MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3342

COMMODITY Uranium

IDM - E 677
Government Copy

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

EXPLORATION PROJECT CONTRACT[1]

(Short Form)

IT IS AGREED this 14 day of June, 1954 between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Mining Research Corporation, a Delaware Corporation
1320 Pearl Street
Boulder, Colorado

hereinafter called the "Operator," as ~~follows:~~ set forth in Annexes I and II, attached hereto, and made a part hereof, and as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Fall River, described as follows:[3] See Annex I

the Operator represents and undertakes:[4]

~~(a) That the Operator is the owner in possession and entitled to possession and the Operator's interest is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:~~

See Annex I

(b) That the Operator is a lessee, in possession and entitled to possession, ~~and the Owner's Consent to Lien is attached.~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Uranium

in or upon the described land; and shall bring the project to completion within a period of five months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 75 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $8,070.00, which is 75 percent of $10,760.00, the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(a) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations. See Annex II substituted for Article 6

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* .....

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MINING RESEARCH CORPORATION
(Operator)

By .....

By O. Mitchendorf
Administrator, Defense Minerals Exploration Administration

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

..... [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

Minerals Administration
RECEIVED

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

ANNEX I

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	"	315
Button #1	"	316
Button #2	"	315
Viking #1	"	316

Above claims are located in Sections 26 and 27, T. 7 S., R. 2 E., B.H.M., Fall River County, South Dakota.

The above listed claims are the "land" described in Article 2 of the contract form and in Annex II to the contract. The Operator represents and undertakes that it is a lessee in possession and entitled to possession by reason of a lease dated August 11, 1952, between the Owner, Milford A. DePue, to A. Ludwig and E. J. Brockman; an assignment and agreement dated November 24, 1952, between A. Ludwig and E. J. Brockman and Edgemont Mining Company, Inc; and an agreement dated November 5, 1953, between Edgemont Mining Company, Inc., and the Operator. An Owner's Consent-to-Lien executed by Milford A. DePue, an Owner's Consent-to-Lien executed by A. Ludwig and E. J. Brockman, and an Owner's Consent-to-Lien executed by Edgemont Mining Company, Inc., are attached.

ANNEX II

The following provisions are in lieu of Article 6:

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, 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, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* The "land" refers to the land described in Article 2 of the contract form.

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 raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. 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.

g. 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.

h. 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 mining or production operations.

i. 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.

OF THE INTERIOR
Minerals Administration
RECEIVED

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

EXHIBIT "A"

Description of the Work

The work consists of exploration by wagon drilling of zones 1 and 2, as indicated on the attached map entitled "Figure 1, Exploration Plan, Virginia C Group."

The basic drilling pattern shall consist of a grid spacing of 100 feet by 100 feet in Zone 1 and 200 feet by 200 feet in Zone 2. Following this pattern, approximately 60 holes, aggregating not more than 3,900 feet of drill hole shall be drilled in Zone 1, and approximately 30 holes, aggregating not more than 1,950 feet of drill hole shall be drilled in Zone 2.

An additional 5,150 feet of holes may be drilled in Zones 1 and 2 as offsets to the basic drilling pattern. Such holes shall be drilled not less than 50 feet from each other nor from holes of the basic grid, and shall be drilled in the vicinity of other holes only when the latter show indications of mineralization. Offset drilling may be done concurrently with basic pattern drilling in order to permit follow-up of trends that may develop as drilling progresses.

The minimum size of the drill holes shall be $2\frac{1}{4}$ inches. The Operator shall recover drill cuttings, take radiometric readings of the cuttings, select samples for and have performed not to exceed 120 chemical analyses and probe and log drill holes, all in accordance with standard practice and subject to the approval of the Government. Upon request, the Operator shall supply the Government with such samples as it specifies.

Estimated Cost of the Project

Wagon drilling - 11,000 ft. at $0.94/ft.[1/]	$10,340.00	
Chemical analyses - 120 at $3.50 each	420.00	
Estimated total cost of the Project		$10,760.00
Government participation at 75%		$ 8,070.00

1/ The agreed unit cost for wagon drilling includes all costs of the project except chemical analyses.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 31 1955

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	31 M	315
Button #1	31 M	316
Button #2	31 M	315
Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

M. A. DePue [Seal]

M. A. DePue

_____ [Seal]

_____ [Seal]

MF-203
(Revised July 1, 1954)

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4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]
Edgemont Mining Company, Inc.

_____ [Seal]

By _____ [Seal]

MF-203
(Revised July 1, 1954)

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4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]

A. Ludwig

_____ [Seal]

E. J. Brockman

_____ [Seal]

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3342

COMMODITY Uranium

IDM - E 677

Operator's copy

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DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

(Short Form)

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Boulder, Colorado

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ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 75 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $8,070.00, which is 75 percent of $10,760.00, the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations. See back of attached for Article 6

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

_____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MINING RESEARCH CORPORATION
(Operator)

By _____

By _____ Administrator, Defense Minerals Exploration Administration

---

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

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—86329-1

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

ANNEX I

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	"	315
Button #1	"	316
Button #2	"	315
Viking #1	"	316

Above claims are located in Sections 26 and 27, T. 7 S., R. 2 E., B.H.M., Fall River County, South Dakota.

The above listed claims are the "land" described in Article 2 of the contract form and in Annex II to the contract. The Operator represents and undertakes that it is a lessee in possession and entitled to possession by reason of a lease dated August 11, 1952, between the Owner, Milford A. DePue, to A. Ludwig and E. J. Brockman; an assignment and agreement dated November 24, 1952, between A. Ludwig and E. J. Brockman and Edgemont Mining Company, Inc; and an agreement dated November 5, 1953, between Edgemont Mining Company, Inc., and the Operator. An Owner's Consent-to-Lien executed by Milford A. DePue, an Owner's Consent-to-Lien executed by A. Ludwig and E. J. Brockman, and an Owner's Consent-to-Lien executed by Edgemont Mining Company, Inc., are attached.

ANNEX II

The following provisions are in lieu of Article 6 :

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, 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, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* The "land" refers to the land described in Article 2 of the contract form.

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 raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. 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.

g. 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.

h. 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 mining or production operations.

i. 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.

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

EXHIBIT "A"

Description of the Work

The work consists of exploration by wagon drilling of zones 1 and 2, as indicated on the attached map entitled "Figure 1, Exploration Plan, Virginia C Group."

The basic drilling pattern shall consist of a grid spacing of 100 feet by 100 feet in Zone 1 and 200 feet by 200 feet in Zone 2. Following this pattern, approximately 60 holes, aggregating not more than 3,900 feet of drill hole shall be drilled in Zone 1, and approximately 30 holes, aggregating not more than 1,950 feet of drill hole shall be drilled in Zone 2.

An additional 5,150 feet of holes may be drilled in Zones 1 and 2 as offsets to the basic drilling pattern. Such holes shall be drilled not less than 50 feet from each other nor from holes of the basic grid, and shall be drilled in the vicinity of other holes only when the latter show indications of mineralization. Offset drilling may be done concurrently with basic pattern drilling in order to permit follow-up of trends that may develop as drilling progresses.

The minimum size of the drill holes shall be 2½ inches. The Operator shall recover drill cuttings, take radiometric readings of the cuttings, select samples for and have performed not to exceed 120 chemical analyses and probe and log drill holes, all in accordance with standard practice and subject to the approval of the Government. Upon request, the Operator shall supply the Government with such samples as it specifies.

Estimated Cost of the Project

Wagon drilling - 11,000 ft. at $0.94/ft.[1/]	$10,340.00	
Chemical analyses - 120 at $3.50 each	420.00	
Estimated total cost of the Project		$10,760.00
Government participation at 75%		$ 8,070.00

1/ The agreed unit cost for wagon drilling includes all costs of the project except chemical analyses.

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	31 M	315
Button #1	31 M	316
Button #2	31 M	315
Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

M. A. DePue [Seal]

M. A. DePue

_____ [Seal]

_____ [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 U	314
Virginia C #2	~~31~~ 31 U	315
Dutton #1	31 U	316
Dutton #2	31 U	315
Viking #1	31 U	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

A. Ludwig [Seal]

A. Ludwig

_____ [Seal]

E. J. Brockman

E. J. Brockman [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C. #1	31 M	314
Virginia C. #2	31 M	315
Button #1	31 M	316
Button #2	31 M	315
Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]
Edgemont Mining Company, Inc.

_____ [Seal]

By _____ [Seal]

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3342

COMMODITY Uranium

IDM - E 677
Finance Office copy

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

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 14 day of June, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Mining Research Corporation, a Delaware Corporation
1320 Pearl Street
Boulder, Colorado

hereinafter called the "Operator," as XXXXX set forth in Annexes I and II, attached hereto, and made a part hereof, and as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Fall River, described as follows:[3] See Annex I

the Operator represents and undertakes:[4]

~~(a XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX f XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

See Annex I

(*b*) That the Operator is a lessee, in possession and entitled to possession, a ~~XXXXXXXXXXXXXXXXXXXX~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Uranium

in or upon the described land; and shall bring the project to completion within a period of five months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 75 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $8,070.00, which is 75 percent of $10,760.00 the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations. [illegible]

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

_____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MINERAL RESEARCH CORPORATION
(Operator)

By _____

By O. Mitteedoy
Administrator, Defense
Minerals Exploration
Administration

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

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

ANNEX I

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	"	315
Button #1	"	316
Button #2	"	315
Viking #1	"	316

Above claims are located in Sections 26 and 27, T. 7 S., R. 2 E., B.H.M., Fall River County, South Dakota.

The above listed claims are the "land" described in Article 2 of the contract form and in Annex II to the contract. The Operator represents and undertakes that it is a lessee in possession and entitled to possession by reason of a lease dated August 11, 1952, between the Owner, Milford A. DePue, to A. Ludwig and E. J. Brockman; an assignment and agreement dated November 24, 1952, between A. Ludwig and E. J. Brockman and Edgemont Mining Company, Inc; and an agreement dated November 5, 1953, between Edgemont Mining Company, Inc., and the Operator. An Owner's Consent-to-Lien executed by Milford A. DePue, an Owner's Consent-to-Lien executed by A. Ludwig and E. J. Brockman, and an Owner's Consent-to-Lien executed by Edgemont Mining Company, Inc., are attached.

ANNEX II

The following provisions are in lieu of Article 6:

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, 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, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* The "land" refers to the land described in Article 2 of the contract form.

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 raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. 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.

g. 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.

h. 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 mining or production operations.

i. 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.

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

EXHIBIT "A"

Description of the Work

The work consists of exploration by wagon drilling of zones 1 and 2, as indicated on the attached map entitled "Figure 1, Exploration Plan, Virginia C Group."

The basic drilling pattern shall consist of a grid spacing of 100 feet by 100 feet in Zone 1 and 200 feet by 200 feet in Zone 2. Following this pattern, approximately 60 holes, aggregating not more than 3,900 feet of drill hole shall be drilled in Zone 1, and approximately 30 holes, aggregating not more than 1,950 feet of drill hole shall be drilled in Zone 2.

An additional 5,150 feet of holes may be drilled in Zones 1 and 2 as offsets to the basic drilling pattern. Such holes shall be drilled not less than 50 feet from each other nor from holes of the basic grid, and shall be drilled in the vicinity of other holes only when the latter show indications of mineralization. Offset drilling may be done concurrently with basic pattern drilling in order to permit follow-up of trends that may develop as drilling progresses.

The minimum size of the drill holes shall be 2¼ inches. The Operator shall recover drill cuttings, take radiometric readings of the cuttings, select samples for and have performed not to exceed 120 chemical analyses and probe and log drill holes, all in accordance with standard practice and subject to the approval of the Government. Upon request, the Operator shall supply the Government with such samples as it specifies.

Estimated Cost of the Project

Wagon drilling - 11,000 ft. at $0.94/ft.[1/]	$10,340.00	
Chemical analyses - 120 at $3.50 each	420.00	
Estimated total cost of the Project		$10,760.00
Government participation at 75%		$ 8,070.00

1/ The agreed unit cost for wagon drilling includes all costs of the project except chemical analyses.

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	31 M	315
Button #1	31 M	316
Button #2	31 M	315
Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

M. A. DePue [Seal]

M. A. DePue

_____ [Seal]

_____ [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
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Button #1	31 M	316
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Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]

A. Ludwig _____ [Seal]

E. J. Brockman _____ [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 U	314
Virginia C #2	31 U	315
Button #1	31 U	316
Button #2	31 U	315
Viking #1	31 U	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridan

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]
Edgemont Mining Company, Inc.

_____ [Seal]

_____ [Seal]
By

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3342

COMMODITY Uranium

IDM - 677

Field Team copy

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

EXPLORATION PROJECT CONTRACT[1]

(Short Form)

IT IS AGREED this 14 day of June, 1954 between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Mining Research Corporation, a Delaware Corporation
1320 Pearl Street
Boulder, Colorado

hereinafter called the "Operator," as ~~xxxxx~~ set forth in Annexes I and II, attached hereto, and made a part hereof, and as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Fall River, described as follows:[3]
See Annex I

the Operator represents and undertakes:[4]

(a) ~~[illegible]~~

See Annex I

(b) That the Operator is a lessee, in possession and entitled to possession, a~~[illegible]~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Uranium

in or upon the described land; and shall bring the project to completion within a period of five months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 75 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $8,070.00, which is 75 percent of $10,760.00 the agreed, estimated total cost of the project in which the Government will participate: *Provided*, That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

16—66329-1

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations. See Annex II substituted for Article 6

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided*, that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

_____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MINING RESEARCH CORPORATION
(Operator)

By _____

By O. Mitteudorf
Administrator, Defense Minerals Exploration Administration

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

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

ANNEX I

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	"	315
Button #1	"	316
Button #2	"	315
Viking #1	"	316

Above claims are located in Sections 26 and 27, T. 7 S., R. 2 E., B.H.M., Fall River County, South Dakota.

The above listed claims are the "land" described in Article 2 of the contract form and in Annex II to the contract. The Operator represents and undertakes that it is a lessee in possession and entitled to possession by reason of a lease dated August 11, 1952, between the Owner, Milford A. DePue, to A. Ludwig and E. J. Brockman; an assignment and agreement dated November 24, 1952, between A. Ludwig and E. J. Brockman and Edgemont Mining Company, Inc; and an agreement dated November 5, 1953, between Edgemont Mining Company, Inc., and the Operator. An Owner's Consent-to-Lien executed by Milford A. DePue, an Owner's Consent-to-Lien executed by A. Ludwig and E. J. Brockman, and an Owner's Consent-to-Lien executed by Edgemont Mining Company, Inc., are attached.

ANNEX II

The following provisions are in lieu of Article 6 :

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, 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, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* The "land" refers to the land described in Article 2 of the contract form.

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 raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. 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.

g. 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.

h. 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 mining or production operations.

i. 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.

58694

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMSA-3342

EXHIBIT "A"

Description of the Work

The work consists of exploration by wagon drilling of zones 1 and 2, as indicated on the attached map entitled "Figure 1, Exploration Plan, Virginia C Group."

The basic drilling pattern shall consist of a grid spacing of 100 feet by 100 feet in Zone 1 and 200 feet by 200 feet in Zone 2. Following this pattern, approximately 60 holes, aggregating not more than 3,900 feet of drill hole shall be drilled in Zone 1, and approximately 30 holes, aggregating not more than 1,950 feet of drill hole shall be drilled in Zone 2.

An additional 5,150 feet of holes may be drilled in Zones 1 and 2 as offsets to the basic drilling pattern. Such holes shall be drilled not less than 50 feet from each other nor from holes of the basic grid, and shall be drilled in the vicinity of other holes only when the latter show indications of mineralization. Offset drilling may be done concurrently with basic pattern drilling in order to permit follow-up of trends that may develop as drilling progresses.

The minimum size of the drill holes shall be 2½ inches. The Operator shall recover drill cuttings, take radiometric readings of the cuttings, select samples for and have performed not to exceed 120 chemical analyses and probe and log drill holes, all in accordance with standard practice and subject to the approval of the Government. Upon request, the Operator shall supply the Government with such samples as it specifies.

Estimated Cost of the Project

Wagon drilling - 11,000 ft. at $0.94/ft. 1/	$10,340.00
Chemical analyses - 120 at $3.50 each	420.00
Estimated total cost of the Project	$10,760.00
Government participation at 75%	$ 8,070.00

1/ The agreed unit cost for wagon drilling includes all costs of the project except chemical analyses.

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	31 M	315
Button #1	31 M	316
Button #2	31 M	315
Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

M. A. DePue [Seal]

M. A. DePue

_____ [Seal]

_____ [Seal]

MF-203
(Revised July 1, 1954)

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2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]

A. Ludwig _____ [Seal]

E. J. Brockman _____ [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

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All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridan

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]
Edgemont Mining Company, Inc.

_____ [Seal]

By _____ [Seal]

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3342

COMMODITY Uranium

IDM - E 677

Docket Copy

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

EXPLORATION PROJECT CONTRACT[1]

(Short Form)

IT IS AGREED this 14 day of June, 1954 between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Mining Research Corporation, a Delaware Corporation
1320 Pearl Street
Boulder, Colorado

hereinafter called the "Operator," as ~~[illegible]~~ set forth in Annexes I and II, attached hereto, and made a part hereof, and as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Fall River, described as follows:[3]
See Annex I

the Operator represents and undertakes:[4]

(*a*) ~~[illegible]~~

See Annex I

(*b*) That the Operator is a lessee, in possession and entitled to possession, a~~[illegible]~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Uranium

in or upon the described land; and shall bring the project to completion within a period of five months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 75 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $8,070.00, which is 75 percent of $10,760.00 the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations. **See Annex II substituted for Article 6**

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

_____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MINING RESEARCH CORPORATION

(Operator)

By _____

By O. Mitchell Dorsey

Acting Administrator, Defense Minerals Exploration Administration

Talbut

_____

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

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMRA-3342

ANNEX I

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	"	315
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Above claims are located in Sections 26 and 27, T. 7 S., R. 2 E., B.H.M., Fall River County, South Dakota.

The above listed claims are the "land" described in Article 2 of the contract form and in Annex II to the contract. The Operator represents and undertakes that it is a lessee in possession and entitled to possession by reason of a lease dated August 11, 1952, between the Owner, Milford A. DePue, to A. Ludwig and E. J. Brockman; an assignment and agreement dated November 24, 1952, between A. Ludwig and E. J. Brockman and Edgemont Mining Company, Inc; and an agreement dated November 5, 1953, between Edgemont Mining Company, Inc., and the Operator. An Owner's Consent-to-Lien executed by Milford A. DePue, an Owner's Consent-to-Lien executed by A. Ludwig and E. J. Brockman, and an Owner's Consent-to-Lien executed by Edgemont Mining Company, Inc., are attached.

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The following provisions are in lieu of Article 6:

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, 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, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

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> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. 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.

g. 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.

h. 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 mining or production operations.

i. 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.

58694

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

EXHIBIT "A"

Description of the Work

The work consists of exploration by wagon drilling of zones 1 and 2, as indicated on the attached map entitled "Figure 1, Exploration Plan, Virginia C Group.

The basic drilling pattern shall consist of a grid spacing of 100 feet by 100 feet in Zone 1 and 200 feet by 200 feet in Zone 2. Following this pattern, approximately 60 holes, aggregating not more than 3,900 feet of drill hole shall be drilled in Zone 1, and approximately 30 holes, aggregating not more than 1,950 feet of drill hole shall be drilled in Zone 2.

An additional 5,150 feet of holes may be drilled in Zones 1 and 2 as offsets to the basic drilling pattern. Such holes shall be drilled not less than 50 feet from each other nor from holes of the basic grid, and shall be drilled in the vicinity of other holes only when the latter show indications of mineralization. Offset drilling may be done concurrently with basic pattern drilling in order to permit follow-up of trends that may develop as drilling progresses.

The minimum size of the drill holes shall be 2¼ inches. The Operator shall recover drill cuttings, take radiometric readings of the cuttings, select samples for and have performed not to exceed 120 chemical analyses and probe and log drill holes, all in accordance with standard practice and subject to the approval of the Government. Upon request, the Operator shall supply the Government with such samples as it specifies.

Estimated Cost of the Project

Wagon drilling - 11,000 ft. at $0.94/ft.[1]	$10,340.00	
Chemical analyses - 120 at $3.50 each	420.00	
Estimated total cost of the Project		$10,760.00
Government participation at 75%		$ 8,070.00

1/ The agreed unit cost for wagon drilling includes all costs of the project except chemical analyses.

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	31 M	315
Button #1	31 M	316
Button #2	31 M	315
Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

M. A. DePue [Seal]
M. A. DePue

_____ [Seal]

_____ [Seal]

MF-203
(Revised July 1, 1954)

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WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

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2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]
A. Ludwig

_____ [Seal]
E. J. Brockman

_____ [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

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All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridan

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]
Edgemont Mining Company, Inc.

_____ [Seal]

By _____ [Seal]

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3342

COMMODITY Uranium

IDM - E 677
Division copy

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

EXPLORATION PROJECT CONTRACT[1]

(Short Form)

IT IS AGREED this 14 day of June, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Mining Research Corporation, a Delaware Corporation
1320 Pearl Street
Boulder, Colorado

hereinafter called the "Operator," as ~~[illegible]~~ set forth in Annexes I and II, attached hereto, and made a part hereof, and as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Fall River, described as follows:[3]
See Annex I

the Operator represents and undertakes:[4]

(*a*) ~~That the Operator is the owner in possession and entitled to possession, and that the property is subject only to the following liens or encumbrances, or to which the subordination agreement attached is a part:~~

See Annex I

(*b*) That the Operator is a lessee, in possession and entitled to possession, ~~and the Operator's possession is [illegible]~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Uranium

in or upon the described land; and shall bring the project to completion within a period of five months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 75 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $3,070.00, which is 75 percent of $10,760.00 the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations. **See Annex II substituted for Article 6**

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

MINING RESEARCH CORPORATION
(Operator)

By _____

By O O Mitkeudoy
Pritin Talbot
Administrator, Defense Minerals Exploration Administration

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

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

ANNEX I

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2	"	315
Button #1	"	316
Button #2	"	315
Viking #1	"	316

Above claims are located in Sections 26 and 27, T. 7 S., R. 2 E., B.H.M., Fall River County, South Dakota.

The above listed claims are the "land" described in Article 2 of the contract form and in Annex II to the contract. The Operator represents and undertakes that it is a lessee in possession and entitled to possession by reason of a lease dated August 11, 1952, between the Owner, Milford A. DePue, to A. Ludwig and E. J. Brockman; an assignment and agreement dated November 24, 1952, between A. Ludwig and E. J. Brockman and Edgemont Mining Company, Inc; and an agreement dated November 5, 1953, between Edgemont Mining Company, Inc., and the Operator. An Owner's Consent-to-Lien executed by Milford A. DePue, an Owner's Consent-to-Lien executed by A. Ludwig and E. J. Brockman, and an Owner's Consent-to-Lien executed by Edgemont Mining Company, Inc., are attached.

ANNEX II

The following provisions are in lieu of Article 6:

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, 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, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* The "land" refers to the land described in Article 2 of the contract form.

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 raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. 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.

g. 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.

h. 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 mining or production operations.

i. 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.

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMSA-3342

EXHIBIT "A"

Description of the Work

The work consists of exploration by wagon drilling of zones 1 and 2, as indicated on the attached map entitled "Figure 1, Exploration Plan, Virginia C Group."

The basic drilling pattern shall consist of a grid spacing of 100 feet by 100 feet in Zone 1 and 200 feet by 200 feet in Zone 2. Following this pattern, approximately 60 holes, aggregating not more than 3,900 feet of drill hole shall be drilled in Zone 1, and approximately 30 holes, aggregating not more than 1,950 feet of drill hole shall be drilled in Zone 2.

An additional 5,150 feet of holes may be drilled in Zones 1 and 2 as offsets to the basic drilling pattern. Such holes shall be drilled not less than 50 feet from each other nor from holes of the basic grid, and shall be drilled in the vicinity of other holes only when the latter show indications of mineralization. Offset drilling may be done concurrently with basic pattern drilling in order to permit follow-up of trends that may develop as drilling progresses.

The minimum size of the drill holes shall be 2½ inches. The Operator shall recover drill cuttings, take radiometric readings of the cuttings, select samples for and have performed not to exceed 120 chemical analyses and probe and log drill holes, all in accordance with standard practice and subject to the approval of the Government. Upon request, the Operator shall supply the Government with such samples as it specifies.

Estimated Cost of the Project

Wagon drilling - 11,000 ft. at $0.94/ft.[1/]	$10,340.00	
Chemical analyses - 120 at $3.50 each	420.00	
Estimated total cost of the Project		$10,760.00
Government participation at 75%		$ 8,070.00

1/ The agreed unit cost for wagon drilling includes all costs of the project except chemical analyses.

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

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All situate in Sections 26 and 27, Township 7 South, Range 2East, Black Hills Meridian

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2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

M. A. DeRue [Seal]

M. A. DeRue

_____ [Seal]

_____ [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 U	314
Virginia C #2	31 U	315
Dutton #1	31 U	316
Dutton #2	31 U	315
Viking #1	31 U	316

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]

A. Ludwig A. Ludwig [Seal]

E. J. Brockman E. J. Brockman [Seal]

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

Lode Mining Claim	Book No.	Page No.
Virginia C. #1	31 M	314
Virginia C. #2	31 M	315
Button #1	31 M	316
Button #2	31 M	315
Viking #1	31 M	316

All situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian

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

2/ Mining Research Corporation

hereinafter called the "Operator"; and

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

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

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

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

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

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

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

(OVER)

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

4. Changes and added provisions _____

_____

_____

_____

Dated this _____ day of _____, 195___.

_____ [Seal]
Edgemont Mining Company, Inc.

_____ [Seal]

_____ [Seal]
By

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 22-2

COMMODITY Uranium

IDM - E 677

Extra Copy

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

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 14 day of June, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Mining Research Corporation, a Delaware Corporation
1320 Pearl Street
Boulder, Colorado

hereinafter called the "Operator," as ~~owner~~ set forth in Annexes I and II, attached hereto, and made a part hereof, and as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Fall River, described as follows:[3]
See Annex I

the Operator represents and undertakes:[4]

(*a*) ~~That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens or encumbrances as to each of which the subordination agreement of the holder is attached:~~

See Annex I

(*b*) That the Operator is a lessee, in possession and entitled to possession, and ~~the owner's consent to liens, annex~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Uranium

in or upon the described land; and shall bring the project to completion within a period of five months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 75 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $ 8,072.00, which is 75 percent of $ 10,760.00 the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations. **See Annex II substituted for Article 6**

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

_____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

MINING RESEARCH CORPORATION

(Operator)

By _____

THE UNITED STATES OF AMERICA

C. O. Mittendorf

By _____

Administrator, Defense Minerals Exploration Administration

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

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

ANNEX I

Lode Mining Claim	Book No.	Page No.
Virginia C #1	31 M	314
Virginia C #2		315
Button #1		316
Button #2		315
Viking #1		316

Above claims are located in Sections 26 and 27, T. 7 S., R. 2 E., B.H.M., Fall River County, South Dakota.

The above listed claims are the "land" described in Article 2 of the contract form and in Annex II to the contract. The Operator represents and undertakes that it is a lessee in possession and entitled to possession by reason of a lease dated August 11, 1952, between the Owner, Milford A. DePue, to A. Ludwig and E. J. Brockman; an assignment and agreement dated November 24, 1952, between A. Ludwig and E. J. Brockman and Edgemont Mining Company, Inc; and an agreement dated November 5, 1953, between Edgemont Mining Company, Inc., and the Operator. An Owner's Consent-to-Lien executed by Milford A. DePue, an Owner's Consent-to-Lien executed by A. Ludwig and E. J. Brockman, and an Owner's Consent-to-Lien executed by Edgemont Mining Company, Inc., are attached.

ANNEX II

The following provisions are in lieu of Article 6 :

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, 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, for a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

* The "land" refers to the land described in Article 2 of the contract form.

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 raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. 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.

g. 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.

h. 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 mining or production operations.

i. 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.

58694

EXPLORATION PROJECT CONTRACT
MINING RESEARCH CORPORATION
DOCKET NO. DMEA-3342

EXHIBIT "A"

Description of the Work

The work consists of exploration by wagon drilling of zones 1 and 2, as indicated on the attached map entitled "Figure 1, Exploration Plan, Virginia C Group.

The basic drilling pattern shall consist of a grid spacing of 100 feet by 100 feet in Zone 1 and 200 feet by 200 feet in Zone 2. Following this pattern, approximately 60 holes, aggregating not more than 3,900 feet of drill hole shall be drilled in Zone 1, and approximately 30 holes, aggregating not more than 1,950 feet of drill hole shall be drilled in Zone 2.

An additional 5,150 feet of holes may be drilled in Zones 1 and 2 as offsets to the basic drilling pattern. Such holes shall be drilled not less than 50 feet from each other nor from holes of the basic grid, and shall be drilled in the vicinity of other holes only when the latter show indications of mineralization. Offset drilling may be done concurrently with basic pattern drilling in order to permit follow-up of trends that may develop as drilling progresses.

The minimum size of the drill holes shall be 2¼ inches. The Operator shall recover drill cuttings, take radiometric readings of the cuttings, select samples for and have performed not to exceed 120 chemical analyses and probe and log drill holes, all in accordance with standard practice and subject to the approval of the Government. Upon request, the Operator shall supply the Government with such samples as it specifies.

Estimated Cost of the Project

Wagon drilling - 11,000 ft. at $0.94/ft. 1/	$10,340.00	
Chemical analyses - 120 at $3.50 each	420.00	
Estimated total cost of the Project		$10,760.00
Government participation at 75%		$ 8,070.00

1/ The agreed unit cost for wagon drilling includes all costs of the project except chemical analyses.

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

Surname copy

Ching
Ellis
Selfridge
Gilman

FEB 7 1955

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 NewCustomhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3342 (Uranium)
Mining Research Corporation
Virginia C Group
Fall River County, South Dakota

Dear Mr. Traver:

In connection with your memorandum of January 27, 1955, with enclosures, on the subject docket, we are enclosing two copies of a letter to the Applicant from the Administrator, removing the application from our active file and closing the docket.

You will note we have also advised Mr. Livingston of the action required of Edgemont Mining Company in the event latter wishes to carry on the proposed project.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures (2)

MChing/gla
2/4/55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

APPROVED:

J. H. Hedges (JHH)
Member, Bureau of Mines

Thor H. Kiilsgaard (THK)
Member, Geological Survey

Surname copy

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

FEB 7 1955

Ching
Ellis
Kiilsgaard
Hedges
Setzenge
Johnson

Mr. Clifton W. Livingston, President
Mining Research Corporation
Box 356
Edgemont, South Dakota

Re: Docket No. DMEA-3342 (Uranium)
Virginia C Group
Fall River County, South Dakota

Dear Mr. Livingston:

Reference is made to your letter of January 3, 1955, addressed to the Executive Officer, Region IV, in which you state that you do not wish to pursue further the application for drilling on the subject property. All copies of the proposed contract have been returned to this office, unsigned by you.

Accordingly, we have removed your application from our active file and closed the docket.

If the Edgemont Mining Company wishes to carry on the proposed project, please advise it to submit a new application on the enclosed forms, furnishing only such information as we do not already have, and referring to Docket No. DMEA-3342 after items that have already been fully answered under such docket.

Six copies each of Owners' Consents to Lien, showing Edgemont Mining Company as the "Operator", should be executed by E. J. Brockman and A. Ludwig, and by Milford A. DePue. The required forms are enclosed.

Sincerely yours,

E. O. Mittendorf

Administrator

Enclosures

MChing/gla 2-4-55
cc to: Admr.'s Reading File
Docket ✓
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region III (2)

RCL

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

February 3, 1955

Memorandum

To: Robert E. Adams, Chief
Operations Control &Statistics Division

From: Ernest Wm. Ellis, Chief
Rare & Miscellaneous Metals Division

Subject: Docket No. DMEA-3342 (Uranium)
Contract No. Idm-E677
Mining Research Corporation
Virginia C Group
Fall River County, South Dakota

All copies of the above-referenced contract, dated June 14, 1954, were returned to Washington under date of January 27, 1955, by the Executive Officer, DMEA Field Team, Region III, unsigned by the Operator.

Attached are copies of letters referred today to the Operating Committee and the Administrator's office, which are self-explanatory. We are removing this application from our list of pending cases and closing our file accordingly. It is suggested that this contract be cancelled and the docket closed by withdrawal when the letters to the Applicant and the Region have been mailed.

Ernest Wm. Ellis

Ernest Wm. Ellis

Attachments (2)

WITHDRAWN

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

Defense Minerals Administration
RECEIVED
JAN 31 1955

224 New Customhouse
Denver 2, Colorado

January 27, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3342 (Uranium), Proposed Contract Idm-E677, Mining Research Corporation, Virginia C Property, Fall River County, South Dakota

Enclosed is the following material relative to the subject proposed contract:

1. Original and five copies of proposed Exploration Project Contract Idm-E677 which was prepared in Washington and signed by the Administrator but has not been signed by the operator.

2. Original and three copies of a letter dated January 3, 1955 from Clifton W. Livingston, President, Mining Research Corporation, and memorandum of transmittal thereof from E.O. Binyon, Mining Engineer, Rapid City Field Office, U.S. Bureau of Mines, dated January 11, 1955.

3. Original and three copies of a memorandum dated January 21, 1955 from E.O. Binyon, Mining Engineer, U.S. Bureau of Mines.

4. Six copies each of Figures 1 and 2 revised property maps referred to in Binyon's memorandum under item 3 above and the subject of considerable prior correspondence.

The president of the operating corporation, in his letter of January 3, 1955, advises that the Mining Research Corporation does not wish to pursue further the application for drilling on the Virginia C claim and requests that the application be transferred to Edgemont Mining Company.

Inasmuch as the contract was never in force by reason of not having been signed by the operator, it appears that rather than assign the proposed contract to Edgemont Mining Company that the application Docket DMEA 3342 be closed as having been withdrawn by the applicant and Edgemont Mining Company advised that if they are desirous of Government assistance in exploration work under the DMEA program they should submit an application in their own name.

However, if you deem it more expedient to assign the contract to Edgemont Mining Company it appears that the contract should be

revised and prepared on the latest revised form. In addition, Exhibit "A" should be revised to incorporate recitation relative to the following specifications pertaining to the work:

1. All holes should be probed by an acceptable radiometric probing unit.

2. The location and extent of all offset drilling must be acceptable to the Government.

3. Drill cutting samples are to be collected separately on a maximum of 2 foot intervals throughout the ore horizon.

We will defer further action in the entire matter pending receipt of advice from you.

W. M. Traver

W. M. Traver

Encls.

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

OF THE INTERIOR
Records Administration
RECEIVED
JAN 31 1955

224 New Customhouse
Denver 2, Colorado

January 27, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3342 (Uranium), Proposed Contract Idm-E677, Mining Research Corporation, Virginia C Property, Fall River County, South Dakota

Enclosed is the following material relative to the subject proposed contract:

1. Original and five copies of proposed Exploration Project Contract Idm-E677 which was prepared in Washington and signed by the Administrator but has not been signed by the operator.

2. Original and three copies of a letter dated January 3, 1955 from Clifton W. Livingston, President, Mining Research Corporation, and memorandum of transmittal thereof from E.O. Binyon, Mining Engineer, Rapid City Field Office, U.S. Bureau of Mines, dated January 11, 1955.

3. Original and three copies of a memorandum dated January 21, 1955 from E.O. Binyon, Mining Engineer, U.S. Bureau of Mines.

4. Six copies each of Figures 1 and 2 revised property maps referred to in Binyon's memorandum under item 3 above and the subject of considerable prior correspondence.

The president of the operating corporation, in his letter of January 3, 1955, advises that the Mining Research Corporation does not wish to pursue further the application for drilling on the Virginia C claim and requests that the application be transferred to Edgemont Mining Company.

Inasmuch as the contract was never in force by reason of not having been signed by the operator, it appears that rather than assign the proposed contract to Edgemont Mining Company that the application Docket DMEA 3342 be closed as having been withdrawn by the applicant and Edgemont Mining Company advised that if they are desirous of Government assistance in exploration work under the DMEA program they should submit an application in their own name.

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revised and prepared on the latest revised form. In addition, Exhibit "A" should be revised to incorporate recitation relative to the following specifications pertaining to the work:

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We will defer further action in the entire matter pending receipt of advice from you.

W. M. Traver

W. M. Traver

Encls.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

Date Rec'd.
JAN 13 1955
BUREAU OF MINES
Denver, Colorado

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
JAN 31 1955

January 11, 1955

Memorandum

To: W. H. King, Executive Officer, DMEA Field Team, Reg. IV

From: E. O. Binyon, Rapid City Field Office

Subject: Docket DMEA 3342 (Uranium), Contract Idm E677, Mining Research Corp., Virginia C Property, Fall River County, S. Dak.

Enclosed are eight copies of a letter from the operator in which he states that the subject company, for various reasons, does not wish to sign the contract and that it be transferred to the Edgemont Mining Company.

One of the events mentioned, and which was told to us in strict confidence, is that Climax Molybdenum Corp. is negotiating with his company to take over all Mining Research holdings, as well as rights to the leaching process, or whatever license or rights the Mining Research had obtained from the A.E.C. for a treatment plant.

This, according to Mr. Livingston, would eliminate the Mining Research Corporation and all future activities, operation, etc. would be controlled by Climax. As mentioned in a previous memorandum, the Mining Research was to be the second party of the contract, but by agreement with the Edgemont Mining Co., this company would actually do the drilling and Mining Research would handle the engineering. Now it appears that the Mining Research-Climax negotiations may go through; therefore, Mining Research could not act on the subject contract. The details are not known but, in general, this is the present status.

Edgemont Mining wishes to take over the contract; however, we do not know whether or not a new application is required or just what procedure is necessary. We would appreciate your advising us just what action is necessary; also, if additional information is required, please let us know.

The revised maps with the new grids etc. are practically complete and will be forwarded within the next day or so.

N. P. Cuppels, U.S.G.S.
E. O. Binyon, U.S.B.M.

By: E. O. Binyon

cc: Cuppels
files
Reg. Office (6)

MINING RESEARCH CORPORATION
INCORPORATED
Box 356
Edgemont, South Dakota

DEPT OF THE INTERIOR
Minerals Administration
RECEIVED
JAN 31 1955

January 3, 1955

Executive Officer, Region IV
U.S. Bureau of Mines, D.M.E.A.
New Customs House Building
Denver, Colorado

RECEIVED
JAN 5 1955
Dept. of Interior
Bureau of Mines
Rapid City,
South Dakota

VIA

Mr. E. O. Binyon
Rapid City Field Office
School of Mines, Campus
Rapid City, South Dakota

Dear Sir:

Because of various events related to the development of the Edgemont District I have discussed with Mr. Binyon personally, Mining Research Corporation does not wish to pursue further the application for drilling on the Virginia C claim.

It is our request that this application be transferred to Edgemont Mining Company.

Yours very truly,

MINING RESEARCH CORPORATION

Clifton W. Livingston

Clifton W. Livingston, Pres.

CWL:lh

Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

January 11, 1955

Memorandum

To: W. H. King, Executive Officer, DMEA Field Team, Reg. IV

From: E. O. Binyon, Rapid City Field Office

Subject: Docket DMEA 3342 (Uranium), Contract Idm E677, Mining Research Corp., Virginia C Property, Fall River County, S. Dak.

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N. P. Cuppels, U.S.G.S.
E. O. Binyon, U.S.B.M.

By:

cc: Cuppels
files
Reg. Office (6)

Box 356
Edgemont, South Dakota

January 3, 1955

Executive Officer, Region IV
U.S. Bureau of Mines, D.M.E.A.
New Customs House Building
Denver, Colorado

VIA

Mr. E. O. Binyon
Rapid City Field Office
School of Mines, Campus
Rapid City, South Dakota

Dear Sir:

Because of various events related to the development of the Edgemont District I have discussed with Mr. Binyon personally, Mining Research Corporation does not wish to pursue further the application for drilling on the Virginia C claim.

It is our request that this application be transferred to Edgemont Mining Company.

Yours very truly,

MINING RESEARCH CORPORATION

Clifton W. Livingston

Clifton W. Livingston, Pres.

CWL:lh

Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

January 11, 1955

Memorandum

To: W. H. King, Executive Officer, DMEA Field Team, Reg. IV

From: E. O. Binyon, Rapid City Field Office

Subject: Docket DMEA 3342 (Uranium), Contract Idm E677, Mining Research Comp., Virginia C Property, Fall River County, S. Dak.

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N. P. Cuppels, U.S.G.S.
E. O. Binyon, U.S.B.M.

By:

cc: Cuppels
files
Reg. Office (6)

Box 356
Edgemont, South Dakota

January 3, 1955

Executive Officer, Region IV
U.S. Bureau of Mines, D.M.E.A.
New Customs House Building
Denver, Colorado

VIA

Mr. E. O. Binyon
Rapid City Field Office
School of Mines, Campus
Rapid City, South Dakota

Dear Sir:

Because of various events related to the development of the Edgemont District I have discussed with Mr. Binyon personally, Mining Research Corporation does not wish to pursue further the application for drilling on the Virginia C claim.

It is our request that this application be transferred to Edgemont Mining Company.

Yours very truly,

MINING RESEARCH CORPORATION

Clifton W. Livingston

Clifton W. Livingston, Pres.

CWL:lh

Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

January 11, 1955

Memorandum

To: W. H. King, Executive Officer, DMEA Field Team, Reg. IV

From: E. O. Binyon, Rapid City Field Office

Subject: Docket DMEA 3342 (Uranium), Contract Idn E677, Mining Research Corp., Virginia C Property, Fall River County, S. Dak.

Enclosed are eight copies of a letter from the operator in which he states that the subject company, for various reasons, does not wish to sign the contract and that it be transferred to the Edgemont Mining Company.

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N. D. Cuppels, U.S.G.S.
E. O. Binyon, U.S.B.M.

cc: Cuppels
files
Reg. Office (6)

By:

Box 356
Edgemont, South Dakota

January 3, 1955

Executive Officer, Region IV
U.S. Bureau of Mines, D.M.E.A.
New Customs House Building
Denver, Colorado

VIA

Mr. E. O. Binyon
Rapid City Field Office
School of Mines, Campus
Rapid City, South Dakota

Dear Sir:

Because of various events related to the development of the Edgemont District I have discussed with Mr. Binyon personally, Mining Research Corporation does not wish to pursue further the application for drilling on the Virginia C claim.

It is our request that this application be transferred to Edgemont Mining Company.

Yours very truly,

MINING RESEARCH CORPORATION

Clifton W. Livingston

Clifton W. Livingston, Pres.

CWL:lh

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Rapid City Experiment Station
School of Mines Campus
Rapid City, South Dakota

Date Rec'd
JAN 24 1955
BUREAU OF MINES
Denver, Colorado
DEPARTMENT OF THE INTERIOR
Administration

January 21, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: E. O. Binyon

Subject: DMEA Docket 3342 (Uranium), Contract Idm-E677, Mining Research Corp., Virginia C Property, Fall River County, S. D.

Transmitted under separate cover are two tracings of revised maps of the subject property. The maps were originally prepared by W. A. Braddock, the former Survey member of the examining team as a part of the report of examination. The error in the location of the section line as shown was discovered while examining the property, and as the section line bounded the property on the south and the property extended to the Forest boundary on the west, the claims which had been located and recorded as shown on the original map were not correctly staked or recorded. We immediately advised the applicant of this error and that the matter would have to be corrected, which the applicant promised to do immediately. Numerous verbal requests were made and each time the applicant promised to submit revised maps within a week or so. However, the claims were not restaked until late in December and as yet the amended locations for the claims which are staked as shown on the map have not been recorded at the office of the Register of Deeds.

The present status of the subject docket is as follows:

As stated in the memorandum of January 11, Mining Research Corporation has requested that the contract, which is unsigned by them, be assigned to Edgemont Mining Co., Edgemont, S. Dak.

A. F. Ludwig and E. J. Brockman, officials of the Edgemont Mining Co., are not in Edgemont; however, on January 18 we talked by phone with Brockman in Denver and he stated that the Edgemont Mining Co. would like to proceed with the exploration either under an assigned contract or under a new application if one was required.

As was mentioned in the memorandum of January 11, Mining Research Corp. is negotiating with Climax Molybdenum Company for sale of their holdings but we do not know the status of the negotiations.

Then, on January 18, we learned that Mining Research is going to recess all operations in the area for a period of approximately three months starting January 21. This, with the request for assignment of the contract, totally eliminates any connection that Mining Research has with the subject docket, except perhaps a release of any lease agreements etc. with the Edgemont Mining Co.

Should the assignment of the contract to Edgemont Mining Company be permitted, or for that matter if a new application is required, we would recommend that the present contract be amended as follows:

Under Exhibit A, Description of the Work, insert after paragraph 2: Unless approved by the government in advance, drilling in zone 2 shall not be undertaken until after completion of drilling of the grid pattern in zone 1. Any minor changes in the location of the holes in either zone 1 or 2 shall be made by agreement between the field engineers or geologist and the operator.

In paragraph 3, instead of "offset drilling may be done concurrently etc.----" insert "with prior approval of the field engineer or geologist, offset drilling may be done concurrently etc.---" Also add a sentence to require operator to designate separately holes drilled on the grid and for offset drilling.

It will be noted that the total number of holes and footage has not been changed; however, the holes which were eliminated by the shift in the claims have been allocated to zone 1 in the northeast corner of the Button No. 2 claim. The grid for zone 1 was shifted to the north to increase the distance of the southernmost row from the claims lines.

If the maps are what are required, it would be appreciated if the tracings, with two prints of each, are returned for use here.

Please advise of any action you may require of us in this office.

E. O. Binyon

E. O. Binyon

cc: Traver (2)
N. P. Cuppels
files

Rapid City Experiment Station
School of Mines Campus
Rapid City, South Dakota

January 21, 1955

andum

W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

m: E. O. Binyon

Subject: DMEA Docket 3342 (Uranium), Contract Idm-E677, Mining Research Corp., Virginia C Property, Fall River County, S. D.

Transmitted under separate cover are two tracings of revised maps of the subject property. The maps were originally prepared by W. A. Braddock, the former Survey member of the examining team as a part of the report of examination. The error in the location of the section line as shown was discovered while examining the property, and as the section line bounded the property on the south and the property extended to the Forest boundary on the west, the claims which had been located and recorded as shown on the original map were not correctly staked or recorded. We immediately advised the applicant of this error and that the matter would have to be corrected, which the applicant promised to do immediately. Numerous verbal requests were made and each time the applicant promised to submit revised maps within a week or so. However, the claims were not restaked until late in December and as yet the amended locations for the claims which are staked as shown on the map have not been recorded at the office of the Register of Deeds.

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Should the assignment of the contract to Edgemont Mining Company be permitted, or for that matter if a new application is required, we would recommend that the present contract be amended as follows:

Under Exhibit A, Description of the Work, insert after paragraph 2: Unless approved by the government in advance, drilling in zone 2 shall not be undertaken until after completion of drilling of the grid pattern in zone 1. Any minor changes in the location of the holes in either zone 1 or 2 shall be made by agreement between the field engineers or geologist and the operator.

In paragraph 3, instead of "offset drilling may be done concurrently etc.----" insert "with prior approval of the field engineer or geologist, offset drilling may be done concurrently etc.---" Also add a sentence to require operator to designate separately holes drilled on the grid and for offset drilling.

It will be noted that the total number of holes and footage has not been changed; however, the holes which were eliminated by the shift in the claims have been allocated to zone 1 in the northeast corner of the Button No. 2 claim. The grid for zone 1 was shifted to the north to increase the distance of the southernmost row from the claims lines.

If the maps are what are required, it would be appreciated if the tracings, with two prints of each, are returned for use here.

Please advise of any action you may require of us in this office.

E. O. Binyon

cc: Traver (2)
N. P. Cuppels
files

Rapid City Experiment Station
School of Mines Campus
Rapid City, South Dakota

January 21, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: E. O. Binyon

Subject: DMEA Docket 3342 (Uranium), Contract Idm-E677, Mining Research Corp., Virginia C Property, Fall River County, S. D.

Transmitted under separate cover are two tracings of revised maps of the subject property. The maps were originally prepared by W. A. Braddock, the former Survey member of the examining team as a part of the report of examination. The error in the location of the section line as shown was discovered while examining the property, and as the section line bounded the property on the south and the property extended to the Forest boundary on the west, the claims which had been located and recorded as shown on the original map were not correctly staked or recorded. We immediately advised the applicant of this error and that the matter would have to be corrected, which the a plicant promised to do immediately. Numerous verbal requests were made and each time the applicant promised to submit revised maps within a week or so. However, the claims were not restaked until late in December and as yet the amended locations for the claims which are staked as shown on the map have not been recorded at the office of the Register of Deeds.

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As was mentioned in the memorandum of January 11, Mining Research Corp. is negotiating with Climax Molybdenum Company for sale of their holdings but we do not know the status of the negotiations.

Then, on January 18, we learned that Mining Research is going to recess all operations in the area for a period of approximately three months starting January 21. This, with the request for assignment of the contract, totally eliminates any connection that Mining Research has with the subject docket, except perhaps a release of any lease agreements etc. with the Edgemont Mining Co.

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E. O. Binyon

cc: Traver (2)
N. P. Cuppels
files

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Rapid City Experiment Station
School of Mines Campus
Rapid City, South Dakota

JAN 21 1955
BUREAU OF MINES
Denver, Colorado

January 21, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: E. C. Binyon

Subject: DMEA Docket 3342 (Uranium), Contract Idm-E677, Mining Research Corp., Virginia C Property, Fall River County, S. D.

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It will be noted that the total number of holes and footage has not been changed; however, the holes which were eliminated by the shift in the claims have been allocated to zone 1 in the northeast corner of the Butler No. 2 claim. The grid for zone 1 was shifted to the north to increase the distance of the southernmost row from the claims lines.

If the maps are what are required, it would be appreciated if the tracings, with two prints of each, are returned for use here.

Please advise of any action you may require of us in this office.

E. O. Binyon

E. O. Binyon

cc: Traver (2)
M. P. Samples
files

700

Surname copy

Ching
Ellis

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

February 3, 1955

Memorandum

To: Robert E. Adams, Chief
Operations Control &Statistics Division

From: Ernest Wm. Ellis, Chief
Rare & Miscellaneous Metals Division

Subject: Docket No. DMEA-3342 (Uranium)
Contract No. Idm-2677
Mining Research Corporation
Virginia C Group
Fall River County, South Dakota

All copies of the above-referenced contract, dated June 14, 1954, were returned to Washington under date of January 27, 1955, by the Executive Officer, DMEA Field Team, Region III, unsigned by the Operator.

Attached are copies of letters referred today to the Operating Committee and the Administrator's office, which are self-explanatory. We are removing this application from our list of pending cases and closing our file accordingly. It is suggested that this contract be cancelled and the docket closed by withdrawal when the letters to the Applicant and the Region have been mailed.

Ernest Wm. Ellis

Ernest Wm. Ellis

Attachments (2)

MChing/gla
cc to: Docket file
Code 700
Mr.Ching

George C. Selfridge
1-12-55
6:08 P.M. (unattended service)
Mr Fischel

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 13 1955

DN 235 BUREAU MINES 1-12-55 4-08 PM

GEORGE C SELFRIDGE
CHAIRMAN, OPER. COMM, DMEA

REFERENCE YOUR TELETYPE JANUARY 12,1955, DOCKET DMEA 3342, PROPOSED CONTRACT IDM-E677, MINING RESEARCH CORPORATION, FALL RIVER COUNTY, S. D. WEEKLY REPORT FROM RAPID CITY QUOEXXX QUOTED AS FOLLOWS -- "OPERATOR HAS SUBMITTED A WRITTEN REQUEST THAT THE CONTRACT BE ASSIGNED TO EDGEMONT MINING COMPANY. LETTER AND RECOMMEDXXX RECOMMENDATION ARE BEING FORWARDED TO DENVER OFFICE". THE QUOTED MATERIAL HAS NOT BEEN RECEIVED IN THIS OFFICE. IN ADDITION, REVISED MAP HAS NOT BEEN SUMXXX SUMXXXX SUBMITTED BY OPERATOR AND IT APPEARS THAT IT WOULD BE ADVISABLE TO REVISE EXHIBIT A ATTACHED TO THE CONTRACT. WE WILL INITIATE ACTION UPON RECEIPT OF NECESSARY DATA.

W H KING

Denver, Colo.

JAN 13 8 22 AM '55

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

700

Ching
Ellis
Kiilsgaard
Hedges
Selfridge
Johnson
Whitenack

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

Department of the Interior
DMEA

JAN 12 1955

14X1.01(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secy.)

T E L E T Y P E

W. H. KING, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION IV
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

RE MINING RESEARCH CORPORATION DOCKET 3342 PLEASE ADVISE PRESENT STATUS. VIGOROUS DEMAND FOR ACTION APPEARS NECESSARY WITH THIS APPLICANT.

George C. Selfridge

GEORGE C. SELFRIDGE (JB)
CHAIRMAN, OPERATING COMMITTEE

MChing/gla
1/11/55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching
Confirmation to Region IV

SENT
JAN 12 1955
Mailing Service Section

R.C.S.

Contract E-677, Docket 3342 (Uranium), Mining Research Corp., Virginia "C" Property

The contract, unsigned by the operator, was returned by the Field Team to the Denver Regional Office because it was learned that two claims included in the contract, the Virginia C No. 1 and No. 2, were assigned by the operator on September 30, 1954 to the Nebraska Machinery Co., North Platte, Nebraska, as security for payment of a lien on machinery. Clarification of the status of the contract will be necessary.

11/16/54 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 12 1954

November 12, 1954

Memorandum

To: E. O. Binyon, Mining Engineer, Mining Division, Region V, Rapid City, South Dakota

From: Executive Officer, Field Team, Region V

Subject: Docket 3342, Contract Idm E-677, Mining Research Corporation - Virginia C Group, South Dakota

Here is a copy of a letter from the Operating Committee advising that, if the subject contract which was sent for operator's signature on August 3, 1954, and has been held up because of a delay in obtaining corrected maps, is not executed soon, the Washington office may rescind the contract.

Please take up the matter with the operator and transmit either the executed contract or all copies for cancellation, whichever is his election.

A. B. NEEDHAM

Attachment

cc Operating Committee (2)
Dutton
Cuppels

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

Department of the Interior
Defense Minerals Administration
RECEIVED
NOV 12 1954

November 12, 1954

Memorandum

To: E. O. Dinyen, Mining Engineer, Mining Division, Region V, Rapid City, South Dakota

From: Executive Officer, Field Team, Region V

Subject: Docket 3342, Contract Idm E-677, Mining Research Corporation - Virginia C Group, South Dakota

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Please take up the matter with the operator and transmit either the executed contract or all copies for cancellation, whichever is his election.

A. B. NEEDHAM

Attachment

cc Operating Committee (2)
Dutton
Cuppels

NOV 9 - 1954

Mr. A. L. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue, North
Minneapolis 8, Minnesota

Re: Docket No. DMA-3342 (Uranium)
Contract No. 14R-677
Mining Research Corporation
Virginia C Group
Fall River County, South Dakota

Dear Mr. Needham:

On June 14, 1954 we forwarded the original and five copies of a proposed short-form contract between the Government and Mining Research Corporation for the latter's signature.

We have since received no direct word from you regarding the status of the contract although your July monthly report stated that approval of the contract was being held up pending receipt of corrected maps.

The execution of this contract appears to be unduly delayed. Will you kindly advise us of the present status of the contract and take the necessary steps to secure action from the Applicant. If no action is forthcoming, rescission of the contract by this office may be in order.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines
E. L. Newcomb

Member, Geological Survey

Washington
11-5-54
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3041
T. H. Killegaard, Rm. 5224
J. C. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

Surname 700

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

Ching
Ellis
Selfridge
Mathewson

Mr. A. B. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

NOV 9 - 1954

Re: Docket No. DMEA-3342 (Uranium)
Contract No. Idm-E677
Mining Research Corporation
Virginia C Group
Fall River County, South Dakota

Dear Mr. Needham:

On June 14, 1954 we forwarded the original and five copies of a proposed short-form contract between the Government and Mining Research Corporation for the latter's signature.

We have since received no direct word from you regarding the status of the contract although your July monthly report stated that approval of the contract was being held up pending receipt of corrected maps.

The execution of this contract appears to be unduly delayed. Will you kindly advise us of the present status of the contract and take the necessary steps to secure action from the Applicant. If no action is forthcoming, recission of the contract by this office may be in order.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

J. H. Hedges (JHH)
Member, Bureau of Mines

E. L. Newcomb
Member, Geological Survey (ELN)

MChing:am
11-5-54
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

R.C.L.

Surname
Docket copy

700

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

Ching
Knowlton
Talbut
Selfridge
Johnson

Mr. A. B. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

JUN 14 1954

Re: Docket No. DMEA-3342 (Uranium)
Mining Research Corporation
Virginia C Group
Fall River County, South Dakota

Dear Mr. Needham:

Enclosed are the original and five copies of a proposed short form contract between the Government and Mining Research Corporation, signed by the Administrator. Also enclosed are three sets of new Owner's Consent to Lien forms which are to be executed by H. A. DePue, A. Ludwig and E. J. Brockman, and Edgemont Mining Company, Inc., before the contract is sent out for execution.

After the contract has been signed by the Operator, please make the usual distribution of the copies.

Sincerely yours,

George C. Selfridge
(24B)
Chairman, Operating Committee

Enclosures 9

MChing/gla
6-8-54

APPROVED:

J. H. Hedges (24B)
Member, Bureau of Mines

D. M. Larrabee (24B)
Member, Geological Survey

cc to: Admr. Reading File
Operating Committee
Docket
Messrs. A.P.Butler, Jr. Rm. 3212
H.D.Keiser, Rm. 3641
J.O.Hosted, Rm. 3210
Code 700
M.Ching

R.C.L.

File copy
surname

Rubin

June 7, 1954

Memorandum

To: The Administrator Through: E. W. Ellis

From: Acting Assistant Solicitor, DMEA

Subject: Docket No. 3342, Mining Research Corporation (Uranium)

Attached is a contract covering the above-described project in satisfactory legal form for execution, subject to the attachment of new Owner's Consent-to-Lien forms, executed by M. A. DePue, A. Ludwig and E. J. Brockman, and Edgemont Mining Company, Inc. The appropriate forms are attached to this memorandum.

J. L Hofflund
Acting Assistant Solicitor

Attachments
HCRubin:lm

Copies to: Docket
E.W.Ellis
J.L.Hofflund
H.C. Rubin
chron.

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

June 7, 1954

Memorandum

To: The Administrator Through: E. W. Ellis

From: Acting Assistant Solicitor, DMEA

Subject: Docket No. 3342, Mining Research Corporation (Uranium)

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J. L. Hofflund
Acting Assistant Solicitor

Attachments

STANDARD FORM NO. 64

5/21/54 gla

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

DATE: May 24, 1954

FROM : W. S. Twenhofel, USGS Acting Member, Uranium Commodity Committee

SUBJECT: Application, DMEA Docket No. 3342 (Uranium), Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado, applicant; Virginia "C" group, Secs. 26 and 27, T. 7 S., R. 7 E., B.H.B.M., Fall River County, South Dakota

Field Team Report, dated April 30, 1954, by E. O. Binyon and W. A. Braddock coneerning the above application.

I have examined the above application and the above Field Team Report.

Proposal

The application proposes, by means of independent contracts, to do 40 hours of dozer work for drill-site preparation and 13,000 feet of wagon drilling. The total cost of the project to be $14,355. After discussion with the applicant the Field Team (apparently with the applicant's concurrence), has suggested a program slightly modified from the original application. The Field Team recommendation consists of 11,000 feet of wagon drilling at a total project cost of $10,736. The Field Team report includes maps shwoing the suggested locations of the drill holes.

Comment

All the exploration is to be done on the applicant's property known as the Virginia "C" group. The applicant has requested that the Virginia "C" claim be specifically excluded from the group for purposes of an exploration contract. The Virginia "C" group is located within the most productive area of the Edgemont uranium district, and the Virginia "C" claim, the only productive claim of the group, has produced 2,700 tons of uranium-vanadium ore with an average grade of 0.27 percent of U_3O_8 and 0.81 percent of V_2O_5.

Recommendations

I recommend that an exploration contract be executed by DMEA and the applicant in accordance with the details set forth in the Field Team report.

W. S. Twenhofel

Copies to: E. Wm. Ellis (2)

E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

May 24, 1954

W. S. Twenhofel, USGS Acting Member, Uranium Commodity Committee

Application, DMEA Docket No. 3342 (Uranium), Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado, applicant; Virginia "C" group, Secs. 26 and 27, T. 7 S., R. 7 E., B.H.B.M., Fall River County, South Dakota

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Copies to: E. Wm. Ellis (2)

E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

May 24, 1954

W. S. Twenhofel, USGS Acting Member, Uranium Commodity Committee

Application, DMEA Docket No. 3342 (Uranium), Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado, applicant; Virginia "C" group, Secs. 26 and 27, T. 7 S., R. 7 E., B.H.M., Fall River County, South Dakota

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Recommendations

I recommend that an exploration contract be executed by DMEA and the applicant in accordance with the details set forth in the Field Team report.

Copies to: E. Wm. Ellis (2)

5/24/54 gla

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

May 21, 1954

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member
Uranium Commodity Committee

Subject: Field Team Report, DMEA Docket 3342, Mining Research Corporation, Virginia C property, Fall River County, South Dakota.

I have reviewed the subject report and discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

It is recommended that the report be approved, and that action be taken looking toward execution of a contract covering exploration aid at a total cost of $10,736.00, with 75 percent Government participation of $8,052.00.

The report has been forwarded to the Chief, Minerals Division, Bureau of Mines, in accord with the routing slip attached thereto.

H D Keiser
H. D. Keiser

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

May 21, 1954

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member
Uranium Commodity Committee

Subject: Field Team Report, DMEA Docket 3342, Mining Research Corporation, Virginia C property, Fall River County, South Dakota.

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Signed

H. D. Keiser

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

May 21, 1954

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member
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H. D. Keiser

5/14/54 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 13 1954

May 12, 1954

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3342, Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado.

I have reivewed the application included in the subject docket and discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

It is recommended that the application be forwarded to the Field Team for investigation and report, and that the Field Team be requested to discuss the application with John W. King, representative of the Atomic Energy Commission at Hot Springs, South Dakota.

H. D. Keiser

Attachment

Application returned to Keiser 5-21-54
Mee

5/19/54 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
~~WASHINGTON, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

COPY

May 5, 1954

/DMEA-3342/

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Washington, D. C.

From: Executive Officer, Field Team, Region V

Subject: Application and Field Team report of examination - Mining Research Corporation, Virginia C property, Fall River County, South Dakota

Under separate cover we are transmitting the original and two copies of the following documents: an exploration application, together with the required copies of leases, assignments, mining agreements, contract drill agreement and owner's consent to lien, as well as the Field Team's report on this application, which recommends that it be favorably considered for an exploration contract. One copy of all documents has been retained in this office.

You will note that the Field Team report states that maps accompanying the application are in part incorrect. The error in the maps will not affect the proposed drilling, so consideration for contract can proceed normally. Corrected maps are to be made available and when they are we will forward them on to you.

/s/ A. B. NEEDHAM

Reviewed by
DMEA OPERATING COMMITT
5-17-54
(date)

DMEA-3342

UNITED STATES

DEPARTMENT OF THE INTERIOR

DOUGLAS McKAY, SECRETARY

gcl 6/10/54

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION V

Virginia C Property

Fall River County, South Dakota

E. O. Binyon, Mining Engineer
U. S. Bureau of Mines

W. A. Braddock, Geologist
U. S. Geological Survey

April 30, 1954

Reviewed by
DMEA OPERATING COMMITTEE
5-17-54
(date)

DEFENSE MINERALS EXPLORATION ADMINISTRATION
Field Team Report on Examination
of
Virginia C Property
Fall River County, South Dakota

Docket No.: DMEA-3342
Applicant: Mining Research Corp.
1320 Pearl Str.
Boulder, Colo.
Commodity: Uranium

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The applicant, the Mining Research Corporation, incorporated under the laws of Delaware, has its main office at 1320 Pearl Str., Boulder, Colorado, and a field office, which is addressed at P. O. Box 356, Edgemont, S. Dak.

Officers of the company are: C. W. Livingston, President; J. S. Livingston, Vice President and Treasurer; and Ruth E. Livingston, Secretary.

The property included in the application comprises a group of six contiguous, unpatented lode mining claims known as the Virginia C, Virginia C No. 1, Virginia C No. 2, Button No. 1, Button No. 2 and Viking No. 1. The Virginia C claim has been expressly excluded from the group to come under the terms of an exploration contract. All claims are held under lease agreement with the Edgemont Mining Co., Inc., Edgemont, S. Dak. Copies of the various assignments and agreements, leases, sub-leases, and Owner's Consent to Lien, are included with the application.

As shown on the accompanying maps, the claims are located in secs. 26 and 27, T. 7 S., R. 2 E., B.H.B.M., Fall River County, S. Dak. and

Reviewed by
DMEA OPERATING COMMITTEE
5-17-54
(date)

are approximately 12 miles northwest of Edgemont, the nearest rail point and the site of the A.E.C. purchasing depot. The property is best reached from Edgemont by way of a good graveled road which extends to within $1\frac{1}{2}$ miles of the mine; from this point the road is dirt. All roads are well maintained and the property is accessible the year around.

The U. S. Geological Survey member of the field team spent approximately 3 weeks mapping the surface and underground geology, and except for three brief visits of about 1 hour each by the Bureau member, no other examination was made. Approximately 3 hours was spent by the field team in discussing the application with the officials and engineers of the company.

John King, Chief of the A.E.C. office, Hot Springs, was agreed that the property warranted exploration.

Located in the most productive area in the Edgemont uranium district, the property has produced approximately 2,700 tons of uranium-vanadium ore of an average grade of 0.27 percent U_3O_8 and 0.81 percent V_2O_5. The entire production has come from the open pits and underground workings on the Virginia C claim, the greater part being mined from the two large open cuts, as shown on the accompanying maps. At present the applicant is mining shipping grade ore from the underground workings.

The ore horizon, locally called ore sandstone, from which all ore has been mined on this property, is in the Fall River formation approximately 20 feet above the contact of the Fall River sandstone and the Fuson.

Over half of the total production of uranium in the Edgemont district has come from five sections of land including and surrounding this property, and from the same stratigraphic interval, the ore sandstone 20 to 30 feet above the base of the Fall River sandstone. From this

and the geologic data presented in the section "Geology" in this report, it is concluded that the property warrants exploration.

It is recommended that the areas or zones indicated on the maps prepared by the Geological Survey member of the field team be explored by wagon drilling and that the grid pattern for Zone 1 shall be 100 by 100 feet, and 200 by 200 feet for Zone 2. Minimum hole size shall be $2\frac{1}{4}$ inches.

Approximately 60 holes averaging 65 feet in depth, or an aggregate total of 3,900 feet of hole, shall be drilled on the grid spacing of 100 by 100 feet in Zone 1. For Zone 2 approximately 30 holes with an average depth of 65 feet and a total aggregate footage of 1,950 feet are to be drilled on the 200 by 200 feet grid. In all, approximately
mc ~~95~~ 90 holes with a total aggregate footage of 5,850 are to be drilled to generally explore the areas included in Zones 1 and 2, as indicated on the map. No drilling is recommended for Zone 3.

An additional 5,000 feet of drilling is to be allowed for offset holes. Offset holes shall be drilled at no less than 50 feet from those holes drilled on the grid patterns in Zones 1 and 2, in which ore or an indication of ore is found. Offset drilling should be done concurrently with the wider spaced drilling in order that the geologic data obtained can be evaluated to determine possible trends.

It is unlikely that the entire 5,000 feet for offset drilling will be required and, from experience with the applicant, no unnecessary drilling will be done. However, the field team is of the opinion that the 5,000 feet for offset drilling may be required to adequately explore the property and should be allowed.

Estimated Costs

Drill site preparation	$ 150.00
Analyses	420.00
Wagon drilling, 11,000 ft. @ $.92 per foot	10,166.00
Total	$ 10,736.00
Government's share @ 75% participation	8,052.00

From the applicant's supervision and conduct of two DMEA exploration contracts in the Edgemont district, the field team is of the opinion that the proposed work will be carried out most satisfactorily and it is recommended that the application, as outlined in this report, be approved.

It is suggested that an annex to the contract be submitted to the applicant requesting that he authorize the A.E.C. buying station at Edgemont to deduct the amount due the government for loan repayment on any and all shipments of ore from any part of the property included in the contract. The deductions should be made both while the contract is in force and following completion and before certification. It is most unlikely that ore shipments would be made from a property that would not be certified as a discovery; however, should such a condition arise and the property is not certified, then any loan repayments collected in advance could be refunded.

NAME AND LOCATION OF THE PROPERTY

The application, submitted by the Mining Research Corporation, a Delaware corporation, with main offices at 1320 Pearl Str., Boulder, Colorado, and a field office addressed at P. O. Box 356, Edgemont, S. Dak., includes only five claims of the group, comprising six contiguous

unpatented lode mining claims, locally known as the Virginia C mine. The applicant has specifically requested in a letter accompanying this report that the Virginia C claim be excluded from the application. The claims to be included are: the Virginia C No. 1, Virginia C No. 2, Button No. 1, Button No. 2, and Viking No. 1.

As shown on the accompanying map, the Virginia C No. 2 and Button No. 2 are in the SW$\frac{1}{4}$ sec. ~~25~~ 26 mc and SE$\frac{1}{4}$ sec. 27, T. 7 S., R. 2 E. The other three claims, the Viking No. 1, Button No. 1, and Virginia C No. 1, are in the SE$\frac{1}{4}$ sec. 27, T. 7 S., R. 2 E., B.H.B.M., Fall River County, S. Dak.

The property is 12 miles north and slightly west of Edgemont and, although it can be reached from the north, the best access is by way of Edgemont. A good graveled road goes to within 1$\frac{1}{2}$ miles of the property, and from this point an unimproved dirt road leads to the mine. All roads are maintained in good condition and are open the year around, allowing full time operation of the property.

PROPERTY RIGHTS

The applicant holds the property under a sub-lease agreement with the Edgemont Mining Co., Edgemont, S. Dak., which was formed by A. Ludwig and E. J. Brockman who, as a partnership, had originally leased the C claims from the owner, Milford A. DePue, 3621 House Ave., Cheyenne, Wyo. As the property has been certified by the A.E.C., the property rights, ownership, lease, assignments and agreements, and sub-lease are assumed to be in order.

All claims are recorded at the office of the Register of Deeds in Hot Springs, S. Dak. in Book No. 31 M on pages 314, 315, and 316.

Copies of the lease from DePue, the owner, to Ludwig and Brockman, the assignment and agreement by Ludwig and Brockman to the Edgemont Mining Co., and the sub-lease from this company to the applicant are included in the application. Two sets of Owner's Consent to Lien--one by the owner and the other by Ludwig and Brockman as lessor, and a subordination agreement between the Edgemont Mining Co. and the applicant, the Mining Research Corporation, are also included.

Attention is called to Article 13 of the Mining and Sub-lease Agreement which has to do, in part, with repayment of the loan by both the Edgemont Mining Co. and Mining Research Corp. The article appears to be in order; however, it is suggested that an annex to the contract be drawn stipulating that repayment of the loan be the sole responsibility of the Mining Research Corp. and not dependent in any way on the agreement on payments by the Edgemont Mining Co. to the applicant. Should the property be certified as a discovery and then revert to the Edgemont Mining Co. or the owner, any repayment under the contract is the responsibility of these parties.

DESCRIPTION OF THE PROPERTY

On that part of the property included in the application there are no surface or underground workings except for small pits and trenches dug for assessment work. The main workings consist of a long narrow cut and two open pits and three adits on the Virginia C claim. The adits, two of which are connected by short crosscuts, are each approximately 100 feet in length, or a total of 350 feet of underground workings. All underground workings are about 10- by 8 feet in cross section.

There are no buildings or other surface facilities on the property.

GEOLOGY

The claim group, known as the Virginia C property, is within the most productive part of the Edgemont uranium district. Uranium ore, which was discovered on the Virginia C claim, has been mined from this claim since August 1952 until the present time.

During September 1953, W. A. Braddock of the field team spent approximately 3 weeks mapping the surface and underground geology of this deposit as part of the U. S. Geological Survey's program of study in the carnotite deposits of South Dakota. As a result of this mapping, no field examination at the time of the application was necessary. However, upon receipt of the application, all of the current data accumulated by the U. S. Atomic Energy Commission during its current diamond drilling program was obtained and is summarized on the accompanying maps.

Sedimentary Rocks

The claim group is on the southwest side of the hogback which forms the edge of the Black Hills dome. This hogback consists of the Lower Cretaceous Inyan Kara group, a complex group consisting of sandstone and minor conglomerate interbedded with mudstones and thin limestones. The subdivisions of the Inyan Kara group as currently used are ill-defined units. They are from oldest to youngest, the Lakota sandstone, the Fuson formation, and the Fall River sandstone. The uranium deposit of the Virginia C claim has been tentatively placed approximately 20 feet above the contact of the Fall River sandstone and the Fuson formation. The stratigraphic interval which would be explored by the proposed exploration program would be the lower 65 feet of the Fall River sandstone.

This interval is composed of very fine-grained sandstone beds ranging in thickness from 1 to 15 feet which are interbedded with dark grey, carbonaceous mudstones. (Figure 1). Over half of the total production of uranium in the Edgemont district has come from five sections of land including and surrounding the land under consideration. All of this ore has come from a stratigraphic interval, locally called the ore sandstone, which lies approximately 20 to 30 feet above the base of the Fall River sandstone. This stratigraphic interval is about the same thickness throughout the area, but within this unit the lithology is variable. A typical example of the variations which take place within this interval is shown in the cross section on figure 1.

Structure

In the vicinity of the claim group the beds strike approximately N. 65° W. and dip 3° southwest away from the Black Hills. Subsurface contours based on diamond drill data indicate that this uniform dip is interrupted by a gentle terrace trending from the Virginia C mine N. 65° W. across the property. It is not known at this time whether this minor structural feature has had any control in the deposition of ore. Elsewhere in the district, regional mapping has indicated that many ore deposits are located on minor flexures.

Approximately 2,000 feet south of the claim group the rocks have been cut by a fault which trends approximately N. 50° E. This fault, which has a displacement ranging from 180 feet to 50 feet, is one of a series of faults which form a zone approximately 1 mile wide. A large percentage of the known uranium deposits in the Fall River sandstone occur within this faulted zone.

Throughout the area the rocks are cut by two sets of vertical fractures. These fractures strike N. 30° E. and N. 85° E. The N. 30° E. fractures are not well developed and show no apparent offset. Minor mineralization, however, was found along these fractures in the mine workings. The N. 80° E. fractures are well defined and consistently show 1 to 2 inches of displacement, the southeast side being upthrown. These fractures are well marked in the mine workings, but no definite relation to ore could be found.

Mineralogy

The Virginia C ore body is typical of those which have been discovered in surrounding areas. The ore is composed of carnotite, corvusite, rauvite, and other uranium-vanadium minerals, and has an average grade of 0.2 to 0.3 percent U_3O_8 and 0.6 to 1.0 percent V_2O_5. The ore is generally confined to small blanket deposits ranging in size from 40 by 100 feet to 90 by 200 feet. These pods of ore are frequently partly surrounded by a distinctive purplish-pink, iron-stained zone and by an irregular halo of radioactive iron oxide. Thus, the site of the target which can be recognized by probing and examining drill cuttings may be slightly larger than the dimensions given for the ore body.

Ore Controls

The controls of this type of deposit are not well known, but are believed to be a combination of stratigraphic control and fracture control. Examination of many of the adjacent deposits indicates that the best ore bodies are found in areas in which the ore sandstone interval has changed from a thick, non-laminated sandstone approximately

15 feet thick to an interval of interbedded sandstone and siltstone in which the individual beds of sandstone are less than 4 feet thick. Such a variation takes place in the area proposed for exploration (figure 1). A fact which should not be overlooked, however, is that at least two good ore bodies have been found where the ore sandstone was 12 to 15 feet thick and contained relatively little interbedded mudstone. At the Road Hog 3A mine, approximately 1 mile north of the Virginia C, several small, discontinuous ore bodies were found. These ore bodies were apparently concentrated in a pinching sand lens, but in addition the bodies were arranged in a line along a set of fractures striking N. 50° E. This relationship suggests that locally mineralization may be controlled by the predominant fracture set. On this basis the A.E.C. drilled one hole approximately 350 feet southwest of the Virginia C mine on the projection of the dominant set of fractures encountered in the mine. This hole penetrated 1 foot of ore assaying 0.14 percent U_3O_8.

A third characteristic of adjacent deposits which should be considered is that within areas of favorable stratigraphy, commercial deposits are often separated by distances varying from 500 feet to 2,000 feet.

An estimate of ore reserves on the claims which are included in the application is not feasible at this time. At present the indicated reserves are confined to the Virginia C claim and in the immediate vicinity of the underground workings. As this claim is excluded from the application, no estimate of the reserves was made.

Recommendations for Exploration

From the available geology it must be concluded that the rocks covered by the Virginia C claim group are very favorable for exploration.

On the basis of core data, the area has been broken down into zones of lithologic favorability. In Zone 1 the ore sandstone consists of highly laminated, interbedded sandstones and mudstones and is the most favorable area. Zones 2 and 3 are progressively less favorable from the standpoint of lithology.

In addition to favorable lithology, Zone 1 also encompasses a portion of the structural terrace and the projection of the fracture zone.

It is therefore recommended that a pattern of drill holes, spaced at 100 by 100 feet on north-south lines and covering Zone 1, be drilled. The spacing recommended will insure that a majority of the deposits which may be present will be found. It is also recommended that Zone 2 be drilled on a similar pattern with holes spaced at 200 by 200 feet. This spacing is recommended on the smaller degree of favorability, but it is felt necessary because of the possibility that ore deposits may exist even in the less favorable areas. No exploration is recommended in Zone 3.

In addition to the initial holes, it is recommended that additional footage be allowed to be drilled at 50-foot distances from any holes which encounter ore or an indication of ore and to more thoroughly explore trends which may develop as drilling progresses.

It is not necessary to establish separate drilling stages for this contract as has been done on previous contracts. This is because 1) unsatisfactory results of drilling in Zone 1 would not preclude the possibility of finding ore in Zone 2; 2) the closer spaced drilling should be done concurrently with the wide-spaced drilling in order to make the evaluation of trends possible.

PAST OPERATIONS

The property first operated under lease by Ludwig and Brockman as a partnership, then as the Edgemont Mining Co., has been in almost continuous operation since August 1952. Approximately 2,700 tons of uranium-vanadium ore with an average grade of 0.27 percent U_3O_8 and 0.81 percent V_2O_5 was produced by this company, the greater part of the ore being mined from the open pits. Underground mining was started late in 1953 and was the only operation just prior to subleasing to the applicant. Since November 1953, when the applicant acquired the property, operations have been confined to the underground workings.

Some exploratory core drilling on and near the property has been done by the A.E.C.; 10 core drill holes located as shown on the maps, were drilled. The data from these holes and other geologic data have been used in compiling the maps. A few wagon drill holes have been drilled by the applicant on the Virginia C claim just north of the open pit.

APPLICANT'S PROPOSAL

As proposed in the application, the work to be done under independent contracts consists of 40 hours of dozer work for drill site preparation and 13,000 feet of wagon drilling. A separate item for 200 analyses at $3.50 each, or $700.00, is mentioned but has not been included in the total overall cost of the project.

The total for independent contracts, supervision, and indirect expense amounts to $13,655.00 which, with the $700.00 for analyses, brings the total amount of the application to $14,355.00, or an overall cost of $1.10 per foot for the 13,000 feet of proposed drilling.

The application was discussed at some length and it was agreed that wagon drilling was the most feasible method of exploring the property. Also, the grid spacing, as proposed by the applicant, would be increased from 60 by 60 feet and 100 by 100 feet to 100 by 100 feet and 200 by 200 feet in Zones 1 and 2 respectively, thereby reducing the number of holes to be drilled initially throughout Zones 1 and 2. Further, the number of holes for offset drilling would be increased but only in order to provide sufficient footage to adequately explore the zones in the event numerous small, scattered, mineralized areas are discovered. By agreement, offset holes are to be drilled only around mineralized holes and spaced no less than 50 feet from these holes. Offset drilling is to be done concurrently with the initial holes.

The applicant apparently is able to meet their share of the cost of the project and, from past operations under DMEA contracts, can ably conduct and supervise the project.

The work of the proposed project does not require labor other than that for independent contracts. However, the local labor supply is adequate in the event the drill contractor should need drill helpers or other unskilled labor.

Most small supplies and minor equipment items are available locally or in Hot Springs, Custer, or Rapid City. No major equipment, other than that of the drill contractor, will be required. Items such as chemicals, instrument parts, or other special material can be obtained from Denver. Edgemont is a rail point on the Chicago, Burlington, and Quincy Railroad and is also serviced by both intra and interstate truck lines.

DESCRIPTION OF THE PROJECT

The project, if approved, is to start within 30 days of the date the contract is signed by the applicant, and it is estimated that 4 months will be required to complete the work and submit the final report.

Following a discussion of the application with the applicant, the field team was agreed that the project should be carried out as outlined below. Recommendations of the field team are:

1) Exploration is to be done by wagon drilling and confined to Zones 1 and 2, as shown on the map.

2) Grid spacing in Zone 1 is to be 100 by 100 feet and in Zone 2 200 by 200 feet, with the bearing of the grid lines generally as shown.

3) Approximately 60 holes of an average depth of 65 feet, or an aggregate total of 3,900 feet, shall be drilled in Zone 1, and about 30 holes, or a total of 1,950 feet of drilling, is to be done in Zone 2 on the wide-spaced grid pattern.

4) A total footage of 5,150 feet is to be allowed for offset drilling around holes on the grid patterns which show mineralization or some indication of mineralization. Offset holes are to be spaced at no less than 50 feet from mineralized holes.

5) Hole size is to be no less than $2\frac{1}{4}$ inches but can be larger if the applicant wishes.

ALLOWABLE COST OF THE PROJECT

The following cost estimate is based on an average drilling rate of 100 feet per day, which is about 15 feet more than the average footage drilled by the applicant on one project and about 20 feet

less than that drilled on another. It is the opinion of the field team that the 100 feet is very conservative and that the government is not to bear the added cost if the drilling rate falls under this because of inadequate or faulty equipment and lack of planning and supervision. The allowance for the dozer for drill site preparation as submitted by the applicant is too high, as practically no dozer work is required in the drilling areas.

Based on a drilling rate of 100 feet per day for 26 days per month, it is estimated that 4½ months will be required to complete 11,000 feet of drilling and prepare the final report. Although it is recommended that the contract be let for 11,000 feet, it is unlikely that the total footage will be drilled. As previously stated, the allowance of 5,150 feet for offset drilling is made so as to provide the footage that may be required to adequately explore the property.

ALLOWABLE COSTS (Time 4½ months)

		Total	Per Foot
Independent Contracts			
1) Drill site preparation (separate item) Dozer rental, 8 hrs. @ $12.50 per hr. plus $50.00 move-in charge		$ 150.00	$.014
2) Wagon drilling - 11,000 feet, 2¼-inch hole, @ $.75 per ft.		8,250.00	.75
Labor, Supervision, and Consultants			
Labor	None		
Field Engineer, 2 mos. @ $500	$1,000.00		
Surveyor, ¼ mo. @ $450	112.50		
Secretarial, 4½ mos. @ $50.00	225.00		
		1,337.50	.122
Operating Materials and Supplies			
Mileage allowance for transportation, 3,000 miles @ .03	$ 90.00		
Engineering and office supplies at $10.00 per mo., 4½ mos.	45.00		
Batteries etc. for Geiger counter, @ $10.00 per mo.	45.00		
		180.00	.016

		Total	Per foot
Operating Equipment			
Ford pickup truck, $1,500 @ 1/60 per mo. use allowance $25.00 per mo., 4½ mos.	$ 112.50		
Surveying instruments, value $500, @ 1/120 per mo., 1 mo.	5.00		
Geiger counters and probes, value $480, @ 1/60 per mo., 1 mo.	8.00		
Laboratory equipment (Charged is analyses costs)	--		
		$ 125.50	$.011
Initial rehabilitation, repairs etc.		--	--
New buildings, etc.		--	--
Miscellaneous			
Analytical work (separate item) 120 chemical analyses @ $3.50 each (Company has own laboratory and $3.50 is the price charged for analysis; however the $3.50 includes allowance for equipment use, sample sacks etc.)	$420.00		
Payroll tax @ 2% of $650.00	13.00		
Compensation & Unemployment Insurance @ 3% of payroll, plus $50 for short term	40.00 50.00		
		523.00	.048
Contingencies, 10% of total exclusive of independent contracts and item for analyses, $1,696.00		170.00	.015
		$ 10,736.00	.976

Totals allowable:

1) Dozer rental	$ 150.00		
2) Analyses	420.00		
3) Wagon drilling, 11,000 ft.	10166.00		
		$ 10,736.00	.976
Government's share @ 75% participation		$ 8,052.00	

In the Mining Agreement and Sub-lease, Article 13, attention is drawn to the clause concerning repayment of the exploration loan: 50 percent shall be paid by the Mining Research Corporation and the remaining 50 percent shall be paid by the Edgemont Mining Co.

While it is an agreement between the parties, it may have some effect on repayment to the government. It is suggested that an annex to the contract be drawn to specifically designate that the Mining Research Corp., the applicant, is solely responsible for any repayments regardless of any terms of the Mining Agreement and Sublease. In the event any or all of the claims should revert to the Edgemont Drilling Co. before or after completion of the contract, this company would assume loan repayments on production.

It is further suggested that an annex to the contract be drawn requiring that the applicant submit settlement sheets with the monthly reports on all sales of ore, concentrates or leach products from the property under contract during the period covered by the reports.

Also, the applicant should be requested to authorize the A.E.C. buying stations at Edgemont, S. Dak. and at Grand Junction, Colo. (products of the leaching process are sold here) to deduct royalty payments for loan repayment on all ore or products sold from the property under contract during the project and following completion but before certification. Should it be possible that the property would not be certified as a discovery, then the amount deducted could be refunded.

On April 27, 1954 the field team discovered an error in the claim maps. This error, which apparently has been overlooked by the owners, lessors and applicant, as well as the A.E.C., has been carried through on the maps submitted with this report. The applicant has been notified and is to make an immediate correction. The field team is submitting the incorrect maps in that the error does not affect the proposed work of the project. The corrected maps will be

transmitted as soon as available.

It is suggested that the contract can be drawn up without waiting for the corrected maps.

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

May 11, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region V

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region V.

DMEA-3342 Mining Research Corp.

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

Mining Research Corp.
1320 Pearl St.
Boulder, Colorado

May 11, 1954
Subject: DMEA-3342
Re: Exploration Assistance
Button & Viking

Gentlemen:

The receipt of your application dated March 9, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3342 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-3342 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams
Chief, Operation's Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

Defense Min... RECEIVED MAY 7 - 1954

May 5, 1954

DMEA - 3342

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Washington, D. C.

From: Executive Officer, Field Team, Region V

Subject: Application and Field Team report of examination - Mining Research Corporation, Virginia C property, Fall River County, South Dakota

Under separate cover we are transmitting the original and two copies of the following documents: an exploration application, together with the required copies of leases, assignments, mining agreements, contract drill agreement and owner's consent to lien, as well as the Field Team's report on this application, which recommends that it be favorably considered for an exploration contract. One copy of all documents has been retained in this office.

You will note that the Field Team report states that maps accompanying the application are in part incorrect. The error in the maps will not affect the proposed drilling, so consideration for contract can proceed normally. Corrected maps are to be made available and when they are we will forward them on to you.

A. B. Needham

A. B. NEEDHAM

MINING RESEARCH CORPORATION
INCORPORATED

1320 Pearl Street
Boulder, Colorado

April 6, 1954

Mr. E. O. Binyon, Mining Engineer
U. S. Department of the Interior
Bureau of Mines
Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

Dear Mr. Binyon:

Thank you for your letter of March 24, 1954, explaining that although no work is proposed on the Virginia C claim under our exploration application covering the Virginia C claim group, repayment royalty could be applied to the production of ore from the Virginia C mine. Inasmuch as no work is contemplated on the Virginia C claim, we request that this claim be excluded from the contract requested in our application.

The Edgemont Drilling Company has been asked for a bid on wagon drilling under this application, and it will be forwarded to your office as soon as it is received.

Sincerely,

J. Sterling Livingston

J. Sterling Livingston
Vice President and Treasurer

JSL:ar

PROPERTY OF THE UNITED
States Atomic Energy Commission
RECEIVED
JUL 10 1954

BID PROPOSAL AND CONTRACT

TO: Mining Research Corporation
~~Livingston Uranium Corporation~~

SUBJECT: Wagon Drilling

We agree to do the wagon drilling on your Virginia C group of claims for the following price:

> Seventy-five cents (0.75) per lineal foot providing that there is a minimum of 1,000 feet, all engineering to be done by ~~Livingston Uranium Corporation~~ Mining Research Corporation.

Payment will be made on actual footage drilled per month, as measured on the first of each month, and payable on the 10th of each month.

Signed ENGLEWOOD DRILLING CO.
E. J. Brockman - Pres.

MINING RESEARCH CORPORATION
Signed ~~LIVINGSTON URANIUM CORPORATION~~

DMEA Application
Mining Research Corp.
1320 Pearl Street
Boulder, Colorado

March 15, 1954

Defense Minerals Exploration Administration
U. S. Department of the Interior
Washington 25, D. C.

RECEIVED
MAR 22 1954
Dept. of Interior
Bureau of Mines
Rapid City,
South Dakota

Via: Field Team, Region 5
Rapid City Field Office
Rapid City, South Dakota

Gentlemen:

We are submitting in quadruplicate an application for a DMEA exploratory drilling contract on the Virginia C claim group located in Fall River County, South Dakota. The total estimated cost of the exploration program covered by this application is $14,355.

In addition to the four copies of the application, you also will find enclosed six copies of each of the following documents:

(1) Owner's Consent to Lien form signed by Milford A. DePue.

(2) Owner's Consent to Lien form signed by E. J. Brockman and A. Ludwig.

(3) Subordination Agreement signed by A. Ludwig for the Edgement Mining Company, Inc.

If you would like to have any additional information, we shall be happy to furnish it to you.

Sincerely,

J. Sterling Livingston

J. Sterling Livingston
Vice President and Treasurer

JSL:ar

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3342
Metal or Mineral Uranium
Date Received
Estimated Cost $13,655
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado
(Answers to all questions are given on the attached pages.)

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(a) State the mineral or minerals for which you wish to explore .....

.....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

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*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[x] Money [x] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

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 March 9, 1954

MINING RESEARCH CORPORATION
(Applicant)

By J. Sterling Livingston

J. Sterling Livingston

Vice President and Treasurer.

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

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

DMEA Application
Mining Research Corp.
1320 Pearl Street
Boulder, Colorado

MAY 10 1954

1. Name of applicant.

(a) Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado.

(b) Incorporated in the state of Delaware.

(c) Clifton W. Livingston, president, Box 356, Edgemont, South Dakota; J. Sterling Livingston, vice president and treasurer, Kalmia Avenue, Boulder, Colorado; and Ruth E. Livingston, secretary, 600 Kalmia Avenue, Boulder, Colorado.

DMEA Application
Mining Research Corp.
1320 Pearl Street
Boulder, Colorado

3. Applicant's Property rights.

(a) The legal description of the land on which our exploration program is planned is as follows:

Lode Mining Claim	Book #	Page #
Virginia C	31M	373 – Exclude 4-6-54 Letter to Binyon
✓ Virginia C #1	31M	314
✓ Virginia C #2	31M	315
✓ Button #1	31M	316
✓ Button #2	31M	315
✓ Viking #1	31M	316

The above claims have been certified by the Atomic Energy Commission and are located in Sections 26 and 27, T 7S, R 2E, B.H.M., Fall River County, South Dakota.

(b) The claim group is known as the "Virginia C" which is the name of the mine on the claim of same name.

(c) Applicant is operating the property under a sub-lease agreement with the Edgemont Mining Company, Inc. which obtained the property by assignment from A. Ludwig and E. J. Brockman who in turn leased the claims from Milford A. DePue who staked them.

(d) Attached are copies of the following documents:

(1) Lease agreement dated August 11, 1952 between Milford A. DePue, A. Ludwig, and E. J. Brockman;

(2) Assignment dated November 24, 1952 from A. Ludwig and E. J. Brockman to the Edgemont Mining Company, Inc.;

(3) Agreement dated December 4, 1952 between Milford A. DePue and the Edgemont Mining Company, Inc.; and

(4) Agreement dated March 9, 1953 between Milford A. DePue and the Edgemont Mining Company, Inc.; and

(5) Mining agreement and sub-lease dated November 5, 1953 between the Edgemont Mining Company, Inc. and the Mining Research Corporation.

LEASE

PARTIES — The parties to this agreement are Milford A DeRue, 3621 House Avenue, Cheyenne, Wyo., hereinafter referred to as "Lessors"; and A. Ludwig, Edgemont, S. Dakota, and J. J. Brockman, Edgemont, S. Dakota, hereinafter referred to as "Lessees".

PURPOSE — The purpose of this instrument is to grant to the Lessee the right to mine, develop, and explore the properties herein after described for minerals that may be found thereon, and set forth the rights, duties, and obligations of each of the parties connected with such agreement.

PROPERTY	Book #	Page #
Virginia Claim #1 Lode Mining Claim	31[illegible]	31[illegible]
Virginia Claim #2 Lode Mining Claim	31[illegible]	31[illegible]
Button #1 Lode Mining Claim	31[illegible]	31[illegible]
Button #2 Lode Mining Claim	31[illegible]	31[illegible]
Viking #1 Lode Mining Claim	31[illegible]	31[illegible]

The property covered by this agreement is all located in section 27-26 Township 7 South, Range 2 East, Black Hills Meridian, Fall River County, South Dakota.

WARRANTIES BY LESSORS — The Lessors covenant that they are the owners of a valid existing Lode Mining Claims upon the premises above described; that they have conformed in every detail and requirement of the Statutes of the State of South Dakota and the United States of America with reference to lode mining locations. They further covenant that all of such claims are located upon public domain; that there are no conflicting claims; that there are no surface owners who have a right to damage claims by reason of injury to the surface; and they covenant that they have rights-of-way in and to the property for all purposes connected with exploration, development, and mining. The Lessors covenant that they are under no disability that would impair their right to execute this agreement.

CONSIDERATION — The Lessee, for the execution of this agreement, have paid the sum of One Dollar ($1.00), and other good and valuable considerations, the receipt of which is hereby acknowledged and the Lessees agree to pay a sum equal to Ten Per Cent, (10%) of the amounts paid by the purchaser of minerals or materials produced and sold from the property and which such amounts shall include all bonuses, premiums, and shipping allowances paid by the purchaser.

TERM — This lease shall commence on the 11th day of August, 1952, and shall continue for a period of five years from that date and shall terminate the 11th day of August, 1957, at 12 o'clock noon; provided, however that the Lessees may renew such lease for a like period and at the same terms by giving notice thereof to the Lessors, in writing, at least [illegible] days prior to August 11, 1957.

PORTS

The Lessees shall furnish true copies of all smelter or reduction returns on the minerals or materials produced from such property. Such true copies shall be furnished at the time of payment on such returns and not less than 10 days after receipt of such returns or payment by the Lessees.

WARRANTIES OF LESSEES

The Lessees covenant that they will, within 90 days after the commencement of this lease, commence active operation of exploration, development, and mining upon the premises above described. The Lessee covenant that they will save and hold the Lessors harmless from any claims or damages arising out of their operation. The Lessees covenant that they will within each year, commencing August 11, 1952, expend not less than Five Hundred Dollars, ($500.00), in exploration, development, or mining or property. They shall cause all necessary affidavits of annual labor to be filed so as to preserve the Lessors' interest in such claims and they shall see that all stakes nominating the boundaries of the various claims are kept erect and in such fashion that notice is given of the existence of such claims. The Lessee may terminate this agreement and all obligations hereunder when in their opinion, ~~the Lessee shall~~ it is uneconomical to proceed further further with the purpose and requirement of this agreement. Upon the reaching of such opinion, the Lessee shall give written notice to the Lessor, of his intention to terminate the Lease and shall pay the accrued rentals required by this lease and the additional sum of $1.00. When such notice and payment is made, the lease shall be forthwith terminated.

ASSIGNMENT

This lease may be assigned by the Lessee without the consent of the Lessors; provided, only that at the time of such assignment the Lessee shall give notice of the assignment and provide the Lessors with a copy of such instrument, which shall require the assignee thereof to faithfully perform the agreement herein contained.

CONSENT TO LOANS FROM AGENCIES

There is presently organized, administrative agencies of the United States of America for the purpose of assistance in financing development, exploration, and mining of materials designated as "strategic" and "critical". It is contemplated by the parties that assistance may or will be sought from such agencies by the Lessee. If such assistance is sought, the Lessors herewith grant consent.

PARTIES BOUND

This agreement shall be binding upon the assignees, heirs, and legatees of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have set their hand and seal.

Milford A. DePue
Lessor

A. Ludwig
Lessee

E. J. Brockman
Lessee

STATE OF SOUTH DAKOTA
County of Fall River

On this the 11th day of August, before me, the undersigned officer, appeared Milford A. DePue, A. Ludwig, and E. J. Brockman, known to me or satisfactorily proven to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same for the purpose therein contained

In Witness whereof I hereonto set my hand and official seal

J. Barcalow
Notary Public

NOTARY PUBLIC, FALL RIVER COUNTY, S. DAK.
My Commission Expires Apr. 2-1933

3450

ASSIGNMENT AND AGREEMENT

THIS ASSIGNMENT AND AGREEMENT, made this 24th day of November, A. D. 1952, by and between A. Ludwig and E. J. Brockman, as the assignors and Edgemont Mining Co., Inc., the assignee,

WITNESSETH, THAT WHEREAS the assignors herein are holders of a certain undeveloped mining lease situate in Fall River County, South Dakota, and described as follows, to-wit:

"The Virginia C Mining Lease";	Book #	Page #
Virginia C #1 Lode Mining Claim	31M	314
Virginia C #2 Lode Mining Claim	31M	315
Button #1 Lode Mining Claim	31M	316
Button #2 Lode Mining Claim	31M	315
Viking #1 Lode Mining Claim	31M	316

all situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian;

, and

WHEREAS the assignors are desirous of assigning their interest in and to said lease to the assignee, and

WHEREAS all parties hereto are desirous of full development of said lease at the earliest possible time,

NOW THEREFORE, be it agreed, that the said assignors hereby assign all right title and interest in and to the above described mining lease, dated August 11 1952, unto Edgemont Mining Co., Inc., and in consideration therefore, the Edgemont Mining Co., Inc. hereby assumes and agrees to perform all the covenants and agreements in said lease contained, by the lessee therein agreed to be made and performed, and

BE IT FURTHER AGREED, that the assignors or A. Ludwig and E. J. Brockman, shall take full charge of the development of this lease as ore-producing property, that they shall keep an accurate account of all expenses incurred in said development, and receipts for ore sold therefrom, that they shall make the monthly payments on the D-5 Allis Chalmers Loader, or the existing hourly rate for the use of the same, whichever is the greater amount (said amount shall be properly included as an

expense of development and to be paid to Edgemont Mining Co., Inc., or as said corporation shall direct); that the first $15,000.00 net profit over and above the expenses of the development of said lease shall be paid, as it is realized, to E. J. Brockman and Art F. Ludwig, in equal shares, as additional consideration for the transfer of this lease, as consideration for the development work by said E. J. Brockman and Art F. Ludwig, and as consideration for the transfer to Edgemont Mining Co., Inc. of the Caterpillar Road Grader, and all trucks and other equipment of Ludwig and Co. Contractors (inventory attached hereto) said transfer to be made, free and clear of all liens and encumbrances, simultaneously with the final payment of the realized profits as set out herein.

WITNESS our hands and seals this day and year first above written.

A. Ludwig (SEAL)

E. J. Brockman (SEAL)

EDGEMONT MINING CO., INC.

BY Ray C. Ludwig

President

ATTEST:

A. Ludwig

Secretary

A G R E E M E N T

THIS AGREEMENT, Made and entered into in duplicate this 4th day of December, 1952, by and between Milford A. DePue, party of the first part, and the Edgemont Mining Company, a corporation, by E. J. Brockman, Vice-President, party of the second part.

WITNESSETH: That whereas, prior to this date, a mining lease was made and executed by and between Milford A. DePue, Lessor, and A. Ludwig and E. J. Brockman, Lessees, bearing date August 11, 1952, and whereas, said lessees have assigned their interest in said Lease to the Edgemont Mining Company, a corporation,

NOW, THEREFORE, it is agreed by and between the parties hereto that the first party above named does here-by authorize and empower the second party hereto, to survey, re-survey, locate or relocate as the case may be, any of the claims heretofore located by the first party and subject to the lease mentioned above, and also authorized the second party to locate or relocate any fractional open ground adjacent to the above claims or any open ground located in the Southwest Quarter of the Southwest Quarter of Section 26, and the Southeast Quarter of Section 27, Township 7, Range 2, E. B. H. M., in Fall River County, South Dakota, and it is further understood and agreed that such locations, relocations, surveys or resurveys, shall be in the name of Milford A. DePue.

IT IS FURTHER UNDERSTOOD AND AGREED by and between the parties hereto that any new claims staked and located or fractional claims staked and located by the second party for and on behalf of the first party, shall become and be subject to the terms and conditions of the lease aforesaid. Said claims shall automatically become a part of said lease.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands

and seals the day and year first above written.

Milford A. DePue
PARTY OF THE FIRST PART

Edgemont Mining Co.
PARTY OF THE SECOND PART

by

E. J. Brockman

STATE OF SOUTH DAKOTA)
) SS.
COUNTY OF FALL RIVER)

On this the 4th day of December, 1952, before me, the undersigned Notary Public within and for said County and State, personally appeared Milford A. DePue and E. J. Brockman, Vice-President of the Edgemont Mining Company, a corporation, known to me to be the persons who are described in and who executed the within and foregoing instrument and acknowledged to me that they executed the same for the purposes therein contained, as their own free act and deed.

Paul H. Russell
Notary Public
Fall River County, South Dakota

My commission expires 1-8-53.

A G R E E M E N T

THIS AGREEMENT, Made and entered into in duplicate this 9th day of March, 1953, by and between Milford A. DePue, party of the first part, and the Edgemont Mining Company, a corporation, by E. J. Brockman, Vice-President, party of the second part.

WITNESSETH: That whereas, prior to this date, a mining lease was made and executed by and between Milford A. DePue, Lessor, and A. Ludwig and E. J. Brockman, Lessees, bearing date August 11, 1952, and whereas, said lessees have assigned their interest in said lease to the Edgemont Mining Company, a corporation,

AND, WHEREAS, there is some discrepancy in the location notices filed on the unpatented lode mining claim Virginia C. and it is the intention of all of the parties that the above Virginia C. Mining Claim is to be a part of those properties leased under the above described lease,

NOW, THEREFORE, it is understood and agreed by and between the parties hereto that the above mentioned lode mining claim designated as the Virginia C. is a part of the properties heretofore leased and is subject to all of the terms and conditions of said lease.

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

Milford A. DePue
Party of the First Part

E. J. Brockman
Party of the Second Part

STATE OF SOUTH DAKOTA)
SS.
COUNTY OF FALL RIVER)

On this the 9th day of March, 1953, before me, the undersigned Notary Public within and for said County and State, personally appeared Milford A. DePue and E. J. Brockman, Vice-President of the Edgemont Mining Company, a corporation, known to me to be the persons who are described in and who executed the within and foregoing instrument and acknowledged to me that they executed the same.

Paul S. Russell
Notary Public

My commission expires 1-8-57

MINING AGREEMENT AND SUB-LEASE

This agreement and sub-lease, made and entered into this 5th day of November, 1953, by and between the Edgemont Mining Co., Inc., A. Ludwig, and E. J. Brockman, hereinafter called the lessors, and the Mining Research Corporation, hereinafter called the lessee.

WHEREAS:

A. Milford A. DePue on August 11, 1952, leased the following claims to A. Ludwig and E. J. Brockman:

	Book #	Page #
Virginia C #1 Lode Mining Claim	31M	314
Virginia C #2 Lode Mining Claim	31M	315
Button #1 Lode Mining Claim	31M	316
Button #2 Lode Mining Claim	31M	315
Viking #1 Lode Mining Claim	31M	316

All of the above situated in Section 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian, Fall River County, South Dakota; and

B. Said Milford A. DePue on August 30, 1952, agreed to add the Dusty Longlegs lode mining claim located in Section 27, R. 2 E., T. 7 S., B.H.M., to said lease and further agreed to make amended claims filed on the above claims a part of said lease; and

C. A. Ludwig and E. J. Brockman on November 24, 1952, assigned all their right, title, and interest in and to the said lease of August 11, 1952, to the Edgemont Mining Co., Inc., for a term of five (5) years beginning August 11, 1952; and

D. Melford A. DePue entered into an agreement with the Edgemont Mining Co., Inc., on December 4, 1952, which authorized that

company to survey, re-survey, locate, or re-locate any of the claims subject to said lease and to locate or re-locate any fractional open ground adjacent to the above claims or any open ground located in the Southwest Quarter of the Southwest Quarter of Section 26 and the Southeast Quarter of Section 27, Township 7, Range 2, B.H.M., in Fall River County, South Dakota, and which provided that such locations, relocations, surveys, or resurveys shall be in the name of Melford A. DePue who further agreed that any new claims so staked and so located or fractional claims so staked and so located by the Edgemont Mining Co., Inc., for and on behalf of DePue shall automatically become a part of, and subject to the terms and conditions of the said lease dated August 11, 1952.

NOW, THEREFORE:

1. For and in consideration of the sum of One Dollar ($1.00) and of the covenants, agreements, and payments hereinafter provided to be made and performed, lessors hereby sub-lease unto lessee the following described property located in the Unorganized Mining District, Fall River County, South Dakota, and more particularly described as follows:

	Book #	Page #
(1) Virginia C Lode Mining Claim	31M	373
(2) Virginia C #1 Lode Mining Claim	31M	314
(3) Virginia C #2 Lode Mining Claim	31M	315
(4) Button #1 Lode Mining Claim	31M	316
(5) Button #2 Lode Mining Claim	31M	315
(6) Viking #1 Lode Mining Claim	31M	316

together with all the dips, spurs, rolls, and angles and also all the uranium and any and all other minerals of any nature whatsoever, including but not limited to all metals, ores, ore-bearing quartz,

rock and earth therein for the purpose of investigating, exploring, drilling, mining for, and treating uranium and all other minerals, whether similar or dissimilar.

2. Lessors hereby grant to lessee all their right and interest under said lease and agreement with Milford A. DePue and lessee hereby agrees to assume all obligations hereinafter arising under said lease and agreement during the term of this sub-lease.

3. TO HAVE AND TO HOLD the same for the purposes of exploration and mining for a primary term of five (5) lease years commencing on the date hereof.

After the expiration of the primary term, lessee shall have the right to continue this lease in full force and effect on all the above described claims, or on such claims as have not been previously surrendered or abandoned for as long as uranium or any other mineral shall be produced from said property. Lessee shall also have the right to continue the term of this lease after the expiration of the primary term by expending a minimum amount of One Hundred Dollars ($100.00) per claim per year upon the development or exploration of such claims as it may wish to retain.

4. Lessors hereby grant to lessee during the time of this lease, possession of such property, the right to explore, map, mine, drill, and extract ore therefrom, to dump waste materials thereon and upon any adjoining areas under the control of lessors, to construct ore bins and buildings thereon, to perform any and all work connected therewith, including construction of roads, to lay pipe lines, to construct mills, power stations, power and communica-

tion lines, houses for its employees and other structures and facilities, and further grant to lessee all road rights of way to which lessors may be entitled for egress and ingress to any and all of the demised properties.

5. Lessors hereby warrant and represent that they have prior valid and lawful right and title to such property and hereby agree to indemnify and hold harmless lessee from any and all other persons, firms, or corporations claiming any rights thereto or any part thereof or any interest therein.

6. Lessee agrees to conduct its mining operations thereon in accordance with good mining practice and in compliance with health and safety regulations, to permit lessors to inspect such premises at all reasonable times to make surveys of the same and to take samples of ore mined or in place using any access roads of lessee, and to make available to lessors survey maps, drilling logs, and other data which may be compiled pertaining to ore deposits found therein.

7. Lessee shall pay the Edgemont Mining Co., Inc., for this sub-lease a sum of Seven Dollars ($7.00) per ton for each ton up to three thousand (3,000) tons of ore mined or leached on said claims. Thereafter, lessee shall pay the Edgemont Mining Co., Inc., an amount indicated by the following schedule for ore mined or leached on said claims:

$7.00 per ton for ore assaying 0.25% (or over) U308
$5.00 per ton for ore assaying between 0.20% and 0.25% U308
$2.50 per ton for ore assaying between 0.15% and 0.20% U308
$1.00 per ton for ore assaying less than 0.15% U308

In the event that the lessee does not mine or leach a total of three

thousand (3,000) tons of ore and in the further event that the average grade of the ore which is mined or leached assays 0.30% U_3O_8 or more, lessee agrees to pay the Edgemont Mining Co., Inc., an additional sum of Three Dollars ($3.00) per ton for each ton of ore mined or leached.

8. All ore shipments shall be weighed by lessee at its expense and a standard deduction of 6.25 per cent shall be made from such weights as an allowance for the moisture content of said ore. The tonnage and grade of ore leached in place shall be determined on the basis of drill cores taken from the mineralized area and said tonnage shall be mutually agreed upon prior to leaching.

9. During the term of this lease, lessee shall pay all royalties due Milford A. DePue under the terms of said lease of August 11, 1952, and its amendments. It is specifically understood that such royalties for ore, mined or leached by it on this property shall not exceed ten percent (10%) of the price established by the Atomic Energy Commission for ore of like grade delivered to a mill or purchasing depot. Royalty payments for each month shall be made on or before the fifteenth (15th) day of the month following receipt of payment from the Atomic Energy Commission.

10. Lessee agrees to enter upon this property within thirty (30) days from the date of this agreement and to commence the necessary steps immediately thereafter for the development of the property. Lessee further agrees to conduct mining or leaching operations continuously thereafter for as long as commercial grade ore is exposed in underground openings.

11. Lessee shall have the priviledge of surrendering from time to time any or all of said claims. Lessee shall designate the claims it wishes to surrender from time to time, and ninety (90) days after delivery of a proper instrument surrendering the same to lessors shall be relieved of any further responsibility or obligation with respect to such surrendered claims.

12. Lessee at its expense will insure each and every workman employed in its operations as provided in all applicable statutes with respect to workmen's compensation and/or employer's liability; and lessee will procure and maintain at its expense public liability insurance in a reputable and financially responsible company properly safeguarding against liability for injury to persons, including injuries resulting in death, and loss or damage to property arising out of lessee's operations hereunder.

13. Lessee hereby agrees to attempt to obtain a Defense Minerals Exploration contract for the exploration of Virginia C #1, Viking #1, and Button #1 and #2. All drilling under any contract which may be obtained for the exploration of any or all these claims will be sub-contracted to the Englewood Drilling Co., Inc., at the rates authorized by the DMEA contract. Fifty percent (50%) of the contractor's share of the authorized contract costs shall be paid by the Edgemont Mining Co., Inc., and the remaining fifty percent (50%) shall be paid by the Mining Research Corporation. Fifty percent (50%) of the amount of the loan which must be repaid under the exploration contract from production, if any, shall be paid by the Mining Research Corporation and the remaining fifty percent (50%)

shall be paid by the Edgemont Mining Co., Inc.

14. If lessee is unable to obtain a DMEA contract within five (5) months, this sub-lease shall terminate with respect to the Virginia C #1, Viking #1, and Button #1 and #2, providing, however, that the lessee shall have the option of continuing the sub-lease on such claims if it agrees to pay the Englewood Drilling Co., Inc., thirty-five cents ($0.35) per foot for a total of not less than 5,000 feet of wagon drilling on said claims. The location of such drilling shall be determined by the lessee.

15. In the event that said exploration drilling results in the discovery of a commercial ore body which is located near the surface and which can be mined by open-strip methods more economically than by other conventional mining methods, lessee agrees to employ the Edgemont Mining Co., Inc., to mine and load said ore. Lessee further agrees to pay the Edgemont Mining Co., Inc., for mining and loading said ore a sum equal to that which would be paid for ore of like grade under the Atomic Energy Commission price schedule, less all royalties due Milford A. DePue. Lessee shall further deduct from such sum on a pro rata basis the costs of exploration incurred by it and the repayments, if any, which must be made under any DMEA contract which is obtained for exploration on said claims.

16. In the event of any breach or default by lessee, the lessors may give written notice by registered mail thereof to lessee. Upon receipt of such notice, lessee shall have ninety (90) days to cure such breach or default and maintain the lease in effect. If lessee shall not have cured or taken diligent steps to cure any such

breach or omission within said ninety (90) day period, lessors may terminate this lease. Failure to enforce such forfeiture shall not constitute a waiver by lessors of their rights in the event of a future breach of such term or provision or the breach of any other term or provision hereof.

Neither party shall be deemed in default hereunder where its act or omission shall be occasioned by strikes, riots, flood, fire, storm, acts of God, war, Federal, state, or local laws or regulations, or other causes not within their or its control.

17. Lessee shall have the right for a period of six (6) months after the date of termination of this lease for any reason whatsoever to remove as lessee's own property buildings, and all improvements, bins, machinery, equipment, and other personal property excepting only ties and timbering which may have been placed on the premises by it.

18. This lease and all its terms, conditions, and stipulations shall extend to and be binding upon the respective heirs, executors, personal representatives, assigns, and successors of the parties hereto.

IN WITNESS WHEREOF lessors have hereunto set their hands and seals and lessee has caused this document to be executed by its officers, duly authorized thereunto as of the day and year first above written.

MINING RESEARCH CORPORATION

By: J. Sterling Livingston
Vice President (L.S.)

EDGEMONT MINING CO., INC.

By: Ray C. Ludwig (L.S.) President

Walter D. Jorgensen (L.S.) Secretary

(L.S.)

Lessors

SE 5 2PM 1953

Form 6-30
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1201 N. Division St.
Spokane 2, Wash.

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300

GPO 6—9507

Mr. Jay L. Chambers, Chief
Contract Administration and Audit Div.
Defense Minerals Exploration Admin.
Department of the Interior
Washington 25, D. C.

STATE OF: Colorado)
) SS
COUNTY OF: Arapahoe)

On this the 5 day of November, 19 53, before me, _____, the undersigned officer, personally appeared J. Sterling Livingston, Ray C. Ludwig, and Walter D. Jorgensen, known to me or satisfactorily proven to be the person s whose name s are subscribed to the within instrument and acknowledged that t he y executed the same for the purpose therein contained.

Henry Gosel
Notary Public

My Commission Expires July 28, 1956

4. Physical description.

(a) The mine workings on the Virginia C claim have accounted for all production from this claim group to date. These workings in relation to the other claims in the group and to the geologic features of the property are described in the attached map which also describes our proposed exploration program. A sufficient tonnage of ore has been shipped from the Virginia C claim to exhaust the A.E.C. bonus. Fifty-six channel samples taken at equal intervals from the mineralized areas along the walls of the underground excavations assayed chemically an average of 0.22% U308. Higher grade mineralization, in some places assaying over 1% U308, has been found on the west and northwest sides of the center and western drifts. Applicant is now mining commercial grade ore from the center drift which is being extended both in a northwest and a northeast direction. Approximately 80 tons of ore assaying 0.17% U308 were mined during January, 1954.

(b) Inasmuch as virtually no exploratory drilling has been undertaken, an accurate estimate of ore reserves can not be made.

(c) Uranium mineralization of the district is found in slightly tilted sandstones of the Dakota and Lakota formations on the southwest flank of the Black Hills uplift. The deposits consist of irregular lenses of ore in sandstones. The deposits are flat-lying and conform generally to the dip of the host formations. The principal ore mineral is carnotite.

The Dakota sandstone is exposed over much of the area of the claims, except on Button No. 1 and the northwest corner of Virginia C, No. 2 where the Fuson shale outcrops. The proposed exploration program is confined to those areas where the Dakota sandstone is exposed.

(d) The property is located 12 miles northwest of Edgemont, South Dakota and can be reached easily over access roads built by the Atomic Energy Commission. Inasmuch as the areas proposed for drilling under this application are readily accessible by truck, no road work is anticipated. A small amount of bulldozer work will be required for drill sites, however. The shipping point is Edgemont which also is the point of residence and although some supplies are available at Edgemont, most mining equipment and repair parts must be obtained from Denver. Rail, truck, and bus transportation is available.

4. Physical description. (con't.)

(e) Applicant has at present personnel needed to develop and supervise the exploration project and to form the nucleus of the crew for exploration drilling. Such additional labor as is necessary can be secured locally.

Common items of equipment and supplies may be secured in Edgemont or Hot Springs. Specialized materials, equipment, and supplies would be secured from Denver, Colorado. Since rail, truck, and air service from Denver is regularly scheduled, large stocks would not have to be maintained on the property.

Water is available by haulage from the Edgemont city water supply at a cost of $0.10 per load. ? [illegible]

Although an electric power line passes near the property, it is planned to use internal combustion engines for power due to the need for mobility of equipment. Both gasoline and butane are available from bulk distributors in Edgemont and Hot Springs.

DMEA Application
Mining Research Corp.
1320 Pearl Street
Boulder, Colorado

5. The exploration project.

(a) Exploration is to be for uranium in the form of carnotite.

(b) The applicant proposes to explore the property by means of 13,000 feet of wagon drilling in three areas west and northwest of the present mine workings as shown on the attached exhibit. The ground in the mine workings is fractured by fissures which strike in an east-west direction. These fractures or fissures have been mapped by applicant whose maps are available to the D.M.E.A. field team. Applicant is of the opinion that the mineralization in the mine extends west and northwest of the workings along a trend parallel to the strike of the fractures. Mineralization discovered by A.E.C. drilling on Virginia C No. 2 west of the mine tends to support this opinion. Accordingly, applicant proposes to explore the areas west and northwest of the mine where the Dakota sandstone outcrops. The first of these areas is immediately west of the mine workings; the second is on Virginia C No. 1 further west; and the third is on Button No. 1 and No. 2 and Viking No. 1 northwest of the workings.

Initial drilling will be on spacing of 60' x 60' staggered on Virginia C No. 2 and on spacing of 100' x 100' in the other areas. In addition, applicant request permission to drill fill-in holes on 50' x 50' centers or closer when approved by the D.M.E.A. field team in those areas where mineralization is found. Because of the spotty occurrence of the mineralization, particularly along fracture zones, fill-in holes on a closer spacing than 50' x 50' are essential in order to determine the existence of commercial ore deposits. The proposed drilling program totals 13,000 feet and is summarized as follows:

	Area	Hole Spacing	No. of Holes	Average Depth	Footage
(1)	Virginia C No. 2	60' x 60' staggered	80	65'	5200 ft.
(2)	Virginia C No. 1	100' x 100'	36	80'	2880 ft.
(3)	Button No. 1 and 2 and Viking No. 1	100' x 100'	28	80'	2240 ft.
(4)	Fill-in holes in mineralized areas on spacing to be approved by the D.M.E.A. field team.		38	70 (app.)	2680 ft.
				TOTAL	13,000 ft.

5. The exploration project (Con't.)

(c) The work will start within 30 days and be completed within six months from the date of an exploration project contract.

(d) The applicant is qualified in all respects to carry out the exploration project described in this application. Applicant now possesses all equipment required, adequate working capital, and thoroughly experienced and capable engineering and supervisory personnel. The project will be carried out under the direction of Clifton W. Livingston, president of the Mining Research Corporation, who has had over 20 years' experience in the mining industry, much of it in uranium geology and mining. After serving an apprenticeship of 2½ years as a miner, mucker, mine surveyor, and draftsman, Mr. Livingston has held the following engineering, geological, supervisory, and teaching positions:

1933-1935	Design Engineer, Alaska Juneau Gold Mining Company, Juneau, Alaska.
1935-1936	Mine Superintendent, Arizona Comstock Corporation, Virginia City, Nevada.
1936-1939	Chief Engineer and Geologist, Baguio Gold Mining Company, Baguio, P.I.
1939-1940	Assistant General Superintendent, Baguio Gold Mining Company, in charge of production.
1940-1942	Instructor in Mining, Michigan College of Mining and Technology.
Summer, 1941	Associate Geologist, Geological Survey of Newfoundland, Canada.
1942-1943	Mine Superintendent, Calumet and Hecla Consolidated Copper Company.
1943-1945	Field Geologist, Union Mines Development Corporation.
1945-1947	Associate Professor of Mining, Colorado School of Mines.
1947-1951	Professor and Head, Department of Mining, Colorado School of Mines.

5. The exploration project (Con't.)

Mr. Harold Davidson, who also has had over 30 years' experience in the mining industry, is employed by the Mining Research Corporation as a mining engineer. Mr. Davidson was an engineer for the Oliver Iron Mining Company for 18 years and during 10 of these years was in charge first of shaft sinking and later in charge of the company's entire timber and mineral lands. In addition to a number of other mining engineering positions, Mr. Davidson worked for the Michigan Tax Commission as an engineer in the Commission's mine appraisal work. From 1946 to 1949, Mr. Davidson was an assistant professor at the Colorado School of Mines. He holds the C. E. degree from the University of Michigan and the E. M. degree from the University of Wisconsin.

Mr. Philip W. Peter, mining engineer, graduated from the Colorado School of Mines in 1950, is in charge of applicant's exploratory drilling work. Mr. Peter has been engaged in uranium exploration and mining since his graduation.

Applicant plans to subcontract all wagon drilling, at least 5,000 feet of which will be subcontracted to the Englewood Drilling Co., Inc. In the event applicant is unable to subcontract the remaining drilling on a satisfactory schedule, applicant will acquire additional equipment and undertake the work at prevailing contract rates. All drilling will be carried out under the field direction of either Mr. Harold Davidson or Mr. Philip W. Peter of the applicant's staff.

6. Estimate of costs.

The total estimated cost of the project is $14,355. The estimated cost of 13,000 feet of wagon drilling is $13,655 or $1.05 per foot. An estimate of $700 has been made for 200 chemical assays at $3.50 each. The detailed cost estimates for drilling are as follows:

(a) Independent contracts

(1) Bulldozer operation - drill site preparation. 40 hrs. @ $12.00.	$ 480.00
(2) Wagon drilling 13,000 ft. @ $.75 per foot (at least 5,000 feet will be subcontracted to the Englewood Drilling Co., of Edgemont, South Dakota.)	9,750.00

(b) Labor, supervision, consultants

Field engineer @ $500.00/pm - ½ time for 6m. Supervision of sub-contract work, surveying, analyses and interpretation of drilling results and preparation of DMEA reports; will require approximately half-time of an enginner for six months.	1,500.00

(c-g)

Indirect expenses @ 85% of direct labor. In view of the fact that applicant is performing other D.M.E.A. contracts as well as other government contracts and is mining ore as well as producing uranium concentrates, it is impractical from an accounting point of view to account for engineering and office equipment and supplies, supervision, office expense, vacation pay, insurance, and payroll taxes for each project. Accordingly, these expenses are allocated on the basis of direct labor dollars. The applicant's past experience indicates these expenses are approximated 85% of direct labor and this rate is now being used on other government contracts.	1,275.00
(h) Contingencies - 5%	650.00
TOTAL	$ 13,655.00
Cost per foot	$1.05

7. (a) Applicant is prepared to furnish its share of the cost of the proposed project and, upon request, will deposit its share of the funds in a depository designated by the Defense Minerals Exploration Administration.

MF-201
(Revised February 1953)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the holder of a mortgage, claim, lien, or encumbrance identified and described as follows*:

Mining Agreement and Sub-lease dated November 5, 1953 between the Edgemont Mining Co., Inc., and the Mining Research Corporation

upon that certain parcel of ground described in a proposed Exploration Project Contract

between Mining Research Corporation, 1320 Pearl St., Boulder, Colorado

and the United States of America;

NOW, THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, does by these presents subordinate all of his right, title, and interest in said mortgage, claim, lien, or encumbrance to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and any amendments thereof, and agrees that the lien and claim of the United States of America under the provisions of said Exploration Project Contract, and any amendments thereof, shall be prior to the undersigned's rights under the provisions of said mortgage, claim, lien, or encumbrance; and

The undersigned agrees to commit no act nor assert any right, title, or interest under said mortgage, claim, lien, or encumbrance that might contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract, and any amendments thereof.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 17th day of March, 1954

Edgemont Mining Company, Inc.

A. Ludwig [SEAL]
Vice President

[SEAL]

I, Walter D. Jorgensen, certify that I am the Secretary (Secretary, etc.) of the corporation named herein; that A. Ludwig who signed this agreement was then Vice President (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

Walter D. Jorgensen
[CORPORATE SEAL]

*Include date of the instrument, and if recorded, book, page, and county of record.

16—68181-1 U. S. GOVERNMENT PRINTING OFFICE

MF-201
(Revised February 1953)

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Walter D. Jorgensen

[CORPORATE SEAL]

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Walter D. Jorgensen
[CORPORATE SEAL]

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16—68181-1 U. S. GOVERNMENT PRINTING OFFICE

MF-203
(Revised July 1, 1953)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

	Book#	Page #
Virginia C #1 Lode Mining Claim	31M	314
Virginia C #2 Lode Mining Claim	31M	315
~~Button #1 Lode Mining Claim~~	~~31M~~	~~316~~
Button #2 Lode Mining Claim	31M	315
~~Viking #1 Lode Mining Claim~~	~~31M~~	~~316~~

All situated in Section 26 and 27, T7S, R2E, Black Hills Meridian, Fall ~~River County, South Dakota~~

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

2/ Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production (as set forth on the reverse side hereof) and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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

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

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

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

4. Changes and added provisions _____

Dated this 12th day of March, 1954.

E. J. Bryntsmon [Seal]

A. Ludwig [Seal]

_____ [Seal]

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

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

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

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(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 of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, as follows:

(a) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(b) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

c. Definitions.--As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Interior—Duplicating Section, Washington, D. C. 47318

MF-203
(Revised July 1, 1953)

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All situated in Section 26 and 27, T7S, R2E, Black Hills Meridian, Fall River County, South Dakota

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

4. Changes and added provisions _____

Dated this 12th day of March, 1954.

Milford A. McRae [Seal]

_____ [Seal]

_____ [Seal]

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e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

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Interior—Duplicating Section, Washington, D. C. 47318

MF-203
(Revised July 1, 1953)

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All situated in Section 26 and 27, T7S, R5E, Black Hills Meridian, Fall River County, South Dakota

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4. Changes and added provisions

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E. J. Buchanan [Seal]

A. Ludwig [Seal]

[Seal]

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Interior--Duplicating Section, Washington, D. C. 47318

MF-203
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Dated this 12th day of March, 1954.

Milford A. McPhee [Seal]

_____ [Seal]

_____ [Seal]

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

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

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

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(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 of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, as follows:

(a) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(b) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

c. Definitions.--As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Interior—Duplicating Section, Washington, D. C. 47318

MF-203
(Revised July 1, 1953)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River, described as follows:1/

	Book	Page
Virginia #1 Lode Mining Claim	311	314
Virginia #2 Lode Mining Claim	311	315
Sutton #1 Lode Mining Claim	311	316
Sutton #2 Lode Mining Claim	311	315
Kiki #1 Lode Mining Claim	311	316

All situated in Section 26 and 27, T7S., R3E, Black Hills Meridian, Fall River County, South Dakota

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

2/ Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production (as set forth on the reverse side hereof) and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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

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

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

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

4. Changes and added provisions_____

Dated this 12th day of March, 1954.

E. J. Brockman [Seal]

T. Ludwig [Seal]

_____ [Seal]

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

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

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f. No Obligation to Produce.--This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Interior--Duplicating Section, Washington, D. C. 47318

MF-203
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2/ Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado

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4. Changes and added provisions _____

Dated this 12th day of March, 1954.

Milford A. DeLine [Seal]

_____ [Seal]

_____ [Seal]

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(b) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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f. No Obligation to Produce.--This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Interior—Duplicating Section, Washington, D. C. 47318

Docket No 3342

MINING RESEARCH CORPORATION
Incorporated
1320 Pearl Street
Boulder, Colorado

April 6, 1954

Mr. F. O. Binyon, Mining Engineer
U. S. Department of the Interior
Bureau of Mines
Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

Dear Mr. Binyon:

Thank you for your letter of March 24, 1954, explaining that although no work is proposed on the Virginia C claim under our exploration application covering the Virginia C group, repayment royalty could be applied to the production of ore from the Virginia C mine. Inasmuch as no work is contemplated on the Virginia C claim, we request that this claim be excluded from the contract requested in our application.

The Edgemont Drilling Company has been asked for a bid on wagon drilling under this application, and it will be forwarded to your office as soon as it is received.

Sincerely,

S/ J. Sterling Livingston

J. Sterling Livingston
Vice President and Treasurer

JSL:ar

GEOLOGICAL SURVEY
TEFCO
RECEIVED
MAY 14 1954
Denver

BID PROPOSAL AND CONTRACT

COPY

TO: Mining Research Corporation

SUBJECT: Wagon Drilling

We agree to do wagon drilling on your Virginia C group of claims for the following price:

> Seventy-five cents (0.75) per lineal foot providing that there is a minimum of 1,000 feet, all engineering to be done by Mining Research Corporation.

Payment will be made on actual footage drilled per month, as measured on the first of each month, and payable on the 10th of each month.

Englewood Drilling Co.
S/ E. J. Brockman, President

S/ Mining Research Corporation

DMEA Application
Mining Research Corp.
1320 Pearl Street
Boulder, Colorado

March 18, 1954

RECEIVED
MAR 22 1954
Dept. of Interior
Bureau of Mines
Rapid City,
South Dakota

Defense Minerals Exploration Administration
U. S. Department of the Interior
Washington 25, D. C.

Via: Field Team, Region 5
Rapid City Field Office
Rapid City, South Dakota

Gentlemen:

We are submitting in quadruplicate an application for a DMEA exploratory drilling contract on the Virginia C claim group located in Fall River County, South Dakota. The total estimated cost of the exploration program covered by this application is $14,355.

In addition to the four copies of the application, you also will find enclosed six copies of each of the following documents:

(1) Owner's Consent to Lien form signed by Milford A. DePue.

(2) Owner's Consent to Lien form signed by E. J. Breckman and A. Ludwig.

(3) Subordination Agreement signed by A. Ludwig for the Edgemont Mining Company, Inc.

If you would like to have any additional information, we shall be happy to furnish it to you.

Sincerely,

J. Sterling Livingston

J. Sterling Livingston
Vice President and Treasurer

JSL:ar

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3342
Metal or Mineral Uranium
Date Received
Estimated Cost $13,655
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado
(Answers to all questions are given on the attached pages.)

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

.....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

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*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[x] Money [x] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

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 March 9, 1954

MINING RESEARCH CORPORATION
(Applicant)

By J. Sterling Livingston

J. Sterling Livingston

Vice President and Treasurer.

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

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

IMRA Application
Mining Research Corp.
1320 Pearl Street
Boulder, Colorado

1. Name of applicant.

(a) Mining Research Corporation, 1320 Pearl Street, Boulder, Colorado.

(b) Incorporated in the state of Delaware.

(c) Clifton W. Livingston, president, Box 356, Edgemont, South Dakota; J. Sterling Livingston, vice president and treasurer, Kalmia Avenue, Boulder, Colorado; and Ruth E. Livingston, secretary, 600 Kalmia Avenue, Boulder, Colorado.

3. Applicant's Property rights.

(a) The legal description of the land on which our exploration program is planned is as follows:

Lode Mining Claim	Book #	Page #
Virginia C	31M	373
Virginia C #1	31M	314
Virginia C #2	31M	315
Button #1	31M	316
Button #2	31M	315
Viking #1	31M	316

The above claims have been certified by the Atomic Energy Commission and are located in Sections 26 and 27, T 7S, R 2E, B.H.M., Fall River County, South Dakota.

(b) The claim group is known as the "Virginia C" which is the name of the mine on the claim of same name.

(c) Applicant is operating the property under a sub-lease agreement with the Edgemont Mining Company, Inc. which obtained the property by assignment from A. Ludwig and E. J. Brockman who in turn leased the claims from Milford A. DePue who staked them.

(d) Attached are copies of the following documents:

(1) Lease agreement dated August 11, 1952 between Milford A. DePue, A. Ludwig, and E. J. Brockman;

(2) Assignment dated November 24, 1952 from A. Ludwig and E. J. Brockman to the Edgemont Mining Company, Inc.;

(3) Agreement dated December 4, 1952 between Milford A. DePue and the Edgemont Mining Company, Inc.; and

(4) Agreement dated March 9, 1953 between Milford A. DePue and the Edgemont Mining Company, Inc.; and

(5) Mining agreement and sub-lease dated November 5, 1953 between the Edgemont Mining Company, Inc. and the Mining Research Corporation.

LEASE

PARTIES — The parties to this agreement are Milford A Derue, 3621 House Avenue, Cheyenne, Wyo., hereinafter referred to as "Lessors"; and A. Ludwig, Edgemont, S. Dakota, and E. J. Brockman, Edgemont, S. Dakota, hereinafter referred to as "Lessees".

PURPOSE — The purpose of this instrument is to grant to the Lessee the right to mine, develop, and explore the properties hereinafter described for minerals that may be found thereon, and set forth the rights, duties, and obligations of each of the parties connected with such agreement.

PROPERTY

	Book #	Page #
Virginia C #1 Lode Mining Claim	31M	314
Virginia C #2 Lode Mining Claim	31M	315
Button # 1 Lode Mining Claim	31M	316
Button #2 Lode Mining Claim	31M	315
Viking # 1 Lode Mining Claim	31M	316

The property covered by this agreement is all located in section 27 & 26 Township 7 South, Range 2 East, Black Hills Meridian, Fall River County, South Dakota.

WARRANTIES BY LESSORS — The Lessors covenant that they are the owners of a valid existing Lode Mining Claims upon the premises above described; that they have conformed in every detail and requirement of the Statutes of the State of South Dakota and the United States of America with reference to lode mining locations. They further covenant that all of such claims are located upon public domain; that there are no conflicting claims; that there are no surface owners who have a right to damage claims by reason of injury to the surface; and they covenant that they have rights-of-way in and to the property for all purposes connected with exploration, development, and mining. The Lessors covenant that they are under no disability that would impair their right to execute this agreement.

CONSIDERATION — The Lessee, for the execution of this agreement, have paid the sum of One Dollar ($1.00), and other good and valuable considerations, the receipt of which is hereby acknowledged and the Lessees agree to pay a sum equal to Ten Per Cent, (10%) of the amounts paid by the purchaser of minerals or materials produced and sold from the property and which such amounts shall include all bonuses, premiums, and shipping allowances paid by the purchaser.

TERM — This lease shall commence on the 11th day of August, 1952, and shall continue for a period of five years from that date and shall terminate the 11th day of August, 1957, at 12 o'clock noon; provided, however that the Lessees may renew such lease for a like period and at the same terms by giving notice therof to the Lessors, in writing, at least 30 days prior to August 11, 1957.

REPORTS

The Lessees shall furnish true copies of all smelter or reduction returns on the minerals or materials produced from such property. Such true copies shall be furnished at the time of payment on such returns and not less than 10 days after receipt of such returns or payment by the Lessees.

WARRANTIES OF LESSEES

The Lessees covenant that they will, within 90 days after the commencement of this lease, commence active operation of exploration, development, and mining upon the premises above described. The Lessee covenant that they will save and hold the Lessors harmless from any claims or damages arising out of their operation. The Lessees covenant that they will within each year, commencing August 11, 1952, expend not less than Five Hundred Dollars, ($500.00), in exploration, development, or mining or property. They shall cause all necessary affidavits of annual labor to be filed so as to preserve the Lessors' interest in such claims and they shall see that all stakes nominating the boundaries of the various claims are kept erect and in such fashion that notice is given of the existence of such claims. The Lessee may terminate this agreement and all obligations hereunder when in their opinion, ~~the Lessee shall~~ it is uneconomical to proceed further further with the purpose and requirement of this agreement. Upon the reaching of such opinion, the Lessee shall give written notice to the Lessor, of his intention to terminate the Lease and shall pay the accrued rentals required by this lease and the additional sum of $1.00. When such notice and payment is made, the lease shall be forthwith terminated.

ASSIGNMENT

This lease may be assigned by the Lessee without the consent of the Lessors; provided, only that at the time of such assignment the Lessee shall give notice of the assignment and provide the Lessors with a copy of such instrument, which shall require the assignee thereof to faithfully perform the agreement herein contained.

CONSENT TO LOANS FROM AGENCIES

There is presently organized, administrative agencies of the United States of America for the purpose of assistance in financing development, exploration, and mining of materials designated as "strategic" and "critical". It is contemplated by the parties that assistance may or will be sought from such agencies by the Lessee. If such assistance is sought, the Lessors herewith grant consent.

PARTIES BOUND

This agreement shall be binding upon the assignees, heirs, and legatees of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have set their hand and seal.

Milford A. Dehue
Lessor

A. Ludwig
Lessee

E. J. Brockman
Lessee

STATE OF SOUTH DAKOTA
County of Fall River

On this the 11th day of August, before me, the undersigned officer, appeared Milford A. Dehue, A. Ludwig, and E. J. Brockman, known to me or satisfactorily proven to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same for the purpose therein contained

In Witness whereof I hereunto set my hand and official seal

J. Brockman
Notary Public

NOTARY PUBLIC, FALL RIVER COUNTY, S. DAK.
My Commission Expires Aug. 2-1933

ASSIGNMENT AND AGREEMENT

THIS ASSIGNMENT AND AGREEMENT, made this 24th day of November, A. D. 1952, by and between A. Ludwig and E. J. Brockman, as the assignors and Edgemont Mining Co., Inc., the assignee,

WITNESSETH, THAT WHEREAS the assignors herein are holders of a certain undeveloped mining lease situate in Fall River County, South Dakota, and described as follows, to-wit:

"The Virginia C Mining Lease";	Book #	Page #
Virginia C #1 Lode Mining Claim	31M	314
Virginia C #2 Lode Mining Claim	31M	315
Button #1 Lode Mining Claim	31M	316
Button #2 Lode Mining Claim	31M	315
Viking #1 Lode Mining Claim	31M	316

all situate in Sections 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian;

, and

WHEREAS the assignors are desirous of assigning their interest in and to said lease to the assignee, and

WHEREAS all parties hereto are desirous of full development of said lease at the earliest possible time,

NOW THEREFORE, be it agreed, that the said assignors hereby assign all right title and interest in and to the above described mining lease, dated August 11 1952, unto Edgemont Mining Co., Inc., and in consideration therefore, the Edgemont Mining Co., Inc. hereby assumes and agrees to perform all the covenants and agreements in said lease contained, by the lessee therein agreed to be made and performed, and

BE IT FURTHER AGREED, that the assignors or A. Ludwig and E. J. Brockman, shall take full charge of the development of this lease as ore-producing property, that they shall keep an accurate account of all expenses incurred in said development, and receipts for ore sold therefrom, that they shall make the monthly payments on the D-5 Allis Chalmers Loader, or the existing hourly rate for the use of the same, whichever is the greater amount (said amount shall be properly included as an

expense of development and to be paid to Edgemont Mining Co., Inc., or as said corporation shall direct); that the first $15,000.00 net profit over and above the expenses of the development of said lease shall be paid, as it is realized, to E. J. Brockman and Art F. Ludwig, in equal shares, as additional consideration for the transfer of this lease, as consideration for the development work by said E. J. Brockman and Art F. Ludwig, and as consideration for the transfer to Edgemont Mining Co., Inc. of the Caterpillar Road Grader, and all trucks and other equipment of Ludwig and Co. Contractors (inventory attached hereto), said transfer to be made, free and clear of all liens and encumbrances, simultaneously with the final payment of the realized profits as set out herein.

WITNESS our hands and seals this day and year first above written.

A. Ludwig (SEAL)

E. J. Brockman (SEAL)

EDGEMONT MINING CO., INC.

BY Ray C. Ludwig
President

ATTEST:

A. Ludwig
Secretary

A G R E E M E N T

THIS AGREEMENT, Made and entered into in duplicate this 4th day of December, 1952, by and between Milford A. DePue, party of the first part, and the Edgemont Mining Company, a corporation, by E. J. Brockman, Vice-President, party of the second part.

WITNESSETH: That whereas, prior to this date, a mining lease was made and executed by and between Milford A. DePue, Lessor, and A. Ludwig and E. J. Brockman, Lessees, bearing date August 11, 1952, and whereas, said lessees have assigned their interest in said Lease to the Edgemont Mining Company, a corporation,

NOW, THEREFORE, it is agreed by and between the parties hereto that the first party above named does here-by authorize and empower the second party hereto, to survey, re-survey, locate or relocate as the case may be, any of the claims heretofore located by the first party and subject to the lease mentioned above, and also authorized the second party to locate or relocate any fractional open ground adjacent to the above claims or any open ground located in the Southwest Quarter of the Southwest Quarter of Section 26, and the Southeast Quarter of Section 27, Township 7, Range 2, E. B. H. M., in Fall River County, South Dakota, and it is further understood and agreed that such locations, relocations, surveys or resurveys, shall be in the name of Milford A. DePue.

IT IS FURTHER UNDERSTOOD AND AGREED by and between the parties hereto that any new claims staked and located or fractional claims staked and located by the second party for and on behalf of the first party, shall become and be subject to the terms and conditions of the lease aforesaid. Said claims shall automatically become a part of said lease.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands

and seals the day and year first above written.

Milford A. DePue
PARTY OF THE FIRST PART

Edgemont Mining Co.
PARTY OF THE SECOND PART

by

E. J. Brockman

STATE OF SOUTH DAKOTA)
) SS.
COUNTY OF FALL RIVER)

On this the 4th day of December, 1952, before me, the undersigned Notary Public within and for said County and State, personally appeared Milford A. DePue and E. J. Brockman, Vice-President of the Edgemont Mining Company, a corporation, known to me to be the persons who are described in and who executed the within and foregoing instrument and acknowledged to me that they executed the same for the purposes therein contained, as their own free act and deed.

Paul H. Russell
Notary Public
Fall River County, South Dakota

My commission expires 1-8-53.

A G R E E M E N T

THIS AGREEMENT, Made and entered into in duplicate this 9th day of March, 1953, by and between Milford A. DePue, party of the first part, and the Edgemont Mining Company, a corporation, by E. J. Brockman, Vice-President, party of the second part.

WITNESSETH: That whereas, prior to this date, a mining lease was made and executed by and between Milford A. DePue, Lessor, and A. Ludwig and E. J. Brockman, Lessees, bearing date August 11, 1952, and whereas, said lessees have assigned their interest in said lease to the Edgemont Mining Company, a corporation,

AND, WHEREAS, there is some discrepancy in the location notices filed on the unpatented lode mining claim Virginia C. and it is the intention of all of the parties that the above Virginia C. Mining Claim is to be a part of those properties leased under the above described lease,

NOW, THEREFORE, it is understood and agreed by and between the parties hereto that the above mentioned lode mining claim designated as the Virginia C. is a part of the properties heretofore leased and is subject to all of the terms and conditions of said lease.

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

Milford A. DePue
Party of the First Part

E. J. Brockman
Party of the Second Part

STATE OF SOUTH DAKOTA)
SS.
COUNTY OF FALL RIVER)

On this the 9th day of March, 1953, before me, the undersigned Notary Public within and for said County and State, personally appeared Milford A. DePue and E. J. Brockman, Vice-President of the Edgemont Mining Company, a corporation, known to me to be the persons who are described in and who executed the within and foregoing instrument and acknowledged to me that they executed the same.

Paul S. Russell
Notary Public

My commission expires 1-8-57

MINING AGREEMENT AND SUB-LEASE

This agreement and sub-lease, made and entered into this 5th day of November, 1953, by and between the Edgemont Mining Co., Inc., A. Ludwig, and E. J. Brockman, hereinafter called the lessors, and the Mining Research Corporation, hereinafter called the lessee.

WHEREAS:

A. Milford A. DePue on August 11, 1952, leased the following claims to A. Ludwig and E. J. Brockman:

	Book #	Page #
Virginia C #1 Lode Mining Claim	31M	314
Virginia C #2 Lode Mining Claim	31M	315
Button #1 Lode Mining Claim	31M	316
Button #2 Lode Mining Claim	31M	315
Viking #1 Lode Mining Claim	31M	316

All of the above situated in Section 26 and 27, Township 7 South, Range 2 East, Black Hills Meridian, Fall River County, South Dakota; and

B. Said Milford A. DePue on August 30, 1952, agreed to add the Dusty Longlegs lode mining claim located in Section 27, R. 2 E., T. 7 S., B.H.M., to said lease and further agreed to make amended claims filed on the above claims a part of said lease; and

C. A. Ludwig and E. J. Brockman on November 24, 1952, assigned all their right, title, and interest in and to the said lease of August 11, 1952, to the Edgemont Mining Co., Inc., for a term of five (5) years beginning August 11, 1952; and

D. Melford A. DePue entered into an agreement with the Edgemont Mining Co., Inc., on December 4, 1952, which authorized that

company to survey, re-survey, locate, or re-locate any of the claims subject to said lease and to locate or re-locate any fractional open ground adjacent to the above claims or any open ground located in the Southwest Quarter of the Southwest Quarter of Section 26 and the Southeast Quarter of Section 27, Township 7, Range 2, B.H.M., in Fall River County, South Dakota, and which provided that such locations, relocations, surveys, or resurveys shall be in the name of Melford A. DePue who further agreed that any new claims so staked and so located or fractional claims so staked and so located by the Edgemont Mining Co., Inc., for and on behalf of DePue shall automatically become a part of, and subject to the terms and conditions of the said lease dated August 11, 1952.

NOW, THEREFORE:

1. For and in consideration of the sum of One Dollar ($1.00) and of the covenants, agreements, and payments hereinafter provided to be made and performed, lessors hereby sub-lease unto lessee the following described property located in the Unorganized Mining District, Fall River County, South Dakota, and more particularly described as follows:

	Book #	Page #
(1) Virginia C Lode Mining Claim	31M	313
(2) Virginia C #1 Lode Mining Claim	31M	314
(3) Virginia C #2 Lode Mining Claim	31M	315
(4) Button #1 Lode Mining Claim	31M	316
(5) Button #2 Lode Mining Claim	31M	315
(6) Viking #1 Lode Mining Claim	31M	316

together with all the dips, spurs, rolls, and angles and also all the uranium and any and all other minerals of any nature whatsoever, including but not limited to all metals, ores, ore-bearing quartz,

rock and earth therein for the purpose of investigating, exploring, drilling, mining for, and treating uranium and all other minerals, whether similar or dissimilar.

2. Lessors hereby grant to lessee all their right and interest under said lease and agreement with Milford A. DePue and lessee hereby agrees to assume all obligations hereinafter arising under said lease and agreement during the term of this sub-lease.

3. TO HAVE AND TO HOLD the same for the purposes of exploration and mining for a primary term of five (5) lease years commencing on the date hereof.

After the expiration of the primary term, lessee shall have the right to continue this lease in full force and effect on all the above described claims, or on such claims as have not been previously surrendered or abandoned for as long as uranium or any other mineral shall be produced from said property. Lessee shall also have the right to continue the term of this lease after the expiration of the primary term by expending a minimum amount of One Hundred Dollars ($100.00) per claim per year upon the development or exploration of such claims as it may wish to retain.

4. Lessors hereby grant to lessee during the time of this lease, possession of such property, the right to explore, map, mine, drill, and extract ore therefrom, to dump waste materials thereon and upon any adjoining areas under the control of lessors, to construct ore bins and buildings thereon, to perform any and all work connected therewith, including construction of roads, to lay pipe lines, to construct mills, power stations, power and communica-

tion lines, houses for its employees and other structures and facilities, and further grant to lessee all road rights of way to which lessors may be entitled for egress and ingress to any and all of the demised properties.

5. Lessors hereby warrant and represent that they have prior valid and lawful right and title to such property and hereby agree to indemnify and hold harmless lessee from any and all other persons, firms, or corporations claiming any rights thereto or any part thereof or any interest therein.

6. Lessee agrees to conduct its mining operations thereon in accordance with good mining practice and in compliance with health and safety regulations, to permit lessors to inspect such premises at all reasonable times to make surveys of the same and to take samples of ore mined or in place using any access roads of lessee, and to make available to lessors survey maps, drilling logs, and other data which may be compiled pertaining to ore deposits found therein.

7. Lessee shall pay the Edgemont Mining Co., Inc., for this sub-lease a sum of Seven Dollars ($7.00) per ton for each ton up to three thousand (3,000) tons of ore mined or leached on said claims. Thereafter, lessee shall pay the Edgemont Mining Co., Inc., an amount indicated by the following schedule for ore mined or leached on said claims:

$7.00 per ton for ore assaying 0.25% (or over) U_3O_8
$5.00 per ton for ore assaying between 0.20% and 0.25% U_3O_8
$2.50 per ton for ore assaying between 0.15% and 0.20% U_3O_8
$1.00 per ton for ore assaying less than 0.15% U_3O_8

In the event that the lessee does not mine or leach a total of three

thousand (3,000) tons of ore and in the further event that the average grade of the ore which is mined or leached assays 0.30% U_3O_8 or more, lessee agrees to pay the Edgemont Mining Co., Inc., an additional sum of Three Dollars ($3.00) per ton for each ton of ore mined or leached.

8. All ore shipments shall be weighed by lessee at its expense and a standard deduction of 6.25 per cent shall be made from such weights as an allowance for the moisture content of said ore. The tonnage and grade of ore leached in place shall be determined on the basis of drill cores taken from the mineralized area and said tonnage shall be mutually agreed upon prior to leaching.

9. During the term of this lease, lessee shall pay all royalties due Milford A. DePue under the terms of said lease of August 11, 1952, and its amendments. It is specifically understood that such royalties for ore, mined or leached by it on this property shall not exceed ten percent (10%) of the price established by the Atomic Energy Commission for ore of like grade delivered to a mill or purchasing depot. Royalty payments for each month shall be made on or before the fifteenth (15th) day of the month following receipt of payment from the Atomic Energy Commission.

10. Lessee agrees to enter upon this property within thirty (30) days from the date of this agreement and to commence the necessary steps immediately thereafter for the development of the property. Lessee further agrees to conduct mining or leaching operations continuously thereafter for as long as commercial grade ore is exposed in underground openings.

11. Lessee shall have the priviledge of surrendering from time to time any or all of said claims. Lessee shall designate the claims it wishes to surrender from time to time, and ninety (90) days after delivery of a proper instrument surrendering the same to lessors shall be relieved of any further responsibility or obligation with respect to such surrendered claims.

12. Lessee at its expense will insure each and every workman employed in its operations as provided in all applicable statutes with respect to workmen's compensation and/or employer's liability; and lessee will procure and maintain at its expense public liability insurance in a reputable and financially responsible company properly safeguarding against liability for injury to persons, including injuries resulting in death, and loss or damage to property arising out of lessee's operations hereunder.

13. Lessee hereby agrees to attempt to obtain a Defense Minerals Exploration contract for the exploration of Virginia C #1, Viking #1, and Button #1 and #2. All drilling under any contract which may be obtained for the exploration of any or all these claims will be sub-contracted to the Englewood Drilling Co., Inc., at the rates authorized by the DMEA contract. Fifty percent (50%) of the contractor's share of the authorized contract costs shall be paid by the Edgemont Mining Co., Inc., and the remaining fifty percent (50%) shall be paid by the Mining Research Corporation. Fifty percent (50%) of the amount of the loan which must be repaid under the exploration contract from production, if any, shall be paid by the Mining Research Corporation and the remaining fifty percent (50%)

shall be paid by the Edgemont Mining Co., Inc.

14. If lessee is unable to obtain a DMEA contract within five (5) months, this sub-lease shall terminate with respect to the Virginia C #1, Viking #1, and Button #1 and #2, providing, however, that the lessee shall have the option of continuing the sub-lease on such claims if it agrees to pay the Englewood Drilling Co., Inc., thirty-five cents ($0.35) per foot for a total of not less than 5,000 feet of wagon drilling on said claims. The location of such drilling shall be determined by the lessee.

15. In the event that said exploration drilling results in the discovery of a commercial ore body which is located near the surface and which can be mined by open-strip methods more economically than by other conventional mining methods, lessee agrees to employ the Edgemont Mining Co., Inc., to mine and load said ore. Lessee further agrees to pay the Edgemont Mining Co., Inc., for mining and loading said ore a sum equal to that which would be paid for ore of like grade under the Atomic Energy Commission price schedule, less all royalties due Milford A. DePue. Lessee shall further deduct from such sum on a pro rata basis the costs of exploration incurred by it and the repayments, if any, which must be made under any DMEA contract which is obtained for exploration on said claims.

16. In the event of any breach or default by lessee, the lessors may give written notice by registered mail thereof to lessee. Upon receipt of such notice, lessee shall have ninety (90) days to cure such breach or default and maintain the lease in effect. If lessee shall not have cured or taken diligent steps to cure any such

breach or omission within said ninety (90) day period, lessors may terminate this lease. Failure to enforce such forfeiture shall not constitute a waiver by lessors of their rights in the event of a future breach of such term or provision or the breach of any other term or provision hereof.

Neither party shall be deemed in default hereunder where its act or omission shall be occasioned by strikes, riots, flood, fire, storm, acts of God, war, Federal, state, or local laws or regulations, or other causes not within their or its control.

17. Lessee shall have the right for a period of six (6) months after the date of termination of this lease for any reason whatsoever to remove as lessee's own property buildings, and all improvements, bins, machinery, equipment, and other personal property excepting only ties and timbering which may have been placed on the premises by it.

18. This lease and all its terms, conditions, and stipulations shall extend to and be binding upon the respective heirs, executors, personal representatives, assigns, and successors of the parties hereto.

IN WITNESS WHEREOF lessors have hereunto set their hands and seals and lessee has caused this document to be executed by its officers, duly authorized thereunto as of the day and year first above written.

MINING RESEARCH CORPORATION

By: J. Sterling Livingston
Vice President (L.S.)

EDGEMONT MINING CO., INC.

By: Ray C. Ludwig (L.S.) President

Walter D. Jorgensen (L.S.) Secretary

(L.S.)

Lessors

STATE OF: Colorado)
) SS
COUNTY OF: Arapahoe)

On this the 5 day of November, 1953, before me, _____, the undersigned officer, personally appeared J. Sterling Livingston, Ray C. Ludwig, and Walter D. Jorgensen, known to me or satisfactorily proven to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same for the purpose therein contained.

Henry Gosel
Notary Public

My Commission Expires July 28, 1956

4. Physical description.

(a) The mine workings on the Virginia C claim have accounted for all production from this claim group to date. These workings in relation to the other claims in the group and to the geologic features of the property are described in the attached map which also describes our proposed exploration program. A sufficient tonnage of ore has been shipped from the Virginia C claim to exhaust the A.E.C. bonus. Fifty-six channel samples taken at equal intervals from the mineralized areas along the walls of the underground excavations assayed chemically an average of 0.22% U_3O_8. Higher grade mineralization, in some places assaying over 1% U_3O_8, has been found on the west and northwest sides of the center and western drifts. Applicant is now mining commercial grade ore from the center drift which is being extended both in a northwest and a northeast direction. Approximately 80 tons of ore assaying 0.17% U_3O_8 were mined during January, 1954.

(b) Inasmuch as virtually no exploratory drilling has been undertaken, an accurate estimate of ore reserves can not be made.

(c) Uranium mineralization of the district is found in slightly tilted sandstones of the Dakota and Lakota formations on the southwest flank of the Black Hills uplift. The deposits consist of irregular lenses of ore in sandstones. The deposits are flat-lying and conform generally to the dip of the host formations. The principal ore mineral is carnotite.

The Dakota sandstone is exposed over much of the area of the claims, except on Button No. 1 and the northwest corner of Virginia C, No. 2 where the Fuson shale outcrops. The proposed exploration program is confined to those areas where the Dakota sandstone is exposed.

(d) The property is located 12 miles northwest of Edgemont, South Dakota and can be reached easily over access roads built by the Atomic Energy Commission. Inasmuch as the areas proposed for drilling under this application are readily accessible by truck, no road work is anticipated. A small amount of bulldozer work will be required for drill sites, however. The shipping point is Edgemont which also is the point of residence and although some supplies are available at Edgemont, most mining equipment and repair parts must be obtained from Denver. Rail, truck, and bus transportation is available.

4. Physical description. (con't.)

(e) Applicant has at present personnel needed to develop and supervise the exploration project and to form the nucleus of the crew for exploration drilling. Such additional labor as is necessary can be secured locally.

Common items of equipment and supplies may be secured in Edgemont or Hot Springs. Specialized materials, equipment, and supplies would be secured from Denver, Colorado. Since rail, truck, and air service from Denver is regularly scheduled, large stocks would not have to be maintained on the property.

Water is available by haulage from the Edgemont city water supply at a cost of $0.10 per load.

Although an electric power line passes near the property, it is planned to use internal combustion engines for power due to the need for mobility of equipment. Both gasoline and butane are available from bulk distributors in Edgemont and Hot Springs.

5. The exploration project.

(a) Exploration is to be for uranium in the form of carnotite.

(b) The applicant proposes to explore the property by means of 13,000 feet of wagon drilling in three areas west and northwest of the present mine workings as shown on the attached exhibit. The ground in the mine workings is fractured by fissures which strike in an east-west direction. These fractures or fissures have been mapped by applicant whose maps are available to the D.M.E.A. field team. Applicant is of the opinion that the mineralization in the mine extends west and northwest of the workings along a trend parallel to the strike of the fractures. Mineralization discovered by A.E.C. drilling on Virginia C No. 2 west of the mine tends to support this opinion. Accordingly, applicant proposes to explore the areas west and northwest of the mine where the Dakota sandstone outcrops. The first of these areas is immediately west of the mine workings; the second is on Virginia C No. 1 further west; and the third is on Button No. 1 and No. 2 and Viking No. 1 northwest of the workings.

Initial drilling will be on spacing of 60' x 60' staggered on Virginia C No. 2 and on spacing of 100' x 100' in the other areas. In addition, applicant requests permission to drill fill-in holes on 50' x 50' centers or closer when approved by the D.M.E.A. field team, in those areas where mineralization is found. Because of the spotty occurrence of the mineralization, particularly along fracture zones, fill-in holes on a closer spacing than 50' x 50' are essential in order to determine the existence of commercial ore deposits. The proposed drilling program totals 13,000 feet and is summarized as follows:

	Area	Hole Spacing	No. of Holes	Average Depth	Footage
(1)	Virginia C No. 2	60' x 60' staggered	80	65'	5200 ft.
(2)	Virginia C No. 1	100' x 100'	36	80'	2880 ft.
(3)	Button No. 1 and 2 and Viking No. 1	100' x 100'	28	80'	2240 ft.
(4)	Fill-in holes in mineralized areas on spacing to be approved by the D.M.E.A. field team.		38	70 (app.)	2680 ft.
				TOTAL	13,000 ft.

5. The exploration project (Con't.)

(c) The work will start within 30 days and be completed within six months from the date of an exploration project contract.

(d) The applicant is qualified in all respects to carry out the exploration project described in this application. Applicant now possesses all equipment required, adequate working capital, and thoroughly experienced and capable engineering and supervisory personnel. The project will be carried out under the direction of Clifton W. Livingston, president of the Mining Research Corporation, who has had over 20 years' experience in the mining industry, much of it in uranium geology and mining. After serving an apprenticeship of 2½ years as a miner, mucker, mine surveyor, and draftsman, Mr. Livingston has held the following engineering, geological, supervisory, and teaching positions:

1933-1935	Design Engineer, Alaska Juneau Gold Mining Company, Juneau, Alaska.
1935-1936	Mine Superintendent, Arizona Comstock Corporation, Virginia City, Nevada.
1936-1939	Chief Engineer and Geologist, Baguio Gold Mining Company, Baguio, P.I.
1939-1940	Assistant General Superintendent, Baguio Gold Mining Company, in charge of production.
1940-1942	Instructor in Mining, Michigan College of Mining and Technology.
Summer, 1941	Associate Geologist, Geological Survey of Newfoundland, Canada.
1942-1943	Mine Superintendent, Calumet and Hecla Consolidated Copper Company.
1943-1945	Field Geologist, Union Mines Development Corporation.
1945-1947	Associate Professor of Mining, Colorado School of Mines.
1947-1951	Professor and Head, Department of Mining, Colorado School of Mines.

5. The exploration project (Con't.)

Mr. Harold Davidson, who also has had over 30 years' experience in the mining industry, is employed by the Mining Research Corporation as a mining engineer. Mr. Davidson was an engineer for the Oliver Iron Mining Company for 18 years and during 10 of these years was in charge first of shaft sinking and later in charge of the company's entire timber and mineral lands. In addition to a number of other mining engineering positions, Mr. Davidson worked for the Michigan Tax Commission as an engineer in the Commission's mine appraisal work. From 1946 to 1949, Mr. Davidson was an assistant professor at the Colorado School of Mines. He holds the C. E. degree from the University of Michigan and the E. M. degree from the University of Wisconsin.

Mr. Philip W. Peter, mining engineer, graduate from the Colorado School of Mines in 1950, is in charge of applicant's exploratory drilling work. Mr. Peter has been engaged in uranium exploration and mining since his graduation.

Applicant plans to subcontract all wagon drilling, at least 5,000 feet of which will be subcontracted to the Englewood Drilling Co., Inc. In the event applicant is unable to subcontract the remaining drilling on a satisfactory schedule, applicant will acquire additional equipment and undertake the work at prevailing contract rates. All drilling will be carried out under the field direction of either Mr. Harold Davidson or Mr. Philip W. Peter of the applicant's staff.

6. Estimate of costs.

The total estimated cost of the project is $14,355. The estimated cost of 13,000 feet of wagon drilling is $13,655 or $1.05 per foot. An estimate of $700 has been made for 200 chemical assays at $3.50 each. The detailed cost estimates for drilling are as follows:

(a) Independent contracts

(1) Bulldozer operation - drill site preparation. 40 hrs. @ $12.00.	$ 480.00
(2) Wagon drilling 13,000 ft. @ $.75 per foot (at least 5,000 feet will be subcontracted to the Englewood Drilling Co., of Edgemont, South Dakota.)	9,750.00

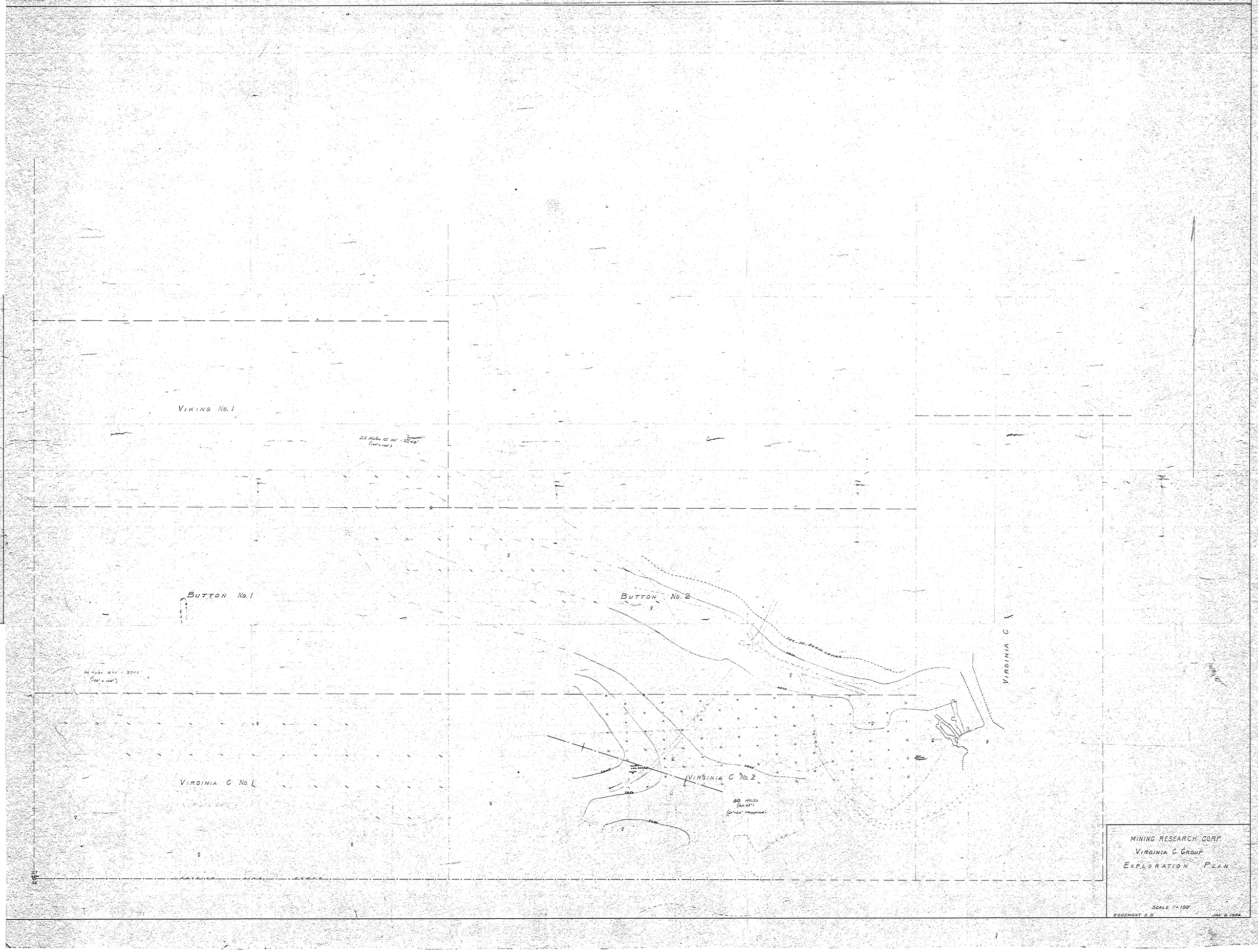
(b) Labor, supervision, consultants

Field engineer @ $500.00/pm - ½ time for 6m. Supervision of sub-contract work, surveying, analyses and interpretation of drilling results and preparation of DMEA reports; will require approximately half-time of an engineer for six months.	1,500.00

(c-g)

Indirect expenses @ 85% of direct labor. In view of the fact that applicant is performing other D.M.E.A. contracts as well as other government contracts and is mining ore as well as producing uranium concentrates, it is impractical from an accounting point of view to account for engineering and office equipment and supplies, supervision, office expense, vacation pay, insurance, and payroll taxes for each project. Accordingly, these expenses are allocated on the basis of direct labor dollars. The applicant's past experience indicates these expenses are approximated 85% of direct labor and this rate is now being used on other government contracts.	1,275.00
(h) Contingencies - 5%	650.00
TOTAL	$ 13,655.00
Cost per foot	$1.05

7. (a) Applicant is prepared to furnish its share of the cost of the proposed project and, upon request, will deposit its share of the funds in a depository designated by the Defense Minerals Exploration Administration.


VIKING No. 1
BUTTON No. 1
BUTTON No. 2
VIRGINIA C No. 1
VIRGINIA C No. 2
VIRGINIA C
80 Holes
MINING RESEARCH CORP.
VIRGINIA C. GROUP
EXPLORATION PLAN
SCALE 1"=100'
EDGEMONT S.D.
JAN 6 1954

VIKING No. 1

BUTTON No. 1

BUTTON No. 2

VIRGINIA C No. 1

VIRGINIA C No. 2

60 holes
(20'x20' staggered)

VIRGINIA C

MINING RESEARCH CORP.
VIRGINIA C GROUP
EXPLORATION PLAN

SCALE 1" = 100'

EDGEMONT S.D. JAN. 6 1956

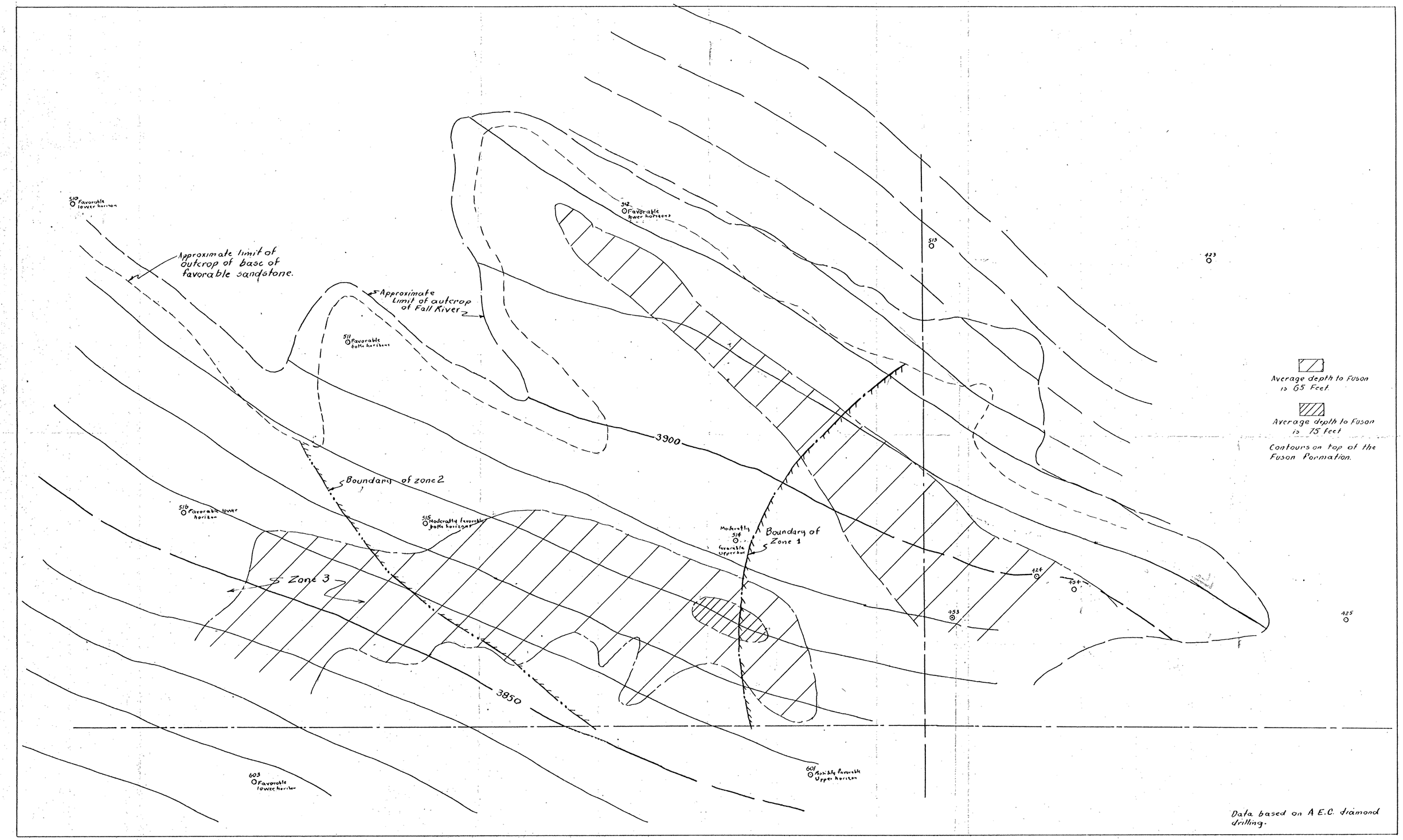
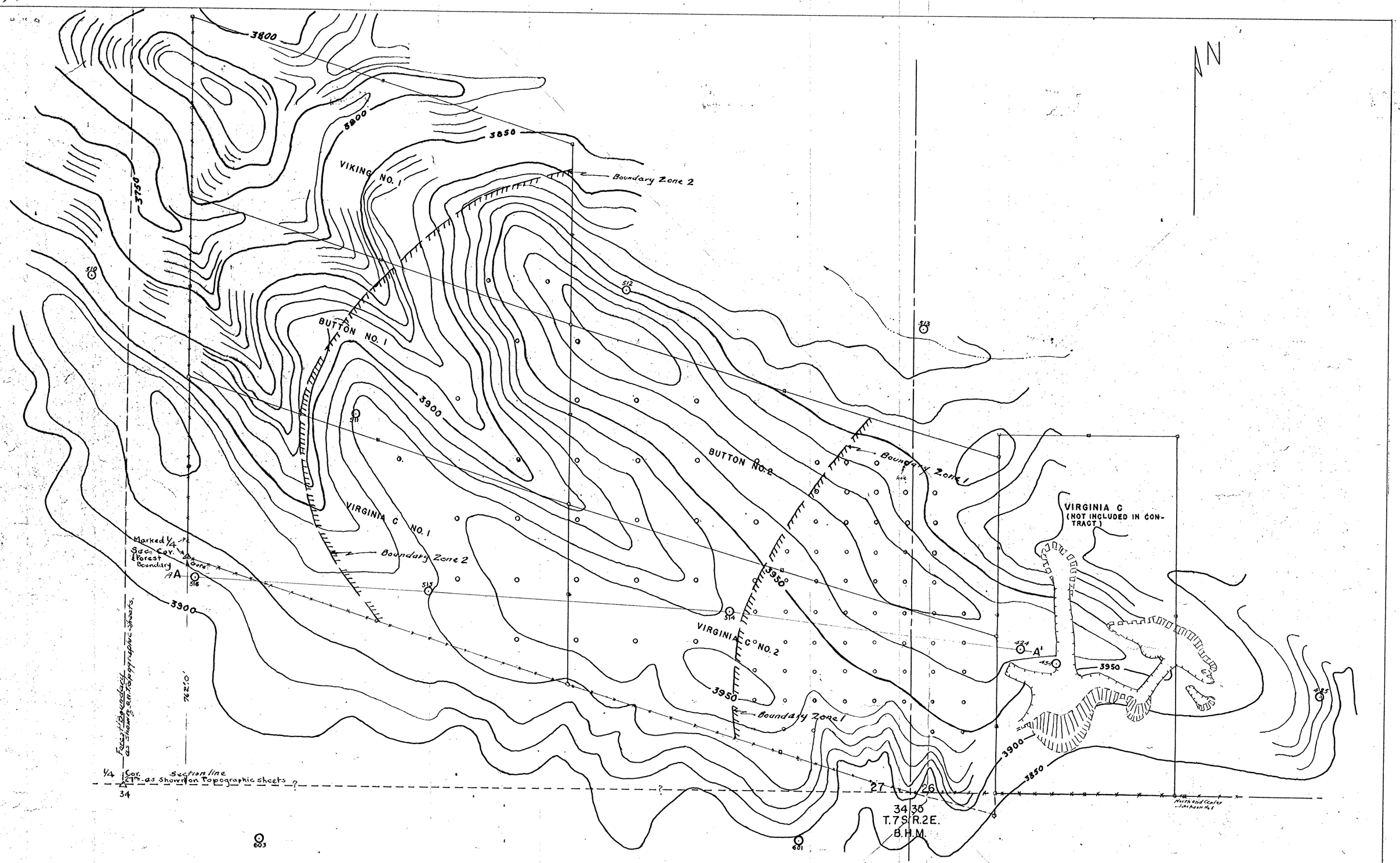
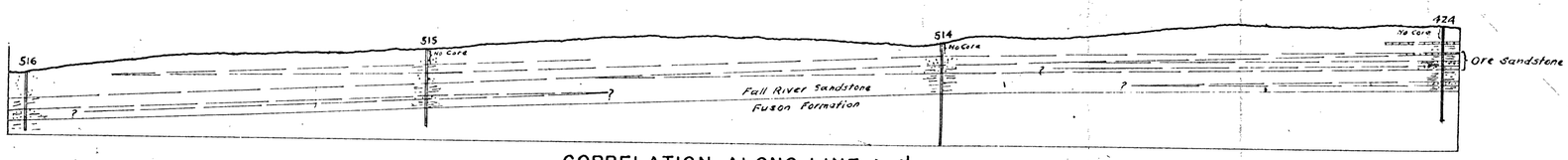


FIGURE 2, DRILLING DATA, VIRGINIA C AREA

Scale 1" = 200'





CORRELATION ALONG LINE A-A'
Horizontal Scale 1" = 200', Vertical Scale 1" = 100'

Legend

- A.E.C. DRILL HOLES
- MINE WORKINGS
- DUMPS
- PROPOSED WAGON DRILL HOLES

0 100 200 300 400
SCALE IN FEET

FIGURE 1
EXPLORATION PLAN
VIRGINIA C PROPERTY
FALL RIVER COUNTY, SOUTH DAKOTA
DMEA DOCKET 3342 — CONTRACT IDM-E

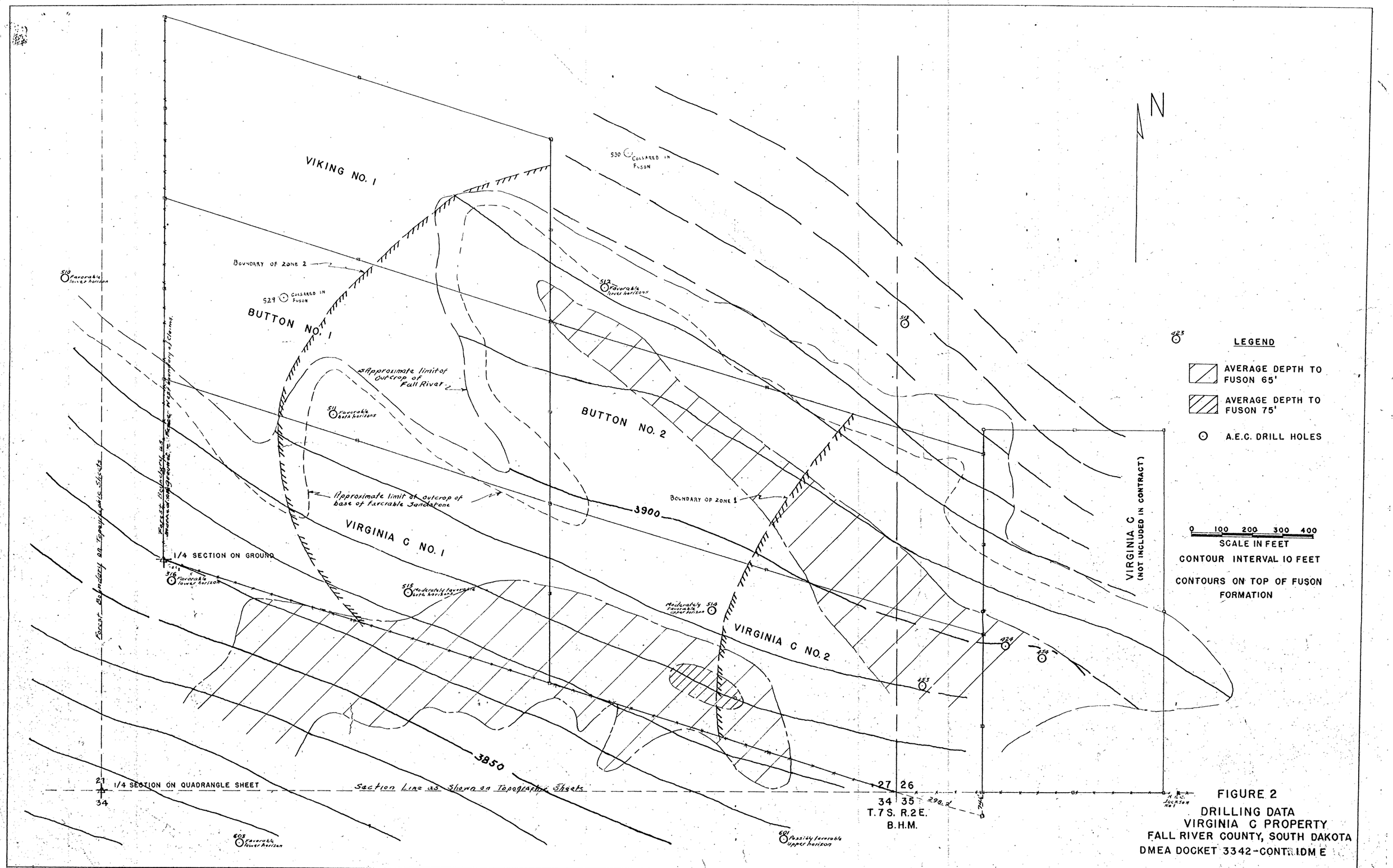
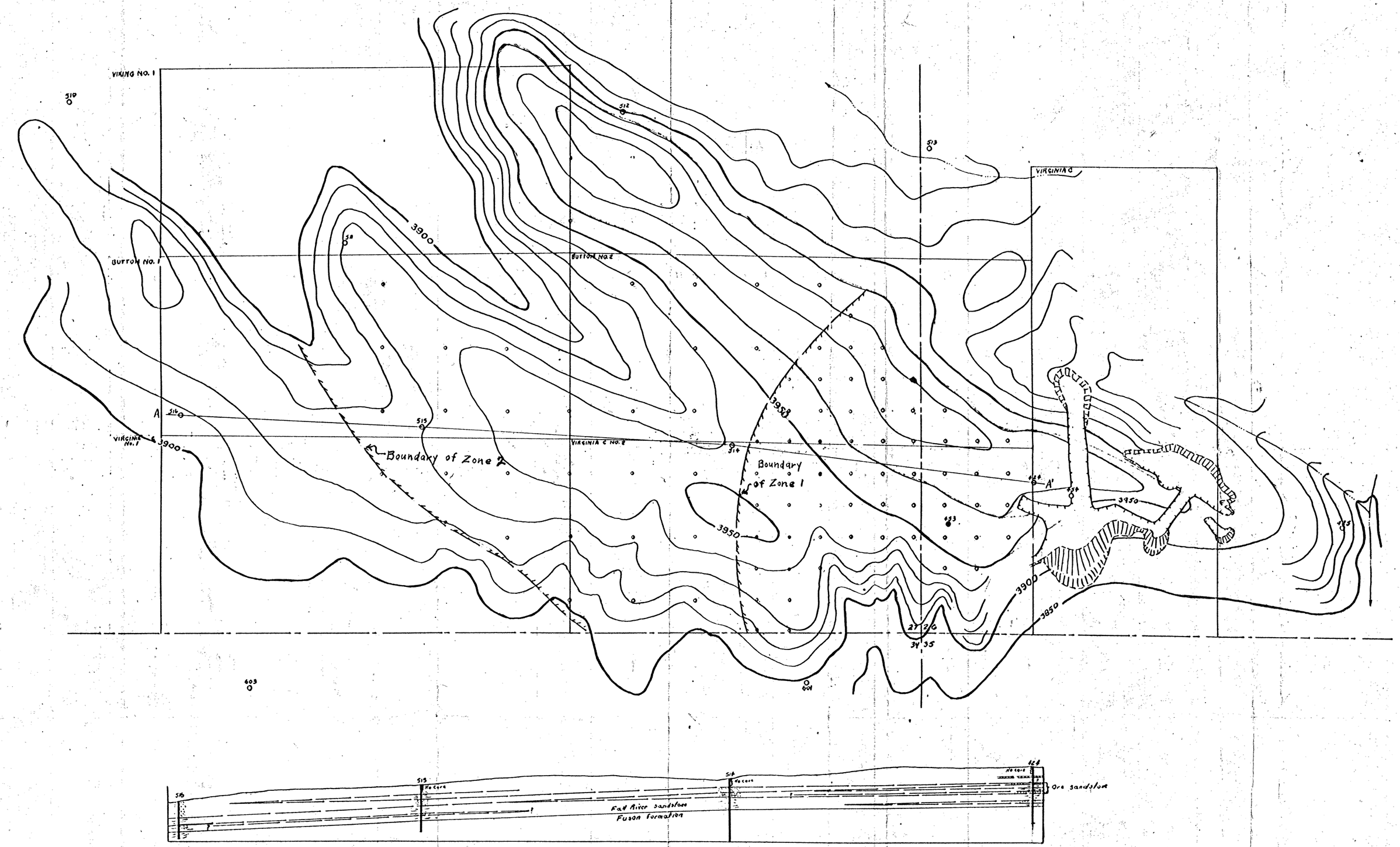
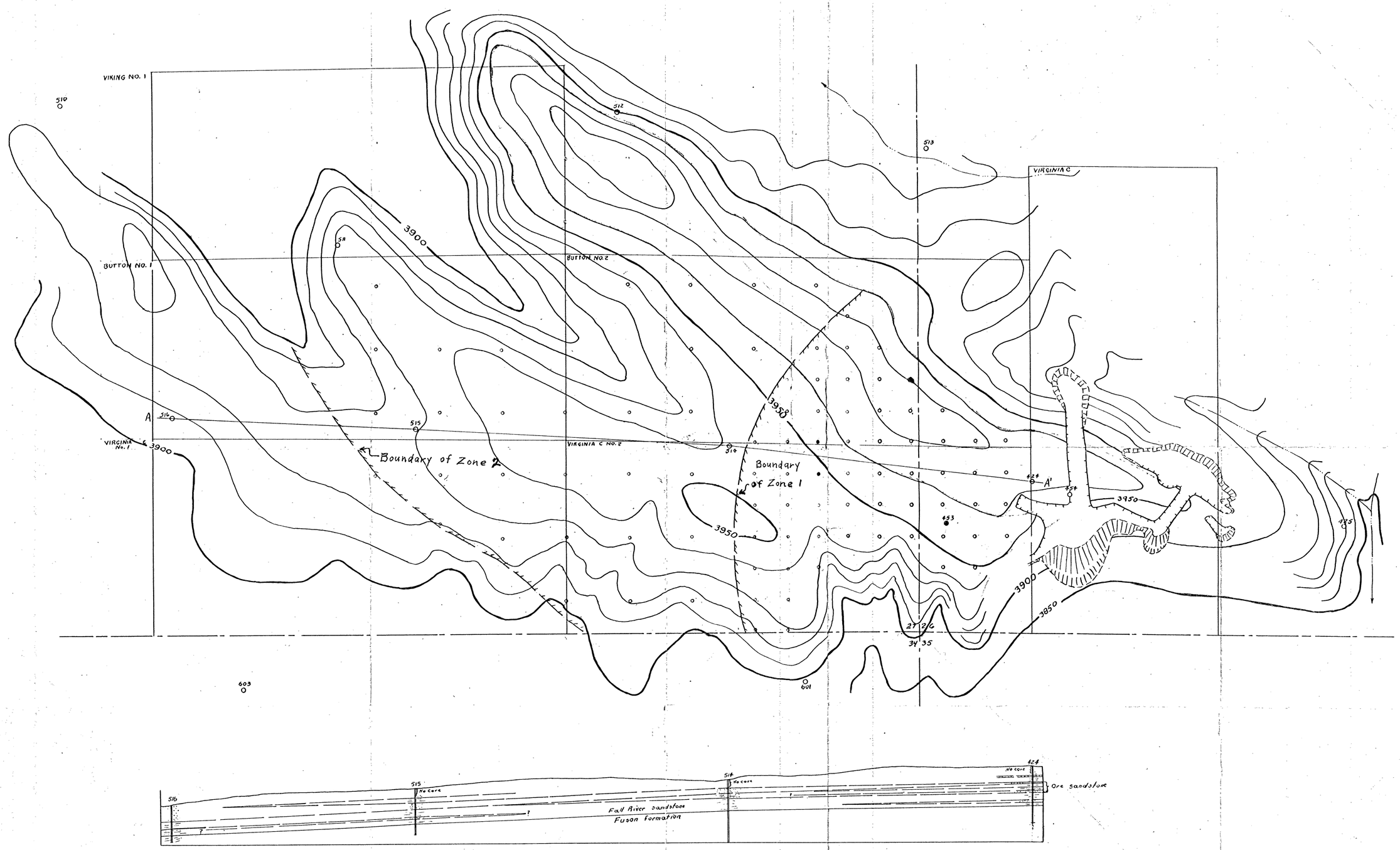


FIGURE 2
DRILLING DATA
VIRGINIA C PROPERTY
FALL RIVER COUNTY, SOUTH DAKOTA
DMEA DOCKET 3342-CONT. IDM E



CORRELATION ALONG LINE A-A'
Horizontal Scale 1"=200'; Vertical Scale 1"=100'

FIGURE 1, EXPLORATION PLAN, VIRGINIA C GROUP.



CORRELATION ALONG LINE A-A'
Horizontal Scale 1"=200'; Vertical Scale 1"=100'

FIGURE 1. EXPLORATION PLAN, VIRGINIA C GROUP.