metasediments and acid tuffs, interbedded, thin bedded ($\frac{1}{4}$" to 4"). Metasediments medium to dark gray and very fine-grained; tuffaceous beds light gray and medium- to fine-grained. Sulfides disseminated in coarser grained tuffs and as films along bedding planes in metasediments.
169-246	Tuff, light gray, medium-grained except near base where very fine-grained, highly silicified. Thin pyroclastic bed near base.
246-272	Tuff, light gray, medium to very fine grained, highly silicified, fractured at 252 - 254 ft and at 262 - 272 ft. Sulfides as films along fractures and disseminated in coarser grained tuffs.
272-272$\frac{1}{2}$	Pyroclastic breccia, light gray.
272$\frac{1}{2}$-287	Tuff, light gray, very fine-grained, highly silicified.
287-290	Pyroclastic breccia, light gray. Small nodules of pyrrohite.

DMEA-4896

DIAMOND DRILL HOLE NO. 3

B. L. Morris property
Co-ordinates 3 N., 0.10 E.
Collar elevation 654.4 feet
Began 7/1/58, completed 7/11/58

Depth (Feet)	Description
0- 3	Overburden
3- 91	Metasediments and intercalated silicified acid tuffs, thin-bedded (¼" to 4"). Metasediments medium to dark gray and very fine-grained; tuffaceous beds light gray and medium- to fine-grained. Bedding planes and fractures in metasediments have films of sulfides (pyrrhotite and pyrite), disseminated sulfides in coarser grained basal portions of tuffaceous beds.
91-123	Metasediments, very fine-grained; silicified shales and argillites, medium to dark gray, contain layers of light gray tuff, all very thin bedded (1/16" and 1/8"), sulfides along bedding planes.
123-153	Metasediments and acid tuffs, identical to rock at depth of 3'-91' described above.
153-195	Tuff, silicified, light gray, medium- to fine-grained, few thin layers of metasediments, sulfides disseminated in coarser grained portions of tuffs.
195-201	Tuff, light gray, medium-grained.
201-207	Metasediments and tuffs, interbedded (2" to 8"). Metasediments are dark gray and fine-grained, tuffs are light gray and medium-grained. Scattered disseminated sulfides.
207-218	Metasediments and tuffs, interbedded (1" to 4"). Disseminated sulfides.
218-263	Tuff, silicified, medium- to fine-grained, light gray, with widely scattered sulfides.
263-290	Tuff, extremely silicified, very light gray. Scattered blebs of pyrrhotite.

Diamond Drill Hole No. 3.--Continued.

Depth (Feet)	Description
290-338	Tuff, silicified, very light gray; few thin layers of volcanic breccia. Scattered blebs of pyrrhotite.
338-376	Pyroclastic breccia, silicified, thick bedded.
376-408	Pyroclastic breccia, extremely silicified, very light gray.
408-419	Pyroclastic breccia, medium gray.
419-428	Tuff, fine-grained, dark gray, few layers of coarse-grained light gray tuff.
428-448	Tuff, very light gray, medium- to fine-grained, few thin layers of pyroclastic breccia.
448-462	Pyroclastic breccia, silicified. Widely scattered blebs of sulfides.
462-476	Tuff, fine-grained, dark gray.
476-500	Tuff, fine-grained, light gray, silicified.
500	Bottom.

DMEA-4896

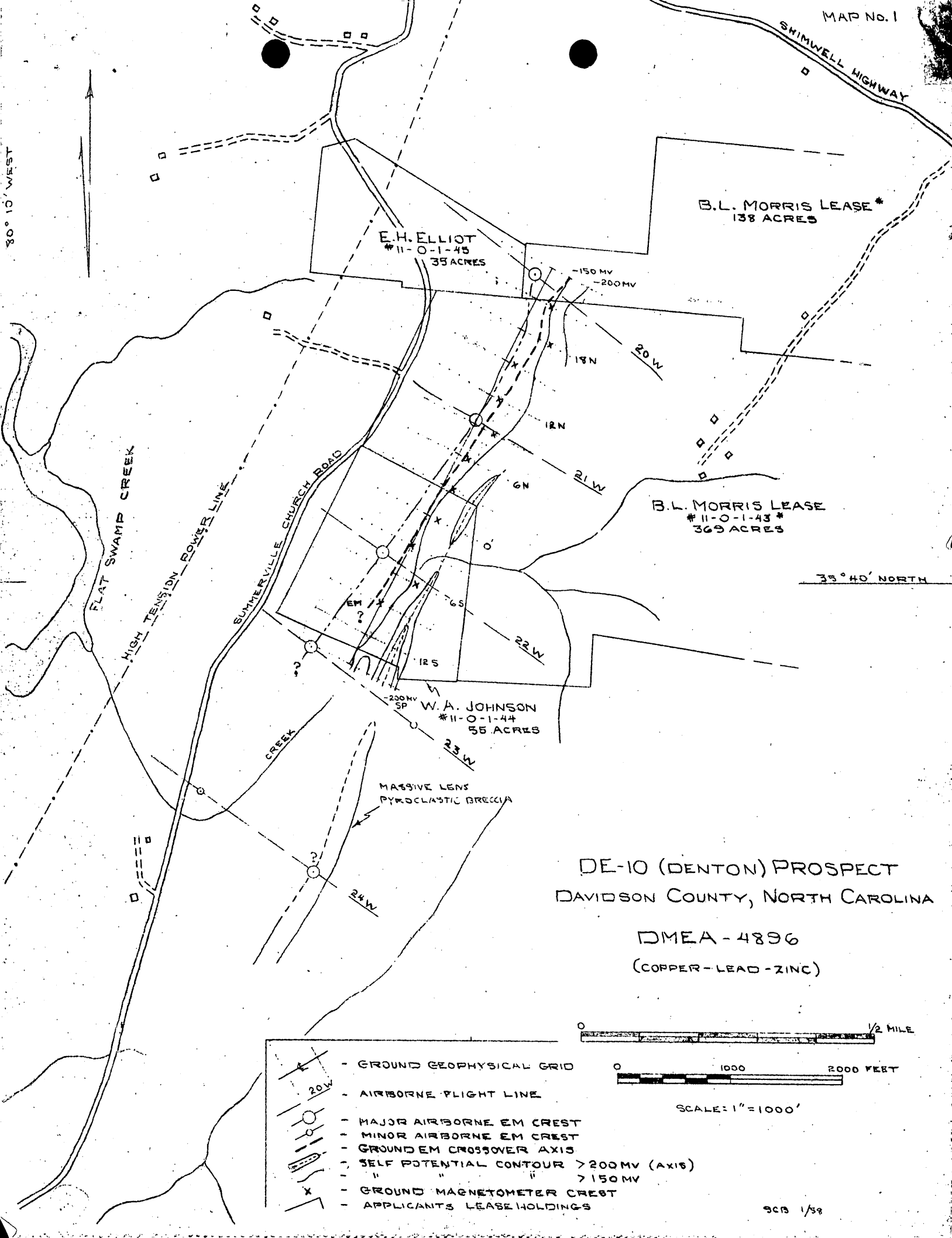
DIAMOND DRILL HOLE No. 4

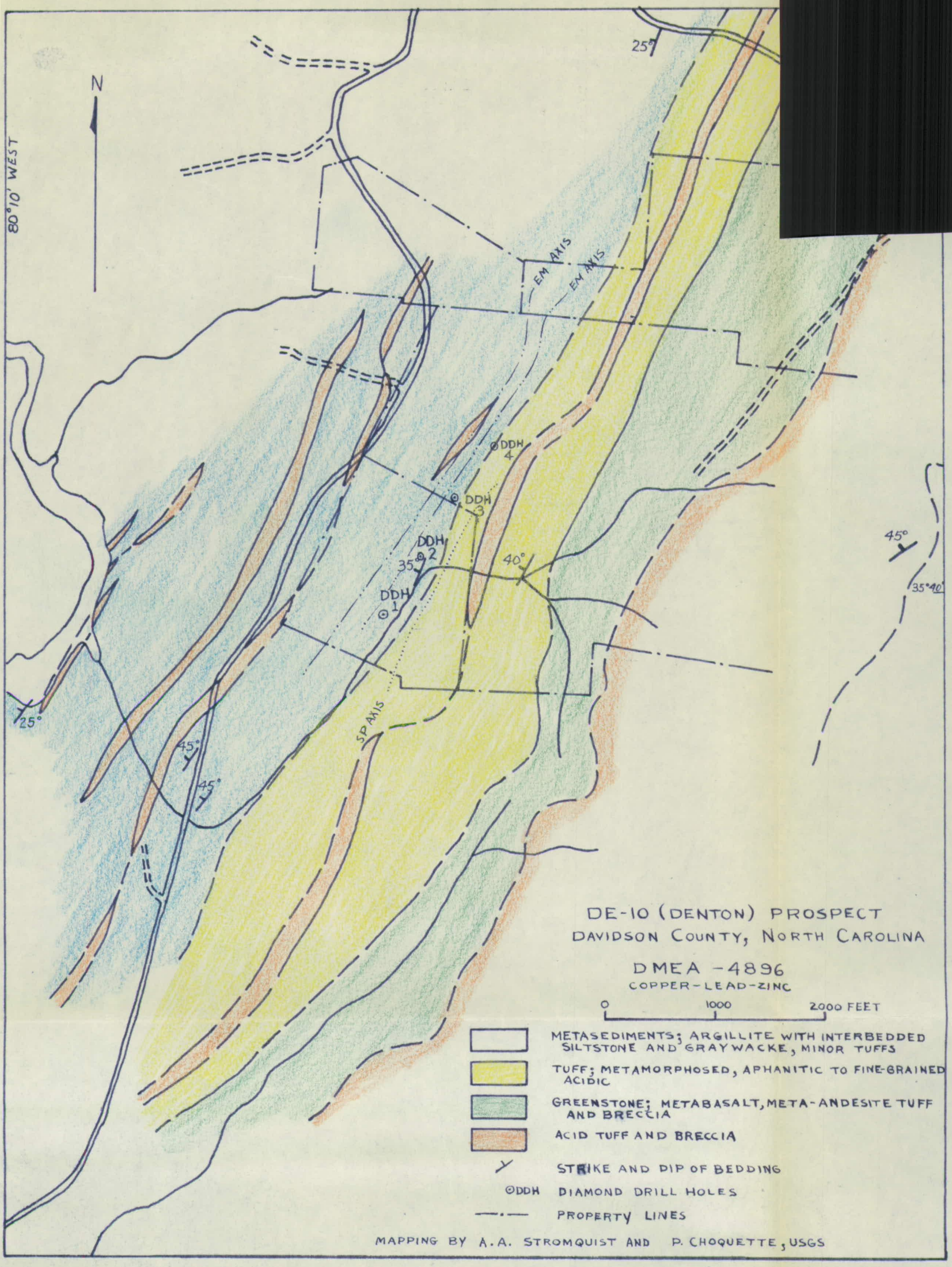
B. L. Morris property
Co-ordinates 9 N., 0.80 E.
Collar elevation, 659.9 feet
Began 7/11/58, completed 7/21/58

Depth (Feet)	Description
0- 6	Overburden
6-105	Metasediments and intercalated silicified acid tuffs, thin-bedded ($\frac{1}{4}$" to 4"). Metasediments medium to dark gray and very fine-grained, tuffaceous beds light gray and medium- to fine-grained. Bedding planes and fractures in metasediments have films of sulfides (pyrrhotite and pyrite). Disseminated sulfides in coarser-grained basal portions of tuffaceous beds.
105-140	Metasediments, very fine-grained, silicified shales and argillites medium- to dark-gray; contain layers of light gray tuff, all very thin bedded (1/16" to 1/8"). Sulfides along bedding planes.
140-145	Tuff, medium-grained, light gray, silicified. Numerous calcite filled fractures.
145-220	Tuff, medium- to fine-grained, medium gray with thin layers of dark gray metasediments. Disseminated sulfides.
220-232	Tuff, fine-grained, silicified, medium gray; thin pyroclastic breccia at 220 feet.
232-273	Tuff, fine-grained, medium gray; scattered thin layers of pyroclastic breccia. Scattered blebs of sulfides.
273-286	Tuff, very fine-grained, light gray, extremely silicified.
286-323	Tuff, very fine-grained, light to medium gray; scattered layers of pyroclastic breccia.
323-356	Pyroclastic breccia, silicified; few thin layers of light gray tuff.
356-363	Tuff, medium-grained, dark gray.

Diamond Drill Hole No. 4.--Continued

Depth (Feet)	Description
363-384	Pyroclastic breccia, silicified, light gray.
384-437	Pyroclastic breccia, silicified, medium gray. Scattered blebs of sulfides.
437-462	Tuff, medium- to fine-grained, light- to medium-gray.
462	Bottom.


MAP No. 1
SHIMWELL HIGHWAY
80° 10' WEST
B.L. MORRIS LEASE*
138 ACRES
E.H. ELLIOT
#11-0-1-45
35 ACRES
-150 MV
-200 MV
20 W
18 N
12 N
21 W
6 N
0
B.L. MORRIS LEASE
#11-0-1-43*
369 ACRES
35° 40' NORTH
FLAT SWAMP CREEK
HIGH TENSION POWER LINE
SUMMERVILLE CHURCH ROAD
EM
?
6 S
22 W
12 S
-200 MV
SP
W.A. JOHNSON
#11-0-1-44
55 ACRES
23 W
CREEK
MASSIVE LENS
PYROCLASTIC BRECCIA
24 W
DE-10 (DENTON) PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA
DMEA-4896
(COPPER-LEAD-ZINC)
0
1/2 MILE
0
1000
2000 FEET
SCALE: 1" = 1000'
- GROUND GEOPHYSICAL GRID
20W
- AIRBORNE FLIGHT LINE
- MAJOR AIRBORNE EM CREST
- MINOR AIRBORNE EM CREST
- GROUND EM CROSSOVER AXIS
- SELF POTENTIAL CONTOUR >200 MV (AXIS)
- " " " >150 MV
- GROUND MAGNETOMETER CREST
- APPLICANTS LEASEHOLDINGS
SCB 1/58


N
80°10' WEST
25°
EM AXIS
EM AXIS
DDH 4
DDH 3
DDH 2
DDH 1
35°
40°
45°
35°40'
25°
45°
45°
SP AXIS
DE-10 (DENTON) PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA
DMEA -4896
COPPER-LEAD-ZINC
0
1000
2000 FEET
METASEDIMENTS; ARGILLITE WITH INTERBEDDED SILTSTONE AND GRAYWACKE, MINOR TUFFS
TUFF; METAMORPHOSED, APHANITIC TO FINE-GRAINED ACIDIC
GREENSTONE; METABASALT, META-ANDESITE TUFF AND BRECCIA
ACID TUFF AND BRECCIA
STRIKE AND DIP OF BEDDING
DDH DIAMOND DRILL HOLES
PROPERTY LINES
MAPPING BY A.A. STROMQUIST AND P. CHOQUETTE, USGS

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

September 17, 1958

9/22 C 220
9/23 Kly. 500

Memorandum

To: Jay L. Chambers, Director Contract Administration-DMEA

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

Subject: Termination - DMEA-4896, Idm-E1194(copper-lead-zinc)
Roland F. Beers, Inc., Troy N. Y.
DE-10 Prospect, Davidson County, N.C.

Work on the subject contract was terminated as of July 31, 1958.

The following units of work have been acceptably performed as verified by our Field Examiners:

1. 15 feet of NX diamond drilling completed in 4 holes.
2. 1897 feet of BX diamond drilling completed in 4 holes.
3. 4 hours of surveying drill holes.
4. 28 core boxes used.
5. 1 sample assayed.

An adequate final engineering and geological report has been received.

A report of review is requested. The original of the Operator's final voucher is attached.

Robert A. Laurence

VJL/sm
cc
Opr. Com.-2
Lynch
Files

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

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 19 1958

DATE	INITIALS	CC
9-19	C	220
9/19	[illegible]	800
9/25	[illegible]	500

September 17, 1958

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Operator's Final Report - DMEA-4896, Idm-E1194, copper-lead and zinc. Roland F. Beers, Inc. DE-10 Prospect, Davidson County, N.C.

Enclosed are three copies of the subject final report.

Robert A. Laurence

Robert A. Laurence

FINAL REPORT

September 9, 1958

DE-10 PROSPECT

Roland F. Beers, Inc.

DMEA - 4896

OPERATOR'S
FINAL REPORT

FINAL REPORT

September 9, 1958

DE-10 PROSPECT

Roland F. Beers, Inc.

DMEA - 4896

-Introduction-

In answer to a request, dated July 22, 1958, for the termination of Exploration Project Contract No. Idm-E 1194 (Docket No. DMEA-4896) a proposed Termination Agreement signed by the Administrator for the Government has been received in our offices. As the Operator (Roland F. Beers, Inc.)concurs with the proposed Agreement this shall constitute a final report.

For geological and geophysical background data reference should be made to the original application. Results of the geophysical surveys upon which the application was based were verified through contract drilling.

A brief discussion of the stratigraphy and mineralization disclosed by drilling and drill logs are included in this report.

-Drilling Data-

Four diamond drill holes were completed on the DE-10 prospect, all of which were cooperative. The locations of these holes are shown on the accompanying maps.

Drilling progressed under the following time sequence:

June 12: DH-1 started
June 20: DH-1 completed

June 20: DH-2 started
June 30: DH-2 completed

July 1 : DH-3 started
July 11: DH-3 completed

July 11: DH-4 started
July 21: DH-4 completed

The following table summarizes the physical aspects of each hole:

Drill Hole #1:

Location: 9S + .85W
Total depth: 500 feet
Inclination: 90°
Core size: BXC: 0-12 feet
BXWL: 12-500 feet
Cooperative drilling: 500 feet
Corporation drilling: 0
No. of assays: 1

Drill Hole #2:

Location: 3S + .40W
Total depth: 450 feet
Inclination: 90°
Core size: BXC: 0-6 feet
NXBW: 6-10 feet
BXWL: 10-450 feet
Cooperative drilling: 450 feet
Corporation drilling: 0
No. of assays: 0

Drill Hole #3:

Location: 3N + .10E
Total depth: 500 feet
Inclination: 90°
Core size: BXC: 0-3 feet
NXBW: 3-10 feet
BXWL: 10-500 feet
Cooperative drilling: 500 feet
Corporation drilling: 0
No. of assays: 0

Drill Hole #4:

Location: 9N + .80E
Elevation: 359.9 feet
Total depth: 462 feet
Inclination: 90°
Core size: BXC: 0-6 feet
NXBW: 6-10 feet
BXWL: 10-316 feet
AXBW: 316-462 feet
Cooperative drilling: 462 feet
Corporation drilling: 0
No. of assays: 0

-Drilling Results-

DH-1, located on L 9 S at .85 W was a vertical hole collared on the ground EM conductor axis and drilled to a depth of 500 feet. A drill hole survey showed that DH-1 deflected S 60° E about 65 feet at the bottom. The core exhibited only weak sulfide mineralization (traces to approx. 3½%) in disseminated form and in small stringers and veinlets. No massive sulfides were present in the core from DH-1.

DH-2, a vertical hole located on L 3 S at .40 W, was drilled to a depth of 450 feet and was collared on the conductor axis. Tests showed DH-2 to have drifted 22 feet S 55° E at the bottom of the hole. No massive sulfide intersections were encountered in DH-2.

DH-3, located at 3N + .10 E was drilled vertically through the conductor axis. The hole was drilled to a depth of 500 feet and was deflected 80 feet S 56° E at the bottom. The core exhibited sulfide mineralization in fine disseminations,

fracture fillings and small stringers. None of the core from this drill hole was sufficiently mineralized to justify assaying.

DH-4, located on L 9 N + .80 E, was a vertical hole collared on the ground EM conductor axis and drilled to a depth of 462 feet. A drill hole survey showed DH-4 to have drifted 5 feet to the southeast at the bottom. No massive sulfide sections were encountered. The sulfides (mostly pyrrhotite and pyrite) occur as fine disseminations, as fracture fillings and in small stringers.

-Stratigraphy and Mineralization-

Four diamond drill holes were completed on the DE-10 anomaly. The details of location and geology are shown on accompanying maps and cross-sections.

The rock section encountered in diamond drilling consists of two major types: (a) metasediments and (b) metavolcanics. Metasediments are represented by slates, all dark colored and with varying degrees of silica induration. Metavolcanics consist of: (a) very fine-grained, gray tuff and (b) medium-coarse to coarse volcanic breccia. Occasional, minor intraformational breccias are present. Such breccias are apparently of very limited lateral extent. All of the cited rock types were subject to heavy silicification.

Low-grade metamorphism is evidenced by the development of slaty cleavage, principally in the metasediments, and "welding" of nearly all beds. The development of typical

metamorphic mineral assemblages is conspicuously absent.

Bedding inclination, as measured on drill core, corroborated surface data. All of the beds dip westward at 32°-35°, without significant departure. Minor structural disturbance is evidenced by widespread fracture development and at least one probable fault breccia. Displacement along both fracture types is negligible. The fractures occupy a preferential oblique position with reference to bedding.

Sulfide mineralization, consisting of pyrrhotite and pyrite, was encountered in all drill holes. Although these minerals are present throughout the entire rock section, there is a relative concentration in the uppermost 200 feet. As shown on the cross-sections, this part of the section is an alternating series of slates and tuffs. Sulfides are present as very small, disseminated grains, concentrated in these bands (approximately 1/4") at the base of nearly all of the pyroclastic beds. Selected 6" to 8" sections from this interstratified core contain a maximum of 5% total sulfides.

The iron sulfides also occur, with calcite and quartz, in the cross-cutting fractures. The maximum width of such fractures is approximately 3/4". Sludge samples taken in highly fractured core failed to show any appreciable increase in sulfides over-non-fractured core.

No massive sulfides were encountered in the completed drill holes.

-Geophysical Data-

The geophysical anomaly, upon which the drilling was based, was verified in all respects. Sufficient conducting sulfides are present in the upper 200 feet of the section to account for (a) the airborne EM anomaly, (b) the vertical-loop EM cross-overs, and (c) horizontal-loop EM anomaly. The mass conducting effect of thin sulfide bands accounts for the width of the airborne and horizontal-loop anomalies.

The small, though regular, magnetic anomalies are due to the mass magnetic effect of the pyrrhotite. The magnetic profiles corroborate the westward dip of the sulfide-bearing beds.

The self-potential anomaly was previously identified with outcropping pyrrhotite-bearing beds (DE-10 Application, Dec. 1957).

-Assay Data-

One sample of the sulfide-bearing pyroclastic-slate section from DH-1 (147.5' - 152.5') was selected for assay. No values for copper-lead-zinc-nickel-silver are present. A trace of gold is recorded. A true copy of the assay certificate is appended.

No other section is sufficiently mineralized to justify assaying.

-Conclusion-

Drilling has proved that the DE-10 prospect will not yield copper, lead or zinc minerals of economic importance. The Operator therefore agrees to all conditions set forth by the Government in the Termination Agreement DMEA-4896, dated August 26, 1958.

Respectfully submitted,

Robert S. Young

Robert S. Young, Branch Manager

Vernon R. Geyer

Vernon R. Geyer, Geologist

September 9, 1958
Roland F. Beers, Inc.
Box 3725, University Station
Charlottesville, Virginia

Location [illegible]10 Prospect
Dep. 500'
Elev. 648'

Angle vert[illegible]l Hole No. 1
Deflection 65' S 60° E at bottom of DH
Logged by: VRG

Footage	Description
0-12	overburden
12-147.5	fine to medium-grained pyroclastics interbedded with metasediments; small calcite veinlets present throughout section; total sulfides (mostly pyrite and pyrrhotite disseminated and in stringers) about 2%; fault at 78'; fractured zone 83-88'.
147.5-221	silicified volcanic tuff and metasediments (interbedded); disseminated sulfides (pyrite, pyrrhotite and traces of chalcopyrite) throughout section, more concentrated at base of pyroclastic layers. Total sulfides about 3% by weight. 5" breccia at 215'.
221-342	fine-grained silicified volcanic tuff; minor pyrite-pyrrhotite disseminated and in stringers. Some interbedding with metasediments at upper end of section. Sparse, small replacement masses of pyrrhotite 288-328'; highly fractured zone 333-337.
342-345.5	coarse-grained indurated pyroclastics containing angular grains of feldspar and calcite; minor disseminated sulfides.
345.5-359	volcanic breccia.
359-361	coarse-grained pyroclastics, highly fractured.
361-371.5	silicified, fine-grained tuff.
371.5-384	medium-grained volcanic tuff with pyrite-pyrrhotite (about 3%).
384-414.5	volcanic breccia with minor sulfides disseminated and in stringers.
414.5-416.5	silicified fine-grained tuff.
416.5-425.5	volcanic breccia containing minor pyrrhotite and pyrite; 6" fine-grained tuff at 417'.
425.5-444	silicified fine-grained highly indurated tuff with minor disseminated sulfides.
444-453.5	coarse-grained pyroclastics containing angular grains of feldspar and calcite; sparse pyrite and pyrrhotite disseminated and in veinlets.
453.5-455.5	fine-grained dark colored tuff.

Location: DE-10 Prospect Angle vertical Hole No. 1
Dep. [illegible]' Deflection: [illegible]' S 60° E at bottom of DH
Elev. 648' Logged by: VRG

Footage	Description
455.5-466	coarse-grained pyroclastics containing grains of feldspar and calcite. Sparse pyrite disseminated and in stringers.
466-500	fine-grained light-gray pyroclastics with traces of pyrite.
	TDA - 500'

Location: [illegible]-10 Prospect Angle vertica[illegible] Hole No. 2
Dep. 450' Deflection: 22' S 55° E at bottom of DH
Elev. 646.4' Logged by VRG

Footage	Description
0-6	overburden.
6-98	interbedded fine to medium-grained pyroclastics and metasediments; small calcite veinlets present throughout section. Pyrite and pyrrhotite (about 2%) disseminated and in stringers.
98-172	silicified fine to medium-grained pyroclastics interbedded with metasediments. Disseminated pyrite, pyrrhotite and traces of chalcopyrite throughout section; sulfides more concentrated at base of pyroclastic layers; total sulfides about 3%.
172-242	fine and medium-grained volcanic tuff; some interbedding with metasediments; minor disseminated sulfides.
242-319	highly silicified fine-grained tuff containing small replacement masses of pyrrhotite and disseminated pyrite; highly fractured zone 260-272'.
319-366	coarse-grained pyroclastics containing feldspar and calcite; brecciated sections.
366-386	volcanic breccia; minor pyrite disseminated and in stringers.
386-407	coarse-grained pyroclastics with angular grains of feldspar and calcite.
407-410	silicified fine-grained volcanic tuff with very minor sulfides.
410-413	volcanic breccia.
413-450	very fine-grained, highly silicified volcanic tuff; sparsely disseminated pyrite. Medium-grained pyroclastics 431-435'.
	TDA - 450'

Location: [illegible]-10 Prospect Angle: 9[illegible] Hole No.: DH-3

Depth: 500 feet Deflection: 80' S 56° E at bottom

Elevation: 654.4' Logged by: VRG

Footage	Description
0-3	overburden.
3-91	fine to medium-grained pyroclastics interbedded with metasediments; 2-4% total sulfides occurring in disseminated form and in stringers; sulfides more concentrated at base of pyroclastic zones; highly fractured 41-43'.
91-123	thinly laminated volcanic tuff and metasediments; minor disseminated sulfides.
123-153	interstratified volcanics and metasediments containing small calcite veinlets.
153-195	silicified volcanic tuff containing few small zones of metasediments; total sulfides 2-4%.
195-201	medium-grained volcanic tuff.
201-243	interbedded fine to medium-grained tuff and metasediments; thin-bedded sections 207-218'; pyrite and pyrrhotite in disseminated form and in fractures. Total sulfides about 3%.
243-263	silicified fine to medium-grained volcanic tuff containing traces of metasediments and minor disseminated sulfides; highly fractured.
263-290	silicified fine-grained tuff; fractured zones 252-253', 255-257.5', 269-271.5' and 274'; highly silicified 6" section at 267'; minor disseminated pyrite and pyrrhotite.
290-338	highly silicified fine-grained tuff containing breccia zones at 308', 311' (6"), 313' (3"), 314-315', fractured section at 290' (4").
338-376	silicified coarse-grained pyroclastics, containing minor amounts of pyrite and pyrrhotite.
376-409	silicified light-gray volcanic breccia with minor sulfides. Fractured zone 382-382.5'.

Location: [illegible]-10 Prospect Angle: 90° Hole No.: DH-3

Depth: 500 feet Deflection: 80' S 56° E at bottom

Elevation: 654.4' Logged by: VRG

Footage	Description
409-410	fine-grained pyroclastics.
410-419	silicified interstratified breccia and tuff.
419-428	silicified dark-gray fine to medium-grained tuff; minor sulfides (pyrite and pyrrhotite) in fractures. Fractured zone 426.5-427'.
428-447.5	silicified light-gray fine to medium-grained tuff containing few breccia sections, 6" at 432';quartz 436-437'. Minor disseminated sulfides.
447.5-462.5	volcanic breccia with disseminated pytire and pyrrhotite; contains angular grains and fragments of feldspar and calcite.
462.5-500	silicified fine-grained pyroclastics with very minor disseminated sulfides (pyrite and pyrrhotite); dark gray color 462.5-476'; light-gray color 476-500'.
	TDA - 500 feet

Location: [illegible]-10 Prospect Angle: 9[illegible] Hole No.: DH-4

Depth: 462 feet Deflection: 5' S 60° E at bottom

Elevation: 659.9' Logged by: VRG

Footage	Description
0-6	overburden.
6-105	fine to medium-grained pyroclastics interbedded with metasediments; total sulfides about 3% by weight; fractured zones at 26-27.5', 30-31' and 37-37.5'. Sulfides (mostly pyrite and pyrrhotite) more concentrated at base of pyroclastic layers.
105-140	dark-gray thin-bedded fine-grained metasediments and pyroclastics.
140-145	light-gray medium-grained pyroclastics containing small calcite veinlets and minor disseminated sulfides.
145-227	interstratified metasediments and pyroclastics with minor disseminated sulfides; 5" breccia section at 220'.
227-232	thin-bedded fine-grained metasediments and volcanic tuff. Highly fractured 229-230'.
232-272.5	silicified volcanic tuff; breccia at 238.5-239.5'; traces of metasediments; highly fractured 233-234' and 241-242'. Minor disseminated sulfides (pyrite and pyrrhotite).
272.5-356	silicified interbedded fine-grained tuff and breccia with disseminated sulfides; highly silicified zones at 272-276', 282.5-286', and 323-356'.
356-363	dark-gray medium-grained volcanic tuff.
363-384	silicified light-gray breccia with minor disseminated sulfides.
384-437	highly silicified volcanic dark-gray color and coarse-grained 406-432'; highly fractured zone 419-421'; sulfides in disseminated form and in fractures. Total sulfides less than 2%.
437-462	dark-gray fine-grained pyroclastics; light-gray section 452-462'; breccia streaks at 442', 447.5' and 448'; very minor disseminated sulfides.
	TDA - 462 feet

Telephone EMpire 3-3302

Hand Sample Serial 35920

Mine Roland F. Beers, Incorporated

ASSAY REPORT

UNION ASSAY OFFICE, Inc.

J. V. SADLER, President
W. C. WANLASS, Vice-Pres. & Treas.
LILY M. HOTTINGER, Secretary

Salt Lake City 10, Utah

RESULTS PER TON OF 2000 POUNDS

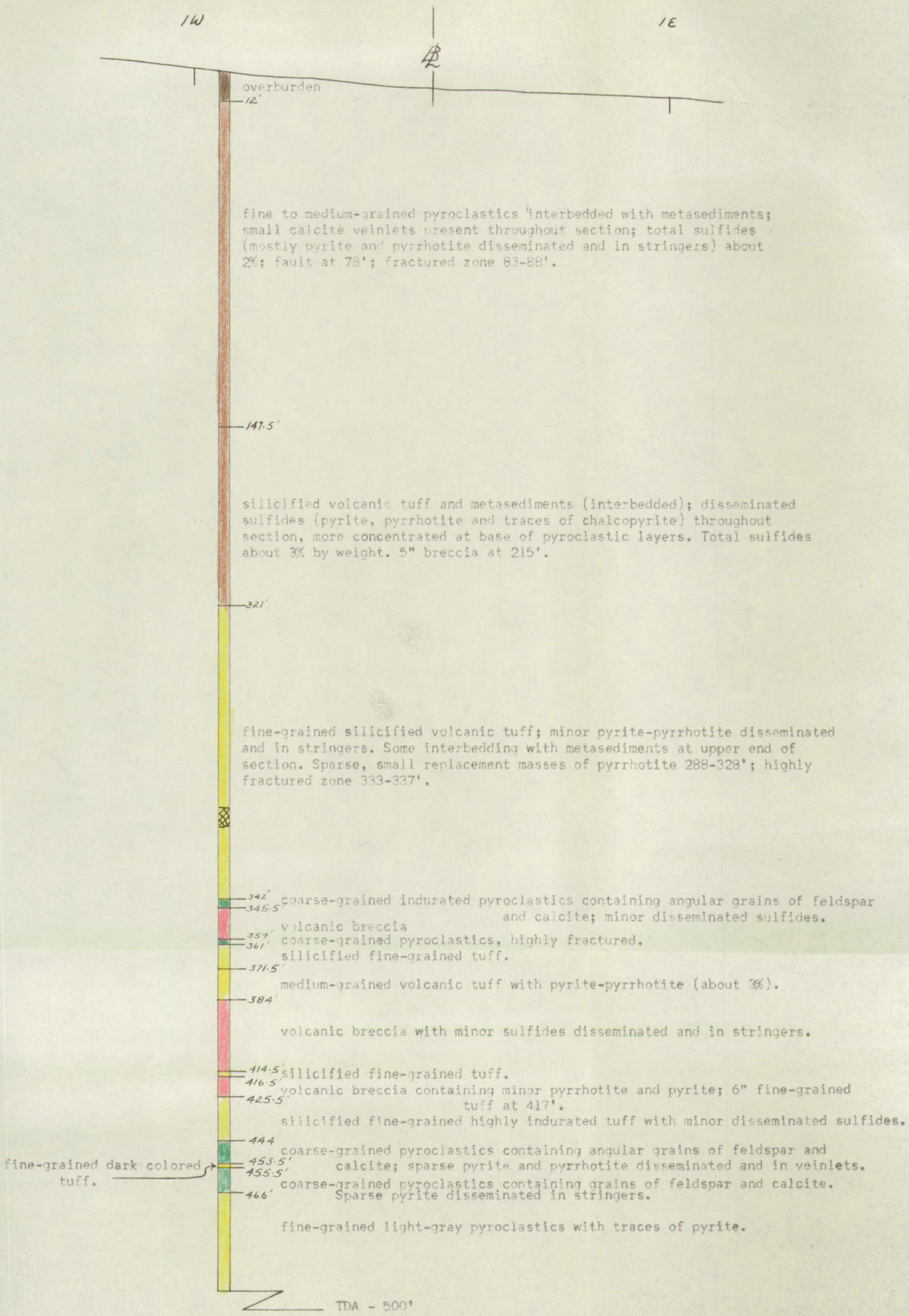
July 8, 1958

NO.	GOLD Ozs. per Ton	SILVER Ozs. per ton	LEAD Per Cent Wet	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	~~Iron~~ Per Cent	LIME Per Cent	Per Cent	Per Cent	VALUE GOLD
								N1				
	Trace	None	None	None		None		None				

Remarks

Charges $ 9.00

W. C. Wanlass

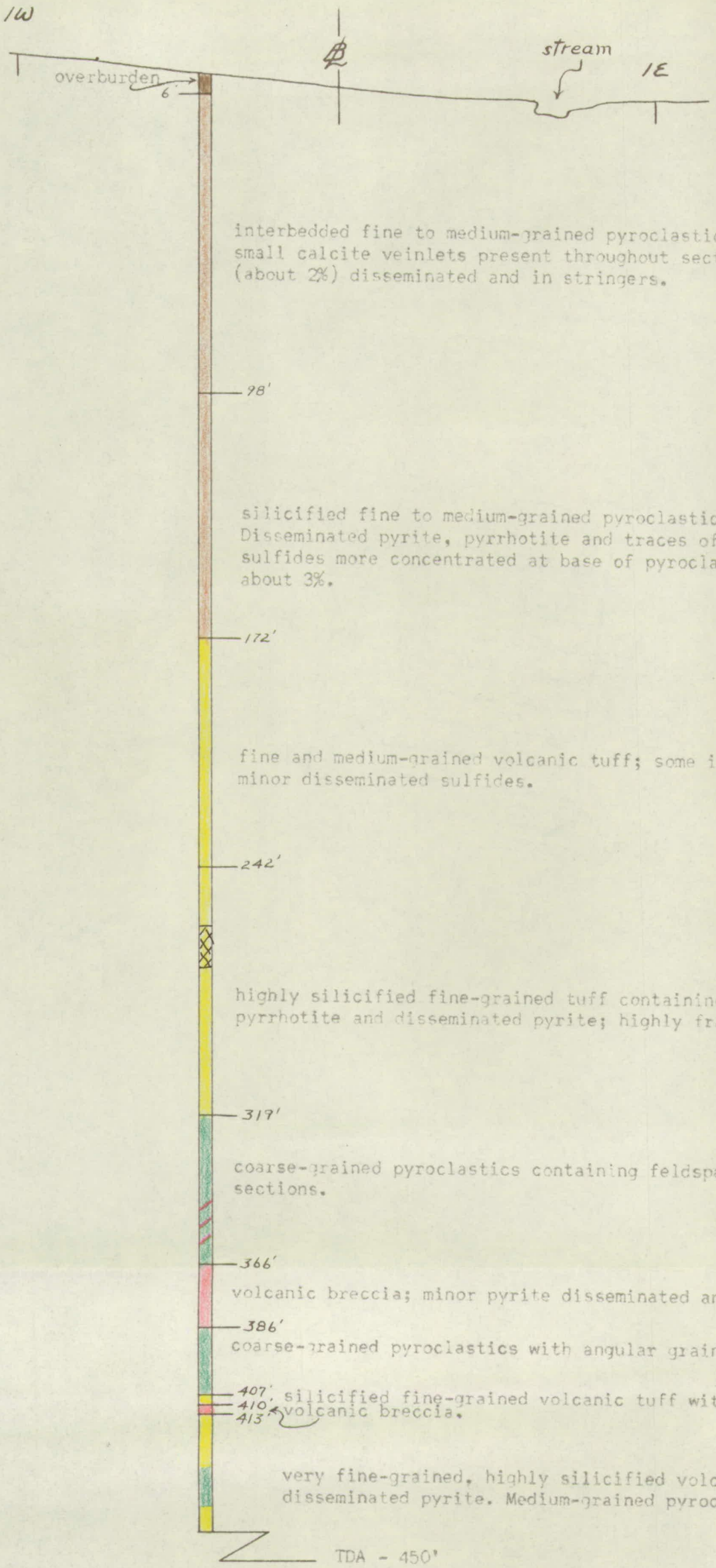


DRILL HOLE CROSS SECTION - DH-1

DE-10 Prospect
Davidson County, N.C.

Roland F. Beers, Inc. DMEA-4896

scale 1" = 40'



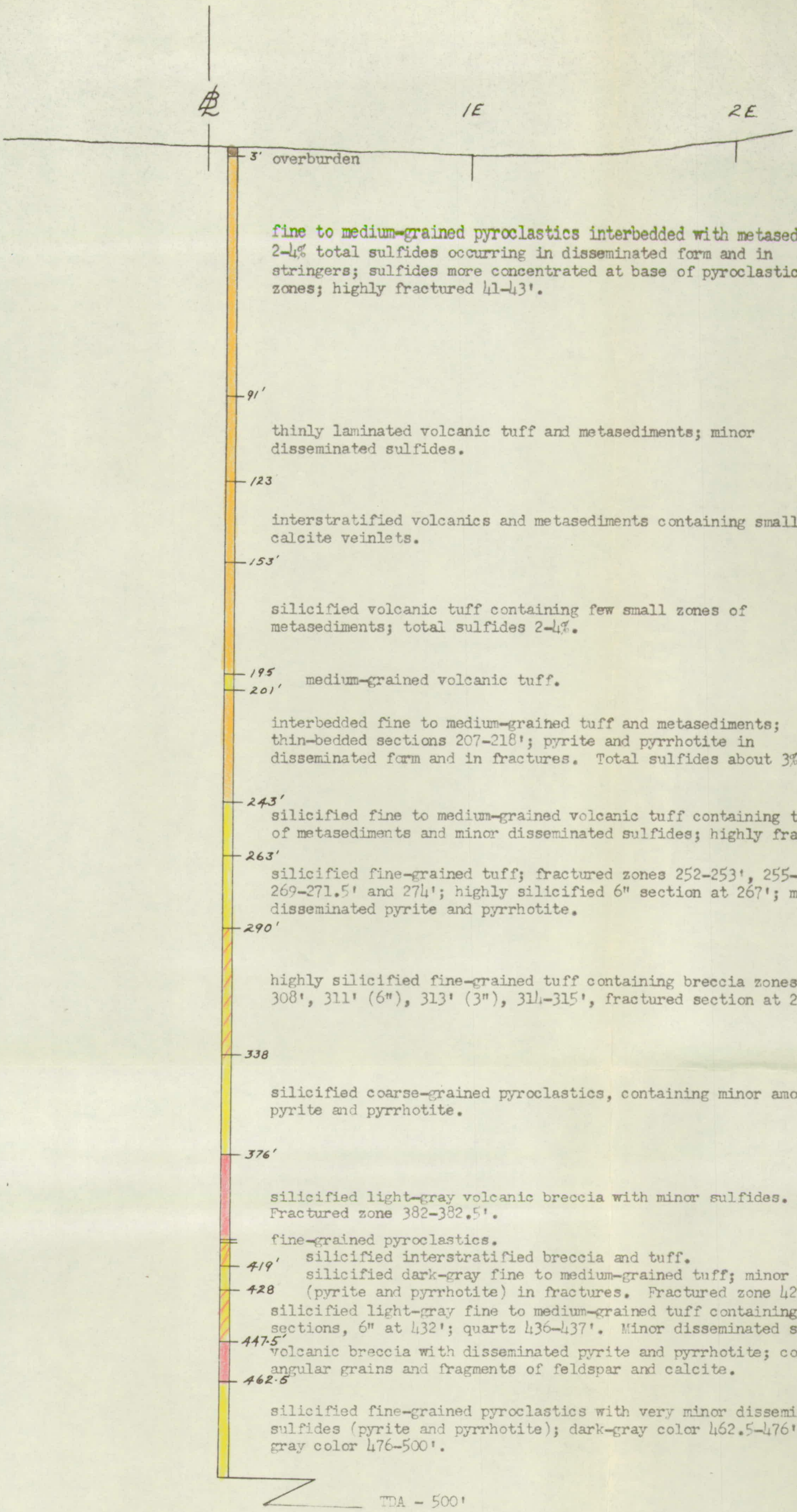
DRILL HOLE CROSS SECTION - DH-2

DE-10 Prospect
Davidson County, N.C.

Roland F. Beers, Inc.

DMEA-4896

scale 1" = 40'



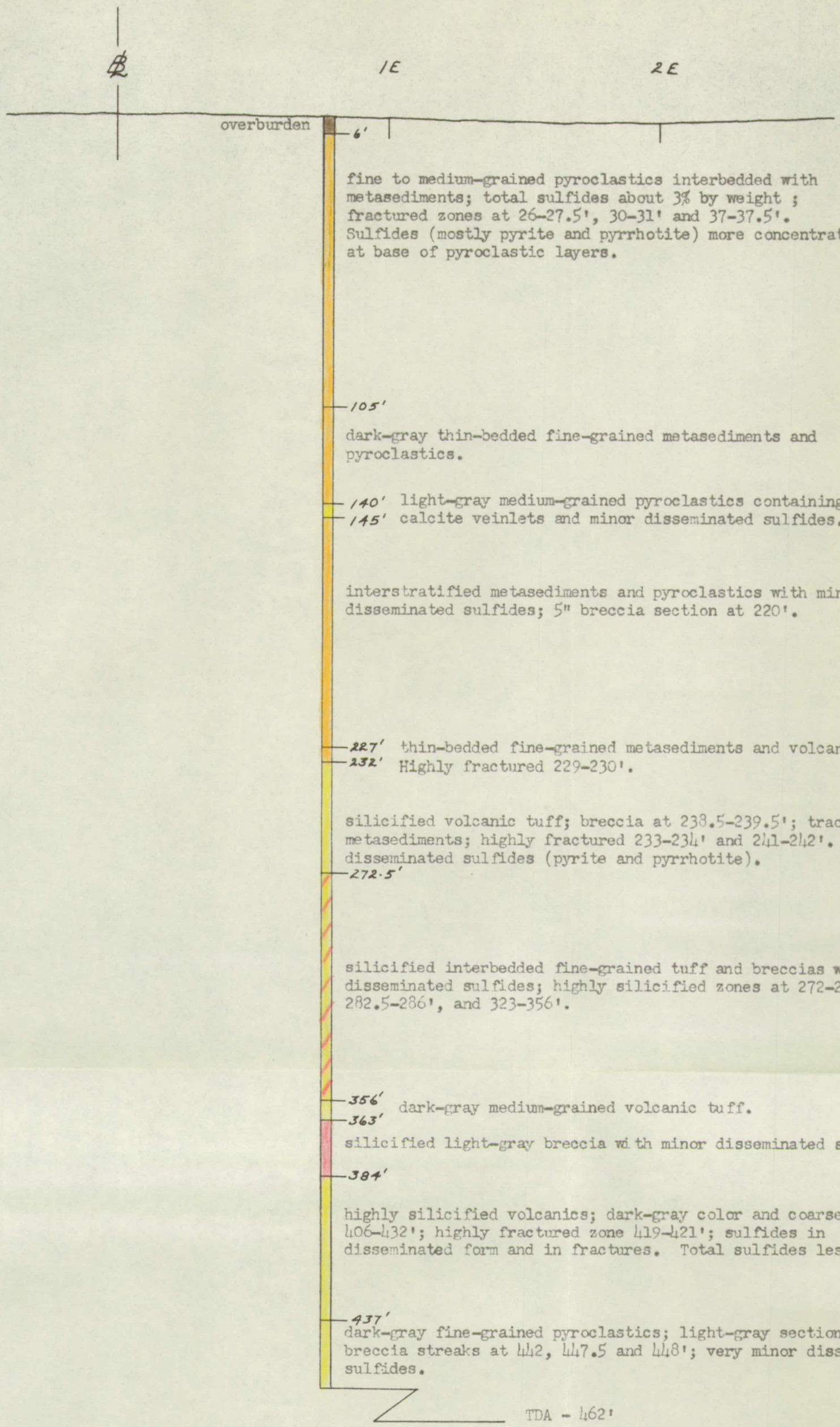
DRILL HOLE CROSS SECTION - DH-3

DE-10 Prospect
Davidson County, N. C.

Roland F. Beers, Inc.

scale 1" = 40'

DMEA-4896



DRILL HOLE CROSS SECTION - DH-4

DE-10 Prospect
Davidson County, N. C.

Roland F. Beers, Inc.

DMEA-4896

scale 1" = 40'

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

September 9, 1958

DMEA RECEIVED SEP 11 1958		
DATE	INITIALS	CODE
9/11	C	220
"	Klug	500

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Signed Termination Agreement - DMEA-4896, Idm-E1194. D-10 Prospect, Davidson County, North Carolina

Attached are the Government and Audit copies of the subject signed termination agreement.

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

Robert A. Laurence

Robert A. Laurence

z

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/25	Klugeschei	500
8-25	Chamber	800
8/26	GCS	130
8/26	Olson	110
"	Rutherford	100
8/26	C	220
		500

AUG 26 1958

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

Re: Docket No. DMEA-4896 (Copper-Lead-Zinc)
Roland F. Beers, Inc.
D-10 Prospect
Davidson County, North Carolina
Contract No. Idm-E1194

Dear Mr. Laurence:

In accordance with your memorandum, dated July 31, 1958, and the request of the Operator, dated July 22, we are enclosing the original and four copies of a proposed Termination Agreement (1 page) to the cited contract, signed by the Administrator for the Government. We are enclosing two extra copies for the use of the Field Team.

If the agreement meets with your approval, kindly present it to the Operator for approval and signature and, when completed, distribute the copies in the usual manner. In the event that the agreement is not satisfactory and cannot be amended within your delegated authority, return all copies with your recommendations concerning any modifications.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

Enclosures

APPROVED:

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

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

WPKlugeschei/izm 8-25-58
cc: Docket
Admr.'s Reading File
Operating Committee
THKillsgaard, 5224, USGS
Mr. Bishop, USBM
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/13	Klaybacher	500
8/13		500

August 13, 1958

MEMORANDUM:

To: Associate Solicitor, Division of Mineral Resources

From: Director, Division of Base Metals

Subject: Termination Agreement for Docket No. DMEA-4896
Roland F. Beers, Inc.
DE-10 Prospect
Davidson County, North Carolina
Contract No. Idm-E1194

Will you kindly prepare a Termination Agreement for the above cited project. The effective date of the Termination should be July 31, 1958.

The right to certify should be retained even though certification probably will not be recommended.

W. R. Griswold

WPK/dl 8-13-58
cc to: Docket
Chron.

8623

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

August 13, 1958

Memorandum for the Files

From: W. P. Klugescheid, Mining Engineer, Division of Base Metals

Subject: Justification for Termination Agreement for
Docket No. DMEA-4896
Roland F. Beers, Inc.
DE-10 Prospect
Davidson County, North Carolina
Contract No. Idm-E1194, Copper-Zinc

The contract called for six holes with a total footage of 3,500 feet. Up to the present time four holes have been drilled for a total of 1,912 feet.

None of the holes drilled have encountered commercial mineralization. Such mineralization as exists was found above the favorable or geologic target, which was interpreted as the pyroclastic breccia beds.

The mineralization encountered in all the holes was pyrite and pyrrhotite, no copper, zinc or lead sulphides were detected.

The intensity of the mineralization and the outlined anomaly decreases to the north. The remaining two drill holes, Nos. 5 and 6, are located in the area of decreasing intensity of mineralization.

The Field Examiners recommend that this project be terminated as further work is not warranted. The Field Team concurs with this opinion as do we. Certification will not be recommended by the Field Team.

W. P. Klugescheid

W. P. Klugescheid

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

July 31, 1958

8/5 J.g. 325-500

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: DMEA-4896, Idm-E1194 (copper-Zinc)
Roland F. Beers, Inc., Troy, N.Y.
DE-10 Prospect, Davidson County, N.C.

Mr. Amos and Mr. Shirley have just returned from a field inspection of the drilling at the DE-10 prospect.

Four holes have been completed, and none contained ore. Shines of pyrrhotite and pyrite were present in hole No. 1, above the target breccia zone. Holes 3 and 4 had no mineralization.

Both the Field Examiners and the Operator agree that the anomaly has been adequately tested, and that virtually no possibility of finding ore in the contract area remains.

Therefore, we recommend termination of the contract by mutual consent, effective July 31, 1958. Certification will not be recommended.

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

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

ROLAND F. BEERS, INC.

OFFICE AND LABORATORY:
447 PINEWOODS AVENUE
PHONE ASHLEY 2-2351

MAIL ADDRESS:
POST OFFICE BOX 1019
TROY, NEW YORK

P. O. Box 84
Rockport, Maine
July 22, 1958

RECEIVED
JUL 2 5 1958

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

Re: DMEA - 4896
IDM - E1194
DE-10 Prospect

Dear Mr. Laurence:

We have, as of this date, completed four (4) of the six (6) diamond drill holes required under the conditions of Contract IDM - E1194.

Although considerable iron sulfide is present in all of the holes, it is distributed over a thick stratigraphic section. An assay from the best section of the best hole (DH-1) shows no values. The stratigraphy and structure are constant throughout the area covered by the completed drill holes.

I feel that the intent of the proposed exploratory drilling is fulfilled. I do, therefore, request that we be relieved of the responsibility of additional work, and that the drill be removed from the property as soon as possible. We shall, of course, abide by the decision of the inspecting team.

I would appreciate telegraphic notice of your decision.

Thank you for your cooperation and consideration.

Very truly yours,

Robert S. Young

Robert S. Young,
Branch Manager

RSY/jy

cc: Dr. Roland F. Beers, Troy office

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

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 13 1958
6/13 C 220
C 215
6/13 Ray 500

June 11, 1958

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Signed Contract, Idm-E1194, DMEA-4896-copper-lead-zinc
Roland F. Beers, Inc. North Carolina
D-10-Denton Prospect, Davidson County, N.C.

Transmitted are two signed copies of the subject contract signed by the Vice President of the Corporation.

The usual distribution of the other copies has been made.

Performance bond attached to Government copy.

Robert A. Laurence

Robert A. Laurence

OFFICIAL FILE
DMEA
RECEIVED JUN 2 1958

DATE	INITIALS	CODE
6/2	C	220
6/3	Clay	500

May 29, 1958

Dr. Roland F. Beers
Roland F. Beers, Inc.
Troy, New York

Re: DMEA-4896 (Copper-lead-zinc)
DE-10 Prospect
Davidson County, N. C.

Dear Dr. Beers:

A contract authorizing $13,700.00 for exploration at the DE-10 Prospect is ready for execution.

However, before we can submit the proposed contract for execution, we must have a Performance Bond in the amount of the Government's participation of $6,850.00. This is similar to the bonds you obtained on other projects in Virginia.

Please send me two copies of this bond. Immediately upon receipt of the bond, I will forward the proposed contract.

Sincerely yours,

Robert A. Laurence
Executive Officer

cc: Opr. Com. (2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/15	Klugescheid	500
	[illegible]	500
5/16	Talbert	800
5/23	[illegible]	130
"	Johnson	110
"	[illegible]	100
5/26	[illegible]	220
		500

500

MAY 23 1958

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

Re: Docket No. DMEA-4896 (Copper-Lead-Zinc)
Roland F. Beers, Inc.
D-10 Prospect
Davidson County, North Carolina

Dear Mr. Laurence:

Enclosed are the original and four copies of a proposed long-form contract for the cited project, signed by the Administrator, Defense Minerals Exploration Administration. It consists of the Form (MF-200), Annex I (one page), Annex II (one page), Exhibit "A" (four pages), and two maps. Two copies each of all but the form are enclosed for the use of the Field Team.

The Lessors have signified their unwillingness to sign Consents to Lien and Subordination Agreements, by letters which are in our files. Before submitting the proposed contract for signature, it will be necessary to obtain a Performance Bond in the amount of the Government participation of $6,850.00. Two copies should be supplied, one each to accompany the Government and Finance Office copies of the contract.

If the proposed contract meets with your approval, kindly present it to the Applicant for approval and signature and, when completed, distribute the copies in the usual manner. In the event that the contract is not satisfactory, and cannot be amended within your delegated authority, return all copies to us with your recommendations concerning any modifications.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee
WPKlugescheid/er 5/15/58
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

Enclosures
APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

P.S. The incidental allowance was figured on the basis of two shift operation in accordance with the bid of the Longyear Company.

8623

Mr. Selfridge

Applicant and Field Team seem to have calculated as follows:

	Applicant	Field Team
Time	2½ months	5 months
Feet Dr	1605	3500
Ft.per/mo	321	700

Using 25 work days per month:

Ft. per/day	29	29

Drilling bid of Longyear is on a 2 shaft basis, which indicates drilling speed of only 14½' per shift.

It appears that the minimum would be 20' per shift or 40' per day. This figures about 46¢/ft. for incidentals.

FEJohnson

Operator's copy

MF-200
(Revised June 1954)

Docket No. DMEA 4896

Commodity Copper-Lead-Zinc

Contract No. Idm-E

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this ..... day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Roland F. Beers, Inc., a New York corporation, whose mailing address is P. O. Box 1019 Troy, New York, hereinafter called the "Operator," as follows:

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

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the[4] Lessee of[5] See Annex I in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a[6] See Annex I, [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: interests of lessors

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Surety Company's Performance Bond was furnished to the Government in lieu of Consents to Lien and Subordination Agreements of lessors

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Copper, Lead, and Zinc The work to be performed is described in Exhibit "A." The Operator on or before June 20, 1958 shall commence the work, and on or before January 20, 1959 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A"~~ See Annex II

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

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $13,700.00 13,080.00 The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $6,850.00 6,540.00 : *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

EX size @ $2.65/ft.

Cementing, reaming, etc. 25 hours @ $7.50/hr.	$188.00	
Delays not attributable to drillers, 20 hours @ $6.50/hr.	130.00	
Mobilization and demobilization of personnel and drilling equipment	300.00	
Surveying drill holes with Maas Compass, 25 hours @ $7.50/hr.	187.00	$11,000.00

The above rates include charges for water supply, changing of locations, and all other charges by the diamond drill contractor.

Neither the cost nor the value of the casing left in drill holes at the option of the Operator will be accepted as a charge to the Contract.

Categories (2) through (7)

None

Fixed Unit Costs (See Article 13)

Incidental allowance 1/ for each foot of drilling completed, 3,500 feet @ ~~$0.64/ft.~~ 0.46/ft.	1,610.00 ~~$2,240.00~~	
Core boxes (wooden), 100 @ $3.00/each	300.00	
40 samples assayed @ $4.00 sample	160.00	2,070.00 ~~$2,700.00~~
Estimated total cost of the project (Rounded to)		13,080.00 ~~$13,700.00~~
Government's participation @ 50 percent		6,540.00 ~~$6,850.00~~

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Klugescheid	

500

May 7, 1958

Memorandum

To: Associate Solicitor, Division of Minerals Resources

From: Director, Division of Base Metals

Subject: Preparation of a Contract for Docket No. DMEA-4896, Roland F. Beers, Inc., D-10 Prospect, Davidson County, North Carolina, Copper-Lead-Zinc.

Will you please prepare a contract for the cited project.

A draft of the contract, Annex I, Annex II, Exhibit "A", and two maps are attached to this memorandum. The lessors have refused to execute Consents to Lien and Subordination Agreements so the Applicant will again submit a Surety Company's Performance Bond.

W. R. Griswold

WPKlugescheid/er
Copy to: Docket
Chron.

8623

BRANCH OFFICE
1111 ROSE HILL DRIVE
CHARLOTTESVILLE, VIRGINIA
PHONE 2-4918

ROLAND F. BEERS, INC.

April 24, 1958

MAIL ADDRESS
P. O. BOX 3725
UNIVERSITY STATION
CHARLOTTESVILLE, VIRGINIA

4896

DMEA 4896

OFFICIAL FILE COPY
DMEA
RECEIVED APR 30 1958
DATE | INIT. | CODE
4/30 | C | 220

Mr. Robert A. Laurence, Executive Officer
United States Department of the Interior
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Dear Mr. Laurence:

The following is the recorder's information on the pertinent leases on DE-10 prospect, North Carolina:

W. A. Johnson and Bettie, his wife; #11-0-1-44; filed for registration on the 11th day of April, 1958, at 10:32 o'clock A.M., and duly recorded in the office of the Register of Deeds of Davidson County, N. C., in Book 304, page 179.

Baxter Lineberry Morris and Grace Hill Morris, #11-0-1-43; filed for registration on the 11th day of April, 1958, at 10:33 o'clock A.M., and duly recorded in the office of the Register of Deeds of Davidson County, N. C., in Book 304, page 183.

E. Howell Elliott and wife, Mabel Elliott, #11-0-1-45; filed for registration on the 11th day of April, 1958, at 10:31 o'clock A. M., and duly recorded in the office of the Register of Deeds of Davidson County, N. C., in Book 304, page 174.

Exact copies of the recording information will be submitted at your request.

Very truly yours,

Robert S. Young

Robert S. Young, Branch Manager

RECEIVED
APR 28 1958
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

ROLAND F. BEERS, INC.

OFFICE AND LABORATORY:
447 PINEWOODS AVENUE
PHONE ASHLEY 2-2351

MAIL ADDRESS:
POST OFFICE BOX 1019
TROY, NEW YORK

April 21, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED APR 23 1958

DATE	INITIALS	CODE
4/23	C	220
4/23	[illegible]	5[illegible]

Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf, Administrator

Re: Docket No. DMEA-4896 (Copper-Lead-Zinc)
Roland F. Beers, Inc.
DE-10 Prospect
Davidson County, North Carolina

Dear Sir:

In connection with the captioned application, I enclose herewith three notarized statements of unwillingness to sign "Consent to Lien and Subordination Agreement" for your use and retention. In lieu of Form MF205 this company is prepared to furnish bond guaranteeing performance under the contract when executed.

Yours very truly,

ROLAND F. BEERS, INC.

Roland F. Beers

President

rfb/h
Enclosures (3)
cc: R. S. Young
V. R. Geyer

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

April 16, 1958

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: Commodity Specialist, Branch of Base Metals

Subject: Review of field examination report, Docket No. DMEA 4896 (copper-lead-zinc), Roland F. Beers, Inc., DE-10 (Denton) Prospect, Davidson County, North Carolina. $13,983

The examiners are evidently enthused over the results of geophysical surveys which indicate the probable presence of a massive sulfide ore body having a possible continuity of about 6000 feet in length and 600 feet in depth. They feel that the applicants' proposal to drill 1600 feet in four holes to test certain anomalous areas is inadequate to properly explore the property and recommend an alternate drilling project consisting of 3500 feet in six holes.

I concur in the examiners' recommendation.

A. D. McMahon

A. D. McMahon

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DMEA
RECEIVED APR 17 1958

DATE		CODE
4-17	C	236
4-17	Klng.	526

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
F.D. Lamb
F i l e s

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED APR 15 1958

DATE	INITIALS	CODE
4/16	C	220
4/16	Klug	500

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

April 15, 1958
Re: DMEA 4896
Roland F. Beers, Inc.
DE-10 Prospect
Davidson County, North Carolina
Applicant's Estimate $ 7,267.67
Recommended Estimate $13,983.00
Copper, lead-zinc

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report

The applicant requested assistance in exploring by angle drilling a tract of land, believed because of geophysical surveys to contain copper, lead, and zinc minerals.

The prospect was discovered through a regional, airborne electromagnetic survey made in 1956. Ground surveys confirmed the anomaly. The ground geophysical surveys included (1) electromagnetic, (2) magnetometer, (3) self potential, and (4) geochemical. The grid covers an area 3,300 feet long and 1,000 feet wide.

The examiners conclude work is warranted and recommend a somewhat enlarged alternate program consisting of vertical drill holes. If the ground should be embraced in the project area, the examiners and Field Team think a better program would result if it included drilling of the southwesterly extension of the anomaly.

The recommended program consists essentially of 3,500 feet of vertical drilling at an estimated cost of $13,983.00.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

BRANCH OFFICE
1111 ROSE HILL DRIVE
CHARLOTTESVILLE, VIRGINIA
PHONE 2-4918

ROLAND F. BEERS, INC.

MAIL ADDRESS
P. O. BOX 3725
UNIVERSITY STATION
CHARLOTTESVILLE, VIRGINIA

RECEIVED APR 8 1958
DATE

29 January, 1958

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

RE: Docket No. DMEA 4896 (DE-10 Prospect)

Dear Mr. Laurence:

At the suggestion of Messrs. Bergman and Shirley, I am forwarding additional information to support our application on the DE-10 Prospect. This information consists of the original airborne EM data which served to locate the ground anomaly.

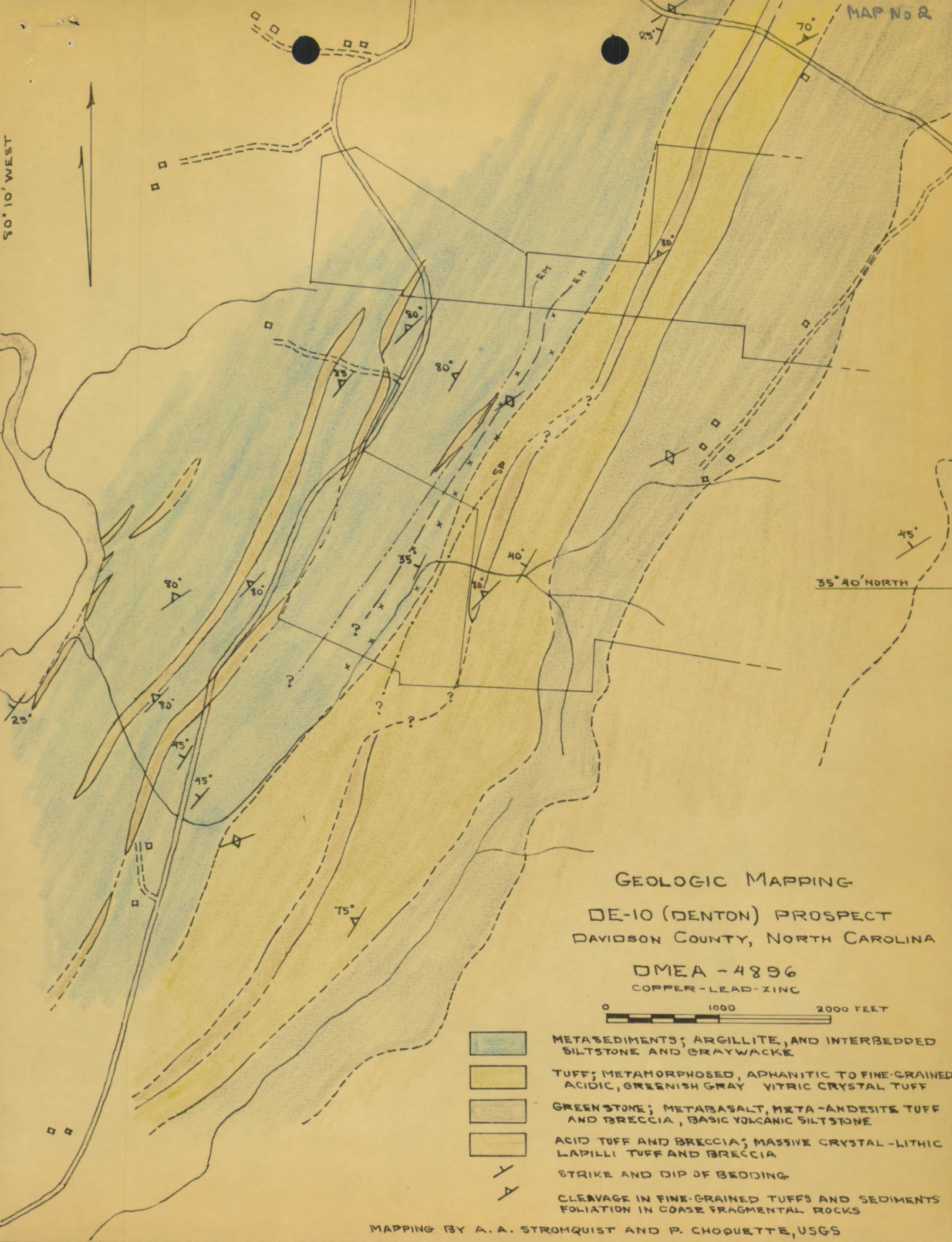
I regret that I do not have the original quantitative data on the few soil samples analyzed from the DE-10 grid. I do have on file a memo which states that the samples in the area of the SP high averaged 2.5 times background, expressed as zinc equivalent.

I sincerely hope that this information will be valuable to your team in the consideration of our application.

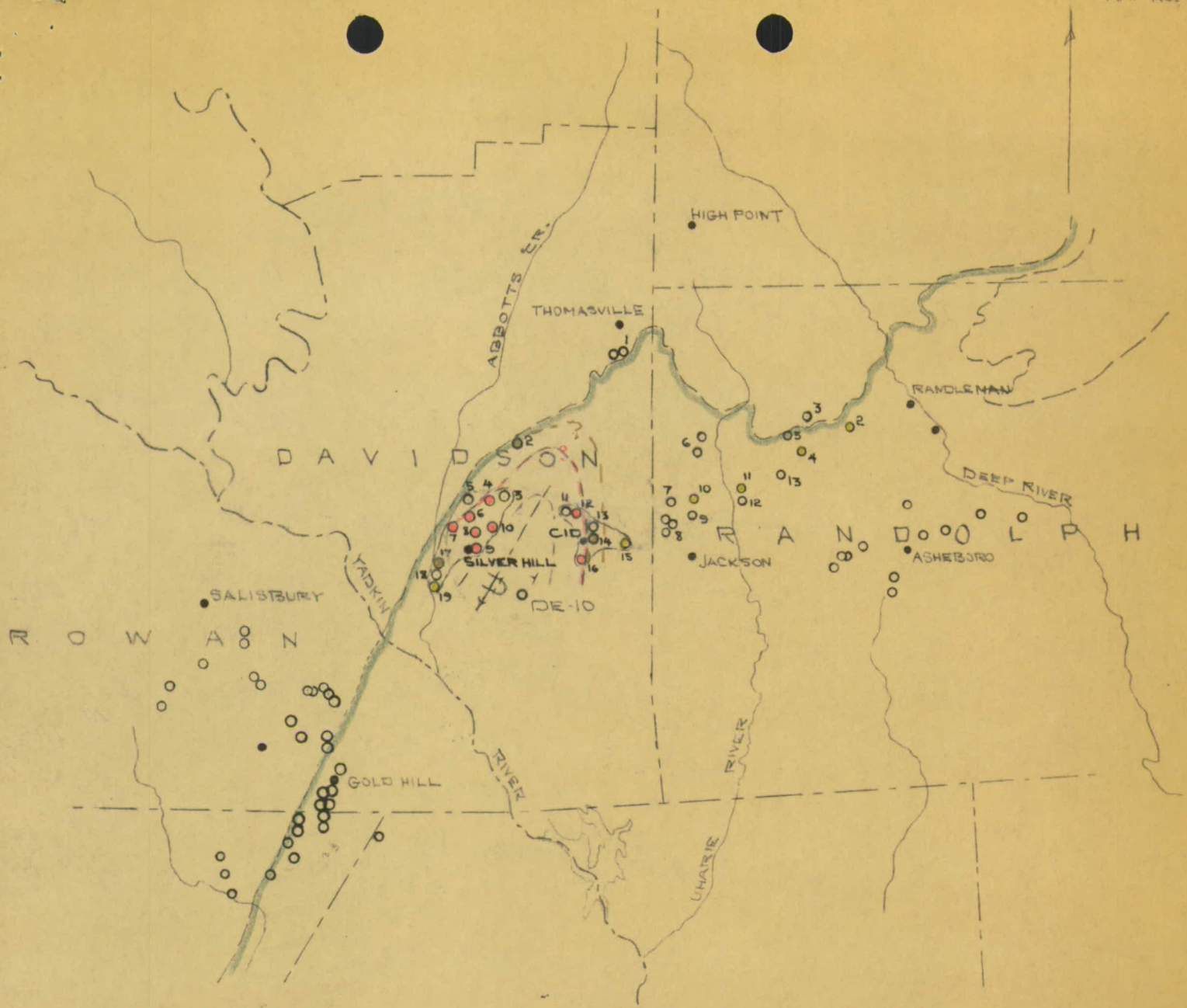
Sincerely yours,

Robert S. Young

Robert S. Young,
Branch Manager


MAP No 2
80° 10' WEST
35° 40' NORTH
GEOLOGIC MAPPING
DE-10 (DENTON) PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA
DMEA - 4896
COPPER - LEAD - ZINC
0
1000
2000 FEET
METASEDIMENTS; ARGILLITE, AND INTERBEDDED SILTSTONE AND GRAYWACKE
TUFF; METAMORPHOSED, APHANITIC TO FINE-GRAINED ACIDIC, GREENISH GRAY VITRIC CRYSTAL TUFF
GREENSTONE; METABASALT, META-ANDESITE TUFF AND BRECCIA, BASIC VOLCANIC SILTSTONE
ACID TUFF AND BRECCIA; MASSIVE CRYSTAL-LITHIC LAPILLI TUFF AND BRECCIA
STRIKE AND DIP OF BEDDING
CLEAVAGE IN FINE-GRAINED TUFFS AND SEDIMENTS
FOLIATION IN COASE FRAGMENTAL ROCKS
MAPPING BY A. A. STROMQUIST AND P. CHOQUETTE, USGS

MAP No. 3



DAVIDSON COUNTY (SULFIDE-GANGUE ASSEMBLAGES)

2. CONRAD HILL — QTZ. CPY. PY. CARB.
4. BALTIMORE — QTZ. PY. — MINOR CPY. GAL. SPH.
6. NOOE — QTZ. GAL. SPH. PY. - MINOR CPY.
7. WELBORN — QTZ. SPH. GAL. - MINOR CPY. PY. (?)
8. IDA — QTZ. PY. - MINOR CPY. GAL. SPH.
9. SILVER HILL — SPH. GAL. PY. - MINOR QTZ. SPH.
10. SECRIST — SPH. CPY. GAL. PY (GANGUE ?)
12. SILVER VALLEY — GAL. SPH. CPY. PY. QTZ
14. CID — CPY. PY. (GANGUE ?)
15. WARD — QTZ - MINOR SULFIDES (?)
16. EMMONS — QTZ. CARB. CPY. - MINOR PY. GAL. SPH.
17. PETERS — QTZ. CARB. CPY. PY.
19. CROSS — QTZ. MINOR PYRITE + (?)

RANDOLPH COUNTY

2. NEW SAWYER — QTZ. PYRITE
4. SAWYER — QTZ. PYRITE
10 JONES-KEYSTONE - PYRITE. TUFF
11. HOOVER-HILL — QTZ. MINOR PYRITE

DE-10 PROSPECT

DAVIDSON COUNTY, N.C.

OMEA-4896

COPPER-LEAD-ZINC

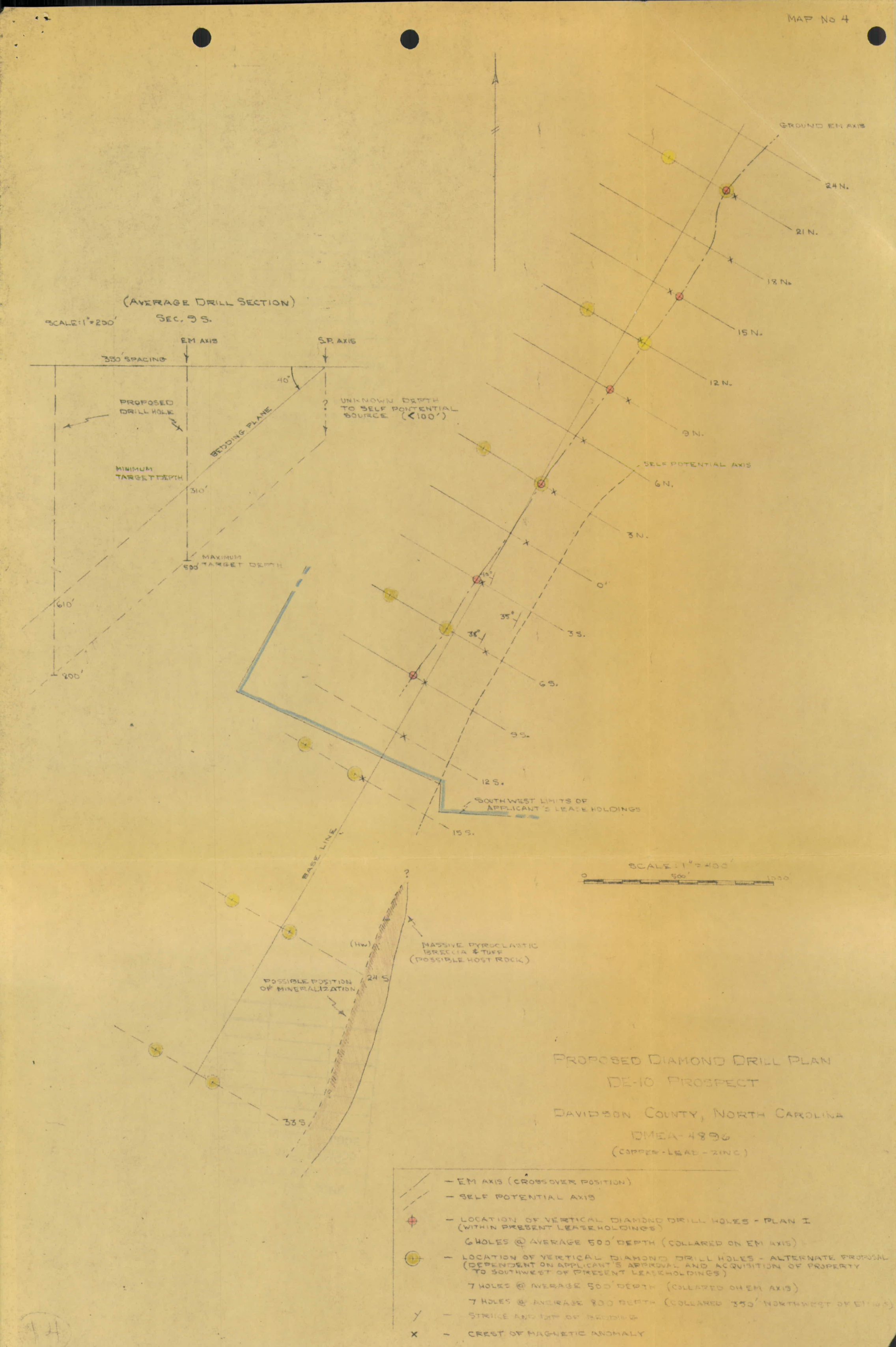
0 5 10 MILES

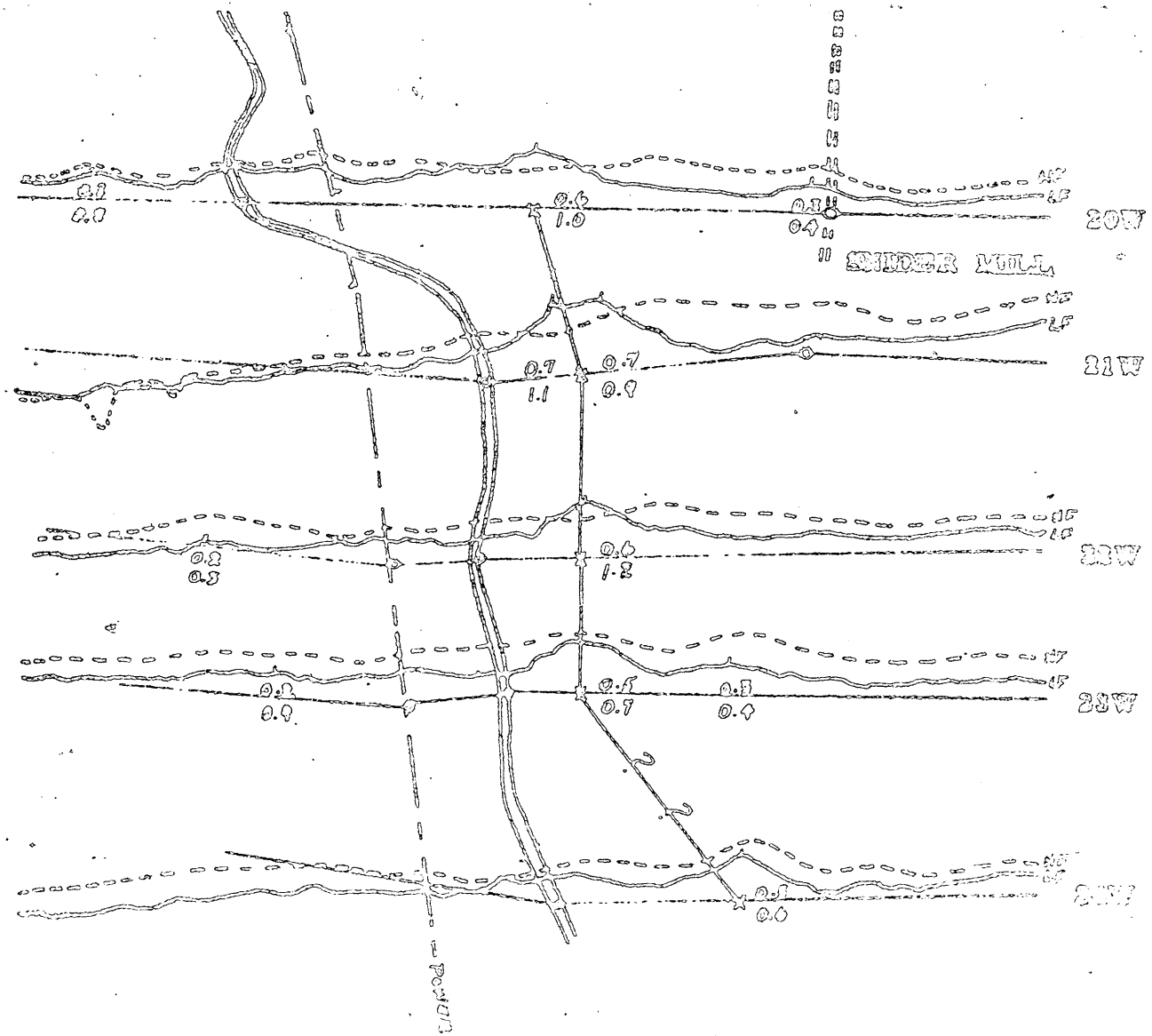
PROSPECT AND MINE DISTRIBUTION COPIED FROM USGS PROF. PAPER 213-PLATE 22

ABBREVIATIONS — QTZ - QUARTZ
CARB - CARBONATES
ANKERITE-SIDERITE-CALCITE
PY - PYRITE
CPY - CHALCOPYRITE
SPH - SPHALERITE
GAL - GALENA

- BOUNDRY BETWEEN VOLCANICS AND GRANITIC INTRUSIVES
- SUGGESTED - SPH. GAL. CPY. PY - ZONE
- SUGGESTED - QTZ-CARB. CPY. PY. INTERMEDIATE ZONE
- SUGGESTED. QTZ-PY OUTER ZONE

SCB 2/55


(AVERAGE DRILL SECTION)
SCALE: 1" = 200'
SEC. 9 S.
EM AXIS
S.P. AXIS
350' SPACING
40°
PROPOSED DRILL HOLE
BEDDING PLANE
UNKNOWN DEPTH TO SELF POTENTIAL SOURCE (<100')
MINIMUM TARGET DEPTH
310'
MAXIMUM TARGET DEPTH
500'
610'
800'
GROUND EM AXIS
24 N.
21 N.
18 N.
15 N.
12 N.
9 N.
SELF POTENTIAL AXIS
6 N.
3 N.
0'
3 S.
6 S.
9 S.
12 S.
15 S.
SOUTHWEST LIMITS OF APPLICANT'S LEASE HOLDINGS
BASE LINE
SCALE: 1" = 400'
0
500'
1000
(HW)
MASSIVE PYROCLASTIC BRECCIA & TUFF (POSSIBLE HOST ROCK)
POSSIBLE POSITION OF MINERALIZATION
24 S
33 S
PROPOSED DIAMOND DRILL PLAN
DE-10 PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA
DMEA-4896
(COPPER-LEAD-ZINC)
— EM AXIS (CROSSOVER POSITION)
— SELF POTENTIAL AXIS
— LOCATION OF VERTICAL DIAMOND DRILL HOLES - PLAN I (WITHIN PRESENT LEASEHOLDINGS)
6 HOLES @ AVERAGE 500' DEPTH (COLLARED ON EM AXIS)
— LOCATION OF VERTICAL DIAMOND DRILL HOLES - ALTERNATE PROPOSAL (DEPENDENT ON APPLICANT'S APPROVAL AND ACQUISITION OF PROPERTY TO SOUTHWEST OF PRESENT LEASEHOLDINGS)
7 HOLES @ AVERAGE 500' DEPTH (COLLARED ON EM AXIS)
7 HOLES @ AVERAGE 800' DEPTH (COLLARED 350' NORTHWEST OF EM AXIS)
— STRIKE AND DIP OF BEDDING
× — CREST OF MAGNETIC ANOMALY



FIELD-VLF EM ANOMALY DZ-10, NORTH CAMPBELL

SCALE: 1" = 1320'

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

OFFICIAL FILE COPY
DMEA
RECEIVED APR 9 1958

DATE	INITIALS	CODE
4-9	C	22
4-14	HB	13
4-15	C	220
4-15	[illegible]	[illegible]

April 4, 1958

Memorandum

To: Operating Committee, DMEA - Washington

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

Subject: Field Examination Report - DMEA-4896-copper-lead-zinc. Roland F. Beers, Inc., Troy, New York, DE-10(Denton) Prospect, Davidson County, N.C.

Enclosed are the original and two copies of the subject examination report by S. C. Bergman and L. E. Shirley.

We recommend approval of a contract for core-drilling, chiefly for the following reasons:

(1) The coincidence of the three different anomalies, and the probable strike continuity of more than a mile suggests possibility of an ore body of substantial size.

(2) The airborne EM anomaly suggests a sulfide replacement of thick beds rather than narrow veins of the type occurring at the Furniss, Phoenix, Silver Hill and other mines in the general vicinity.

The report recommends a drilling program somewhat larger than that originally proposed by the Applicant, and apparently acceptable to him. However, as pointed out in the report and indicated on Map No.1, a still better project would include drilling to the southwest (preferably preceded by geochemical prospecting) on land not now held by the Applicant. If the Applicant should acquire this land and add it to the project, the contract should be increased from 3,500 feet as recommended, to 14,700 feet. Whether or not this is done, the contract (if approved) should contain a clause similar to those of the Tennessee zinc projects whereby any contiguous property obtained by the Operator is automatically added to the project area.

Reviewed by
DMEA OPERATING COMMITTEE
4-14-58
(date)

Please note also that the Applicant has been unable to ascertain just where the excluded 10-acre tract is, although he thinks it is well out of the proposed drilling area.

Enclosed also are three copies of a supplementary drawing, "Geophysical Grid EM Surveys," submitted by the Applicant after the field examination was completed, three copies of the original airborne EM data, and three copies of a letter from the Applicant commenting on the geochemical work.

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

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

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DMEA
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UNITED STATES

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT, REGION V

DMEA-4896, DE-10 (Denton) Prospect
(Copper-Lead-Zinc)
Davidson County, North Carolina

S. C. Bergman, Geologist
U. S. Geological Survey

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

Reviewed by
DMEA OPERATING COMMITTEE
4-14-58
(date)

April 2, 1958

ON SITE REPORT

FIELD EXAMINATION REPORT

DMEA-4896, DE-10 (Denton) Prospect
(Copper-Lead-Zinc)
Davidson County, North Carolina

Applicant: Roland F. Beers, Inc., P. O. Box 1019, Troy, New York

SUMMARY

As part of a broad geophysical reconnaissance of the southeastern Piedmont sulfide potential, the Applicant made an airborne electro magnetic (EM) survey of the western part of the so-called Carolina Slate Belt in the vicinity of the Cid-Silver Hill mining district of Davidson County, North Carolina. As a result of this survey, many anomalous areas were outlined, and the DE-10 anomaly selected for ground verification.

The area is one of moderately folded, altered, and slightly metamorphosed massive to bedded volcanics and land-derived clastic sediments and greywacke, bounded on the northwest by a younger intrusive complex. An extremely large number of precious, base and non-ferrous metal mines and prospects are localized in the volcanics, at or just east of the intrusive contact, the zone extending from near the South Carolina line northeastward approximately 70 miles.

Ground EM, magnetometer, and self potential anomalies were found to be continuous and roughly parallel to each other and to the formational boundaries for 4000 feet in a general N. 30° E. direction. Correlating the southwest end of the ground geophysics with the mapped geology, and the southwesternmost airborne anomaly, indicates an additional 2000 feet of anomaly to the southwest. This is a total anomalous extent of approximately 6000 feet.

The characteristics of the anomalies, and their relation to each other, suggests the presence of a relatively massive sulfide body which is more or less continuous along strike and controlled by the moderately northwest-dipping formational boundaries or bedding. There is a strong suggestion that the host structure is the upper part of a lens of massive pyroclastic tuff and breccia, which outcrops directly in line with the axis of the self potential anomaly and about 350 feet southwest of the Applicant's ground grid. The gentle plunge of the end of this unit to the northeast under the grid area would explain the lack of surface mineralization, and an interpretative geochemical anomaly in the grid area, as well as the depth characteristics of the airborne anomalies in the grid area and the surface characteristic and plan displacement of the southwesternmost airborne anomaly. As far as is known, the outcrop area of the pyroclastic lens is totally unexplored. Although no mineralized outcrops are known in the area, a plotting of the distribution of all known sulfide assemblages in the area suggests that a copper-lead-zinc complex can be expected in the DE-10 area.

The potential for a relatively large tonnage complex base-metal ore body is believed to be good. The magnitude of this potential is estimated to be a maximum of approximately 1,000,000 tons of sulfide of unknown composition per 100 feet of dip extent over a 6000 foot strike length.

The drilling program outlined by the Applicant is entirely too small for the size and potential of the target, and is strongly suspect as to its purpose under the DMEA program. Two alternative programs are suggested: a slightly expanded version of the Applicant's proposal totaling 3500 feet of vertical AX drilling and the other a program totaling 14,700 feet of vertical AX drilling which would cover the entire anomalous length and necessitate the Applicant leasing the tract of land to the south of the present leases. The latter program is believed to be more realistic, but the Applicant may or may not be willing to accept it.

INTRODUCTION

Location and Accessibility

The DE-10 grid area occurs on relatively level mixed cropland and second-growth woodland. It is 12.3 airline miles S. 28° E. of the intersection of State and U. S. Highways 29-70, 64, and 8 in Lexington, Davidson County, North Carolina. The ground EM axis lies parallel to and about 1600 feet southwest of the graveled all-weather Summerville Church Road. The grid area can easily be reached by following State Route 8 south one mile from Lexington, turning east on the Shimwell Highway towards Denton for 9.5 miles to its intersection with the Summerville Church Road. The grid area lies to the east of the road about one mile south. The area can be located in the southeast quarter of the Denton NW, North Carolina quadrangle, USGS Ed. 1949 (1:24,000). Its relationships with nearby cities can best be seen on the Charlotte, N. C.; S. C. sheet of AMS series V501, N1 17-2 (1:250,000).

Examination

The property was examined on January 28, 1958. The examiners were accompanied by the Applicant's representatives; geologists Robert A. Young and Vernon R. Geyer, Jr. as well as a member of the U. S. Geological Survey mapping party in the area, Mr. Phil Choquette. The morning of the

28th was spent in traversing the grid area, and the afternoon spent in discussing the application and proposals. Unfortunately, the relationship between the geological mapping and the geophysical anomalies was not known until after an interchange of correspondence and receipt of geological information from Mr. Choquette. It was only then seen that the area had far greater potential than had been supposed, and any exploration should be supported by a greatly expanded drilling program.

It was observed that there would be little trouble in moving drilling equipment into or around the area. A number of small clear-water creeks occur in the area which can provide adequate supplies of water for drilling purposes, except possibly in the driest part of the year. Drill stations would be within 2000 to 2500 feet maximum from a source of water at all times.

Competence of Applicant

The Roland Beers organization has an extensive background in the application of geophysical methods and their conclusions in regard to interpretation are regarded as essentially sound. One or the other of the geologists who accompanied the examiners on the examination would follow any contract work that might result. Both are experienced in their fields and have gained considerable experience on similar projects in the past few years.

It is not quite clear why the anomalous area was not outlined more fully, why no geological mapping of any kind was done or why such a limited drilling program was proposed by the App licant. This situation probably stems from basic company policy in regard to an unknown area where some drilling verification might be felt to be necessary before going beyond a certain point of endeavor. If he is relying on DMEA for this preliminary information the costs involved in time and presentation alone would seem to

be out of line with the scope of the proposed program, besides being completely out of line with DMEA objectives.

Control of Property

Three continuous tracts of land totaling 697 acres are under lease to the Applicant for two to three year periods with renewable options. The ground EM axis is parallel to and 1400-2000 feet southeast of the western boundary of the leases. The area under lease is entirely adequate for an exploration program within the original grid area, but additional property would have to be obtained for any expanded drilling program, covering the anomalous area to the southwest. A single large tract covers the anomalous area to the southwest. Its legal description is reportedly so vague as to make it almost indefinable on the ground.

Each of the three tracts described in the application contains a number of small, but rather obvious errors which are inherent in the legal descriptions and characteristic of original descriptions in this part of the country. A common corner marker was found by the Applicant alongside the Summerville Church Road, between the W. A. Johnson and B. L. Morris leases. From this corner, the lines were run out and are plotted on Report Map No. 1 There is a 10-acre tract in the B. L. Morris lease which is known as the Will Morris property. It has been sold off, but this is not noted in the lease. This tract is part of a 138-acre parcel along the northern side of the leaseholdings, which is described in attachment B under an assignment dated July 1, 1942 from W. R. Owen and wife, to B. L. Morris. The location of this excluded 10-acre tract within the 138 acres is not known.

GEOLOGY

General Geologic Setting

The DE-10 anomaly is near the northeast end of a 70-mile belt of gold-copper mines and prospects which are localized along the northwest boundary of the so-called Carolina Slate Belt. This distribution and localization of mineralization is strikingly illustrated on Plate 22, of U. S. Geological Survey Professional Paper 213 (see report map No. 3). Most of these prospects and mines date back to intermittent periods of activity between 1840 and 1906.

The Carolina Slate Belt is a major geologic unit in the eastern Piedmont of North Carolina. The northeast-southwest trending belt extends from east-central Georgia to southern Virginia, and reaches a maximum width of 50 miles in the area between the Pee Dee and Deep Rivers of North Carolina.

The rocks of the Slate Belt consist of low grade metamorphic argillites, graywacke, interbedded fine-grained tuffs, volcanic sediments, basic flows, and interlensed coarse pyroclastic breccias. The tuffs are of both acid and basic composition. Although age correlations have been almost impossible to obtain, the general consensus is that the rocks are of lower Paleozoic and possibly Ordovician age. The area is bounded on the northwest by a complex of late Paleozoic intrusives, which have both complex intrusive interfingering and faulted relationships to the volcanic and clastic rocks.

The first comprehensive and detailed mapping of the Slate Belt geology has recently been started by two U. S. Geological Survey field parties. One of the two areas involved in this mapping is the Cid-Silver Hill district. The DE-10 anomaly is located in the southeast quarter of the first 7½-minute quadrangle to be completely mapped in this area (Denton NW, N. C., USGS Ed. 1949, 1:24,000). A large part of the following description of the stratigraphy

and structure is taken from a recent communication from a member of the mapping party, Mr. Phil Choquette, who accompanied the examiners on the examination of the property. Without his assistance, the examiners would have relatively little geologic information on which to base their recommendations, without a substantial amount of additional field work. The Applicant's efforts appear to have been confined to geophysical traversing of the grid area, and have supplied little or no geological information with which to support his otherwise excellent geophysical data. His geology appears to have been gleaned directly from Pogue (1910).

Stratigraphy

Four distinct compositional units are described in the DE-10 area, which appear to be in normal stratigraphic sequence. The bedding and contacts strike N. 25° E. and dip 25-40° northwest with an average dip in the anomalous area of 35-40° northwest. The lowest of these units is a thick sequence of massive acid pyroclastic tuff and breccia which from the geologic map is estimated to be from 900 to 1300 feet thick. Elongate lenses, 40 to 100 feet thick of similar composition are intercalated at random stratigraphic positions through all the other units except a basic greenstone complex. The change of stratigraphic position along strike by some of these pyroclastic lenses (a transgression oblique to the strike of the boundaries of the enclosing units) suggests that the surface on which the pyroclastic rocks were deposited (or literally dumped) had considerable topographic relief. Overlying in normal sequence is a 600 to 1000 foot thick so-called greenstone complex of basic composition, a fine-grained acid tuff, and an extensive metasedimentary sequence. These units are described in detail as follows:

Massive tuff and breccia.--This unit consists of massive, poorly sorted (both in size and composition) fragmental rocks. The angular fragments average one to two inches in diameter, and consist of welded tuff (?), obsidian (?), perlite, and porphyritic dacite or rhyolite, occurring in a fine-grained matrix peppered with laths and fragments of orthoclase and albite. Large blocks of argillite occur in some of the lenses in the metasediments. The matrix consists of albite, sericite, quartz (?), small amounts of biotite, rutile (?), chlorite, and an abundance of brownish dust that may be recrystallized volcanic ash. Glass shards are locally abundant. Not much is known about the local distribution of sulfides in this rock type, but massive contact pyrometasomatic sulfide mineralization has been observed and surficially mapped by the author in a massive pyroclastic bed cut by granite dikes in Cabarrus County, 4 miles southeast of Concord, North Carolina. The structural and compositional environment is comparable, except that no intrusive rocks are exposed in the DE-10 area. This unit was competently sampled (by a mining company geologist) recently and reportedly assayed economic quantities of copper, lead, zinc, and uranium over a 24-foot thickness. The plan of the DE-10 geophysical anomalies superimposed on the geological mapping strongly suggests that a lens of this particular rock type may be host to the indicated sulfide mineralization.

Greenstone.--This unit occurs between the most extensive and oldest of the massive and pyroclastic formations, and the overlying fine-grained acid tuffs. A complete description of the greenstone is not available, but it is essentially a tuff and pyroclastic breccia of andesitic and basaltic composition, intercalated with basic volcanic flows, siltstones and sandstones. According to the U. S. Geological Survey mapping party, sulfides appear to be most abundant in this unit. Pyrite is a common constituent and pyrrhotite occurs in some places.

Fine-grained Tuffs.--The fine-grained tuff is a massive formation which is estimated to be 600 to 1500 feet thick, aphanitic to fine-grained and vaguely banded in places. The rock is a light to medium greenish-gray color and breaks with a sub-conchoidal fracture. It is composed of scattered, rare, angular to lath-shaped crystals of albite 0.5 to 2 mm. long in a cryptocrystalline mosaic of quartz, orthoclase, albite, sericite, traces of chlorite, and finely disseminated irregular granules of pyrrhotite (?). Uneven distribution of chlorite and sericite, locally produces a mottled appearance. A few basic pumic lapilli, some of them evidently flattened, occur in places and contain concentrations of finely granular pyrrhotite (?) and leucoxene.

Both Pogue (1910) and the Applicant (probably by assimilation) are impressed by the widespread silicification of the tuffs and consider it to be alteration contemporaneous with the local sulfide mineralization, and evidence of the widespread nature and high intensity of the mineralization. Both the author and the U. S. Geological mapping party regard the silicification as almost entirely a result of the normal devitrification and induration of the lithic fine-grained tuffs. The author's experience in the area has been that silicification attendant with the mineralization usually produces a halo outward from the margins of the ore of limited extent (several inches to several yards). This type of alteration almost always has a very fine and sometimes subtle saccharoidal texture, in contrast to the cherty and chalcedonic nature of typical devitrified material. This relationship can best be illustrated where the mineralization extends to neighboring areas where the tuff is andesitic in composition and devitrification is not a normal induration process.

In the Cabarrus County example of mineralized pyroclastic material cited previously, the relatively minor degree of "primary" silicification resulted in a major retention of the unit's high initial degree of porosity and permeability and was very likely a strong factor in localization of the mineralization.

Metasediments.--This is the youngest and thickest of the units mapped in the DE-10 area and if in normal sequence is on the order of 2000 feet in thickness. The contact with the underlying fine-grained tuffs appears to be transitional within a zone several hundred feet thick. The airborne EM, ground EM, and magnetic anomalies are parallel to and just northwest of this contact. The rock is derived from land waste and probably contains much reworked and redeposited volcanic material. Compositionally it consists of interbedded argillites, siltstones, and graywacke.

Structure

The volcanics and sediments of the DE-10 area are considered to have been folded into a broad syncline whose axis lies about one and one-half to two miles west of the anomaly. The axis of the fold plunges gently to the southwest. Minor folding and metamorphic grade increase westward across the quadrangle towards the west edge of the Slate Belt. The minor folds are generally open and shallow in the east and become tight and isoclinal to the west. Sedimentary and volcanic structures are usually well preserved in rocks underlying the eastern two thirds of the Denton NW quadrangle, but disappear or are partly obliterated in the western third, where most of the rocks are phyllitic. Granitic rocks are intercalated with these phyllites in the northwest corner of the quadrangle, where they evidently mark a transition from the Slate Belt to the Charlotte Belt of King (1955).

The rocks underlying the DE-10 area occur on the east limb of the syncline, dipping moderately (35-40°) northwest, and are considered to be relatively uncomplicated by folding and faulting. Some of the irregularities of the formational boundaries in the southeast part of the report geologic map are a result of the topography of Wildcat Mountain rather than of folding.

Several northwest-trending crossfaults have been mapped in the DE-10 area. Faults of similar type and orientation appear to be common throughout the Slate Belt. If the experience in other areas in the Slate Belt can be extrapolated, the local faults have relatively little strike-slip displacement, but are very extensive in number, and have a frequency of occurrence many times that which can be mapped at the surface (possibly of the order of 100:1 or greater). The faults appear to be later than most of the mineralization, but earlier than some of the granitic intrusives, and may have been caused by stresses contemporaneous to both. In other areas, these faults cut and displace the vein structures, occasionally localizing large quantities of alteration material and are occupied by granitic dikes near the northwest boundary of the Slate Belt. Large numbers of Triassic diabase dikes are localized in fractures of similar orientation and may well be the older structures reopened.

A slight secondary texture has been superimposed on the rocks of the DE-10 area, which is probably contemporaneous with the orogeny that produced the granitic rocks to the northwest. This texture consists of a slight foliation in the massive pyroclasts and a subtle cleavage in the fine-grained tuffs and sediments. In the DE-10 area, this cleavage and

foliation strikes N. 30-65° E. and dips 80-90° northwest. The Mapping Party's experience in the Cid-Silver Hill district has indicated that most of the old prospects and mines are localized along imbricate or sheeted fractures, parallel to the secondary cleavage and occasionally to the bedding planes, possibly where cleavage and bedding coincide. This is in contrast to the environment indicated in the DE-10 area. There exists in the area the possibility of a massive sulfide replacement contact or metamorphic emplacement of the upper part of a thick lens of coarse pyroclastic material which outcrops to the southwest of the grid area and which appears to have a direct relationship in plan-position with the geophysical anomalies. Every indication is that the causal element of the geophysical anomalies is structurally related to the bedding and not to the cleavage which locally is not parallel in strike and dip. If the northeast end of the pyroclastic lens plunges gently northeastward under the grid area, it would explain the lack of surface expression in the grid area, the physical characteristics of the various anomalies, and the lack of a definitive geochemical anomaly in the grid area. The possibility of a massive sedimentary host structure greatly expands the tonnage potential of the prospect as it is not closely limited in three dimensional extent, particularly thickness, as are the fracture veins.

Geophysics

A fixed wing airborne electromagnetic survey of the Cid-Silver district was flown by the Applicant in September 1956. A continuous EM anomaly was outlined on five northwest-southeast flight lines which were flown on approximate one-fourth mile spacing at a reported altitude of 500 feet. Although just one of many anomalies found, the DE-10 anomaly was

selected for ground verification. Ground EM, magnetic, self-potential and geochemical methods were applied over a 3300 by 1000 foot grid trending N. 30° E. The ground work was done in August and September of 1957. Traverse lines are oriented normal to the axis of the grid on 300-foot centers, with survey stations located at 100-foot intervals along the lines. After submission of the application, the Applicant ran magnetics and self-potential on two additional lines to the southwest of the grid, and covered part of the main grid area with a different ground EM method. The results of this additional work were sent to the Examiners upon request and are included in this report.

The most significant feature of the anomalies is their strong coincidence in plan, as well as their strong parallelism with each other and the stratigraphic boundaries, with as much as 6000 feet of indicated strike-length continuity. Except for the magnetics and geochemistry, the EM and self-potential results are generally of the same order of magnitude or intensity as the other anomalous areas submitted by the Applicant for DMEA assistance, in which similar methods were used (New Canton, DMEA-4393; Pruitt No. 4, DMEA-4886; and Crawford Pond, DMEA-4947). In the case of the New Canton Project, the anomalies were verified by diamond drilling, and a sub-economic sulfide deposit outlined. The magnitude or intensity of the individual anomalies is considered to be the least interpretative of their physical characteristics. Also uninterpretative is the exact composition of the mineralization causing the anomalies although some inferences can be made.

A number of conclusions can be reached from the characteristics of the individual anomalies. They are discussed in the following description of the individual methods.

Airborne Electromagnetic Survey.--Reference is made to report map No. 1, and the enclosed sheet showing the Applicant's airborne EM flight lines and the anomaly profiles. The four northeasternmost profiles show a strong low-frequency phase with no related high-frequency phase, over at least 4000 feet along strike, except for a slight high-frequency reinforcement on the fourth line to the southwest. This suggests that a continuous EM conductor occurs at depth in this area with little or no surface expression. This interpretation is supported by surface mapping and the lack of a interpretative geochemical anomaly in the grid area. On the southwesternmost flight line, the anomaly has strong high and low frequency phases which coincide with each other in plan position. The crests of the profiles occur directly over the covered upper contact of a lens of coarse pyroclastic material, which in turn, appears to be aligned very closely with the self-potential anomaly in the grid area. This lens may prove to be the host structure of the indicated sulfide mineralization. The crests of the airborne profiles in the grid are 100 to 250 feet northwest of the ground EM crossover axis and 50 to 400 feet northwest of the magnetometer crests. The ground verification of the airborne anomalies eliminated the possibility that the anomaly may have been caused by the nearly parallel high tension line which lies approximately 1500 feet northwest. The Applicant was able to tie in the ground position of the airborne anomaly very closely because of the proximity of such permanent features as the power line, and Summerville Church Road.

Ground Electromagnetics.--The surface grid was covered by a ground EM method which appears to be an adaptation of the Mason, Slichter, and Hay method, first described in 1927 (Eve & Key, 1938, pp 159-162). The method was implemented in this case by the use of a Sharpe SE-100 unit, utilizing an induced 1000-cycle AC current. The application measures a small angular rotation of the detecting coil from the vertical as it is aligned parallel to the horizontal component of the maximum induced magnetic field. The angles measured are not large, and amount to only a few degrees for a deep conductor. The so-called strike component (in degrees) increases in one direction as the conductor is approached, reaches a maximum, and returns to zero at a point nearest the conductor. The readings increase to a maximum in the opposite direction and gradually decrease again to zero when the conductor is left behind (see EM profiles in application). The anomaly appears to be very broad, which may be representative of a large massive conductor or possibly a suggestion of its inclination from the vertical.

As a result of the Applicant's survey, an EM conductor with a minimum strike continuity of 3300 feet, was outlined within the grid area. A total continuity of approximately 6000 feet is indicated by correlation with the other geophysical anomalies. The position and continuity of the conductor axis is reinforced by the superposition of the magnetometer work, whose crests deviate less than 100 feet from the EM axis, except on line 6 south where a deviation of 250 feet exists. Recently, the grid was partially covered using a Ronka EM unit. The resulting inphase crests coincide almost exactly with the crossover axis of the other method. No estimation of the depth of the conductor was made, because of the use of a single frequency,

but the depth condition indicated by the two phases of the airborne anomalies gives added significance to the relative size of the ground anomaly.

The method is capable of detecting only relatively massive or continuous conductors, and is of limited usefulness in detecting disseminated ore bodies. The choice of conductors appears to be limited to massive sulfides, graphitic schist or water-saturated clay beds overlying the bedrock. In this case, neither of the latter two materials is known to exist in the DE-10 area. Graphitic schists or graphite in any form are either unknown or of very limited occurrence in the volcanics of the Slate Belt. Water-saturated clays in the form that might give an EM response are not present in the DE-10 area. Fresh rock fragments are prominent in ploughed fields along the west side of the grid and prominent outcrops occur along the east side of the grid, so that the depth of oxidation or weathering is shallow. By a process of elimination, the presence of a massive sulfide body would be the only medium that could satisfactorily explain the presence and continuity of the EM anomalies.

Magnetics.--A Sharpe A-2, Schmidt type, vertical intensity Magnetometer was used to survey the DE-10 grid, using the same 100-foot stations as were used with the other geophysical methods. A small, but persistent magnetic anomaly was outlined which is continuous on every survey line from 21 N to 15 S, a strike length distance of 4300 feet. The anomaly tends to increase in intensity towards the southwest and dies out completely on the northeasternmost grid line at 24 N. Although only three grid line results were presented in the application, the Applicant, upon request, supplied results from all the other lines as well as two additional lines to the southwest. As outlined in the previous section and shown on report map No. 1,

the magnetometer crests are remarkably coincident in plan position with the ground EM axis in every respect, and there is little doubt that both EM and magnetic anomalies have a common source. The U. S. Geological Survey has recently flown airborne magnetics over the Denton quadrangle and reports that no anomalies were found in the DE-10 area. A review of the profiles in view of what is now known of ground conditions may or may not reveal an anomalous condition, but the ground anomalies are rather narrow, and of low intensity (anomalous relief of 75-400 gammas), and would be at best only a pimple on the airborne profile. The author's experience with similar low intensity ground magnetics has been that significant structural information can easily be missed by the airborne magnetometer.

Magnetite is essentially unknown in the Cid-Silver Hill district and since pyrrhotite is a common accessary of most of rock units in the area and commonly present in the ores of the district, it is assumed that this mineral causes the anomalous magnetics, and is a constituent of the EM conductor. For a relatively narrow anomalous width, the 100-foot spacing of survey stations appears to be too wide to fully define the characteristics of many of the magnetic anomalies. Where stations accidentally coincide with the maximum and minimum points, the profiles show di-polar or asymmetrical characteristics. The shape of these profiles suggest that the magnetic body has a relatively moderate dip. This is one of several points along with a strong parallelism to the bedding, that suggests a strong association of the mineralization with the bedding or formational boundaries.

Self-potential.--The Applicant measured anomalous, natural earth currents which are continuous along the east side of the grid area, as well as on two additional survey lines to the southwest (3900 ft). The self-potential method involved the use of two porous pot electrodes and a 1,000-foot wire reel, with stations occupied at 100-foot intervals. The axis of the resulting anomaly is well defined and parallel to the anomalous trends, from line 15S to 6N (2100 ft). From 6N to the northeast, the axis of the anomaly lies to the southeast of the grid, and has not been defined by the Applicant's work (see report map No. 1). The anomaly broadens and increases markedly in intensity to the southwest ($>$ -250mv) as far as line 15S where it is abruptedly truncated by the limits of the Applicant's survey. An extrapolation of the anomaly axis southwest lines up directly with the poorly exposed hangingwall contact of an elongate lens of massive pyroclastic material. The northeast termination of the lens occurs about 350 feet southwest of line 15S (see map No. 1 and No. 4). As pointed out previously, the gentle northeast plunge of this termination under the grid area would explain many of the anomalous relationships, particularly the characteristics of the self-potential anomaly. The U. S. Geological Survey mapping party has not observed the attitude of the ends of the various lenses in the field, but consider a gentle northeast plunge to be possible. The self-potential source is believed to occur at some depth since no gossan or other surface expression is exposed in the grid area. The surficial amount (isolated grains) of sulfide that can be found is unoxidized and is most likely a normal constituent of the tuff unit which is exposed in the grid area, having little relationship to the self-potential anomaly.

Geochemistry.--Soil sampling of the grid was undertaken by the Applicant, but to what extent is not known. The examiners received the impression that the Applicant or his representative, has little faith in geochemical methods. After the examiners requested the results of the Applicant's survey, a note was received saying that the material wasn't readily available, but that total heavy metal concentrations were found to be anomalous to the extent of 2½ times background in the general area of the self-potential anomaly. The Applicant considers the results of his survey completely uninterpretative. It is unfortunate that the Applicant did not carry his geochemical work to the southwest of the grid, over the pyroclastic unit described previously. Anomalous conditions over this unit would greatly reinforce the geophysical interpretations previously described. It would also give a good idea as to the composition of the sulfide mineralization which now can only be inferred.

Mineralization

Geophysical interpretation and regional association leave little doubt that the source of the anomalous conditions is a relatively massive sulfide body of good strike-length continuity. Its dip extent is unknown, but it would appear to extend from the plan position of the SP axis, down the indicated dip to below the plan position of the EM axis, which means at least 600 feet of possible dip continuity. In regard to the mines and prospects in the area, no known depth limits are known to the mineralization. It appears in almost every case to have been an economic limit for the period in which they were mined (1840-1906).

A number of sulfide combinations are possible in the area. One approach to the problem, was to plot from the literature, the distribution of known sulfide and gangue assemblages in the Silver Hill-Cid area. The results are plotted on Report Map No. 3 are suggestive of mineral zonation. A central zone approximately seven miles across is indicated with an assemblage consisting of pyrite, chalcopyrite, galena, sphalerite, with relatively minor quartz gangue. An intermediate zone roughly one to two miles wide is indicated with an assemblage consisting of chalcopyrite, pyrite, with increasing proportions of quartz, and considerable carbonate gangue (ankerite, calcite, siderite). There is an outer zone of unknown width which consists of pyrite-quartz and occasionally pyritized country rock with no quartz gangue. All zones have been mined extensively in the past for their gold and silver values. The exact shape of the suggested zonation is uncertain, but the zones appear to have some bilateral symmetry at least to the east and west of the central zone. The Geological Survey mapping party suggests that zonation may be structurally related to the major syncline in the area, and may have the form of an arc opening to the southwest. It is well within the realm of possibility that the sulfide assemblage in the DE-10 area is that of the central zone. Because of genetic differences between the known deposits and the environment indicated in the DE-10 area, it is also possible that the geophysical anomalies may represent simple pyrite or pyrrhotite-pyrite mineralization. In any case, a massive replacement or contact metamorphic environment is indicated or implied. This in turn implies the proximity of an igneous source. Whether appendages of the younger granites underlie the DE-10 area is unknown.

CONCLUSIONS AND RECOMMENDATIONS

Airborne EM and ground geophysical methods indicate the probable presence of a massive sulfide body which appears to be a replacement or contact metamorphic effect in a moderately northwest-dipping, elongate lens of coarse pyroclastic tuff and breccia. Strike length continuity of the order of 6000 feet is indicated with a suggestion of at least 600 feet of dip continuity. The composition of the sulfide can only be inferred, but it is well within the realm of possibility that a copper-lead-zinc complex is present.

By means of the various coincident geophysical results, the Applicant has very closely localized the position of the target and outlined to a large degree its extent and continuity. The target is believed to have a large tonnage potential and exploration of it is strongly recommended. The Applicant's original plan of exploration is entirely inadequate with which to outline reserves so that several alternative proposals are suggested.

At the time of examination, the Applicant indicated that he could confirm an expansion of his proposal to the extent of several thousand feet of additional diamond drilling. On this basis, six vertical holes are suggested averaging 500 feet in depth, the total footage not to exceed 3500 feet. The holes were set up on the basis of an average section, 9S (see map No. 4), where the reliability of position and depth is at a maximum. The depth to the target may be greater or in some cases less on other sections, but a generous overrun factor is recommended because of lack of control on the northeasternmost sections. The proposed holes are collared on the EM axis on grid lines 9 and 3 south and 3, 9, 15, and 21 north (see map No. 4).

The Applicant has targeted his depth of drilling by projecting the bedding plane down dip from the surface position of the self-potential axis to its intersection with a vertical projection of the position of the EM axis. This is considered to be a valid method in obtaining a minimum target depth, but the self-potential source cannot be reliably projected from its surface position since every indication is that it occurs at depth in the grid area (probably no more than 50 to 100 feet on a vertical projection). To accommodate this factor and any variations in dip that might occur, an overrun of about 200 feet has been set up on each hole. There would appear to be little reason for drilling angle holes in the existing environment and none is recommended. The vertical hole is not only more economical, but structural relationships at depth can be defined much more reliably.

Although the program outlined above is sufficient to outline what might be considered a reasonable, but minimum reserve, the tonnage potential is believed to be of a much larger magnitude. If it is at all possible, and within the Applicant's capabilities, a greatly expanded drill program is recommended. The recommended program would total 14,700 feet of vertical drilling with the distribution of holes shown on map No. 4. It is recommended that holes be drilled to an average depth of 500 feet along sections or extended grid lines 33, 24, 15, and 6 south, and 3, 12, and 21 north. These seven holes are to be collared on the ground EM axis or its projection. Seven additional holes are recommended to be collared 350 feet northwest of the above described holes and drilled to an average depth of 800 feet. A program of this magnitude, should more or less completely cover the ahomalous area and outline to some extent the down dip extent of the expected mineralization. The expanded program is dependent on whether the Applicant can or is willing to acquire the tract of land to the southwest of his present leaseholdings.

APPLICANT'S PROPOSAL

The Applicant has proposed to drill four holes in the anomalous grid area as shown on the electromagnetic and self-potential map which accompanies the application. Three of the holes on cross-section lines denoted as 3N, 9S, and 21N were to be drilled 50° to the southwest and one vertical hole was proposed on 3N. Total cost of the proposed work was $7,267.67, or at 50% Government participation $3,633.84.

The Field Examiners are of the opinion that additional drilling other than that proposed is necessary to properly explore the deposit and to enhance the chances of certification. Closer spacing of holes in the overall grid picture, drilling to deeper depths, and vertical drill holes as opposed to angle holes are the major changes recommended, in contrast to the Applicant's proposal.

ALTERNATE PROPOSAL

The Applicant indicated at the time of this examination that he would be agreeable to drilling at least three additional holes at specified locations on the map to provide for a better exploration program in those areas on the grid where no drilling had been proposed.

Map No. 5 shows both the location of the proposed drill holes by the Applicant and the revised drilling program as recommended by the Field Examiners. The revised drill holes are located on the cross sectional grid lines shown as 3 and 9 South, and 3, 9, 15 and 21 north. The anticipated depth of the individual hole is variable but is expected to average 500 feet. The strike of the beds vary from N. 20° E. to N. 30° E. and the average dip of the bedding is 40° NW.

The drilling of vertical holes has been recommended by the Field Examiners in preference to the Applicant's angle holes because of (1) the inferred ore body is a low-dipping massive replacement rather than a steep narrow vein, (2) cheapness both to the Government and the Operator, (3) angle holes may pass over the anomaly due to thicker overburden than expected or under the anomaly due to a flat pitch or rake.

Consideration has been given in the Examiners' proposal to the possible deviation in direction and inclination of the drill holes from the vertical. Costs have been estimated using the Maas Compass because of its lower comparative cost as compared to the Tro-Pari instrument, both to the Government and the Operator. The use of either instrument would probably be acceptable to the Operator if incorporated in a contract.

Drilling bids submitted with the application consisted of one each from E. J. Longyear Company, Joy Manufacturing Company and Cunningham Core Drilling and Grouting Company. E. J. Longyear Company submitted the lowest bid. The Operator and the Examiners recommend that the E. J. Longyear Company bid be accepted. Drilling costs under the estimate of costs is based on this bid.

ESTIMATED COSTS

Independent Contracts

NX drilling to collar hole in rock 90 ft @ $3.40/ft	$306.00	
Overburden and rock drilling AX or BXWL size core 3410 ft @ $2.90/ft	9889.00	
Cementing, reaming, etc. 25 hrs @ $7.50/hr	188.00	
Delays not responsible to drillers 20 hours @ $6.50/hr	130.00	
Moving charges (mobilization and demobilization of equipment	300.00	
Surveying drill holes at 200 ft intervals for deviation and inclination (Maas Compass) 25 hours @ $7.50/hr	187.00	
Total		$11,000.00

3410
90/1
3500

Rental of buildings, etc.	
Core storage - 5 months @ $12.00/Mo.	60.00
Miscellaneous	
40 sample assays for Cu, Pb and Zn @ $10/Each	400.00
Core boxes - 100 @ $3.00/Each	300.00
Total	$11,760.00

Fixed Unit Costs

Incidental allowance for each foot of drilling completed - 3500 feet @ $0.64/ft — allow

This incidental allowance figure is based on the items listed below. Only those items deemed necessary for proper completion of the proposed work have been included.

Supervision:

1 - Geologist - 2/5 of 5 months @ $800/Mo.	$1600.00

Labor:

1 - Laborer - 60 hrs @ $1.50/hr	90.00

Miscellaneous:

Stenographic service, office supplies, preparation of maps and reports	200.00	
Transportation - 3000 miles @ $0.08/mile	240.00	180 miles Charlottesville to Lexington N.C. one way.
Federal Unemployment Insurance, Social Security, public liability, Virginia Compensation Insurance at 5.52% per hundred dollars	93.00	
Total		$2,223.00

Total Estimated Cost of Project	$13,983.00
Government Participation at 50%	$ 6,991.50

S. C. Bergman, Geologist
U. S. Geological Survey

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

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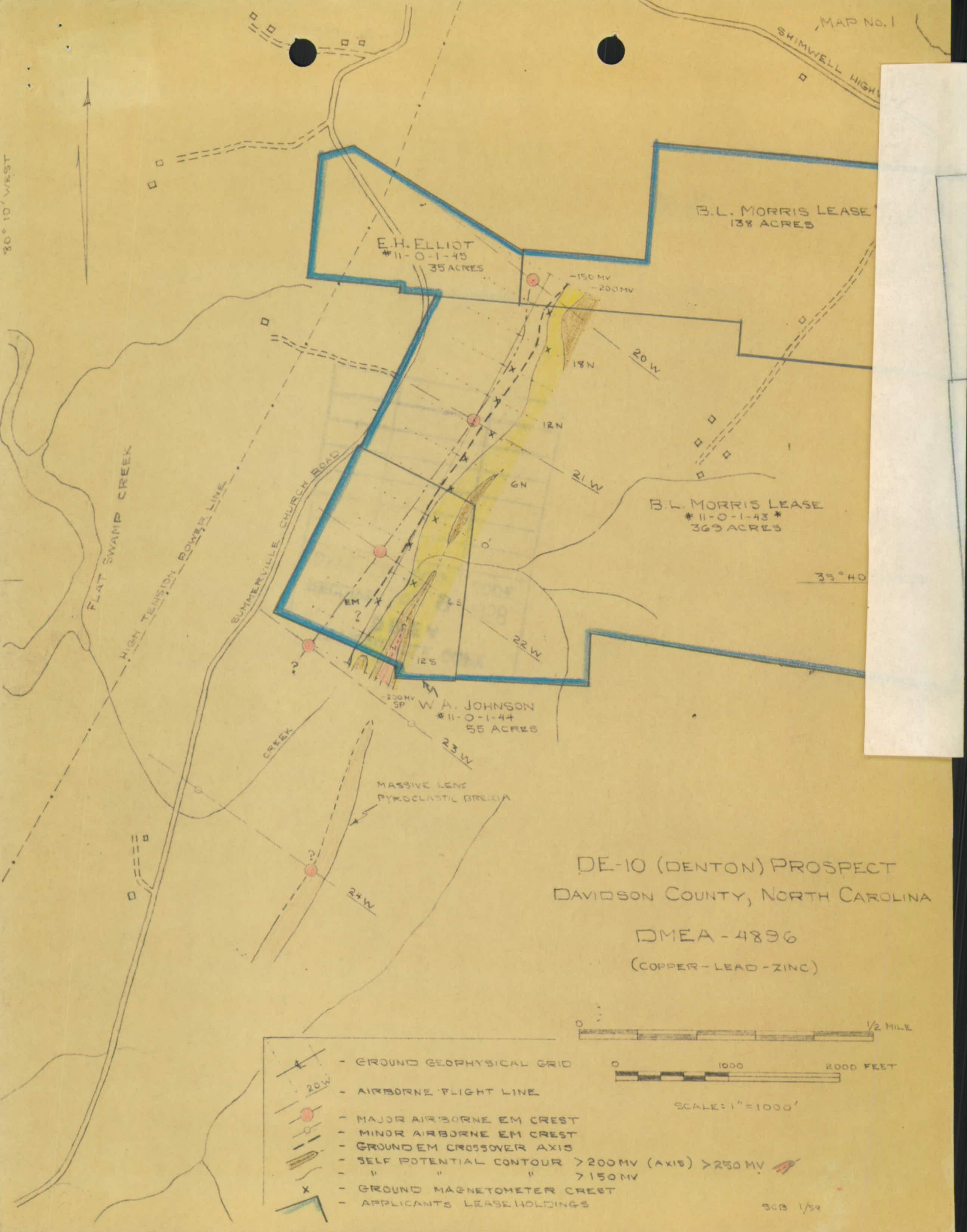
MAP NO. 1
SHIMWELL HIGH
30° 10' WEST
B.L. MORRIS LEASE
138 ACRES
E.H. ELLIOT
#11-0-1-45
35 ACRES
-150 MV
-200 MV
20 W
18 N
12 N
21 W
6 N
B.L. MORRIS LEASE
#11-0-1-43
369 ACRES
35° 40
FLAT SWAMP CREEK
HIGH TENSION POWER LINE
SUMMERVILLE CHURCH ROAD
EM
6 S
22 W
12 S
-200 MV
SP
W.A. JOHNSON
#11-0-1-44
55 ACRES
23 W
CREEK
MASSIVE LENS
PYROCLASTIC BRECCIA
24 W
DE-10 (DENTON) PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA
DMEA-4896
(COPPER-LEAD-ZINC)
0
1/2 MILE
0
1000
2000 FEET
SCALE: 1" = 1000'
- GROUND GEOPHYSICAL GRID
20 W
- AIRBORNE FLIGHT LINE
- MAJOR AIRBORNE EM CREST
- MINOR AIRBORNE EM CREST
- GROUND EM CROSSOVER AXIS
- SELF POTENTIAL CONTOUR >200 MV (AXIS) >250 MV
- " " " >150 MV
X - GROUND MAGNETOMETER CREST
- APPLICANTS LEASEHOLDINGS
SCB 1/59

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/15	Klugescheid	500
	Irving	500
1/17	GCS	130
"	Johnson	110
"	Chatterton	100
		~~142~~
1/20	gb	220
		500

500

JAN 20 1958

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

Re: Docket No. DMEA-4896 (Copper-Lead-Zinc)
Roland F. Bears, Inc.
D-10 Prospect
Davidson County, North Carolina

Dear Mr. Laurence:

The cited application for exploration assistance is being referred to your office for consideration, a field examination of the property if warranted, and recommendations.

We would like to call attention to 2(a) of the application, first paragraph, (4) geochemistry. We understand that geochemical soil sampling was done but none of the results thereof were submitted with the application. As the application stands, there is no clear indication as to which metal or metals might be found in this project area. The reference to the metals found on other properties at a distance of several miles is hardly convincing proof that the same metals are present on this property.

We agree with the opinion expressed by Mr. W. P. Williams, Geological Survey, that the Applicant should be requested to submit the results of the geochemical sampling.

A four-hole program for an anomaly of this length does seem very small, as the holes will be 1,200 and 1,500 feet apart. No real basis for certification would exist if they did discover ore in one of the holes.

It is our understanding that the Applicant prefers to furnish a Performance Bond in this project rather than to endeavor to obtain the Consents to Lien from the various property owners.

8623

Copies of memoranda dated December 19, 1957, and January 2, 1958, by A. D. McMahon, Bureau of Mines, and W. P. Williams, Geological Survey, respectively, relating to the project, are enclosed for your information. We are also enclosing a copy of the application for the use of the Field Team.

We have received a copy of your letter to Mr. Young, dated January 13, 1958.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

WPKlugescheid/er 1/15/58
Copy to: Docket
Admr R File
Op. Committee
Mr. McMahon, USBM
Mr. Kiilsgaard, USGS
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/15	Klugescheid	500
	Zimmel	500
1/17	Selfridge	130
1/17	Lewis	130
1/17	Kiilsgaard	130
"	Johnson	110
"	Mittendorf	100
1/20	gb	220
		500

JAN 20 1958

Mr. Roland F. Beers, President
Roland F. Beers, Inc.
Post Office Box 1019
Troy, New York

Re: Docket No. DMEA-4896 (Copper-Lead-Zinc)
Roland F. Beers, Inc.
D-10 Prospect
Davidson County, North Carolina

Dear Mr. Beers:

Your application for Government assistance to explore the cited property has been reviewed by the Division of Base Metals 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 Bldg.
Knoxville 2, Tennessee

If the Field Team requires additional information concerning your application, they will contact your Virginia branch office at an early date.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

WPKlugescheid/er 1/15/58
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region V (2)
Chron1

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1305, FEDERAL BLDG.
KNOXVILLE 2, TENN.

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 15 1958

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January 13, 1958

Mr. Robert Young
Rockland Hotel
Rockland, Maine

Re: DMEA-4896(copper-lead-zinc)
Denton Property
Davidson County, N. C.

Dear Mr. Young:

I was advised in a recent telephone call from your Charlottesville office, that you expect to be in the southeast between January 20 and January 30, and would like to have the field examination of the subject application during that period.

Although we have not yet received the usual field referral and request for this examination from our Washington office, we are agreeable to going ahead with it in order to save you the time and expense of making another trip for that purpose.

Accordingly, Mr. Lawrence E. Shirley, U. S. Bureau of Mines, and Mr. Sheldon C. Bergman, U. S. Geological Survey, will meet you at the Post Office in Lexington, North Carolina at 9:00 a.m. Tuesday, January 28. They will probably arrive in Lexington on the evening of the 27th and stay at the motel which is on the bypass north of town where U. S. 64 and U. S. 29 intersect.

If this is not convenient to you, please notify me at the earliest possible date so that we may rearrange the schedule.

A copy of this letter is also being sent to your Charlottesville office.

Sincerely yours,

Robert A. Laurence, Executive Officer

RAL/sm
Opr. Com-2
Lynch-Files-Shirley
Stromquist

ORIGINAL FILE COPY
DMEA
RECEIVED JAN 3 1958
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IN REPLY REFER TO:

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

Memorandum

January 2, 1958

To: W. R. Griswold, Defense Minerals Exploration Administration

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

Subject: Review of application, DMEA 4896, Roland F. Beers, Inc., (copper-lead-zinc), Denton property, Davidson County, North Carolina.

The applicant requests DMEA assistance to explore for copper-lead-zinc ore deposits on a tract of land containing 562 acres located in the Gold Hill-Cid district of North Carolina.

The applicant's main reasons for wishing to do exploratory drilling are the results of airborne and ground geophysical surveys and geochemical soil sampling. The applicant did not submit results of the geochemical soil sampling.

Personnel in the Geophysics Branch, Geological Survey, do not believe that the self-potential and magnetic anomalies are great enough to be of large significance in themselves. The electromagnetic work does show the presence of a conducting body. The most important point, probably, is the fact that the three types of anomaly coincide in position and, therefore, tend to reinforce each other. It would be interesting to see if the geochemical anomaly, if there is one, fits the other anomalies.

I recommend that the application be referred to the Field Team. The applicant should be requested to submit the results of his geochemical sampling.

W. P. Williams

W. P. Williams

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

December 19, 1957

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: Commodity Specialist, Branch of Base Metals

Subject: Review of application, Docket No. DMEA 4896 (copper, lead, zinc), Roland F. Beers, Inc., DE-10 Prospect, Davidson County, North Carolina

The applicant seeks Government assistance in an exploration program consisting of 4 diamond drill holes totaling 1,605 feet to test anomalies indicated and verified by geophysical surveys.

The DE-10 prospect is in an area and at the same horizon as reportedly known major sulfide concentrations ? in the Gold Hill and Cid mining districts. The applicant believes that the basic anomaly developed by ground geophysical surveys indicates the existence of a sulphide zone.

Referral of the application to the Field Team for appropriate action is recommended.

A. D. McMahon

A. D. McMahon

Attachment

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
F. D. Lamb
F i l e s

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 19 1957

DATE	INITIALS	CODE
12/19	C	220
12/19	Klug.	500

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

December 12, 1957

Roland F. Beers, Incorporated
P. O. Box 1019
Troy, New York

Gentlemen:

Subject: DMEA-4896

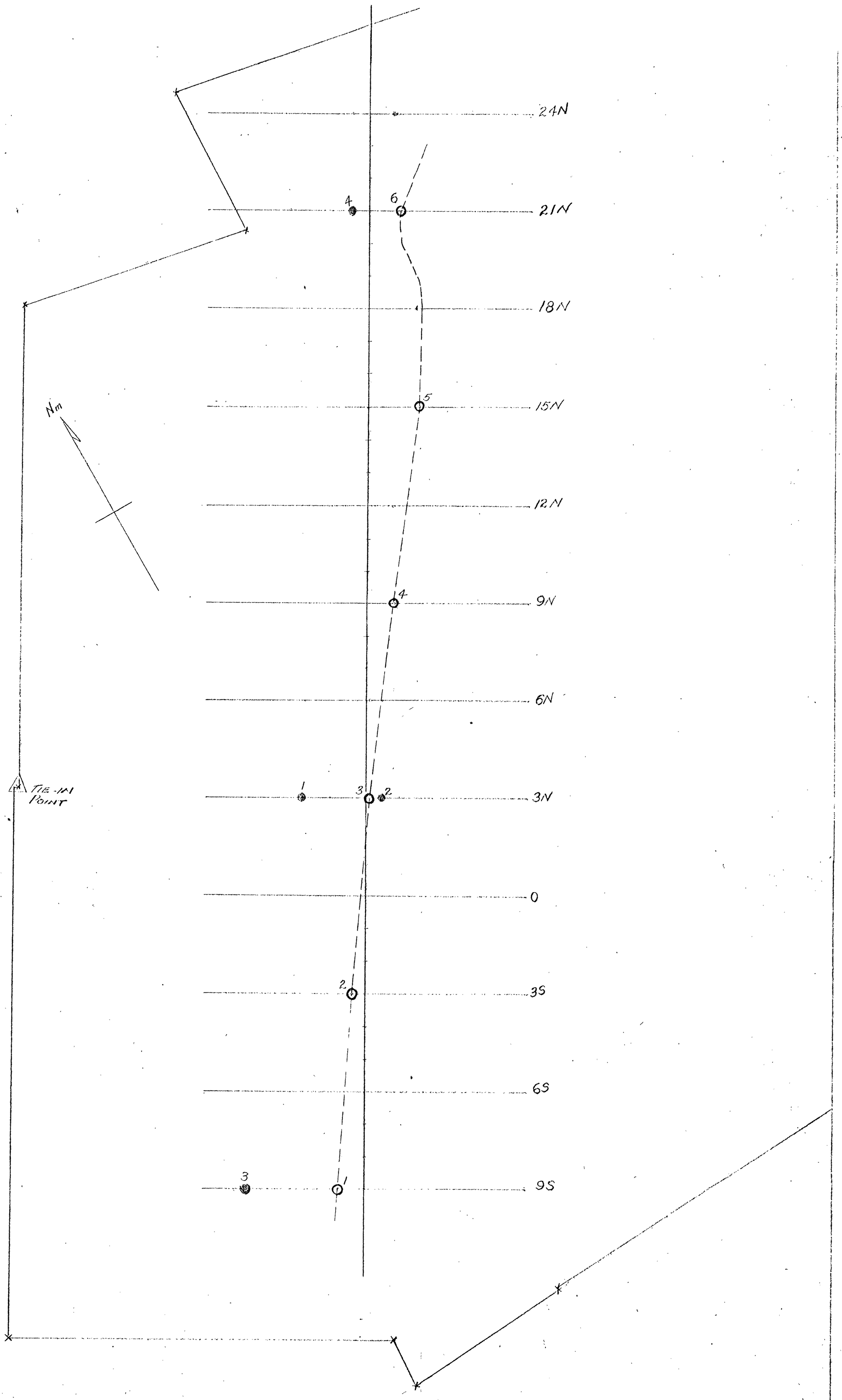
Your application for exploration assistance, dated December 7, 1957 submitted to our office at Washington, D. C. has been assigned Docket Number DMEA-4896 and referred to the Base Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region V



MAP OF
PROPOSED DRILL HOLE LOCATIONS
FOR
DMEA-4896 DE-10 PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA

BASED ON APPLICANTS MAP SHOWING EM-SP-SURVEYS

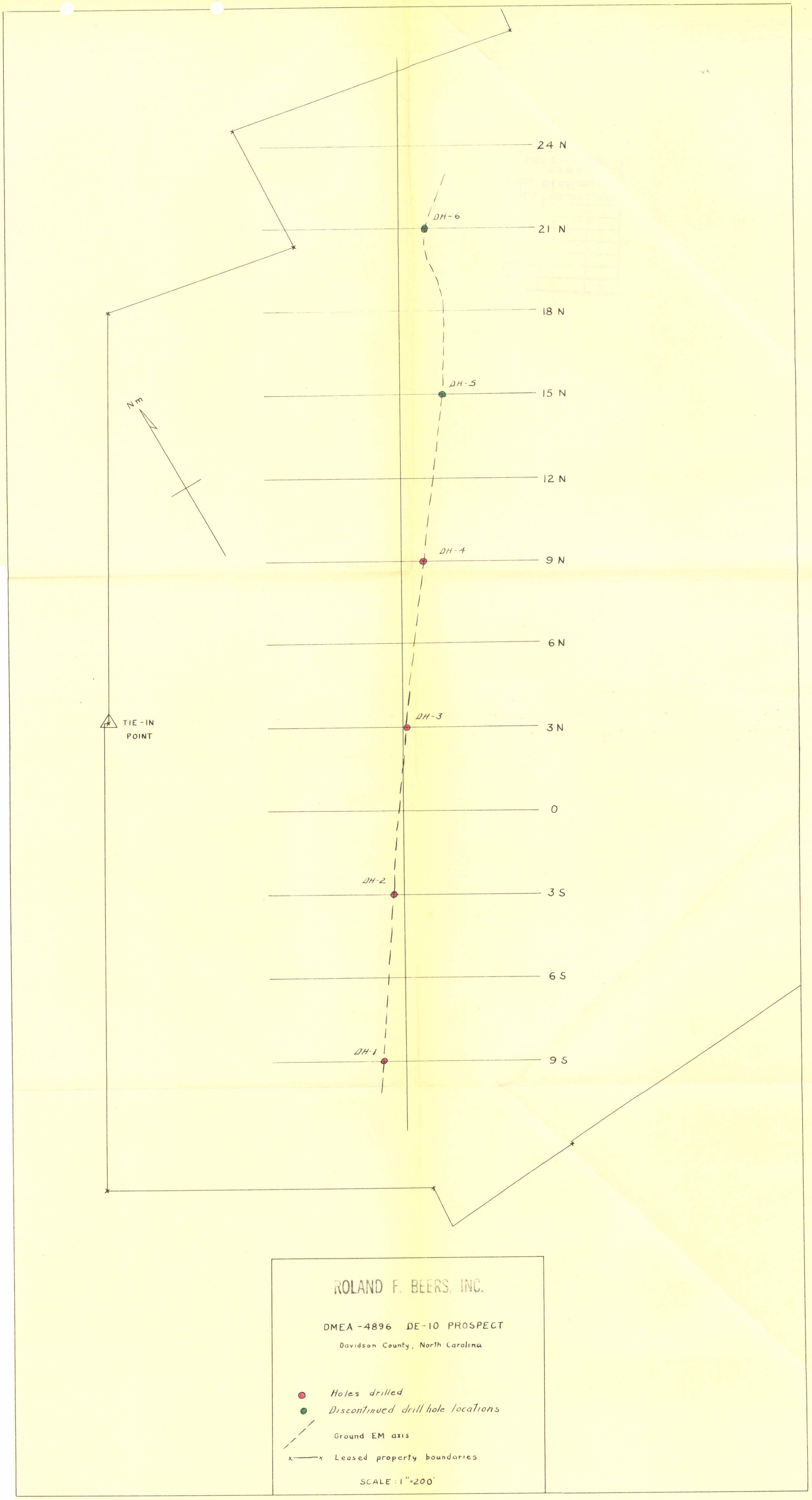
PROPOSED DMEA DRILL HOLES

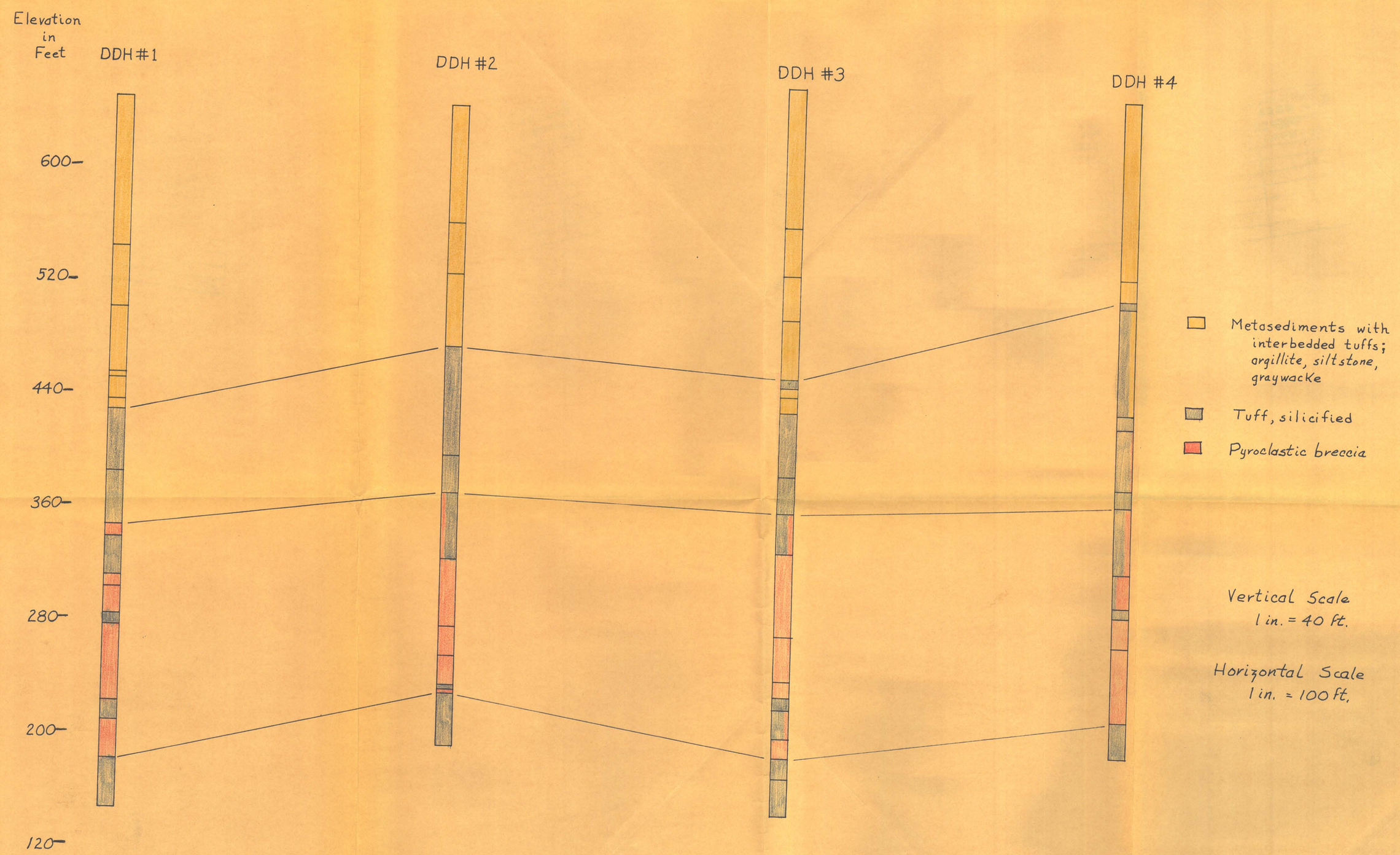
APPLICANT'S PROPOSED DRILL HOLES

GROUND EM AXIS

LEASED PROPERTY BOUNDARIES

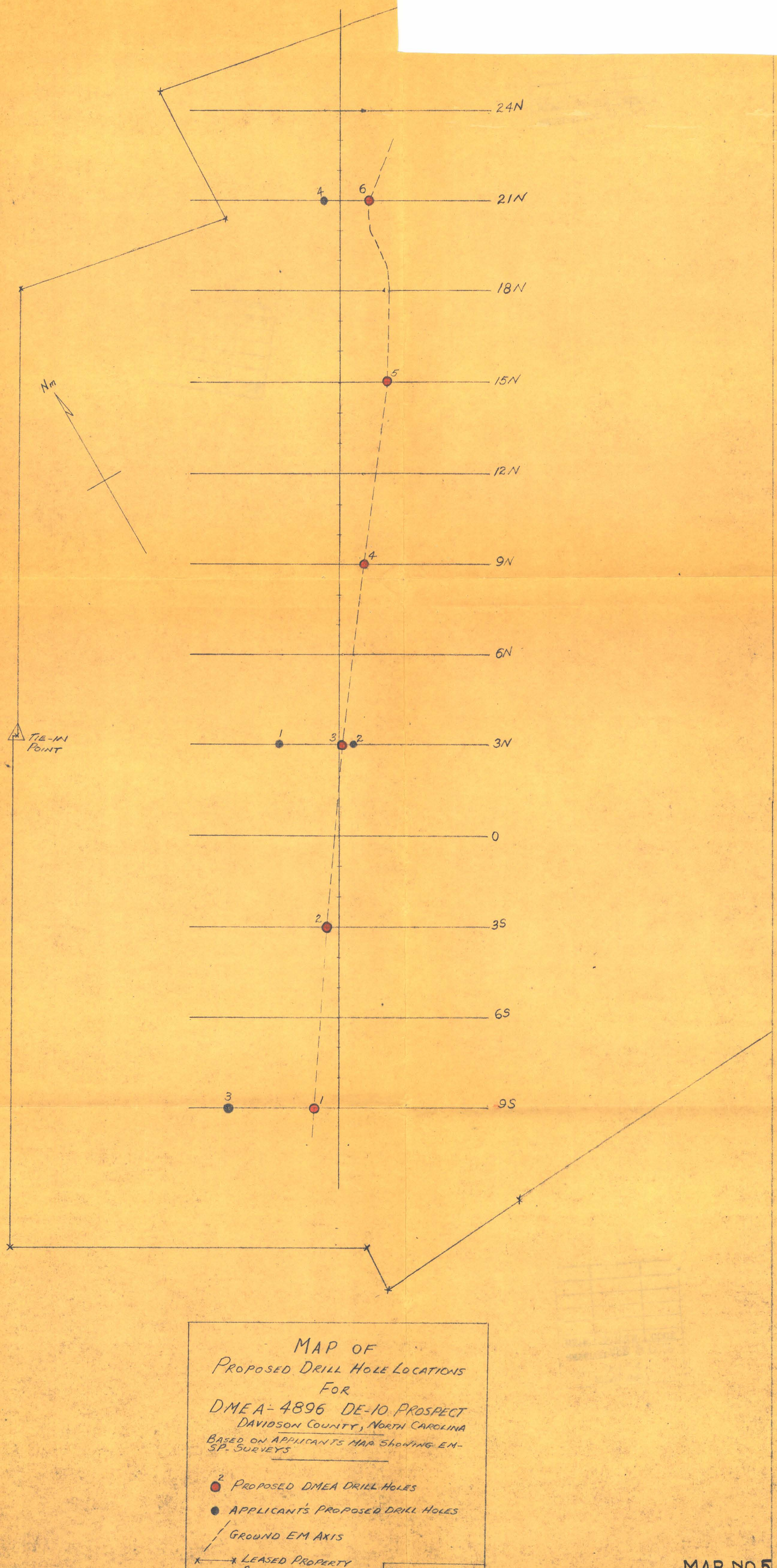
SCALE 1" = 200'


24 N
21 N
18 N
15 N
12 N
9 N
6 N
3 N
0
3 S
6 S
9 S
DH-6
DH-5
DH-4
DH-3
DH-2
DH-1
Nm
TIE-IN
POINT
ROLAND F. BEERS, INC.
DMEA-4896 DE-10 PROSPECT
Davidson County, North Carolina
Holes drilled
Discontinued drill hole locations
Ground EM axis
Leased property boundaries
SCALE: 1"=200'



DMEA-4896

LONGITUDINAL SECTION



MAP OF
PROPOSED DRILL HOLE LOCATIONS
FOR
DME A-4896 DE-10 PROSPECT
DAVIDSON COUNTY, NORTH CAROLINA

BASED ON APPLICANTS MAP SHOWING EM-SP-SURVEYS

2 PROPOSED DMEA DRILL HOLES

APPLICANT'S PROPOSED DRILL HOLES

GROUND EM AXIS

LEASED PROPERTY BOUNDARIES

SCALE 1" = 200'

MAP NO. 5