DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4564

Idm-E 1995

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
✓ Reports of Royalty Review
✓ Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
✓ Report of Review
✓ Termination Notice or Agreement
Recision Notice
Assignment of Contract
✓ Contract Amendments (latest on top)
✓ Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
✓ Application, Renewal and attachments ~~Bids~~
(3) Envelope for maps

Right Side

✓ Project summary
✓ Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

✓ Final Field Team Report (Tab)
✓ Operator's Final Report
(2R) Interim Reports
(2R) ✓ Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets
Bids

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

✓ Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers
✓ Settlement Sheets

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract Idm-E1095, Docket DMEA-4564 (uranium), dated May 31, 1957, with

Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Jet Claims located in Big Horn County, Wyoming, during the period September 27, 1960, through April 22, 1963.

A certification of discovery or development was issued on August 8, 1958, and, in accordance with Article 8 and Amendment No. 1 of the contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 11 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. A Report of Review dated January 7, 1959, indicated accepted costs under the exploration contract amounting to $8,885.20 with the Government's contribution on a 75 percent basis being $6,663.91.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review found the total sales subject to the Government's royalty for the period to be $4,599.08. Royalty payable to the Government at the rate specified in the contract is $229.96.

A prior Report of Royalty Review found the sales subject to the Government's royalty through September 26, 1960, to be $89,004.26, which added to the sales for this subsequent period make a total of $93,603.34. The royalty account as of September 26, 1960, was:

Total Royalty Payable	$4,450.22
Total Royalty Paid	4,450.22
Balance of Royalty Due	$ -0-

As of April 22, 1963, the royalty account of this project was found to be:

Total Royalty Payable	$4,680.18
Total Royalty Paid	4,691.06
Overpayment of Royalty	$ 10.88

June 19, 1963

C. E. Fisher, OME Auditor

Idm-E1095 Modern Mines Development Company DMEA-4564

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

This contract provides that the Operator, as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced from the property thereunder. The property consists of 12 unpatented lode mining claims situated in sections 22 and 23, T. 58 N., R. 94 W., 6th P.M. At the time the contract was executed the Operator was in possession of the land by virtue of a sales agreement dated September 22, 1956, with Lew Johnson and Stan Johnson, d/b/a Johnson Transfer. Their Consent to Lien and Subordination Agreement dated April 11, 1957, is attached to the contract.

Exploration work under the contract was terminated effective August 10, 1957, by Termination Agreement dated July 29, 1958. Royalty on production by the Operator during the exploration period and through October 1958 is covered by Report of Royalty Review dated February 10, 1959.

Effective June 15, 1959, the Operator leased the property to Lisbon Uranium Corporation, who operated until about January 1, 1960. Royalty received on production by this lessee is covered by Report of Royalty Review dated October 7, 1960, which extended the period covered by review through September 26, 1960. The present review relates to production, sales, and royalty payable since the latter date.

The Operator, as owner, leased the property to Lew Johnson and Stan Johnson, d/b/a Johnson Transfer, on August 18, 1961. The lease was assigned by these parties to Middleton Mining Company, Box 175, Lovell, Wyoming, on May 5, 1962, by an agreement granting overriding royalties of 6¼% to the Johnsons and 6¼% to the Operator.

Two sales were made to Susquehanna-Western, Inc., during this period. Shipments were in the name of Lew Johnson. Distribution of proceeds from these sales was made by Middleton Mining Company who paid the Government royalty. Erroneous computations resulted in a net overpayment of royalty to the Government in the amount of $10.88 computed as follows:

Idm-E1095 Modern Mines Development Company DMEA-4564

Liq. No.	Value of Production U_3O_8	Develop. Allow.	Haulage Allow.	Haulage Paid	Net Value	Royalty (5%)
As computed and royalty paid:						
1164	$3,091.44	$402.05	$ -0-	$ -0-	$3,493.49	$174.67
1263	1,323.31	-0-	-0-	-0-	1,323.31	66.17
				Total royalty paid		$240.84
Should be:						
1164	$3,091.44	$402.05	$688.35	$(929.27)	$3,252.57	$162.63
1263	1,323.31	181.28	451.65	(609.73)	1,346.51	67.33
				Total royalty payable		$229.96
				Overpayment of royalty		$ 10.88

This review included the recomputation of liquidation statements received in support of royalty payments during the period and the verification thereof with deposits made by the Department's Fiscal Section. A brief summary of the reported production, sales, and royalty computation for the period under review and since the date of the contract follows:

	This Period	To Date
Production		
Ore - Short Wet Tons	190.000	1,791.890
Ore - Short Dry Tons	181.172	1,690.347
U_3O_8 - Pounds	1,166.650	11,914.250
" - " excess 4#/SDT	441.962	5,674.822
" - " excess 10#/SDT	-0-	772.680
Sales		
U_3O_8 - Base payments	$4,083.28	$40,223.86
" - excess 4#/SDT	331.47	4,256.12
" - excess 10#/SDT	-0-	193.17
Development allowance	583.33	5,957.17
Haulage allowance	1,140.00	10,751.34
Haulage paid	(1,539.00)	(1,539.00)
Totals Receiving Station	$4,599.08	$59,842.66
AEC Production Bonus	-0-	33,760.68
Totals subject to royalty	$4,599.08	$93,603.34

Idm-E1095 Modern Mines Development Company DMEA-4564

	This Period	To Date
Royalty Payable	$ 229.96	$ 4,680.18
Royalty Paid	240.84	4,691.06
Overpayment of Royalty	$ 10.88	$ 10.88

The last liquidation included in this review was dated January 30, 1963, and covered production received at the Riverton, Wyoming, plant of Susquehanna-Western, Inc., on October 26, 1962. Royalty in the amount of $66.17 was received and deposited by the Department's Fiscal Section on April 22, 1963.

The findings of this review are subject to revision in the event of future audit of the Operator's records or examination of the stoped areas.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The files indicate that, during the period covered by this review, all sales of production from the property under the contract have been reported and proper royalty thereon paid, except as indicated above; and

(2) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Office of Minerals Exploration, Washington, D. C., pertaining to Contract No. Idm-E1095, Docket No. DMEA-4564 (Uranium), dated May 31, 1957, with

Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

for the purpose of determining the amount of royalty due the U. S. Government on sales of minerals from property referred to as Jet Claims located in Big Horn County, Wyoming, during the period February 3, 1959, through September 26, 1960.

A certification of discovery or development was issued on August 8, 1958, and, in accordance with Article 8 and Amendment No. 1 of the contract, royalty is payable on all minerals mined or produced from the land described in Article 2 of the contract for a period of 11 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. A Report of Review in lieu of final audit dated January 7, 1959, indicated accepted costs under the exploration contract amounting to $8,885.20 with the Government's contribution, on a 75 percent basis, being $6,663.91.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review established the total sales of uranium ore for the period to be $13,986.86. Royalty due the Government at rates specified in the contract is $699.34.

A prior Report of Royalty Review found the sales subject to Government royalty through February 2, 1959, was: See insert

Total Royalty Due	$3,750.88
Total Royalty Paid	3,165.84
Balance of Royalty Due	$ 585.04

Insert - to be $75,017.40 which added to the sales for this subsequent period make a total of $89,004.26. The royalty account as of February 2, 1959,

At September 26, 1960, the royalty account of this project was found to be:

Total Royalty Due	$4,450.22
Total Royalty Paid	4,450.22
Balance of Royalty Due	$ -0-

October 7, 1960

C. E. Fisher

C. E. Fisher, OME Auditor

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

Production during the period covered by this review was accomplished by Lisbon Uranium Corporation under a mining lease dated June 15, 1959. Three sales were made of uranium ore to Susquehanna Western, Inc., on which royalty was paid to the Government. In addition, royalty was paid on the initial production bonus applicable to these shipments, as well as the delinquent royalty indicated by the prior Report of Royalty Review.

My review included the recomputation and tabulation of the liquidation statements received in support of the royalty payments. This tabulation is filed with my audit work-papers and is summarized on Exhibit "A".

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) Inspection reports by field representatives of the Government and other information in the Washington office files indicate that mining operations at the property have been discontinued and that proper royalty has been paid to the Government on all production to date; and

(2) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

Exhibit "A"

Idm-E1095 | Modern Mines Development Company | DMEA-4564

Summary of Production, Sales and Royalty

	Modern Mines Devel. Co.	Lisbon Ur. Corp.	Totals
Production			
Ore - SWT	1,091.975	509.915	1,601.890
Ore - SDT	1,020.887	488.288	1,509.175
U_3O_8 - Pounds	8,741.50	2,006.10	10,747.60
" - " excess 4#/SDT	4,811.51	421.35	5,232.86
" - " " 10#/SDT	772.68	-0-	772.68
Sales			
U_3O_8 - Base payment	$30,146.48	$ 5,994.10	$36,140.58
" - excess 4#/SDT	3,608.64	316.01	3,924.65
" - " 10#/SDT	193.17	-0-	193.17
Development allowance	4,370.78	1,003.06	5,373.84
Haulage allowance	6,551.85	3,059.49	9,611.34
Totals Receiving Station	$44,870.92	$10,372.66	$55,243.58
AEC Production Bonus	30,146.48	3,614.20	33,760.68
Totals subject to DMEA Royalty	$75,017.40	$13,986.86	$89,004.26
Royalty Due	$ 5,750.88	$ 699.34	$ 4,450.22
Royalty Paid			
Prior to 2/2/59	3,165.84	-0-	3,165.84
Subsequent to 2/2/59	585.04	699.34	1,284.38
Balance of Royalty Due	-0-	-0-	-0-

MME Form 22
April 59

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

OFFICIAL FILE COPY
O. M. E.
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DATE	INITIALS	
	Docket No.	DMEA 4564

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name Modern Mines Development Co.

Address 219 South 31st Avenue

Yakimo, Washington

Exploration Contract No. Idm E1095

			Check One Yes	Check One No
1.	(a)	Does the Operator stockpile ore subject to royalty repayment?		X
	(b)	If so, is segregation and identification procedure adequate?		
2.	(a)	Does Operator commingle production subject to DMEA or OME royalties with exempt production?		X
	(b)	If so, do you consider the allocation of the commingled production equitable?		
3.	(a)	Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		X
	(b)	If so, are adequate records maintained on such material to protect the Government's interest?		
4.		Do you consider the assay controls in effect are adequate?	X	
5.		Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	X	
6.		Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA or OME royalties?	X	
7.		Does the Operator buy from or sell to other Operators?		X
8.		Comment on any item 2 (b) to 6 if answer is No.		

9-26-60
Date

Hugh M. Connors
Mining Engineer
Hugh M. Connors

DMEA FORM 6 REFERENCE SLIP

REV. 12-56 DEFENSE MINERALS EXPLORATION ADMINISTRATION

TO:	INITIALS	DATE
1. Mr. Frank E. Johnson	FJ	2/13
2. Mr. George C. Selfridge		
3. Mr. F. L. Knouse		
4.		
5.		
FROM: Jay L. Chambers JC		2/12

FOR: Check items for action desired

____ Action ____ Reply for signature of _____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions XXX Your information

REMARKS:

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O. M. E.
RECEIVED FEB 12 1959

DATE	INITIALS	CODE

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Executive Officer, OME Field Team, Region III, Denver, Colorado, pertaining to Contract Ida-[illegible]095, Docket No. DMEA 4564 (Uranium) dated May 31, 1957, including Amendment No. 1 with

Modern Mines Development Company
219 South 31st Avenue,
Yakima, Washington

for the purpose of determining the amount of royalties due the United States Government on the sale of Uranium bearing ores produced from the Jet group of claims located in Big Horn County, Wyoming, during the period May 31, 1957 through February 2, 1959.

The status of the project, scope of the review and reasons therefor are stated on Page 2.

My review established the total sales of Uranium bearing ores for this period to be $75,017.40. (See Schedule No. 1 attached.) Royalty due the United States Government at the contract rate of 5 percent is $3,750.88. The royalty paid and the balance due are as follows:

Total Royalty Due	$3,750.88
Total Royalty Paid	3,165.84
Balance of Royalty Due (See Schedule No. 2)	$ 585.04

see Journal memo 3/9/59 to Auditor as offset on royalty decl

Donald T. Finch
Donald T. Finch
OME Auditor

February 10, 1959

STATUS OF THE PROJECT, DESCRIPTION OF REVIEW AND REASONS THEREFOR

CONTRACT NO. I4m-R1095 **DOCKET NO. DMMA-4564**

The exploration work under the contract has been completed. A Certificate of Discovery or Development was issued on August 8, 1958, and in accordance with the contract, royalty is payable on all minerals mined or produced from the land described in Annex I, Article 2 of the contract for a maximum period of eleven years from the date of the contract. A Report of Review in lieu of final audit, dated January 7, 1959, indicated accepted costs of $8,885.20, with Government's contribution on a 75 percent basis being $6,663.91.

My review included a tabulation and recomputation of all ore settlement sheets in the files of the Executive Officer, GMK Field Team, Region III, for the period May 31, 1957 through February 2, 1959, and correspondence with the Chief of Accounting Branch, Finance Division, Field Operations Office, Atomic Energy Commission, Grand Junction, Colorado.

The producer's reported sales were reconciled with the production records maintained by A.E.C. Royalties paid were reconciled with the GMK Finance Office, Denver, Colorado.

The review was made in lieu of an on-site audit of the producer's accounts for the following reasons:

(a) All reported production was reconciled with records of the Atomic Energy Commission.

(b) The Examining Engineer is of the opinion all sales of production are accounted for.

(c) The administrative cost to the Government of an on-site audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

Schedule No. 1

MODERN MINES DEVELOPMENT COMPANY

CONTRACT NO. Idm-R1095 DOCKET NO. DMEA-4564

SUMMARY OF PRODUCTION, SALES AND ROYALTIES,
PERIOD MAY 31, 1957 THROUGH FEBRUARY 2,1959

(All production was from Jet Claim No. 8, and all sales were to Fremont Minerals, Inc.)

Gross Weight, Pounds	2,183,950	
Dry Weight, Pounds	2,041,774	
Dry Weight, Tons	1,020.887	
Average Assay U_3O_8	.428	
Pounds U_3O_8	8,741.50	
Base Payment U_3O_8	$30,146.48	
Development Allowance	$ 4,370.76	
Premiums		
Excess 4 lbs. U_3O_8 per Ton		
Excess lbs. U_3O_8	4,811.51	
Amount at 75¢ per excess lb.	$ 3,608.64	
Excess 10 lbs. U_3O_8 per Ton		
Excess lbs. U_3O_8	772.68	
Amount at 25¢ per excess lb.	$ 193.17	
Haulage Allowance		
Number of Wet Tons	1,091.975	
Allowance per Ton	6.00	
Amount	$ 6,551.85	
Total Receiving Station Value	$44,870.92	
A.E.C. Production Bonus	30,146.48	
Total Value Subject to Royalties		$75,017.40
Average Value Per Dry Ton	$ 70.85	
Royalty Percentage	5%	
Royalties Due	$ 3,750.88	
Royalties Received	3,165.84	
Balance of Royalties Due (See Schedule #2)		$ 585.04

The last liquidation settlement sheet in above is Fremont Minerals, Inc. No. 200 dated November 17, 1958.
The last Certificate of Deposit in above is No. 59-79 dated November 20, 1958.
There remains 1,258.5 lbs. U_3O_8 available for A.E.C. Production Bonus if and when produced.

Schedule No. 2

MORROW MINES DEVELOPMENT COMPANY

CONTRACT NO. I6m-H1095 DOCKET NO. DMRA-4564

SCHEDULE OF BALANCE OF ROYALTY DUE

	Date 1958	Liquidation Number	Balance Due
Fremont Minerals, Inc.	Aug. 4	118	$ 86.48
	Aug. 4	121	117.12
	Sept. 8	149	82.98
	Oct. 6	171	119.68
	Nov. 17	199	121.14
	Nov. 17	200	57.64
Total Balance of Royalty Due			$585.04

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name Modern Mines Development Company

Address 219 South 31st Avenue

Yakima, Washington

Exploration Contract No. Idm-E 1095

Docket No. DMEA 4564

Jet Claims
Big Horn County, Wyoming

	Check One: Yes	Check One: No
1. (a) Does the Operator stockpile ore subject to royalty repayment?		x
(b) If so, is segregation and identification procedure adequate?		
2. (a) Does Operator commingle production subject to DMEA royalties with exempt production?		x
(b) If so, do you consider the allocation of the commingled production equitable?		
3. (a) Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		x
(b) If so, are adequate records maintained on such material to protect the Government's interest?		
4. Do you consider the assay controls in effect are adequate?	x	
5. Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	x	
6. Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA royalties?	x	
7. Does the Operator buy from or sell to other Operators?		x
8. Comment on any item 2(b) to 6, if answer is No.		

Date 2/9/59

Mining Engineer

M. H. Marshall

Do[illegible]t copy

CERTIFICATION BY THE UNITED STATES OF AMERICA
OF A DISCOVERY OR DEVELOPMENT UNDER
AN EXPLORATION PROJECT CONTRACT

Murphy
Kilsgaard
Selfridge
Johnson

To: Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Pursuant to the provisions of Exploration Project Contract No. Idm-E1093, dated May 31, 1957, (Docket No. DMEA-4564), hereinafter called the "Contract," between Modern Mines Development Company, a Washington corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the Contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows:

Non-core drilling on the claims subordinated under the Contract indicated uranium ore deposits in fractured Madison limestone of Mississippian age which underlies the property.

Dated: AUG 8 1958

THE UNITED STATES OF AMERICA

By C. Mitteudorf
Administrator, Defense Minerals
Exploration Administration

FMMurphy/izm 8-7-58
cc to: Mr. Murphy
Docket
Admr.'s Reading File
Frank E. Johnson
Operating Committee
Contract Adm. & Audit Div.
Finance Office
DMEA FT, Reg. 3 (2)
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Operator
Jesse C. Johnson, AEC, Wash. D. C.
Elton A. Youngberg, AEC, Grand Junction, Colorado
Lew Johnson, Basin, Wyoming
Stan Johnson, Basin, Wyoming

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O. M. E.
RECEIVED JAN 12 1959

DATE	INITIALS	CODE
1/13/59	[illegible]	[illegible]

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

pertaining to Exploration Project Contract No. Idm-21095, DMEA No. 4564, including Amendment No. 1, and Termination Agreement dated July 29, 1958, for the period May 31, 1957 to August 9, 1957, inclusive, covering a project for the exploration of Uranium on property known as Jet Claims located in Big Horn County, Wyoming.

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

This review was made in lieu of a final audit of the Operator's accounts and records for the reasons given on the attachment to this report.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by Contractor		$9,809.75
Exceptions: (Schedule attached)		
Prior to this review	$924.55	
Less: Reinstatement by review	0.00	
Herewith	0.00	924.55
Total Accepted Cost		$8,885.20

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Six Thousand, Six Hundred Sixty-Three and 91/100ths Dollars is valid and proper, provided that the Regional Executive Officer, the Director, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

Amount payable to Operator	$6,663.91
Amount reimbursed	6,163.91
Balance due Operator	$ 500.00

paid to royalty acct. See Exc. Officer letter, March 9, 1959 to finance officer.

Donald T. Finch

Donald T. Finch,
OME Auditor

January 7, 1959

REMARKS FOR REPORT OF REVIEW IN LIEU OF FINAL AUDIT

CONTRACT NO. XDM-20095 DOCKET NO. DMEA-4564

[redacted] KIEWE DEVELOPMENT COMPANY

(a) The monthly reports were supported by documentary proof of that portion ($8,158.60) of the costs which covered work performed at unit rates under independent contract. (Per schedule attached.)

(b) The balance ($786.60) of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs of work actually performed; and

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

SCHEDULE OF EXCEPTIONS

CONTRACT NO. [illegible]-[illegible]095 DOCKET NO. [illegible]-4564

[illegible] RIVER RECLAMATION COMPANY

Disallowances Prior to This Review

June, 1957

Overcharge in excess of actual cost of drilling 887 feet ($1,995.75 - $1,954.00)	$ 41.75

July, 1957

Reported cost of drilling Holes RJ 1-4 and RJ 7-11 (302 feet at $2.85 per foot) Holes not drilled in accordance with contract, and were not acceptable to Field Team	724.50
Incidental allowance applicable to Holes RJ 1-4 and RJ 7-11 (302 feet at 21¢ per foot)	64.40
Overcharge in excess of actual cost of drilling 1,523 feet of acceptable drilling ($3,486.75 - $3,368.90)	57.85

August, 1957

Overcharge in excess of actual cost of drilling 1,223 feet. ($2,751.75 - $2,715.70)	36.05
TOTAL DISALLOWANCES PRIOR TO REVIEW	**$924.55**

The Executive Officer of the [illegible] Field Team, Region III, and the Auditor concur with the above disallowances.

SCHEDULE OF DOCUMENTED COSTS

CONTRACT NO. IDA-H1095 ROCKET NO. RMEA-4564

MOUNTAIN MINES DEVELOPMENT COMPANY

Independent Contracts

3,633 Ft. non-core drilling at average of $2.213/Ft.	$8,038.60	
12 Hours standby time at $10.00/hr.	120.00	
Total Documented Costs		$8,158.60

Fixed Unit Costs

Incidental Allowance: 3,633 Feet of completed and acceptable drilling at 20¢/Ft.	726.60
TOTAL ACCEPTABLE COSTS	$8,885.20

Government's copy

DMEA
RECEIVED SEP 11 1958

DATE	INITIALS	CODE

App'd. Sol. Off.

Robin
Kenyon
Murphy
Kubick
Chambers
Martin
Johnson

TERMINATION AGREEMENT

It is agreed this 29th day of July, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Modern Mines Development Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1095 (Docket No. DMEA-4564), dated May 31, 1957, as amended, hereinafter called the "Contract," that:

1. Effective August 10, 1957, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the allowable costs of work performed prior to August 10, 1957.

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

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

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

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

THE UNITED STATES OF AMERICA

By G. Mitteudorf
Administrator, Defense Minerals
Exploration Administration

MODERN MINES DEVELOPMENT COMPANY

By Modern Mines Development Co
Title John T. Gladesen
Vice President

JUSTIFICATION FOR TERMINATION AND CERTIFICATION

DOCKET NO. DMEA-4564 (URANIUM)
CONTRACT NO. IDM-E1095
MODERN MINES DEVELOPMENT COMPANY

The object of the project was to explore for uranium ore deposits in Madison limestone of Mississippian age by drilling non-core holes to an average depth of 150 feet.

Under the contract 28 of the 34 holes allowed in Stage I were drilled, 2 of which were disallowed by the Field Team leaving 8 Stage I holes not drilled.

The drilling completed resulted in the discovery of several small ore bodies (or possibly one irregular ore body) which are now being mined. To date 705.6 tons of ore averaging 0.38% U_3O_8 have been shipped. The holes remaining to be drilled under Stage I are at distances of 1,300 to 3,000 feet from the developed ore bodies. Five of the holes are on a northwesterly-trending band considered to have the best ore potential.

Amendment No. 1 to the Contract allowed a recess period from August 10, 1957 to June 1, 1958. In a letter, dated June 26, 1958, the Operator advised the Field Team that it did not wish to continue with the Contract. This decision was based on the DMEA (May 26, 1958) denial of the Operator's request for an increase in the allowable unit cost per foot of drilling.

In a letter, dated July 21, 1958, to the Operating Committee, the Field Team recommended that the Contract be terminated because it appeared doubtful if completion of the drilling would add materially to the geologic picture or to the ore potential of the area; and that the Contract be certified on the basis of the ore already discovered as well as the possibility that other deposits may be discovered as a direct or indirect result of the drilling completed under the Contract.

Estimated Total Cost Stage I	$22,714.00
Estimated Total Cost Stage II	$18,156.00
Estimated Total Cost of Project	$40,870.00
Government Participation @ 75%	$30,652.00

MF-104 for August 1957, indicates that 3,955 feet of drilling, at a cost of $8,885.20, was completed.

F. M. Murphy

F. M. Murphy, Mining Engineer
Division of Rare and Miscellaneous

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EXPLORATION PROJECT CONTRACT

MODERN MINES DEVELOPMENT COMPANY

DOCKET NO. DMEA-4564

CONTRACT NO. IDM-E1095

AMENDMENT NO. 1

It is agreed this 14th day of November, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Modern Mines Development Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1095, Docket No. DMEA-4564, dated May 31, 1957, hereinafter called the "Contract," that:

1. (a) Work under the Contract shall be suspended during the period beginning August 10, 1957 and ending not later than June 1, 1958.

   (b) No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government, and the Government shall not contribute to any costs of rehabilitation or repair which, in its opinion, would not have occurred if there had been no suspension of the work.

   (c) The Operator at his own cost and expense, without contribution by the Government, during the period of suspension shall perserve and protect the project work and any property in which the Government has an interest.

2. The date fixed in Article 3 on or before which work shall be completed is extended from November 1, 1957 to November 1, 1958.

3. The maximum period for royalty payments and lien for payment thereof, provided for in the contract, is increased to eleven (11) years from the date of the contract.

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

Executed in quintuplicate the day and year first above written.

MODERN MINES DEVELOPMENT COMPANY

By W. A. Wagle
Title Sec Treas

(Seal)

UNITED STATES OF AMERICA

By W. H. King
[redacted] Executive Officer
DMEA Field Team, Region III

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Government's copy

MF-200
(Revised June 1954)

Docket No. DMEA -4564

Commodity Uranium

Contract No. Idm-E 1095

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 31 MAY 1957 day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] MODERN MINES DEVELOPMENT COMPANY, a Washington corporation, whose mailing address is 219 South 31st Avenue, Yakima, Washington, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and map, Figure 4.

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

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

(b) The Operator represents and undertakes that:

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

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

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: **Consent to Lien and Subordination Agreement by Lew Johnson and Stan Johnson d/b/a Johnson Transfer.**

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of **Uranium** The work to be performed is described in Exhibit "A." The Operator on or before July 1, 1957 shall commence the work, and on or before **November 1, 1957** (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have expended allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A",~~ **except as otherwise provided in Exhibit "A" with respect to stages of work. (See Article 13.)**

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $**40,870.00**
The Government shall contribute **75** percent of the allowable costs as they are incurred in a total sum not in excess of $**30,652.00**: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; ~~but except for any such excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated total allowable cost of the work.~~ **(See Article 13.)**

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

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums. **(See Article 13.)**

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article ~~X~~ 8. **(See Article 13.)**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work, except as otherwise provided in Exhibit 'A' with respect to stages of work."

(b) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon is deleted.

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

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

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

(f) Notwithstanding any other provision of the contract, the allowable unit cost per foot of a drilling item is the average unit cost per foot computed on the basis of all the actual unit costs of said drilling item incurred by the Operator: Provided, That the Government will not contribute to any portion of an average unit cost of a drilling item that exceeds the estimated unit cost of said item set forth in the contract.

Long
Thompson
Appd. Sol. Off.

Murphy
Ellis
Chambers
Selfridge

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C D Mittendorf
Administrator, Defense Minerals Exploration Administration

MODERN MINES DEVELOPMENT COMPANY
(Operator)

By E. Sigman

Title President

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

W. S. Doyle.

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

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DMEA
RECEIVED JUN 24 1957
CODE

EXPLORATION PROJECT CONTRACT
MODERN MINES DEVELOPMENT COMPANY
DOCKET NO. DMEA-4564

ANNEX I

The land referred to in Article 2 of the contract consists of twelve (12) unpatented lode mining claims. Notices of location of the claims have been recorded in the official records of Big Horn County, Wyoming, as follows:

Claim	Date Recorded	Book	Page
Jet Nos. 1 through 7	2/19/56	153	406-419
Jet Nos. 8 through 12	2/21/56	153	420-428

The claims are situated in secs. 22 and 23, T. 58 N., R. 94 W., 6th P.M., Big Horn County, Wyoming. The approximate locations of the claims are shown on the map entitled "Figure 4. Claim Map with Alternate Exploration Proposal, Modern Mines Development Company - Jet Claims ...," attached hereto and made a part hereof.

The Operator is in possession of the land by virtue of an agreement dated September 22, 1956, with Lew Johnson and Stan Johnson, d/b/a Johnson Transfer, and their Consent to Lien and Subordination Agreement is attached.

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

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Modern Mines Development Co.
Docket No. DMEA- 4564
Contract No. Idm-E 1095
Contract Date 31 MAY 1957

RECEIVED APR 15 1957 D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Big Horn, State of Wyoming, described as follows: 2/

Twelve (12) unpatented lode-mining claims, namely Jet Nos. 1 through 12, situated in secs. 22 and 23, T. 58 N., R. 94 W., Sixth principal meridian; and recorded in the Office of the County Recorder on February 19-21, 1956 in Book 153, pgs. 406-428,

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

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

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

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

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

None

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

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

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

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

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

Dated this 11 day of APRIL, 1957.

Lew Johnson*	[Seal]	Basin, Wyoming	[Address]
	[Seal]		[Address]
Stan Johnson*	[Seal]	Basin, Wyoming	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

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

_____
[Corporate Seal]

* d/b/a Johnson Transfer

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DATE | CODE

EXPLORATION PROJECT CONTRACT
MODERN MINES DEVELOPMENT COMPANY
DOCKET NO. DMEA-4564

EXHIBIT "A"

Description of the Work

General Provisions

The object of this project is to explore for possible uranium ore deposits in the Madison limestone of Mississippian age. It is estimated that drill holes averaging 150 feet in depth will be required to penetrate the inferred ore horizon.

All holes shall be drilled non-core, and the cuttings from each 2-foot section of drill hole shall be recovered by a Duclone or similar sampling apparatus. All cuttings shall be tested for radioactivity. Samples showing significant radioactivity shall be split, the Operator using one half for chemical assay purposes. The other half shall be stored for Government inspection and use in a container properly identified as to drill hole number and the depth interval that the sample represents. With Government approval, its portion of the sample may be disposed of by the Operator.

All drill holes shall be logged geologically and probed radiometrically, using an Esterline-Angus recorder or similar recording equipment. Records of drill hole logging and probing, together with the assay certificates of the cuttings samples, shall be submitted with the Operator's monthly progress report. The monthly report shall also include a map or sketch showing the location of all holes drilled during the reporting period.

In the absence of a written waiver of this provision, the Government will not contribute to the cost of an incompleted hole, a hole that is closer than 100 feet to the outer boundaries of the claim group, or of one that cannot be probed with standard radiometric testing equipment.

The Operator shall provide a full-time supervisor and such other technical services and labor as are required to complete the project work in a satisfactory manner.

All bulldozer work shall be done with a D-7 bulldozer or equivalent size unit.

The location of drill holes and access roads, the method of drilling and radiometric probing, and the method of taking and storing samples shall be subject to Government approval.

The work shall be performed in two stages. The Operator shall perform all the Stage I work and as much of Stage II work as is approved in advance in writing by the Government.

Stage I

Construct access roads and drill sites, and drill not in excess of sixty (60) holes at the approximate locations shown on the attached map, Figure 4. With written Government approval the hole locations, as shown on Figure 4, may be changed.

On the Jet claims Nos. 7, 8, and 9, the holes indicated by solid black circles shall be drilled on not less than approximately 300-foot centers and those indicated by a small open circle shall not be less than approximately 200 feet from any other hole; the five holes indicated by small open circles in the southwest corner of Jet No. 1 claim and the northwest corner of Jet No. 2 claim shall not be closer than approximately 100 feet to any other hole; and the holes indicated by a double circle on the Jet claim group shall not be drilled closer than approximately 200 feet to any other hole drilled under this Stage I of the contract.

It is estimated that 9,000 feet of non-core drilling, 30 hours of stand-by time for probing, 12 hours of bulldozer time, and chemical analyses of 55 samples for U_3O_8 will be required to complete this stage. However, if these estimates are too low, upon the written approval of the Government, additional units of work and corresponding funds may be transferred and deducted from Stage II.

Stage II

Construct access roads and drill sites, and drill not in excess of forty-eight (48) holes as offsets to Stage I holes, which penetrated mineralized material. The offset holes shall be drilled not closer than 100 feet to any previously drilled hole.

Stage II work shall not exceed 8 hours of bulldozer time, 7,200 feet of non-core drilling, 24 hours of stand-by time for probing, and the chemical analyses for the U_3O_8 content of 45 samples.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

9,000 feet non-core drilling @ $2.25/ft.	$20,250.00	
30 hours stand-by time @ $10.00/hr.	300.00	
12 hours bulldozing @ $12.00/hr.	144.00	$20,694.00

Categories (2) through (7) None

Fixed Unit Costs (See Article 13)		
Incidental allowance[1/] for each foot of drilling completed 9,000 feet @ $0.20/ft.	$ 1,800.00	
Chemical analyses of 55 samples for U_3O_8 content @ $4.00/sample	220.00	$ 2,020.00
Estimated Total Cost Stage I		$22,714.00

Stage II

Actual Costs		
Category (1) Independent Contracts		
7,200 feet non-core drilling @ $2.25/ft.	16,200.00	
24 hours stand-by time @ $10.00/hr.	240.00	
8 hours bulldozing @ $12.00/hr.	96.00	16,536.00
Categories (2) through (7)	None	
Fixed Unit Costs (See Article 13)		
Incidental allowance[1/] for each foot of drilling completed 7,200 feet @ $0.20/ft.	1,440.00	
Chemical analyses of 45 samples for U_3O_8 content @ $4.00/sample	180.00	1,620.00
Estimated Total Cost Stage II		$18,156.00

S U M M A R Y

Estimated Total Cost Stage I	$22,714.00	
Estimated Total Cost Stage II	18,156.00	
Estimated Total Cost of Project		$40,870.00
Government Participation @ 75% (rounded)		$30,652.00

1/ Includes all costs whatsoever that might otherwise have been allowable costs of the contract under Categories (2) through (7) of Article 6(a) which have been deleted from this contract.

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

224 New Customhouse
Denver 2, Colorado

February 21, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE
2/25	C	220
~~2/25~~	~~Murphy~~	~~700~~

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 4564 (Uranium) Modern Mines Development Co. (Jet claims) Big Horn Cty., Wyoming

Enclosed is one copy of a revised application to the subject docket in the amount of $55,000.00.

The applicant bases the revised program on more adequate geologic information. The proposed program consists of but two stages of 6,000 feet drilling, each with an estimated cost of $2.50 per foot. The applicant states, however, that he will furnish estimates from three reliable drilling companies to support this figure.

DMEA Field Team, Region III

E. N. Harshman

By E. N. Harshman
Acting Executive Director

Enclosure

219 S. 31ST AVE.
YAKIMA WASH.
PHONE 9948

MODERN MINES DEVELOPMENT CO.

19 SO. BENTON
HELENA, MONT.
PHONE HICKORY 2-4687

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE

February 16, 1957
2280 East Drive
Butte, Montana

Mr. J. R. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver, 2, Colorado

Re: Docket DMEA 4564 (uranium)
Modern Mines Development Co.
(Jet Claims) Big Horn Cty
Wyoming

Dear Mr. Traver

Please extend my thnks to your Messers Binion and Pratt for the courtesy extended us during their recent examination of the above referenced Jet Claims, Little Mountain District, Wyoming, DMEA Docket 4564. It was my pleasure to accompany them during the time that they spent on the property and I am sure that they have an excellent idea of the potential of the area.

Please accept this letter as a request for the following changes that we would like to make in our request for DMEA assistence in exploration of the Jet claims. Item 5b of the original request should be altered to read as follows.

5b. It is planned to conduct the exploration work in the following stages.

Stage I consists of rotary or other type drilling capable of coring if necessary and of drilling to depths of at least 500 feet. This stage will consist of 6,000 feet of such non core drilling that will permit of approximately 40 holes of average depth of 150 feet. Such holes are located on the attached revised claim and structure map labeled Exhibit Ia. Drilling in stage I will commence on Jet Claim 1 and proceed through 2, 3, 4, 5, etc until the desired 40 holes have been completed.

Stage II. If stage I is adequately successful then we would like stage II to permit drilling an additional 6,000 feet of hole having the above stated average depth. Holes for this stage are also shown on the attached exhibit Ia.

Except for the total final cost of such requested assistence as given in original item 7a, no additional changes are known. Using the same figures for cost of drilling, item 7a should be changed to read $55,000.00 of which the operators share will be $13,775.00. This figure reflects 12,000 feet of drilling at a per foot cost of $2.50. However at Mr. Binion's suggestion I have asked for estimates from three reliable drillers and as soon as these are received I shall forward them to you.

See (1)

As I explained to Mr. Binion during his visit to the property, this request for change has been brought about largely by more complete understanding of the geology of the area and more clear thoughts concerning the ore controls in the district. If it was possible to locate the holes shown on the attached map at points where both structure and surface radioactive anomolies coincided then that was done and the holes are those shown in green inside a red circle. If no such overlapping was possible then the holes were located on structure alone. In general the obtuse angle of the joint intersections is considered more favorable than is the acute angle though a fair proportion of the holes have been located on or near the acute angle of intersection. Likewise, the east - west fractures are now considered to be significant. Also the more incipient fractures that may be observed in the field are considered to more favorable as locus for ore deposits than are the well developed ones that may be easily observed on aerial photos.

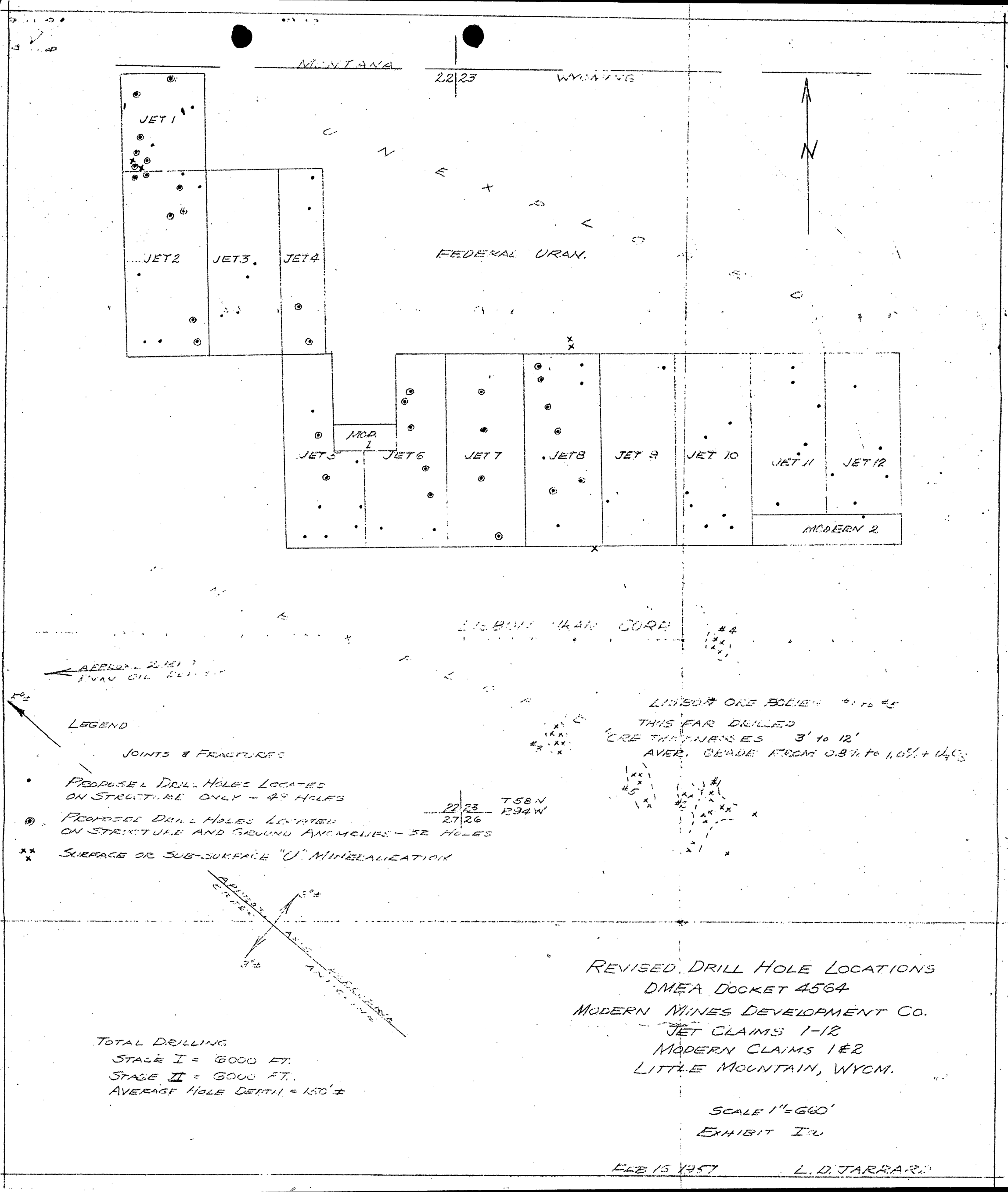
If I may be of any service to you or Mr. Binion regarding this application please do not hesitate to write me at the above Butte, Montana address.

Sincerely

Modern Mines Development Co.

by Leonard L. Jarrard

Leonard L. Jarrard
Consulting Geologist


MONTANA
22 | 23
WYOMING
N
JET 1
JET 2
JET 3
JET 4
FEDERAL URAN.
MOD. 1
JET 5
JET 6
JET 7
JET 8
JET 9
JET 10
JET 11
JET 12
MODERN 2
#4
#3
#5
#2
#1
LEGEND
JOINTS & FRACTURES
PROPOSED DRILL HOLES LOCATED ON STRUCTURE ONLY – 42 HOLES
PROPOSED DRILL HOLES LOCATED ON STRUCTURE AND GROUND ANOMALIES – 32 HOLES
SURFACE OR SUB-SURFACE "U" MINERALIZATION
22 | 23
27 | 26
T58N
R94W
THIS FAR DRILLED
ORE THICKNESSES 3' to 12'
AVER. GRADE FROM 0.8% to 1.05% + U3O8
TOTAL DRILLING
STAGE I = 6000 FT.
STAGE II = 6000 FT.
AVERAGE HOLE DEPTH = 150'±
REVISED DRILL HOLE LOCATIONS
DMEA DOCKET 4564
MODERN MINES DEVELOPMENT CO.
JET CLAIMS 1-12
MODERN CLAIMS 1 & 2
LITTLE MOUNTAIN, WYOM.
SCALE 1" = 660'
EXHIBIT IV
FEB 16 1957
L. D. JARRARD

RECEIVED
FEB 25 1957
D.M.E.A.

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

224 New Customhouse
Denver 2, Colorado

December 3, 1956

RECEIVED DEC 5 1956 D.M.E.A.

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Application for DMEA Aid (Uranium) Modern Mines Development Company (Jet Claims) Big Horn County, Wyoming

Enclosed are three copies of the subject application in the amount of $43,950.00. Two copies of the application are being retained in our file.

No drilling bids accompanied the application, and no chemical assays were shown by the Applicant. One radiometric analysis was enclosed. The Applicant proposes to drill the anomalies. Shaft sinking proposed in the Applicant's Stage III is development and not exploration. The claim map submitted by the Applicant is not tied to a section corner and a note on the map states that four of the Jet claims are actually located 600 feet due west of the position shown. Additional information would be desirable before making a field examination. (*)

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

(*) Exhibit B shows the true location.
Note: In referring to F.T. note that Applicant proposes shaft work which appears to be development.

RW

MI
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1085.2.

APPLICATION FOR AID IN AN DMEA EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

DEPARTMENT OF THE INTERIOR
DEC 3 1956
REGION III
DENVER, COLORADO

Not to be filled in by applicant

Docket No. 4564
Metal or Mineral Uranium
Date Received 12-5-56
Estimated Cost $43,950
Participation (Government %)

RECEIVED DEC 5 1956 D.M.E.A.

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: MODERN MINES DEVELOPMENT COMPANY
219 So. 31 Ave, Yakima, Washington

(*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. See accompanying paper.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See accompanying paper.

(*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 Jet Claims #1 to #12 inclusive recorded in Book 153, Pages 406-428 of lode locations, Big Horn County, Wyoming. Above claims have been acquired by lease from Lew Johnson and Stan Johnson of Basin, Wyoming.

(*b*) State any mine name by which the property is known. Jet claims #1-12

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee

(*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. Items 4-7 on attached sheets

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 will to explore uranium

(*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 [ ] 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 ....., 195...

MODERN MINES DEVELOPMENT COMPANY
(Applicant)

By R. W. Sigman

President

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

MODERN MINES DEVELOPMENT COMPANY

DEC 5 1956 D.M.E.P.

APPLICATION FOR AID IN AN EXPLORATION PROJECT - Uranium

1. b Modern Mines Development Company was incorporated under the laws of the State of Washington on April 5, 1956, and its Articles of Incorporation were filed on April 11, 1956 with the Secretary of State.

1. c

L. V. Sigman President	2302 W. Chestnut Yakima, Wash.
Buford Miles Vice President	19½ So. Benton Helena, Mont.
W. S. Doyle Secretary-Treasurer	219 So. 31st Ave. Yakima, Wash.

Above three are only directors. Serve until next annual meeting.

First Monday in October, 1957.

3. d AGREEMENT: THIS INSTRUMENT, made between LEW JOHNSON and STAN JOHNSON, d/b/a Johnson Transfer, Party of the First Part, hereinafter called "Johnson" and MODERN MINES DEVELOPMENT COMPANY, a corporation, Part of the Second Part, hereinafter called "Modern Mines", records the following agreement.

JOHNSON for the agreed consideration sells, transfers and assigns to Modern Mines the following mining claims.

Mining claim known as Jet #1 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 406. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #2 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said county, Book 153, Page 408. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #3 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 410. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #4 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 412. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #5 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 414. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #6 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 416. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #7 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 418. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #8 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 420. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #9 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 422. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #10 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records of said County, Book 153, Page 424. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #11 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the records in said County, Book 153, Page 426. Said Location Notice is made a part hereof by reference.

Mining claim known as Jet #12 located in Big Horn County, State of Wyoming, the Location Notice of which is on file in the recores of said County, Book 153, Page 428. Said Location Notice is made a part hereof by reference.

on the following terms and conditions:

1. PRICE: The down payment of $5,000.00 is paid today and this is the only payment outside of royalty payments until June 30, 1957, unless ore be discovered and shipped prior to that date in which case paragraph 5 below shall apply. If Modern Mines wants to continue mining or developing these claims after June 30, 1957, they shall pay Johnson, on or before that date, the additional sum of $8,000.00. If on July 1, 1957, Modern Mines is showing good faith toward developing this property, the option shall be extended until October 1, 1957. If Modern Mines doesn't want to continue they shall not have to make this second payment.

2. ROYALTY: As additional consideration, Modern Mines shall pay 10% royalty. This shall be computed by application of price schedules of Atomic Energy Commission, then in effect, before allowances for transportation and development and shall include production bonus.

If the Atomic Energy Commission doesn't have a price shedule then royalty shall be computed on net smelter returns which shall not include transportation, any exploration or development allowance paid by the government, and cost of treatment or benefication of ores.

3. TRANSPORTATION: Johnson shall haul ore to satisfaction of Modern Mines at established rates.

4. EXPLORATION AND ASSESSMENT WORK: Modern Mines shall start exploration work within 15 days from today and shall complete assessment work by June 15, 1957. This work and all work shall be done in logical sequence and in a miner-like fashion.

5. FIRST SMELTER RETURNS: Johnson shall receive 90% of the first smelter returns computed in the same manner as the royalty payment in Paragraph 2, until he has received the $8,000.00 mentioned in paragraph 1, which will be in payment thereof. The other 10% will go to royalty payment.

6. MORTGAGE, SALE OR ASSIGNMENT: Modern Mines may mortgage, sell or assign these claims subject to this agreement.

DONE and DATED this 22nd day of September, 1956.

Lew Johnson
LEW JOHNSON

Stan Johnson
STAN JOHNSON

L. V. SIGMAN
MODERN MINES DEVELOPMENT COMPANY
President

Attest:

W. S. DOYLE
Secretary

ACKNOWLEDGMENT

STATE OF WASHINGTON,)
COUNTY OF BIG HORN.) SS.

On this 22 day of Sept., 1956, before me personally appeared LEW JOHNSON and STAN JOHNSON, to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

GIVEN under my hand and seal this 22 day of September.

PHIL E. REASCH
Notary Public in and for the
State of Wyoming, residing at
Lowell.

My commission expires. January 16, 1960

3. f "Unpatented Claims."

Jet 1 Recorded Big Horn County, Montana
Page 406, Book 153

Jet 2 Recorded Big Horn County, Montana
Page 408, Book 153

Jet 3 Recorded Big Horn County, Montana
Page 410, Book 153

Jet 4 Recorded Big Horn County, Montana
Page 412, Book 153

Jet 5 Recorded Big Horn County, Montana
Page 414, Book 153

Jet 6 Recorded Big Horn County, Montana
Page 416, Book 153

Jet 7 Recorded Big Horn County, Montana
Page 418, Book 153

Jet 8 Recorded Big Horn County, Montana
Page 420, Book 153

Jet 9 Recorded Big Horn County, Montana
Page 422, Book 153

Jet 10 Recorded Big Horn County, Montana
Page 424, Book 153

Jet 11 Recorded Big Horn County, Montana
Page 426, Book 153

Jet 12 Recorded Big Horn County, Montana
Page 428, Book 153

4. a With the exception of radiometric gridding, no exploration other than bulldozing of discovery pits and assessment work has been undertaken on this group of claims.

The adjoining claims to the south, owned by Fuesners of Basin, Wyoming and operated under lease by the Lisbon Uranium Corporation, have underground operating uranium mines in addition to permitting operation of four rotary drills at distances up to 1000 feet from the underground mine. The drills are now operating within 750 feet of Modern Mines end lines.

Major uranium and oil companies have recently purchased all available property on Little Mountain. These newer companies are reportedly

now planning drilling projects. Due to the extremely low radioactivities on Little Mountain, a consistent reading of twice or more times background is considered to be indicative of possible uranium mineralization.

4. b No ore has been produced nor are any ore reserves known definately to exist on this property. Ore reserves on the immediately adjacent Lisbon Uranium property are thought to be in the neighborhood of 100,000 tons of ore assaying slightly less than one percent U_3O_8.

4. c Madison limestone forms the host rock for all known deposits in the area, and, so far as is known, all deposits occur in the upper member of this formation. This member is approximately 200 feet in thickness and is particularly subject to brecciation, silicification and cavern conditions. All observed uranium deposits occur in association with cavern or brecciation conditions. The area under consideration lies along the northeast limb of the Porcupine Creek anticline, the major structure in the area. The anticline plunges approximately 5 degrees to the northwest and the beds along the northeast limb dip approximately three degrees to the northeast. The attached map (Exhibit "B") illustrates the fracture patterns discernable from aerial photographs. It will be noted that the Fuesner mine and drill locations, many of which have encountered ore at depths of 90 to 200 feet occur, in close proximity to the junction of the major, north 10 degrees east, set of fractures with the less pronounced northwest set. However, the deposits occur mainly along the less prominent breaks, this being in agreement with a theoryof Leonard D. Jarrard concerning the genesis of the deposits. He believes that the prominent fracture system marks the trend of the more open caverns while the lesser fractures permit more restricted movement of ground water and subsequent greater deposition of uranium minerals.

As will be noted on Exhibit "B", the Jet claims abound in fracture junctions and it is felt that such geologic conditions offer excellent possibilities for commercial uranium deposits to be found at depths

of less than 200 feet below the present ground surface.

Tyuyamunite (calcium-uranium-vanadate) is the uranium mineral thus far noted. The ore deposits occur as cavern fillings or as replacement of partially dessolved limestone beds. On the property to the south, exceedingly high-grade ore has been found in thicknesses of 3 to 15 feet. The deposits generally and roughly follow bedding of the enclosing limestone.

Though no geological study of the deposits has yet been made, no major geologic feature is known to exist other than the previously mentioned anticline and the accompanying fractures.

Modern Mines Development Company wishes to explore for uranium deposits, by means of drill holes and later, if ore should be discovered, to sink a shaft to the ore bearing horizon. The areas intended for drilling are shown on the attached map, Exhibit "A". Modern Mines feel that there are excellent possibilities that deposits of commercial tonnage and grade will be found on the Jet claims and in close association with the fracture system indicated.

4. d The Little Mountains uranium area lies approximately 29 miles east of Cowley, Wyoming, the present rail loading point for shipment to the A. E. C. buying station at Riverton, Wyoming. A new all-weather access road is now being constructed to the area from Kane, Wyoming, approximately 19 miles from the presently producing mine. Lovell, Wyoming offers sufficient supply and living opportunities and after completion of the new road will be about 45 minutes driving time from the mining area.

4. e Unskilled manpower is readily available in the area, however, a nucleus of experienced miners would have to be imported.

Materials may be obtained in Lovell or in nearby towns such as Powell or Cody, Wyoming. Larger market centers such as Billings, Montana are located within 100 miles of the area.

5. a The mineral for which we wish to explore is tyuyamunite, or

other uranium minerals that may be eventually found present.

5. b It is planned to conduct the exploration work in the following stages:

1/ Stage I consists of rotary or other type drilling capable of coring if necessary and of drilling to depths of at least 500 feet. This stage will consist of 2000 feet of such drilling which will permit of 10 or more holes of average 200 feet depth. The work may consist of exploration drilling or of offset drilling in order to deleniate ore bodies.

2/ If stage I is adequately successful then we would like stage II to permit of an additional 5000 feet of drilling patterned after stage I.

3/ Provided stage I and II are successful then we desire stage III to consist of sinking a shaft to the ore body most advantageously located. The shaft is proposed to be one and one-half compartments in size and of 7' by 11' (7 ft. x 11 ft.) in cross section with sufficient timber to provide manway and hoisting facilities. It is estimated that the shaft will not exceed 175 feet in depth.

5. c The work will start as soon as weather permits after approval of the proposed contract. It is estimated that the date for start of work will be about April 15, 1957.

5. d The applicant is qualified financially to furnish his share of the cost of the proposed project. The applicant is otherwise capable by reason of their mining activities on Pryor Mt., Montana and by the presence of Mr. Buford Miles of long mining experience around Butte and Helene, Montana. Mr. Miles is the first successful uranium operator in Montana having operated the Wilson mine near Clancy, Montana, 1951-1955. Mr. L. D. Jarrard, consulting geologist and engineer and former chief of the A.E.C. Northwest Program and with 21 years of geology and mining experience will also be employed.

Mr. Miles and Mr. Jarrard will reside at or near the property and will supervise all operations.

6. a Since it is intended that all proposed work, should the contract be awarded, will be subcontracted the applicant is desirous of reimbursement on a unit cost basis. After talking with several drill operators now working in the area it appears that the present cost of drilling will be about $2.70 per foot of hole (non core) and about $5.50 per foot of coring on a 4-¼" hole. Should the second phase be contracted for the cost may be expected to decline to about $2.40 per foot. Because of the nature of the cavernous ground percussion type drilling has been found to be inadequate and the operators are now using rotary type rigs.. Bulldozing wil be required in order to prepare drill set-ups and access roads. The proposed project is set-up as follows:

Phase I (2000' Rotary Drilling)

1900 feet non core drilling, 4¼" hole *$2.70 per foot	$5130.00
100 feet core drilling *$5.50	550.00
20 hours bulldoze *$12.00	240.00
Total Phase I	$5920.00

Phase II (5000' Rotary Drilling)

4800 feet non core drilling *$2.40	$11,520.00
200 " core drilling *$5.25	1,050.00
30 hours bulldoze *$12.00	360.00
Total Phase II	$12,930.00

Phase III

Maximum of 175 feet of 7'x10' shaft *$120.00 per foot	$21,000.00
Total Phase III	$21,000.00

6 b With the exception of supervision and consultants, all labor and wages are included in the sub-contract estimates itemized in 6a. It is anticipated that Mr. Jarrard will be employed a total of three months at an average monthly salary of $800.00.

Consultant 3 mos. *$800.00 ..... $2400.00

6 c No additional operating materials and supplies are anticipated.

6 d No major operating equipment will be furnished by the applicant.

6 e No rehabiliation or repairs are contemplated.

6 f Buildings planned for construction are as follows:

1.	Compressor House.....	$400.00
1	Combination cook-bunkhouse.....	700.00
	Total Buildings	1100.00

6 g Under miscellaneous expenses the only cost that the operator intends to incur is that of assaying samples recovered from the drilling operations.

This amounts to

150 samples *$4.00 each.....$600.00

6 h No expenses for contingencies are anticipated.

7 a The applicant is prepared to furnish his pro-rated share of the total estimated cost of $43,950.00. The operators share will be $10,987.50.

7 b The operators share will be paid in money.

(* means at)

United States Atomic Energy Commission
Division of Raw Materials
Salt Lake Area Office

Address Reply To:
U. S. Atomic Energy Commission
Spokane Field Office
P. O. Box 1805
Spokane 10, Washington

November 15, 1956

RECEIVED DEC 5 1956 D.M.E.A.

And Refer To: SLAO:DLH:mn

REPORT ON RADIOACTIVE ANALYSIS

MODERN MINES DEVELOPMENT COMPANY

Sample submitted by: B. F. Sigman
3423 W. Euclid
Spokane, Wash.

Date: November 13, 1956

Name of property: Jett claims
Little Mtn.
Big Horn Co.
Wyoming

	Percent Uranium Oxide (radiometric)	(chemical)
Sample number: Lab. #382		0.23

Uranium minerals identified:
tyuyamunite in siliceous limestone

Remarks:

Very truly yours,

Donald L. Hetland

Donald L. Hetland
Project Geologist

Recd w/memo of Region 3's point exam.

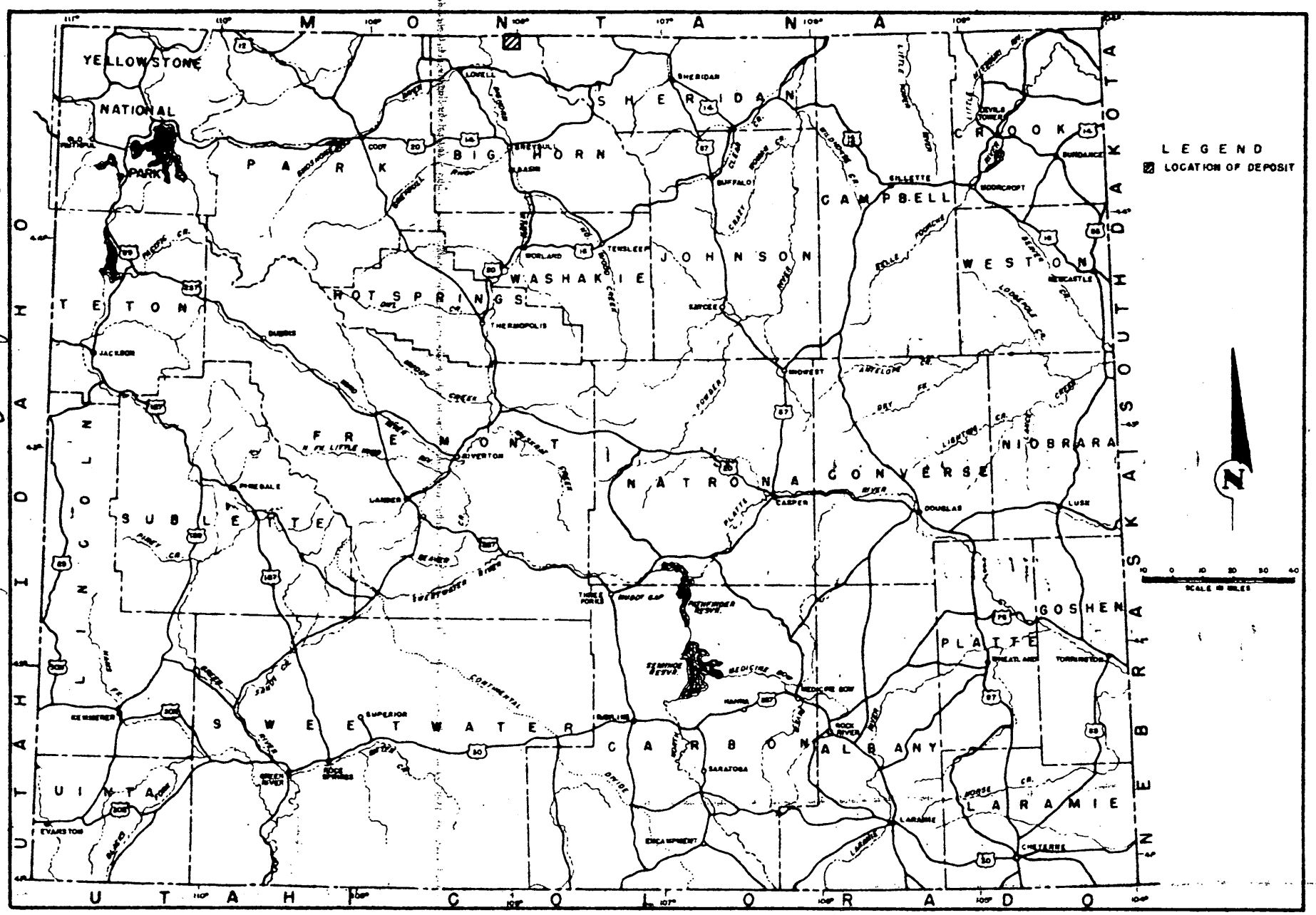
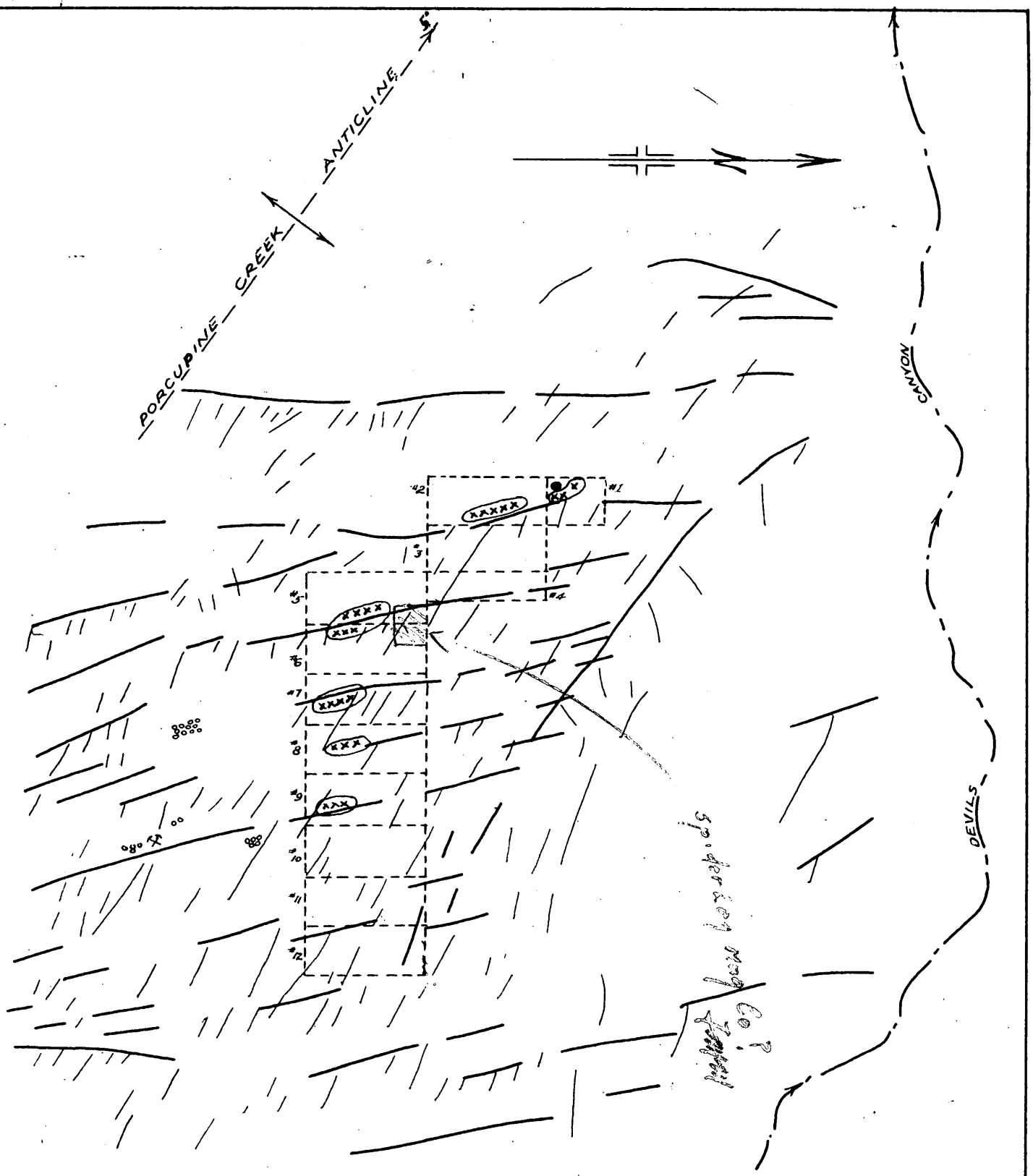


FIGURE I - LOCATION MAP, MODERN MINES DEVELOPMENT COMPANY, JET CLAIMS, BIG HORN COUNTY, WYO.
DMEA 4564



X OPERATING URANIUM MINE - "FUESNER - LISBON"

GROUP OF DRILL HOLES

● SURFACE URANIUM SHOW

---- JET CLAIM BOUNDARIES

(XXX) PROPOSED DRILLING AREA

FRACTURE PATTERNS
JET CLAIMS 1-12
MODERN MINES DEV. CO.
LITTLE MOUNTAIN WYO.

SCALE 3" = 1 MILE

L. D. JARRARD - OCT 1956

EXHIBIT "B"

RECEIVED
DEC 5 1956
D.M.E.A.

U. S. Government Messenger Envelope

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2. Void previous block.
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~~Mr. T. B. Walker~~ ~~Room 3641, South Bldg.~~ ~~Dept. of Agriculture~~ ~~Washington 25, D. C.~~ ~~STOP 209~~	RUN STOP		RUN STOP
U. S. Engineers Rm. 2304 Gravelly Point Washington 25, D. C. STOP 407	RUN STOP		RUN STOP
Mr. A. H. Williams U. S. Geol. Survey G. S. A Bldg.	RUN STOP 29A		RUN STOP
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[illegible]	RUN STOP		RUN STOP
~~Mr. Routland~~ ~~Rm 5228~~ ~~GSA Bldg.~~	RUN STOP		RUN STOP
~~Mr. Thorv Kiilsgaard~~ ~~Room 5224 - Interior~~	RUN STOP		RUN STOP
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Use RUN and STOP only when messenger service between Government buildings in Washington is required. Your mail room has RUN and STOP information.

Docket copy

Murphy

Project Summary Report

By: F. M. Murphy February 11, 1959

1. Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095

Operator - Modern Mines Development Company
L. V. Sigman, President
219 South 31st Avenue
Yakima, Washington

Operator's Property Rights -

Lessor from Lew and Stan Johnson of Jet Nos. 1 through 12 unpatented lode mining claims situate in secs. 22 and 23, T. 48 N., R. 94 W., 6th P.M., Big Horn County, Wyoming.

2. Contract dated May 31, 1957

Amendments -

No. 1, dated November 14, 1957, provided recess period beginning August 10, 1957, and ending June 1, 1958, and extended completion date to November 1, 1958; also increased royalty period to 11 years.

Contract terminated, effective August 10, 1957, by mutual agreement.

3. Certification of discovery issued August 8, 1958.

4. The project work started June 20, 1957, and terminated on August 10, 1957.

5. Work Authorized -

Twenty-six of the 60 holes authorized under State I were deleted by the Government at the request of the Operator. Of the remaining 34 holes, only 26 acceptable holes were drilled by the Operator.

	Stage I		Stage II	
	Units	Cost	Units	Cost
Non-core drilling @ $2.25/ft.	9,000	$20,250.00	7,200	$16,200.00
Standby time @ $10.00/hr.	30	300.00	24	240.00
Bulldozing @ $12.00/hr.	12	144.00	8	96.00

Work Authorized - (continued)

	Stage I Units	Stage I Cost	Stage II Units	Stage II Cost
Incidental allowance @ $0.20/ft.	9,000	$1,800.00	7,200	$1,440.00
Analyses for U_3O_8 @ $4.00/sample	55	220.00	45	180.00
Total Estimated Cost		$22,714.00		$18,156.00
Government Participation @ 75%			(rounded)	$30,652.00

Work Completed -

	Units	Cost
Non-core drilling @ $2.2127/ft.	3,633	$8,038.60
Standby time @ $10.00/ft.	12	120.00
Incidental allowance @ $0.20/ft.	3,633	726.60
Total Actual Cost		$8,885.20
Government Participation @ 75%		$6,663.91

6. Audit Report of Review, dated January 7, 1959

Total cost as billed by Operator	$9,809.75
Exceptions	924.55
Total Accepted Costs	$8,885.20
Government Participation @ 75%	$6,663.91

7. Final Reports -

Operator's final report received December 19, 1958.
Joint Final Engineering andGeologic Report, received November 24, 1958.
Field Team's Final Summary Report received March 13, 1959.

8. Excerpts from Joint Final Engineering and Geologic Report, dated November 14, 1958, by W. N. Sharp, USGS, and Milton H. Marshall, USBM:

The Jet claims are on the northwestern flank of the Big Horn Mountains, in north central Wyoming, just south of the Montana border. The mountains consist essentially of a broad uplift in which sedimentary rocks, ranging in age from Cambrian to Cretaceous, are bowed up over a core of Precambrian rocks.

In the project area the Madison limestone of Mississipian age is the potential host rock for uranium deposition. Aerial photographs of the area indicate

that intersecting systems of joints or fractures exist that probably control the movement of surface and ground waters and also influence the formation of caverns in the limestone. These two sets of fractures trend about N. 10° W. and N. 50° W.

Tyuyamunite, with minor amounts of autunite, disseminated in ruggy or broken limestone near fractures and in cavern fill has been found and mined at several sites in the cavernous Madison limestone.

Two DMEA holes cut ore-grade material in the south parts of Jet 7 and 8 claims. The Operator drilled an additional 24 holes on its own account. Three of these penetrated ore on Jet 7 claim near DMEA hole DJ 7-12. Together, the five holes covered an area 300 feet by 400 feet. Probing indicates ore grade from about 0.1% U_3O_8 to as high as 0.7% U_3O_8.

The company drove an adit to cut the indicated mineralized zone on Jet 7 and 8 claims. However, the material removed did not assay as high as had been indicated by radioactivity.

The ore is apparently restricted to fracture zones and cavernous deposits or pods in the limestone. The concentrations are not restricted to any apparent stratigraphic interval in the formation and appear to be randomly spaced.

To October 31, 1958, the Government has received $2,906.66 royalty payments on 938.744 tons of ore shipped from the property. Values of the ore shipped ranged from 0.20 to 0.82% U_3O_8.

As of October 1, 1958, the field examiners estimate ore reserves of about 50 tons of 0.40% U_3O_8 on Jet No. 7 claim. Reserves based on drill hole radiometric probe data proved unreliable because of the presence of radon gas in the voids of the limestone. Also, the mining done on some of the ore bodies show that drill-hole data can not be extended beyond the hole with any reliability. Actual mining proved the ore bodies to be considerably lower in grade, and thinner than had been indicated by probing.

There is a possibility that other ore deposits will be found in the project area as a direct or indirect result of the project.

9. Comments -

Drilling with DMEA assistance and latter drilling and adit work by the Operator on its own account resulted in discovering good grade uranium-bearing material on the subject property. The scattered nature of the deposits found indicate that exploration of the area by drilling is a hit-or-miss proposition. Prior exploration by gravimetric surveys of the fractured madison limestone might possibly outline the cavernous areas that are considered favorable for uranium deposition. However, a number of the holes drilled under the subject contract penetrated breccia-filled caverns which were not mineralized.

Until criteria are established that might indicate the most favorable locations for deposits of uranium in the Madison limestone, the writer recommends that no further Government aid be granted for exploration in the limestone in the area.

The Audit Report of Royalty Review, dated February 10, 1959, (including liquidation No. 200, November 17, 1958) shows:

Sales - 1,020.887 dry tons averaging 0.428% U_3O_8, Total Value subject to royalty $75,017.40, royalties paid $3,165.88, royalties due $585.00.*

F M Murphy

F. M. Murphy

* With a letter, dated March 3, 1959 the Operator enclosed a check for $85.04 and stated that the balance of $500.00 due the Operator and withheld by the finace officer should be transferred to the royalty account and made payable to OME.

F M M.

DMEA Form 17
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

M

WORK COMPLETED ANALYSIS

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

Operator **Modern Mines Development Co.**		Actual Cost	X
State **Wyoming**		Agreed Unit Cost	
Final Report of Audit		Commodity **Uranium**	Docket No. **DMEA-4564**
Final Report of Review	✓		Contract No. **Idm-E1095**

Operation	Authorized by Contract and Amendments		Completed to		Net cost after sale of Government Property
	Units	Cost	Units	Cost	
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Non-Core	16,200	40,230.00	3633	8885.20	8885.20
Surface Excavation					
Underground Excavation					
Roads and Trails bulldozing		240.00		—	—
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) U3O8 analyses @ $4.00/sample		400.00		—	—
Totals		$ 40,870.00		$8885.20	* $8885.20

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

Project certified Aug. 8, 1958 – Paying royalties.
Terminated Aug. 10/57

Prepared by [signature] Date 13/1/59

31390

(~~In~~Complete)

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code

June 17, 1968

Memorandum

To: The File

From: Chief, Office of Minerals Exploration

Subject: DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

Under date of May 31, 1957, the Government entered into the subject contract to explore the Jet Claims at an estimated cost of $40,870.00, of which the Government's contribution was $30,652.00. The contract was terminated effective August 10, o957, after an expenditure of Government funds in the amount of $6,663.91. As a result of the exploration, a certification of discovery was issued on August 8, 1958.

Royalty on production from the property in the amount of $4,691.06 has been paid to the Government through April 22, 1963. Reports received from the Atomic Energy Commission indicate there has been no production from the property since the above date.

The period for repayment of the Government's contribution to exploration costs under this contract expired May 31, 1968. Under the circumstances, it is recommended that the file be closed on this contract and the unpaid balance of the Government's contribution be written off.

Frank E. Johnson
Frank E. Johnson

cc: Director's Reading File
Economic Geology File
Branch of Budget and Finance
OME docket
OME Reading File
OME Region III
130

GLAult/a 6-17-68

UNITED STATES
ATOMIC ENERGY COMMISSION
GRAND JUNCTION OFFICE
GRAND JUNCTION, COLORADO 81501

May 28, 1968

OME Region III
RECEIVED
JUN 3 - 1968
Denver, Colorado

IN REPLY REFER TO:

MP:ASJT

1.30
110

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
Building 53, Room 203
Federal Center
Denver, Colorado 80225

Subject: DMEA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

Dear Mr. Hasler:

As requested by your letter of May 21, 1968 we have checked production records for the subject property. We find no production shown for this property for the period May 9, 1967 through April 1968.

Very truly yours,

Don R. Hill, Director
Mining Division

E Form 7
2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/20/68		110
		220

MAY 20 1968

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: DMEA-4564 (Uranium)
Modern Mines Development Company
Yet Claims
Big Horn County, Wyoming
Contract Idm-E1095

The royalty expiration date of the subject contract is May 31, 1968.

Please check again with AEC for production made since May 9, 1967, the date of the last AEC report.

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
130 (2)

GLAult 5/18/68

chron
4041
4201

Office of Minerals Exploration

May 9, 1967

Mr. Don R. Hill, Director
Mining Division - Atomic Energy Commission
Grand Junction Office
Grand Junction, Colorado 81501

Subject: Production on contracts

Dear Don:

We would like to check again on the following contracts for production that may have been made since March 18, 1966; in which you quoted some production figures on these above-mentioned dockets:

Docket	Operator	Contract No.
4041	American Lodan Uranium Corporation	969
4201	Twentieth Century Fuels, Inc.	988
4049	Kunter-Levy Company	1173
4364	Modern Mines Development Company	1093

Sincerely yours,

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Chief (2)
Hasler chron
GMK chron
4041
4201 4049 4364

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/23	Johnson	110
		239

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: Production figures from the Atomic Energy Commission

Reference is made to the report of March 18, 1966, from the AEC on production from the land under the following DMEA contracts:

Docket No.	Operator	Contract No.
4041	American Leduc Uranium Corporation	969
4201	Twentieth Century Fuels, Inc.	988
4849	Kanter-Levy Company	1173
4564	Modern Mines Development Company	1095

Please check again on these contracts with AEC for production made since the date of the last report.

FRANK E. JOHNSON

Frank E. Johnson

cc: Director's reading file
Division file
Economic Geology file
OME file to each Docket
OME reading file
120-M
FEJohnson/bih 3/23/67

43683

File 4564

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

U. S. Geological Survey -- Denver Federal Center
Building 25-Room 2284
Denver, Colorado 80224

March 22, 1966

Memorandum

To: Chief, [illegible]

From: Field Officer, Region III

Subject: Production figures from Atomic Energy Commission

Enclosed is the most recent compilation production figures from the Atomic Energy Commission of the contracts listed below.

DMEA No.	Property	Shipper	Date	Ore Production
3048	Greagor Group	-	1963-65	None
4041	Outlaw No. 23	Harold Price	1964 (2nd 1/2)	451 tons @ 0.22% U_3O_8
	Outlaw No. 23	" "	1965	527 tons @ 0.21% U_3O_8
	Outlaw No. 23	" "	1966 (Jan.)	80 tons @ 0.18% U_3O_8
4201	Dirty Devil Mine No. 6	D. D. Hamm	1964 (2nd 1/2)	82 tons @ 0.13% U_3O_8
4849	Tri Pacer	Titan Mng. Co.	1963 (4th 1/4)	111 tons @ 0.44% U_3O_8
			1964 (2nd 1/4)	322 tons @ 0.46% U_3O_8
4564	Jet No. 8	Lew Johnson	1963 (1st 1/4)	73 tons @ 0.25% U_3O_8

These figures were furnished in a letter dated March 15, 1966 from John A. Patterson, Ore Reserves Branch, Production Evaluation Division--a copy of which is enclosed.

UNITED STATES
ATOMIC ENERGY COMMISSION
GRAND JUNCTION OFFICE
GRAND JUNCTION, COLORADO - 81502

March 18, 1966

IN REPLY REFER TO:

FOR: JAP

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
U.S. Geological Survey
Denver Federal Center
Bldg. 25 - Room 2284
Denver, Colorado 80225

Dear Bill:

In reference to your letter of March 9 and our telephone conversation of March 17, we have compiled these production figures:

DMEA No.	Property	Shipper	Date	Ore Production
3048	Greagor Group	-	1963-65	None
4041	Outlaw #23	Harold Price	1964 (2nd ½)	451 tons @ 0.22% U308
	Outlaw #23	" "	1965	527 tons @ 0.21% U308
	Outlaw #23	" "	1966 (Jan.)	80 tons @ 0.18% U308
4201	Dirty Devil Mine #6	D. D. Hanni	1964 (2nd ½)	82 tons @ 0.13% U308
4849	Tri Pacer	Titan Mng. Co.	1963 (4th ¼)	111 tons @ 0.44% U308
			1964 (2nd ¼)	322 tons @ 0.46% U308
4564	Jet #8	Lew Johnson	1963 (1st ¼)	73 tons @ 0.25% U308

As we discussed, enclosed are some speeches regarding further uranium requirements that you may find of interest. An excellent report that you can obtain from the Atomic Industrial Forum, 850 Third Avenue, New York, New York. is "The Outlook for Uranium" prepared by S.M. Stoller Associates for the East Central Nuclear Geoup.

Very truly yours,

John A. Patterson, Chief
Ore Reserves Branch
Production Evaluation Division

Enclosures:
1. Speech by RHGraham, Western Mining Conference, Denver, Colorado 2/66
2. Speech by JTRamey, National Western Mining Conference, Denver, 2/5/65
3. Speech by RLFaulkner, Annual Mng. Convention of Am. Mng. Congress, Portland, Oregon, 9/16/64
4. Speech by AEJones, Atomic Industrial Forum, San Francisco, 12/2/64
5. Speech by Faulkner, McVey, Geneva, Switzerland, 1964

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/9	Selfridge	120
		110
		220

MAR 11 1966

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

The MME Form 63 sent to the subject Operator on September 24, 1965, was received by the company on October 4, 1965, but was not returned.

According to our records, the last royalty paid under this contract was on April 22, 1963. In reply to our April 14, 1964, inquiry, the Operator reported that there had been no production from December 7, 1962, to April 20, 1964. Will you please check the AEC production records to learn if there has been any production since April 1964.

(Signed) FRANK E. JOHNSON
Frank E. Johnson

cc to: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Selfridge (2)
120M

GCSelfridge/gla 3-9-66

23263

Bldg. 20, Denver Federal Center
Denver, Colo. 80225

AIR MAIL

May 18, 1965

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 24 1965
INITIALS CODE
ama 800
BMB 120
120

Mr. John F. Cadigan, Vice President
Modern Mines Development Co.
207 Larson-Andrews Building
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E 1095
Modern Mines Development Co. (Jet Claims)
Big Horn County, Wyoming

Dear Mr. Cadigan:

The Atomic Energy Commission is charged with the responsibility of making allotments. Please refer all requests concerning allotments to Allen E. Jones, Manager of Grand Junction Operations Office AEC, Grand Junction, Colorado.

Yours very truly,

ORIGINAL SIGNED BY

Hugh M. Connors
Acting Field Officer, OME
Region III

H.M.C. (5-18-65)
cc: G. C. Selfridge
E 1095
Chron

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

May 12, 1965

OME
DEPARTMENT OF THE INTERIOR
MAY 17 1965
REGION III
DENVER, COLORADO

United States Department of the Interior
Office of Minerals Exploration
Building 20 - Federal Center
Denver 25, Colorado

In Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

Gentlemen:

This letter is written to seek information in regard to the uranium allotment pertaining to the above company and claims. Would you please advise the length of time that the allotment applicable to these claims is to carry on and whether this allotment could be applied to other properties that Modern Mines Development Company might lease or purchase or become interested in in any way.

Yours very truly,

John F. Cadigan

John F. Cadigan
Vice President

JFC/cz

AIR MAIL

#1-INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☒ Show address where delivered

(Additional charges required for these services)

RETURN RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

Don Fei

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

DATE DELIVERED	ADDRESS WHERE DELIVERED *(only if requested in item #1)*
APR 20 [redacted]	

C55—16—71548-4 GPO

4564

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

POSTMARK OF DELIVERING OFFICE

APR 03

INSTRUCTIONS: Fill in items below and complete #1 on other side, when applicable. Moisten gummed ends and attach to back of article. Print on front of article RETURN RECEIPT REQUESTED.

RETURN TO

REGISTERED NO. 598259	NAME OF SENDER OFFICE OF MINERALS EXPLORATION
CERTIFIED NO.	STREET AND NO. OR P. O. BOX DEPT. OF INTERIOR
ED NO.	CITY, ZONE AND STATE WASHINGTON, D.C., 20240

3811 Jan. 1958

C55—16—71548-4

Griswold

320

DM&A 4564

Modern Mines

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

April 14, 1964

Re: DMEA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Modern Mines Development Co.
207 Larson-Andrews Building
Yakima, Washington

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W. R. Griswold, Chief
Division of Minerals

OFFICIAL FILE COPY
O. M. E.
RECEIVED 1964

DATE		
4/24		800
		120
4/21		100
4/24		100
		500
		320

MME Form 63
Revised 3-62

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since December 7, 1962, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☒

2. Since December 7, 1962, has there been any production from the land subject to the contract? Yes ☐ No ☒

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore		Tons		
Concentrates		Tons		
Other		Tons		

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☒

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name John Cadzin Title Vice Pres

Address Date 4/20/64

4511

MME Form 63
Revised 3-62

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since December 7, 1962, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☐

2. Since October 26, 1962, has there been any production from the land subject to the contract? (Lot No. 3143-S by Lew Johnson) Yes ☐ No ☐

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value
_____	_____	_____
_____	_____	_____

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore	_____	Tons	_____	_____
Concentrates	_____	Tons	_____	_____
Other	_____	Tons	_____	_____

3. Since _____, has any production been transported through _____ workings (see _____ of contract)? Yes ☐ No ☐

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value
_____	_____	_____

Submitted by:

Name _____ Title _____

Address _____ Date _____

4511

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

December 5, 1963

Re: [illegible]A-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract Ikm-21095

Modern Mines Development Co.
207 Larson-Andrews Building
Yakima, Washington

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

s/F. M. Murphy

F. M. Murphy, Acting Chief
Division of Minerals

LEW JOHNSON

Johnson Transfer

PHONE 568-2468

Basin, Wyoming

TRANSPORTATION INSURED

Feb. 24. 1964

Mr John F Cadigan
Modern mines Development Co
Yakima Washington

Dear Sir:

Inclosed is a letter from Big Horn County Clerk confirming the filing of affidavit of assessment work for 1963 on the Jet and Modern Claims.

In checking Middleton mining Co. books I found that the Jet mine was inactive in 1963. The last work performed was in late 196. We received a royalty payment in 196 but it was for ore mined in 196.

The total tonage for the mine was 196 tons and the total footage was aproximately 50 feet of extention of existing drifts. There was aproxima 1500 manhours spent during these operations.

The middleton Mining Co is now defunct and we are in the process of getting the lease finish them. When this has been accomplished we will notify you.

Very truly yours

Lew Johnson

Building 20 - Federal Center
Denver 25, Colorado

OFFICIAL FILE COPY
O. M. E
RECEIVED JUL 8 1963
DATE July 2, 1963

		~~800~~
Mr Murphy		500
		220

Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

Re: DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

Gentlemen:

Enclosed is a copy of the Report of Royalty Review on the subject contract dated June 19, 1963, covering the period September 27, 1960, through April 22, 1963.

Sincerely yours,

Original signed by

Hugh M. Connors
Acting Field Officer, OME
Region III

Enclosure
cc Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres. E1095
Chron
HMC/lm

Building 20 - Federal Center
Denver 25, Colorado

July 2, 1963

Memorandum

To: Fiscal Section, Division of Administrative Services
Office of the Secretary, Department of the Interior
Washington 25, D. C.

From: Acting Field Officer, OME, Region III

Subject: DMRA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

Attached is the original Report of Royalty Review dated June 19, 1963, on the subject property covering the period September 27, 1960, through April 22, 1963.

Original signed by

Hugh M. Connors

Attachments
cc Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres. Idm E1095
Chron
HMC/lm

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
6/19	Fisher	800
		220

JUN 20 1963

Memorandum

To: Acting Field Officer, Region III

From: E. D. Talbert, Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

The original and two copies of a Report of Royalty Review covering the subject contract are enclosed. If you concur in the facts stated therein, please make the following distribution:

(a) Original to the Fiscal Section, Division of Administrative Services, Office of the Secretary, U. S. Department of the Interior, Washington 25, D. C.;
(b) One copy for the Operator; and
(c) One copy for your files.

As evidence of your concurrence, a copy of your letter transmitting the Operator's copy should be furnished this Division. If for any reason you do not concur, the original and both copies of the report should be returned to this Division with your comments.

Enclosures

CEFisher/ama 6-19-63

cc:
Docket
Director's Reading File
CA & A Division
Fiscal Section

43683

Building 20 - Federal Center
Denver 25, Colorado

April 22, 1963

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 24 1963

DATE		
4/24	WJ	800
4/25	Murphy	500
		220

Middleton Mining Company
Box 175
Lovell, Wyoming

Re: DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Gentlemen:

This will acknowledge receipt of your check for $66.17 which you stated was for royalty on liquidation No. 1263.

The correct royalty due the Government on liquidation No. 1263 is $67.33 which is 5 percent of $1,346.51. Royalty due the Government is always figured on the total gross settlement. However, since the haulage on this ore was paid to Westwood by Susquehanna-Western, Inc. and is shown on the settlement sheet as such, the amount of $609.73 for hauling may be deducted from $1,956.24 which is the total gross settlement.

Please forward this office your check for $1.16 to bring this account into balance.

If you should so wish and you will advise the mill, the mill will be happy to deduct the proper amount of royalty from each shipment and forward it to this office. This, I might add, is the usual procedure.

Sincerely yours,

Hugh M. Connors
Acting Field Officer, OME
Region III

cc Chief, Division of Field Operations, OME
Royalty Corres. Idm-E1095
Chron
HMC/lm

OFFICIAL FILE COPY

Date	Surname	Code
2/18	Talbert	800
"	Murphy	500
	Durbrow	500
2/18	Johnson	130
"	"	110
"	"	100
		220

FEB 18 1963

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

Your advice by memorandum of February 12 that the AEC production records tally with our royalty records for the subject contract is appreciated.

The amount of $20.10 was received from the Operator and forwarded to the Department's Fiscal Section on December 19, 1962. As your copies of the transmittal memorandum apparently went astray in the mails, I am enclosing two thermofax copies.

This amount also is included in the collections shown in the December 1962 report of fiscal transactions, a copy of which was forwarded to you under cover of my January 7 memorandum.

George C. Selfridge (gla)

Enclosures

EDTalbert/ama 2-18-63

cc:
Docket
Director's Reading File
CA & A Division
Review Committee

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado

February 12, 1963

OFFICIAL FILE COPY		
RECEIVED		
DATE		
2/18	Copy	800
		120
		500

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington 25, D. C.

From: Acting Field Officer, OME, Region III

Subject: DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

This responds to your memorandum of February 6, 1963 on the subject contract.

The AEC production records have been checked and tally with our royalty card. However, one question does arise. I note that the Director, on December 10, 1962, requested Modern Mines Development to remit an additional $20.10. Since all these payments have been made through the Washington Office, I am wondering if the $20.10 has been received?

Hugh M. Connors

Hugh M. Connors

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/5	Murphy	500
2/5	on leave	500
2/5	Tolliver	800
	Selfridge	130
2/6	Johnson	110
2/6	Franch	100
		220

FEB 6 1963

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract Idm-K1095

Attached is a self-explanatory copy of MME Form 63, signed by the vice president of Modern Mines. You will note that only Lot No. 852-5 (shipped in September 1959) is mentioned, although we have received royalties on Lot Nos. 1162-S and 1160-S, also shipped by Lisbon Uranium Corp. in December 1959. In addition, we have received royalty on Lot No. 2995-5 (dated 7/23/62) shipped by Lew and Stan Johnson, Lessees.

In view of these discrepancies, will you please ascertain if there have been shipments from the Jet claims other than those mentioned above since July 31, 1959.

Enclosure

George C. Selfridge (gla)

FMMurphy/mm
2/5/63
cc: Director's Reading File
CA&A Division
Docket
Code 500
Review Committee

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

December 19, 1962

Memorandum

To: Chief, Fiscal Section
Division of Administrative Services
Office of the Secretary

From: E. D. Talbert, Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

Enclosed for deposit to the subject DMEA account under symbol 14X4401 as a royalty receipt is a December 15, 1962, check no. 783, drawn in the amount of $20.10 by Modern Mines Development Company, 219 South 31st Avenue, Yakima Valley Branch, Seattle-First National Bank.

This check is in payment of a royalty balance due to the Government on Susquehanna Western, Inc., liquidation no. 1164 dated August 14, 1962.

Enclosure

EDTalbert/ama 12-19-62

cc:
Docket
Director's Reading File
CA & A Division
Region III (2)

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Building 20 - Federal Center
Denver 25, Colorado

500 - get Copy

OFFICIAL FILE COPY
O. M. E
RECEIVED DEC 20 1962

DATE	INITIALS	CODE
12/20		800
		120

December 17, 1962

Memorandum

To: E. D. Talbert, Chief
Contract Administration and Audit Division
Washington 25, D. C.

From: Acting Field Officer, OME, Region III

Subject: DMEA-4564 (Uranium)
Contract Idm-E1095
Modern MinesDevelopment Co.
(Jet Claims)
Big Horn County, Wyoming

Thank you for the copy of your letter to the Chief, Fiscal Section dated December 10, 1962. When you advise me of receipts and disbursements in your office in this manner, it helps me so much in checking your Reports of Royalty Review, which you ask me to check and make comments.

It seems to me very unfair that I should do detective work on your Monthly Report of Fiscal Transactions to check your receipts and disbursements. I get enough detective work checking the Operators who do not pay royalty.

Your further cooperation in these fiscal matters, by supplying me a copy of your letter on each one, will be helpful to both of us.

Hugh M. Connors

Hugh M. Connors

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

DEC 1 0 1962

Memorandum

To: Chief, Fiscal Section
Division of Administrative Services
Office of the Secretary

From: E. D. Talbert, Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

Enclosed for deposit to the subject DMEA account under symbol 14X4401 as a royalty receipt is a September 4, 1962, check no. 193, drawn in the amount of $154.57 by the Middleton Mining Co. on the First National Bank of Lovell, Lovell, Wyoming.

This check is in partial payment of royalty due to the Government on Susquehanna Western, Inc., liquidation no. 1164 dated August 14, 1962. The check was received in this office on December 7, 1962.

Enclosure

EDTalbert/ama 12-10-62

cc:
Docket
Director's Reading File
CA & A Division
Region III (2)

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
12/10	Talbert	800
"	Miranda	500
12/10	Murphy	500
	Schlinkey	120
12/10	Johnson	110
12/10	Fumich	100
		220

DEC 10 1962

Modern Mines Development Co.
207 Larson-Andrews Building
Yakima, Washington

Re: DMKA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract Idm-E1095

Gentlemen:

Receipt is acknowledged of Middleton Mining Company's September 4, 1962, check in the amount of $154.57 as royalty on Susquehanna Western, Inc., liquidation no. 1164 dated August 14, 1962, applicable to production from property under the referenced contract.

The amount of $154.57 has been calculated on the basis of 5% of the ore proceeds of $3,091.44. In accordance with Article 8(b) of the contract, royalty also is payable on the development allowance of $402.05.

Your prompt remittance of the additional $20.10 royalty due is solicited.

Sincerely yours,

George Fumich, Jr.

Director

EDTalbert/ama 12-10-62

cc:
Docket
Director's Reading File
CA & A Division
Region III (2) (wtwocys of incoming ltr. and one cy. of settlement)

43683

MINING LEASE

THIS MINING LEASE, Made and entered into this 1 [illegible] day of [illegible], 1961, by and between MODERN MINES DEVELOPMENT COMPANY, a corporation organized and existing under the laws of the State of Washington and duly licensed and qualified to do business as a foreign corporation in the State of Wyoming, hereinafter designated as "Lessor", and [illegible] JOHNSON and STAN JOHNSON, d/b/a Johnson Transfer, a partnership of Basin, Wyoming, hereinafter designated as "Lessees",

WITNESSETH:

WHEREAS, Lessor is the owner of 14 unpatented lode mining claims (hereinafter designated the "14 Mining Claims") situated in Big Horn County, State of Wyoming, which 14 Mining Claims are more particularly described as follows:

NAME OF CLAIM	NOTICE AND CERTIFICATE OF LOCATION RECORDED IN THE OFFICE OF THE COUNTY CLERK OF BIG HORN COUNTY, WYOMING, AT	
	BOOK	PAGE
Jet #1	153	400
Jet #2	153	[illegible]
Jet #3	153	412
Jet #4	153	412
Jet #5	153	414
Jet #6	153	416
Jet #7	153	[illegible]
Jet #8	153	420
Jet #9	153	422
Jet #10	153	424
Jet #11	153	426
Jet #12	153	428
Modern Fraction #1	165	532
Modern Fraction #2	165	532

and

WHEREAS, Lessor is desirous of granting to Lessees a Mining lease covering said 14 Mining Claims upon the terms and conditions herein [illegible]

tained,

NOW, THEREFORE, in consideration of the sum of TEN DOLLARS ($10.00) and other good and valuable consideration in hand paid by Lessees to Lessor, receipt of which by Lessor is hereby acknowledged, and in consideration of the covenants and agreements hereinafter set forth to be kept and performed by all of the parties hereto, Lessor hereby demises, leases and lets, and by these presents does demise, lease and let to Lessees for the purpose of exploring for, mining, extracting, milling, selling and disposing of uranium ore and any other ore or ores of any kind or nature on that certain land covered by the above described 14 Mining Claims, including all rights of way, easements, water and water rights of every kind and nature which are useful, convenient and necessary for Lessees in the operation and mining of all the lands covered by this Mining Lease.

TO HAVE AND TO HOLD UNTO LESSEES, their successors or assigns, for the primary term of one (1) year from the date hereof, and for such additional periods as the term of this Mining Lease may be extended as hereinafter provided. In consideration of such leasing and of the covenants and agreements hereinafter set forth to be kept and performed by Lessees, it is hereby mutually agreed between the parties hereto as follows:

1. Lessees shall forthwith have and are hereby granted by Lessor the exclusive right to enter upon said 14 Mining Claims and to drill and excavate therein and thereon drill holes, pits, tunnels, shafts and other excavations, and to conduct thereon such surveys, explorations, sampling, metallurgical work, similar as well as dissimilar, as Lessees in their sole judgment and discretion may desire for the purpose of ascertaining, to the extent that Lessees in their judgment and discretion may wish to know, any and all facts relative to the geology of and ores in, upon or under said demised properties and the mining, milling and marketing thereof. All of such work shall be conducted by Lessees as they in their best judgment and discre-

cretion deem best and in a good and minerlike fashion. In the event that minerals and materials are encountered in said demised properties in quantities which in the opinion of Lessees make it advisable to mine, dispose of and sell the same or oxides or concentrates therefrom, Lessees shall be and are hereby given the exclusive right, license and privilege to develop, mine, extract, process, treat, mill, market and sell the same at such time, in such place, at such price and in such manner as Lessees shall deem best.

2. Lessees agree to pay to Lessor a royalty interest of 1% of the value of all ores mined, shipped and sold by Lessees from said 14 Mining Claims.

The term "royalty interest" when used separately or when preceded by a stated percentage figure herein shall have the following meaning: That the Lessor shall be entitled to its stated percentage of the gross returns from the sale of all minerals or ores extracted and sold from the pertinent mining claims or properties and all profits to which they pertain. Any premium or bonus payment paid to Lessees, or their successors in interest, in connection with the production and sale of minerals or ores produced from the properties embraced by the royalty interest and based upon quality or quantity of ores so produced, shall be deemed part of the gross purchase price and shall be included in the gross purchase price in the computation of the royalty interest, to the extent that payment of royalties on such bonus or premium payments is not contrary to law or governmental regulations, but no exploratory, development or haulage allowance paid to Lessees, or their successors in interest, by any governmental agency as to the property embraced by said royalty interest, shall be deemed to constitute a portion of the gross purchase price for the purposes of determining the amount of royalty interest. Should Lessees or their successors in interest in the properties covered by the aforesaid royalty interest or any portion of said properties, at any time deliver ores or minerals extracted from properties subject to said royalty interest, to a custom mill or refinery, whether owned in whole or in part by Lessees, or their successors in interest, or by others, for pur-

poses of refining same prior to the sale of oxides or concentrates therefrom, or should Lessees, or their successors in interest, elect to refine the ores and minerals produced from the properties subject to said royalty interest, or have the same refined prior to the sale of oxides or concentrates therefrom, the gross purchase price upon which the royalty interest herein reserved shall be based shall be the price at which the ores or minerals would be purchased by an Atomic Energy Commission Buying Station, as established by the provisions of the AEC Circular 5, revised (10 C.F.R. 60.5) or any amendment or supplement thereto which at that time shall be in force and effect, or if no Atomic Energy Commission price schedule applicable to said ores is then in force and effect, the gross purchase price upon which the royalty interest herein reserved shall be based shall be the established market price in the area for such ores and said royalty interest shall not be based upon the purchase price for oxides or concentrates refined from ores or minerals mined, extracted or removed from the properties subject to said royalty interest.

It is understood and agreed that by the terms of that certain Agreement (hereinafter designated the "Johnson Agreement") dated September 26, 1956, between Lew Johnson and Stan Johnson d/b/a Johnson Transfer as "Johnson", and Modern Mines Development Company as "Modern Mines", which agreement was recorded in the office of the County Clerk of Big Horn County, Wyoming, on October 11, 1956, as Instrument No. 365754, in Book 163 at page 158 of the records of that office, a royalty of 10% was reserved to Johnson.

It is further understood and agreed that by the terms of a certain agreement (hereinafter designated the "Johnson Amendment") dated June 2, 1959, by and between Modern Mines Development Company as "First Party" and Lew Johnson and Stan Johnson as "Second Party", Second Party agreed to reduce said royalty to 5%.

It is, however, further agreed to modify said royalty from Lessor to Lessees, and during the term of this Lease or any extension thereof, there shall be no royalty payments due from Modern Mines Development Company,

Lessor, to Lew Johnson and Stan Johnson, d/b/a Johnson Transfer, Lessees, it being acknowledged by the Lessees that the properties have been extensively developed by the Lessor and that there shall be no merger of interest of the Lessees by reason of this Lease, and that the Lessor retains its full interest in said properties in the same manner as if this Lease was made by a party independent to the previous agreement, with the only exception that there shall be no royalties due from Modern Mines Development Company to Lew Johnson and Stan Johnson during the term of this Lease.

A copy of all reports from all mills or smelters or purchasers of the ore from said premises shall be transmitted within ten (10) days to Lessor.

3. Lessor represents that the 14 Mining Claims are subject to an obligation to make repayment of the sum of $2,213.69, which is the balance due under D.M.E.A. Loan No. IDM-E 1095, Docket No. 4564, which loan is payable solely out of production of ores and minerals from said 14 Mining Claims, at a maximum rate of 5% of such production. Lessees agree that in the event they mine, ship and sell ores from the 14 Mining Claims, they will make such payments as may become due pursuant to said D.M.E.A. Loan by reason of the ores so mined, shipped and sold, to the extent that said payments do not exceed $2,213.69. Lessees merely agree to make such payments as may become due under said D.M.E.A. Loan with relation to ores mined, shipped and sold, by Lessees, and by this Lease assume no obligation for payment of said Loan that did not already exist.

4. Lessees agree to conduct all operations on the 14 Mining Claims in a good and workmanlike manner, without unnecessary injury to said property, and to fully indemnify the Lessor from any liability arising out of injuries to the person or property or to third persons by reason of the operations of the Lessees. Lessees agree to carry such insurance covering all persons working in or on the 14 Mining Claims for Lessees as will fully comply with the provisions and statutes of the State of Wyoming covering Workmen's

Compensation and Occupational Disease and Disability as are in force now or as the same may be hereafter changed or amended. Lessees agree to carry such insurance as will provide protection to the Lessor from claims from any and all other parties due to Lessees operations during the term of this Lease. Lessees agree to fully comply with all Federal and State Statutes applicable to its operations during the term of this Lease.

5. Lessor covenants that this Mining Lease shall cover and extend to any further or additional right, title, interest or estate acquired by Lessor in or to minerals or rights therein in the lands hereinabove described. Lessor does hereby covenant and warrant that to the best of its knowledge, information and belief it owns and possesses good and marketable title to said 14 Mining Claims and that said 14 Mining Claims are valid and subsisting mining claims located pursuant to applicable requirements of Federal and State law. Further, Lessor represents that all of said 14 Mining Claims are free and clear of all types of liens, claims and demands, and that there are no outstanding royalties or other payment obligations with relation to any of said 14 Mining Claims now that the royalty payment to Lew Johnson and Stan Johnson, d/b/a Johnson Transfer, has been waived during the term of this Lease, other than the payments due on the D.M.E.A. Loan described in paragraph 3 above. Lessor further represents and confirms that to the best of its knowledge, information and belief there are no adverse locations of mining claims, monuments or stakes in or upon the properties covered by the 14 Mining Claims, and that to the best of its knowledge, information and belief there are no adverse claims or conflicts of title relating to said 14 Mining Claims.

6. Lessor represents that by letter dated May 23, 1958, it was advised by the Atomic Energy Commission that it had been granted an allocation for the production of 9,000 tons of ore per year from the 14 Mining Claims and that Lessor has made arrangements for delivery of said allocated tonnage to Fremont Mineral Company mill at Riverton, Wyoming. Lessor hereby assigns to Lessees the right to sell ore from the 14 Mining Claims pursuant to said allocation, said right to continue so long as the allocation is in existence and so long as this Mining Lease remains in force and effect. Lessor agrees that

during said period of time Lessees shall have all of the rights of Lessor in and to said allocation and the agreements between Lessor and Fremont Mineral Company, it being understood and agreed that this allocation shall, at all times, remain the property of Lessor.

7. Lessor represents that said 14 Mining Claims were certified as eligible to receive Initial Production Bonus pursuant to Atomic Energy Commission Circular 6 (10 C.F.R. 60.6) under Certification No. DUP-CO-C1038. Lessor hereby assigns its rights in and to said certification to Lessees and agrees that Lessee shall be entitled to receive any Initial Production Bonuses which may become payable in relation to ores mined, shipped and sold from the 14 Mining Claims during the term of this Lease.

8. Lessor hereby grants to Lessees a license during the term of this Lease to use a certain railroad dock at Kane, Wyoming, to load the ore mined on said 14 Mining Claims. The loading dock referred to is that dock located on the premises leased from the Chicago, Burlington & Quincy Railroad by Lessor, pursuant to that certain Lease dated April 1, 1958. Said Lease shall remain the property of Lessor and Lessees shall hold Lessor harmless for any damage to persons or property caused by Lessees' use of said railroad dock.

9. Lessor, or its duly designated agents, may at reasonable times enter upon the 14 Mining Claims for purposes of inspection thereof; provided, that such entry shall be at the sole risk of Lessor, and that such entry onto the 14 Mining Claims or into any mine workings thereon, for the purpose of inspecting the same, shall be at reasonable times and without interference with mining operations of Lessees or their assigns.

Lessees agree to keep an accurate account of all mining operations in connection with the 14 Mining Claims, showing sales, prices, dates, purchasers, the amount of minerals mined, and the claim from which mined. All records, books and accounts of Lessees relating to their operations hereunder, including geological and development information and data, shall be open at all

reasonable times to inspection by Lessor, or its authorized agent.

10. Should any default in any of the terms hereof occur, Lessor shall give notice to Lessees in writing as hereinafter provided, designating such asserted default, and if Lessees shall fail to correct said default within said thirty (30) day period, Lessor may at its election cancel and terminate this Mining Lease.

11. All obligations of Lessees under this Mining Lease shall be suspended while, but only so long as and to the extent that Lessees are prevented from complying with such obligations in whole or in part by strikes, lockouts, Acts of God, unavoidable accidents, uncontrollable delays by transporation or inability to obtain necessary materials in open market, inadequate facilities for transportation of materials or for disposition of products, lack of suitable market for ores and minerals produced, any State or Federal laws, regulations or orders, or other matters beyond the reasonable control of Lessees, whether similar to the matters herein specifically enumerated, or otherwise; further, Lessees shall not be required against their will to adjust any labor dispute or to question the validity or to refrain from judicially testing any Federal or State law, order, regulation or rule.

12. Lessees agree that from and after the execution of this Mining Lease, and at all times during the term hereof or extensions hereof, it will during each assessment year perform upon or for the benefit of each of the 14 Mining Claims subject to this Mining Lease, assessment work of a character and value reasonably expected to satisfy the requirements of the mining laws of the United States and of the State of Wyoming, and will prepare for filing the necessary reports to satisfy the requirements of the mining laws of the United States and of the State of Wyoming. Lessees agree that on or before July 1st of any assessment year during which Lessees are required to perform such assessment work, to give notice to the Lessor of the assessment work that has been performed by them during such assessment year. If, in the reasonable opinion of the Lessor, the assessment work performed by Lessees as set forth in said notice is not sufficient to satisfy the requirements of the mining laws of the United States and of the State of Wyoming,

Lessor shall have the right to enter upon the 14 Mining Claims and perform such additional work as will reasonably be necessary to satisfy the requirement of the mining laws of the United States dn of the State of Wyoming. Lessees agree that they will reimburse Lessor for the actual cost of any work so performed by Lessor, to the extent that said additional work was reasonably necessary and to the extent that the cost of said additional work does not exceed $100.00 for each claim upon or for the benefit of which such additional work was performed.

13. Lessees shall have the right, at the end of the initial term of this Mining Lease if they so desire, to continue the term of this Mining Lease for an additional one (1) year period, upon the same terms and conditions as are herein contained, and Lessees shall further be entitled to/have the right to further continue the term of this Mining Lease for successive one (1) year periods thereafter to a maximum of ten (10) years. Such extensions shall be effected by Lessees giving written notice to Lessor of their election to so extend, which notice shall be given not less than thirty (30) days prior to the expiration of the initial term hereof or any extension thereof.

14. Any notice or delivery of information herein contemplated to be given to Lessor shall be sufficient if given in writing by certified mail, or if given by Western Union telegraph, and in either case addressed to:

MODERN MINES DEVELOPMENT COMPANY
207 Larson-Andrews Building
Yakima, Washington

or to such other address as Lessor may from time to time designate to Lessees in writing, and if to Lessees, shall be sufficient if given in writing by certified mail, or if given by Western Union telegraph, and in either case addressed to:

JOHNSON TRANSFER
Box 142
Basin, Wyoming

or to such other address as Lessees may from time to time designate to Lessor

in writing.

Service of notice shall be deemed effective and complete on the date of delivery to the addresses indicated above.

15. This agreement is and shall be binding upon and inure to the benefit of the respective heirs, executors, administrators, personal representatives, successors or assigns of the parties hereto.

EXECUTED the day and year first above written.

MODERN MINES DEVELOPMENT COMPANY

By _____
President

Attest:

_____
Secretary

"LESSOR"

_____

_____
d/b/a Johnson Transfer, a partnership of Basin, Wyoming

"LESSEES"

STATE OF WASHINGTON,)
) SS.
COUNTY OF YAKIMA.)

On this _____ day of _____, 1961, personally appeared before me L. V. SIGMAN and W. S. DOYLE, who, being by me duly sworn, did say: That they are the president and secretary, respectively, of MODERN MINES DEVELOPMENT COMPANY, a Washington corporation, and that the within and foregoing instrument was signed on behalf of said corporation by authority of a resolution of its Board of Directors and said L. V. SIGMAN and W. S. DOYLE duly acknowledged [illegible] that said corporation executed the same and that the seal affixed is [illegible] said corporation.

_____
Notary Public in and for the State of Washington, residing at Yakima.

My Commission Expires:

_____

STATE OF WYOMING,)
) SS.
COUNTY OF FREMONT.)

I, the undersigned a notary public in and for the said State, do hereby certify that on this _____ day of _____, 19__, personally appeared before me LEE JOHNSON and STAN TUNSTEN to me known to be the individuals described in and who executed the within instrument, and acknowledged that they signed and sealed the same as their free and voluntary act and deed for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

_____
Notary Public in and for the State
of Wyoming, residing at Dubois.

ADDENDUM

THIS ADDENDUM is attached to and made a part of that certain Mining Lease made and entered into the 15 day of [illegible], 1961, by and between MODERN MINES DEVELOPMENT COMPANY, a corporation, therein designated as "Lessor", and LEW JOHNSON and STAN JOHNSON, d/b/a Johnson Transfer, a partnership, therein designated as "Lessees",

WITNESSETH:

It is understood and agreed by and between the parties hereto and to that certain Mining Lease herein referred to, that if a body of ore is found within said 14 Mining Claims described in said Lease, that the Lessees are not able to mine by themselves, that they shall allow said Modern Mines Development Company to mine the same under a percentage agreement if Modern Mines Development Company wishes to do so. In other words, it is the understanding of the parties hereto that if such a situation exists, Johnson Transfer shall not hire anyone else to mine said ore without giving Modern Mines Development Company a right to mine said ore under the same terms and conditions as its offer to another party.

Johnson Transfer shall communicate its offer to Modern Mines Development Company by registered mail, specifying the terms and conditions of the offer, and if the same is not accepted within thirty (30) days after receipt of said offer, then Johnson Transfer may make arrangements with another concern, but it may not make any arrangements with another concern at terms more favorable to said concern than were contained in the offer to Modern Mines Development Company.

EXECUTED this _____ day of May, 1961.

MODERN MINES DEVELOPMENT COMPANY

By _____
President

Attest:

_____
Secretary

"LESSOR"

_____

_____
d/b/a Johnson Transfer, a partnership

"LESSEES"

MINING LEASE ASSIGNMENT

KNOW ALL MEN That Lew Johnson and Stan Johnson d/b/a Johnson Transfer, a partnership, of Basin, Wyoming, in consideration of One Dollar ($1.00) paid by the Middleton Mining Company, a corporation duly organized and doing business under the laws ofthe State of Wyoming, do by these presents sell, assign, convey and set over to the Middleton Mining Company all our right, title and interest in and to that certain Mining Lease theretofore made and entered into on the 18th day of August, 1961, byand between Modern Mines Development Company, a corporation, lessor, and Lew Johnson and Stan Johnson d/b/a Johnson Transfer, a partnership, of Basin, Wyoming, lessees, subject, however, to the president, secretary and director's of the Modern Mines Developement Company, above referred to, approving this, our said Assignment;

Subject, however, to the Modern Mines Developement Company, a corporation, approving this our said Assignment subjectto the above referred to Modern Mines Development Company Mining Lease reserving unto itself 6½ per cent royalty instead of 10 per cent which they had theretofore reserved unto itself in said Mining Lease, and with the Express Understanding also that the said Lew Johnson and Stan Johnson and Johnson Transfer Company, a partnership, in this their Assignment reserve unto themselves 6½ per cent royalty of all minerals mined from said mines; and will require as part consideration for said Assignment with the Middleton Mining Company that said Middleton Mining Company will pay 12½ per cent overriding royalty on all minerals mined from your properties together with liquidation ofthe balance due on the D M A contract of($2200.00) Two Thousand Two Hundred Dollars still remaining unpaid, and that said Middleton Mining Company will agree to employ men to provide One Thousand (1000) manhours of work the first six months in the operation and development of said mines

leave all pillars there standing in tact and fulfill all of the conditions theretofore interposed in your mining Lease theretofore made and entered into by Modern Mines Company with Stan Johnson and Lew Johnson and Johnson Transfer Company, a partnership;

~~The addendum last page of said mining lease contract to be deleted and disregarded~~;

IN WITNESS WHEREOF, The aforementioned Stan Johnson and Lew Johnson are this day signing their names in thepresence of witnesses, their signatures thereto being duly acknowledged.

WITNESSES.

_____ Stan Johnson

_____

_____ Lew Johnson

_____

STATE OF WYOMING)
) ss.
County of Big Horn)

I, Thomas M. McKinney, a Notary Public in and for the County aforesaid, do hereby certify: That before me this day personally appeared Stan Johnson and Lew Johnson to me personally known to be the persons who subscribed the annexed and foregoing Mining Lease Assignment and acknowledged each for himself, and not one for the other, that he executed the same as and for his free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and notarial seal at Basin, Wyoming, this ____ day of May, 1962.

_____ Notary Public

My Commission Expires:
September 1, 1964.

Building 20 - Federal Center
Denver 25, Colorado

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 20 1960

DATE	INITIALS	CODE
10-20	gad	220
10/20		800
		500
		220

October 18, 1960

Modern Mines Development Co.
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Gentlemen:

Attached is a copy of the Report of Royalty Review on the captioned property dated October 7, 1960, which shows that no Royalty is due the Government at this time.

Yours very truly,

Original signed by TMR

For
Hugh M. Sonnors
Acting Field Officer
OME, Region III

Enclosure

HMC/lm

cc E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Chief, Division of Field Operations (2)
Royalty Corres. E1095
Chron

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 20 1960

DATE	INITIALS	CODE
10-20	gad	VVO
10/20	[illegible]	800
		500

Building 20 - Federal Center
Denver 25, Colorado

October 18, 1960

Memorandum

To: Fiscal Section, Division of Administrative Services
Office of the Secretary, Department of the Interior
Washington 25, D. C.

From: Hugh M. Connors, Acting Field Officer, OME, Region III

Subject: Docket DRTA-4563 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Attached is the original Report of Royalty Review on the subject property dated October 7, 1960 covering the period February 5, 1959, through September 26, 1960.

Original signed by
TMR

For
Hugh M. Connors

Attachments

HMC/lm
cc: Chief, Division of Field Operations (2)
Royalty Corres. E1095
Chron

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/29	Selfridge	120
"	Johnson	
4-29	gad	220
4		
4/3	Murphy	500
		225

APR 29 1960

Memorandum

To: Mr. H. M. Connors, Acting Field Officer, Region III

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract No. Idm-E1095

Your April 26 memorandum requests certain information relative to a recent royalty receipt applicable to the subject contract. However, the only information available to this Division was inscribed on the check and quoted in my April 18 transmittal memorandum, i.e.:

> "Payment due on D.M.E.A. Loan for Ore shipped from 'Jet' Claims (Modern Mines Unit) Big Horn County, Wyoming, $518.63 and from A.E.C. Production Bonus $180.71 less payment made 3/16/60 check #15640 $278.06".

Based on this quotation the answers to your questions are as follows:

1. $518.63 was the amount of royalty applicable to the sale of ore,
2. $180.71 was the amount of bonus royalty, and
3. $699.34 was the total of two checks received.

One check for $421.28, on which the quotation was inscribed, was forwarded to the Fiscal Section with my April 26 memorandum. The other, in the amount of $278.06 was transmitted to the Fiscal Section with my March 22 memorandum, a copy of which also was furnished you.

The difference between the aggregate remittance of $699.34 and your stated amount of $687.51 appears to be in the calculation of the royalty on bonus.

EDTalbert/ama
April 28, 1960

Copy to: Docket
Director's Reading File
CA & A Division

43683

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 28 1960

DATE	INITIALS	CODE
4-28	gad	220
	~~Murphy~~	~~500~~
		225

Building 20 - Federal Center
Denver 25, Colorado

April 26, 1960

Memorandum

To: Mr. E. D. Talbert, Acting Chief, Contract Administration and Audit Division, OME

From: Acting Field Officer, OME, Region III

4/28 Copy to 800

Subject: Docket No. DMEA 4564 (Uranium)
Modern Mines Development Company
(Jet claims), Contract No. Idm-E1095
Big Horn County, Wyoming

Reference is made to your letter of April 18, 1960, to the Chief, Fiscal Section, relative to a check or checks you received from the sale of ore on the subject property.

Our letter to the operator dated March 18, 1960, copies of which were forwarded the Chairman of the Operating Committee, showed $518.63 royalty due on liquidation numbers 470, 570 and 571. The bonus royalty due on these three shipments was $168.88 making the total royalty due $687.51. The following is a quotation of the first paragraph of your letter to the Chief of the Fiscal Section dated April 18, 1960 which is not clear to me.

> "Attached for deposit to the subject account as a royalty receipt is Check No. 16083 dated April 13, 1960, in the amount of $421.28, drawn on the First Security Bank of Utah, Salt Lake City, Utah, for Payment due on D.M.E.A. Lean from ore shipped from 'Jet' claims (Modern Mines Unit) Big Horn County, Wyoming, $518.63 and from A.E.C. Production Bonus $180.71 less payment made 3/16/60 check No. 15640, $278.06."

If we are to continue keeping the royalty records in this office, we must have the following information:

1. What was the amount of royalty received from the sale of ore.

2. What was the amount of bonus royalty received.

3. What was the total amount of the check or checks received.

When we receive this information, we will forward the Washington office copies of the settlement sheets which we are holding.

Mining operations have ceased on this property and if we received a total of $687.51 after March 18, 1960, the account should be in balance.

Original signed by

Hugh M. Conners

HMC/bjo

cc: Acting Chief, Field
Operations (2)
Royalty corres. Idm-E1095
Suspense
Chron.

AEC Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4-18	gad	220
4-18	Murphy	500
		225

APR 18 1960

Memorandum

To: Chief, Fiscal Section
Division of Administrative Services
Office of the Secretary

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract No. Idm-E1095

Attached for deposit to the subject account as a royalty receipt is Check No. 16083 dated April 13, 1960, in the amount of $421.28, drawn on the First Security Bank of Utah, Salt Lake City, Utah, for "Payment due on D.M.E.A. Loan from Ore shipped from 'Jet' Claims (Modern Mines Unit) Big Horn County, Wyoming, $518.63 and from A.E.C. Production Bonus $180.71 less payment made 3/16/60 check #15640 $278.06".

A copy of this memorandum, together with an accompanying statement (Form AEC 300A), is being forwarded to the Acting Field Officer, OME, Region III, for his information and with the suggestion that he advise The Hidden Splendor Mining Co. to make future remittances directly to his office.

Attachment

EDTalbert/ama
April 18, 1960

Copy to: Docket
Director's Reading File
CA & A Division
Acting Field Officer, OME, Region III (2)

43683

C
O
P
Y

Form AEC-300A
(6-51)

Form approved
Budget Bureau No. 38-R043.1.

U. S. Atomic Energy Commission

APPLICATION FOR BONUS PAYMENT

For ore delivered on or after March 1, 1951, in accordance with AEC Domestic Uranium Program Circular 6

1. Name of Applicant
THE HIDDEN SPLENDOR MINING COMPANY

2. Mailing Address
P. O. Box 2306
Salt Lake City 10, Utah

3. Name of Mining Property Modern Mines Lease, Little Mt.Claims, Big Horn Co., Wyoming, Jet Group

4. Mining District

5. Date
March 24, 1960

6. AEC License No.
P-2100

7. Mining Property Certification No.
D.U.P. C6-C-1038

No application for bonus payment will be considered on shipments from any mining property which has not been certified.

8. Ore Shipments Delivered to and Paid for by .Susquehanna-Western, Inc..... (Mill or station)

Located at .....Riverton, Wyoming.....

Dates of Settlement	(Fill in either) Liquidation No.	Check No.	Dry Tons Ore	Grade U_3O_8	Pounds U_3O_8	Bonus Payment Per Pound U_3O_8	Amount of Bonus Payment
9/2/59	470		139.19	.13	361.89	2.10	759.97
1/13/60	570		94.63	.15	283.90	2.50	709.75
1/13/60	571		95.74	.32	612.71	3.50	2,144.49

(If more space is needed use a sheet of paper the same size as this page) Total $3,614.21

THE HIDDEN SPLENDOR MINING COMPANY

3/24/60 Assistant Treasurer

For use by Atomic Energy Commission Only

Accounting Classification	Amount

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 31 1960

DATE	INITIALS	CODE
3-31	gad	220
4/1	[illegible]	800
4/4	[illegible]	500
		225

Building 20 - Federal Center
Denver 25, Colorado

March 29, 1960

Mr. Murphy

Mr. M. Scott Woodland
Van Cott, Bagley, Cornwall
and McCarthy
65 South Main Street
Salt Lake City 11, Utah

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Woodland:

Enclosed is a copy of a letter from this office to Mr. John F. Cadigan, Vice President, Modern Mines Development Company, dated March 18, 1960, regarding royalty due the Government on production from the referenced property.

In conjunction with the matter, we are in receipt of the following: (1) Copy of the letter from Mr. Cadigan to your attention dated March 21, 1960; (2) Statement from Susquehanna-Western, Inc., Riverton, Wyoming, pertaining to production Lots Numbers 1 to 8 inclusive; and (3) Check No. 15640 dated March 16, 1960 in the amount of $278.06. In reference to the material under item 2, settlement sheets in our files indicate that Shipper's Lot Numbers 1 and 2 pertain to Liquidation No. 470; Lots 3, 4 and 5 pertain to Liquidation No. 571; and Lots Numbers 6, 7 and 8 pertain to Liquidation No. 570.

In reference to the check under item 3, payment of $278.06 leaves a balance due the Government of $409.45 on Lots 1 to 8 inclusive, because the haulage allowance is not a permissible deduction from the proceeds before computing the Government's percentage royalty. The applicable portion of the royalty provisions of Contract No. Idm-E1095 are quoted as follows:

> "ARTICLE 8. (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 ....".

Since the haulage allowance increases the gross proceeds from the sale of the ore, it must be included in the basis of computing the Government's percentage royalty.

We will appreciate receipt of your check at an early date for the balance due, so that we can close our records on this specific production.

Very truly yours,

Original signed by

J. W. Townsend
Executive Officer, OGE
Field Team, Region III

cc: John F. Cadigan, Vice Pres.
Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

JWT/bjo

cc: Chmn. Op. Comm. (2)
Roy. Corres., Region III
Suspense
Chron.

UNITED STATES DEPARTMENT of the INTERIOR
OFFICE OF MINERALS EXPLORATION
BLDG. 20, FEDERAL CENTER
DENVER 25, COLORADO

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 14 1960

DATE	INITIALS	CODE
3-14	gad	VVO
3/14	[illegible]	800
	Murphy	500
		225

March 10, 1960

Susquehanna-Western, Inc.
Riverton
Wyoming

Re: Docket No. EMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Co. (Jet Claims)
Big Horn County, Wyoming

Gentlemen:

The Atomic Energy Commission's records for 1959 show the following shipments of ore to your mill on which the Government has not received royalty, as provided in the captioned contract:

Period	Shipper	Quantity
3rd Quarter 1959	Modern Mines (Jet 8 Claim)	139.19 dry tons of ore containing 361.89 pounds U_3O_8
4th Quarter 1959	Modern Mines-- Lisbon Uranium Corp (Jet 8 Claim)	175.56 dry tons containing 1,123.60 pounds U_3O_8
4th Quarter 1959	Lisbon Uranium Co. (Jet 5 Claim)	173.54 dry tons containing 520.61 pounds U_3O_8

Will you please forward this office three (3) copies of each settlement sheet for the three (3) shipments of ore listed above.

Very truly yours,

Original signed by

J. William Hasler, Member
OME Field Team, Region III

cc Mr L V Sigman, Pres
Modern Mines Development Co
2302 W Chestnut
Yakima, Washington

HMC/ms cc: Chmn Op Comm (2)
Chron, Royalty E1095, Suspense

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 14 1960

DATE	INITIALS	CODE
3-14	gad	VVO
3/14		800
"	Murphy	500
		225

Building 20 - Federal Center
Denver 25, Colorado

CERTIFIED MAIL

March 10, 1960

Mr. L. V. Sigman, President
Modern Mines Development Company
2302 West Chestnut
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Will you please forward this office two (2) copies of the legal conveyance which gives the Lisbon Uranium Company the right to mine and remove ore from the Jet claims, which are subordinated to the Government under the captioned contract.

Enclosed is a copy of our letter to the Susquehanna-Western, Inc., Riverton, Wyoming requesting copies of settlement sheets for the sale of ore on which the Government has not received royalty.

Very truly yours,

Original signed by

J. William Hasler
Member, OME Field Team
Region III

Enclosure

HMC/ms

cc: Chmn. Op. Comm (2)
Roylty crs E1095
Chron
Suspense

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

OME
OFFICIAL FILE COPY
DEPARTMENT OF THE INTERIOR
O. M. E.
RECEIVED MAR 28 1960
REGION III
DENVER, COLORADO

DATE	INITIALS	CODE
3-28	gad	220
"	EEP	800
3/29	Murphy	~~500~~
		225

March 21, 1960

U. S. Dept. of Interior
Office of Minerals Exploration
Building 20, Federal Center
Denver 25, Colorado

DMEA-456 ✓
IDM-E 1095

Attention: J. W. Towsend, Executive Officer, OME

Dear Sir:

Attached hereto is a copy of a letter mailed to Mr. Scott Woodland, attorney for Lisbon Uranium Corporation, and this should be self-explanatory in regard to your letter of March 18, 1960.

There is also attached a copy of a letter received from J. William Hasler and our reply to him.

Yours very truly,

John F. Cadigan

John F. Cadigan, C.P.A.

JFC:jdc
Enclosure

Copy to W.O. ✓ Chairman Op. Com. ✓
" " Suspense

OME
DEPARTMENT OF THE INTERIOR
REGION 10
DENVER, COLORADO

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

March 21, 1960

Official
~~EXTRA COPY~~
O. M. E
RECEIVED MAR 28 1960

DATE	INITIALS	CODE

Van Cott, Bagley, Cornwall and McCarthy
Suite 300
65 South Main Street
Salt Lake, 11, Utah

Attention: M. Scott Woodland

Dear Mr. Woodland:

Attached hereto is a copy of letter received from the U. S. Dept. of Interior, Office of Minerals Exploration in regard to
Docket No. DMEA-4564 (Uranium)
Contract No. Idm-F1095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

Under the mining lease between Modern Mines Development Co. and Lisbon Uranium Corporation, it is Lisbon's responsibility to make the above payments.

Would you please advise whether Lisbon has made these payments and included it with other payments or whether they have been overlooked.

Yours very truly,

John F. Cadigan, C. P. A.

JFC:jdc
Enclosure

Copy to W C
Suspense

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

OME
DEPARTMENT OF THE INTERIOR
MAR 23 1960
REGION III
DENVER, COLORADO

March 21, 1960

Department of Interior
Building 20, Federal Center
Denver 25, Colorado

Attention: J. W. Hasler

Dear Mr. Hasler:

Attached hereto are two copies of the mining lease between Modern Mines Development Co. and Lisbon Uranium Corporation.

Attached also are two copies of the ore settlement sheets received from Fremont Minerals in 1959.

If there are any further questions, please advise.

Yours very truly,

John F. Cadigan, C. P. A.

JFC:jdc
Enclosure

OME
DEPARTMENT OF THE INTERIOR
MAR 2 3 1960
REGION III
DENVER, COLORADO

MINING LEASE

THIS MINING LEASE, made and entered into this 15th day of June, 1959, by and between MINERAL MINES DEVELOPMENT COMPANY, a corporation organized and existing under the laws of the State of Washington and duly licensed and qualified to do business as a foreign corporation in the State of Wyoming, hereinafter designated "Lessor", and LIBRON URANIUM CORPORATION, a corporation organized and existing under the laws of the State of Utah and duly licensed and qualified to do business as a foreign corporation in the State of Wyoming, hereinafter designated "Libron".

WITNESSETH:

WHEREAS, Lessor is the owner of 14 unpatented lode mining claims (hereinafter designated the "14 Mining Claims") situated in Big Horn County, State of Wyoming, which 14 Mining Claims are more particularly described as follows:

NAME OF CLAIM	NOTICE AND CERTIFICATE OF LOCATION RECORDED IN THE OFFICE OF THE COUNTY CLERK OF BIG HORN COUNTY, WYOMING, AT BOOK	PAGE
Jet #1	153	406
Jet #2	153	408
Jet #3	153	410
Jet #4	153	412
Jet #5	153	414
Jet #6	153	416
Jet #7	153	418
Jet #8	153	420
Jet #9	153	422
Jet #10	153	424
Jet #11	153	426
Jet #12	153	428
Indian Fraction #1	165	342
Indian Fraction #2	166	532

and

WHEREAS, Lessor is desirous of granting to Lisbon a Mining Lease covering said 14 Mining Claims upon the terms and conditions herein contained.

NOW, THEREFORE, in consideration of the sum of TEN DOLLARS ($10.00) and other good and valuable consideration in hand paid by Lisbon to Lessor, receipt of which by Lessor is hereby acknowledged, and in consideration of the covenants and agreements hereinafter set forth to be kept and performed by all of the parties hereto, Lessor hereby demises, leases and lets and by these presents does demise, lease and let to Lisbon for the purpose of exploring for, mining, concentrating, milling, selling and disposing of uranium ore and any other ore or ores of any kind or character on that certain land covered by the above described 14 Mining Claims, including all rights-of-way, easements, water and water rights of every kind and nature which are useful, convenient and necessary for Lisbon in the operation and mining of all of the lands covered by this Mining Lease.

TO HAVE AND TO HOLD UNTO LISBON, ITS SUCCESSORS AND ASSIGNS, for the primary term of five (5) years from the date hereof, and for such additional periods as the term of this Mining Lease may be extended as hereinafter provided. In consideration of such leasing and of the covenants and agreements hereinafter set forth to be kept and performed by Lisbon, IT IS HEREBY MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO as follows:

1. Lisbon shall furnish have and is hereby granted by Lessor the exclusive right to enter upon said 14 Mining Claims

and to drill and excavate therein and thereon drill holes, pits, tunnels, shafts and other excavations and to conduct thereon such surveys, explorations, sampling metallurgical work, similar as well as dissimilar, as Lisbon in its sole judgment and discretion may desire for the purpose of ascertaining, to the extent that Lisbon in its judgment and discretion may wish to know, any and all facts relative to the geology of and ores in, upon or under said demised properties and the mining, milling and marketing thereof. All of such work shall be conducted by Lisbon as it in its best judgment and discretion deems best and in a good and minerlike fashion. In the event that minerals and materials are encountered in said demised properties in quantities which in the opinion of Lisbon make it advisable to mine, dispose of and sell the same or oxides or concentrates therefrom, Lisbon shall be and is hereby given the exclusive right, license and privilege to develop, mine, extract, process, treat, mill, market and sell the same at such time, in such place, at such price and in such manner as Lisbon shall deem best.

2. Lisbon agrees to pay to Lessor a royalty interest of 5% of the value of all ores mined, shipped and sold by Lisbon from said 14 Mining Claims.

The term "royalty interest" when used separately or when preceded by a stated percentage figure herein shall have the following meaning: That the Lessor shall be entitled to its stated percentage of the gross returns from the sale of all minerals or ores extracted and sold from the pertinent mining claims or properties and all profits to which they pertain.

Any premium or bonus payment paid to Lisbon, or its successors in interest, in connection with the production and sale of minerals or ores produced from the properties embraced by the royalty interest and based upon quality or quantity of ores so produced, shall be deemed part of the gross purchase price and shall be included in the gross purchase price in the computation of the royalty interest, to the extent that payment of royalties on such bonus or premium payments is not contrary to law or governmental regulation, but no exploratory, development or haulage allowance paid to Lisbon, or its successors in interest, by any governmental agency as to the property embraced by said royalty interest, shall be deemed to constitute a portion of the gross purchase price for the purposes of determining the amount of royalty interest. Should Lisbon or its successors in interest in the properties covered by the aforesaid royalty interest or any portion of said properties, at any time deliver ores or minerals extracted from properties subject to said royalty interest, to a custom mill or refinery, whether owned in whole or in part by Lisbon, or its successors in interest, or by others, for purposes of refining same prior to the sale of oxides or concentrates therefrom, or should Lisbon, or its successors in interest, elect to refine the ores and minerals produced from the properties subject to said royalty interest, or have the same refined prior to the sale of oxides or concentrates therefrom, the gross purchase price upon which the royalty interest herein reserved shall be based shall be the price at which the ores or minerals would be purchased by an Atomic Energy Commission Buying Station, as established by the provisions of the AEC Circular 3, revised (10 C.F.R. 60.3) or any amendment

or supplement thereto which at that time shall be in force and effect, or if no Atomic Energy Commission price schedule applicable to said ores is then in force and effect, the gross purchase price upon which the royalty interest herein reserved shall be based shall be the established market price in the area for such ores and said royalty interest shall not be based upon the purchase price for oxides or concentrates refined from ores or minerals mined, extracted or removed from the properties subject to said royalty interest.

Lessor represents that by the terms of that certain Agreement (hereinafter designated the "Johnson Agreement") dated September 22, 1956 between Lew Johnson and Stan Johnson d/b/a Johnson Transfer as "Johnson", and Modern Mines Development Company as "Modern Mines", which agreement was recorded in the Office of the County Clerk of Big Horn County, Wyoming on October 11, 1956 as Instrument No. 365754, in Book 163 at Page 158 of the records of that office, a royalty of 10% was reserved to "Johnson". Lessor further represents that by the terms of a certain Agreement (hereinafter designated the "Johnson Amendment") dated June 2, 1959 by and between Modern Mines Development Company as "First Party" and Lew Johnson and Stan Johnson as "Second Party", Second Party agreed to reduce said royalty to 5%. Lisbon hereby agrees to make payment directly to Lew Johnson and Stan Johnson of a 5% royalty interest, as that term is hereinabove defined, of all ores mined, shipped and sold by Lisbon from said 14 Mining Claims. Lisbon agrees that it will instruct any mill or ore buying station which purchases ores or minerals extracted by Lisbon from the 14 Mining Claims to

make payment of said royalty interest of 5% directly to Lew Johnson and Stan Johnson, d/b/a Johnson Transfer and to make payment of royalty interest of 5% herein reserved by Lessor directly to Lessor and to deliver with any such royalty payments a copy of the mill returns or ore settlement sheets which may be applicable to all ores covered by the payment so made.

Lessor acknowledges and confirms to Lisbon that the royalty interest of 5% to be paid to Lew Johnson and Stan Johnson, d/b/a Johnson Transfer, the royalty interest of 5% herein reserved to Lessor and the obligation under D.M.E.A. Loan No. IDDM-E 1095, as hereinafter in Section 3 described, shall be the only royalty or payment obligations outstanding against the 14 Mining Claims or production therefrom. Lessor agrees that should it be determined that the 14 Mining Claims, or any of them, or any part thereof, are encumbered or subject to outstanding royalties or obligations to make payments of any type other than the royalty and payment obligations hereinabove in this paragraph described, Lessor will pay said outstanding royalties or obligations for payment.

Lessor further agrees that if it should hereafter be determined that Lew Johnson and Stan Johnson, d/b/a Johnson Transfer, are entitled to receive any amount as a result of production from the 14 Mining Claims in excess of a royalty interest of 5% as hereinabove defined, Lessor will pay any such amount which is in excess of a royalty interest of 5% as hereinabove defined.

3. Lessor represents that the 14 Mining Claims are subject

to an obligation to make repayment of the sum of $2,913.03, which is the balance due under D.M.E.A. Loan No. IDM-E 1095, Docket No. 4564, which loan is payable solely out of production of ores and minerals from said 14 Mining Claims, at a maximum rate of 5% of such production. Lisbon agrees that in the event it mines, ships and sells ores from the 14 Mining Claims, it will make such payments as may become due pursuant to said D.M.E.A. Loan by reason of the ores so mined, shipped and sold, to the extent that said payments do not exceed $2,913.03. Lisbon merely agrees to make such payments as may become due under said D.M.E.A. Loan with relation to ores mined, shipped and sold by Lisbon and assumes no obligation for payment of said loan otherwise.

4. Lessor represents that it is the owner of the various items of property described in Schedule A, attached hereto and by this reference made a part hereof. For convenience, the property itemized and described in said Schedule A will hereinafter be designated the "Schedule A Property". Lessor hereby agrees to rent said Schedule A Property to Lisbon so long as Lisbon shall elect to rent the same at a monthly rental of $3,000.00 per month. For purposes of determining rentals on said Schedule A Property, a month shall be the period from the 15th day of one calendar month to the 14th day of the following calendar month. The rental of said Schedule A Property shall begin June 15, 1959.

At such time as the total of the rental payments made by Lisbon to Lessor as rental on the Schedule A Property shall be equal to $38,902.30, Lessor agrees to transfer title to all of said Schedule A Property to Lisbon and Lisbon shall thereafter

be deemed the sole owner of said Schedule A Property and shall have no further obligation to make rental payments with regard to the same.

Lisbon agrees that it will rent said Schedule A Property for a minimum of six months. In the event that Lisbon should at any time elect to terminate this Mining Lease, or at any other time during the term of this Mining Lease, Lisbon shall have the right, if it so elects, to make payment to Lessor of the difference between the total of all rental payments theretofore made by Lisbon for rental of said Schedule A Property and $38,902.30, and upon making such payment, Lessor agrees to transfer title to all of said Schedule A property to Lisbon and Lisbon shall thereafter be deemed the sole owner thereof and shall have no obligation to make further rental payments with regard to the same. This option to purchase shall be exercised within three (3) days of the termination of this Mining Lease by payment to Lessor of the difference between the total of all rental payments made by Lisbon for rental of the Schedule A Property and $38,902.30.

Lessor agrees that at such time as Lessor is obligated to transfer title to said Schedule A Property to Lisbon it will execute and deliver to Lisbon such instruments and documents of transfer as may be necessary to effectuate said transfer.

Lisbon agrees that during such time as it is renting said Schedule A Property it will, at its expense, maintain the same in good repair and in the event Lisbon does not elect to purchase the same, will return said property to Lessor in the same condition as received by Lisbon, normal wear and tear excepted.

Lessor agrees that until such time as title to said Schedule A Property is transferred to Lisbon, Lessor will maintain fire, theft, casualty and collision insurance covering said Schedule

A Property in amounts not less than the value of said property.

5. Lessor hereby sells, assigns, transfers, delivers and sets over unto Lisbon the various items of personal property described in Schedule B attached hereto and by this reference made a part hereof. For convenience, the personal property described in Schedule B will hereinafter be designated the "Schedule B Property". Lisbon agrees that concurrently with the execution hereof it will pay to Lessor as the full consideration for the purchase of said Schedule B Property the sum of $1,798.60.

6. Lessor represents that Lessor has a credit with Industrial Equipment Company of Billings, Montana, which credit is in the amount of $2,404.34. Lessor agrees that concurrently with the execution hereof it will execute and deliver to Lisbon an assignment of said credit and will execute such documents as shall be necessary to enable Lisbon to take advantage of said credit. As full consideration for said assignment Lisbon hereby agrees to pay to Lessor the sum of $2,404.34.

7. Lisbon shall be obligated to complete not less than 125 feet of exploration, development or mining tunnels, drifts and workings upon the 14 Mining Claims for each of the first eight (8) months that this Mining Lease shall be in effect. Such work shall be cumulative so that any excess over the amount required for a month may be carried forward to succeeding months. In other words, it is intended that at the conclusion of eight (8) months from the date of execution hereof, Lisbon shall have completed not less than 1,000 feet of exploration, development

or mining tunnels, drifts and workings, and in the event that Lisbon should elect to terminate this Mining Lease at the conclusion of three (3) months from the date hereof, it shall at the time of termination have completed not less than 375 feet of exploration, development or mining tunnels, drifts and workings. This provision shall not require that a particular amount of work be done during a certain month but merely requires that at the conclusion of eight (8) months from the date hereof, or in the event of an earlier termination of this Mining Lease, Lisbon shall have completed the work required to that date, with the exception of the work hereinbefore in Section 7 provided, which, under no circumstances, shall be required to exceed 1,000 feet of exploration, development or mining tunnels, drifts and workings upon the 14 Mining Claims. Lisbon shall have no obligation to conduct any mining or development operations upon the 14 Mining Claims except as in this section provided, unless Lisbon in its sole discretion elects to do so. Lisbon agrees to conduct all operations on the 14 Mining Claims in a good and workmanlike manner without unnecessary injury to the property and to fully indemnify Lessor from any liability arising out of injuries to the person or property or to third persons by reason of the operations of

Lisbon. Lisbon agrees to carry such insurance covering all persons working in or on the 14 Mining Claims for Lisbon as will fully comply with the provisions and statutes of the State of Wyoming covering Workmen's Compensation and Occupational Disease and Disability as are in force now or as the same may be hereafter changed or amended.

8. Lessor covenants that this Mining Lease shall cover and extend to any further or additional right, title, interest or estate acquired by Lessor in or to minerals or rights therein in the lands hereinabove described. Lessor covenants and warrants that it has made no prior conveyance of said property, mining claims or rights. Lessor does hereby covenant and warrant that to the best of its knowledge, information and belief it owns and possesses good and marketable title to said 14 Mining Claims and that said 14 Mining Claims are valid and subsisting mining claims located pursuant to applicable requirements of Federal and State law. Further, Lessor represents and warrants that all of said 14 Mining Claims are free and clear of all types of liens, claims, demands and encumbrances and that there are no outstanding royalties or other payment obligations with relation to any of said 14 Mining Claims other than the royalty of 5% payable pursuant to the Johnson Agreement as modified by the Johnson Amendment described in Section 2 above, and payments due on the D.M.E.A. Loan described in Section 3 above. Lessor further represents and confirms that to the best of its knowledge, information and belief there are no adverse locations of mining claims, monuments or stakes in or upon the properties covered by the 14 Mining Claims, and that to the best of its

knowledge, information and belief there are no adverse claims or conflicts of title relating to said 14 Mining Claims.

9. Lessor represents that by letter dated May 29, 1958 it was advised by the Atomic Energy Commission that it had been granted an allocation for the production of 9,000 tons of ore per year from the 14 Mining Claims and that Lessor has made arrangements for delivery of said allocated tonnage to Fremont Mineral Company mill at Riverton, Wyoming. Lessor hereby assigns to Lisbon the right to said ore from the 14 Mining Claims pursuant to said allocation, said right to continue so long as the allocation is in existence and so long as this Mining Lease remains in force and effect. Lessor agrees that during said period of time Lisbon shall have all of the rights of Lessor in and to said allocation and the agreements between Lessor and Fremont Mineral Company.

10. Lessor represents that said 14 Mining Claims were certified as eligible to receive Initial Production Bonus pursuant to Atomic Energy Commission Circular 6 (10 C.F.R. 60.6) under Certification No. DUF-CO-01038. Lessor hereby assigns its rights in and to said certification to Lisbon and agrees that Lisbon shall be entitled to receive any Initial Production Bonuses which may become payable in relation to ores mined, shipped and sold from the 14 Mining Claims. Lessor represents that to date it has received a total of $30,146.48 as Initial Production Bonus pursuant to said certification and that, therefore, the 14 Mining Claims are eligible for a balance of $4,853.52 as initial production bonus applicable to ores mined, shipped and sold therefrom.

11. Lisbon hereby agrees that during the term of this Mining Lease it will assume the obligation of Lessor under the Johnson Agreement as modified by the Johnson Amendment to allow Lew Johnson and Stan Johnson, d/b/a Johnson Transfer, to haul ore produced by Lisbon from the 14 Mining Claims, so long as said ore is hauled to the satisfaction of Lisbon. Lisbon agrees that at the present time it will pay the sum of $2.75 per ton to transport ore from the 14 Mining Claims to the loading ramp at Kane, Wyoming; provided, however, Lisbon shall have no obligation to have said ore hauled by Johnson Transfer unless such hauling is to the satisfaction of Lisbon.

12. Lessor hereby sells, assigns, transfers and delivers unto Lisbon all of its right, title and interest under that certain Lease, dated April 1, 1958, between the Chicago, Burlington & Quincy Railroad and Lessor, relating to the railroad dock utilized by Lessor at Kane, Wyoming. Lessor agrees to execute such assignments of said lease as may be necessary to effectively transfer the same to Lisbon, said transfer to be complete at such time as Lisbon purchases the Schedule A Property.

13. Lessor, or its duly designated agents, may at reasonable times enter upon the 14 Mining Claims for purposes of inspection thereof; provided, that such entry shall be at the sole risk of Lessor, and that such entry onto the 14 Mining Claims or into any mine workings thereon, for the purpose of inspecting the same, shall be at reasonable times and without interference with mining operations of Lisbon or its assigns.

Lisbon agrees to keep an accurate account of all mining operations in connection with the 14 Mining Claims, showing sales, prices, dates, purchasers, the amount of minerals mined, and the claim from which mined. All records, books and accounts of Lisbon

relating to its operations hereunder, including geological and development information and data, shall be open at all reasonable times to inspection by Lessor, or its authorized agent; provided, that Lisbon shall not be obligated to release said information for a period of six (6) months after received by Lisbon if, in the sound judgment of the Board of Directors of Lisbon, release of such information would be detrimental to Lisbon.

14. Should any default in any of the terms hereof occur, Lessor shall give notice to Lisbon in writing as hereinafter provided, designating such asserted default. Lisbon shall thereafter have a period of sixty (60) days from the date of receipt of such notice in which to correct the defaults of which it has received notice. Should Lisbon fail to correct said defaults within said 60-day period, Lessor may, at its election, cancel and terminate this Mining Lease. It is specifically understood and agreed that with the exception of amounts due Lessor as royalty on ores shipped and sold or as rental on the Schedule A Property and any obligation it may have pursuant to Section 20 hereof, the sole liability of Lisbon for any default under the terms of this Mining Lease, shall be the loss of its rights in and to the mining claim or mining claims on which the default occurred and Lisbon shall under no circumstances have any liability to Lessor by way of damages.

15. All obligations of Lisbon under this Mining Lease shall be suspended while, but only so long as and to the extent that Lisbon is prevented from complying with such obligations in whole or in part by strikes, lockouts, Acts of God, unavoidable accidents, uncontrollable delays by transportation or inability

to obtain necessary materials in open market, inadequate facilities for transportation of materials or for disposition of products, lack of suitable market for ores and minerals produced, any State or Federal laws, regulations or orders, or other matters beyond the reasonable control of Lisbon, whether similar to the matters herein specifically enumerated, or otherwise; further, Lisbon shall not be required against its will to adjust any labor dispute or to question the validity or to refrain from judicially testing any Federal or State Law, order, regulation or rule.

16. Lisbon agrees that from and after the date of execution of this Mining Lease and at all times during the term hereof, it will during each assessment year perform upon or for the benefit of each of the 14 Mining Claims subject to this Mining Lease, assessment work of a character and value reasonably expected to satisfy the requirements of the mining laws of the United States and of the State of Wyoming. Lisbon agrees that on or before July 1st of any assessment year during which Lisbon is required to perform such assessment work, it will give notice to Lessor of the assessment work which has been performed by it during said assessment year. If, in the reasonable opinion of Lessor, the assessment work performed by Lisbon, as set forth in said notice, is not sufficient to satisfy the requirements of the mining laws of the United States and of the State of Wyoming, Lessor shall have the right to enter upon the 14 Mining Claims and perform such additional work as will reasonably be necessary to satisfy the requirements of the mining laws of the United States and of the State of Wyoming. Lisbon hereby

agrees that it will reimburse Lessor for the actual cost of any work so performed by Lessor, to the extent that said additional work was reasonably necessary, and to the extent that the cost of said additional work does not exceed $100.00 for each claim upon or for the benefit of which such additional work was performed. In the event that performance of work intended by Lisbon in good faith to satisfy the requirements under the mining lease with respect to annual labor, shall be deficient in one respect or another, and in the event that such failure shall, through relocation by a third party or otherwise, result in forfeiture or loss of such claim or claims, as to which there is a deficiency in the work, Lisbon shall not be liable to Lessor in damages or otherwise on account of such failure to meet the requirements of the mining laws.

17. Lisbon shall have the right at the end of the initial 5-year term of this Mining Lease, if it so desires, to continue the term of this Mining Lease for an additional 5-year period upon the same terms and conditions as are herein contained, and Lisbon shall further be entitled to and shall have the right to further continue the term of this Mining Lease for successive 5-year periods thereafter to a maximum of twenty-five (25) years. Such extension shall be effected by Lisbon giving written notice to Lessor of its election to so extend, which notice shall be given not less than 10 days prior to the expiration of the initial term hereof or any extension thereof. All such extensions shall be upon the same terms and conditions as are herein contained and Lisbon shall not be obligated to make any payment as consideration for such extension or extensions.

18. All tools, equipment, pipe, pipelines, apparatus, building structures and property of every nature and description placed upon or used in connection with said 14 Mining Claims by Lisbon (with the exception of the Schedule A Property), whether or not affixed to the soil shall be deemed to be and shall remain the personal property of Lisbon, and title thereto shall at all times remain and be in Lisbon. Further, following such time as title to the Schedule A Property is transferred to Lisbon, all of said Schedule A Property shall be deemed to be and remain the personal property of Lisbon. Lisbon shall have the right at all times during the term of this Mining Lease, as the same may be extended, and for a period of six (6) months after the termination hereof, to remove all such property from the 14 Mining Claims; provided, however, that Lisbon shall not, in the event of a termination of this Mining Lease, remove timber, shoring, bracing, pillars, pipe or pipelines necessary to support mine workings then existing upon the mining property. This provision shall not require Lisbon to maintain any mine workings during the term hereof and shall merely be interpreted as preventing Lisbon from removing such materials at the time of termination of this Mining Lease.

19. Lisbon may at any time terminate this Mining Lease and its rights hereunder, upon written notice to Lessor and upon delivery of such notice to Lessor, and payment to Lessor of all amounts due it hereunder and fulfillment of all obligations of Lisbon hereunder to the date of such termination, this Mining Lease shall be deemed cancelled and terminated and Lisbon shall have no further obligation hereunder.

20. At any time during the term of this Mining Lease, Lisbon may surrender its rights in any mining claim or claims subject hereto to Lessor by giving written notice to Lessor by certified

mail. Upon giving such notice of election to surrender, Lisbon shall be relieved of future obligations with regard to the claim or claims released or relinquished to Lessor, except the obligation to account for any payments accrued for ores theretofore extracted. The release of such claims shall not relieve Lisbon of its obligation with regard to any claims not released.

21. If at any time during the term of the Mining Lease, Lisbon should remove substantially all of its personal property and personnel from the 14 Mining Claims, and should Lisbon wholly fail to do substantial work in connection with the 14 Mining Claims during a period of one (1) year, and should said removal of property and failure to perform work not be the result of one of the causes provided by Section 13 hereof, Lessor may give written notice to Lisbon that it elects to cancel and terminate this Mining Lease, and Lisbon shall have a period of 60 days from the date of receipt of such notice within which to commence work upon the 14 Mining Claims. Should Lisbon fail to commence any work upon the said 14 Mining Claims within the said 60-day period, Lessor shall have the right, at its discretion, to cancel and terminate this Mining Lease. The rights of Lessor under this section shall be in addition to those provided by Section 14 hereof.

22. Any notice or delivery of information herein contemplated to be given to Lessor shall be sufficient if given in writing by certified mail, or if given by Western Union telegraph, and in either case, addressed to:

MODERN MINES DEVELOPMENT COMPANY
207 Larson-Andrews Building
Yakima, Washington

or to such other address as Lessor may from time to time designate to Lisbon in writing, and if to Lisbon, shall be sufficient if given in writing by certified mail, or if given by Western Union telegraph, and in either case, addressed to:

LISBON URANIUM CORPORATION
304 First Security Building
Salt Lake City, Utah,

or to such other address as Lisbon may from time to time designate to Lessor in writing.

Service of notice shall be deemed effective and complete on the date of delivery to the address indicated above.

23. Notwithstanding anything herein to the contrary, if a genuine title dispute arises or develops with respect to all or any portion of the 14 Mining Claims and the lands covered thereby, the following agreements and conditions shall be operative and cover:

(a) Lisbon shall have the right, at its sole option, to relinquish to the Lessor the disputed portions or areas of the said 14 Mining Claims which are affected by said adverse claims. In the event that Lisbon has already mined ores from the disputed areas, and has paid the Lessor the royalty interests applicable to said ores but is later required by court decision to pay damages or otherwise reimburse third party claimants for such ores, Lessor shall repay to Lisbon all of the royalties which were paid to it for ores mined from the disputed areas;

(b) The foregoing procedures shall govern as to each title dispute and the disposition of one title dispute shall not affect subsequent title disputes or adjustments; and

(c) Lisbon shall not be required to pay any royalty to Lessor concerning any ores produced, mined or extracted from disputed areas which Lisbon relinquishes,

as provided in subparagraph (a) of this Paragraph 23, nor shall Lisbon be required to pay royalties for ores produced, mined or marketed from disputed areas which are ultimately determined by settlement agreement executed by Lisbon and Lessor to be the properties of others.

24. This Agreement is and shall be binding upon and inure to the benefit of the respective heirs, executors, administrators, personal representatives, successors or assigns of the parties hereto. Lisbon shall have the right without the consent of the Lessor, to sell or assign all or any portion of its rights in, to or arising under this Mining Lease.

EXECUTED this day and year first above written.

LESSOR: MEXICAN MINES DEVELOPMENT COMPANY

By _____
President

ATTEST:

_____
Secretary

LISBON: LISBON URANIUM CORPORATION

By _____
President

ATTEST:

_____
Secretary

STATE OF WASHINGTON,)
: ss.
COUNTY OF YAKIMA.)

On this [illegible] day of June, 1999, personally appeared before me L. V. [illegible] and W. S. DOYLE, who, being by me duly sworn, did say: that they are the President and Secretary, respectively, of [illegible] MINES DEVELOPMENT COMPANY, a Washington corporation, and that the within and foregoing instrument was signed on behalf of said corporation by authority of a resolution of its Board of Directors and said L. V. [illegible] and W. S. DOYLE duly acknowledged to me that said corporation executed the same and that the seal affixed is the seal of said corporation.

[illegible]
Notary Public

My Commission Expires: Residing at:

[illegible]

STATE OF UTAH,)
: ss.
COUNTY OF SALT LAKE.)

On this _____ day of June, 1999, personally appeared before me A. F. KIRK and MAX B. LEWIS, who, being by me duly sworn, did say: that they are the President and Secretary, respectively, of LIBERTY URANIUM CORPORATION, a Utah corporation, and that the within and foregoing instrument was signed on behalf of said corporation by authority of a resolution of its Board of Directors and said A. F. KIRK and MAX B. LEWIS duly acknowledged to me that said corporation executed the same and that the seal affixed is the seal of said corporation.

Notary Public
Residing at Salt Lake City, Utah

My Commission Expires:

[illegible]

Form 7
68)

OFFICIAL FILE COPY

Date	Surname	Code
3/22	Fisher	800
3/23	Talbot	800
3/23	Murphy	500
3/25	GCS	130
"	Johnson	110
		~~310~~
		500
3/25	RCW	220

225

MAR 25 1960

Memorandum

To: Executive Officer, OME Field Team, Region III

From: Chairman, Operating Committee, OME

Subject: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract No. Idm-E1095

Attached is a statement received in this office March 22, 1960, along with a check in the amount of $278.06 for royalty applicable to the subject contract.

As your letter dated March 18, 1960, to John F. Cadigan, vice president, Modern Mines Development Company, states that the total royalty due on these shipments, including royalty on AEC bonus, amounts to $687.51, the matter is referred to you for the necessary action to collect the balance of royalty due.

/s/ George C. Selfridge (HB)

APPROVED:

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

Harold Kirkemo (HB)
Member, Geological Survey

Attachment

CEFisher/ama
March 22, 1960

Copy to: Docket
Director's Reading File
CA & A Division
Operating Committee
Mr. Kirkemo, USGS

43683

THE HIDDEN SPLENDOR MINING COMPANY
PAYMENT DUE ON D.M.E.A. LOAN FROM ORE SHIPPED FROM "JET" CLAIMS
(MODERN MINES UNIT) BIG HORN COUNTY WYO.
TO SUSQUEHANNA WESTERN, INC. AT RIVERTON, WYO.

Lot No.	Date	Dry Tons	Grade Percent	Gross Settlement	Less Haulage Allowance	Gross Proceeds	Royalty Percent	Amount
1 & 2	7/31/59	139.190	0.13	$1,799.85	$ 858.91	$ 940.92	1.5	$ 14.11
3,4&5	12/5/59	275.562	0.32	5,926.14	1,115.73	4,810.41	5.0	240.52
6 7&8	12/5/59	175.945	0.15	2,646.51	1,084.63	1,561.88	1.5	23.42
						TOTAL		$ 278.06

Payable to:
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D.C.

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/22	Alley	800
3/23	RCW	220
3/23	gla	~~500~~
		225

MAR 22 1960

Memorandum

To: Chief, Fiscal Section
Division of Administrative Services
Office of the Secretary

/s/ C. E. Fisher for

From: E. D. Talbert, Acting Chief
Contract Administration and Audit Division

Subject: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Co.
Jet Claims
Big Horn County, Wyoming
Contract No. Idm-E1095

Attached for deposit to the subject account as a royalty receipt is Check No. 15640 dated March 16, 1960, in the amount of $278.06, drawn on the First Security Bank of Utah, Salt Lake City, Utah.

Attachment

AMAlley/ama
March 22, 1960

Copy to: Docket
Director's Reading File
CA & A Division
OME Field Team, Region III (2)

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado
March 18, 1960

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 22 1960

DATE	INITIALS	CODE
3/22	RCW	225
"	bEP	800
~~3/22~~	~~[illegible]~~	~~500~~

Memorandum

TO: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA-4564 (Uranium), Contract No. Idm-E1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming

Attached is a copy of our letter to Mr. Cadigan requesting royalty due the Government. Also attached is a copy of a form letter returned to this office by Mr. Cadigan, in which he states that "the operation is now closed down."

J. W. Townsend

J. W. Townsend

Enclosures

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 22 1960

DATE	INITIALS	CODE

Building 20 - Federal Center
Denver 25, Colorado

CERTIFIED MAIL

March 18, 1960

Mr. John F. Cadigan, Vice President
Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

Re: Docket No. [illegible]-4564 (Uranium)
Contract No. Ilm-K1095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. Cadigan:

The following shipments of ore were made from the Jet claims during the year 1959, on which the Government did not receive its percentage of royalty as stipulated in the captioned contract:

Liq. No.	Smelter Value $	Net Value $	Dry Tons	Value per Ton $	5% Roy	Royalty Due $	Bonus Payment $	Bonus Roy. Due $
470	1,799.85	1,799.85	139.190	12.93	5%	89.99	759.97	38.00
570	2,646.67	2,646.67	173.556	15.25	5%	132.33	1,301.53	65.08
571	5,926.14	5,926.14	175.562	33.76	5%	296.31	1,316.00	65.80
						$518.63		$168.88

Bonus royalty due..... 168.88

Total Royalty due for 1959 .....$687.51

Will you please forward this office your check for $687.51, the amount of royalty due the Government for ore shipped from the Jet claims during 1959.

Very truly yours,

J. W. Townsend
Executive Officer, OME
Field Team, Region III

HMQ/ms
cc: Chmn. Op. Comm. (2)
Royalty corres E1095
Chron
Suspense

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado
February 8, 1960

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 22 1960

DATE	INITIALS	CODE

Modern Mines Development Company
219 South 31st. Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
(Jet claims)
Big Horn County, Wyoming

Gentlemen:

In reference to the "Certification by the United States of America of a Discovery or Development under an exploration Project Contract" and the instructions in the Washington Office letter of transmittal of the Certification on the captioned project, please indicate your answer to the following questions and return one copy of the questionnaire immediately to this office.

Very truly yours,

J. W. Townsend
J. W. Townsend
Executive Officer, OME
Field Team, Region III

1. Has the property been sub-leased or any change made in ownership other than this office has been notified? Yes X No___. If yes, please furnish details of the transaction on a separate sheet and include a true or signed copy of any instrument that was executed in conjunction with the matter.

2. Has there been production from the land subordinated under the referenced contract since January 1, 1959 ? Yes X No___. If yes, and shipments made, who was the purchaser? Fremont Minerals Inc. Chicago, Ill.

3. Is any of the following material stockpiled? Yes___ No X.

(a) Ore, Tons_____ Estimated grade_____
(b) Concentrates, lbs._____ Estimated grade_____
(c) Low grade ore, tons_____ Estimated grade_____
Place stockpiled_____

Signed John J. Cadigan

Title Vice Pres. Date 3/8/60

The above problem is now [illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
March 9, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 13 1959

DATE	INITIALS	CODE
3/13	C	220
	Murphy	700

Memorandum

To: Chairman, Operating Committee, OME

From: OME Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium) Contract Idm-E1095
Modern Mines Development Corporation, (Jet claims)
Big Horn County, Wyoming - FINAL SUMMARY REPORT

The original and two copies of a Joint Final Engineering and Geologic Report, by W. N. Sharp, Geologist, Geological Survey, and M. H. Marshall, Mining Engineer, Bureau of Mines, were forwarded by our memorandum of November 21, 1958. The original and one copy of the Operator's final report were forwarded by our memorandum of December 16, 1958.

The contract was terminated before completion of all work originally provided for by a Termination Agreement, dated July 29, 1958, which was made effective August 10, 1957.

Final settlement of the account was processed by this office March 9, 1959, in accordance with the Report of Review of reported project costs dated January 7, 1959, and the Report of Royalty Review, dated February 10, 1059, by the Contract Administration and Audit Division, OME.

Exploration work completed under the contract consisted of the drilling of 26 holes aggregating 3633 feet of non-core drilling. Additional work or service incident to the exploration work consisted of 12 hours standby time, incidental allowance for 3633 feet of drilling; all at a total accepted cost of $8,885.20, toward which the Government contributed 75 percent or $6,663.91.

The exploration work completed resulted in the discovery of a significant quantity of uranium ore on which a Certification of Discovery or Development was issued October 8, 1958.

By J. W. Townsend
J. W. Townsend

By E. N. Harshman
E. N. Harshman

F.T. FINAL SUMMARY REPORT

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~DEFENSE MINERALS EXPLORATION ADMINISTRATION~~
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
November 21, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11/24	C	220
11/24	[illegible]	130
"	[illegible]	110
11/28	[illegible]	130
11-28	C	220
12-1	[illegible]	700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium) Contract Idm-E1095
Modern Mines Development Corporation, (Jet claims)
Big Horn County, Wyoming

Enclosed are the original and two copies of a Joint Final Engineering and Geologic Report, dated November 14, 1958, by W. N. Sharp, Geologist, Geological Survey, and Milton H. Marshall, Mining Engineer, Bureau of Mines, pertaining to work completed under the subject contract.

The exploration work completed under the contract resulted in the discovery or development of a significant quantity of uranium ore on which a Certification of Discovery or Development was issued ~~October~~ August 8, 1958.

The Field Team's final summary report will be submitted after the Operator's final report is received and other matters prerequisite to closing the account have been resolved.

J. W. Townsend

J. W. Townsend

Enclosures

Reviewed by
OME OPERATING COMMITTEE
11-28-58
(date)

F. T. FINAL REPORT

OME
DEPARTMENT OF THE INTERIOR
NOV 19 1958
REGION III
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

OFFICE OF MINERALS EXPLORATION

JOINT FINAL REPORT BY EXAMINING TEAM
REGION III

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11/25	HB	130
		220

DMEA 4564

Contract Idm-E 1095

Modern Mines Development Corporation

Jet claims

Big Horn County, Wyoming

Uranium

Joint Final Engineering and Geologic Report

by

W. N. Sharp, Geologist
Geological Survey

Milton H. Marshall, Mining Engineer
Bureau of Mines

November 14, 1958

Reviewed by
OME
11-28-58
(date)

CONTENTS

Page

Introduction and summary..... 1

Property..... 2

Ownership..... 2

Location and description..... 2

Access..... 3

Climate..... 4

Supply..... 4

History..... 5

Production..... 5

Geology and ore deposits..... 5

The project..... 8

Introduction..... 8

Proposed exploration..... 8

Applicant's original proposal..... 8

Applicant's revised proposal..... 9

Recommended exploration..... 9

Geologic analysis of work..... 10

Summary of contract provisions..... 12

Work..... 12

Units and costs..... 12

Summary of completed work..... 14

Work..... 14

Units and costs..... 15

Ore reserves..... 15

Conclusions and recommendations..... 16

ILLUSTRATIONS

Figure — Follows page

1. Location map, Modern Mines Development Co., Jet claims, Big Horn County, Wyoming..... 2

2. Map of Jet claims showing drilling exploration, Modern Mines Development Company, Big Horn County, Wyoming..... 16

TABLES

Page

Table 1.--Summary of units and items of work..... 13

DMEA 4564

CONTRACT Idm-E 1095

MODERN MINES DEVELOPMENT CORPORATION
JET CLAIMS
BIG HORN COUNTY, WYOMING

INTRODUCTION AND SUMMARY

On December 5, 1956, an application for Government assistance was received from Modern Mines Development Company. The applicant proposed to explore the Jet claims in Big Horn County, Wyoming, for uranium by core and non-core drilling. The cost was estimated to be $43,950.00. A field examination of the land proposed for subordination was made February 14, 1957. The field examiners recommended a two-stage non-core drilling program at an estimated total cost of $41,641.00.

The applicant was awarded a contract dated May 31, 1957, which provided for a two-stage non-core drilling project at an estimated total allowable cost of $40,870.00, with Government participation at 75 percent or not to exceed $30,652.00.

The project work started June 20, 1957, and terminated before completion on August 10, 1957. The work completed resulted in a discovery of a significant quantity of uranium-bearing material upon which a certification of discovery or development was issued August 8, 1958.

Twenty-six acceptable Stage I non-core drill holes were completed under terms of the exploration contract. Only three of these holes were

mineralized and ore bearing. No Stage II work was performed by the operator. The operator, however, at his own expense, drilled 13 offset holes to the DMEA ore holes--several of which penetrated mineralized rock. On such strength, the operator drove a 565-foot development adit and, as of October 31, 1958, had mined 938,744 tons of ore averaging 0.40 percent U_3O_8. Gross reserves on the property amount to about 330 tons of about 0.2 percent material.

PROPERTY

Ownership

Modern Mines Development Company, 219 South 31 Avenue, Yakima, Washington, holds the property under lease dated September 22, 1956, from Lew Johnson and Stan Johnson, the locators of the Jet claims included in the contract. The Jet claims Nos. 1 through 12, all unpatented lode-mining claims are recorded as follows at the County Recorder's Office, Basin, Wyoming:

Claim	Book	Page	Date
Jet No. 1-7	153	406-419	2/19/56
Jet No. 8-12	153	420-428	2/21/56

Location and description

The Jet claims Nos. 1-12 (fig. 1) are located in secs. 22 and 23, T. 58 N., R. 94 W., sixth principal meridian, Big Horn County, Wyoming.

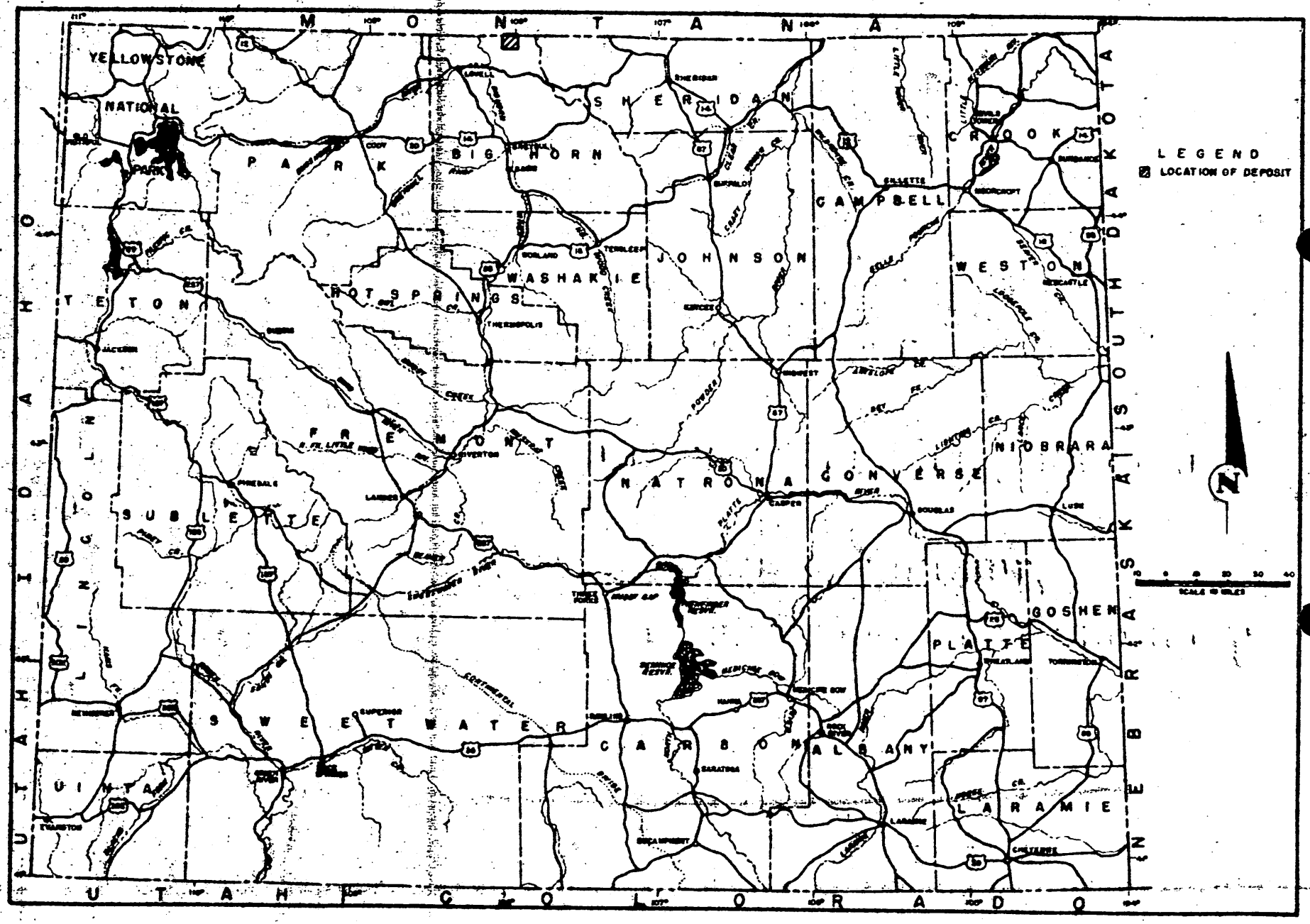

FIGURE I - LOCATION MAP, MODERN MINES DEVELOPMENT COMPANY, JET CLAIMS, BIG HORN COUNTY, WYO.
DMEA 4564

The claims lie immediately south of the Montana-Wyoming state line at the northern end of a flat topped ridge known locally as "Little Mountain". Of the 12 claims, 6 are the dimensions of a standard mining claim. Six claims (Nos. 1, 4, 5, 6, 11, and 12) are less than standard dimensions. Jet No. 1 is standard width but only 750 feet long. Jet No. 4 is standard length but only 340 feet wide. Jet Nos. 5 and 6 are irregular size owing to adjoining prior locations. Jet Nos. 11 and 12 are each standard width but only 1,250 feet long. (see fig. 2).

The average altitude of the claims is 5,150 feet above sea level and they cover an area of about 212 acres. The ground surface is relatively flat with but little relief over most of the area but a sharply bounded drainage valley 150 feet deep cuts across the eastern part of the area. Vegetation consists of sagebrush, grass and a sparse scattering of juniper.

Access

The claims are reached by traveling east from Lovell, Wyoming, on State Highway 14 for a distance of 10.9 miles to a point just east of the Big Horn River, then north on an improved dirt road on the top of Little Mountain for 8.0 miles to a road fork, and then northwest on a dirt road for a distance of 4.5 miles to the property. The Fuesner mine camp of Lisbon Uranium Company located 0.5 miles south of the property is a prominent feature, and is used as a landmark.

Climate

Summers are moderate with the temperature seldom exceeding 90° F.; however, the winters are severe with heavy snowfall and sub-zero temperatures much of the time. Blowing snow makes roads in the area impassable and the property inaccessible during much of the winter and early spring.

Supply

Water is not available on the claims but a small stock pond some 2 miles distant provides a very limited supply of water for drilling purposes. Appreciable amounts of water for drilling must be obtained from the Big Horn River 12.5 miles from the claims.

Water for domestic purposes is hauled from Kane, Wyoming, 12.9 miles from the property, or from Lovell, Wyoming, 23.4 miles away. Electric power is not available at or in the vicinity of the claims. Lovell and Cody, Wyoming (70.0 miles distance) are the points of supply. Cowley, Wyoming (29 miles by road southwest of the claims) is a station onnthe C. B. & Q. Railroad, and the closest point of rail supply. It is also a shipping point for ores going south to the A.E.C. buying station at Riverton, Wyoming.

History

The Jet claims were recorded February 19 and 21, 1956, by Lew and Stan Johnson of Basin, Wyoming. Only discovery work was done on the claims prior to the DMEA exploration project, and there had been no production from the property.

Production

During the suspension of project work (August 10, 1957 - July 8, 1958) the operator, at his own expense, drove an adit to the ore zone discovered in drilling hole DJ8-6 in the southwest corner of Jet No. 8 claim. The underground drifting resulted in development and mining of several small ore bodies. As of October 31, 1958, ore amounting to 938.744 dry tons averaging 0.40 percent U_3O_8 had been shipped from the land included under the contract. Repayment to the Government in the form of royalties amounts to $2,906.66.

GEOLOGY AND ORE DEPOSITS

The Jet claims are on the northwestern flank of the Big Horn Mountains, in northcentral Wyoming, just south of the Montana border. The Big Horn Mountains consist essentially of a broad uplift in which sedimentary rocks, ranging in age from Cambrian to Cretaceous, are bowed up over a core of Precambrian granitic rocks. Along most of the length of the range the domed sedimentary rocks have been breached along

the crest exposing the igneous core. At the northern end of the range, sedimentary rocks of the Madison limestone formation of Mississippian age cover the broad crest of the domal structure. The formation is approximately 1,000 feet thick and is made up of two members: a lower unit of dense, dark gray, massive limestone; and an upper light gray unit of softer, purer limestone, 250 feet thick, that weathers in pinnacled forms and caverns.

The Madison limestone underlies the Jet claims and is generally exposed in patches through a thin soil and rubble overburden. The beds are horizontal or dip gently towards the east. The formation is a very fine-grained, dense gray limestone in beds about 6 inches to a foot thick.

No faults or folds are visible in the outcrop, but the pattern of drainage, clearly discernibly on aerial photographs, indicates that two intersecting systems of joints or fractures exist, and control the movement of surface and ground water and probably influence greatly the formation of caverns in the limestone. These two sets of fractures trend about N 10 W and N 50 W.

Uranium-bearing material has been found and mined at several sites in the cavernous Madison limestone of the northern Big Horn Mountains. The ore mineral appears to be tyuyamunite associated with minor amounts of autunite disseminated in vuggy or broken limestone near fractures, and coating vugs and cavern fill material.

At the Fuesner mine, about 2,000 feet south of the Jet claims uranium ore has been produced from a 10-foot thickness of limestone about 30 feet below the surface. This ore-body (about 100 feet long) was composed of thin-bedded, fine-grained, slightly silicated vuggy limestone containing tyuyamunite and traces of autunite; the uranium minerals occurred as coatings on fracture and vug walls, and on calcite crystals that lined the vugs. The mineralized zones appeared to roughly parallel the bedding or cut across it at very small angles. The beds in the ore body were cut by fractures of moderate dip, and mining opened several small caverns in the limestone. Tyuyamunite coatings occurred in the caverns as well as along the fractures. Material from the Fuesner mine assayed from 0.60 to 0.89 percent U_3O_8.

The Modern Mines incline under the Jet No. 8 claim cut ore material at about 150 feet below the surface. The character of the ore appeared to be similar to that mined at the other sites in the district. Finely crystalline yellow tyuyamunite formed coatings on broken limestone in fracture zones, and appeared to be disseminated throughout the clayey fill material of some cavities and caverns. The ore from the mine ran about 0.4 percent U_3O_8.

Tyuyamunite was exposed in a shallow cut near the southwest corner on the Jet No. 1 claim (fig. 2). The yellow mineral was visible in an area of about 6 square feet, and it occurred in the form of filmy patches in dense, fine-grained limestone containing a few small vugs. There are no visible fractures in the immediate area, and the nearest strong fracture line is about 100 feet north of the site.

THE PROJECT

Introduction

It appeared at the time of the examination that the Jet claims had an excellent potential for the discovery of minable uranium ore-bodies. The producing Fuesner mine was close by on the south and several additional smaller ore-bodies had been found on that property; the Jet claims had some small showings of uranium-bearing material at the surface and jointing in two directions was particularly well developed on the claims. If the fracturing of the limestone and the cavernous character that developed along such fracturing had any control on the development and location of ore-bodies, then this site appeared to warrant exploration.

Proposed exploration

Applicant's original proposal

The application for aid was submitted on December 5, 1956. The applicant originally proposed to explore the Madison limestone underlying the Jet claims Nos. 1-12 for uranium by a three-stage program at a total estimated cost of $43,950. The first stage was to consist of 1,900 feet of rotary non-core drilling and 100 feet of core drilling in 10 or more holes. Included in Stage I was 20 hours of bulldozing.

Stage II work, contingent on the success of Stage I, comprised an additional 4,800 feet of non-core and 200 feet of core drilling, seemingly placed to explore on claims not explored in Stage I. Thirty hours of bulldozing time was included in Stage II. Stage III work, depending on the success of Stages I and II, consisted of sinking a shaft about 175 feet to the most advantageously located ore body.

Applicant's revised proposal

By letter dated February 16, 1957, the applicant submitted a revised program proposal which dropped Stage III, but expanded Stages I and II. Core drilling was eliminated from both stages, but the non-core drilling in each stage was increased to 6,000 feet. The estimated total cost of the revised project was $55,000.00.

Recommended exploration

A field examination of the claims submitted for subordination was made February 14, 1957; the examiners were accompanied by two representatives for the applicant. As a result of the field examiners' findings and subsequent discussion with the applicant, Modern Mines submitted the revised work proposal. The field examiners believed that the applicant's revised proposal failed to take advantage of available information in the area, therefore, a modified drilling program was recommended. The recommended program was based on (1) structure that appeared to control

deposition of ore, (2) known occurrences of tyuyamunite on the property, and (3) apparent ore trends based on known ore bodies north and south of the claims.

The recommended exploration program consisted of two stages of non-core drilling at an estimated total project cost of $41,641.10. Stage I was divided into two phases of work. The first phase was designed to test the fracture pattern and structural control for the deposition of ore, the occurrences of tyuyamunite, and the apparent ore trend. The second phase was to test the remaining area with hole-spacings based on fracture intersections, and, in part, the desires of the applicant. Stage II provided for 48 non-core drill holes to offset mineralized Stage I holes.

GEOLOGIC ANALYSIS OF WORK

The work of exploring the Jet claims included 26 DMEA holes, a number of drill holes put down by the operator before and during the duration of the contract, and an incline adit on Jet 9 claim put in by the operator.

The results of drilling, all told, were poor and the ore material made accessible by the adit was not economical to produce.

Only three holes of more than 24 exploratory holes drilled by the company cut ore-grade material. These three holes formed a tight group at the south end of Jet 7 claim. Two of the DMEA holes cut ore-grade

material in the same area, and together the five-hole group covered an area 300 feet by 400 feet (fig. 2). The material in these holes ranged in grade from about 0.1 percent eU_3O_8 to as high as 0.7 percent eU_3O_8, and occurred at depths from 130 feet to 170 feet below the surface. The thickness of any ore-bearing interval was generally no more than a few feet, but in one hole (DJ 8-6) a 20-foot interval contained 0.1 percent eU_3O_8.

After the company's adit was put down to cut the mineralized zone under Jet 7 and 8 claims it was found that the probe data from the ore-bearing holes were not reliable. The material removed did not assay as high as had been indicated by radioactivity.

No less than 8 of the DMEA holes put down cut caverns in the limestone. Most of these caverns were filled or partly filled with soft limy, clayey material or broken limestone blocks and fragments, but usually the void space prohibited collection of samples through the drill hole.

It would appear as a result of the exploration program on the Jet claims that the deposits of uranium in the cavernous Madison limestone are low-grade, spotty in arrangement, and unpredictable in location with the data at hand. Also it appears that the deposition has been controlled by other features as well as the apparent fractures. While the deposits and mineralization in general in the limestone undoubtedly were a function, at least in part, of the systems of fractures, there

remains the facts that most of the caverns and fractures are barren, and that all of the uranium is in the oxidized form. No source for the uranium that has unquestionably been introduced into the Madison formation is apparent.

SUMMARY OF CONTRACT PROVISIONS

Work

Contract No. Idm-E 1095, dated May 31, 1957, provided for a two-stage non-core drilling program (fig. 2) at an estimated total allowable cost of $40,870.00 with Government participation at 75 percent or $30,652.00. Article 3, Exhibit A of the contract stipulated that work was to start on or before July 1, 1957, and be completed by November 1, 1957. Stage I authorized 9,000 feet of non-core drilling. Stage II provided for 7,200 feet of non-core drilling.

Units and costs

The units of work and estimates of costs provided for by the contract are shown on Table 1.

Modifications were made to the contract as follows:

1. Work approval dated August 5, 1957 granted permission to delete 16 holes, and relocate 6 holes under Stage I.
2. Amendment No. 1 dated November 14, 1957, provided for suspension of work from August 10, 1957 to June 1, 1958, with the completion date

Table 1.--Summary of units and items of work

Categories of work	Authorized by contract Units	Cost per unit	Cost	Claimed by operator Units	Cost per unit	Cost	* Allowed by Government Units	Cost per unit	Cost
Stage I									
Independent Contracts									
Non-core drilling (ft.)	9,000	$ 2.25	$20,250.00	3,955	$ 2.25	$ 8,898.75	3,633	$ 2.21	$ 8,038.60
Standby time (hr.)	30	10.00	300.00	12	10.00	120.00	12	10.00	120.00
Bulldozing (hr.)	12	12.00	144.00	---	---	---	---	---	---
Fixed Units Costs									
Incidental allowance (ft.)	9,000	0.20	1,800.00	3,955	0.20	701.00	3,633	0.20	726.60
Chemical analyses (ea.)	55	4.00	220.00	---	---	---	---	---	---
Stage II									
Independent Contracts									
Non-core drilling (ft.)	7,200	2.25	16,200.00	---	---	---	---	---	---
Standby time (hr.)	24	10.00	240.00	---	---	---	---	---	---
Bulldozing (hr.)	8	12.00	96.00	---	---	---	---	---	---
Fixed Units Costs									
Incidental allowance (ft.)	7,200	0.20	1,440.00	---	---	---	---	---	---
Chemical analyses (ea.)	45	4.00	180.00	---	---	---	---	---	---
Total Stage I			$22,714.00			$ 9,809.75			* $ 8,885.20
Total Stage II			18,156.00			---			---
Total Contract			$40,870.00			$ 9,809.75			$ 8,885.20

* Subject to audit

extended to November 1, 1958, and increased the royalty or payment period to 11 years from the date of the contract.

3. Work approval dated June 4, 1958, granted permission to delete 10 Stage I holes and deepen 3 existing Stage I holes in order to penetrate a possible lower ore zone.

4. Termination Agreement dated July 29, 1958, and made effective August 10, 1957, was signed by the operator and received by the Government September 5, 1958.

SUMMARY OF COMPLETED PROJECT WORK

Work

Drilling under the provisions of Stage I of the contract started June 20, 1957. Twenty-six of the 60 holes originally provided for under Stage I were deleted by the Government at the request of the operator. Of the 34 holes thus authorized, 26 acceptable Stage I holes were drilled by the operator (see fig. 2 for locations). Work was suspended August 10, 1957. Amendment No. 1 provided for suspension of drilling operations during the period, August 10, 1957, to June 1, 1958, but the operator did not resume work. The operator requested, by letter dated June 26, 1958, termination of the contract. Accordingly a Termination Agreement effective August 10, 1957, was prepared, signed by the operator and received by the Government September 5, 1958. The project terminated with 8 approved Stage I holes not drilled. No Stage II work was performed by the operator.

Units and costs

The units and the costs of each item of work claimed by the operator, and the units and costs of each item of work acceptable to the Government are shown on Table I; all figures are subject to audit.

produced 1020 tons to Nov. 17/58

ORE RESERVES

It is estimated that as of October 1, 1958, about 50 tons of indicated reserves averaging 0.40 percent U_3O_8 remain in the mine workings under the Jet No. 8 claim.

About 280 tons of inferred reserves, averaging 0.09 percent U_3O_8, contained in three separate ore pods, are estimated to underlie the south half of the Jet No. 7 claim.

These estimations of reserves are based on results obtained from the drilling logs and radiometric probe data adjusted in accordance with factual data gathered in mining some of the ore bodies.

Reserves based on radiometric probe data alone proved unreliable because of the presence of radon gas in the voids of the limestone penetrated by the drill bit. Also the mining done on some of the ore bodies showed that the ore occurrences in the Madison limestone are spotty and drill-hole data pertaining to ore zones could not be extended beyond the hole with any reliability. Actual mining proved the ore bodies to be considerably lower in grade, and thinner than had been indicated by probing.

CONCLUSIONS AND RECOMMENDATIONS

Results of drilling indicated that ore is apparently restricted to fracture zones and cavernous deposits or pods in the limestone. Most of these caverns and fractures are not mineralized and those that are mineralized are not restricted to any apparent stratigraphic interval in the formation, and appear to be randomly spaced.

The field examiners by memorandum dated July 17, 1958, recommended that the project be terminated and certified on the basis of ore found and mined. Because it is concluded that other deposits might be discovered as a direct or indirect result of the drilling completed under the terms of the contract certification is further justified. Accordingly a suitable Termination Agreement was executed and a Certificate of Discovery or Development was issued August 8, 1958. It is recommended that no further exploration be undertaken with Government participation.

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/6/59	Murphy	700
3/6	[illegible]	700
3/9	[illegible]	800
3/10	Selford	130
3/10	Yates	130
3/10	[illegible]	130
		~~110~~
		~~100~~
3/11	C	~~295~~ 220
		700

MAR 10 1959

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract No. Idm-E1095

Dear Mr. Sigman:

Reference is made to our letter of August 11, 1958, enclosing a certification of discovery or development covering the subject property.

At the time of our letter the exact amount contributed by the Government under this project was subject to audit. Subsequently, an audit determined the amount to be $6,663.91. Payments should continue to be made in accordance with the instructions contained in the above-mentioned letter except that checks should be made payable to the Office of Minerals Exploration and sent to the Executive Officer at 224 New Customhouse Building, Denver 2, Colorado

Sincerely yours,

Frank E. Johnson (for)

Acting Director

cc: Lew Johnson and Stan Johnson, Basin, Wyoming

FMMurphy/gla
3-6-59
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
OME Field Team, Region III (2)
F. M. Murphy
Div. of Contract Adm. & Audit

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/6/59	Murphy	700
3/6	Rodnee	700
3-9	Tramle	800
3/10	Selfridge	130
3/10	Jogers	130
3/10	Ward	130
		~~110~~
		~~100~~
		220
		700

MAR 10 1959

Mr. Jesse C. Johnson
Director, Division of Raw Materials
Atomic Energy Commission
Washington 25, D. C.

Re: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming
Contract No. Idm-E1095

Dear Mr. Johnson:

In accordance with our letter of August 11, 1958, we are supplying the following additional information regarding the subject certified project for your records.

The contract, dated May 31, 1957, covered an exploration project estimated to cost $40,870.00, with Government participation amounting to 75 percent, or $30,652.00. Total accepted costs of the project were $8,885.20, of which the Government paid $6,663.91.

The project work explored the Jet Nos. 1 through 12 unpatented lode mining claims situate in secs. 22 and 23, T. 58 N., R. 94 W., 6th P.M., Big Horn County, Wyoming.

The approved project work consisted of non-core drilling 108 holes, aggregating 16,200 feet, to explore for uranium ore deposits in the Madison limestone of Mississipian age. Twenty-six acceptable holes were completed under the contract. The Operator drilled additional holes on its own account.

The drilling outlined one ore deposit and indicated other areas favorable for uranium mineralization. The Operator drove an incline and mined and shipped (to November 17, 1958) 1,020.887 dry tons of ore assaying 0.428% U_3O_8. The ore shipped constitutes the total amount of the ore reserves estimated as the result of the DMEA project.

According to our Field Team reports, to date the Operator has not initiated additional exploration work in the other favorable areas indicated by the project drilling.

Sincerely yours,

Frank E. Johnson (for)

Acting Director

cc: Elton A. Youngberg

FMMurphy/gla 3-6-59
cc to: Director's Reading File
Frank E. Johnson
Operating Committee
W. N. Chamberlaind
Frank D. Lamb, Rm. 3608
T. H. Kilsgaard, 5224
Mr. Murphy
OME Field Team, RegionIII (2)

43683

224 New Customhouse
Denver 2, Colorado
March 9, 1959

COPY
1959
CODE
220
110
70

Memorandum

To: T. A. Christensen

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. RMEA 4564 (Uranium) Contract Idm-K1095,
Modern Mines Development Company, (Jet claims)
Big Horn County, Wyoming - FINAL PAYMENT
(to be credited to Royalty account)

Reference is made to our memorandum of November 5, 1957, whereby we forwarded the final Form MF-104, Operator's Monthly Report and Voucher, for August 1957, and requested that you withhold an amount of $500.00 from reimbursement to the Operator, pending resumption of project work. As project work was not resumed, the amount of $500.00 was withheld pending resolution of matters prerequisite to closing the account.

Enclosed is a copy of a letter dated March 3, 1959, from the Operator, whereby it forwarded company check No. 639, in the amount of $85.04, as partial payment of royalty due the Government, and indicated that the amount of $500.00 held in suspense is to be credited to past due royalty. The Operator's check No. 639 was forwarded to your office March 6, 1959, and has been credited to royalty payments.

The Operator's final report has been received; therefore, final payment of the amount withheld, is to be made as follows, in accordance with the Report of Review of reported project costs, dated January 7, 1959, and the Report of Royalty Review, dated February 10, 1959, by the Contract Administration and Audit Division, OME.

Total accepted cost	$8,885.20
Government participation at 75 percent	6,663.91
Total prior payments	6,163.91
Balance due	$ 500.00

The final payment is to be credited to past due royalty; therefore a check in the amount of $500.00 is to be drawn payable to Office of Minerals Exploration, and forwarded through this office for final disposition.

Reconciliation

Balance of royalty due the Government, per Report of Royalty Review		$ 585.04
Royalty payment per Operator's check No. 639	$ 85.04	
Royalty payment per final settlement	500.00	
Total payment of royalty due		585.04
Balance due through February 2, 1959		$ 0.00

Original signed by
J. W. TOWNSEND
J. W. Townsend

Enclosure

JDC:hmh

cc: MF-104 file, Reg.III)
Chmn. Op. Comm. (2))
Marshman) w/copy of Operator's
Marshall, CMX/DFC) letter of
Corres.file, Reg.III) 2/3/59
Royalty file, Reg.III)
Cooper
Caren

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

OME
DEPARTMENT OF THE INTERIOR
MAR 5 - 1959
REGION III
DENVER, COLORADO

March 3, 1959

U. S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-$1095, Modern Mines Development Company (Jet claims) Big Horn County, Wyo.

Gentlemen:

Attached hereto is a check in the amount of $85.04 which is arrived at as follows: No. 639

Liq. No.	Bonus Payment	Bonus Royalty
118	$1,729.74	$ 86.48
121	c 2,342.41	117.12
149	1,659.63	82.98
171	2,393.58	119.68
199	2,422.84	121.14
200	1,152.94	57.64
	$ 11,701.14	$ 585.04
Less: Balance due Modern Mines Development Company, as Government contribution to reported project costs, per Report of Review of reported project costs, dated January 7, 1959		500.00
	Balance due -	$ 85.04

Yours very truly,

John F. Cadigan, C. P. A.
Vice-president, Modern Mines Development Co.

JFC:jdc
Enclosure

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

DATE	INITIALS	CODE
2/20	C	220
2/24	Murphy	700

224 New Customhouse
Denver 2, Colorado
February 17, 1959

Mr. John F. Cadigan, Vice President
Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Cadigan:

Reference is made to the Report of Review of reported project costs, dated January 7, 1959, and the Report of Royalty Review, dated February 10, 1959, by the Contract Administration and Audit Division, OME, copies of which were forwarded to you. Review of the two reports by this office indicates the following:

Balance due the Government from your company, as royalty from reported production, through February 2, 1959, per Report of Royalty Review, dated February 10, 1959----------	$585.04
Balance due Modern Mines Development Company, as Government contribution to reported project costs, per Report of Review of reported project costs, dated January 7, 1959----------	500.00
Net amount due the Government from Modern Mines Development Company, through February 2, 1959------	$ 85.04

If you prefer to do so, you can submit your company's check in the amount of $85.04, payable to Defense Minerals Exploration Administration, as partial payment of royalty due, together with a request that the amount of $500.00 due your company, as the balance of Government contribution to reported project costs, also be credited to the royalty account. Otherwise, please submit your company's check in the amount of $585.00, as full payment of royalty due the Government through February 2, 1959, upon receipt of which, final payment will be made to your company in the amount of $500.00.

We wish to close the account at an early date, therefore your immediate attention in the matter is requested.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer, OME
Field Team, Region III

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Marshall, OME/DFC
Corres. file, Reg. III
Royalty file, Reg. III
Cooper
Chron

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/12	G McCarthy	800
2/12	[illegible]	800
2/12	[illegible]	220
		700

FEB 12 1959

Mr. Donald T. Finch
CME Auditor
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Company
Contract No. Idm-E1095

Dear Mr. Finch:

Your Report of Royalty Review on the above-referenced project is acceptable and normal distribution is authorized.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers
Contract Administration
and Audit Division

GMcCarthy/GMcC
February 12, 1959

cc: Docket
Director's Reading File
Mr. Chambers

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/12	G. McCarthy	800
1/12	Talbert	800
1/13	C	220
		700

JAN 12 1959

Mr. Donald T. Finch
OME Auditor
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Company
Contract No. Idm-E1095

Dear Mr. Finch:

Your Report of Review covering the referenced project is acceptable and normal distribution is authorized.

Sincerely yours,

(Signed) E. D. Talbert

E. D. Talbert
Contract Administration
and Audit Division

GMcCarthy/GMcC
January 12, 1959

cc: Docket
Director's Reading File
Mr. Chambers

8623

224 New Customhouse
Denver 2, Colorado
December 17, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 22 1958

DATE	INITIALS	CODE
12/22	C	220
	Murphy	700

Memorandum

To: Donald T. Finch, OME Auditor

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium) Contract Tom-11095, Modern Mines Development Company, Jet Claims, Big Horn County, Wyoming

The subject contract was terminated effective August 10, 1957, by a Termination Agreement, dated July 29, 1958, a copy of which is enclosed for your records.

The Operator has rendered a final engineering and geologic report as required by the contract; therefore, final payment of the Operator's account is in order, contingent on release to this office of a Certificate and Report of Audit, or Report of Review of reported project costs, whichever the case indicates.

Acceptable units of work or service completed on a "Fixed Unit Cost' basis consisted of Incidental Allowance on 3633 feet of drilling.

An amount of $500.00 was withheld from reimbursement to the Operator in processing its final accounting report and voucher, which was for the month of August, 1957.

Original signed by
J. W. TOWNSEND

J. W. Townsend

Enclosure

JDC:hmh

cc: Chmn. Op.Comm. (2)
Harahman
Marshall
Corres. file, Reg. III
Cooper
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
December 16, 1958

OFFICIAL FILE COPY O. M. E. RECEIVED DEC 19 1958		
DATE	INITIALS	CODE
12/19	C	220
"	EET	800
	Murphy	700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium) Contract Idm-E1095, Modern Mines Development Company, (Jet claims) Big Horn County, Wyoming

Enclosed are the original and one copy of a final engineering and geologic report submitted by the subject Operator, pertaining to work completed under the subject contract.

The report appears to be complete except that it does not contain an estimate of ore reserves. However, as the contract has been certified as a discovery or development, and as an ore reserve estimate is available in the Joint Final Engineering and Geologic Report by the OME field examiners, we recommend that the Operator's report be accepted as complying with the provisions of Article 7(c) of the contract form.

The Field Team's final summary report will be submitted when all matters prerequisite to closing the account have been resolved.

J. W. Townsend

J. W. Townsend

Enclosures

OPR'S FINAL REPORT

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

OME
DEPARTMENT OF THE INTERIOR
DEC 15 1958
DENVER, COLORADO

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O. M. E.
RECEIVED DEC 19 1958

DATE	INITIALS	CODE

December 1, 1958

FINAL REPORT
MODERN MINES DEVELOPMENT COMPANY
JET CLAIMS 1 to 12, MODERN 1 and 2
DMEA EXPLORATION CONTRACT No. Idm-E1095
DOCKET 4564

During the period June 1, 1957 to September 1, 1957, Modern Mines Development Company, 207 Larson-Andrews Building, Yakima, Washington, under sponsorship of the Defense Minerals Exploration Administration, conducted exploration drilling of the company's Jet Claims 1 to 12 and Modern Claims 1 and 2, Little Mountain District, Big Horn County, Wyoming.

The drilling so performed was partially in accordance with original DMEA request, and partially in accordance with DMEA original recommendation, amended by operators' request. All of the holes as finally drilled were in locations approved by DMEA representatives of Region III.

During the drilling period a total of 28 holes were drilled for an aggregate depth of 3633 feet. Drilling in addition to the DMEA program was performed by the operators both prior to, and following, completion of part of the DMEA program. Monthly drilling reports were submitted as per DMEA requirements. Not all of the DMEA approved drilling was completed in either stage I or Stage II of the project. During the latter part of 1957, a recess in drilling operations was requested of DMEA representatives. This request was approved and recess was granted until the spring of 1958. At the later date the operators were in production and they then felt that the additional costs to be incurred because of rise in drilling contract costs did not warrant

Modern Mines Development Co.

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YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

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O. M. E.
RECEIVED DEC 19 1958

DATE	INITIALS	CODE

resumption of the exploration program. The program was accordingly requested terminated and such termination was granted.

The below listed holes were drilled under DMEA program. The holes were all vertical and such holes were all drilled at the location as shown on the attached map labeled Exhibit I - FR.

Hole Number	Location	Depth	Cumulative Depth
DJ1-5	Jet 1	102	
DJ1-4	Jet 1	105	207
DJ1-6	Jet 1	105	312
DJ2-5	Jet 2	152	464
DJ2-6	Jet 2	142	606
DJ2-7	Jet 2	134	740
DJ8-1	Jet 3	136	876
DJ7-8	Jet 7	133	1009
DJ7-9	Jet 7	136	1145
DJ7-10	Jet 7	151	1296
DJ7-11	Jet 7	217	1513
DJ7-12	Jet 7	170	1683
DJ8-4	Jet 8	173	1856
DJ8-5	Jet 8	160	2016
DJ8-6	Jet 8	176	2192
DJ8-7	Jet 8	154	2346
DJ8-8	Jet 8	166	2512
DJ8-9	Jet 8	152	2664
DJ8-10	Jet 8	160	2824
DJ8-11	Jet 8	152	2976
DJ10-1	Jet 10	100	3076
DJ10-4	Jet 10	102	3178
DJ11-2	Jet 11	122	3300
DJ11-3	Jet 11	122	3422
DJ12-4	Jet 12	109	3531
DJ12-5	Jet 12	101	3632
DJ12-6	Jet 12	105	3737
DJ12-7	Jet 12	92	3829

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

The holes as located and drilled were in general located at or near intersections of fracture patterns essentially parallel to the axis of the Porcupine Creek anticline. Fractures and axis are visible on and were located from aerial photographs of the area.

Concepts of the geology of the area and of possible ore deposits present have not changed from those postulated in the original DMEA exploration application.

Drilling based on hole locations at or near structural features and fracture patterns resulted in the discovery of at least one ore-body. The outlines, thickness and grade of the deposit were delineated in the offset drilling not included in the DMEA exploration grant.

Subsequent underground development operations have resulted in production of 1,020.889 dry tons of commercial grade uranium ore up to and including 11/17/1958. The ore body thus far developed has been determined to be approximately the same as that shown by the offset drilling program. Certain features of the deposit did not lend themselves to solution by the drilling program as formulated was justified and several other areas drilled have shown promise of the possible existence of other ore bodies. Such exploration of possible other ore-bodies has not as yet been undertaken.

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

To date a total of $3,165.84 has been repaid to the DMEA from royalty oncurrent production of ore discovered by reason of the drilling program.

John F. Cadigan

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
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W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 19 1958

DATE	INITIALS	CODE

Monies advanced by D.M.E.A. for drilling: 75% of total allowed claims -

October 29, 1957		$1,598.55	
November 8, 1957		2,845.13	
November 19, 1957	$2,220.23		
Less: Withholding for resumption of work	500.00	1,720.23	
Total -			$6,163.91

Applied on account direct from Fremont Minerals:

Liquidation #34	4/21/58	Check #44	$ 73.83	
#38	4/21/58	#47	47.03	
#49	5/5/58	#62	62.47	
#57	5/16/58	#72	69.40	
#62	5/26/58	# 79	139.05	
#63	5/26/58	#82	152.70	
#64	5/26/58	#85	126.52	
#77	6/9/58	#100	267.32	
#91	6/30/58	#116	130.06	
#96	7/9/58	#123	165.75	
#98	7/9/58	#127	158.33	
#118	8/4/58	#150	126.56	
#121	8/4/58	#155	169.96	
#149	9/8/58	#186	122.21	
#171	10/6/58	#213	173.20	
#199	11/17/58	#244	175.47	
#200	11/17/58	#247	83.71	
Bonus Royalty check:	7/25/58	Check #471	427.94	
	8/26/58	#511	494.33	
Total payments to date -				3,165.84
Balance owed 11/17/58 -				$2,998.07

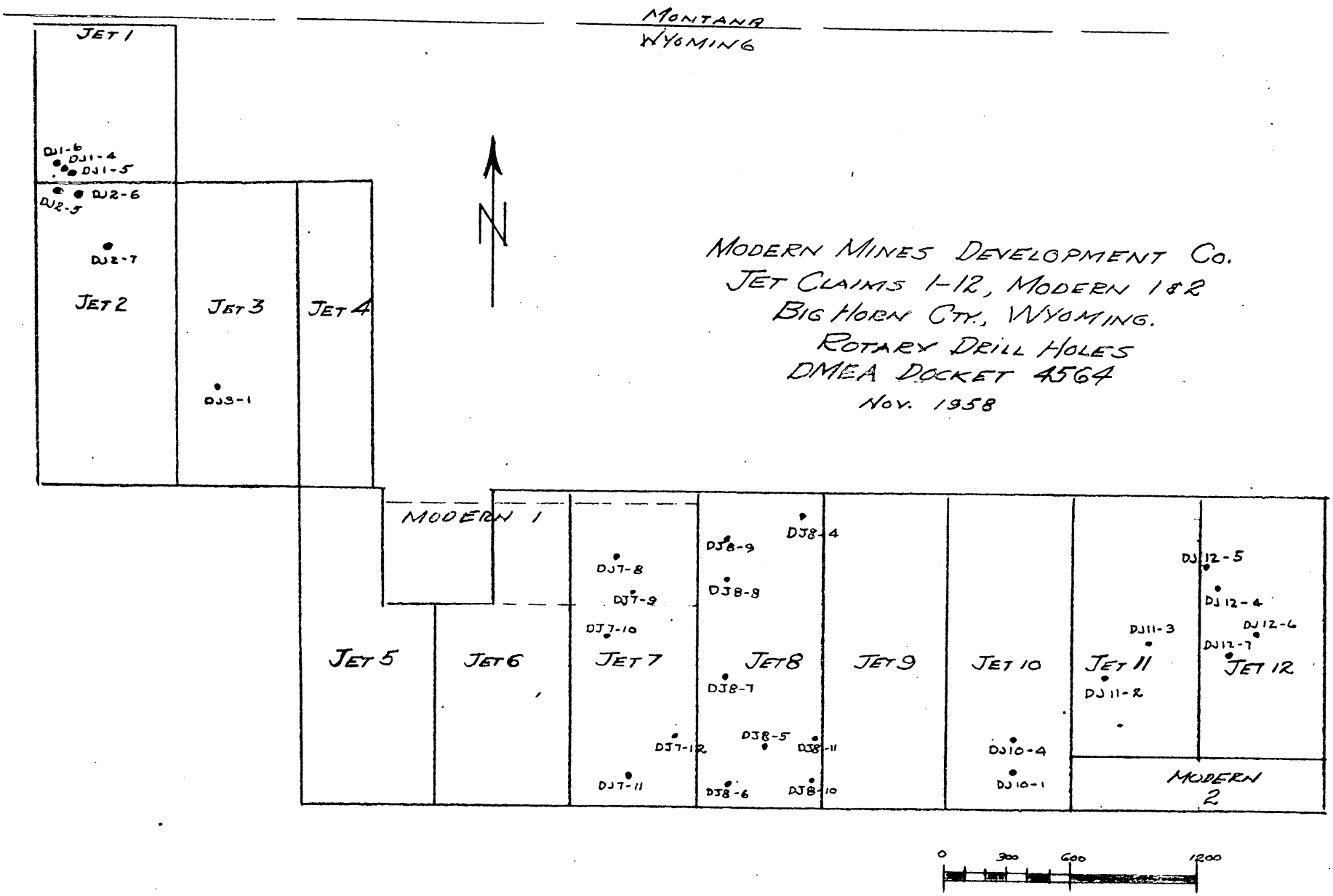
MONTANA
WYOMING
JET 1
DJ1-6
DJ1-4
DJ1-5
DJ2-6
DJ2-5
DJ2-7
JET 2
JET 3
DJ3-1
JET 4
N
MODERN MINES DEVELOPMENT CO.
JET CLAIMS 1-12, MODERN 1 & 2
BIG HORN CTY., WYOMING.
ROTARY DRILL HOLES
DMEA DOCKET 4564
NOV. 1958
MODERN 1
DJ7-8
DJ7-9
DJ7-10
DJ7-12
DJ7-11
DJ8-9
DJ8-4
DJ8-8
DJ8-7
DJ8-5
DJ8-11
DJ8-6
DJ8-10
JET 5
JET 6
JET 7
JET 8
JET 9
JET 10
DJ10-4
DJ10-1
DJ12-5
DJ12-4
DJ12-6
DJ12-7
DJ11-3
DJ11-2
JET 11
JET 12
MODERN 2
0
300
600
1200

EXHIBIT 1-FR

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11/24	C	220
11/24	[illegible]	800
"	Murphy	700

[illegible]

[illegible]

[illegible]

Gentlemen:

This letter is to advise you that I [illegible] September [illegible] and November [illegible] which I have just received. I have been trying to get our geologist, Mr. Jarrard, to furnish me the necessary information required under the exploration contract that is to be furnished to your office.

As far as the accounting is concerned, we have that under control, but I am not able to furnish the geological and engineering reports.

I have called Mr. Jarrard twice and written several letters and have been unable to get any action. However, I will send him a copy of this last letter and see whether it will assist in getting the necessary data.

Yours very truly,

John F. Cadigan

JFC:jdc

11-20-58
Copies distributed to:
[illegible] Cp. Commission
[illegible]
[illegible], [illegible]
Central file, Reg [illegible]
Coopers

RECEIVED O. M. E. NOV 18 1958

DATE	INITIALS	CODE
11/19	J. G.	225
11/18		800

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado
November 14, 1958

CERTIFIED MAIL

Mr. John F. Cadigan, Vice President
Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

Re: Docket No. 4964 (Uranium)
Contract No. Idm E1095, Modern
Mines Development Company (Jet Claims)
Big Horn County, Wyoming

Dear Mr. Cadigan:

In the letter to you from this office dated September 8th, 1958, your attention was directed to the provisions under item 3 of the Termination Agreement, and the provision under Article 7(c) of the contract relative to the rendering by your company of a final engineering and geologic report pertaining to work completed under Contract Idm E1095.

Since we have not received the required final report in quintuplet, or advice from you in the matter, we will appreciate advice by return mail as to the date on or before which the required final report can be expected.

As you were informed in the letter of September 8th, a final audit of project expenditure by an Auditor of the Contract Administration and Audit Division cannot be scheduled until your final report is received. In addition, final payment to you of amounts withheld in processing your Accounting Report for August of 1957 cannot be affected until the Report of Audit has been released to this office.

We are desirous of closing this account at an early date. Therefore, we will appreciate your prompt attention to the matter of rendering the required final report and advising us of its probable submission date, as requested.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer
OME Field Team, Region III

JWT/ff
cc: Chmn. Op. Comm. (2)
Harshman
Marshall, DME/DFC
Corres.
Cooper
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

224 New Customhouse
Denver 2, Colorado

November 10, 1958

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III
Subject: Status of final reports on Completed Projects

In reference to your letter of November 5, the status of forwarding final reports by the field examiners is as follows:

DMEA-3809 Idm-E890 Silver Pick Uranium, Inc. - Forwarded November 7
DMEA-4136 Idm-E995 Union Mines, Incorporated - Will be forwarded by Nov. 17
DMEA-4420 Idm-E1056 Hilary Minerals Company, Inc. - Being typed; expected to be forwarded this week.
DMEA-4564 Idm-E1095 Modern Mines Development Co. - Available about Nov. 24.
DMEA-4835 Idm-E1169 Stocks-Gramlich - Available by December 1.

J. E. Townsend

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/4/58	Murphy	700
	Ching	700
	Knouse	700
11/4	Selfridge	130
"	Johnson	110
		100
11/6	C	220
		700

Mr. J. W. Townsend
Executive Officer
OME Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Status of Final Reports on Completed Projects

Dear Mr. Townsend:

Your memorandum, dated September 15, 1958, gave us an estimate of the transmittal dates for final Field Team reports on all projects completed on or before September 1, 1958. Estimated dates for the following project reports that have not been received were included on the list:

DMEA-3809	Idm-E890	Silver Pick Uranium, Inc.	October 1
DMEA-4136	Idm-E995	Union Mines, Incorporated	October 15
DMEA-4420	Idm-E1056	Hilary Minerals Company, Inc.	" "
DMEA-4564	Idm-E1095	Modern Mines Development Co.	" "
DMEA-4835	Idm-E1169	Stocks-Gremlich	" "

Please re-check the status of these reports and advise us the estimated dates they will be completed and forwarded.

Sincerely yours,

George C. Selfridge

ACTING Chairman, Operating Committee

APPROVED:

Richard H. Mote

Member, Bureau of Mines

N. E. Nelson

Member, Geological Survey

GLAult/FEJohnson/gla
11-4--58
cc to: Director's Reading File
Operating Committee
THKillsgaard, 5224
Mr. Knouse

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado
September 8, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 11 1958

DATE	INITIALS	CODE
9/11	C	220
"	Humphry	700

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium), Contract No. Idm-E1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming

Enclosed are the Government's and Audit copies of the TERMINATION AGREEMENT, which was forwarded by your letter of July 29, 1958 for signature by the Operator.

Also enclosed are two copies of a letter from the Operator, dated September 3, 1958, whereby the executed copies of the Termination Agreement were returned to this office. The letter contains data concerning the project costs and royalty repayments to date.

Copies of the Termination Agreement have been distributed to the Operator, the Finance Office, and others concerned in Region III.

E. N. Harshman

E. N. Harshman

Enclosures

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

DMEA
DEPARTMENT OF THE INTERIOR
SEP 8 - 1958
REGION III
DENVER, COLORADO

September 3, 1958

U. S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Exploration Project Contract No. Idm-E1095 (Docket No. DMEA-4564)

Gentlemen:

In reply to your letter of August 4, 1958, it has been held up due to the fact that Mr. Doyle, the secretary-treasurer of the Company was in Wyoming at the mining property and just returned to Yakima.

The following is a statement of our account with your department:

Monies advanced by DMEA for drilling:

October 29, 1957	$1,598.55
November 8, 1957	2,845.13
November 19, 1957	1,720.23
Total -	$6,163.91

Applied on account direct from Fremont Minerals:

Liq. No. 34	$ 73.83
38	47.03
49	62.47
57	69.40
63	152.70
62	139.05
64	126.52
77	267.32
91	130.06
96	165.75
98	158.33
121	169.96
118	126.56
Bonus Royalty Check #471-7/25/58	427.94
" " #511-8/26/58	494.33
Total -	$2,611.25
Balance due -	$3,552.66

Modern Mines Development Co.

L. V. SIGMAN, PRESIDENT
2302 W. CHESTNUT
YAKIMA, WASHINGTON

JOHN F. CADIGAN, VICE PRESIDENT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

W. S. DOYLE, SECRETARY-TREASURER
219 SOUTH 31ST AVENUE
YAKIMA, WASHINGTON

There is also attached the four copies of the termination agreement and one copy should be returned for our files.

If there are any questions, would you please advise.

Yours very truly,

John F. Cadigan

John F. Cadigan

JFC:jdc
Enclosures

Form 7
(-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Murphy	700
8/1	Krause	700
	Dwyer	140
	App'd. Sol. Off.	140
8-5	Chambers	800
8/8	Nelson	130
"	Johnson	110
"	Gilliland	100
8/12	H. G.	220

700

8/8 Nelson (130)
8/8 Lamb (130)

AUG 11 1958

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

INTERIOR DEPT.
AUG 4 - 1958
SOLICITOR

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-K1095
Jet Claims
Big Horn County, Wyoming

Dear Mr. Sigman:

Enclosed is a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract." This certification covers all the land described in Article 2 of the subject contract.

By the terms of the Exploration Project Contract, as amended, and of the certification, all minerals mined or produced from May 31, 1957 to May 31, 1968, are subject to the Government's percentage royalty as set forth in the contract until the amount contributed by the Government is repaid.

Payments should continue to be made to the Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado. Checks should be payable to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward the check directly to the Executive Officer. Any bonus payments or allowances received by you from production are considered to be a part of the purchase price to which the Government's royalty applies. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

RECEIVED
AUG 4 1958
ASSOC. SOLICITOR
MINERAL RESOURCES

8623

You are requested to notify the Executive Officer of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also, if production ceases at any time for an extended period, please notify the Executive Officer at six-month intervals that no production has been made, when that is the case.

Sincerely yours,

Administrator

Enclosure

FMMurphy/izm 7-24-58
cc: Messrs. Lew Johnson & Stan Johnson, Basin Wyoming
Contract Adm. & Audit Div.
DMEA FT. Reg. 3 (2)
Admr.'s Reading File
Frank E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
THKiilsgaard, Rm. 5224
Mr. Murphy

CERTIFICATION BY THE UNITED STATES OF AMERICA
OF A DISCOVERY OR DEVELOPMENT UNDER
AN EXPLORATION PROJECT CONTRACT

Murphy
Kubrak
Lamper
App'd. Sol. Off.
Chamlin

File

To: Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

INTERIOR DEPT.
AUG 4 - 1958
SOLICITOR

Pursuant to the provisions of Exploration Project Contract No. IAM-E1095, dated May 31, 1957, (Docket No. DMEA-356), hereinafter called the "Contract," between Modern Mines Development Company, a Washington corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the Contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows:

Non-core drilling on the claims subordinated under the Contract indicated the presence of significant deposits of uranium ore in the Madison limestone of Mississippian age which underlies the property.

deposits

fractured

Dated: _____

THE UNITED STATES OF AMERICA

By _____
Administrator, Bureau of Mines
Exploration Administration

FWMurphy/izm/gla
8/4/58
cc to: Mr. Murphy
Docket
Admr.'s Reading File
Frank E. Johnson
Operating Committee
Contract Adm. & Audit Div.
Finance Office
DMEA FT, Region III (2)
Frank D. Lamb, Rm. 3608
T.H. Kiilsgaard, Rm. 5224
Operator
Jesse C. Johnson, AEC., Washington, D. C.
Elton A. Youngberg, AEC, Grand Junction, Colorado
Lew Johnson, Basin, Wyoming
Stan Johnson, Basin, Wyoming

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Murphy	700
8/1	Hoake	700
		~~140~~
		~~140~~
8-5	Chapman	800
8/8	Selfridge	130
"	Johnson	110
"	Mittendorf	100
8/18	J. G. D	220
		700

8/8 Nelson 130
8/8 Lamb 130

AUG 11 1958

Mr. Jesse C. Johnson
Director, Division of Raw Materials
Atomic Energy Commission
1717 H Street, N.W., Rm. 800
Washington 25, D. C.

INTERIOR DEPT.
AUG 4 - 1958
SOLICITOR

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming

Dear Mr. Johnson:

I am enclosing one copy of a certification of discovery or development relating to the subject exploration contract.

The final reports of the Operator and the Field Team and the final accounting of funds expended on this project have not been completed. Accordingly, we will supply additional information for your records upon receipt of these reports.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosure

Copy to: Elton A. Youngberg, AEC
Grand Junction, Colorado w/cc of cert.

FMMurphy/izm 7-24-58
cc: Mr. Murphy
Admr. 's Reading File
Operating Committee
FRank E. Johnson
Contract & Audit Div.
Frank D. Lamb, 3608
THKiilsgaard, 5224
DMEA FT Reg. 3 (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Murphy	700
8/1	Kuscher	700
	Dunyer	140
	App'd. Sol. Off.	140
8-5	Chandler	800
8/8	Selledge	130
"	Johnson	110
"	Mittendorf	100
8/8	J. F.	305 220
		700

AUG 11 1958

Mr. Lew Johnson

Basin, Wyoming

INTERIOR DEPT.
AUG 4 - 1958
SOLICITOR

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming

8/8 Nelson 130
8/8 Lamb 130

Dear Mr. Johnson:

Enclosed is a copy of a certification of discovery or development, with copy of covering letter to the Operator, which has been issued pursuant to the terms of the above-cited contract.

This correspondence relates to the Consent to Lien and Subordination Agreement signed by you on April 11, 1957. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures

Identical letter to Stan Johnson, Basin, Wyoming
FMMurphy/izm 7-24-58
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
Frank E. Johnson
Contract Adm. & Audit Div.
Frank D. Lamb, 3608

THKillsgaard, 5224
DMEA FT Reg. 3 (2)

8623

224 New Customhouse
Denver 2, Colorado
August 4, 1958

8/7 J.W. 225
8/7 800
8/7 700

CERTIFIED MAIL

Mr. John F. Cadigan, Vice President
Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Cadigan:

Reference is made to your letter of June 26, 1958, wherein you advise this office of your desire to withdraw from the Contract for the time being.

As the contract cannot be maintained in an indefinite status, we are enclosing the Government's, Audit, Finance Office, and Field Team copies of a proposed TERMINATION AGREEMENT, which has been prepared to terminate the contract, effective August 10, 1957.

If the Termination Agreement is satisfactory, all copies are to be signed by an official of Modern Mines Development Company authorized to sign such an instrument, the signer's title inserted, the corporate seal affixed, and all copies promptly returned to this office; upon receipt of which the "Operator's Copy" will be forwarded to you.

If the proposed Termination Agreement is not satisfactory, please return all copies to this office unsigned, together with your objections to the Agreement.

Very truly yours,
Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

JBC:prl
cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC (Binyon)
Corres. file
Cooper
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/25	Murphy	700
7/25	Kuonke	700
7-28	Chamlas	800
	Martin	130
7/29	Johnson	110
"	Hetherington	100
		87
7/30		220
		700

JUL 29 1958

Mr. J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming

Dear Mr. Townsend:

Enclosed are the original and four copies of a proposed Termination Agreement to the subject contract, signed by the Administrator for the Government. Also, enclosed are two extra copies of the agreement for Field Team use.

If you and the Operator find the agreement in order, please have an authorized representative of the company sign the original and four copies. Thereafter, kindly distribute the copies in the usual manner.

This agreement has been prepared in accordance with your recommendation, submitted July 21, 1958.

Sincerely yours,

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

Enclosure
APPROVED:

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

Thor H. Kiilsgaard
(esf)
Member, Geological Survey

FMMurphy/izm 7-25-58
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

Telephone
GLencourt 36530

JOHN F. CADIGAN
Certified Public Accountant

Member:
American Institute of
Certified Public Accountants

207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

July 28, 1958 8/13 21. g. 225
" 7 1/2 700

United States Department of the Interior
Defense Minerals Exploration Administration
224 New Courthouse
Denver 2, Colorado

Attention J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095, Modern
Mines Development Company (Jet
claims) Big Horn County, Wyo.

Dear Sir:

Attached hereto is check No. 471 dated July 28, 1958 in the amount of $427.94. This check is in the payment of the royalties due on bonus payments. This payment will cover the royalties on the following bonuses:

LIQ. NO.	BONUS PAYMENT	BONUS ROYALTY DUE
34	655.85	32.79
38	515.33	25.77
49	794.78	39.74
57	871.96	43.60
62	1,908.20	95.41
63	2,079.98	104.00
64	1,732.64	86.63
	8,558.74	427.94

Yours very truly,

John F. Cadigan
Vice President

JFC/jdc

Incl.

DMEA
DEPARTMENT OF THE INTERIOR
JUL 30 1958
REGION III
DENVER, COLORADO

FARMERS UNION BUILDING
DENVER 3, COLORADO

SETTLEMENT STATEMENT

LIQUIDATION NO. 93
DISTRICT Riverton
DATE June 30, 1958

DATE RECEIVED 6/17/58 LOT NO 104-3 SHIPPER'S LOT NO

A.E.C. LIC. NO. R-377 CONTRACT NUMBER

RECEIVED OF Modern Mines Development Co.

CLAIM NAME Jet #8 STATE Wyo.

SHIPPERS ADDRESS 207 Lincoln - Anderson Bldg.-Yakima, Washington

MINE DIST. Unorganized COUNTY Big Horn

TYPE OF ORE

HAULAGE DISTANCE 100+ TO PROCESS TO STOCKPILE 19 6/17/58

LOT NO	WET WEIGHT (LBS)		DRY WEIGHT (LBS)	SETTLEMENT ASSAYS (%) U3O8	V2O5	CACO3	CONTENTS (LBS) U3O8	V2O5	CACO3	
104-3	143,440	5.05	135,857	0.37		49.97	499.67		67482.99	

WET TONS 71.720 DRY TONS 67.924

ITEM	TONS	POUNDS	UNIT PRICE	AMOUNT
BASE PRICE		499.67	3.50	1748.85
PREMIUMS U3O8 IN EXCESS OF 4 LB/TON	67.924	x 3.40	0.75	172.19
U3O8 IN EXCESS OF 10 LB/TON			0.25	
TOTAL U3O8 PAYMENT				1921.04
PENALTIES (LIMITATION IN EXCESS OF 6%)				[ ]
OTHER				[ ]
TOTAL FOR ORE				1921.04
VANADIUM				
DEVELOPMENT ALLOWANCE		499.67	0.50	249.84
HAULAGE ALLOWANCE 100+ MILES	71.720		0.06	430.32
TOTAL VANADIUM ALLOWANCES				680.16
TOTAL GROSS SETTLEMENT				2601.20
DEDUCTIONS: Royalty & DMEA Payments [-]				[322.16]
NET SETTLEMENT				$2279.04

DMEA
DEPARTMENT OF THE INTERIOR
JUL 2 - 1958
REGION III
DENVER, COLORADO

DISTRIBUTION

%	PAYEE	AMOUNT	CHK. NO.
	Johnson & Johnson	$ 192.10	115
	DMEA	130.06	116
	Modern Mines Development Co.	2279.04	117
	E 1095		
			6/30

NOTE:
Buyer's assays govern if seller fails to submit his assays prior to acceptance of settlement payment.

All rates paid are based upon U. S. Atomic Energy Commission published schedules.

District Representative [signature]

Approved [signature]

FARMERS UNION BUILDING
DENVER 3, COLORADO

SETTLEMENT STATEMENT

LIQUIDATION NO. 96
DISTRICT Riverton
DATE July 9, 1958

DATE RECEIVED 6/21/58 LOT NO. 100-8 SHIPPER'S LOT NO. M-12

A.E.C. LIC. NO. R-3771 CONTRACT NUMBER

RECEIVED OF Modern Mines Development Co.

CLAIM NAME Jet #8 STATE Wyo.

SHIPPERS ADDRESS 207 Larson Andrews Bldg.- Tacoma, Wash.

MINE DIST Unorganized COUNTY Big Horn

TYPE OF ORE

HAULAGE DISTANCE 100+ TO PROCESS

TO STOCKPILE 19 6/21/58

LOT NO.	WET WEIGHT (LBS)	% H_2O	DRY WEIGHT (LBS)	SETTLEMENT ASSAYS U3O8	V2O5	CaCO3	CONTENTS (LBS) U3O8	V2O5	CaCO3
100-8	142,270	6.77	132,636	0.49		49.97	649.92		66278.21

DMEA
DEPARTMENT OF THE INTERIOR
DENVER, COLORADO

WET TONS 71.135 DRY TONS 66.318

ITEM	TONS	POUNDS	UNIT PRICE	AMOUNT
BASE PRICE				
PREMIUMS: U3 O8 IN EXCESS OF 4 LB./TON	66.318 x	649.92	3.50	2274.72
U3 O8 IN EXCESS OF 10 LB./TON		5.80	0.75	288.48
			0.25	
TOTAL U3 O8 PAYMENT				2563.20
PENALTIES: LIME (CaCO3 IN EXCESS OF 6%)				
OTHER				
TOTAL FOR ORE				2563.20
DEVELOPMENT ALLOWANCE				
HAULAGE ALLOWANCE 100+ MILES	71.135	649.92	0.50	324.96
TOTAL ALLOWANCES			0.06	426.81
				751.77
TOTAL GROSS SETTLEMENT				3314.97
DEDUCTIONS: Royalty & DMEA payments				422.07
NET SETTLEMENT				$2892.90

DISTRIBUTION

%	PAYEE	AMOUNT	HR NO
	Johnson & Johnson, Jointly	$ 256.32	122
	DMEA	165.75	123
	Modern Mines Development Co.	2892.90	124
	E1095		
			7/9

NOTE

[illegible] days prior [illegible] settlement payment

A [illegible] paid are [illegible] A [illegible] Energy [illegible] [illegible] publication [illegible]

District Representative

Approved

[redacted]
FARMERS UNION BUILDING
DENVER 3, COLORADO

SETTLEMENT STATEMENT

LIQUIDATION NO. 98
DISTRICT Riverton
DATE July 9, 1958

DATE RECEIVED 6/25/58 LOT NO 111-S SHIPPER'S LOT NO M-13

A E C LIC NO R-5771 CONTRACT NUMBER

RECEIVED OF Modern Mines Development Co.

CLAIM NAME Jet #8 STATE Wyo.

SHIPPERS ADDRESS 207 Larson-Andrews Bldg. - Yakima, Wash.

MINE DIST Unorganized COUNTY Big Horn

TYPE OF ORE

HAULAGE DISTANCE 100.0 TO PROCESS TO STOCKPILE 19 6/25/58

LOT NO	WET WEIGHT (LBS)	% H2O	DRY WEIGHT (LBS)	% U3O8	% CaCO3	U3O8 CONTENTS (LBS)	CaCO3 CONTENTS (LBS)
111-S	144.840	7.31	134.251	0.46	49.55	617.55	66521.37

DMEA
DEPARTMENT OF THE INTERIOR
[illegible] 1958
[illegible]
[illegible]

WET TONS 72.420 DRY TONS 67.126

ITEM	TONS	POUNDS	UNIT PRICE	AMOUNT
BASE PRICE				
PREMIUMS U3O8 IN EXCESS OF 4 LB / TON	67.126	617.55	3.50	2161.43
U3O8 IN EXCESS OF 10 LB / TON		x 5.20	0.75	261.79
TOTAL U3O8 PAYMENT			0.25	2423.22
PENALTIES LIME (CaCO3 IN EXCESS OF 6%)				[ ]
OTHER				[ ]
TOTAL FOR ORE				2423.22
~~VARIATION~~				
DEVELOPMENT ALLOWANCE				
HAULAGE ALLOWANCE 100. MILES	72.420	617.55	0.50	308.78
			0.06	434.52
TOTAL ~~VARIATION~~ ALLOWANCES				743.30
TOTAL GROSS SETTLEMENT				3166.52
DEDUCTIONS: Royalty & DMEA Payments				[400.65]
NET SETTLEMENT				$2765.87

PAYEE	AMOUNT	CHECK NO.
Johnson & Johnson, Jointly	$ 242.32	126
DMEA	158.33	127
Modern Mines Development Co.	2765.87	128
		789

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado
July 21, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 23 1958

DATE	INITIALS	CODE
7/23	C	220
	Mr. S. [illegible]	130
7/23	FMM	700

AIRMAIL

Memorandum

To: Chairman, Operating Committee, DMEA

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium) Contract Idm-E1095, Modern Mines Development Company, (Jet claims) Big Horn County, Wyoming

Enclosed are the original and two copies of a joint memorandum dated July 17, 1958, by F. B. Moore, Geologist, Geological Survey, and E. O.Binyon, Mining Engineer, Bureau of Mines, which is in reference to the Operator's letter of June 26, 1958, whereby the Operator informed this office that it has no plans for further drilling under the contract at this time.

Two copies of the Operator's letter were forwarded to you by copies of our memorandum, dated July 1, 1958, to the field examiners requesting their recommendations relative to termination of the contract, and certification as a discovery or development.

The field examiners recommend that the contract be terminated in its present status and that a certification of discovery or development be issued, in which this office concurs. Termination of the contract in its present status will leave approximately eight (8) authorized Stage I holes and 5400 feet of Stage I drilling not performed. None of the work provided for under Stage II was undertaken.

It is further recommended that a suitable Termination Agreement be prepared, which should be made effective August 10, 1957.

J. W. Townsend

IN REPLY REFER TO:

DMEA

DEPARTMENT OF THE INTERIOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

JUL 18 1958
REGION III
DENVER, COLORADO

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 23 1958

DATE		CODE

July 17, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman
F. B. M. for E. N. H.

From: F. B. Moore
E. O. Binyon

Subject: Docket DMEA 4564 (Uranium), Contract Idm-E 1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming Termination of the contract and Certification of Discovery or Development

This is in reply to your memorandum of July 1, 1958, concerning the applicant's request of June 26, 1958, to discontinue work under the contract before completion.

Under the contract as amended, 34 holes were to be drilled under Stage I. Of the 34, 28 holes were drilled, 2 of which were disallowed leaving 8 Stage I holes not drilled. Drilling of these 8 holes would explore portions of the Jet 3, 4, 5, and 6 claims.

The drilling thus far completed under Stage I as well as company drilling have resulted in discovery of several small ore bodies (or possibly one irregular ore body) which have been and are now being mined. To date 705.6 tons of ore averaging 0.38 percent U_3O_8 have been shipped. From an inspection of the workings made July 8, 1958, and from available data, the total estimated ore reserves are at best limited to a few hundred tons, of which about 50 tons remain in the present workings.

The probe results of the drill holes are not reliable because the thickness and grade of ore as shown by the presently developed ore bodies are considerably below expectations. Therefore, it is not unlikely that those ore-grade drill holes to which development headings are now being driven may prove to be in ore bodies too low in grade and too small in size to be minable.

The holes remaining to be drilled under Stage I are at distances of 1,300 to 3,000 feet from the developed ore bodies. Although

five of the holes are on or near a northwesterly-trending band considered to have the best ore potential, the distances involved nullify any projection of known ore bodies or mineralized areas to the hole locations.

Because of the disappointing results of drilling and exploration on the Jet 8 claim, and because it is doubtful if completion of the drilling would add materially to the geologic picture or to the ore potential of the area, it is recommended that the contract be terminated. However, on the basis of the ore already discovered as well as the possibility that other deposits may be discovered as a direct or indirect result of the drilling completed under the contract, it is recommended that a Certification of Discovery or Development be issued.

F. B. Moore

F. B. Moore, Geologist

E. O. Binyon

E. O. Binyon, Mining Engineer

224 New Customhouse
Denver 2, Colorado

July 8, 1958

7/11 C 220
~~7/14~~ 760

Mr. W. S. Doyle, Secretary-Treasurer
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095, Modern
Mines Development Company (Jet
claims) Big Horn County, Wyo.

Dear Mr. Doyle:

By letter dated April 7, 1958, you informed this office that the land included under the captioned contract was inspected for certification to receive bonus payments by AEC and that you would advise us of the outcome. We have heard no further word from you; therefore, please advise us by return mail as to the present status of your eligibility to receive AEC production bonuses.

Tabulated below for your information are the royalties on bonus payments indicated to be due on the production reported to this office:

LIQ. NO.	BONUS PAYMENT	BONUS ROYALTY DUE
34	$ 655.[illegible]	$ 32.79
38	515.33	25.77
49	794.78	39.74
57	871.96	43.60
62	1,908.20	95.41
63	2,079.98	104.00
64	1,732.64	86.63
77	3,701.60	185.08
91	1,748.85	87.44
	TOTAL: -	$700.46

You will note that the amount of $700.46 is due the Government upon receipt of such bonus payments by you.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

MHM:bh
cc: Sec.Op.Comm.(2)
Roy. File E-1095
Corres. File
DMEA/DFC-Binyon(2)
Chron.

224 New Customhouse
Denver 2, Colorado
July 1, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE
7/7 C 220
7/8 ~~7AM~~ 800
700

Memorandum

To: E. N. Harshman - w/enclosures
DMEA/DFC-Binyon - w/enclosures

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium) Contract Idm-K1095, Modern Mines Development Company (Jet claims) Big Horn County, Wyoming

Enclosed is a letter from the subject Operator, dated June 26, 1958, whereby the Operator informed this office that it does not wish to continue the work under the contract at the present time.

A review of the project files in this office indicates that the present status of the project work is as follows:

Number of Stage I holes originally provided for by contract	60	
Net number of holes deleted, per approval of 8/5/57	16	
Number of holes deleted by work approval of 6/4/58	10	
Total deleted holes		26
Net number of authorized Stage I holes		34
Number of acceptable Stage I holes drilled		26
Authorized Stage I holes not drilled		8

In addition to the above, approval was granted 6/4/58 for the deepening of three previously drilled holes, DJ1-4, DJ2-6, and DJ3-1, to penetrate an ore horizon believed to exist, varying in depth from 165 to 175 feet below the top of the Madison formation. This additional drilling would average approximately 40 feet per hole.

Please review the Operator's request and submit to this office a joint memorandum containing your recommendations as to whether the balance of authorized Stage I work should be completed, or whether the work has progressed to such an extent that the contract can be terminated without sacrifice of information necessary to the Government.

Your recommendations relative to certification as to discovery or development are also required.

Original signed by
J. W. TOWNSEND

J. W. Townsend

JDC:hmh

cc: Chmn. Op. Comm. (2)) w/copy of
Corres.file,Reg.III) Operator's
letter of 6/26/58

Cooper
Chron

GLENCOURT 3-6588

JOHN F. CADIGAN
CERTIFIED PUBLIC ACCOUNTANT
207 LARSON-ANDREWS BUILDING
YAKIMA, WASHINGTON

June 26, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JUN 30 1958
REGION III
DENVER, COLORADO

United States Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Attention: J. W. Townsend and
E. N. Harshman

In re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Gentlemen:

We are in receipt of your letter of June 4, 1958, in which you approved the deletion from drilling of Stage I holes and approval to reoccupy previously drilled holes, and also your denial of our request for an increase in the allowable unit cost per foot of drilling above that presently provided for in the Contract.

Our Board of Directors met, and after a complete discussion, along with a discussion with our geologist, it was decided that without an increase allowable in the unit cost per foot of drilling that it would be impractical for us to continue on under the program.

We enjoyed working with your department and with the individuals involved, but due to the drilling costs it is felt that we should withdraw from the plan for the time being, at least.

If there should be a change at a later date, we will contact you at that time.

Yours very truly,

John F. Cadigan Vice President
JFC:jdc

6/16 C 220
6/16 400 200
~~Murphy 700~~

224 New Customhouse
Denver 2, Colorado
June 12, 1958

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Please inform this office by return mail as to whether work under Contract Idm-E1095 was resumed on or before June 1, 1958, as required under the provisions of Amendment No. 1.

If, for reasons beyond your control, project work was not resumed on or before June 1, 1958, you should immediately forward to this office for consideration by the Government, the original and five copies of a request for an Amendment to extend the suspension of work for such specific additional time as you anticipate the project will be resumed.

Yours very truly,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Hasler
DMEA/G.Jet.
DMEA/DFC
Townsend
Corres.file, Reg. III
Chren

224 New Customhouse
Denver 2, Colorado

June 6, 1958

6/9 N.G. 225
6/9 800
6/10 700

Mr. John F. Cadigan, Vice President
Modern Mines Development Company
207 Larson-Andrews Building
Yakima, Washington

Re: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Co.
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Cadigan:

In reply to your letter of June 2, 1958, this office has authority to compute royalties only as specified in Article 8 (c) of Contract Idm-E1095, which states that the Government's royalty shall be a percentage of the gross proceeds from the production, including any bonuses, premiums, allowances or other benefits.

A review of submitted settlement sheets shows that the price you are receiving for your production includes development and haulage allowances and so must be included in the basis for computing DMEA royalties.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

MHM:jy
cc: Sec. Op. Comm. - 2) w/copy of
Royalty File E1095) mentioned ltr.
DMEA, DFC)
Chron.

210 S. 91st AVE.
YAKIMA, WASH.
PHONE GLENCOURT 3-0840

MODERN MINES DEVELOPMENT CO.

2200 HAY DRIVE
BUTTE, MONTANA
PHONE 20400

June 2, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JUN 5 - 1958
REGION III
DENVER, COLORADO

U. S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

In re: Docket No. DMEA 4564 (Uranium)
Contract No. IDM-$1095
Modern Mines Development Co.
(Jet claims,)
Big Horn County, Wyoming

Gentlemen:

In checking over our settlement sheets with Fremont Minerals we have noticed an item that we would like to bring to your attention, and ascertain which way that the settlement sheet should be handled.

As you will note on the settlement sheets, the royalty payment to you has been computed upon the freight allowance. The allowance that we are receiving for freight and haulage is hardly enough to cover the cost of hauling from the mine to the rail and the rail charge from Lovell to Fremont Minerals storage.

This has been discussed with Mr. Doyle, secretary-treasurer, and Mr. Sigman, president, of Modern Mines Development Co. At this stage of the operation, is it possible to have the DMEA payment computed only on the ore allowance and not on the haulage and development? We would appreciate your consideration of this matter at your earliest convenience.

For your information, the following schedule shows the amount that would have been overpaid based on the assumption that your 5% is only on the ore produced:

Liquidation Settlement No.	Settlement Orig. Statement	Settlement as Corrected
#34	$ 73.83	$ 39.92
#38	47.03	c 30.21
#49	62.47	46.19
#57	69.40	49.83
#62	139.05	121.60
#63	152.70	131.24
#64	126.52	109.67
Total -	$671.00	$528.66
Overpayment -	$142.34	

Yours very truly,

John F. Cadigan

John F. Cadigan, Vice-president
207 Larson-Andrews Bldg., Yakima, Washington

DMEA
JUN 6 1958
6/6 C 220
~~Murphey 700~~

[illegible] New Customhouse
Denver 2, Colorado
June 4, 1958

Mr. V. S. Doyle, Secretary-Treasurer
Midwest Mines Development Company
210 Fourth First Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Remedial)
Contract No. [illegible]
Midwest Mines Development Company
(Art claims)
Big Horn County, Wyoming

Dear Mr. Doyle:

Reference is made to your letter dated April 23, 1958, wherein you request Government approval for the deletion of ten Stage I drill holes, the designating of three previously drilled Stage I holes, and an increase in the allowable maximum unit cost per foot of drilling. Government action on your request is as follows:

1. Approval for deletion from drilling of Stage I holes Nos. RJ2-7, RJ3-8, RJ4-8, RJ7-13, RJ7-14, RJ8-12, RJ8-13, RJ8-14, RJ8-15, and RJ11-7.

2. Approval to reassign previously drilled holes Nos. RJ1-4, RJ6-4, and RJ3-1 and extend them to a depth of approximately 175 feet to penetrate an ore horizon believed to exist, varying in depth from 165 feet to 175 feet below the top of the Madison formation.

3. Denial of your request for an increase in the maximum allowable unit cost per foot of drilling above that presently provided for in the Contract.

Nothing in the foregoing shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Very truly yours,

DMEA Field Team, Region XIV

By J. V. Townsend
J. V. Townsend

By E. N. Hardman
E. N. Hardman

JVT:pr1
cc: Chem.Op.Chem.(2)
Finance Office, Reg. XIV
Amendment file, Reg. XIV
Herbaman
DMEA/DFC (Mayes)
Corres. file
Townsend
Chron.

DMEA Form 7
(12-56)

SOLICITOR

MAY 20 1958

MAY 26 1958

INTERIOR

OFFICIAL FILE COPY

Date	Surname	Code
5/19/58	Murphy	700
5/20	Ellis	700
	Long	140
	Sawyer	140
23	App'd. Sol. ofc.	100
5/26	C	220
		700
5/23		130
"	Johnson	110
5-26	Chamber	800

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming

Dear Mr. Harshman:

This is in response to your memorandum, dated May 14, 1958, relating to changes in drilling under the subject contract.

We concur in the Field Team's recommendation to delete the 10 holes indicated on the map Figure 1, also that holes DJ1-4, DJ2-6, and DJ3-1 be deepened to a depth of approximately 175 feet. This will not require an amendment to the contract, since only the maximum number of holes was fixed, and the depth estimate of 150 feet was an average depth under the contract.

We also concur in your recommendation that the Operator's request for an increase in unit cost of drilling should be denied, since the contract drilling could have been completed at the unit cost allowed if the drilling had not been interrupted for other private drilling.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

Frank D. Lamb

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FMMurphy/gla 5-19-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado
May 14, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 16 1958

DATE	RATING	CASE
5/16	C	220
		130
5/19	7MM	700

VIA AIR MAIL

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium), Contract No. Idm-E1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming

Enclosed are three copies of a joint memorandum, dated May 14, 1958, from E. N. Harshman, Geologist, Geological Survey, and E. O. Binyon, Mining Engineer, Bureau of Mines, pertaining to certain changes in the contract, relative to which you are referred to our letter to the Operator, dated May 7, 1958, and its request, dated April 23, 1958, which was attached thereto.

The Operator requests deletion of ten (10) Stage I holes, the deepening of three previously drilled Stage I holes, and an increase in the unit cost of drilling as presently established in the contract.

This office concurs in the recommendations of the field examiners regarding the Operator's request, which are:

Approval for the deletion of the 10 holes requested;

Approval for the deepening of the 3 previously drilled Stage I holes; and

Denial of the Operator's request for an increase in the unit cost of drilling presently established in the contract.

Final decision and action in the matter are not deemed to be within the authority delegated to this office. Therefore, the matter is forwarded for your consideration and appropriate action, with the further recommendation that a decision and final action in the matter be expedited all possible.

E. N. Harshman

E. N. Harshman

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

IN REPLY REFER TO:
DMEA
RECEIVED MAY 16 1958
DATE
DMEA
DEPARTMENT OF THE INTERIOR
MAY 14 1958
REGION III
DENVER, COLORADO

May 14, 1958

Memorandum

To: Acting Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman
E. O. Binyon

Subject: Docket DMEA 4564 (Uranium), Contract Idm-E 1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming

This is in reply to your request for recommendations concerning changes in the contract as requested by the operator in a letter dated April 23, 1958. These changes are:

1) The deletion of 10 Stage I holes

2) Deepening of holes DJ1-4, DJ2-6, DJ3-1 drilled previously under Stage I and

3) An increase of the unit drilling cost under the contract for the holes remaining to be drilled under Stage I and for those that might be drilled under Stage II.

The operator has some justification for requesting the deletion of 10 Stage I holes. Drilling to date on the Jet claims indicates that many of the northwesterly trending joints are not loci for caverns which contain significant amounts of uranium ore. From data available it appears that the greatest ore potential is along joints in a band trending northwesterly from the southern part of the Jet claim No. 8, where ore has been found, to the northern part of the Jet No. 2 claim, where drill holes have penetrated mineralized caverns.

Based on fact that the 10 Stage I holes in question lie northeast of the zone that appears to be most favorable and that drilling to date has been relatively unsuccessful in discovering significant ore deposits, we recommend that the request to delete Stage I holes DJ1-7,

DJ2-8, DJ4-2, DJ7-13, DJ7-14, DJ8-12, DJ8-13, DJ8-14, DJ8-15, and DJ11-7 be approved. The locations of these holes are shown on Figure 1 attached.

As to deepening holes DJ1-4, DJ2-6, and DJ3-1, to an approximate depth of 175 feet, the request is reasonable inasmuch as ore or mineralization has been encountered at about this depth on the Jet 8 claim. The increase in footage will amount to 70 feet in hole DJ1-4, 33 feet in DJ2-6, and 39 feet in DJ3-1, or a total of 142 feet. It is recommended that the operator be permitted to drill the three holes mentioned above to a depth of approximately 175 feet.

There appears to be no justification for the requested increase in the unit drilling cost from $2.25 per foot as allowed in the contract to $2.65 per foot now being charged for drilling in the area. The operator has spent considerable time in drilling numerous company holes (not under the contract); had exploration drilling been confined to DMEA approved holes the contract work could have been completed at the contract price of $2.25 per foot. It is therefore recommended that the requested increase in the unit cost for drilling not be approved.

E. N. Harshman

E. N. Harshman

E. O. Binyon

E. O. Binyon

DMEA
RECEIVED MAY 19 1958
CODE

324 New Customhouse
Denver 2, Colorado
May 7, 1958

VIA AIR MAIL

Mr. W. S. Doyle, Secretary-Treasurer
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-X1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Doyle:

Receipt is acknowledged of your letter of April 23, 1958, requesting certain changes in Contract No. Idm-X1095.

Deletion of the drill holes, as requested, from those to be drilled under Stage I, and providing for an increase in the unit cost of drilling, are not within the authority delegated to this office. Therefore, when field recommendations are received, the matter must be forwarded to the Washington Office, DMEA, for their consideration and appropriate action. The matter will be handled as expeditiously as possible so that project operations will not be delayed unnecessarily.

The maximum unit costs established in the contract are considered firm commitments and we hold little hope that the unit costs can be increased because of restrictions governing such.

It is assumed that work will be resumed on or before June 1, 1958, as provided for by Amendment No. 1, in performing the balance of work proposed under Stage I, which is not included in your proposal for deletion.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl

cc: Chem. Op. Comm. (2)
Harshman
DMEA/DFC (Kinyon)
Corres. file
Townsend
Chron.

OFFICIAL FILE COPY		
RECEIVED		2 1958
DATE		CODE
5/2		220
5/2		
"		

224 New Customhouse
Denver 2, Colorado
April 29, 1958

Memorandum

To: E. N. Harshman - w/enclosure
DMEA/DPC (Binyon) - " "

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4864 (Uranium) Contract Idm-E1095,
Modern Mines Development Co., (Jet claims)
Big Horn County, Wyoming

Enclosed is a copy of a letter from the subject Operator, dated April 23, 1958, in which the Operator requests an Amendment to provide for deletion of 10 drill holes, deepening of three previously drilled holes and an increase in the maximum allowable unit drilling cost for the balance of drilling to be performed under the contract.

Please submit to this office a joint memorandum containing your recommendations in the above matters.

Original signed by
E. N. HARSHMAN
E. N. Harshman

Enclosure

JDC:hmh

cc: Chmn. Op. Comm. (2)) w/copy of
Corres.file, Reg. III) Oper. letter
Townsend) of 4/23/58
Chron

219 S. 31st AVE.
YAKIMA, WASH.
PHONE GLenCourt 3-9948

MODERN MINES DEVELOPMENT CO.

2280 EAST DRIVE
BUTTE, MONTANA
PHONE 26496

April 23, 1958

DMEA
DEPARTMENT OF THE INTERIOR
APR 28 1958
REGION III
DENVER, COLORADO

Mr. W. H. King, Executive Officer
D.M.E.A. Field Team, Region III
224 New Customhouse
Denver, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED
DATE

In re: Docket DMEA-4564 (uranium)
Contract Idm-61095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. King:

In regard to the above referenced D.M.E.A. contract on which drilling was recessed until this spring, there are certain items enumerated below which we would like for you to consider as a request for amendment to said contract:

1. Deletion of certain drill holes as described below.

2. Deepening of certain now existing drill holes to depth of approximately 175 feet.

3. Increasing the Government's allowable cost per foot for drilling those holes remaining on the program.

Those drill holes to be discussed under items 1, and 2, are indicated on D.M.E.A. map Figure I, Revised.

Deletion of Certain Drill Holes:

The following listed holes are requested to be deleted from Stage I of the above referenced contract:

a.	DJ1-7	d.	DJ7-13	g.	DJ8-13	j.	DJ11-7
b.	DJ2-8	e.	DJ7-14	h.	DJ8-14		
c.	DJ4-2	f.	DJ8-12	i.	DJ8-15		

Drill holes DJ1-7, DJ2-8 and DJ4-2 are located on a northwestern trending joint pattern that has been extensively drilled on Jet claims 7 and 8 and found to be devoid of large caverns and/or ore deposits. These holes also are in rough, comparatively inaccessible locations which, coupled with heretofore unproductive joint systems, dictates that the holes should be deleted from the remaining portion of the program.

219 S. 31st AVE
YAKIMA, WASH
PHONE GLEN OURT 3-9948

MODERN MINES DEVELOPMENT CO.

2280 EAST DRIVE
BUTTE, MONTANA
PHONE 26498

Drill holes DJ7-13, DJ7-14, DJ8-12, DJ8-13, DJ8-14, DJ8-15, and DJ11-7 are located on rather extensively drilled joints and have been more or less completely bracketed by blank holes.

In the interest of economy of labor and money, both to ourselves and the Government, and in light of the apparently unfavorable areas in which these holes are located, we respectfully request deletion of the above mentioned 10 drill holes.

Deepening of Certain Drill Holes:

We request permission to deepen under D.M.E.A. contract drill holes DJ1-4 (present depth 105'), DJ2-6 (present depth 142') and DJ3-1 (present depth 136') to approximately 175 feet. These holes were drilled at a time when, so far as then known, all ore deposits in the area were considered to be within the upper 125 feet (plus or minus) of the Madison formation. Subsequent drilling has indicated that ore deposits may be encountered at depths of approximately 165 - 175 feet below the top of the Madison.

While no definite hole depths are stipulated in the referenced contract, it is requested that depths of approximately 175 feet per hole for the remaining portion of the program be allowed.

Because of requested deletion of certain holes, the increased depth of those holes yet to be drilled will not result in greater total cost to the Government.

Increasing of Government Allowable Cost:

During the past year, drilling costs in the area have increased from the flat $2.25 per foot for our work of last year to $2.65 for drilling now being performed for Lisbon Uranium Corporation adjoining us on the south. With these figures in mind, we request an amendment to the effect that the Government share of the cost be 75% of $2.65 per foot instead of that presently allowable, that is, 75% of $2.25 per foot.

Work on remaining portion of Stage I of referenced contract will be held in abeyance until such time as action on this request is received from your office.

Yours very truly,

MODERN MINES DEVELOPMENT CO.

W. S. Doyle

W. S. Doyle, Secretary-Treasurer
WSD:jdc

219 S. 31st AVE.
YAKIMA, WASH.
PHONE GLENCOURT 3-9948

MODERN MINES DEVELOPMENT

2280 EAST DRIVE
BUTTE, MONTANA
PHONE 26498

April 7, 1958

DMEA
DEPARTMENT OF THE INTERIOR
APR 10 1958
REGION III
DENVER COLORADO

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095, Modern
Mines Development Company (Jet
claims) Big Horn County, Wyoming

Dear Mr. Harshman:

I received your letter of April 4th regarding repayment to the Government in the form of royalties from production on our Jet claims.

We wish to advise you that while shipment has been made, no settlement has, as yet, been made. The reason for the telephone call to your office was to ascertain the proper procedure of repayment so that Fremont Minerals, Inc. of Riverton, Wyoming, might be advised accordingly.

In yesterday's mail we received a letter from Fremont Minerals, Inc., a copy of which is enclosed for your information. We notice that Fremont is making available to the shipper only two copies of their settlement statements. We are going to advise Fremont to send one copy of the settlement statement with the 5% remittance to DMEA, and when we receive the original statement we in turn will send two photostatic copies to you as you request. We hope this procedure will meet with your approval.

The bonus payments will not become due until we have received certification of the Jet claims from the office of Mr. R. H. Toole, Chief, Leasing and Development Branch, Mining Division. For your information, the Jet claims have been inspected for certification approximately three weeks ago and we have been advised by Mr. Toole's office that they are awaiting a report from Mr. Van Alstine which is in the process of completion at this time. As soon as we receive our certification, we will immediately pass this information on to you.

We will be pleased to meet your examining engineer when he visits our project on or about April 16, 1958.

If there is any further information you desire, please advise.

Very truly yours,

W. S. Doyle, Secretary-Treasurer
WSD:jdc

Sec. one copy - 2 - Corresp
Daily H / DFC - Binyon

ORIGINAL FILE COPY
DMEA
RECEIVED APR 7
DATE
4-7
4/7 407
4/8 TMA

224 New Customhouse
Denver 2, Colorado

AIR MAIL

April 4, 1953

Mr. W. S. Doyle, Secretary-Treasurer
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095, Modern
Mines Development Company (Jet
claims) Big Horn County, Wyoming

Dear Mr. Doyle:

In reply to your telephone inquiry today, payments are made to the Government in the form of royalties on production from the land subordinated under the terms of the contract.

For shipments already made, please submit the indicated royalties accompanied by three copies of the applicable settlement sheets.

For future ore shipments your purchaser should be instructed to make royalty payments to this office, each payment to be accompanied by three copies of all settlement sheets.

In addition, you are requested to instruct your ore purchaser to furnish us with three copies of a load detail sheet when settlement covers a series of individual shipments. The load detail must show the dry weight and assay of each shipment. This will assure the operator and the Government of accuracy and will serve as a permanent record which may be subjected to inspection in the future.

Royalty is to be paid on the value realized from the sale of ore including all bonuses, premiums, and allowances. In the case of uranium, royalties are due on AEC bonus payments received on production from DMEA subordinated land. In this connection please inform this office at once of the status of your eligibility to receive subject bonus payments so that royalties can be computed accordingly.

Royalty checks should be made payable to the Defense Minerals Exploration Administration, and sent to the Executive Officer, DMEA Field Team, Region III, 224 New Customhouse, Denver 2, Colorado.

Our examining engineer will visit the project on or about April 16, 1958. Any questions regarding the payment of royalties or project work can be discussed with him at that time.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

MHM:jy

cc: Sec. Op. Comm. (2)
Royalty File E1095
Corres. File
DMEA,DFC - Binyon (2)
Chron.

December 10, 1957

Memorandum

To: Hazel Berry, Operating Committee

From: Irene Z. Mainster, Div. of Rare & Misc. Metals

Subject: Amendment to contract

Mr. Murphy has reviewed and approved Amendment No. 1, dated November 14, 1957, to Contract No. Idm-E1095, Docket No. DMEA-4564, Modern Mines Development Company, and has indicated that no further review of the amendment is required by the Legal Division.

Irene Z. Mainster

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 9 1957
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12/9 | C | 220
130
700

December 6, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium), Contract No. Idm-E1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming

Enclosed are the Government's and Audit copies of Amendment No. 1 to Contract No. Idm-E1095, which has been executed to provide for suspension of operations, to end not later than June 1, 1958, extend the date fixed on or before which work shall be completed to November 1, 1958, and increase the maximum period for royalty payments and lien for payment thereof to eleven years from the date of the contract.

Also enclosed are three copies of a joint memorandum, dated November 15, 1957, from F. B. Moore and E. O. Binyon, pertaining to the suspension of operations.

Other data relative to the Amendment was distributed by memoranda, dated October 10, 1957 and November 14, 1957.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

W H King
W. H. King

Enclosures

IN REPLY REFER TO:

DMEA
DEPARTMENT OF THE INTERIOR
NOV 20 1957
REGION III
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 9 1957

DATE	INITIALS	CODE
	EWH	
	FMM	700

November 15, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. W. Harshman

From: F. B. Moore
E. O. Binyon

Subject: Docket No. DMEA 4564 (Uranium), Contract No. Idm-H 1095, Modern Mines Development Co. (Jet claims), Big Horn County, Wyoming

In letters of September 23 and 29, 1957, the applicant requested permission to recess drilling under the above contract until June 1, 1958. The applicant also requested that the date of expiration of the subject contract be extended one year from November 1, 1957, to November 1, 1958. The requests were occasioned by the withdrawal of the drilling contractor and the difficulties of drilling during the winter months.

The applicant is currently driving a 565-foot crosscut to test a mineralized area discovered in previous drilling. Data from underground exploration of the suspected ore body may be useful in future drilling operations.

Because of the possibility of acquiring data allowing better evaluation of drill hole information and because completing the drilling during winter weather could cause the applicant needless inconvenience and expense, it is recommended that the request for extension of the contract and recession of drilling until June 1, 1958, be approved.

F. B. Moore
F. B. Moore
Geologist

E. O. Binyon
E. O. Binyon
Mining Engineer

FBMoore:mp

NOV 29 1957

DATE	MINES	CODE
11/29	9b	220
11/29	[illegible]	800
12/2	~~[illegible]~~	~~700~~

224 New Customhouse
Denver 2, Colorado
November 27, 1957

Mr. W. S. Doyle, Secretary-Treasurer
Modern Mines Development Co.
219 S. 31st Avenue
Yakima, Washington

Re: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Co.
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Doyle:

Your letter of November 19, 1957, to N. E. Stokes, regarding the amount of $500.00, which was withheld in processing Form MF-104, Operator's Monthly Report and Voucher, for August 1957, has been referred to this office for reply.

Article 5, of the Contract Form, stipulates, "That until the Operator has rendered to the Government a final report, and any final auditing required by the Government has been made, and a final settlement of the Contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit, not in excess of 10% of the estimated total cost of the work.....". It has been administratively established as standard procedure that this provision of the contract is to be exercised at any time operations are suspended, regardless of the reason.

The amount withheld from the August, 1957, voucher will be reinstated in conjunction with the first monthly accounting report and voucher which you submit to the Government after project work is resumed. If you have any further questions regarding the matter please feel free to contact this office.

Yours very truly,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer,
DMEA Field Team, Region III

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC
Townsend
Finance Office, Reg. III
Corres. file, Reg. III
Chron
) w/copy of Oper. letter of 11/19/57

NCOURT 3-9948

MODERN MINES DEVELOPMENT CO.

2260 EAST DRIVE
BUTTE, MONTANA
PHONE 26498

November 19, 1957

ADMINISTRATIVE OFFICE
REGION III
NOV 25 1957
BUREAU OF MINES
DENVER, COLORADO

Mr. N. E. Stokes, Audit Section
U. S. Department of the Interior
Bureau of Mines, Region III
224 New Customhouse
Denver 2, Colorado

In re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Co.
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Stokes:

In your letter of November 6, 1957, in which you make the statement you are withholding $500.00 pending resumption of work under the contract, we wish to advise that the Modern Mines Development Company has applied for recess in our drilling operations due to the fact that the drilling contractor cancelled his contract with our company because of unfavorable drilling conditions.

Inasmuch as this cancellation was of very recent date, we were unable to get a new driller to take on the work at the contract figure so we applied for the above-mentioned recess, which, if granted, will permit us to resume operations in the early part of 1958.

Under the above conditions, we feel the $500.00 which you have withheld should be paid to Modern Mines Development Company.

Yours very truly,

W. S. Doyle

W. S. Doyle, Secretary-Treasurer

WSD:jdc

DENVER DEC 2		
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12/2	C	220
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	H ~~[illegible]~~	~~700~~

224 New Customhouse
Denver 2, Colorado

November 26, 1957

Mr. W. S. Doyle, Secretary-Treasurer
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Doyle:

Reference is made to your letter of November 19, 1957, relative to DMEA approval for the part of the drifting involving additional funds, the Government's approval for which was requested in your letter of September 24, 1957.

The matter of approving work not presently provided for in the Contract, in addition to which involves the allocation of additional funds to the Contract, is not within the authority delegated to this office.

The matter of your request for approval of the drifting has been referred to the Washington Office, DMEA, for their consideration and appropriate action, on which you should hear at an early date.

Very truly yours,

Original signed
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

cc: Mr. Leonard D. Jarrard
Modern Mines Development Company
Lovell, Wyoming

JWT:prl

cc: Chmn.Op.Comm.-2) w/copy of
Harshman) Operator's
DMEA/DFC-Binyon) letter of
Corres. file) November 19.
Townsend
Chron.

219 S. 31ST AVE.
YAKIMA, WASH.
PHONE GLENCOURT 3-9946

MODERN MINES DEVELOPMENT CO.

2280 EAST DRIVE
BUTTE, MONTANA
PHONE 26498

November 19, 1957

DMEA
DEPARTMENT OF THE INTERIOR
NOV 25 1957
REGION III
DENVER, COLORADO

Mr. E. N. Harshman, Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

In re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Co.
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Harshman:

In answer to your letter of November 4th with reference to Mr. Jarrard's and Mr. Sigman's discussion with Mr. Binyon concerning the drilling of three holes near and between DJ8-6 and J8-3, we were of the opinion that the Government would participate in the cost of the drilling and sampling of these holes.

Should Modern Mines Development Company drill and sample these holes at their own expense, could they get the written approval of DMEA that the DMEA would approve the drift work now being done from its present point which is approximately 200 feet in from the portal at this date?

Yours very truly,

W. S. Doyle

W. S. Doyle, Secretary-Treasurer

WSD:jdc

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11/20	Murphy	700
"	Ellis	700
11/22	Martin	130
"	Johnson	110
"	Mittendorf	100
11/25	C D	220
		700
11/30	Williams	130
11/30	Lamb	130

NOV 25 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-E1095
Jet Claims
Big Horn County, Wyoming

Dear Mr. Sigman:

With a letter, dated September 24, 1957, addressed to Mr. W. H. King, Executive Officer, DMEA Field Team, Region III, Mr. Leonard D. Jarrard submitted a request that the subject contract be amended to provide a recess period and, also, to provide additional funds to drive a 600-foot adit to intersect the ore horizon on Jet No. 8 claim, penetrated by the holes drilled under Stage I of the contract and the additional holes drilled for your company's own account.

Our Regional Office advises that it has forwarded a proposed Amendment No. 1 for your signature, granting the recess period. However, the proposal relating to the 600-foot adit was referred to this office for consideration.

The drilling done on the Jet No. 8 claim appears to have sufficiently indicated its uranium ore potential. Hence, in our opinion, the proposal to drive an adit into this area would constitute development work rather than exploration. Since this Agency does not participate in work prosecuted primarily for mining or preparation for mining, I regret to advise you that your request to include the proposed adit work under the provisions of the contract is denied.

FMMurphy/gla 11-20-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
DMEA Field Team, Reg.III (2)

Sincerely yours,

C. O. Mittendorf (for)
Administrator

Copy to: Mr. Leonard D. Jarrard
Modern Mines Development Company
Lovell, Wyoming
FMMurphy

8623

DMEA
RECEIVED NOV 18 1957

DATE	INITIALS	CODE
11/18	C	220
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11/19	FMM	700

224 New Customhouse
Denver 2, Colorado

November 15, 1957

Mr. Leonard D. Jarrard
Modern Mines Development Company
Lovell, Wyoming

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Jarrard:

Enclosed are the Government's, Audit, Operator's, Finance Office, and Field Team copies of proposed Amendment No. 1 to Contract No. Idm-E1095, which we have prepared in reference to your letters of September 23 and September 29, 1957, to provide for a recess of operations from August 10, 1957 and ending not later than June 1, 1958, and extension of the date fixed on or before which work shall be completed from November 1, 1957 to November 1, 1958. The Amendment also increases the maximum period for royalty payment and lien for payment thereof to eleven years from the date of the Contract.

If the Amendment is satisfactory, all copies are to be signed by an official of Modern Mines Development Company authorized to sign such an instrument, the signer's title inserted, the corporate seal affixed, and all copies promptly returned to this office; upon receipt of which, and after signature by the Acting Executive Officer, DMEA Field Team, Region III, for the Government, the "Operator's Copy" will be returned to you.

Action on your request for Government approval of 600 feet of crosscutting and applicable additional funds is not within the authority delegated to this office. Therefore, the matter has been forwarded to the Washington Office, DMEA, for their consideration and appropriate action, on which you should hear at an early date.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl

cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC (Binyon)
Corres. file
Townsend
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

RECEIVED NOV 18 1957		
DATE	INITIALS	CODE
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November 14, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4564 (Uranium) Contract Idm-E1095, Modern Mines Development Company (Jet claims) Big Horn County, Wyoming

Reference is made to the Operator's letter of September 24, 1957, with attached data, two copies of which were forwarded to you by copies of our memorandum, dated October 4, 1957, to E. N. Harshman and DMEA/DFC - Binyon, requesting field recommendations pertaining to the Operator's request for approval of 600 feet of crosscutting and applicable funds.

In conjunction with the matter, enclosed are the original and two copies of a joint memorandum, dated November 12, 1957, from F. B. Moore, Geologist, Geological Survey, and E. O. Binyon, Mining Engineer, Bureau of Mines. For reasons stated, the field examiners consider that the crosscutting to further explore mineralization encountered in drill holes would be in the nature of development; therefore, recommend that the Operator's request be denied.

Since approval or denial of the Operator's request for additional work involving additional funds is not within the authority delegated this office, the matter is forwarded for your consideration and appropriate action, with the recommendation that the Operator's request be denied.

The Operator by separate letter, dated September 29, 1957, requested approval for a recess of operations until June 1, 1958 and an extension of the date fixed on or before which work shall be completed to November 1, 1958.

We will prepare and execute an amendment to provide for a recess of operations and an extension of the completion date under authority delegated to us.

E. N. Harshman

Enclosures

E. N. Harshman

IN REPLY REFER TO:

DMEA

DEPARTMENT OF THE INTERIOR

NOV 13 1957

REGION III

DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 18 1957

DATE	INITIALS	CODE

November 12, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman

From: F. B. Moore
E. O. Binyon

Subject: Docket DMEA 4564 (Uranium), Contract Idm-E 1095, Modern Mines Development Co. (Jet claims), Big Horn County, Wyoming

The Jet claims were visited October 31, 1957, in response to a request by the applicant for additional funds to explore a mineralized area by 600 feet of crosscutting. The mineralized area was discovered by drill hole DJ8-6, drilled under the DMEA contract, and has been further tested by 13 additional holes drilled on company account.

In the area of the Jet claims, tyuyamunite occurs in the Madison limestone in and just below solution cavities associated with fractures. Data from which this conclusion is reached are derived from an adjoining property where Lisbon Uranium Company has mined 7,000 to 8,000 tons of ore from deposits believed to be similar. The Lisbon deposits occur less than 60 feet from the surface, whereas the Jet deposit is from 150 to 175 feet below the surface. To date, no directional trend has been established for the deposits.

WO

The mineralized area on the Jet claims as outlined by drilling, is estimated to be about 200 feet long by 100 feet wide. Probing results indicate that the ore body is from 2 to 13 feet thick and ranges in grade from 0.10 percent to 0.70 percent U_3O_8. Due to open cavernous conditions above the ore deposits in this area, no cuttings have been obtained from drilling below the caverns and the actual thickness and grade of the deposit is somewhat in doubt.

Although drilling results are somewhat inconclusive, owing to a lack of samples, crosscutting for the sake of proving drilling accuracy is considered to be development and not justified under the DMEA program. R. B. Christie, superintendent of the Lisbon properties, informed the examining team that probe results had been satisfactory to date as a means of evaluating the Lisbon properties.

The examining team believes that some samples should be collected as a check against probing. In future drilling it is believed that at least one hole in any mineralized cavern area should be cased through the cavern and cuttings collected for assay. The cost for casing of holes is not provided for in the contract. This method of securing samples for assay was discussed with L. D. Jarrard, geologist for Modern Mines Development Company. He may request an amendment to authorize such work.

Because the proposed crosscutting is believed to be development, it is recommended that the application for additional funds be denied.

F. B. Moore

F. B. Moore, Geologist

E. O. Binyon, Mining Engineer

RECEIVED

DATE		
11/7	gb	220
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~~11/8~~	~~KMM~~	~~700~~

224 New Customhouse
Denver 2, Colorado
November 5, 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Form MF-104, Operator's Monthly Report and Voucher, for August, 1957, has been received in this office and is being processed for payment.

The reported cost for drilling exceeds the actual invoice cost, therefore the excess drilling cost is disallowed. You will be further advised of the details of the disallowance by means of an Administrative Audit Difference Statement, which will be forwarded to you by the Finance Office, Region III.

Yours very truly,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
DMEA, DFC
Townsend
Corres. file, Reg.III
Chron

ORIGINAL FILE COPY
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11 | [illegible] | 700

224 New Customhouse
Denver 2, Colorado

November 4, 1957

Mr. Leonard D. Jarrard
Modern Mines Development Company
Lovell, Wyoming

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Jarrard:

This is in reference to the discussion on October 30 with Mr. Binyon, concerning the drilling of three holes near and between holes DJ8-6 and J8-3, which were suggested to be drilled in order to obtain samples for checking probe results of the mineralized horizons in the two holes.

From the suggestions as to the method of drilling and sampling of the holes, it should not be construed that the Government, under Contract No. Idm-E1095, would participate in the costs of either the drilling or the sampling of these holes. It was assumed you understood that the holes would be drilled and sampled entirely at Company expense. However, to eliminate any misunderstanding in the matter, the Government's position is hereby made a matter of record.

Perhaps this may have some bearing on whether or not you would drill the holes to obtain the samples. We will appreciate advice as to your plans in the matter.

Very truly yours,

Original signed by
J. W. TOWNSEND
for E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl
cc: Chmn.Op.Comm. (2)
Harshman
DMEA/DFC-Binyon

cc: Mr. Leonard D. Jarrard
2280 East Drive
Butte, Montana

cc: Mr. L. V. Sigman, President
219 South 31st Avenue
Yakima, Washington

cc: Corres. file
Townsend
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 31 1957

DATE	INITIALS	CODE
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11/1	[illegible]	800
24	[illegible]	700

224 New Customhouse
Denver 2, Colorado
October 25, 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Form MF-104, Operator's Monthly Report and Voucher, for July, 1957, has been received in this office and is being processed for payment.

Hole DJ1-4 was drilled closer than approximately 100 feet from holes DJ1-5 and DJ1-6, and is therefore not acceptable under the terms of the contract. Hole DJ7-11 was drilled at an unauthorized location (see map with work approval of August 5, 1957), and is therefore not acceptable to the Government. The reported drilling cost, including incidental allowance for holes DJ1-4 and DJ7-11 is disallowed.

The drilling costs reported on Form MF-104 are in excess of the actual invoice cost for the drilling, therefore the reported cost, in excess of the actual invoice cost for the acceptable drilling is disallowed.

You will be further advised of the above deductions by means of an Administrative Audit Difference Statement, which will be forwarded to you by the Finance Office, Region III. Please make the necessary adjustments of units and costs on the next reports submitted on Forms MF-104 and MF-104A.

Yours very truly,

Original signed by
E. N. HARSHMAN
E. N. Harshman
Acting Executive Officer,
DMEA Field Team, Region III

JDC:hmh
cc: Chmn. Op. Comm (2)
Harshman
DMEA, DFC
Townsend

Corres.file,Reg.III
Chron

DMEA
RECEIVED OCT 21 1957

DATE		
10/21	gb	220
10/21		800
~~10/24~~	~~FMM~~	~~700~~

124 New Customhouse
Denver 2, Colorado

October 18, 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket DMEA-4954 (Uranium)
Contract 18s-8109
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Form MF-104, Operator's Monthly Report and Voucher, for the month of June, 1957, has been received in this office and is being processed for payment.

The drilling cost reported on Forms MF-104 and MF-104A are in excess of the actual invoice cost. The excess drilling cost is disallowed.

You will be further advised regarding the disallowance by means of an Administrative Audit Difference Statement which will be forwarded to you by the Finance Office, Region III. Please make the necessary adjustments of drilling costs on the next reports submitted on Voucher and Accounting Forms MF-104 and MF-104A.

Yours very truly

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JDC:hmh
cc: Chmn. Op.Comm. (2)
Harshman
DMEA, DFC
Townsend
Corres.file,Reg.III
Chron

cc: Mr. Leonard D. Girard
2280 East Drive
Butte, Montana

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	NAME	CODE
10/4	C	220
10/7	EW	80C
	~~Murphy~~	700

224 New Customhouse
Denver 2, Colorado

October 4, 1957

Mr. Leonard D. Jarrard
Modern Mines Development Co.
2280 East Drive
Butte, Montana

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-K1095
Modern Mines Development Co.
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Jarrard:

Reference is made to your letters of September 23 and September 29, 1957, wherein you request authorization for a suspension of drilling operations to June 1, 1958, and request extension of the date fixed on or before which work shall be completed to November 1, 1958.

Since the date presently fixed in the Contract on or before which work shall be completed is November 1, 1957, the matter of a recess of drilling operations and extension of the completion date will be deferred pending a decision on your request for approval of 600 feet of crosscutting and applicable additional funds.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

cc: Mr. L. V. Sigman, President
Modern Mines Development Co.
219 South 31st Avenue
Yakima, Washington

JWT:prl

cc: Chmn.Op.Comm.-2) w/copy of
Harshman) Operator's
DMEA/DFC-Binyon) letters of
Corres. file) Sept. 23 and 29.
Townsend
Chron.

219 S. 3rd AVE.
YAKIMA, WASH.
PHONE GLENCOURT 3-8848

EXTRA

FILE COPY

MODERN MINES DEVELOPMENT CO.

2280 EAST DRIVE
BUTTE, MONTANA
PHONE 26498

DMEA
RECEIVED OCT 7 1957
CODE

September 29, 1957

DMEA
DEPARTMENT OF THE INTERIOR
OCT 9 - 1957
REGION III
DENVER, COLORADO

Mr. W. H. King, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re; Docket No. DMEA 4564 (uranium)
Contract No. Idm-E1095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. King:

This letter is to supplement ours of September 23, 1957 in regard to requested recess of the above referenced contract and to provide answers to certain questions raised by Mr. Townsend during my recent visit to your office.

The last drilling under DMEA contract Idm-E1095 was done by Modern Mines during the last half of August, 1957.

The contract was to have expired on November 1, 1957.

Modern Mines Development Company would like to have additional drilling recessed until June 1, 1958 at which time I am certain that the weather would be such as to permit start of drilling operations on Little Mountain, Wyoming. We would also like to have the expiration date delayed until November 1, 1958, a period of one year after the present experiration date.

Very Truly Yours

Leonard D. Jarrard

Leonard D. Jarrard

219 S. 31st AVE.
YAKIMA, WASH.
PHONE GLENCOURT 3-9946

MODERN MINES DEVELOPMENT CO.

2280 EAST DRIVE
BUTTE, MONTANA
PHONE 26498

DMEA
DEPARTMENT OF THE INTERIO
SEP 24 1957
REGION III
DENVER, COLORADO

September 23, 1957

Mr. W.H.King, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. King:

Kindly accept this letter as an official request on the part of Modern Mines Development Company for a recess in the above referenced DMEA drilling contract. If this request is granted, we would like to discontinue our drilling operations on Little Mountain until about May 15, 1958. At that time, weather permitting, we would begin drilling again in order to complete the contracted first phase of our drilling program. At this time we have completed a total of 5,231 feet of the agreed upon 9,000 feet.

This request for recess is occasioned by the fact that our drill contractor has moved his rig off Little Mountain after giving Modern Mines Development Company the required thirty days written notice. The contractors withdrawal was due mainly to his inability to retain longer his driller who is experienced in the extremely difficult drilling conditions found in this area. We, in turn, are unable to replace him at this late date in the season and at a price that would permit us to complete the contract before winter. The present going price in the area runs from $15.00 to $18.00 per hour and the company to furnish the bits, with no guarantee that the driller will be able to complete the hole to the desired depth.

Our contract with DMEA was originally scheduled to be completed on or before November 1, 1957. Completion of the remaining 3,769 feet by that date would have been impossible even if the contractor had not quit the job.

I expect to be in Denver on either Wednesday or Thursday, Sept. 25 or 26 and I will call at your office at that time.

Sincerely

Leonard L. Jarrard

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DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE
10/7	C	220
10/7	[illegible]	800
10	[illegible]	700

224 New Customhouse
Denver 2, Colorado

October 4, 1957

Memorandum

To: E. N. Harshman - w/enclosure
DMEA/DFC-Binyon " "

From: Acting Executive Officer, DMEA Field Team, Region III.

Subject: Docket No. DMEA 4564 (Uranium), Contract No. Idm-E1095, Modern Mines Development Co. (Jet claims), Big Horn County, Wyoming

Enclosed is a copy of the Operator's letter of September 24, 1957, with attached material consisting of four pages of narrative material and a map, which constitutes a request for an amendment to the contract to provide additional funds for 600 feet of crosscutting to further explore indications of mineralization encountered in the drilling.

Please submit a joint memorandum report of your recommendations in the matter.

The Operator, by separate letter, has requested authorization for a recess in drilling operations from August 9, 1957, the date the last work was performed, until June 1, 1958, and an extension of the date fixed on or before which work shall be completed to November 1, 1958.

Since the contract does not expire until November 1, 1957, the matter of authorization for the recess of operations and extension of the completion date will be deferred pending receipt of your recommendations on the request for approval of the 600 feet of crosscutting.

Original signed by
E. N. HARSHMAN

E. N. Harshman

JWT:prl

cc: Chmn. Op. Comm.-2 } w/copy of
Corres. file } enclosure.
Townsend
Chron.

Ret to USGS 10/7

219 S. 31st AVE.
YAKIMA, WASH.
PHONE GLENCOURT 3-9948

MODERN MINES DEVELOPMENT CO.

2280 EAST DRIVE
BUTTE, MONTANA
PHONE 26498

DMEA
DEPARTMENT OF THE INTERIOR
OCT 4 - 1957
REGION III
DENVER, COLORADO

September 24, 1957

Mr. W.H.King, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver2, Colorado

Re: Docket No. DMEA 4564 (Uranium)
Contract No. Idm-E1095
Modern Mines Development Co.
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. King:

Modern Mines Development Company requests that you accept this letter as their official application for an amendment to the above referenced DMEA contract. By previous letter you have been advised of their desire to recess the drilling under the above contract until about May 15, 1958. However the drilling thus far accomplished has outlined a mineralized zone or area that it is desirable to explore during the coming fall and winter months, that is during the period of requested recess.

The area under consideration was first penetrated by drill hole DJS-6 and has been further explored by a series of 13 offset holes drilled entirely by Modern Mines funds. Approximately fifty percent of the offset holes have encountered mineralized portions of the Mission Canyon member of the Madison limestone at depths of from 150 to 165 feet below the surface. The location of the mineralized zone is such as to make it feasible to drive a slightly inclined cross cut from a deep canyon lying approximately 600 feet to the east. Plans and sections of the mineralized holes and of the proposed crosscut are shown on the attached map.

For additional information concerning this proposed and requested amendment to the original DMEA contract, I have attached the additional supplemental sheets that endeavor to present the factual information and to supplement that provided with our original application for DMEA loan contract. While we feel that the possibility for development of an orebody and subsequent repayment of the DMEA monies thus far and yet to be expended is good, such development is by no means assured and as such we consider the crosscut project to fall within the limitations of an exploration project.

OFFICIAL
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE

Sincerely

Leonard D. Jarrard

Leonard D. Jarrard

Supplmental Sheet#1, Modern Mines Dev. Co., Sept 27, 1957

1. Applicants Property Rights: The applicants rights are those of pertpetual lessor and have not changed from those indicated in the original DMEA loan application

2. Physical description:

a. Since original application the applicant has drilled approximately 10,000 feet of 4¼ inch rotary drill hole. Of this total , 5,231 feet were drilled under DMEA contract Idm-E1095 As indicated on the attached map, certain of these holes have encountered mineral bearing ground.

b. Applicants interest in 2(a) is the same as in 1 above.

c. There has been neither past nor current production from the property in question.

d. There are no known ore reserves on the property.

e. Supplementing the attached map of drill holes covering the mineralized portion of Jet Claim 8, and the information submitted with the original application, the following narrative is given.

"Within the southeast two acres of Jet Claim 8, an area approximately 200 feet by 100 feet has thus far been explored by a total of 14 drill holes, 9 of which have encountered mineralized portions of the Mission Canyon member of the Madison limestone. The mineral bearing portions of the 9 holes lie from 150 to 165 feet below the surface and without exception occupy what is considered to be the basal portion of the Mission Canyon. Due to cavernous conditions in the Mission Canyon in general and in the mineralized portion in particular, it has not been possible to collect samples of the zone in question. Probing records indicate thicknesses of from two feet to as much as 13 feet and ore grade varying from about 0.10 percent to 0.70 percent, with an indicated average of approximately 5.3 feet of material containing 0.36 percent uranium oxide. Although the indicated thicknesses and grades are promising, the history of other deposits in the area show the possibility of the radioactivity emanating from fracture coatings in the cavern fill and solution breccia material penetrated in the mineralized holes. The uranium minerals thus far found appear to occur in and below the limestone caverns in the Mission Canyon. In other deposits in the area, Tyuyamunite occurs as coatings on and within the fill material. When it occurs below the caverns it generally forms thin beds and partings in the partially dissolved limestone. To date no uranium minerals other than tyuyamunite have been observed.

The conviction that the proposed crosscutting project constitutes exploration activities rather than development stems from the conditions found in the nearby operations of other companies. Lisbon Uranium Corporation operations located about one claim length south of Modern Mines have opened one excellent orebody

and one sperate and distinct mineralized zone that is of questionable value. Neither of these zones returned drill cuttings in the mineralized zones, both are associated with open caverns and both showed good indications from probing records. Ryan consolidated, located about two miles to the west of Modern Mines showed exceptionally good indications from probing records, yet it is doubtful that the extensive shaft and drifting operations have yielded sufficient ore to offset the costs incurred. Inaddition it is the opinion of Modern Mines Dev. Co. that exploration of the zone in question will assist in establishing whether or not commercial ore deposits may be found at such depths in the Madison limestone as we intend to explore, that is from 150 to 175 feet below the surface and at or near the contact of the Mission Canyon with the underlying Lodgepole member of the Madison

f. Although we of Modern Mines Development Company hold high hopes for the area in question, the assurance that ore will be found in commercial quantities and grades is by no means conclusive. However we do feel that it is imperative that the mineralized zone discovered by means of our own and DMEA drilling be explored by underground openings. The possibility remains that the indications are erroneous in that the mineral may be found to occur as thin coatings and disconnected beddings that may or may not constitue a commercial ore deposit.

g. The attached copy of the map showings plans and sections constitutes the only new and additional information over that presented in the original DMEA application.

3. Accessibility of Project: The property is readily accessible. Additional access roads have been built during the course of the drilling project.

4. The Exploration Project: The proposed exploration project will constitute an amendment to the existing DMEA contract, ldm E-1095. The project consits of 600 lineal feet of crosscutting and/or drifting to and through the above described possible orebody. It is proposed that the crosscut and drift be driven 9 feet by 9 feet in crosscestion and that from the portal in for a distance of about 20 feet it be driven on a slight upgrade in order that surface drainage waters may not find their way into the adit. From the 20 foot point on into the intersection of the crosscut with drill hole OJ8-5 the adit should be driven on a downgrade of 19 percent. This inclination will provide the required depth in a distance of 580 feet. From hole OJ8-5 the crosscut and drift will be essentially level to and slightly beyond drill holes OJ8-10 and OJ8-6. It will not be necessary to lay track in the workings since it is intended to perform all mucking operations by means of an International TD-9 front end loader with exhaust scrubber, a new machine owned by Modern Mines Development Company. An extensive amount of timbering is not anticipated though it may be necessary to timber short sections, particularly through ore, if such be found. The adit portal will be located approximately 160 feet

north of the south end lines. The adit will be driven south 84 degrees west. Final transit survey of the line required remains to be completed. Intersection of the crosscut with hole OVE-5 will be about at the known eastern extremity of the possible orebody. The attached map shows the location of the mineralized area, adit and claim boundary as well as other data concerning the mineralized portions of the several drill holes and the plan of the proposed crosscutting and drifting operations.

b. Modern Mines Development Company has already constructed the access road to the adit portal and no additional access roads will be required.

c. Since it is probable that Modern Mines will start the crosscut project about October 15, 1957 and that by such time as the Government needs to judiciously execute this request (60-75days) the crosscut will have been advanced from 300 to 350 feet, it is the desire of Modern Mines that the contract amendment be made to be applicable at point of crosscut face as of the date of the contract for amendment. The requested 600 feet of crosscut and/or drift will therefore be sufficient to enable the operator to continue the exploration to the extremities of the possible orebody as it is now known (see attached map of the proposed project). If this proposal is followed it will not be necessary to rely wholly on the conditions found to exist at any one mineralized hole.

5. Through Mr. Duford Miles and Mr. Leonard D. Jarrard, Modern Mines Development Company is sufficiently experienced and fully capable of carrying the project to successful completion.

6. In order to employ the tractor type front end loader for mucking operations it will be necessary to carry a 9'X9' section. It is felt that with this mucking arrangement costs of the larger section can be held equal to the conventional 5' x 7'. Even though such costs may be greater than $30.00 per lineal foot, Modern Mines is prepared to absorb such excess costs and to enter into a DWTA contract at a flat $30.00 per lineal foot of advance for ground. If timbering is required it is anticipated that $7.50 per lineal foot of timber will cover cost of materials and labor.

Crosscutting --- 600 lineal feet @ $30.00 ---		$18,000.00
Timbering --- estimated 100 feet @ 7.50 ---		750.00
Total direct costs ----------		$18,750.00

a. None

b. Necessary supervision, engineering and geological services will be performed by Leonard D. Jarrard who will be at the property constantly at a salary of $600.00 per month. An incisental cost of 10% of the above total direct costs will be sufficient to cover the cost of this category.

c. All supplies and equipment are owned by Modern Mines Development Company and are to be used at no additional cost over that shown in Item #6 above.

d. Operating equipment to be used consists of the following.

1. Two Copco air leg drills with hoses, oilers etc.
2. Three 300 gallons water tanks.
3. One Worthington 210 cubic foot air compressor.
4. One three-quarter ton Cehevrolet 1957 four wheel drive pick up truck.
5. One International TD-9 front end loader.
6. Ventilations equipment, chain saw, light plant, submarine etc.

All of the above equipment is brand new with the exception of the air compressor which has been recently overhauled and is in top operating condition. All of the equipment is owned by Modern Mines and the present fair market value is approximatelt $26,000.00.

e. No rehabilitation or repairs are required.

f. No new buildings, fixtures or installations are required.

g. No miscellaneous costs are expected to be incurred and the above enumerated costs will cover all contingencies

7. Modern Mines Development Company is prepared to furnish their portion of the total cost of the proposed contract amendment in cash. This portion will amount to $5,156.25, 25 percent of the total estimated cost of $20,625.00

RECAPITULATION OF ESTIMATED COSTS:

CROSSCUTTING AND DRIFTING OPERATIONS	
600 feet at estimated $30.00 per lineal foot ---	$18,000.00
TIMBERING OPERATIONS	
100 feet estimated at $7.50 per lineal foot ---	750.00
TOTAL DIRECT COSTS ----------	$18,750.00
SUPERVISION, ENGINEERING AND GEOLOGICAL SERVICES ---	1,875.00
TOTAL ESTIMATED COSTS OF PROPOSED AMENDMENT	$20,625.00
Modern Mines Development Co. portion	5,156.25
Government participation	$15,469.75

Note: If this request for amendment is approved, it is the desire that the remaining portion of money in the drilling contract be held in reserve in the event that the crosscutting project shows that additional drilling is desirable. It is felt that the requested crosscutting amendment may shed considerable light on the potential of drilling operations in the area.

OFFICIAL FILE COPY DMEA RECEIVED AUG 8 1957		
DATE	INITIALS	CODE
8/8	P.K	220
~~4~~	~~EMM~~	~~700~~

224 New Customhouse
Denver 2, Colorado

August 6, 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Form MF-104, Operator's Monthly Report and Voucher, for June, 1957, has been received in this office.

We are unable to reconcile the drill hole locations as shown on the map which accompanies the June, 1957, report with the drill hole locations as plotted from the coordinates and directions given on the graphic logs. The June voucher cannot be processed for payment until it has been definitely established that the holes were drilled at locations approved by the Government.

We understand that the map included with the June, 1957, report was based on aerial photographs. Please submit to this office as soon as possible, ten copies of a map based on a survey of at least Brunton Compass and chain accuracy, and on a scale of not less than 300 feet to one inch, showing the correct claim boundaries and drill hole locations. Five copies of the map will be included with the monthly report and voucher for June, 1957, and the other copies will be distributed for use by DMEA field personnel.

Yours very truly,

Original signed by
E. N. HARSHMAN
E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JDC:hmh
cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC
Townsend
Cooper

Corres.file,Reg.III
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 8 1957

DATE	INITIALS	CODE
8/9	O.K.	220
		700

August 6, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium), Contract No. Idm-E1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming

Enclosed are three copies of approval from the DMEA Field Team, Region III, for the relocation of a portion of the holes to be drilled under Stage I of the Contract.

Also enclosed are two copies of the Operator's request of July 16, 1957, and three copies of a joint memorandum, dated August 1, 1957, from C. M. Harrer, Mining Engineer, Bureau of Mines, and R. U. King, Geologist, Geological Survey.

Copies of the approval to change the location of a portion of the holes have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

E. N. Harshman

E. N. Harshman

Enclosures

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 8 1957

DATE	INITIALS	CODE

25th New Customhouse
Denver 2, Colorado

August 5, 1957

Mr. L. D. Jarrard
Modern Mines Development Company
Lovell, Wyoming

Re: Docket No. DMEA 456 (Uranium)
Contract No. Idm-21095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. Jarrard:

In reference to your request of July 16, 1957 and prior correspondence, and consistent with provisions in the Contract pertaining to the Government's approval for change in hole locations from those shown on "Figure 4," attached to the Contract, this constitutes the Government's approval, effective as of the date of the Contract, for the change in location of drill holes as follows:

In lieu of drilling holes under Stage I at the approximate locations as shown on the map, "Figure 4," attached to the Contract, instead the holes will be drilled at the approximate locations as indicated on the map entitled, "Figure 1. - Map of Jet Claims Showing Revised Exploration, Modern Mines Development Company, Big Horn County, Wyoming," which is attached hereto and made a part of this approval to change the locations of drill holes. The holes to be drilled are indicated by the second, third, and fourth symbols under the heading, "Explanation," as shown on the attached map, "Figure 1."

Nothing in this approval for a change of location of drill holes shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

JWF:prl

Very truly yours,

DMEA Field Team, Region III

E. M. Hawkman

E. M. Hawkman
Acting Executive Officer, DMEA
Field Team, Region III

cc: Chem. Op. Comm. - 3
Finance Office, Reg. III
Amendment file, Reg. III
Hawkman
DMEA/RFC
Townsend
Corres. file
Chron.

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DATE | INITIALS | DECODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

IN REPLY REFER TO:
DMEA
DEPARTMENT OF THE INTERIOR
AUG 2 - 1957
REGION III
DENVER, COLORADO

August 1, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman

From: ~~C. M. Herrer~~
R. U. King

Subject: Docket DMEA 4564 (Uranium) Contract Idm-E 1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming

In letters dated July 1 and July 16, 1957, the operator of the subject contract proposes to delete the drill holes in Jet Claims Nos. 9 and 10 and 14 other Stage I holes and to relocate 16 Stage I holes.

Because the operator did not present sufficient new geologic evidence for these changes, in his letters nor in the field during an interim project inspection on July 24, the examiners recommend that only 8 holes be deleted in addition to holes in Jet claims 9 and 10 that are within or proximate to the canyon and recommend that only 6 holes be added to Stage I of the contract. The changes recommended are limited to those believed to be entirely within the objectives of the contract, and no increase in footage nor cost is anticipated.

Discrepancies in collar locations between the operator's geologic drill hole logs and the plotted positions on his map submitted with his MF 104 report, make it impossible to determine the correct collar locations of holes completed on Jet claims No. 10, 11, and 12.

Because the operator is using an aerial photograph for the purpose of locating drill holes with reference to geologic structure, and because significant discrepancies appear to exist between this photograph and figure 4 of the contract, it is recommended that the operator be requested to furnish a survey of the claims with locations of drill holes, controlling geologic structures and topographic features equivalent to brunton and tape precision.

1. Holes recommended for deletion:

Hole No.	Location	Remarks
DJ6-1	S.W. Jet No. 6.	Less than 100 feet from M.M.D.Co. hole J6-4.
DJ7-1	100 ft. S. of N. end center Jet No. 7.	Bottom of steep-walled gully, site impractical for drill station.
DJ7-4	S. center Jet No. 7.	100 ft. from M.M.D.Co. barren hole J7-3.
DJ7-5	S. center Jet No. 7.	Less than 100 feet from M.M.D. Co. holes J7-1, 2, and 5.
DJ8-4	Center Jet No. 8.	Less than 100 feet from M.M.D. Co. hole J8-2.
DJ8-7	N. center Jet No. 8.	100 feet from M.M.D. Co. hole J8-3.
DJ8-8	N. center Jet No. 8.	100 " " " " "
DJ8-10	110 feet S. 30 feet W of NE corner Jet No. 8.	Topographic slope due to proximity to canyon makes preparation of drill site impracticable.

Stage I holes on Jet claims 9 and 10 - within or proximate to deep canyon where ore horizon probably has been eroded.

2. Holes recommended to be added to Stage I.

Hole No.	Location	Remarks
DJ3-2	S.E. Jet No. 3.	Will explore major NW favorable structure within projected mineralized zone.
DJ3-4	S. center Jet No. 3.	do.
DJ4-1	S. central Jet No. 4.	do.
DJ5-2	S. central Jet No. 5.	Will explore N 10 E favorable structure within projected mineralized zone.
DJ5-3	N. central Jet No. 5.	Will explore NW favorable structure in mineralized zone.
DJ8-11	200 feet s. 45 W of NE corner Jet No. 8.	This hole replaces DJ8-10, in better site, also closer to NW structure.

Recommended revised Stage I drill hole locations are shown on the accompanying map.

C. M. Harrer

C. M. Harrer, Mining Engineer

Robert U King

R. U. King, Geologist

ENHarshman:arh

COPY

219 S. 31st Ave.
Yakima, Wash.
Phone: Glencourt
3-9948

MODERN MINES DEVELOPMENT CO.

2280 East Drive
Butte, Montana
Phone 26498

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 8 1957

DATE	INITIALS	CODE
	JMM	700

July 16, 1957

Re: Docket No. DMEA-4564 (Uranium)
Contract No. Idm-K1095
Modern Mines Development Co.
(Jet Claims) Big Horn Co. Wyo.

Dear Mr. King:

Reference is made to your letter of July 11, 1957, regarding additional information pertaining to the proposed deletion and relocation of drill holes as presented in my letter to you of July 1, 1957.

On the attached map the holes suggested for deletion have been assigned numbers with a "D" prefix in parenthesis while the relocated holes are open and not contained in parenthesis. Holes drilled by Modern Mines Development Co. prior to the start of DMEA contract have no "D" prefix and are enumerated only by the claim on which they are located, such as drill holes J7-1 to J7-7, inclusive, are previously drilled holes on Jet 7, while D.J.7-8, etc. are DMEA located holes. Logs and probe records of holes J7-1 to J7-8, inclusive, and J8-1 to J8-3, inclusive, are also attached and made a part hereof.

Information concerning the individual holes are as follows:

J7-1 - This hole was drilled to a depth of 122 ft. encountering medium hard to comparatively soft Madison lime from surface to a depth of 93 ft. Open cavity was passed from 93 ft. to 94 ft. and soft cavern fill was then penetrated to a depth of 122 ft. No samples were obtained below a depth of 80 ft. Probing by AEC representatives was accomplished to a depth of 93 ft. and such probing indicated ore grade material of approximately 0.50% U_3O_8 at depth of 96 ft. The hole is strongly radioactive at surface indicating generation of some radon at this time.

J7-2 was drilled through similar limestone to a depth of 66 ft. at which point 14 ft. of open cavity was found. Soft and blacky fill was penetrated to a total depth of 100 ft. though caving of the hole at this depth prevented probing to depth of more than 80 ft. The hole, like J7-1, is strongly radioactive at the surface.

J7-3 was drilled through limestone of soft to medium hardness to a depth of 150 ft. Air space was encountered from 150 ft. to 152 ft. and soft cavern fill was then penetrated to a total depth of 165 ft. Probing by the AEC people reached a total depth of 147 ft. The hole is not radioactive.

J7-4 was drilled to a total depth of 144 ft. of which the upper 50 ft. was medium hard limestone. From 50 ft. depth to 122 ft. a series of soft red to buff colored beds was encountered. Limestone was drilled from 122 ft. to 137 ft. and air from 137 to 138 ft. below which soft fill was encountered to 144 ft. hole bottom. The AEC probe was run to 143.4 ft. with no apparent radioactivity present.

J7-5 was drilled to a total depth of 126 ft. of which the upper 96 ft. was Madison limestone, followed by air with alternate hard lime ribs to 121 ft. Soft cavern fill was found from 121 ft. to 126 ft., at which depth drill tools were stuck fast. Tools were eventually freed and the hole probed to 115 ft. Strong radioactivity is now present at hole collar.

J 7-6 was drilled to a depth of 165 ft. That portion of the hole above 130 ft. was medium hard limestone, below which there is sandy fill to 150 ft. and softer fill to a total depth of 165 ft. No samples were obtained below 160 ft. Probing by AEC indicates mineralized material from 149 ft. to 160 ft. with an average grade of approximately 0.25% $_eU_3O_8$.

J 7-7 penetrated soft to medium hard Madison limestone from surface to 94 ft. In the interval 85 ft. to 107 ft. a total of 13 ft. of air space was encountered. All air return and drill cuttings were lost below 85 ft. Probing to 103 ft. indicates approximately 5 ft. of sub-ore grade material. (less than 0.20% U_3O_8)

J 8-1 This hole was drilled to 168 ft., the upper 135 ft. of which was through medium to hard limestone. At 135 ft. and continuing to 162 ft. a thickness of 27 ft. of soft brown to buff colored material was encountered. In many holes below 130 to 150 ft. in depth such a zone is encountered. I now feel that this may represent a zone near or at the base of the Mission Canyon which has undergone solution brecciation. In this hole hard lime was encountered from 162 ft. to 168 ft.; the bottom of the hole probing indicates no abnormal radioactivity.

J 8-2 was drilled to a total depth of 143 ft. of which the whole depth was through soft to medium to hard Madison limestone. No abnormal radioactivity was found although a small cavity was encountered from 96 ft. to 97 ft. and air return and cuttings were lost below that point. The hole is now radioactive at the collar.

J 8-3 was drilled to 135 ft. the entire depth, except from 120 ft. to 135 ft. being drilled through average Madison limestone. The interval from 120 to 135 ft. passed through 15 ft. of the brown - buff material now thought to represent a zone of solution breccia.

The following explanations and reasons for deleting certain holes and relocating them as shown on attached map are offered for your consideration:

Deleted holes -

(DJ 8-1) (DJ 8-2) (DJ 8-3) and (DJ 8-6)

These holes are suggested for deletion because of terrain features, all four are located on or closely adjacent to steep slopes or cliffs bounding the deep ravine in Jet Claim No. 9.

(DJ 8-4) (DJ 8-5) (DJ 8-7) and (DJ 8-8) are suggested deleted because of proximity to the canyon to the east and to the two barren holes J 8-2 and J 8-3 already drilled by Modern Mines and to the barren hole north of Jet 8 drilled by Federal Uranium Corporation.

(DJ 8-9) lies in the bottom of a side canyon cut more than 100 ft. into the Madison and is comparatively close to the barren Federal Uranium Corpomation hole.

(DJ 7-4) is requested deleted because of its nearness to barren J 7-3 already drilled by Modern Mines.

(DJ 7-3) is on high ground unmarked by local structural features and lies approximately midway between two previously drilled barren holes.

(DJ 7-2) like (DJ 7-3) is on high ground unmarked by local structure while (DJ 7-1) is in the bottom of a steep-walled gully and is rather distant from the apparent trend of possible ore bodies, as determined by more recent drilling.

Suggested relocations: -

Holes DJ 7-13, 14, 15, 16, and 17 are on the apparent zone of possible ore bodies-that zone now determined to contain mineralized cavern fill. The holes are suggested for drilling to depths of 150' to 175' and on not less than 150 ft. centers. Lisbon Uranium have now moved a drill into the apparent trend and are presently engaged in drilling on about 100 ft. centers.

DJ 5-2 and DJ 5-3 along with DJ M-1 (located on Modern Claim No. 1) are on the projected trend of possible ore zone, are located on strong surface structural expression and are in the area near to J 5-1 where minor mineralized cavern fill was found present.

DJ 4-1, DJ 4-2, DJ 3-2, DJ 3-3 and DJ 3-4 are located on the projected ore body zone, are located also on a broad depressed area possibly marking collapse due to underlying caverns and are only slightly removed from hole DJ 3-1 already drilled by Modern Mines and showing thick cavern fill from 95 ft. to 136 ft. and which indicates minor mineralization. Examination of ore bodies thus far opened on Little Mountain shows that only minor mineralization may indicate close proximity to ore grade material.

DJ 1-7 and DJ 1-8 are located to further explore the area in Jet Claim No. 1 where near ore grade material is to be seen at the surface.

DJ 2-8 is located on a strong surface structural depression and though somewhat south of the possible ore zone, is close to an area to the west where Sutton Oil of Wichita, Kansas, are conducting extensive gravity meter surveys.

The probe records for J 7-2, 3, 4, and 5 and J 8-1 and 2 are retained in the AEC office at Billings, Montana, who will give us copies. We are including all the information we have and hope it will be satisfactory.

Very truly yours,

/S/ Leonard D. Jarrard

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MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #7 Hole No. J7-1 Hole Location 90' N of No. 7 Disc.

Hole Size 4 1/4" Total Depth 122 Collar Elev.

Drilled By O. THOMAS Logged By L. JARRARD Date 5-22-57 to 5-22-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
				0'-5' OVERBURDEN	
10		100% CUTTINGS RETURN	NO ABNORMAL RADIOACTIVITY	MED. TO THICK BEDDED MADISON LIMESTONE HARD WITH OCCASIONAL SOFT STREAKS.	++++ Soft 20'-21' 3" Red @ 24' ++++ Soft 27'-28' 3" Air @ 30.5 ++++ Soft @ 31' & 34'
20					
30					
40				SOFT THIN BEDDED MADISON LIMESTONE	
50				MEDIUM HARD MEDIUM TO THICK BEDDED MADISON LIMESTONE	SERIES OF SMALL FRAC. 61' TO 68' ++++ Soft @ 70' & 73'
60					
70					
80					30" Air 80'-82.5' 10" Air @ 87.5' 6" Air @ 89' 6" Air @ 92.5'-93'
90				SOFT LIMESTONE	
100		LOST ALL AIR @ 94'	NO CUTTINGS	ALTERNATE AIR PLUS SOFT FILL NO CUTTINGS RETURNED	
120					
		BOTTOM OF HOLE @ 122.0'			
140					

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MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #7 Hole No. J7-2 Hole Location 35' NW J7-1

Hole Size 4 1/4" Total Depth 100 Collar Elev.

Drilled By O. THOMAS Logged By L. JARRARD Date 5-25-57 to 5-25-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
		100% CUTTING RETURN	NO ABNORMAL RADIOACTIVITY	0'-4' OVERBURDEN	
10					
20				THIN TO MEDIUM BEDDED MADISON LIMESTONE WITH THIN AIR SPACES TO 56.5'	+++ Soft @ 25'
30					
40					LOST AIR MOMENTARILY @ 43'
50					++++ Soft 43'-46'
					AIR BACK @ 44'
					++++ Soft @ 55'
					2" AIR @ 56.5'
60					AIR + Fill 57'-60'
70	AIR	ALL AIR LOST	NO CUTTING RETURN	AIR & FILLED CAV. VERY SOFT FILL 57'-98.5'	ALL AIR LOST @ 59.5'
					FILL 59.5'-64.5'
					AIR 66'-80'
80	CAV.				
90	FILL			COULD PROBE ONLY TO TOP OF FILL @ 80.0'.	FILLED CAV. 80'-98.5'
100		BOTTOM OF HOLE @ 100'.			

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MODERN MINES DEVELOPMENT CO.
Drill Log

Property: Jet Claim #7 Hole No. J7-3 Hole Location 300' ± N10°E of #7 Disc.

Hole Size 4 1/4" Total Depth 165' Collar Elev. _____

Drilled By C. Thomas Logged By L. Tarrard Date 5-26-57 to 5-27-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
		100% Cuttings Returned	No Abnormal Radioactivity	0'-12.5' OVERBURDEN	
10					+++ Soft 14.5'-17.0' +++ Soft 19.5'-20.0'
20				SOFT TO MED. HARD MASSIVE BEDS OF MADISON LIMESTONE	
30					
40					+++ Soft 40'-44' 8" Air @ 44' +++ Soft 48'-49'
50					+++ Soft 58'-60'
60				SOFT, THIN BEDS w/ RED CHERT FRAGMENTS	Rough & Broken 65'-70' 4" Air @ 69'
70					
80					2" Air @ 87' & 90' 2"
90					
100				THIN TO MEDIUM BEDDED LIMESTONE	+Soft 105'-110' 6" Air @ 109'
110				SOFT TO MEDIUM HARD GREY TO WHITE IN COLOR	6" Air @ 122'
120					
130					
140					
150					24" Air 150'-152' No Air Ret After 150'.
160		No Air Return	No Cuttings	FILLED CAVERN	Fill +++++ Soft 153'-[redacted] 165'
165					

Bottom of Hole @ 165.0'

MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #7 Hole No. J7-4 Hole Location 200', S60E of J7-3

Hole Size 4 1/4" ROT Total Depth 144' Collar Elev ±25' BELOW TOP OF MADISON

Drilled By O. THOMAS Logged By L. TARRANT Date 5-27-57 to 5-28-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
20		100% CUTTINGS RECOVERED	NO ABNORMAL RAD.	MEDIUM HARD MADISON LIMESTONE	
40					
60					
80				SOFT, THIN BEDDED, BROWN TO BUFF SOLUTION BRECCIA	
100					
110					
120				MADISON LIMESTONE	
140				AIR 137'-138' MADISON LIMESTONE	
				BOTTOM OF HOLE @ 144'	

MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #7 Hole No. J7-5 Hole Location 45' NW of J7-2

Hole Size 4 1/4" Rot Total Depth 126 Collar Elev. ±20' BELOW TOP OF MADISON

Drilled By O. THOMAS Logged By L. JAMES Date 5-28-57 to 5-29-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
20		100% CUTTINGS RETURN	NO ABNORMAL RAD.	MEDIUM TO HARD WHITE MADISON LIMESTONE	
40					
60					
80					
100				ALTERNATELY FAIR & HARD LIME RIBS	
120				SOFT CAVEIN FILL	

BOTTOM OF HOLE AT 126.0'

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MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #7 Hole No. J7-6 Hole Location 50' N10°E OF #7 DISC.

Hole Size 4 1/4" ROT. Total Depth 165' Collar Elev. ± 20' BELOW TOP OF MADISON

Drilled By O. THOMAS Logged By L. JARRAD Date 6-7-57 to 6-7-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
20		100% CUTTINGS RET. TO 150' PARTIAL RET 150-165'	NO ABNORMAL RAD. 0'-118' CUTTINGS RAD. @118 and 148-160'	MEDIUM TO HARD AND MASSIVE WHITE MADISON LIMESTONE	
40					
60					
80					
100					3" AIR @ 106
120					
140				MEDIUM TO SOFT SANDY AND MUD FILL.	AIR LOST @ 150' AIR RET. @ 153'
160					

BOTTOM OF HOLE @ 165'

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MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #7 Hole No. J7-7 Hole Location 100' N OF J7-6

Hole Size 4 1/4" ROT Total Depth 107' Collar Elev. ±15' BELOW TOP OF MADISON

Drilled By O. THOMAS Logged By L. JARRAD Date 6-8-57 to 6-8-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
20		100% CUTTINGS RETURN	NO ABNORMAL RAD.	MEDIUM TO HARD MADISON LIMESTONE	
40					
60					
80					AIR LOST @ 85'
100		NO CUTTINGS	SEE PROBE RECORD	AIR + HARD LIME RIBS 13' AIR 85'-107'	
		BOTTOM OF HOLE @ 107'			
120					

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MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM 8 Hole No. J8-1 Hole Location

Hole Size 4 1/4" Total Depth 168.0' Collar Elev.

Drilled By O. THOMAS Logged By L. JARBARD Date 5-18-57 to 5-18-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
				OVERBURDEN 0'-1'.	
10, 20, 30, 40, 50, 60, 70, 80, 90, 100		100% CUTTING RECOVERY	NO ABNORMAL RAD. IN CUTTINGS	MEDIUM TO HARD MASSIVE BEDS OF MADISON LIMESTONE GREY TO WHITE IN COLOR	RED BED @ 82.8'
120				SOFT, THIN BEDDED LIMESTONE, GREY TO WHITE.	2" CHERT @ 123.0' 1" " @ 128.0' 6" AIR @ 130.0'
140, 160				RED, TO BUFF TO CREAM, SOFT FILL(?) HORIZON MEDIUM TO HARD MADISON	
				BOTTOM OF HOLE @ 168.0'.	

MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #8 Hole No. J8-2 Hole Location 800' N #8 DISC.
Hole Size 4 1/4" ROT Total Depth 143' Collar Elev. ± 35' BELOW TOP OF MADISON
Drilled By O. THOMAS Logged By L. JARRARD Date 6-8-57 to 6-9-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
20		100% CUTTINGS RET	NO ABNORMAL RAD.	SOFT TO MEDIUM TO HARD, WHITE MADISON LIMESTONE	
40					
60					
80					
100		NO CUTTINGS RED		12" AIR 96'-97'	AIR & CUTTINGS LOST BELOW 95'
120					
140					

BOTTOM OF HOLE @ 143'

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MODERN MINES DEVELOPMENT CO.
Drill Log

Property JET CLAIM #8 Hole No. J8-3 Hole Location 500'S OF N END CENTER JET 8

Hole Size 4 1/4" ROT Total Depth 135' Collar Elev. # 40' BELOW TOP OF MADISON

Drilled By O. THOMAS Logged By L. JARRARD Date 6-9-57 to 6-10-57

Depth	Log	Recov.	Assay	Physical Description	Remarks
20		100% CUTTINGS RETURN	NO ABNORMAL RAD.	SOFT TO MED. WHITE MADISON LIMESTONE	
40					
60					
80					
100					
120				SOFT BROWN TO BUFF SOLUTION BRECCIA (?)	
		BOTTOM		OF HOLE @ 135'	

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7/15 C 220
7/16 800
~~FMM 700~~

224 New Customhouse
Denver 2, Colorado

July 11, 1957

Mr. L. D. Jarrard
Modern Mines Development Company
Lovell, Wyoming

Re: Docket No. DMEA 4564 (Uranium)
Contract No. DMe-21095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Jarrard:

Reference is made to your letter of July 1, 1957, requesting the Government's approval for relocation of a portion of the drill holes proposed for the Jet 7 and 8 claims and all of the holes on the Jet 9 claim.

In our letter to Mr. Sigman, dated June 20, 1957, we requested that drilling on the Jet 7, 8, and 9 claims be deferred pending resolution of the proposed relocation and also advised that a request for the relocation should include a map with each copy showing the presently approved location of the holes and the revised location. In addition, we advised that your request should also contain in detail the location and results of any holes drilled by your company on the three claims in the interim while the application was in process. The holes drilled by your company should be keyed to the map and detailed results by same identifying number. Drilling details should include drill logs and probing results on an individual hole basis. The map submitted with your letter of July 1 was too small in scale to show details and your letter did not contain adequate justification on a hole by hole basis for moving of the holes except those on the Jet 9 claim that could be considered in a group because of terrain conditions.

Transfer of the holes from the Jet 7 and 8 claims will have to be justified on a hole by hole basis and not on a general basis. In addition, please supply a map of large enough scale to show structural details as well as the present and relocated positions of any holes so involved.

A Government engineer and geologist will be in the area about July 24 to examine the property in conjunction with the proposed relocation of the holes. Therefore, please submit, if possible, by July 19 any additional data you wish to present in justification for the moving of the holes.

In the meantime, you may delete the drilling proposed on the Jet 9 claim and drill any of the holes you desire on the Jet 1 to 8, inclusive, claims at the locations as shown on the map, "Figure 4," attached to the Contract. Otherwise, the Government can take no action on your request of July 1 until after the visit of the engineer and geologist to the property about July 24.

Very truly yours,

Original signed by
W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region III

cc: Mr. L. V. Sigman
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

JWT:prl

cc: Chmn. Op. Comm. - 3
Harshman
DMEA/DFC (Binyon)
Townsend
Corres. file
Chron.

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DATE	INITIALS	CODE
7/8	C	220
7/8	[illegible]	800
/	~~Murphy~~	~~700~~

224 New Customhouse
Denver 2, Colorado

July 3, 1957

Memorandum

To: R. N. Marshman - w/enclosure
E. O. Binyon -

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4564 (Uranium), Contract No. Idm-E1095, Modern Mines Development Company (Jet claims), Big Horn County, Wyoming.

Enclosed is a copy of the Operator's letter of July 1, 1957, with attached map, which constitutes a request for the Government's approval for change in location of a number of the holes to be drilled under Stage I of the Contract.

Approval for the change in location of holes to be drilled will require an amendment to the Contract which is not within the authority delegated to this office. Therefore, the matter must be forwarded to the Washington Office, DMEA, for their consideration and appropriate action.

Please submit a joint memorandum report of your recommendations in the matter and include twelve extra copies of a map which will show any recommended revision in the locations of the holes to be drilled.

Original signed by
W. H. KING

W. H. King

JWT:grl

cc: Chmn.Op.Comm.-3) w/copy of Operator's
Townsend } letter of July 1.
Corres. file }
Chron.

Copies to USBM and USGS
for their information
7/9/57 gla

Amendment should be made effective July 15, 1957

Lovell, Wyoming July 1, 1957

DMEA
DEPARTMENT OF THE INTERIOR
JUL 3 1957
REGION III
DENVER, COLORADO

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DATE	INITIALS	CODE

Mr. W. H. King
Executive Officer, DMEA
Field Team, Region III

RE: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet Claims)
Big Horn County, Wyoming

Dear Mr. King:

Reference is made to your letter of June 20, 1957, and to our letter to you dated June 12, 1957, both relative to proposed change of location of some of the holes located on Jet claims 7,8 and 9.

As requested in your letter of June 20, 1957 we hereby attach the map illustrating the proposed changes. The map is an overlay made from Fig. 4 of DMEA Docket 4564, Contract Idm-E1095.

During the interim that our DMEA application was in progress, Modern Mines Development Company drilled a total of 10 holes on Jet Claims 7, 8 and 9. Drilling under Contract Idm-E1095 was started on June 20, 1957 on Jet Claim 10.

From information gathered from these holes and from recent information from Lisbon Uranium Corporations operations a short distance to the south of the Jet claims, it appears rather certain that future uranium ore deposits, if found, will lie in close proximity to the major, N10°W, fractures. This system of fractures and/or jointing forms the most prominent drainage features in the area. In addition, it now appears that very little mineralization will be found in excess of 100 to 120 feet below the general land surface, which, in this case, is the erosional unconformity separating the Madison formation from the overlying Amsden. All known uranium mineralization in the immediate area is less than 100 feet below the surface. The group of holes drilled by Modern Mines Development Company in the extreme south portion of the Jet No. 7 encountered filled caverns and moderate radioactivity from 59 feet in one hole to 96 feet in another of the group. Since all of this group of holes encountered open, air-filled caverns above the fill no cutting samples were obtained. Radiometric probing to and slightly into the fill indicated a maximum of approximately 0.15% U_3O_8. The two (2) holes drilled near the center of Jet 7 encountered filled caverns without apparent uranium minerals. The three(3) holes drilled on Jet 8 were collared approximately 40 feet higher in elevation and though drilled to more than 150 feet in depth, were barren.

As noted by Mr. Binion during his recent visit to this property, Jet Claim No. 9 is taken up almost wholly by a canyon cut into the Madison limestone. With Mr. Binion we estimated the average depth to be approximately 140 feet below the general land surface. The canyon occupies the entire claim in width and in places encroaches on Jet 10. It is our thought that mineral deposits that may have been present on Jet 9 have been removed during excavation of the canyon. Further, if such deposits existed close to the present canyon, such deposits have been empoverished by recurrent flushing by meteoric waters. Consequently we have indicated deletion of all but one hole on and adjacent to Jet claim No. 9. In addition, certain holes located on high ground of Jet Claims 7 and 8 are proposed for deletion and that such total deleted holes be relocated as shown on the attached map. Although not all of the holes suggested for deletion have been relocated on Jet 7 and 8, we feel that geologically the holes have been, relocated to the best advantage pursuant to the present knowledge concerning control of the four ore bodies currently being mined by Lisbon and from the information gathered from our drilling to date. Of the holes drilled thus far by Modern Mines, approximately 75 percent have encountered caverns, filled or empty but only those in the vicinity of Jet 7, and to a lesser extent, Jet 1, show abnormal radioactivity.

Although our drill holes have thus far averaged 144 feet in depth, we now feel that such depth is not necessary, and that future drilling should be confined to a depth not much in excess of 100 feet below the average surface elevation.

Since we will not begin drilling on holes suggested for deletion or relocation until we have received written notice from your office, I will appreciate your giving the proposed changes your very earliest attention.

Very truly yours

For L. V. Sigman
By L. D. Jarrard.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

June 20, 1957

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DATE	INITIALS	CODE
6/24	C	220
6/24	B	215
6/25	Murphy	700

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4564 (Uranium) Contract Idm-E1095, Modern Mines Development Company (Jet claims) Big Horn County, Wyoming

Enclosed are the Government's, Division, and Audit copies of Exploration Project Contract No. Idm-E1095, which were forwarded by your letter of May 31, 1957 for insertion of an appropriate starting date in Article 3 and signature by the Operator.

Also enclosed are three copies of a letter from this office, dated June 20, whereby we forwarded the Operator's copy of the contract, blank report forms, and instructions relative to reporting on work performed under the contract and procedures to be followed in communicating with this office in all matters pertaining to the contract. In addition, enclosed are three copies of a letter from this office to the Operator, dated June 20, pertaining to proposed relocation of a portion of the holes on the Jet claims, Nos. 7, 8, and 9.

The contract, dated May 31, 1957, provides for work estimated to cost $40,870.00, toward which the Government will contribute 75 percent, or an amount not in excess of $30,652.00.

Copies of the contract have been distributed to the Finance Office, Region III, and to others concerned.

W. H. King

W. H. King

Enclosures

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224 New Customhouse
Denver 2, Colorado

June 20, 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Reference is made to Contract Idm-E1095 forwarded by our separate letter of this same date.

Reference is also made to your letter of June 12, 1957 and the telephone call to this office by Mr. Girard on June 12, 1957, relative to the proposed change in location of some of the holes outlined for drilling on the Jet claims 7, 8, and 9.

Please defer drilling of any holes on the Jet 7, 8, and 9 claims at the location indicated on Figure 4 attached to the contract until the matter of proposed relocation of a portion of the holes has been resolved.

You should, at the earliest possible date, submit your request in sextuplicate relative to relocation of the holes, and include a map with each copy which would show the present location of the holes and the proposed relocated position.

Your request should also contain in detail the location and results of any holes drilled by your company on the three claims in the interim while your application has been in process.

Very truly yours,

Original signed by
W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region III

JWT:jy
cc: Chm. Op. Comm. (2)
Harshman
DMEA/DFC
Townsend
Corresp. E1095
Chron.

224 New Customhouse
Denver 2, Colorado

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CERTIFIED
AIR MAIL

June 20, 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket DMEA-4564 (Uranium)
Contract Idm-E1095
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming

Dear Mr. Sigman:

Enclosed herewith is the "Operator's Copy" of Exploration Project Contract No. Idm-E1095, Docket No. DMEA-4564.

Also enclosed are six copies of Form MF-104, "Operator's Monthly Report and Voucher," and six copies of Form MF-104A, "Operator's Unit Cost and Progress Report." At the end of the first calendar month after work is commenced, and monthly thereafter, you are required to submit the original and four copies of each form to the Executive Officer, Defense Minerals Exploration Administration, 224 New Customhouse, Denver 2, Colorado. The extra copy is for your records.

Forms MF-104 and MF-104A are to be combined into five sets of one of each form. Each set of the combined forms is to be accompanied by a map or sketch showing the location and extent of work performed and a signed narrative report which describes the work performed, conditions encountered, and results of the work. The monthly accounting report will not be processed for reimbursement unless it is accompanied by a signed narrative report and other required or pertinent data. Additional copies of Forms MF-104 and MF-104A will be forwarded to you each month on receipt of your report for the prior month.

For your information, and in reply to many questions that have been asked, after Forms MF-104 and MF-104A are received, an

engineer will check progress on the project and review your accounts, after which the report forms will be forwarded to this office for administrative examination and vouchering. If the report is in order, a check will be issued by the Treasury Department for the Government's portion of the approved costs. If you have any difficulty in completing these forms and the reports, please call on this office for assistance.

In the matter of your claims for reimbursement of drilling costs under the terms of the contract, reimbursement to you will be on the basis of a hole or holes completed to the objective, which has, or have been drilled in compliance with the conditions under the "General Provisions" section of Exhibit "A" of the contract and the special conditions pertaining to the drilling under each stage. Therefore, your monthly report should include only such holes which are completed to that extent and the required records made a part of your claim for reimbursement.

The contract is prepared on Form MF-200, and under its provisions and as outlined in Exhibit "A" of the contract, the allowable costs are a combination of actual costs with a maximum average unit cost established for work under Category (1) and fixed unit costs for performing the remaining items of work or services. Under the provisions of Exhibit "A", the work under Category (1) is to be performed by subcontract. The costs recorded under item (1) on Form MF-104 for such work must be supported each month by a signed or certified copy of the billing from the subcontractor. Amounts reported on the basis of the "Fixed Unit Costs" require no documentation, as they are otherwise verified.

If excess costs are suspended by reason of exceeding the "maximum unit cost" of any item of work under Category (1), the excess costs, where permitted by the contract, will be reinstated to the extent suspended funds are available, in the event the unit costs for any month should cause the average unit cost to fall below the maximum average unit cost established for that category of work.

In the event you desire to perform the work under Category (1) on company account instead of subcontracting it, as provided in the contract, it will be necessary that you request and obtain an appropriate amendment to the contract before reimbursement can be made to you for the Government's portion of the allowable incurred costs.

Your requests to this office for work approval, changes in the contract, or any other communication pertaining to operations under the contract, must be in writing, of which please supply the original and five copies, each copy complete with maps or other pertinent data. Each request for action by this office must pertain to one matter only. Such requests are not to be incorporated in your narrative report accompanying monthly progress report Forms MF-104 and MF-104A.

The locations of the holes to be drilled under Stage I are indicated as approximate on the map, "Figure 4," attached to the contract. Should conditions encountered necessitate any appreciable change in the location of any of the holes, approval of this office for the change must be obtained prior to performance of the drilling. Otherwise, the drilling may not be acceptable for reimbursement to you under the terms of the contract.

Your attention is directed to the provision that Stage II work is contingent on results obtained from Stage I, and performance of the work under Stage II is subject to the prior written approval of the Government.

When the work under a stage has been completed, or sufficiently so to permit evaluation of the results of the work, you must request approval from this office for the work you propose to perform under the next stage. Your request for the work approval must be in sextuplicate, each copy complete with a map showing the locations of holes previously drilled and the locations of the holes you propose to drill under the next stage. Your request should be complete with drill logs, results of radiometric probing, chemical analyses, and any other pertinent data concerned with the prior work which will be of value to the Government in appraising the work performed under the prior stage.

You should anticipate a suspension of operations between stages of work, to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay to operations as possible, if that is of serious consideration, you should expedite forwarding of the results of the work completed and your request for the Government's approval of the additional work you propose.

No oral statement of any person shall be construed to modify or change the terms of the contract. Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington Office, DMEA, or by the DMEA Field Team, Region III.

It is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. It is a requirement and imperative that you notify this office in writing the date work actually commences under the contract.

Very truly yours,

Original signed by
W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region III

Enclosures

JWT:jy

cc: Chm. Op. Comm. (3)
Finance Office, Reg. III
Amend. File, Reg. III
Harshman
DMEA/DFC
Townsend
Corresp. E1095
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 10 1957

DATE	INITIALS	CODE
6 10	C	220
	FMM	780

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

June 6, 1957

Mr. L. B. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA 4564 (Uranium)
Modern Mines Development Company
(Jet claims)
Big Horn County, Wyoming -
Proposed Exploration Project
Contract No. Idm-E1095

Dear Mr. Sigman:

Enclosed are the Government's, Division, Audit, Finance Office, and Field Team copies of proposed Exploration Project Contract No. Idm-E1095, which has been prepared pursuant to your application for Government assistance in exploration work under the Defense Minerals Exploration Administration program.

If the Contract is satisfactory, all copies are to be signed by an official of the corporation authorized to sign such an instrument, the signer's title inserted, the signature attested to by the Secretary of the corporation, the corporate seal affixed, and all copies promptly returned to this office.

In the event the Contract is not satisfactory, all copies are to be returned promptly to this office, together with your comments on or objections to the Contract.

Your attention is especially directed to three provisions in the Contract:

1. The Government will not contribute to the costs of any of the work that is provided for in the Contract which is performed prior to the date of the Contract.

2. The Contract requires completion of the exploration work by the date fixed therefor. Approval must be obtained from this office for any suspension of work which may result in failure to complete the work by the date specified.

3. Royalty is due the Government on all production from the land described in the Contract, beginning on the date of the Contract.

If the Contract is satisfactory, and upon return of all copies properly signed, the "Operator's Copy" of the Contract will be forwarded to you, together with blank report forms and instructions relative to reporting on work performed under the Contract. Also, instructions will be given as to the procedure to be followed in corresponding with this office in matters concerning operations under the Contract.

When the signed copies of the Contract are returned, please advise the date on or before which work will be commenced, for our insertion in Article 3 of the Contract form.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
IMKA Field Team, Region III

Enclosures

JWT:prl

cc: Chmn.Op.Comm.-2
Harshman
Konselman
Townsend
Docket
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/28	Murphy	700
5/28	Ellis	700
5-28	Chambers	800
5/31	[illegible]	130
		700
"	Matuszek	109
5/31	-	220

MAY 31 1957

Mr. B. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming

Dear Mr. Harshman:

Enclosed are the original and five copies of a proposed long-form contract signed by the Administrator for the Government. Attached to each contract form MF-200 are Annex I (1 page), a Consent to Lien and Subordination Agreement executed by the owners of the subject claims, Exhibit "A" (3 pages), and a map, Figure 4. Also enclosed are two extra copies of Annex I, Exhibit "A," and the map for Field Team use.

If you and the Applicant find the proposed contract in order, please insert in Article 3 of the contract form the date work shall commence, then have an authorized representative of the company sign the original and all copies. Thereafter, kindly distribute the copies in the usual manner.

If any part of the proposed contract does not meet with your approval and the Applicant's and cannot be amended within your delegated authority, then the original and all copies, including the extra copies, are to be returned to this office with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures
APPROVED:

Frank D. Lamb

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FMMurphy/izm 5-28-57
cc to: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

The work shall be performed in two stages. The Operator shall perform all the Stage I work and as much of Stage II work as is approved in advance in writing by the Government.

Stage I

Construct access roads and drill sites, and drill not in excess of sixty (60) holes at the approximate locations shown on the attached map, Figure 4. With written Government approval the hole locations, as shown on Figure 4, may be changed. ~~however, no hole shall be drilled closer than 100 feet to any other hole drilled in this stage.~~

It is estimated that 9,000 feet of non-core drilling, 30 hours of stand-by time for probing, 12 hours of bulldozer time, and chemical analyses of 55 samples for U_3O_8 will be required to complete this stage. However, if these estimates are too low, upon the written approval of the Government, additional units of work and corresponding funds may be transferred and deducted from Stage II.

Stage II

Construct access roads and drill sites, and drill not in excess of forty-eight (48) holes as offsets to Stage I holes, which penetrated mineralized material. The offset holes shall be drilled not closer than 100 feet to any previously drilled hole.

Stage II work shall not exceed 8 hours of bulldozer time, 7,200 feet of non-core drilling, 24 hours of stand-by time for probing, and the chemical analyses for the U_3O_8 content of 45 samples.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

9,000 feet non-core drilling @ $2.25/ft.	$20,250.00	
30 hours stand-by time @ $10.00/hr.	300.00	
12 hours bulldozing @ $12.00/hr.	144.00	$20,694.00

Categories (2) through (7) None

219 S. 31ST AVE.
YAKIMA WASH.
PHONE 9948

MODERN MINES DEVELOPMENT CO.

19 SO. BENTON
HELENA, MONT.
PHONE HICKORY 2-4687

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 27 1957

DATE	INITIALS	CODE
5/24		220
5/27		700

May 24, 1957

Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Div.
Defense Minerals Exploration Admin.
Department of the Interior
Washington 25, D. C.

4564

Re: Docket No. DMEA (Uranium)
Jet Claim
Big Horn County, Wyoming

Dear Mr. Ellis:

Enclosed please find three copies of receipts from Stanley Johnson and Lew Johnson of Basin, Wyoming. One copy, which is the original, bears the stamp of the Notary Public. On the other two copies, the stamp would not photostat. We hope these will be satisfactory as per our telephone conversation on May 21st.

This will help expedite the work in processing our application for DMEA assistance, we sincerely hope. We certainly appreciated talking to you on the telephone and the courtesies extended to us.

Sincerely yours,

MODERN MINES DEVELOPMENT CO.

W. S. Doyle

W. S. Doyle
Secretary-Treasurer

WSD/rw

Receipt is hereby acknowledged from Modern Mines Development Company of the sum of $8000.00, being the balance due to the undersigned on the Jet Claims in Little Mountain, Big Horn County, Wyoming, and said Company is authorized to take immediate possession of said property, and the undersigned have no further interest in said property except the payment of the ten (10%) percent royalty from any and all ores mined and shipped therefrom.

DATED this 23RD day of May, 1957.

Stanley Johnson

Dee Johnson

Subscribed and sworn to before me this 23 day of May, 1957.

B. W. Dowell

Notary Public in and for the State of Wyoming, residing at Basin.

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 27 1957

DATE	INITIALS	CODE

Noted R.W.L. 5-28-57

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/15	Murphy	700
"	Ellis	700
"	Hutchenson	100
5/16	C	220
		700

MAY 16 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Jet Claims
Big Horn County, Wyoming

Dear Mr. Sigman:

This is to acknowledge your letter of April 29, 1957, submitting a copy of an "Agreement" relating to the Jet claims. The copy is herewith returned for the same reasons set forth in my letter of April 23, 1957, as it is the same "agreement" which was typed in as part 3(d) of the application.

The agreement does not establish your company's rights on the subject claims for a term sufficient to cover the period of the proposed project. Therefore, if possible, will you kindly submit a new agreement or lease which clearly establishes your company's rights to operate the property for a term sufficient to complete the proposed project which might extend past the October 1, 1957, date mentioned in your letter.

In the event a contract covering leased lands is approved, we prefer the lease to cover at least a two-year period with option for renewal.

Sincerely yours,

SIGNED

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

Enclosure

FMMurphy/gla 5-15-57
cc to: Admr.'s Reading File
Code 700, Mr. Murphy
THKiilsgaard, 5224
DMEA Field Team, Region III (2)

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

MAY 13 1957

Memorandum

To: Administrator, DMEA
Attention: Chief, Rare & Miscellaneous Metals Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-4564, Modern Mines Development Company (Uranium)

The copy of the "purchase agreement" enclosed with the applicant's letter of April 29, 1957, is not satisfactory evidence of its property rights. This copy is the same "agreement" which was typed in part 3 (d) of the application and the same objections apply to this copy.

To be more specific: The second paragraph of the instrument provides "Johnson for the agreed consideration sells, transfers and assigns to Modern Mines..." This language would indicate that the instrument is intended to be a present conveyance. However, the words "...on the following terms and conditions:" on page 2 make it at most a conditional sale.

Article 1 further confuses the intent of the parties when in the second sentence it provides that if the applicant "...wants to continue...after June 30, 1957, they shall pay on or before that date, the additional sum of $8,000." The applicant does not have to pay this amount but if he does not it would appear from the language that he could not continue beyond June 30, 1957. In which event there is not sufficient property rights for the period of the proposed DMEA agreement.

The third sentence provides: "If on July 1, 1957, Modern Mines is showing good faith...the option shall be extended until October 1, 1957." This language is certainly inconsistent with the previous sentence. It is difficult to perceive how on July 1 the option can be extended when the previous sentence requires payment on or before June 30.

Furthermore, even if the intent of the parties is as expressed in the third sentence the applicant could decide on October 1, 1957, not to exercise the option and since the proposed DMEA project runs until November 1, 1957, his property rights would again not be sufficient. Accordingly, we recommend that the applicant be requested to obtain a new agreement or lease which clearly establishes his right to operate the property for a term sufficient to cover the period of the project.

Robert P. Dwyer

RWLong:md

Copies to: Colicitor's Docket (2)
DMEA Docket
E.W. Ellis (2)
R.P. Dwyer
R.W. Long
Chron.

219 S. 31st AVE.
YAKIMA, WASH.
PHONE GLENCOURT 3-9948

MODERN MINES DEVELOPMENT CO.

19 SO. BENTON
HELENA, MONT.
PHONE HICKORY 2-4687

April 29, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 2 1957

DATE	INITIALS	CODE
5/2	C	220
5/2	Murphy	700

Defense Minerals Exploration Administration
United States, Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4564 (Uranium)
Jet Claims County
Big Horn County, Wyoming

Gentlemen:

Receipt of your letter of April 23, 1957 is hereby acknowledged.

In answer to your request for the addresses of Lew Johnson and Stan Johnson, please be advised that their address is C/o Johnson Transfer Company, Basin, Wyoming.

We enclose an original copy of our purchase agreement of the Jet Claims. You will note therein that no payment is due until June, 1957 and that even this payment is extended to October 1, 1957. We will make these payments when required and are in a position to do so.

Sincerely yours,

W. S. Doyle

Secretary-Treasurer

wsd:cm
enc.

purchase agreement returned as not satisfactory - see letter dated May 16, 1957 by E.W. Ellis.
Payson

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4-23	Murphy	700
4-23	Ellis	700
"	Mitchell	100
4-24	C	220
		700
		220

APR 23 1957

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31 Avenue
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Jet Claims
Big Horn County, Wyoming

Dear Mr. Sigman:

We have received the copies of the Consent to Lien and Subordination Agreements signed by Lew Johnson and Stan Johnson covering the Jet claims; however, their addresses are not given on the documents. Will you kindly forward this information?

Due to an oversight, we failed to advise you that we require a copy of a lease or agreement showing your rights of possession of the subject claims.

The terminology and provisions of the " agreement" typed in as part 3.d of the application raise some question as to what is intended and also to what it accomplishes. The instrument could be construed as an agreement of sale with your company having the right to acquire title by paying a total of $13,000. It could also be construed as a lease on the property until June 30, 1957. Accordingly, in order to clarify this matter, will you kindly submit a copy of a lease with a definite term, or other satisfactory evidence of ownership. The terms of the lease or agreement must allow sufficient time for the purposes of a possible contract; for example, a two-year lease with option for renewal.

Upon receipt of this additional information we will promptly continue processing the above-referenced application.

Sincerely yours,

SIGNED

Ernest W. Ellis, Chief
Rare and Miscellaneous
Metals Division

FMMurphy/dlm 4-23-57
cc to: Mr. Murphy
Admrs's Reading File
DMEA Field Team, Region 3 (2)

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

APR 18 1957

Memorandum

To: The Administrator, DMEA
Attention: Chief, Rare & Miscellaneous Metals Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-4364, Modern Mines Development Company (Uranium)

Pursuant to a request from Mr. Ellis on routing slip dated April 3, 1957, we have prepared the attached contract for execution, subject to the following conditions:

Article 3(d) of the application is a copy of what is referred to in the draft of the contract as a lease. The terminology and provisions contained in the instrument raise some question as to what is intended and also as to what it accomplishes. The instrument could be construed as an agreement of sale with the Operator having the right to acquire title by paying a total of $13,000. It could also be construed as a lease on the property until June 30, 1957. The terms of this document make the Operator's property rights too questionable and indefinite. Accordingly, in order to clarify the situation, we require either a lease with a definite term or satisfactory evidence of ownership.

Robert P. Dwyer

Attachments

RWLong/emd
Copy to: Solicitor's Docket (2)
✓ DMEA Docket
E. W. Ellis (2)
R. P. Dwyer
R. W. Long
chron.

OFFICIAL FILE COPY
DMEA
RECEIVED APR 10 1957
DATE | INITIALS | CODE
4/10 | JCW | 220
| | 900

Comments complete

IN REPLY REFER TO:

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

April 9, 1957

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of field examination report, DMEA 4564 (uranium), Modern Mines Development Company, Jet claims, Big Horn County, Wyoming

The examining team conclude that chances are good for finding significant new uranium ore reserves on the applicant's property. Their conclusions are based in part on the facts that a large, high grade ore deposit is located near the property; uranium ore exists on the claims; and geologic structural control is present to help guide the drilling.

The field examiners recommend approval of a DMEA contract that would provide for a total of 16,200 feet of drilling at a total estimated cost of $41,641.

I agree with the recommendations of the examining team. The Field Team's points are well taken that a sampler be deleted from a forthcoming contract, and that all the proposed phases in Stage I be combined into a single Stage I.

R. E. Nelson
for W. P. Williams

OFFICIAL FILE COPY
DMEA
RECEIVED APR 4 1957

DATE	INITIALS	CODE
4/5	C	220
"	~~Murphy~~	~~700~~

Washington 25, D. C.

Date April 3, 1957

DMEA Docket No. 4564
DMEA Contract No.
Commodity Uranium
Name of applicant Modern Mines Development Co.
Name of property Jet Claims
Location of property Big Horn County, Wyoming
Estimated cost of project $41,641.10

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Review of Field Team Report
(Application, Field Team Report, etc.)

1. Date of subject document: 3/21/57. 2. Date received by reviewer: 4/1/57

3. Other reports on this property known to reviewer: Yes ☐ No ☐

4. Other reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on post production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors meriting special consideration:
- a. Location ☐
- b. Ownership ☐
- c. Evidence of mineralization ☐
- d. Geology ☐
- e. Proposed exploration method ☐
- f. Alternate exploration method ☐
- g. Costs ☐
- h. _____ ☐

9. Action advised:
- a. Obtain information from applicant ☐
- b. Refer to Field Team ☐
- c. Denial ☐
- d. Agree with Field Team ☒
- e. Disagree with Field Team ☐
- f. Suggest alternate plan ☐
- g. Request another examination ☐
- h. Approval ☐
- i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)

Note: Docket in Legal/Div.

DRAFT
FHMurphy
4-3-57

MF-200
(Revised June 1954)

Docket No. DMEA 4564

Commodity Uranium

Contract No. Idm-E

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this ..... day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Modern Mines Development Company, a Washington corporation

whose mailing address is 219 South 31 Avenue
Yakima, Washington

hereinafter called the "Operator," as follows:

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

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] Lease, dated 9-22-56, [7] ....recorded in Book ....., page ....., official records of said County; and

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

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

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

draft

of the land (lessor, seller, optionor, etc.), are attached, as follows: Consent to Lien and Subordination Agreement by Lew Johnson and Stan Johnson d/b/a Johnson Transfer

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before November 1, 1957 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $40,870.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $30,652.00 (rounded): *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

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

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*— **(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work, except as otherwise provided in Exhibit 'A' with respect to stage of work."**

(b) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon is deleted.

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

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

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

(f) Notwithstanding any other provision of the contract, the allowable unit cost per foot of a drilling item is the average unit cost per foot computed on the basis of all the actual unit costs of said drilling item incurred by the Operator: Provided, That the Government will not contribute to any portion of an average unit cost of a drilling item that exceeds the estimated unit cost of said item set forth in the contract.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By .....

.....
(Operator)

By .....

.....

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—70617-1

EXPLORATION PROJECT CONTRACT
MODERN MINES DEVELOPMENT COMPANY
DOCKET NO. DMEA-4564

ANNEX I

The land referred to in Article 2 of the contract consists of twelve (12) unpatented lode mining claims. Notices of location of the claims have been recorded in the official records of Big Horn County, Wyoming, as follows:

Claim	Date Recorded	Book	Page
Jet No. 1 through 7	2/19/56	153	406-419
Jet No. 8 through 12	2/21/56	153	420-428

The claims are situated in secs. 22 and 23, T. 58 N., R. 94 W., 6th P.M., Big Horn County, Wyoming. The approximate locations of the claims are shown on the map entitled "Figure 4. Claim Map With Alternate Exploration Proposal, Modern Mines Development Company - Jet Claims,...," attached hereto and made part hereof.

EXPLORATION PROJECT CONTRACT
MODERN MINES DEVELOPMENT COMPANY
DOCKET NO. DMEA-4564

EXHIBIT "A"

Description of the Work

General Provisions

The object of this project is to explore for possible uranium ore deposits which might occur in the Madison limestone of Mississippian age underlying the Jet claims.

It is estimated that drill holes averaging 150 feet in depth will be required to penetrate the inferred ore horizon.

The holes shall be drilled non-core, recovering the cuttings from each 2-foot section of the holes, by means of a Duclone or similar sampling apparatus. The cuttings shall be tested for radioactivity. Samples showing significant radioactivity shall be split, the Operator using one-half for chemical assay purposes. The other half shall be stored for Government inspection and possible use in a container properly identified as to drill hole number and the depth interval that the sample represents. With Government approval, its portion of the sample shall be disposed of by the Operator.

The holes shall be logged geologically. Immediately after completion, each hole shall be probed radiometrically using an Esterline-Angus recorder or similar recording equipment. Records of such logging and probing, together with the assay certificates of the cuttings samples, shall be submitted with the Operator's monthly progress report, which shall also include a map or sketch showing the location of all holes drilled during the reporting period.

The Government will not participate in the cost of an uncompleted hole; a hole that is closer than 100 feet to the outer boundaries of the claim group; nor to one that cannot be probed with standard radiometric testing equipment, unless the Government in writing waives this provision.

The Operator shall provide a full-time supervisor and such other technical services and labor required to complete the project work in a satisfactory manner.

All bulldozer work shall be done with a D-7 bulldozer or equivalent unit of any other make.

The location of drill holes and access roads, the method of drilling and radiometric probing, and the method of taking and storing samples shall be subject to Government approval.

The work shall be performed in two stages. The Operator shall perform all the Stage I work and as much of Stage II work as is approved of in advance in writing by the Government.

Stage I

Stage I shall consist of constructing access roads and drill sites, and drilling not in excess of sixty (60) holes at the approximate locations shown on the map Figure 4, mentioned in Annex I. With previous written Government approval the location of the holes as shown may be changed, however, in no case shall a hole be drilled closer than 100 feet to any other hole drilled under this stage of the contract.

It is estimated that to complete the sixty (60) holes will require 9,000 feet of non-core drilling, 30 hours of standby time for probing, 12 hours of bulldozer work on access roads, and chemical analyses of 55 samples for U_3O_8. However, if these estimates are too low, then a part of the units of work and their costs may be used from those provided for in Stage II, with corresponding reductions in that stage.

Stage II

Stage II shall consist of constructing access roads and drill sites, and drilling not in excess of fourty eight (48) holes as offsets to those holes drilled under Stage I that penetrated mineralized material. No hole drilled under this stage shall be closer than 100 feet to any hole drilled under the contract.

Under this Stage II of the contract, not in excess of 8 hours of bulldozing access roads, 7,200 feet of non-core drilling, and the chemical analyses for the U_3O_8 content of 45 samples shall be performed, nor more than 24 hours of standby time used for probing drill holes.

Estimated Cost of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

9,000 ft. non-core drilling @ $2.25/ft.	$20,250.00	
30 hrs. standby time @ $10/hr.	300.00	
12 hrs. bulldozing @ $12/hr.	144.00	

Fixed Unit Costs

Incidental allowance[1] for each foot of drilling completed, 9,000 ft. @ $0.20/ft.	1,800.00	
Chemical analyses of 55 samples for U_3O_8 content @ $4/sample	220.00	$22,714.00

Stage II

Actual Costs

Category (1) Independent Contracts

7,200 ft. non-core drilling @ $2.25/ft.	$16,200.00
24 hrs. standby time @ $10/hr.	240.00
8 hrs. bulldozing @ $12/hr.	96.00

Fixed Unit Costs

Incidental allowance[1] for each foot of drilling completed, 7,200 ft. @ $0.20/ft.	$1,440.00	
Chemical analyses of 45 samples for U_3O_8 content @ $4/sample	180.00	$18,156.00
Total Estimated Cost of Project		$40,870.00
Government Participation @ 75% (rounded)		$30,652.00

1/ Includes all costs whatsoever that are not included in the estimates for Category (1) Independent Contracts, and chemical analyses under Fixed Unit Costs, and includes such items as supervision, technical services, labor, payroll taxes, supplies, transportation, rental of probing equipment, etc., which would otherwise be allowable under Categories (2) through (7) of the contract.

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
3/29	Murphy	700
4/1	Ellis	700
✓	Sumner	Legal
4/2	Pritchard	
		100
4/3	C	220

700

FROM SOLICITOR

APR 1 - 1957

APR 2 - 1957

FOR SIGNATURE

Mr. L. V. Sigman, President
Modern Mines Development Co.
219 South 31 Avenue
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Jet Claims
Big Horn County, Wyoming

Dear Mr. Sigman:

Enclosed are six (6) copies of a Consent to Lien and Subordination Agreement prepared for the signatures and addresses of Lew Johnson and Stan Johnson, lessors of the subject claims. These documents, are required before the above-referenced application can be further processed by this office.

Will you kindly return the six copies, properly executed, to this office as soon as possible.

Sincerely yours,

SIGNED

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

Enclosures

FMMurphy/izm 3-29-57
cc to: Mr. Murphy
Admr.'s Reading File
THKiklsgaard, Rm. 5224
DMEA FT Reg. 3 (2)

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 28 1957

DATE	INITIALS	CODE
3/28	C	220
		130
4/2	C	220
"	Murphy	700

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4364
(Uranium) Modern Mines Development Co. (Jet Claims)
Big Horn County, Wyoming

Enclosed are the original and three copies of a Joint Report of Examination by E. O. Binyon, USBM, and Walden P. Pratt, USGS, on the subject property.

The field examiners recommend that the Government participate in the proposed exploration work. The Field Team concurs in this recommendation, but suggest that for purposes of contract administration, Stage I, Phase I a, b and c and Stage I, Phase II be combined into a single Stage I. If you concur, the nine extra copies of Figure 4, which are enclosed for use in preparing the contract, can be altered as shown by the marked copy.

The need for both a geologist and a sampler is questioned and we recommend that you consider eliminating a sampler from the proposed cost estimates.

As agreed, we will appreciate the Legal Section, of the Washington Office, preparing the necessary owner's Consent To Lien and Subordination Agreements.

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
4-1-57
(date)

ON-SITE EXAM. REPORT

IN REPLY REFER TO:
DMEA
DEPARTMENT OF THE INTERIOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

MAR 21 1957
REGION III
DENVER, COLORADO

TRANSMITTED
MAR 25 1957

March 21, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman
J. F. Shaw

Subject: DMEA Docket 4564 (Uranium), Modern Mines Development Co. (Jet claims), Big Horn County, Wyoming

Enclosed are the original and nine copies of a joint examination report on the subject property resulting from a field examination by Walden P. Pratt, U. S. Geological Survey, and E. O. Binyon, U. S. Bureau of Mines.

The examiners conclude that the recommended exploration will result in discovery of significant uranium deposits in the Madison limestone underlying the claims. They propose a two-stage program of non-core drilling (9,000 feet in Stage I and 7,200 feet in Stage II) estimated to cost $41,641.10, Government participation 75 percent or $31,230.82.

The program is a modification of the applicant's proposal but field discussions indicate that he will concur with it.

We concur with the conclusions and recommendations in the report.

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 28 1957

DATE	INITIALS	CODE
		130
		220

Original signed by
E. N. HARSHMAN

E. N. Harshman
Member, Field Team

J. F. Shaw
Supervising Mining Engineer

Enclosures: 10

ENHarshman/arh

Reviewed by
DMEA OPERATING COMMITTEE
4-1-57
(date)

FOR UNITED STATES GOVERNMENT USE ONLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

TRANSMITTED
MAR 25 1957

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

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DMEA 4564

Modern Mines Development Company

Jet Claims Nos. 1-12

Big Horn County, Wyoming

Uranium

Joint Engineering and Geologic Report

by

Walden P. Pratt
Geological Survey

E. O. Binyon
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
4-1-57
(date)

March 19, 1957

CONTENTS

	Page
Introduction and summary	1
Acknowledgments	2
Location, topography, and Physical features	2
History, production, and ownership	4
Geology	5
Geologic basis for exploration	5
Proposed exploration	9
Applicant's exploration proposals	9
Recommended exploration program	13
Conclusions and recommendations	19

ILLUSTRATIONS

Figures in envelope pocket	Follows page
1. Location map, Modern Mines Development Company, Jet claims, Big Horn County, Wyoming. DMEA Docket 4564	2
2. Radioactivity anomaly map of Jet Claims 1 to 8, Modern Mines Development Company, T. 58 N., R. 94 W., Big Horn County, Wyoming. DMEA Docket 4564	19
3. Claim map with applicant's revised exploration proposal, Modern Mines Development Company - Jet Claims, T. 58 N., R. 94 W., Big Horn County, Wyoming. DMEA Docket 4564	19
4. Claim map with alternate exploration proposal, Modern Mines Development Company - Jet Claims, T. 58 N., R. 94 W., Big Horn County, Wyoming. DMEA Docket 4564	19

DMEA 4564

MODERN MINES DEVELOPMENT COMPANY
JET CLAIMS NOS. 1-12
BIG HORN COUNTY, WYOMING

INTRODUCTION AND SUMMARY

Modern Mines Development Company, of Yakima, Washington, applied December 5, 1956, for Government assistance to explore for uranium ore in the Madison limestone on the Jet claims Nos. 1-12, Little Mountain, Big Horn County, Wyoming. Exploration was proposed on the basis of radioactivity anomalies, favorable structures, one exposure of tyuyamunite on the property, and active mining of tyuyamunite ore a short distance south. The applicant first proposed a three-stage exploration program consisting of 7,000 feet of core and non-core drilling, and sinking of a shaft 175 feet deep or less, at a total estimated cost of $43,950.

The property was examined February 14, 1957, by a team consisting of E. O. Binyon of the Bureau of Mines and W. P. Pratt of the Geological Survey; the team was accompanied by Buford Miles, vice-president of the company, and L. D. Jarrard, consulting geologist for the company. The examining team also visited the Fuesner mine of the Lisbon Uranium Company, south of the Jet claims, and benefitted by discussions there with W. H. Forrester, geologist, and R. B. Christie, superintendent.

After discussion with the examining team the applicant submitted a revised application which expanded the first two stages to 12,000 feet of drilling; total estimated cost of the revised program was $55,000.

The examining team feels that the area has an excellent potential for the discovery of a significant deposit of tyuyamunite ore, but that the applicant's program does not take full advantage of the available information. Accordingly, the team recommends approval of what it believes to be a more thorough and efficient program of exploration. The recommended program consists of 9,000 feet of non-core drilling and an additional contingent 7,200 feet of offset non-core drilling, at a total estimated cost of $41,641.10, the Government's share at 75 percent being $31,230.82.

ACKNOWLEDGMENTS

The examining team was accompanied by Buford Miles, vice-president, and Leonard D. Jarrard, consulting geologist for the company. Special acknowledgment is due W. H. Forrester, geologist, and R. B. Christie, superintendent of the Fuesner mine, owned by Lisbon Uranium Company, for their courtesy and the geologic and other information given. Mr. Leon Hart of the AEC in Billings concurs with the recommendation of t this report.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Jet claims Nos. 1 through 12 are in secs. 22 and 23, T. 58 N., R. 94 W., sixth principal meridian, Big Horn County, Wyoming (fig. 1); the property is on the north end of a flat-topped ridge known locally as Little Mountain, and lies immediately south of the Wyoming-Montana line, the northern boundary on the Jet No. 1 claim being 50 feet from

the line. The property is reached from Lovell, Wyoming, by State Highway 14. At a point 10.9 miles east of Lovell, just east of the Big Horn River, a dirt road turns off to the north and leads 8 miles to a fork, whence the left fork continues 4.5 miles to the property. The Fuesner mine camp of the Lisbon Uranium Company is at the 4-mile point.

Most of the claim area is relatively flat with a maximum local relief of about 50 feet; there is a gentle northward slope toward Devil's Canyon. The only outstanding topographic features are two fairly large draws in the eastern part of the claim group. The average altitude of the claims is about 5,150 feet.

Vegetation consists of sage brush, grasses, and a sparse scattering of juniper.

No water is available on the property, and water for drilling and domestic purposes will have to be hauled either from the Big Horn River at Kane or from Lovell.

Summers are moderate, with temperatures seldom exceeding 90°, but the winter months are severe, with heavy snowfalls and sub-zero temperatures for much of the time. Snows and winds can make the road impassable and the property inaccessible during much of the winter and early spring.

No electric power is available on or in the vicinity of the property, and either diesel- or gasoline-driven equipment will have to be used.

Supplies necessary for the project can be obtained at Lovell or Cody, Wyoming, respectively 23 and 70 miles from the property.

Cowley, Wyoming, 29 miles by road southwest of the claims, is a station on the CB and Q railroad and the shipping point for ores going south to the AEC buying station at Riverton, Wyoming.

HISTORY, PRODUCTION, AND OWNERSHIP

The Jet claims were recorded February 19 and 21, 1956, by Lew and Stan Johnson of Basin, Wyoming. Only the discovery work was done on the claims, and there has been no production from the property. The property has no known ore reserves.

Modern Mines Development Company, 219 South 31st Avenue, Yakima, Washington, a Washington corporation, holds the property under a lease dated September 22, 1956, from Lew and Stan Johnson. The Jet Nos. 1-12 claims, all unpatented lode-mining claims, are recorded as follows at the County Recorder's Office in Basin, Wyoming:

Claim	Book	Page	Date
Jet No. 1 through 7	153	406-419	2/19/56
Jet No. 8 through 12	153	420-428	2/21/56

Jet claims Nos. 1, 4, 5, 6, 11, and 12 are not full claims (fig. 3). Jet No. 1 is standard width but only 750 feet long, and Jet No. 4 is standard length but only 340 feet wide; Jet Nos. 11 and 12 are each standard width but only about 1,250 feet long. Jet claims Nos. 5 and 6 are of irregular size because of adjoining prior locations. There are minor discrepancies in the widths of the claims as plotted on the accompanying maps, which were traced from the applicant's revised application map. The 12 Jet claims cover an area of approximately 212 acres.

GEOLOGY

The Jet claims are on the northwest flank of the Big Horn Mountains, in north central Wyoming, just south of the Montana border. The Big Horn Mountains consist essentially of a broad uplift in which sedimentary rocks from Cambrian through Cretaceous are bowed up over a core of Precambrian granitic rocks. In a few areas the uplift involves steep folding of the sedimentary rocks, but in the area of the Jet claims the beds are horizontal or dip gently toward the east. The Porcupine Creek anticline, mentioned by the applicant as lying west of the claims, is not visible on the ground.

The Madison limestone of Mississippian age underlies the claims and is exposed in patches through a thin overburden. It is a very fine-grained limestone in beds about 6 inches to a foot thick. Where seen on the surface it is generally dense but contains a few vugs lined with clear calcite crystals. No faults or folds are visible in the outcrops, but the drainage lines form a pattern that is clearly discernible on an aerial photograph and indicates a system of intersecting joints or fractures.

GEOLOGIC BASIS FOR EXPLORATION

The applicant based his proposed program of exploration for uranium ore on four features: (1) the presence of a minable deposit of tyuyamunite ore in the limestone 2,000 feet south of the claims; (2) the presence of two intersecting sets of fractures, which are assumed to have acted as structural controls for the mineralization; (3) the presence of

tyuyamunite in the limestone at the surface at one place on the claims; and (4) the presence of several surface radioactivity anomalies in the claim area.

The examining team believes that the Jet claims have an excellent potential for the discovery of a minable deposit of tyuyamunite ore. The strongest justification for this is the presence of the Fuesner ore body, about 2,000 feet south of the claims (fig. 3). At the time the examining team visited the Fuesner mine, production was from a 10-foot thickness of limestone assaying 0.60 to 0.89 percent U_3O_8; a 10- by 40- by 60-foot pillar is estimated to contain $200,000 worth of ore. The limestone dips gently eastward, and the workings extend to about 30 feet below the surface. Drilling has shown that the ore body (no. 1 on fig. 3) continues at least 100 feet or so east and south, and a zone being drilled about 700 feet west (no. 2) is thought to be another extension of the ore body. The applicant reports that drilling has indicated two other ore bodies (nos. 3 and 4), but the examining team did not confirm this report.

The Fuesner deposit is one of only a few known commercial uranium deposits in the Madison limestone, and as yet very little is known about this type of occurrence. Similar deposits are reported on the property of the Ryan Oil Co., approximately 2-1/2 miles west of the Fuesner mine, and on Pryor Mountain, about 12 miles northwest. The Fuesner ore is a thin-bedded, fine-grained, slightly silicated vuggy limestone containing tyuyamunite and, reportedly, traces of autunite; the uranium minerals occur as coatings in fractures and vugs, and on

calcite crystals that line the vugs. Mineralized zones are roughly parallel to the bedding or cut across it at very low angles. The beds are cut by fractures of moderate dip which are thought to have been the channels for the ore solutions. Mining operations have opened several small caverns in the limestone, the largest measuring about 3 feet wide, 4 feet high, and 35 feet long; tyuyamunite coatings occur in these as well.

The Fuesner ore deposit occurs at the apparent intersection of two fractures that are manifest as drainage lines easily visible on an aerial photograph (fig. 3). That these fractures have acted as some sort of ore control seems reasonable, but the degree of their importance is unknown. The geologist at the Fuesner mine states quite frankly that the controls of mineralization are still far from clear, and in fact considers incipient fractures--tiny cracks visible in the limestone where it is exposed on the surface--more important than well-developed ones. Because of the present lack of information on the significance of the "incipient" fractures, and because of the difficulty of locating them, the visible fracture intersections should probably be considered as the more important guides to ore for present exploration purposes. The same pattern of fractures--one set striking N. 55° W. and another set striking about N. 10° W.--is prolifically developed on the Jet claims, and it is reasoned that on this basis alone there is a good chance that an ore body similar to the Fuesner body is present on the Jet claims.

Tyuyamunite is exposed on the Jet claims in a shallow cut near the southeast corner of Jet No. 1 (fig. 3). The exposed area covers about

6 square feet, within a foot of the surface of the limestone which lies under about 4 feet of overburden. The tyuyamunite occurs as filmy patches in dense, very fine-grained limestone containing a few small vugs. There are no visible fractures in the immediate area, and the nearest drainage line is about 100 feet north.

A radiometric survey of claims 1 through 8, made by the applicant, established the presence of several small anomalies measuring 3 or 4 times background (fig. 2). It has been the experience of the operators of the Fuesner mine that surface anomalies do not necessarily reflect ore-grade concentrations of uranium minerals but may be caused by low-grade disseminations of oxidized uranium minerals as in the Colorado Plateau. Consequently the examining team feels that surface anomalies should be regarded as favorable indications only where they coincide with favorable structures - i.e., fracture intersections.

In conclusion, it is the opinion of the examining team that exploration for uranium ore in the Madison limestone on the Jet claims can be justified on the basis of structures similar to the apparent controlling structures of a nearby commercial ore body, and that this justification is strengthened by the known presence of tyuyamunite in at least one place on the claims.

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PROPOSED EXPLORATION

Applicant's exploration proposals

The applicant originally proposed a three-stage program of exploration at a total estimated cost of $43,950. Stage I comprised 1,900 feet of rotary (non-core) drilling and 100 feet of core drilling in 10 or more holes, which was to consist of "exploration drilling or of offset drilling in order to delineate ore bodies"; this stage also included 20 hours of bulldozer time. Stage II, contingent on the success of Stage I, would allow an additional 4,800 feet of non-core and 200 feet of core drilling "patterned after Stage I," apparently to cover the claims not explored in Stage I; 30 hours of bulldozer time were included in Stage II. The drill holes of both stages were to be located in areas of anomalous surface radioactivity. Stage III, dependent on the success of Stages I and II, was to consist of sinking a shaft "to the ore body most advantageously located." The program also allowed for three months of supervision by a consulting geologist. The applicant's estimate of the cost of the program is as follows:

Stage I

Independent Contracts

1,900 feet non-core drilling at $2.70/ft.	$ 5,130.00	
100 feet core drilling at $5.50/ft.	550.00	
20 hours dozer time at $12/hr.	24.00	
Total Independent Contracts		$ 5,920.00

Stage II			
Independent Contracts			
4,800 feet non-core drilling at $2.40/ft.	$11,520.00		
200 feet core drilling at $5.25/ft.	1,050.00		
30 hours dozer time at $12/hr.	360.00		
Total Independent Contracts		$12,930.00	
Stage III			
Maximum 175 feet of 10' x 7' shaft at $120/ft.		21,000.00	
Stages I, II, and III			
Supervision and Technical Service			
$800 per mo. for 3 months		2,400.00	
Building			
1 compressor house	$ 400.00		
1 combination cook-bunk house	700.00		
Total Building		1,100.00	
Assaying 150 samples at $4 each		600.00	
Total			$43,950.00
Government's share at 75 percent			$32,962.50

In a letter dated February 16, 1957, the applicant submitted a revised program eliminating the core drilling and changing the depths and number of holes to be drilled in Stage I and Stage II. Apparently

Stage III (shaft sinking) is included in this revised program, although the examining team explained that sinking of a shaft in this particular instance would be considered as development work and could not be allowed. As revised, the program includes 12,000 feet of non-core drilling at a cost of $2.50 per foot, in two stages of 40 holes, 150 feet deep, or 6,000 feet for each stage. Stage I is to start on Jet No. 1 and continue through consecutive claims (2 to 6) until 40 holes are completed. Stage II is to include 40 holes on claims 6 through 12 (fig. 3). The applicant has made Stage II contingent upon results of Stage I, but has not included offset holes in the revised program. Estimated cost of the program as shown by the applicant is $55,000. With no changes in the total cost for bulldozer work, and including Stage III shaft sinking, this figure should be $55,700. If the shaft sinking is not included, then the estimated cost of the revised program, with the dozer time adjusted to $300 for Stage I and Stage II, is $34,700. The costs are as follows:

Stage I

Independent Contracts

40 holes - depth 150 feet - 6,000 feet non-core drilling at $2.50/ft.	$15,000.00	
25 hours bulldozer time at $12/hr.	300.00	
Total Stage I (Independent Contracts)		$15,300.00

Stage II			
Independent Contracts			
40 holes - depth 150 feet - 6,000 feet non-core drilling at $2.50/ft.	$15,000.00		
25 hours bulldozer time at $12/hr.	300.00		
Total Stage II		$15,300.00	
Stage III			
Maximum 175 feet of 7' x 10' shaft at $120/ft.	21,000.00		
Total Stage III		21,000.00	
Stages I, II, and III			
Supervision & Technical Services			
Consultant 3 mos. @ $800/mo.		2,400.00	
Buildings			
1 Compressor house	400.00		
1 Combination cook-bunk house	700.00		
Total buildings		1,100.00	
Assaying			
150 samples @ $4/each		600.00	
Total			$55,700.00
Government participation @ 75 percent			$41,775.00
Total less shaft @ $21,000			$34,700.00
Government participation @ 75 percent			$26,025.00

Of the 80 holes in the revised program, 48 are allegedly located on the basis of structure alone, and 32 on the basis of structure and surface anomalies. Careful examination of the map, however, reveals that some holes are near fractures but not near fracture intersections, others show no apparent relation to the fractures at all, and a few of the "anomaly" holes (for example the three holes in the northeast part of Jet No. 2) do not coincide with the mapped anomalies. These discrepancies might be explained in part by the applicant's theory that the less prominent, "incipient" fractures mark the less cavernous zones and are therefore more favorable for mineralization; but from the available information many of the hole locations cannot be thus explained.

Recommended exploration program

The examining team feels that the applicant's proposed exploration program does not take full advantage of the available information on the area. It is thought that a more thorough and efficient program of exploration drilling can be planned on the basis of the following lines of reasoning:

(1) A structural control is apparent, but the relative importance of prominent versus incipient fractures is not clearly established. Three of the four known ore bodies (nos. 1, 2, and 3) south of the claim area are close to fracture intersections. Therefore, lacking detailed knowledge of either the location or the significance of incipient fractures in the claim area, any exploration based on structures should be directed toward fracture intersections. (Holes should, however, be

offset from the actual point of intersection so as to avoid the locus of maximum brecciation and cavern development, where drilling is more difficult.)

(2) The known occurrence of tyuyamunite on the claims should be explored, even though it is not located near a fracture intersection.

(3) The known ore bodies south of the claim area, and two reported occurrences of uranium minerals just south and just north, respectively, of Jet No. 8, all lie within a zone about 1,600 feet wide, delineated by prominent fractures, and trending N. 10° W. across claims 7, 8, and 9. This zone should be explored as thoroughly as possible.

The examining team accordingly recommends a program of exploration drilling as follows (fig. 4):

Stage I, Phase I a - Drilling 5 non-core holes on claims 1 and 2, as proposed by the applicant, to explore the known occurrence of tyuyamunite.

Phase I b - Grid drilling 27 non-core holes in the favorable zone on claims 7, 8, and 9, on a 300-foot grid as shown. (Note: a few of the grid holes have been moved slightly from the grid so as to take advantage of fracture intersections.)

Phase I c - Drilling 11 additional non-core holes in the favorable zone, near fracture intersections.

Phase II - Drilling 17 non-core holes on the remaining claims as shown, based on fracture intersections and, in part, as requested by the applicant.

Stage II - Drilling 48 non-core holes offset at 100-foot intervals from 12 mineralized Stage I holes (allowing for mineralization in 20 percent of total Stage I holes).

Summary:

	No. of holes	Depth in feet	Drilling footage
Stage I, Phase I a	5	150	750
Phase I b	27	do.	4,050
Phase I c	11	do.	1,650
Phase II	17	do.	2,550
Total	60		9,000
Stage II	48	150	7,200
Total Stage I and Stage II	108		16,200

Costs of the recommended program are given below and are based on an estimated time for completion of 3-1/2 months with 3.1 months allowed for drilling (200 feet per day for a 26-day month) and 0.4 month for preparation of the final report.

Stage I and Stage II

Independent Contracts

Stage I - 60 holes, depth 150 feet, 9,000 feet @ $2.25/ft.		$20,250.00
Stage II - 48 holes, depth 150 feet - 7,200 feet @ $2.25/ft.		16,200.00
Standby time (probing) $10/hr - 1/2 hr for 108 holes, 54 hours		540.00
Dozer time, 20 hrs. @ $12/hr		240.00
Total Independent Contracts		$37,230.00

Incidental Allowances

Labor, Supervision, and Consultants		
Geologist @ $600/mo. for 3-1/2 mos.	$2,100.00	
Sampler @ $400/mo. for 3.1 mos.	1,240.00	
Total Labor, Supervision & Consultants		3,340.00
Operating Material & Supplies		
Sample sacks, 500 @ $10/M	5.00	
Office Supplies, Logs, Maps, etc. $10/mo. for 3-1/2 mos.	35.00	
Total Operating Materials & Supplies		40.00
Operating Equipment		
Vehicle for travel 2,000 miles @ $.07/mile	140.00	
Probing Equipment, rental @ $50/mo. for 3 mos.	150.00	
Total Operating Equipment		290.00
Rehabilitation and Repairs		
None		----

Miscellaneous

Analyses U_3O_8 100 samples @ $4/each	400.00	
Accounting $50/mo. for 3-1/2 months	175.00	
Insurance and Payroll taxes 5 percent of $3,340	167.00	
Total Miscellaneous (less analyses)		$ 342.00

Contingencies

None	---
Total Incidental Allowances (less Analyses)	$ 4,012.00

Total cost per foot Incidental Allowances 4012 ÷ 16,200 = $0.2476/ft.

Total cost of Recommended program (Analyses included)	$41,642.00
Government share @ 75 percent	$31,231.50

Stage I

Independent Contracts

Phase I a	5 holes	depth	150	feet	750 feet	
Phase I b	27 holes	"	"	"	4,050 feet	
Phase I c	11 holes	"	"	"	1,650 feet	
Phase II	17 holes	"	"	"	2,550 feet	
Total (non-core)	60 holes	"	150	"	9,000 feet @ $2.25/ft.	$20,250.00
Standby time (probing) @ $10/hr. - 1/2 hr per hole for 60 holes						300.00
Dozer time @ 12 hours @ $12/hr						144.00
Total Independent Contracts Stage I						$20,694.00

Incidental Allowances

9,000 feet @ $0.2476/ft.	$ 2,228.40
Analyses 55 samples @ $4.00 each	220.00
Total Stage I	$23,142.40
Government's share @ 75 percent	$17,356.80

Stage II

Independent Contracts

48 holes depth 150 - 7,200 feet @$2.25	$16,200.00
Standby time (probing) @ $10.00 hr. 1/2 hr. per hole for 48 holes	240.00
Dozer time 8 hours @ $12.00/hr	96.00
Total Independent Contracts Stage II	$16,536.00

Incidental Allowance

7,200 feet @ $0.2476	$ 1,782.72
Analyses 45 samples @ $4.00	180.00
Total Stage II (rounded)	$18,498.70
Government's share @ 75 percent	$13,874.03
Total Stage I and Stage II	$41,641.10
Government's share @ 75 percent	$31,230.82

Summary

	No. of holes	Drilling footage	Cost
Stage I	60 holes	9,000 feet	$23,142.40
Stage II	48 holes	7,200 feet	18,498.70
Total Stage I & Stage II	108	16,200	41,641.10

Phases I a, I b, I c, and II may be drilled concurrently. Stage II drilling will depend upon the results of Stage I and will require prior approval by the Government before any holes of this stage are drilled.

Samples shall be taken at 2-foot intervals by Duclone or similar apparatus.

Holes shall be probed immediately upon completion, and the equipment should include an Esterline-Angus recorder or similar recording equipment. Hole probe logs and lithologic logs shall be submitted with the monthly reports. Maps showing location, collar elevations of the holes, and other pertinent data and one set of driller's logs shall also be submitted with the monthly reports.

Holes shall be drilled no closer than 100 feet to outer claim boundaries.

The applicant is agreeable to a unit cost contract.

CONCLUSIONS AND RECOMMENDATIONS

The examining team concludes that the Jet claim area has an excellent potential for the discovery of a significant deposit of tyuyamunite ore, because of the proximity to the Fuesner ore body, the presence of structures similar to those of the Fuesner ore body, and the presence of tyuyamunite in at least one place on the claims. Approval of a two-stage exploration program for 16,200 feet of non-core drilling, at an estimated cost of $41,641.10 (Government's share $31,230.82), is recommended.

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

224 New Customhouse
Denver 2, Colorado

February 27, 1957

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Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA-4564 (Uranium) Modern Mines Development Company (Jet claims) Big Horn County, Wyoming

Enclosed are two copies of an estimate from each of three drilling companies submitted by letter dated February 21, 1957 from the Applicant.

DMEA Field Team, Region III

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

3 extra sets of bids in extra material folder.

MOAB DRILLING COMPANY
DIAMOND CORE DRILLING CONTRACTORS
BOX 307
MOAB, UTAH

CHARLES A. STEEN
PRESIDENT
WILLIAM H. (BILL) LEWIS
GENERAL MANAGER

TELEPHONE 3-4181

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February 21, 1957

Modern Mines Development Company
2280 East Drive
Butte, Montana

Attn: Mr. Leonard D. Jarrard

Dear Sir,

Thank you very much for your letter ~~of February 19.~~

Our contract with Lisbon Uranium Co. in Wyoming is as follows, and is very satisfactory to both parties concerned.

$2.50 per foot up to 300 ft. per hole
$.10 per 100 ft. increase, i.e. $2.60 from 300 ft. to 400 ft., $2.70 from 400 to 500 ft., etc.

Coring: $4.50 per ft.

We have cats and compressors for rent, if they are necessary and are desired by the Contractee. We supply bits and supplies at cost.

Moab Drilling Company will be very happy to submit a formal bid on your contract at the first word from you.

Thank you very much.

Wm H Lewis

Wm. H. Lewis
General Manager

8

MOUNTAIN STATES MINING CO.

424 SYMONS BUILDING
SPOKANE 4, WASHINGTON

Officers

A. F. McCLAINE
PRESIDENT

C. J. IVERSON
VICE PRESIDENT

R. P. WOODWORTH
SECRETARY-TREASURER

VIRGINIA G. JOHNSON
ASST. SECRETARY-TREASURER

Board of Directors

A. F. McCLAINE
C. J. IVERSON
R. P. WOODWORTH
[redacted]
Silas Cook

Feabruary 16th, 1957

L.D. Jarrard ., Modern Mines Development Company
2280 East Drive., Butte Montana.

Dear Mr Jarrad :

This is in reference to our recent conversation regarding drilling work on your Little Mountain area claims known as Jet 1 to 12 , Big Horn County Wyoming in the Vicinity of Lovell Wy.

Subject to confirming action by our directors, I can quote you a price on approximately 10,000 feet of air drilling-holes to be 4½ ~~East~~ in diameter, with approximate depth per hole of 100 to 200 feet, of $ 2.48 per foot. We would agree to use approved methods and technique in such drilling, and to use every reasonable effort to insure drilling to the desired depth on individual holes, but in event ~~##~~ unforseen or unusual underground conditions made the drilling of any hole impracticable or impossible , we would reserve the right to stop drilling and receive payment for footage already drilled on such hole or holes.

inches diam.

Above price quote figure for air drilling covers all costs for labor , gas oil, repairs,bits,drill pipe and all proper and required Insurance protec - tion coverage to the operator and to claim owner, and the use of our Joy 75 truck mounted rotary drill and other supplementary equipment , but does not include probing and /or probe recording , nor coring of any holes or sections of holes, nor cost of bulldozing or doing necessary road access work to get our equipment on the desired hole locations.

According an average year for the end of winter and weather conditions in the area we would be in a position to get on your work job by about April First 1957 .

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Very truly yours,

MOUNTAIN STATES MINING CO.,

By A. F. McClaine

Pres and Mgr.

PHOTO CVTO
SEC OPR COMM(2)
HARSHMAN
SMOW

NAVAJO DEVELOPEMENT CORPORATION

FIELD OFFICE: WYOMING NATIONAL BANK BUILDING, CASPER, WYO.
EXECUTIVE OFFICE: 108 SOUTH THIRTEENTH STREET, NORFOLK, NEBR.

MINING DEVELOPMENT OF URANIUM AND OTHER FISSIONABLE AND NON-FISSIONABLE MINERALS

February 14, 1957

L. D. Jarrard
2280 E. Drive
Butte, Montana

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DATE	INITIALS	CODE

Dear Mr. Jarrard:

We respectfully submit bids for your drilling on little mountain as follows:

1. 5000 ft of drilling
   Amsden --- $1.50 per foot
   Madison -- $2.50 per foot

2. 10,000 ft of drilling
   Amsden --- $1.25
   Madison -- $2.25

3. We have a T D 18 international dozer that we submit at a rate of $12.00 per hour with the accepting of this bid. The cat rates are for the hours it is actually used.

In the event the drilling should become extremely hard, we have a mercy set up, in which case your company would pick up the bit cost through the hard formation. This formation can be determined by your Geologist.

We would appreciate your acceptance or rejection of this bid as soon as possible in order for us to arrange our schedule accordingly.

We would like to take this opportunity to say that we have been on little mountain since early last spring, and we feel that we have the necessary experience to the type of job that you would like to have done. All of our records and logs are always kept confidential.

Sincerely,

R. D. Bradshaw

R. D. Bradshaw

RDB:rc

Referred to

Region III

DMEA
DEPARTMENT OF THE INTERIOR

DEC 28 1956
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado

December 28, 1956

EXTRA COPY
D M E A
RECEIVED
CODE

Memorandum

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

From: Acting Supt., Denver Experiment Station, Reg. III

Subject: Docket DMEA 4564 (Uranium) Modern Mines Development Company (Jet Claims) Big Horn County, Wyoming

The application for Modern Mines Development Company, Docket DMEA 4564, in the amount of $43,950.00 was received in this office on December 28, 1956.

A field examination will be made and suitable report prepared by an engineer from the Denver office.

JOHN F. SHAW
John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
Sec. Op. Com. (2)

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

224 New Customhouse
Denver 2, Colorado

December 27, 1956

Memorandum

To: W. H. King (2) (w/brochure)
E. N. Harshman (w/brochure)

From: DMEA Field Team, Region III

Subject: Docket DMEA 4564 (Uranium) Modern Mines Development Company (Jet Claims) Big Horn County, Wyoming

Enclosed is the subject application in the amount of $43,950.00. A field examination and suitable report are requested.

Enclosed for your further information is a copy of a letter from the Chairman of the Operating Committee, dated December 19, 1956, with memoranda of review of the application by N. E. Nelson and J. E. Crawford.

In the event the field examiners recommend an exploration project on the Jet Claims, early advice to this office would be appreciated, so that we may obtain the required Owner's Consent to Lien and Subordination Agreements.

DMEA Field Team, Region III

Original signed by
W. M. TRAVER

By W. M. Traver
Executive Officer

RECEIVED
DEC 31 1956
D.M.E.A.

Enclosures

HMC:ytl
cc: Sec. Op. Comm. (2)
Docket 4564
Chron.

700

Murphy
Ellis
Matthewson

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

DEC 19 1956

Mr. W. H. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4564 (Uranium)
Modern Mines Development Company
Jet Claims
Big Horn County, Wyoming

Dear Mr. Traver:

The captioned application is referred to Region III Field Team for investigation, a field examination if deemed advisable, and recommendation.

Enclosed are copies of memoranda, dated December 10, and 13, 1956, by N. E. Nelson, USGS, and J. E. Crawford, USBM, respectively, relating to the application. Also enclosed are two copies of the application for Field Team use.

As mentioned in your memorandum, dated December 3, 1956, we note that the two maps and narrative submitted with the application do not tie the claims to a section corner, however, map exhibit "B" does show their correct location in regard to each other. We agree with you that more information regarding the claims would be desirable; but if the Field Team has, or can obtain, sufficient favorable information on the adjacent mines mentioned in the application to warrant a field examination, then the questions raised in your memorandum could be resolved during the examination.

In the event the Field Team recommends a project on the Jet claims, it should advise the Applicant that we will require six (6) copies of an Owner's Consent to Lien and Subordination Agreement signed by Lew Johnson and Stan Jones, d/b/a Johnson Transfer.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures
APPROVED:

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

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

FMMurphy/izm 12-18-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

700

FILE COPY
Surname:
Murphy
Ellis
Lamb
Peterson
Selfridge

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

DEC 19 1956

Mr. L. V. Sigman, President
Modern Mines Development Company
219 South 31st Avenue
Yakima, Washington

Re: Docket No. DMEA-4564 (Uranium)
Jet Claims
Big Horn County, Wyoming

Dear Mr. Sigman:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

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

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mitteldorf

Administrator

FMMurphy/izm 12-18-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
DMEA Field Team, Reg. III (2)

12-18-56

RECEIVED DEC 17 1956 D.M.E.A.

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

Date December 13, 1956

DMEA Docket No. 4564
DMEA Contract No.
Commodity uranium
Name of applicant Modern Mines Development Co.
Name of property Jet Claims
Location of property Big Horn County, Wyoming
Estimated cost of project $43,950.00

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: 12/5/56. 2. Date received by reviewer: 12/11/56.

3. Prior reports on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors needing special consideration:
a. Location ☐
b. Ownership ☐
c. Evidence of mineralization ☐
d. Geology ☐
e. Proposed exploration method ☐
f. Alternate exploration method ☐
g. Costs ☐
h. ____ ☐

9. Action advised:
a. Obtain information from applicant ☐
b. Refer to Field Team [x]
c. Denial ☐
d. Agree with Field Team ☐
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another examination ☐
h. Approval ☐
i. Consult with Mr. AE Granger at Salt Lake City AEC office.

10. Remarks: (Use back of page if necessary) Mr. J. O. Hosted, Washington representative of the Atomic Energy Commission, assisted in the review.

12-12-56

IN REPLY REFER TO:

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

RECEIVED DEC 12 1956 D.M.E.A.

December 10, 1956

Re: DMEA 4564
Modern Mines Development Co.,
Jet Claims
Big Horn Co., Wyo.
$43,950.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application.

The applicant requests assistance in exploring near a "U ore show" of unstated extent, by core and non-core drilling. Other drilling of a somewhat prospective type is also proposed.

The claims have been prospected radiometrically and within an area of 30 acres, 15 readings of 4 times background and 10 readings of 3 times background have been recorded. In addition on adjoining claims, about 100 acres, numerous 2, 2½ and 3 times background readings were recorded.

One sample appears to have been taken and 'returned' 0.23% U_3O_8 when assayed. Presumedly the sample was taken at the "show", but such is not said and the sample is not classified.

Justification of the request rests largely in the fact that on claims to the south mining is being done. Similar rock, Madison limestone, and structural conditions are assumed to exist within the referenced property. Comparison of the geologic features and appraisal of the resulting assumption of the applicant are warranted.

Referral of the application to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

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

December 5, 1956

Modern Mines Development Co.
219 So. 31 Ave.
Yakima, Washington

Subject: DMEA-4564

Gentlemen

Your application for exploration assistance, dated (application undated) submitted to our office at Denver, has been assigned Docket Number DMEA-4564 and referred to the Rare and Miscellaneous Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

(Sgd) Allen S. Dakan

Allen S. Dakan, Director
Operations Control and
Statistics Division

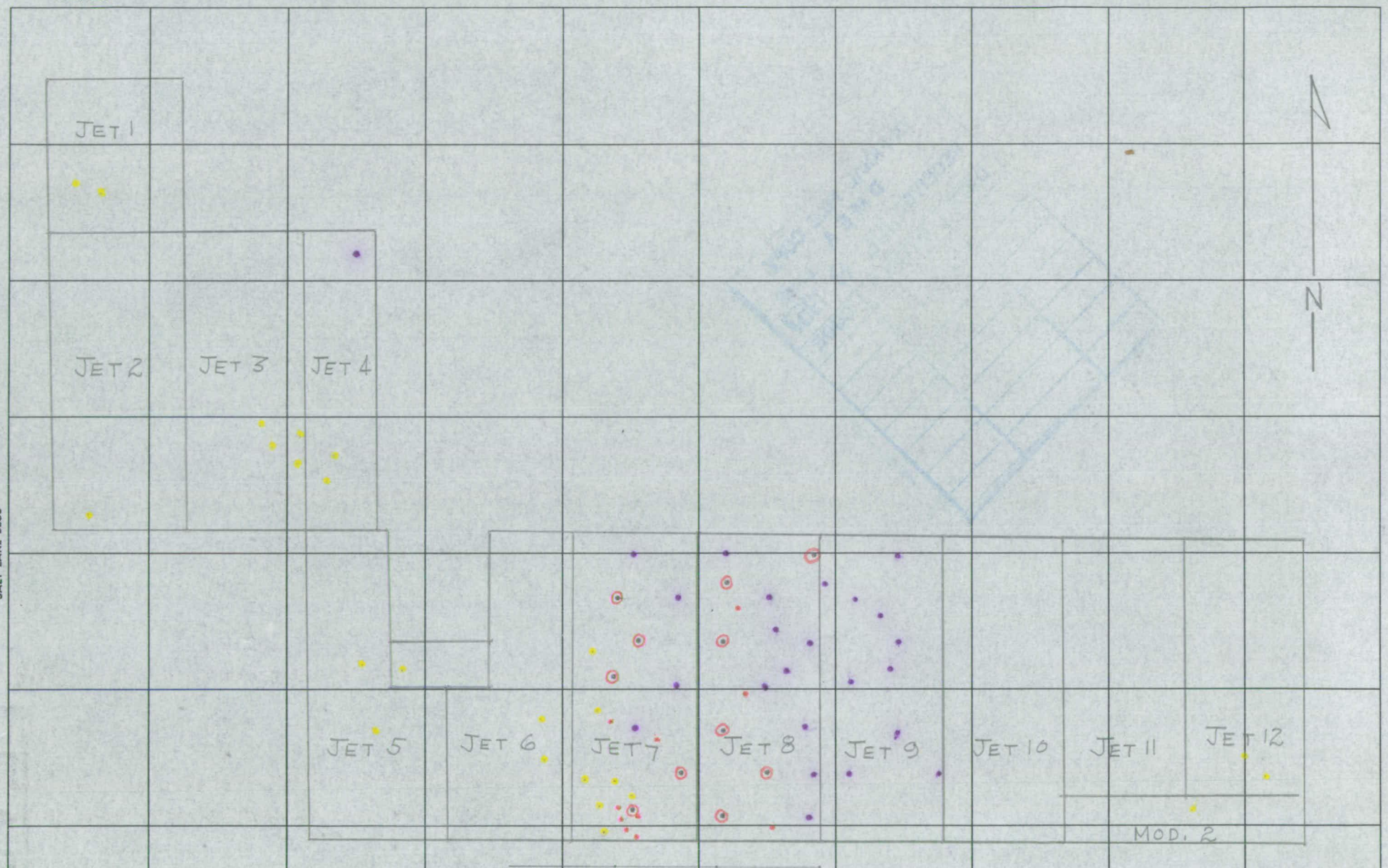
Copy to:

Region III. Denver 2, Colorado

Code 700

6416

FORM 1006



• NON DMEA HOLES DRILLED

• DMEA HOLES PROPOSED DELETED

• PROPOSED HOLES TO BE ADDED

⊙ DMEA HOLES UNCHANGED

MOD. MINES DEV. CO. JET CLAIMS 1-12

ILLUSTRATING M. M. DEV. CO PROPOSAL FOR DELETING DMEA HOLES SHOWN IN "BLUE" AND SUBSTITUTING THOSE HOLES SHOWN IN "YELLOW". THOSE HOLES SHOWN IN "RED" HAVE BEEN DRILLED BY M. M. DEV. CO.

6-29-57

OVERLAY FROM FIG. 4, DMEA DOCKET 4564

SALT LAKE BLUE

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

DMEA 4564
Idm-E 1095

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

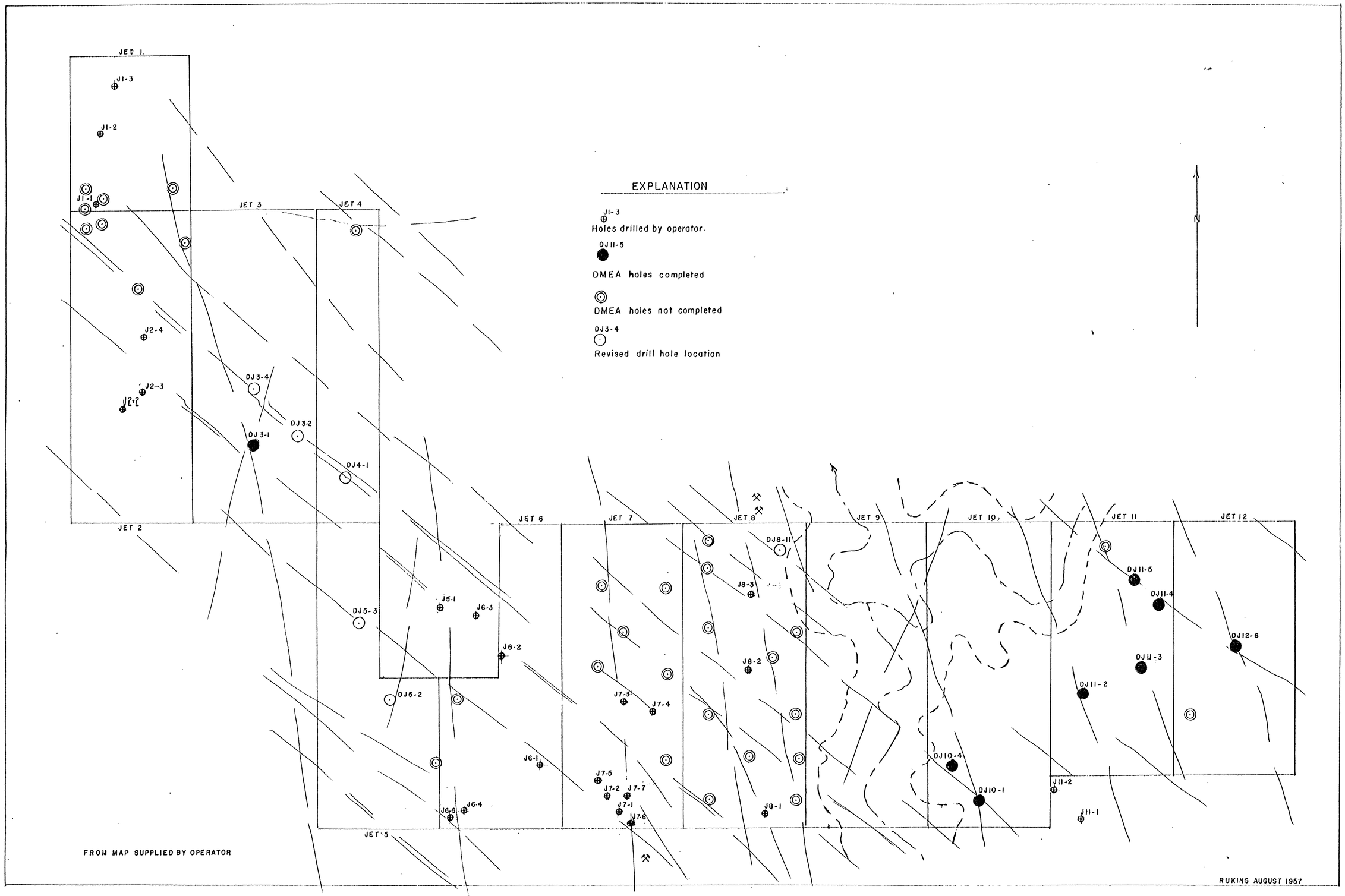


FIGURE 1.- MAP OF JET CLAIMS SHOWING REVISED EXPLORATION, MODERN MINES DEVELOPMENT COMPANY, BIG HORN COUNTY, WYOMING.

300 0 300 Feet

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

DMEA 4564
Idm-E 1095

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

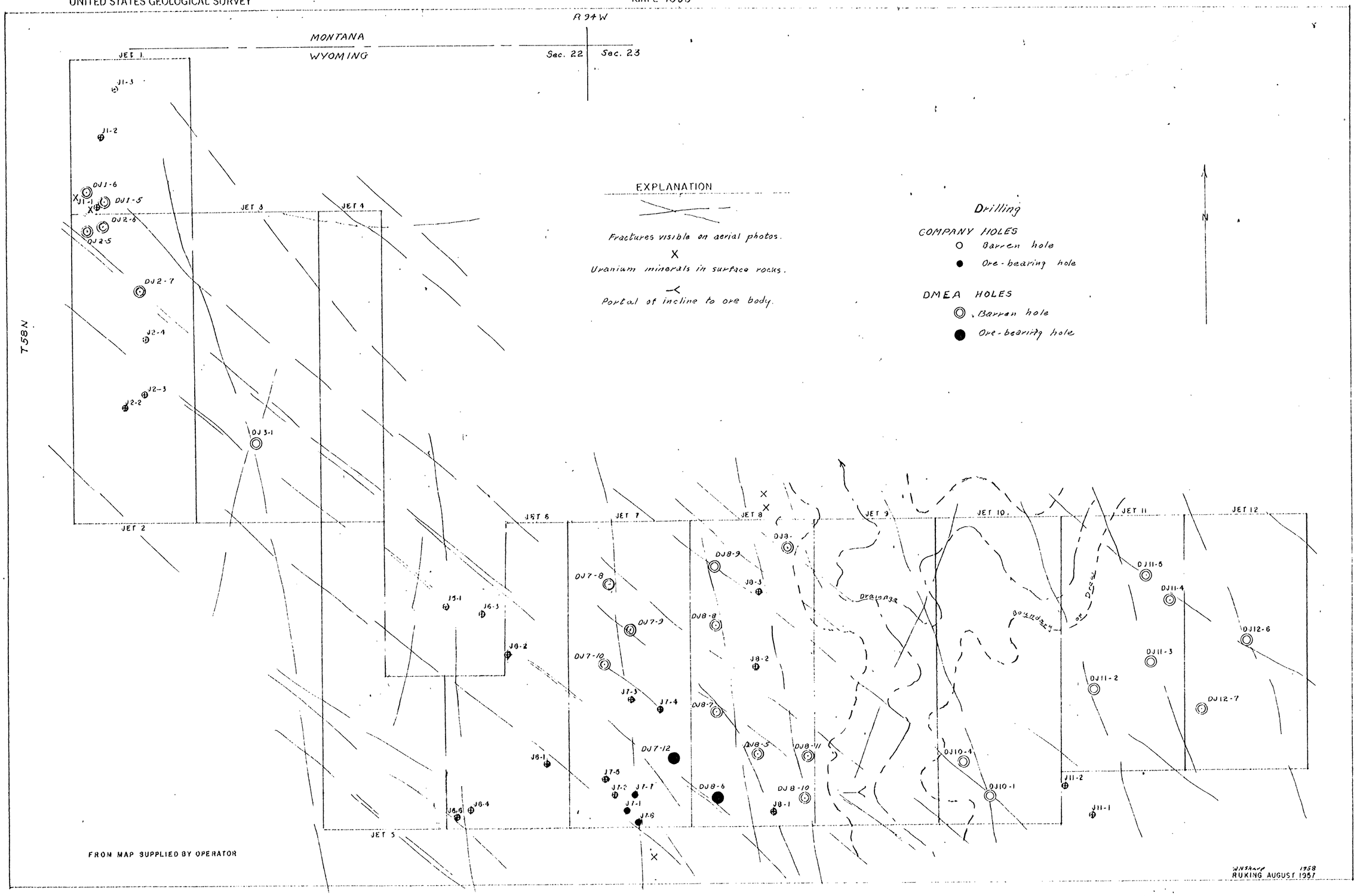


FIGURE 2 - MAP OF JET CLAIMS SHOWING DRILLING EXPLORATION, MODERN MINES DEVELOPMENT COMPANY, BIG HORN COUNTY, WYOMING

300 0 300 Feet

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

DMEA 4564
Idm-E 1095

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

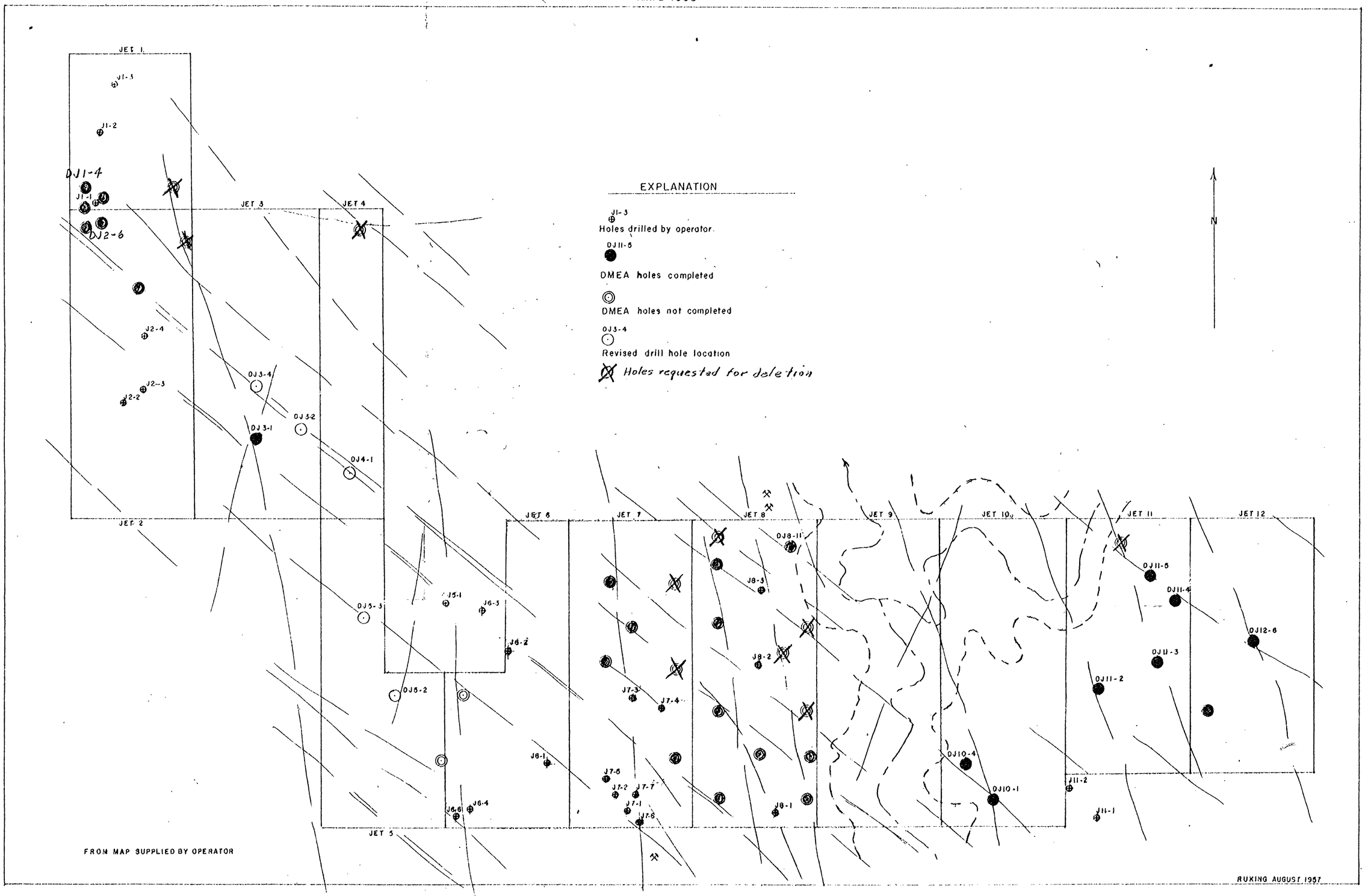
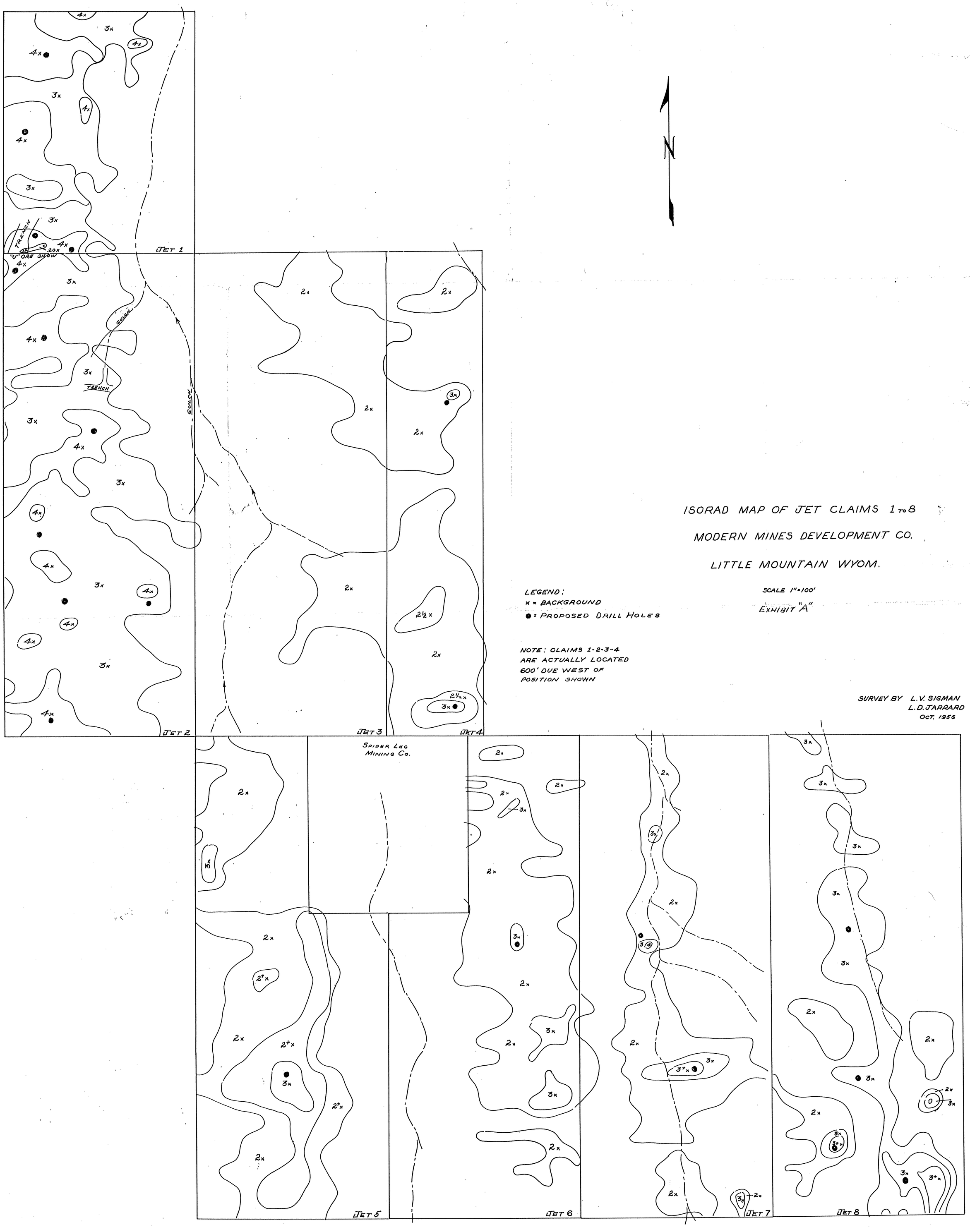


FIGURE 1.- MAP OF JET CLAIMS SHOWING REVISED EXPLORATION, MODERN MINES DEVELOPMENT COMPANY, BIG HORN COUNTY, WYOMING.

300 0 300 Feet


N
JET 1
JET 2
JET 3
JET 4
JET 5
JET 6
JET 7
JET 8
TRENCH
"U" ORE SHOW
GULCH
SPIDER LEG MINING CO.
LEGEND:
x = BACKGROUND
● = PROPOSED DRILL HOLES
NOTE: CLAIMS 1-2-3-4 ARE ACTUALLY LOCATED 600' DUE WEST OF POSITION SHOWN
ISORAD MAP OF JET CLAIMS 1 TO 8
MODERN MINES DEVELOPMENT CO.
LITTLE MOUNTAIN WYOM.
SCALE 1" = 100'
EXHIBIT "A"
SURVEY BY L.V. SIGMAN
L.D. JARRARD
OCT. 1956

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY.

EXAMINATION REPORT
DMEA 4 5 6 4

PREPARED FOR
DEFENSE MINERALS
EXPLORATION ADMINISTRATION

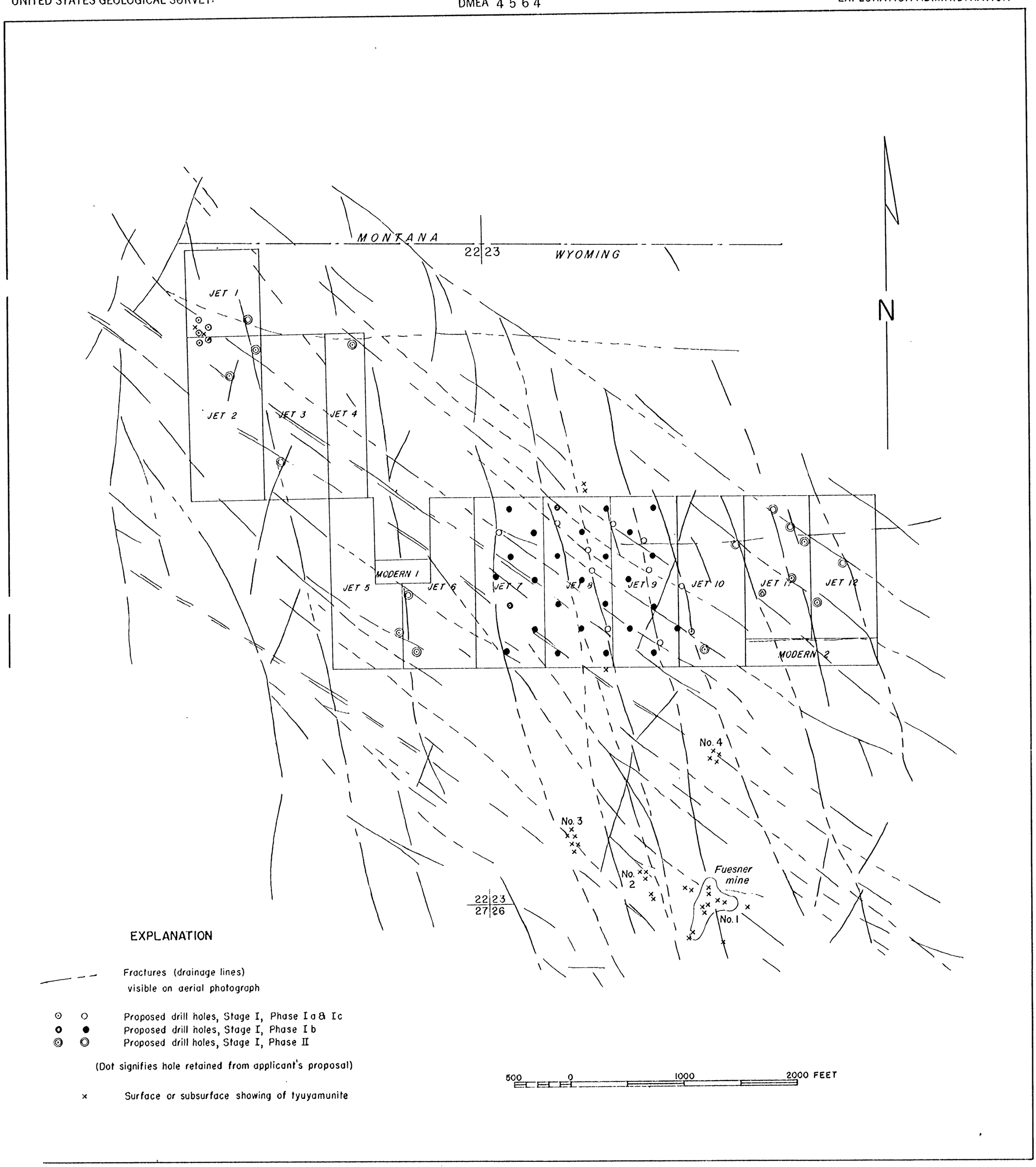
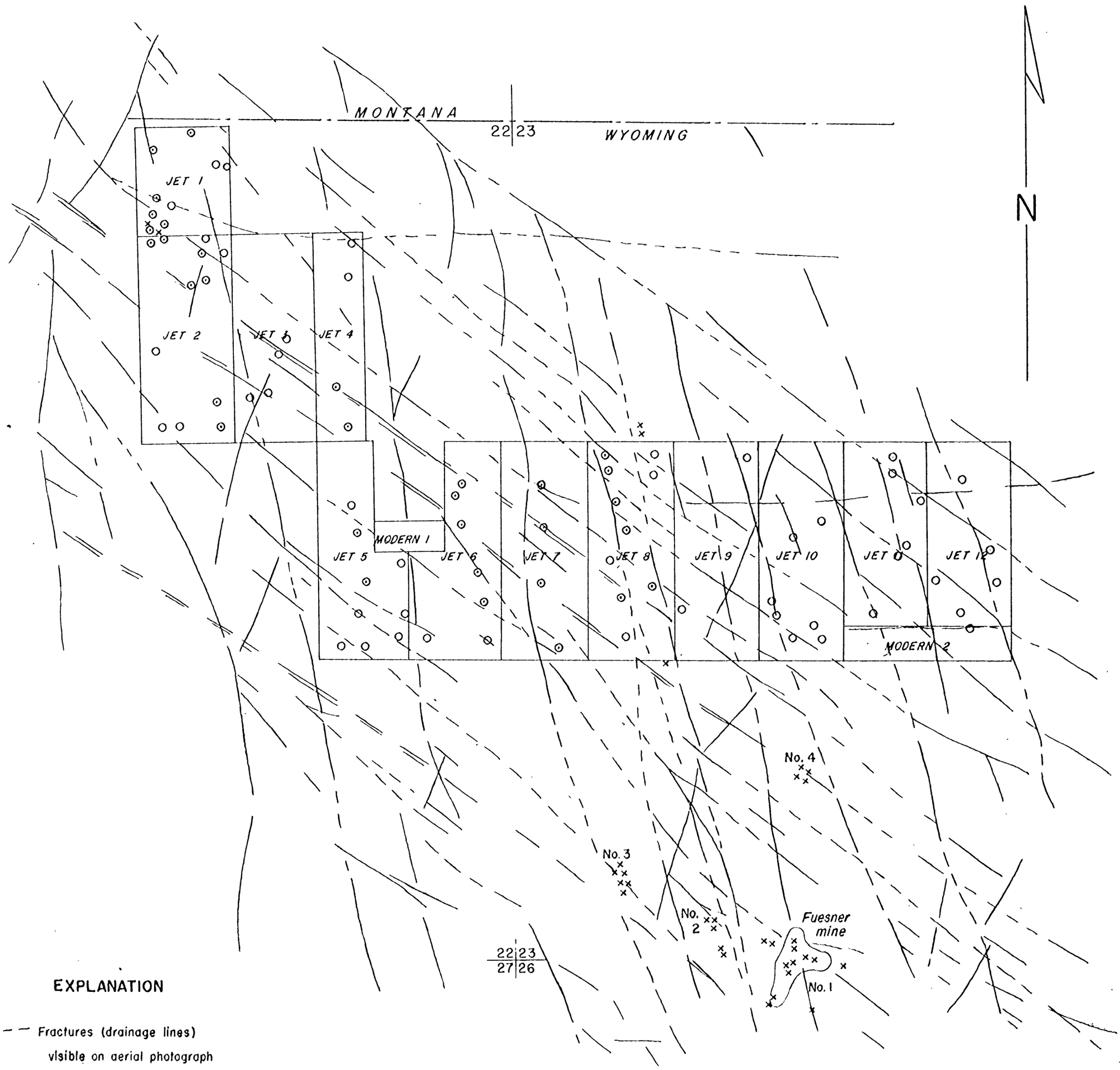


FIGURE 4. CLAIM MAP WITH ALTERNATE EXPLORATION PROPOSAL
MODERN MINES DEVELOPMENT COMPANY - JET CLAIMS
T. 58 N., R. 94 W., BIG HORN COUNTY, WYOMING

DMEA DOCKET 4564



EXPLANATION

Fractures (drainage lines) visible on aerial photograph

⊙ Proposed drill holes based on structure and radioactivity anomalies

O Proposed drill holes based on structure only

× Surface or subsurface showing of tyuyamunite

All data from maps of applicant

FIGURE 3. CLAIM MAP WITH APPLICANT'S REVISED EXPLORATION PROPOSAL
MODERN MINES DEVELOPMENT COMPANY - JET CLAIMS
T. 58 N., R. 94 W., BIG HORN COUNTY, WYOMING

DMEA DOCKET 4564

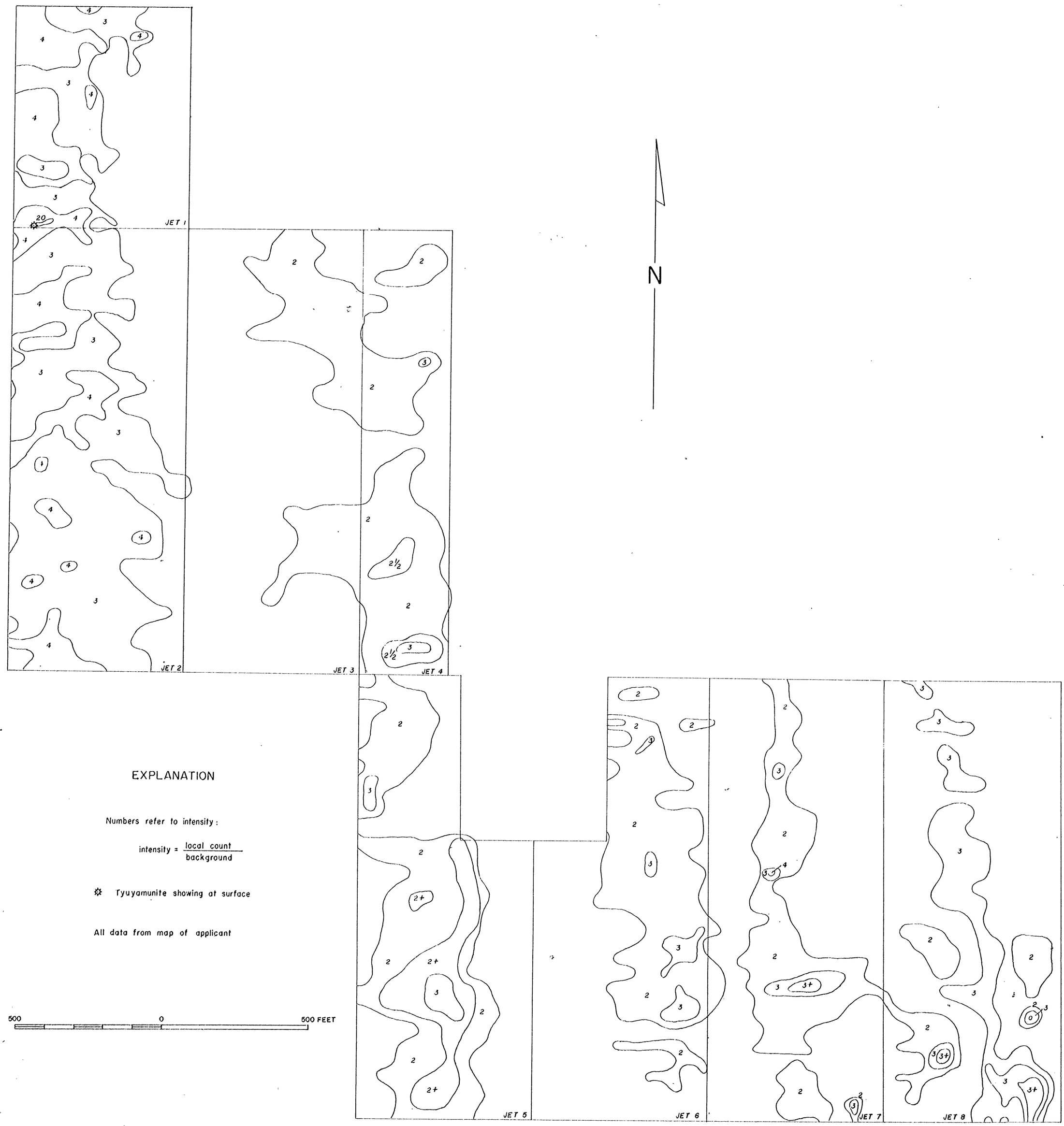


FIGURE 2. RADIOACTIVITY ANOMALY MAP OF JET CLAIMS 1 TO 8
MODERN MINES DEVELOPMENT COMPANY
T. 58 N., R. 94 W., BIG HORN COUNTY, WYOMING
DMEA DOCKET 4564

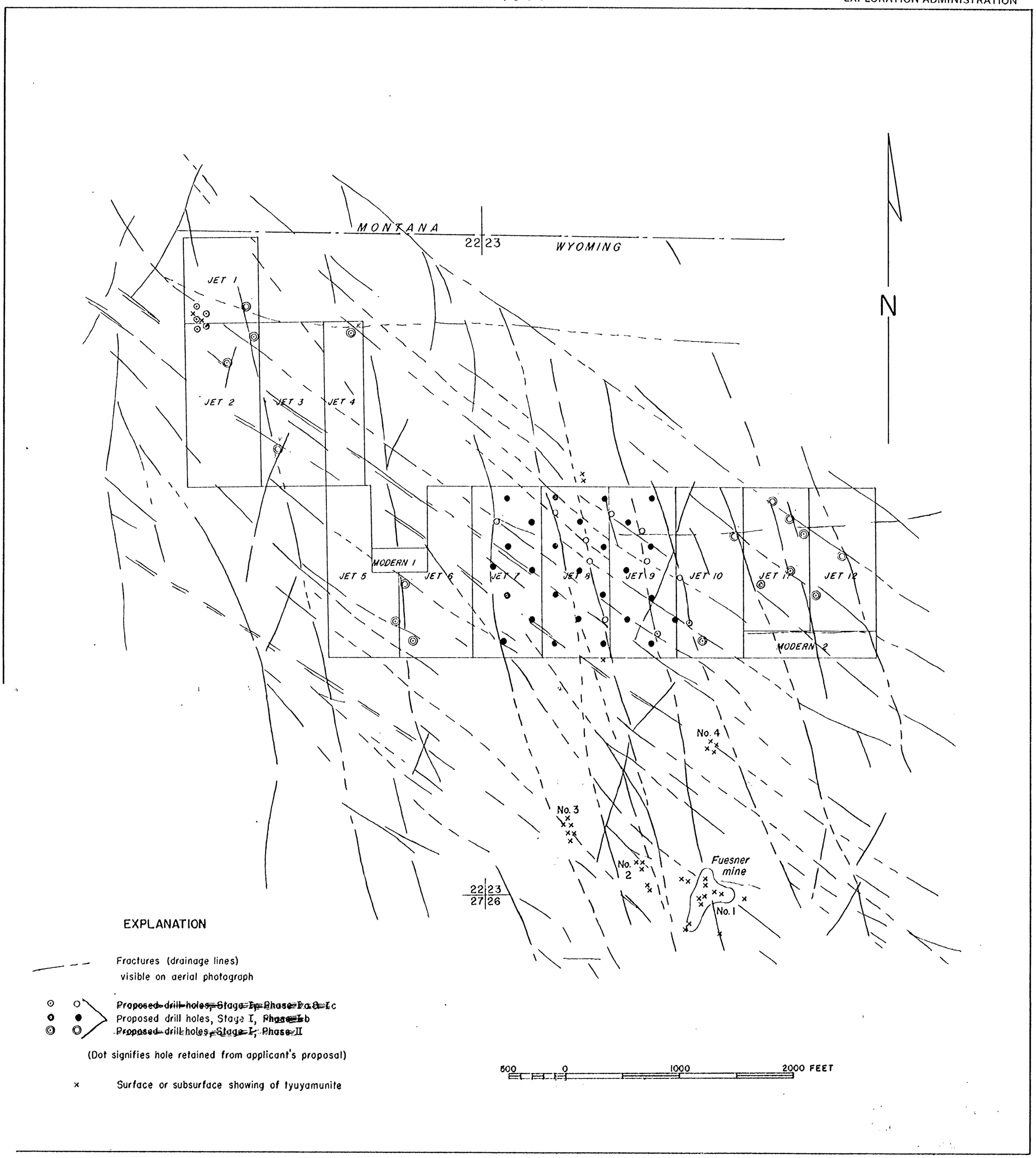
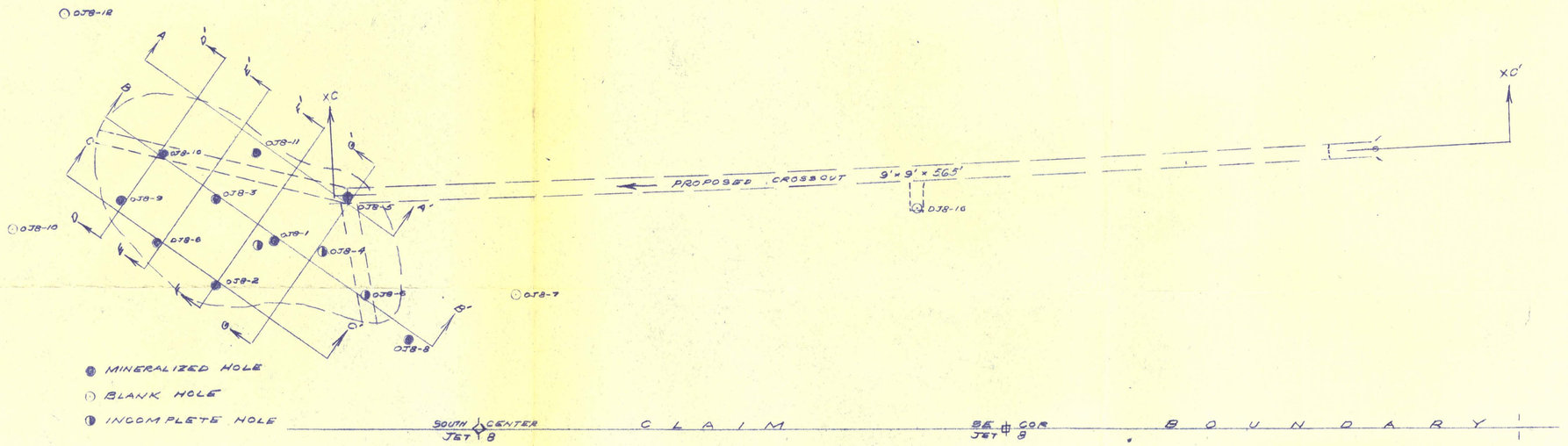
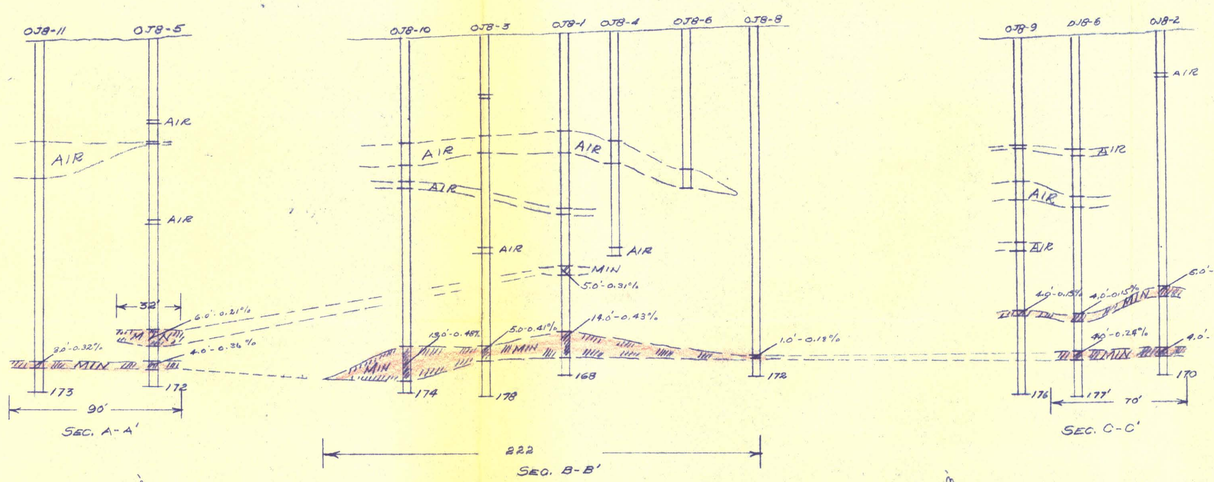


FIGURE 4. CLAIM MAP WITH ALTERNATE EXPLORATION PROPOSAL
MODERN MINES DEVELOPMENT COMPANY - JET CLAIMS
T. 58 N., R. 94 W., BIG HORN COUNTY, WYOMING

DMEA DOCKET 4564

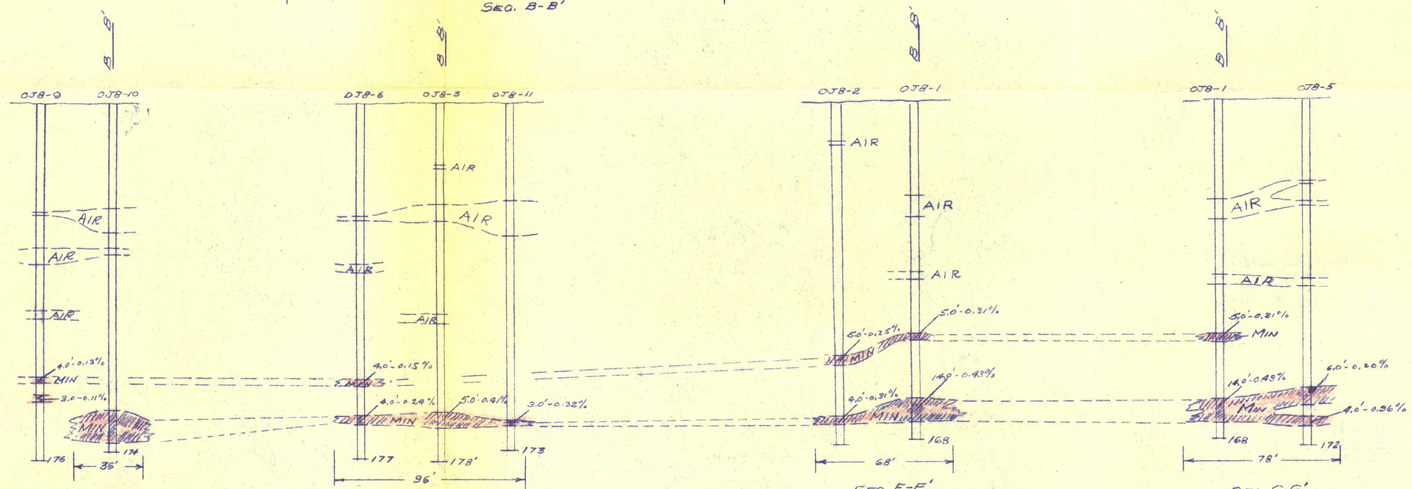




SEC. A-A'

SEC. B-B'

SEC. C-C'

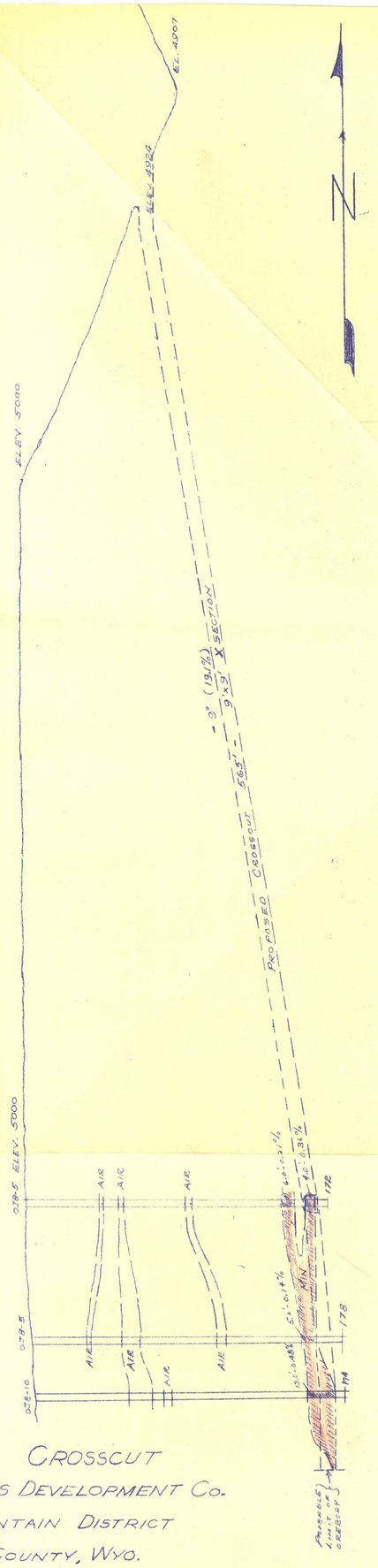


SEC. D-D'

SEC. E-E'

SEC F-F'

SEC. G-G'



SEC. XC-XC' LOOKING NORTH

PROPOSED CROSSCUT
MODERN MINES DEVELOPMENT CO.
LITTLE MOUNTAIN DISTRICT
BIG HORN COUNTY, WYO.
SCALE 1"=40'

E. Garrard Sept '57